

THE DECIPHERMENT OF HIEROGLYPHS AND RICHARD LEPSIUS*

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(1) What does "deciphered" mean?

"On September 27, 1822, the Academy in Paris was informed that hieroglyphs had been deciphered".¹ These are the words chosen in 1912, almost a century after the epochal year, by Adolf Erman, Professor of Egyptology and member of the Royal Prussian Academy, the renewer of Egyptian Philology, when he wrote his small volume "Die Hieroglyphen" for the popular Göschen series.² In fact, on that day, 27 September 1822, Jean François Champollion, at short notice, was given the opportunity to provide the Paris Academy with a summary of his work on the decipherment of hieroglyphs. Even before the end of that year, the full version of his report was published in the then popular format of an open letter with an extremely drawn-out title, today referred to in brief as *Lettre à M. Dacier*, namely³ "Lettre à M. Dacier, secrétaire perpétuel de l'Académie Royale des Inscriptions et Belles-Lettres, relative à l'alphabet des hiéroglyphes phonétiques employés par les Égyptiens pour inscrire sur leurs monuments les titres, les noms et les surnoms des souverains grecs et romains".⁴

In 1922, on the occasion of the 100th anniversary of Champollion's decipherment, it is again Erman who draws attention to another open letter written by Lepsius in 1837, the *Lettre à M. ... Rosellini* with the full title⁵ "Lettre à M. le Professeur H. Rosellini, membre de l'Institut de correspondance archéologique etc. etc., sur l'alphabet hiéroglyphique".⁶ This time Erman comments that "this brief work had a liberating effect on his contemporaries" and that one could "feel" that "the young discipline of Egyptology now stood on firm ground; decipherment had reached its conclusion".⁷ Are we to conclude that it had not really been achieved by Champollion in 1822 and that it was only fully completed in 1837 by Lepsius? Surely not – but there is worse to come.

Today, very few Egyptologists have heard of Max Uhlemann, let alone perused the four volumes of his *Handbuch der gesammten ägyptischen Alterthumskunde* (*Comprehensive Handbook of Egyptian Antiquity*) published in 1857–58,⁸ where he presents the "History of Egyptology" in the first volume. Uhlemann, as the authority on the state of knowledge and scholarship

two decades after Lepsius's *Lettre à M. ... Rossellini* and three-and-a-half decades after the decipherment of hieroglyphs ascribed to Champollion, refers to three contemporary scholars: Carl Josias von Bunsen, (Vicomte) Emmanuel de Rougé and Lepsius himself. Even though Uhlemann was hostile towards "Champollion's System" and its followers, the "Champollionians" among whom were Bunsen, de Rougé and Lepsius, this does not diminish the correctness of his assessment.

Here some comments on these three scholars.⁹ In 1855, Bunsen (more on him below) declares "openly" in one of the five volumes of his *Aegyptens Stelle in der Weltgeschichte*: "Still we confidently maintain that no man living is competent to read and explain [using Champollion's system] *the whole* of any one section of the 'Book of the Dead', far less one of the historical Papyri."¹⁰ Even the Frenchman de Rougé (also more on him below) admits in 1851 in the context of one of the earliest more or less coherent translations of an ancient Egyptian text¹¹ that "the translation of these lines would have been impossible at the stage of Egyptological knowledge where Champollion left it [at his death in 1832]".¹² Lepsius, finally, concedes in a lecture given at the Berlin Academy as late as 1855 that "indeed, the inscriptions are not few in number, which we are completely unable to understand with our current knowledge, and we cannot even remotely guess their content".¹³ Returning to Uhlemann, in a later section of his history of Egyptology,¹⁴ he cites Lepsius confessing in 1855 that "as yet not even the inscription of Rosetta has received a philological commentary. Only a bare translation guided by the Greek text has ever been given."¹⁵ This means that as late as 1855, not even the famous Rosetta Stone, the bilingual monument in Egyptian and Greek, which had played a key role in the decipherment of hieroglyphs, had been systematically studied.

