EGYPTIAN HIEROGLYPHS AS LINGUISTIC SIGNS AND METALINGUISTIC INFORMANTS

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Ancient Egyptian writing is a differentiation or offshoot of pictorial art (Gardiner 1957, 6). As is wellknown one of the functions of representational art may be to give information of what is beyond the range of the spoken word. The Egyptian writing-system was in origin and remained till the end of its use by the Egyptians, interrelated with pictorial art to a degree, that seems to be unparalleled in any other culture that is known (Fischer 1977, 3; 1986, 24 ff.). Although hieroglyphs are elements of a system to write Egyptian language and nearly all the signs may have in one way or another a phonetic value they are with a few exceptions images of realities in the visible world of the Egyptians which may contain as such metalinguistic information. A look into the wellknown and among Egyptologists widely used signlist of Gardiner (1957, 438-548) makes evident to what extent hieroglyphs are indeed images. This list gives a fairly complete survey of the hieroglyphs that were in use ca. 1500 B.C., i.e. 1500 years after the differentiaation between literacy and representational art started. The list includes:

A   55 images of man and his occupations
B   7 images of woman and her occupations
C   20 images of anthropomorphic deities
D   63 images of parts of the human body
E   34 images of mammals
F   52 images of parts of mammals
G   54 images of birds
H   8 images of parts of birds
I   15 images of amphibious animals, reptiles, etc.
K   6 images of fishes and parts of fishes
L   7 images of invertebrata and lesser animals
M   44 images of trees and plants
N   42 images of sky, earth and water
O   51 images of buildings and parts of buildings
P   11 images of ships and parts of ships
Q   7 images of domestic and funerary furniture
R   25 images of temple furniture and sacred emblems
S   45 images of crowns, dress and staves, etc.
T   35 images of warfare, hunting and butchery
U   41 images of agriculture, crafts and professions

V   38 images of rope, fibre, baskets, bags, etc.
W   25 images of vessels of stone and earthenware
X   8 images of loaves and cakes
Y   8 images of writing, games and music

The list contains moreover only (Z) 11 geometrical figures, signs derived from the hieratic or strokes. At the end of the list figure 31 unclassified signs, unclassified in the sense that it is not certain or was not certain what they represent at the time that the list was drawn up. The classification itself is not derived from Ancient Egyptian sources, but is modern. The list was made by Gardiner for practical reasons. The classes are defined rather loosely. See e.g. the animal-headed figures in class C called anthropomorphic deities (fig. 1). It is obvious that nearly


all the signs of the hieroglyphic writing-system are images. The unclassified signs must be images too.

   Hieroglyphic writing is only one of the three kinds of script that were developed in Egypt. Out of hieroglyphic evolved a more cursive writing, called hieratic (fig. 2) and out of hieratic
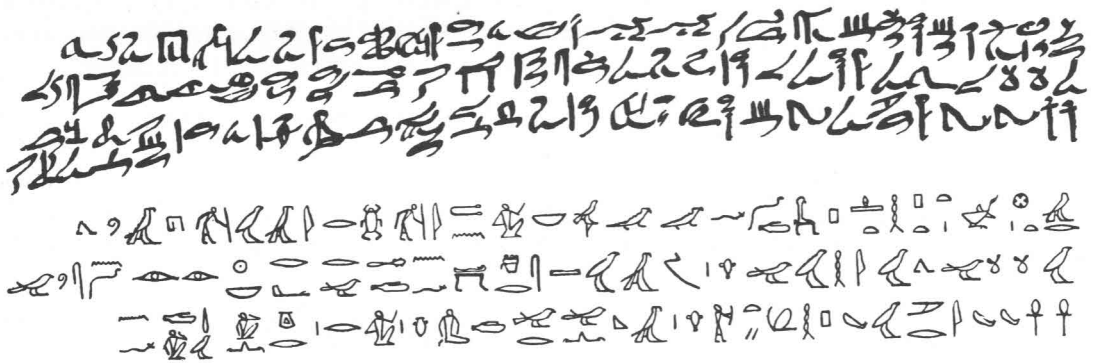
emerged towards 700 B.C. a very rapid script, called demotic (fig. 3). Demotic did not replace
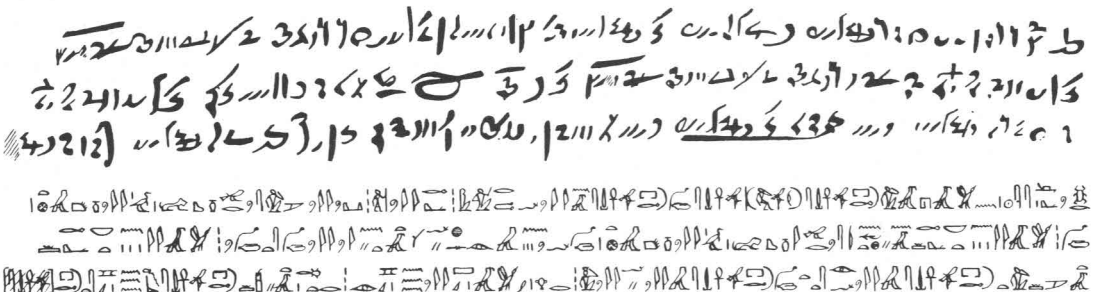
hieratic in all respects and demotic and hieratic did not completely replace hieroglyphic writing but restricted its use more and more to the religious and especially the monumental domain. Although the pictorial character of the Egyptian writing-system is hardly or not visible in hieratic and demotic they are derivals of the hieroglyphic script. It was rather easy for the Egyptian scribe to make a transcription of hieroglyphs into hieratic or demotic. It is also possible to make a transcription of hieratic or demotic into hieroglyphic in spite of some technical difficulties. Demotic and hieratic signs are so simplified or complicated with ligatures and also standardized that it is sometimes hard to say which hieroglyphs they exactly stand for. It may be important to stress here that hieroglyphic, hieratic and demotic not simply developed into each other, but that they existed also next to each other (Parlebas 1981, 107-113). Obviously the Egyptians wanted to retain the visible image in their hieroglyphic script. In other cultures with an ideographic script such as Sumer on China the original images may have been reduced to geometrical figures or 'cuneiformes' for practical reasons. In Egypt the hieratic and demotic was developed next to the pictorial hieroglyphic script to meet the practical need of rapid writing without losing much time. The monumental hieroglyphs however were executed as miniature works of representational art which put together can be read as words and phrases of the Egyptian language.

The development of hieroglyphs into hieratic may be seen in fig. 4 (cf. Fischer 1976, 41; Gardiner 1957, 9). In temples and tombs hieroglyphs were often executed with the most elaborate detail and beautiful coloured (fig. 4, 1). On stelae of stone and the like signs are incised or more rarely in raised relief without interior markings (fig. 4, 2). Upon papyrus the outlines were often abbreviated to a considerable extent (fig. 4, 3b). These semi-cursive hieroglyphs persisted also in inscriptions on metal and wood (fig. 4, 3a). Even more cursive than the semi-cursive hieroglyphs written or painted with ink is the rapid hieratic script (fig. 4, 4) in which the pictorial character of Egyptian writing is hardly recognizable.

It is not the place here to give once more a detailed and systematic explanation of how the Egyptian writing-system works. That has already been done in countless publications of the last 160 years. The above mentioned Egyptian Grammar of Gardiner gives an excellent exposé. It is common knowledge that Champollion deciphered the hieroglyphic script in 1822. But the myth of Egypt and its hieroglyphs in European tradition (Iversen 1961) which was definitely demythologized by Champollion, that hieroglyphs are picture-signs with fantastic allegorical meanings or symbols of hidden wisdom still hovers around even nowadays more than one and a half century after the great discovery of Champollion. So Egyptologists often feel the urge to react and to explain to those who really want to know that hieroglyphs are altogether a system to write Egyptian language. Since the decipherment of Champollion and the considerable egyptological progress made since then, Egyptian hieroglyphic texts can be translated with the help of dictionaries, grammars and other available philological tools. Of course as is the case with any ancient language and non-alphabetic writing-system some Egyptian texts may have special difficulties and pecularities, but studying a hieroglyphic inscription is essentially not anymore deciphering or unravelling a puzzle but translating a text. Thus the translation of a specimen of literary hieratic in the papyrus Prisse of ca. 1800 B.C. (fig. 2) runs as follows:

The mayor of the city, the vizier Ptahhotep says:
O, sovereign, my lord!
Decrepitude has arrived, old age has descended
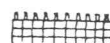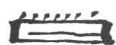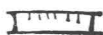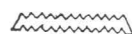Feebleness has come, dotage returns

Childlike one sleeps all the time
Eyes are dim, ears are deaf
Strength is waning, through weariness of my heart
The mouth is silent and cannot speak.