(2) The Rosetta Stone (Figure 1)

In July 1799 when the French army was doing trenchwork near the mouth of one of the branches of the Nile into the Mediterranean, in the vicinity of the village ar-Rašīd, the famous Rosetta Stone was found. This "stone" is inscribed with a decree proclaiming the resolution of a priestly synod held in 196 B.C. to venerate the young king Ptolemy V Epiphanes in a variety of ways for the favours he granted his people. The resolution was to be inscribed "on a monument of hard stone in the script of the divine words, in documentary script and in Greek script and to be erected in every temple of the first, second and third order".¹⁶ In actual fact, the text was then inscribed in Egyptian in two versions – first in traditional Egyptian with monumental hieroglyphs, and second in the younger Demotic Egyptian in Demotic cursive writing – and finally in the Greek language with Greek letters. Only the circulation of the text did not go to plan. Apart from the Rosetta Stone, only one inferior copy of

the hieroglyphic version¹⁷ and fragments of another copy have been found.¹⁸

Prior to this discovery, certain ideas about the hieroglyphic script had indeed already been formed. There was the classical Greek tradition, which was, however, inconsistent in its quality and in practice virtually useless. There was good reason to believe that the so-called cartouches, also found in the hieroglyphic section of the Rosetta Stone, could encircle royal names. It was also fair to assume that hieroglyphs or the language written in a cursive script as on the Rosetta Stone, were a form of Coptic, the language of Christian Egypt written for the most part with Greek characters.

What then was the contribution of the Rosetta Stone? Even if the three versions of the decree, especially the hieroglyphic one, had suffered text loss, one could still roughly read them in parallel. Markers to aid this were the repeated phrases, not least the cartouches of the hieroglyphic version, which correspond to the name "Ptolemaios / Ptolemy" in the Greek version. One should, however, not think that setting the texts in parallel was an easy feat. Even placing the cartouche with hieroglyphs in parallel to the name "Ptolemaios" in the Greek text has its difficulty (Figure 2: "P." = "Ptolemaios"): in addition to the name, a cartouche may contain epithets which can have a complete equivalent in the Greek text, but which are occasionally only partially rendered or are even without equivalent altogether. Where, for example, the hieroglyphic text has the attribute "beloved of Ptah" (lines 6 [twice], 12, 14; originally also in line 7), this epithet only occurs once in the Greek (line 49 corresponding to line 12 of the Egyptian version); or where the hieroglyphic version has the royal name with a cartouche, the corresponding section in the Greek does not necessarily mention the name "Ptolemaios". The Greek and Egyptian texts need not be worded in the same way: in line 6 of the Egyptian version, for example, there are two cartouches with the name "Ptolemaios" while in the corresponding section of the Greek version, line 39, the name occurs only once. Another problem presented itself in the form of gaps in the hieroglyphic text and also once in the Greek text: for example, the gaps in lines 5 and 7 in the Egyptian version and in line 54 of the Greek version. Therefore one could not simply count off the occurrences of cartouches in the hieroglyphic text and those with the name "Ptolemaios" in the Greek text or measure the distance between them. Similarly, there are differences between the Demotic and the Greek version and even between the two Egyptian versions, the hieroglyphic and the Demotic. Of course, one can identify parallels between the three versions of the text based on other repeated signs and sign sequences, not only on the royal name "Ptolemaios" which is particularly conspicuous in the hieroglyphic version, and with regard to the better preserved Demotic version, on the name "Ptolemaios" and several other royal and non-royal names (for the latter, see below and the Excursus at the end of this article).

Hieroglyphic in line ...		Greek in line ...	
5	[...]	37	P.
6	P., ever living, <i>beloved of Ptah</i>	38	ever living King P.
6	P. *	39	P.
6	P. ever living, <i>beloved of Ptah</i>	39	
7	P., [ever living, <i>beloved of Ptah</i>]	41	P.
12	P., ever living, <i>beloved of Ptah</i>	49	ever living King, <i>beloved of Ptah</i> , P.
14	P., ever living, <i>beloved of Ptah</i>	54	[ever living King <P.>?]

Figure 2. The Rosetta Stone: the name "Ptolemaios" with its attributes in the hieroglyphic cartouches and its equivalents in the Greek version of the text.

People were fascinated by the hieroglyphs, but not by the scrawly Demotic signs. Despite this, decipherment began with the Demotic version. There were two reasons for this. On the one hand, in contrast to the hieroglyphic version, the Demotic was preserved in large parts. On the other, it was deemed possible that the Demotic scrawl represented the letters of an *alphabet*, the phonetic value of which it was hoped would be identified; with the hieroglyphs, by contrast, it was not expected that the signs would represent *letters*, but rather symbols of some kind. The first scholar to attempt the reading of the Demotic scrawl as early as 1802 was the renowned orientalist (Vicomte) Antoine Silvestre de Sacy.¹⁹ While he was quite successful in coping with the scrawling Demotic script when matching the Demotic and the Greek versions, he ran off the track when he attempted to isolate individual Demotic signs from among the scrawls and to equate them by their form with the signs of specific Semitic *alphabetic* scripts. To his credit it must be said, that he recognised this error in the very same year.²⁰

The break-through for Demotic came from the Swedish diplomat Johan David Åkerblad, also in 1802.²¹ When extracting the individual Demotic signs and determining their phonetic value, following the method first defined by Silvestre de Sacy but operating more successfully than him, Åkerblad played the numerous personal names off against each other, and thus extracted a set of recurring signs whose phonetic value he was able to identify based on the Greek equivalents. Thus the *l* of "Ptolemaios" also occurs in "Aléxandros"; the *a* which occurs twice in "Aléxandros" also features in the name of Queen "Arsinóē"; the *r* of "Arsinóē" is found in the name of Queen "Bereníkē" and so on (see Excursus). In this way Åkerblad compiled an "alphabet", a set of signs representing one consonant. Insofar as he derived them from personal names, this was no mean achievement (Figure 3). He was, however, less successful in identifying other words and using them to expand the "alphabet", which is why some Demotic signs have to be eliminated from his sign list. Today one might think that the same method could, by analogy, have been applied to the hieroglyphic version. This, however, proved impossible because, apart from