Hieratic and demotic signs and hieroglyphs are elements of systems to write Egyptian language that can be read and translated. Hieroglyphs are at the same time images of realities in the world of the Egyptians. An important point to understand how these images functioned as phonetic elements in the Egyptian writing-system is that these realities in the world of the Egyptians had specific names in the Egyptian language. The depicted images of the realities had names or sound-values. A decisive step in writing-language was made in using images of realities not only to denote these realities themselves but to indicate some other realities which were difficult or not attractive to draw but the names of which chanced to have the similar sound or at least to have the same consonantal value. So proper names could even be written. King Narmer himself was depicted on the famous slate palette (fig. 5). His name was written in small-scale hieroglyphs above his head with the *n'r*-fish and the *mr*-chisel. This application of the rebus-principle or the charade was facilitated moreover by the fact that the vowels which change often, more easily than consonants in languages and dialects were neglected in writing. Only consonants counted.

The Egyptians did not depict all the realities in their world. They made a selection. It is still a matter of further research to determine and to understand the criteria which lead to this selective reproduction of the Egyptian world in the hieroglyphic writing-system of some 700 signs. The Egyptians were already rather early in their history on the verge of one of the greatest discoveries in human history: the alphabet. But they did not take the next step that might seem reasonable to us: to reduce the already selective 700 pictorial signs to 20 or 30 more or less alphabetical signs. It is useless to speculate on the question whether they were right from the beginning aware of that possibility or not. They simply did not take this possible step. It might be telling that even in the first millennium B.C. when alphabetic scripts were already developed elsewhere and were even used in Egypt by Greeks and Aramaeans, the Egyptians clung to their own traditional writing-system. Only a few examples of experiments, e.g. the Naucratis-stela (Gunn 1943, 55-59), to replace the traditional orthography by uniliteral or 'alphabetic' signs are known. The readability of the text was however not improved but on the contrary hampered by the unusual writing with uniliteral signs as Gunn rightly remarks. The usual explanation of this phenomenon that it was mere conservatism that the Egyptians maintained their ideaographic script for nearly a thousand years after they came in contact with people who used an alphabetic script might be too simple. Chinese and Japanese have not accepted the alphabet up till now. It might be that the Egyptians retained their writing-system of 700 or even more hieroglyphs especially in the inscriptions in the temples of Graeco-Roman times, because it contained values that are lost in the alphabetic writing-system i.e. the image in writing. As a semiologic complex hieroglyphic script surpasses the alphabet without any doubt. In the time of radio- and television-information we realize that information given with some 20 linguistic signs is an abstraction and a severe reduction not to say deformation of the information process. The newsbulletin on television gives next to audible linguistic information also visible metalinguistic information.

The hieroglyphic script remained a pictorial script supplemented with phonetic elements throughout the entire course of its history. Traditionally two classes of signs are distinguished in the script: Ideograms or sense-signs signify the actual reality depicted or some closely connected notion and phonograms or sound-signs, which elsewhere used as ideograms have acquired sound-values according to the above mentioned rebus-principle. But it should be stressed that Egyptian script is not a simple picture-writing which because it has such an evident pictorial aspect could be grasped easily by those who have little or no knowledge of the Egyptian language. Not only phonograms but also ideograms are widely used as linguistic signs to write the words and sounds of the Egyptian language. The Egyptian scribes had undoubtedly word-pictures in mind just as we have word-pictures of alphabetic signs in mind when we write in a modern language written with alphabetic signs (Meltzer 1980, 44-66). This did not result in a strict orthography of words. In the long history of Egyptian language the way in which words were written may show great variation. A telling example is that an Egyptologist has counted not less than 37 different writings of the word for officials (*srw*) (Janssen 1952, 93). But a relative unity of orthography cannot be denied. The orthography is even used as a criterium to date a text.