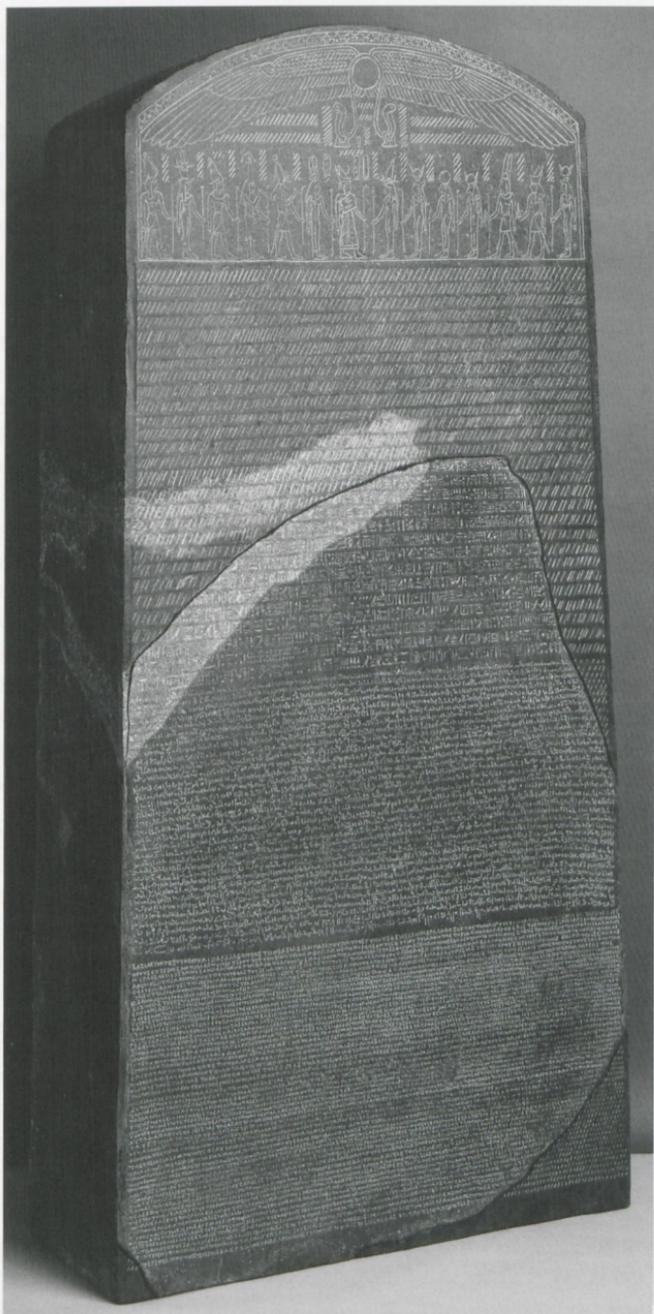


Figure 1. The Rosetta Stone (BM EA24) in the reconstruction proposed by Richard Parkinson (with kind permission by The Trustees of the British Museum).

"Ptolemaios", none of the other personal names that appear in the Demotic text are preserved in the badly damaged hieroglyphic version. Only 20 years later, in the epoch-making year 1822, was a convincing solution for the reading of the hieroglyphs found, when the method that had been applied to the Demotic text was applied to names from other inscriptions. With regard to Demotic, another comment: apart from the fact that interest in it was only marginal, no further progress was made with it for quite some time, the simple reason being that hardly any prosopographical material was available in other texts and most Demotic texts had yet to be recovered.

Back to Åkerblad: in the early 19th century his achievement did not receive the recognition it deserved, and by the 20th century it was forgotten, partly because it was of no consequence for advance in the study of Demotic, partly because Åkerblad's method of identifying Egyptian-Greek equivalences could only be transferred to the hieroglyphic text after a long interlude, and not least because Champollion was one of those people who like to claim achievements for themselves and only reluctantly acknowledge contributions of predecessors or rivals, despite the Sacy-Åkerblad method having aided his own breakthrough with hieroglyphs in 1822.

Heinrich Brugsch, by contrast, who reached the final break-through with Demotic, is fully aware of his predecessor Åkerblad's significance when he says in 1891: "I do not hesitate to identify Åkerblad (*sic*, Brugsch) as the scholar to whom the honour is due of having first shed light on the system of the Demotic script and of having formulated the method for the decipherment of the hieroglyphic writing."²²

In print at least, it was Thomas Young who ventured furthest in the matching of the three versions of text on the Rosetta Stone and, resulting from this, in the identification of corresponding phrases and expressions. This is, by the way, indeed the same Thomas Young to whom we owe, among other things, the wave theory of light.²³

In the following, a few examples of such identifications are given without, however, wishing to credit Young with having discovered these particular ones first. He recognises, for instance, multiple strokes as writings for single digit numerals (𐀀 "2", 𐀁 "3", 𐀂 "5" etc.) and the hobble as the writing for the numeral 10 (𐀃 "17"). That was comparatively easy as the numbers are readily identifiable from the repeated writing of the stroke. But he also identifies words whose writings do not provide any clues: for example, 𐀄 "god" and its plural 𐀅 "gods" or 𐀆 "life" and many more. But the matching of text versions could also all too easily lead one astray. A good example of this is the cartouches in which the name "Ptolemaios" is occasionally supplemented with two Egyptian formulaic expression: "Ptolemaios" 𐀇𐀈 "may he live forever"