It is mainly in the use of the ideograms as determinatives, which will be discussed further on that metalinguistic information is given in the script. But ideographic use of the hieroglyphs shades off very commonly into the phonetic in the script. So in the hieroglyphic transcription of the hieratic text (fig. 2) of which we have given the translation already above it is clearly

visible that the first signs on the right side of the upper line are an owl 𓄿 and a mouth ⌒. The mouth-sign is indeed an ideogram and denotes here the part of the human body that is depicted. From the Coptic word for mouth (*ro*) we can conclude that the consonantal value of the mouth-sign is r. The owl-sign is here not an ideogram, but as it is practically always the case a phonogram. It has the phonetic value m, as is known since Champollion. From dictionaries and grammars one may know that it is int.al. a preposition 'in' and it is here a so-called nisbe-form 'the-one-who-is-in' *mr* or *ìmy.r* means 'the-one-who-is-in-the-mouth (of his subordinates)' or 'overseer'. Next in the text, reading from right to left, because the hieroglyphs face that side of the line, we see an ideogram ⊗, which is usually explained as the plan of a town with crossroads. The stroke ı is a sign to indicate that the hieroglyph above indeed has to be read as an ideogram. The sign ⌒ is a loaf of bread, but has here the phonetic value t. Feminine substantiva as the Egyptian word for town are written with a t in the end. The t was however not pronounced, at least generally speaking. The town-sign is elsewhere used as a phonogram having the phonetic value *nt* or *nìwt*. This is confirmed by data from the Greek language (Naucratis) and Hebrew language (No Amon-town of Amon Nahum 3:8). The bread-sign is here merely a phonetic complement; *mr nìwt* is a direct genitive construction and the translation is: 'Overseer of the town' i.e. 'mayor of the city'.

Although 2 of the 4 or 5 hieroglyphs discussed so far are ideograms and function as such in this text, they are all linguistic signs. The pictorial character of these ideograms and phonograms does not seem to add much extra- or metalinguistic information to the strict linguistic information. The case is however different when we look e.g. at the first four signs on the right side of the bottom line (fig. 2). We see two ankh-signs 𓋹𓋹. Ankh means 'life' and we can read here 'the two living ones'. Who or what these living ones actually are is made clear by the two hieroglyphs that follow the ankh-signs: Two hieroglyphs representing ears 𓄔𓄔. The two 'living ones' are the two ears. It is not the common word for ear, but for obvious reasons ears as indeed also eyes could be named the living ones. The two ear-hieroglyphs have no phonetic value here. They are images to determine the sense of the paraphrase the 'two living ones'. The so-called determinatives in the Egyptian writing-system are added to words written with phonograms and/or ideograms to categorize and determine the meaning of the word. They give metalinguistic information on the meaning of the words. The ear is used once more as a determinative in the same line to specify the meaning of *ìmrw*. The word *mr* means according to the dictionary 'to be ill' but because the ear-hieroglyph is added to the verbform we are able to translate 'deaf'. We do not render 'the living ones are ill', but with the help of the metalinguistic information of the determinatives we are able to precise the meaning and translate: 'Ears are deaf'.

Several determinatives may be found in this fragment of text (fig. 2), as is always the case in Egyptian texts.

𓀀 (exalted person) to determine the proper name Ptahhotep.

𓀭 (god, king) to determine the word sovereign (*ìty*).

𓀠 (old man) to determine the words decrepitude (*tnì*) and old age (*ì3w*).

𓂻 (walk) to determine the word descend (*h3ì*).

𓅪 (sparrow, i.e. small, bad, weak) to determine the words *wgg* (feebleness, dotage (*ìḥw*), childlike(?) (*ẖrd*), dim or small (*nḏs*), wane (*3k*).

𓎤 (human figure lying or sleeping on bed) to determine thw word sleep (*sḏr*).

𓀢 (force, effort) to determine the word strength (*pḥty*).

🐦 (weary, weak) to determine the word weariness (*wrd*).

🐦 (eat, drink, speak, think, feel) to determine the words speak (*mdw*) and be silent (*gr*).

These determinatives have no phonetic value in this text. They are actually illustrations within the script, images in writing and metalinguistic informants which evoke directly and unmistakably the reality that is meant by the written words with their image.

It may be worthwhile to note that in hieratic e.g. in this fragment of the hieratic text of papyrus Prisse (fig. 2) the determinatives or images within the script are retained, although the images as such are hardly visible and recognizable. It is wellknown that the Egyptians were the first to produce 'illustrated books'. In papyri written with semi-cursive hieroglyphs or hieratic signs they added vignettes which should summarize the written texts. Spell 94 of the Book of the Dead is a prayer in many words requiring a waterpot and a scribes palette from Thoth, the divine scribe who invented writing. To this text is added a vignette representing Thoth giving palette and waterpot to a person in the hereafter (fig. 6). The vignette not only summarizes the prayer, but anticipates upon the result.