(not in all cases clearly readable) and  (in one case without ) "the beloved of (the god) Ptah". This second expression,  "the beloved of Ptah", is of interest in our context. In the comparable position, the Greek version does not regularly have a corresponding addition (Figure 2: "the beloved of Ptah"); however sometimes it does, a hint that the Egyptian version is to be understood as "the beloved of Ptah". Young correctly isolated this expression in the hieroglyphic text, but unfortunately he understood , the writing for "Ptah", as the writing for "the beloved" and , the writing of "the beloved" as the writing for "Ptah". In Egyptian, in the written notation of such an expression, the name of the god is written first for honorific reasons. Even if something like "the Ptah-beloved" is written, it has to be read as "the beloved (of) Ptah". One might add that in 1802 Åkerblad had already observed this issue of word order in the Demotic version and correctly identified "Ptah" and "beloved", despite having missed the mark in his explanation of the issue and in the explanation of the writing for "Ptah".²⁴ Overall, of the 204 equations of Egyptian and Greek content-related phrases (which, in general, could not yet be read phonetically) established by Young from the Rosetta Stone, not even half are correct.²⁵ This point is not made to diminish Young's contribution. The observation is important in that it illustrates the problem of matching the texts and especially that of matching the versions of the text word for word. While correct equivalents were indeed reached on this basis, the erroneous or doubtful ones were still too numerous for such a method to solve the meaning of the individual hieroglyphs. There were simply too many possibilities for a trial-and-error method to reach the target within a reasonable period of time.

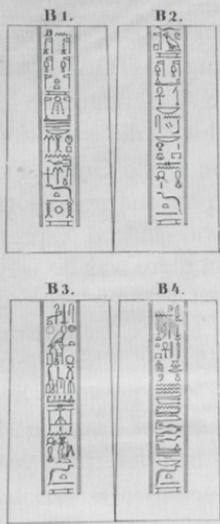
Words may have been identified, but one could not yet read them phonetically as Coptic, for example. Only in exceptional cases could a Coptic reading be surmised, such as with the viper , which stands for "he" or "his", and which others had already read as the Coptic pronoun **q** = *f* "he, his". Here, it was initially important that the hieroglyph used most frequently in Egyptian to write "he" and "his" and in the form written from right to left and rotated slightly more than in Egyptian cursive scripts ( > ) resembles the Coptic letter. Thus the Egyptian sign  was identified as the Coptic letter **q** *f*. Surprisingly, this is correct. It was in fact the Egyptian sign in its cursive form that was integrated into the Greek alphabet used for the purposes of writing Coptic because at that time the Greek alphabet had no letter to use for the Coptic *f*. This was an odd chance discovery but exactly right.

(3) The Obelisk of Philae (Figure 4)²⁶

The break-through in the decipherment of monumental hieroglyphs was achieved through the comparative study of a very limited corpus of material: the names of the Ptolemaic kings and their family members as well as the

Obelisk zur Rechten des Eingangs.

Bruchstück des zweiten Obelisken.

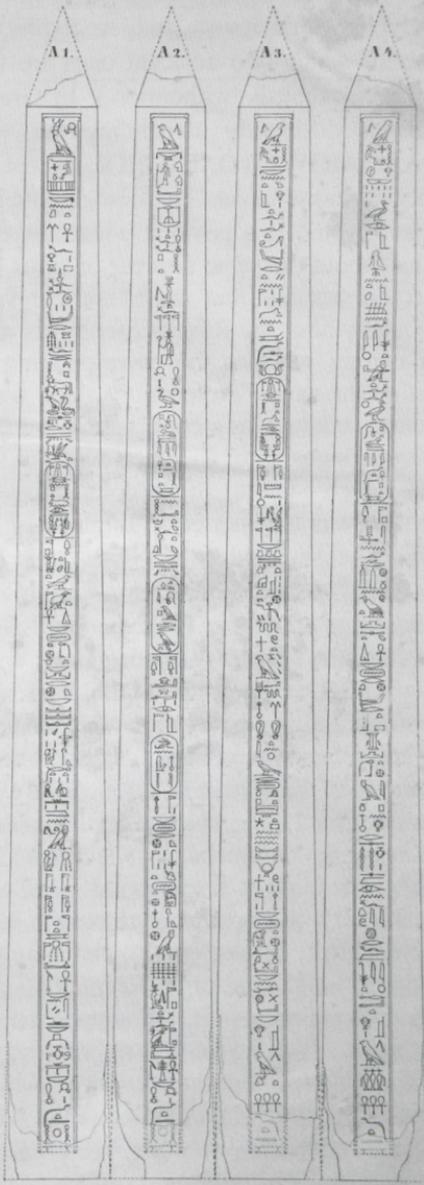


Inschriften der Basis.

I
 1 ΠΙΝΕΥΕΡ Γ Β Ε Τ Ι Μ
 2 ΔΙΝΕΡ Μ Α Ι Ν Κ Α Ι Θ Ε Ο Υ Ε Τ Α Τ Ο Ρ Ο Σ Κ
 3 Π Η Τ Ο Σ Κ Α Ι Ε Ι Ν Ε Ρ Γ Ε Τ Ο Ν Κ Α Ι Ρ Ε Ι Ν Η Σ
 4 Μ Ε Ν Η Σ Ε Γ Ι Σ Τ Ο Α Ν Σ Π Ρ Ο Σ Δ Ο Χ Ο Ν Τ Ο Ν Σ Υ Τ Τ Ε Ν Ε Α Κ
 5 Σ Τ Ρ Α Τ Η Γ Ο Ν Τ Α Ν Τ Γ Ρ Α Β Ο Ν Τ Η Τ Ε Τ Α Χ Α Μ Ε Ν Ε Ρ Ι Χ Ω
 6 Ρ Ο Υ Μ Ε Ν Δ Υ Μ Ι Ν Κ Α Ι Τ Η Ν Α Ν Α Θ Ε Σ Ι Ν Η Σ Δ Ι Ο Υ Τ Ε Σ Τ Η Α Η Σ
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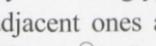
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 4 Ω Σ Γ Α Ρ Α Τ Ω Ν Ι
 5 Α Ι Ε Ι Σ Τ Ο Υ Τ Ο Τ Ε Α
 6 Π Ι Σ Τ Ο Υ Π Ο Η Σ Η Σ Τ Η
 7 Α Ν Θ Ρ Ω Π Ι Ν Η Τ Ο Υ Σ Τ Η Σ
 8 Ε Ρ Ρ Ι Ζ Ο

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 3 Κ Ι Ο Σ Ε Ι Ε Ρ Γ Ε Τ Α Σ Σ Χ Α Ρ Ε Ι Ν Ο Η Σ Ε Ι Σ Τ Η Ε Ν Σ Ω Β Α
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 17 Α Δ Ι Μ Η Δ Ε Ν Ε Ρ Γ Ε Τ Ρ Ε Ι Ν Τ Ο Υ Τ Ο Ρ Ο Ι Ε Ν Κ Α Ι Η Μ Α Σ Ο Ν
 18 Τ Ο Υ Σ Χ Α Θ Η Κ Ο Ν Τ Α Σ Π Ε Ρ Τ Ο Υ Τ Ω Ν Χ Η Μ Α Τ Ι Σ Μ Ο Σ Ε Ν Ο Σ
 19 Ε Τ Ρ Α Δ Η Σ Δ Ι Μ Η Δ Α Ο Ε Ι Ν Α Σ Τ Η Ν Η Μ Η Α Ν Α Τ Α Χ Ο Μ Ε Ν
 20 Τ Η Ν Ε Ρ Γ Ο Υ Α Ν Θ Ρ Ω Π Ο Υ Μ Ν Ε Ρ Γ Ο Υ Σ Τ Η Ν Α Ν Θ Ρ Ω Π Ι Α Ν
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 23 Τ Ο Υ Τ Ο Σ Κ Α Π Τ Η Ρ Ο Ν Τ Η Σ Σ Ι Α Ρ Ο Υ Ε Ρ Γ Ε Τ Η Μ Ε Ν Ρ Ι
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DIE OBELISKEN VON PHILAE.