In the beginning large scale depictions such as of king Narmer were labeled with small-scale hieroglyphs with phonetic value such as with the fish (*n⁽r*) and the chisel (*mr*) (fig. 5). Later on hieroglyphic texts consisting of words written with ideograms and phonograms both having phonetic values were provided with pictorial hieroglyphs or determinatives having the same function as the large scale depictions of the beginning of the script (cf. Schott 1950, 56-58). The accent shifted from image to word in the course of the third millennium B.C. It is a widespread guess—but not much more than that—that the idea of writing was introduced indirectly from

Mesopotamia ca. 3000 B.C. It seems that early writing in the Ancient Near East and Egypt was developed from neolithic accounting systems attested in the Near East from around 8000 B.C. The Egyptian writing-system did not stay at the stage of accounting as e.g. Aegean Linear B did. It served not only the purpose of administration, but also of monumental display in an early centralised state (Baines 1983, 574 ff.). The pictorial character of the hieroglyphs advanced very much its use on monuments. In the monuments of the Old Kingdom writing and large-scale pictorial representations are often not distinct, but form a unity. Labels of hieroglyphs confirm in words what is represented in scenes in relief.
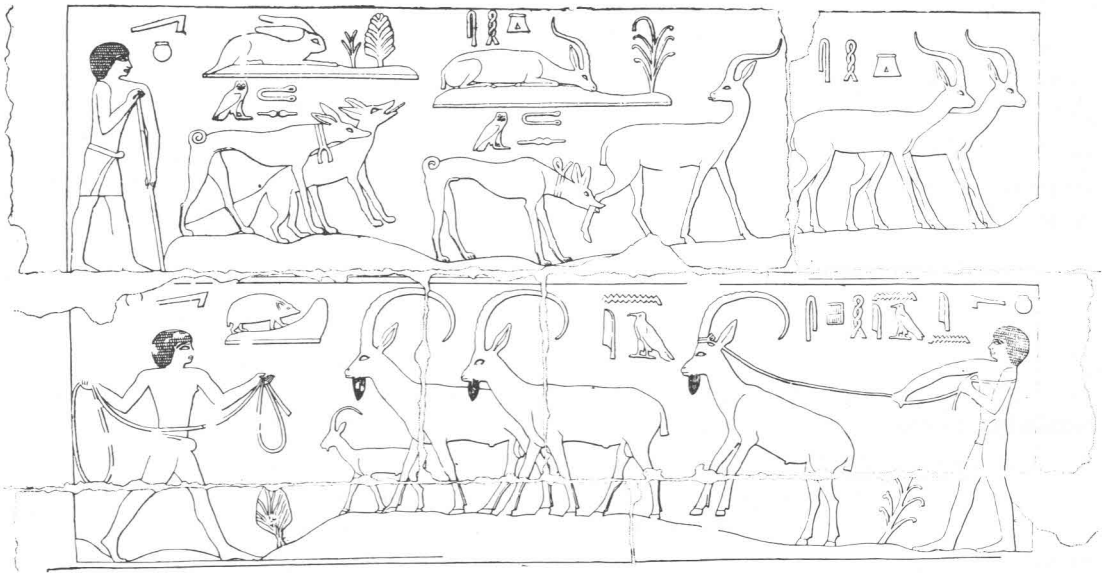
In the upper register of a tombrelief (Hayes 1953, fig. 56 on p. 99, vol. I = our fig. 7) we see gazelles, a dog biting a gazelle in the leg, a dog seizing a desert fox, a hare, a tree, shrubs of the desert and a man leaning on a stick. The gazelles are labeled in hieroglyphs with the word 'gazelle' (gḥs, the dogs are twice labeled with the word 'dog' (ṯsm) and the man leaning on the stick is called nw. The translation of this word is doubtful because the words in this section are written without determinatives. The large-scale figures in the relief, however, function as determinatives for the words dog and gazelles. So one has to take a good look at the man leaning on the stick. He seems to look at the dogs and gazelles in the desert. According to the dictionaries the word nw has at least two meanings: 'to look' and 'to hunt'. In the first case the determinative is an eye, in the second case the word has as a determinative a mon holding a dog with a rope. It is hard to choose here between the two meanings because the man is indeed looking at the animals, but his dogs are depicted next to him. After a second look at the relief one has to conclude that this man called nw is not just a disinterested onlooker nor just a hunter but a 'hunter on the look-out'. Egyptian art does not want to be grasped intuitively by the spectator but it wants to be studied carefully, to be 'read'. In the third millennium B.C. representational art and literacy were often not yet separated from each other but formed a unity.

Hieroglyphs are pictorial art and representional art has hieroglyphic character. The man, the tree, the animals in the upper register of fig. 7 are indeed large-scale hieroglyphs. It is only the more complicated figures of the dog biting the leg of the gazelle and of the dog seizing a fox that are not known as a hieroglyph. These actions to be described linguistically required not one word but a sentence. Obviously there was not space enough to label this scene with a row of hieroglyphs.

In the second register of this tomb-relief (fig. 7) we see again a man called *nw*. He is not a hunter on the look-out but he is running and he is going to throw a lasso in the direction of animals called *niȝ*. An Egyptian of the third millennium would probably recognize these depicted animals at first glance as ibex-antelopes. In the next scene (cf. the discussion of this scene by Fischer 1977, 3; 1986, 28) we see again man and antelope, now in reversed position. An antelope is lassoed by a hunter. Above this action we see a row of ten hieroglyphs. Obviously a complete sentence. As modern spectators we might be inclined to raise several questions. Does this text give more information about the man? Does this action refer to a memorable historical event? Or does it refer to the future that this man whoever he is may or will succeed in hunting antelopes on earth or in the hereafter? And even more such questions might be asked by us. As is so often the case in hieroglyphic inscriptions of the third millennium B.C. this caption does not contain historical or individual information. It sticks to the image. It confirms in words the typical structural information which we already know from the depiction of the man lassoing the antelope. The label to this hunting scene: *sph niȝ in nw* can-and taking into consideration the large-scale depiction of the hunting scene—is to be translated as: The lassoing of the ibex-antelope by the hunter. Without having knowledge of the large-scale depiction the translation would be questionable because in the hieroglyphic label no determinatives are written. *sph* may mean 'to attain', but with a rope-sign as determinative it means 'to lasso'. The word *niȝ* might be connected with words meaning a specific illness of the nose, a breeze and another desert animal the ostrich, but with a ibex-antelope as a determinative it is certainly that animal. And as just remarked *nw* can mean besides 'to hunt' also 'to look'. Only with the metalinguistic large-scale image combining the three determinatives of ibex-antelope, lasso and hunter the translation of this sentence is certain. Without the large-scale depiction an Egyptian scribe had to add to the ten hieroglyphs three more hieroglyphs of a metalinguistic quality, three deter-minatives
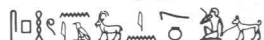
During the Old Kingdom continuous texts without large-scale depictions elucidating the meaning, but with determinatives conveying the metalinguistic information which the Egyptians felt as a necessary addendum could be written and used for all purposes for which we use writing, but it was not or hardly done so. By the end of the Old Kingdom, ca. 2150 B.C., a list of attested texts includes legal decrees, contracts, letters, longer religious and funerary texts, chiefly the pyramid-texts, so-called biographical inscriptions and wisdom texts but the rather long wisdom text of Ptahhotep might have been written later. Most of the textual material of Ancient Egypt, especially the longer continuous texts, was written down later. The Middle Kingdom became the classical period of written Egyptian language and literature. It took many centuries or almost a millennium before the Egyptian writingsystem became a vehicle to give oral information in written form by words and phrases in such a way that it is comparable and equivalent to texts in Greek, Latin or in a modern language. Thousands of years till the beginning of our era Egyptians added to the strictly linguistic information written with

ideograms and phonograms, metalinguistic information with the determinatives, the typical images in writing.

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Illustrations

1. A. H. Gardiner, Egyptian Grammar. London 1957[3], p. 544.
2. A. H. Gardiner, o.c., pl. II (upper part).
3. A. H. Gardiner, o.c., pl. II (lower part).
4. H. G. Fischer, Archaeological Aspects of Epigraphy and Palaeography, in: Ancient Egyptian Epigraphy and Palaeography. New York 1976, fig. 4 on p. 41.
5. A. H. Gardiner, o.c., p. 7.
6. Pap. British Museum 10257, in: The Ancient Egyptian Book of the Dead, translated by R. O. Faulkner and edited by C. Andrews. London 1985, p. 94.
7. W. C. Hayes, The Scepter of Egypt I. New York 1953, upper part of fig. 56 on p. 99.