Figure 4. R. Lepsius: The Philae Obelisk in Kingston Lacy, Dorset.

names, titles and epithets of the Roman emperors marked by cartouches. The name "Ptolemaios" alone, the only one preserved in the hieroglyphic version on the Rosetta Stone, did not allow for the interpretation of the individual hieroglyphs with certainty. In hieroglyphs the name "Ptolemaios" is written with 8 signs of which two adjacent ones are identical:  (written in one instance erroneously without ). In Greek, it is written with 10 letters and terminates differently depending on the case ending: ΠΤΟΛΕΜΑΙΟΣ, ΠΤΟΛΕΜΑΙΟΥ, ΠΤΟΛΕΜΑΙΩΙ. Except for the O in the case ending, no letter is repeated in the Greek. No hieroglyphic sign is repeated with the exception of the hieroglyph  in a position where there is no repetition in the Greek. Faced with just about the same number of signs in the Hieroglyphic and in the Greek, one could assume that there are equivalences; this was indeed expressed immediately after the Rosetta Stone was made known, but there was no way of being certain whether the corresponding signs had been assigned correctly. Therefore the name "Ptolemaios" alone was not sufficient for the decipherment. What was lacking was a confirmation for the possible matchings of hieroglyphic and Greek signs through other evidence. Such evidence was provided by an obelisk which came to attention in Philae at the southern end of Egypt in 1815 and which was transported to England in 1821 and published that same year.²⁷ On this obelisk, next to , is another royal name in a cartouche: . On the corresponding base, beside a ΠΤΟΛΕΜΑΙΟΣ, who is today counted as the VIII, mention is made of *two* ladies by the name of ΚΛΕΟΠΑΤΡΑ, of his sister (and ex-wife) Cleopatra (II) and of his wife Cleopatra (III).²⁸ This is not a bilingual text, but the obelisk and its base are two parts of one and the same monument, so that it was reasonable to assume that the texts are related in contents to some extent, even if the mention of two Cleopatras in the Greek did not exactly match the concept of *one* Egyptian Cleopatra. Champollion picked up the publication in 1822. Whether he identified the name in the cartouche as "Kleopátra" independently or whether in the copy of the publication at his disposal – as claimed or surmised – he found the cartouche with "Kleopatra" annotated in pencil by someone else, can in the end not be decided. In any case, without further assistance and by comparing the hieroglyphic writings of "Ptolemaios" and "Kleopatra" with their Greek equivalents (Figure 5), Champollion succeeded in identifying three hieroglyphs which occur in both names: *p*, *o* and *l*. Also, in "Kleopatra" one hieroglyph is repeated, on account of which it could be assigned to a (Greek) *a*, as no other Greek letter suited. With these multiple correspondences, it was possible to conclude that the *t* between *p* and *o* in "Ptolemaios" and the *t* in "Kleopatra" following the *a*, corresponded to different hieroglyphs; that the *a* that occurs twice in "Kleopatra", once after *p*, had no equivalent in the hieroglyphic writing of "Ptolemaios"; and that, finally, the sign in "Kleopatra" which occurs reduplicated in "Ptolemaios" stood for *e*, but that from these

findings no explanation could be derived for that reduplication. The hieroglyphs which are also in the cartouche with "Kleopatra" were and are understood as an addition, similar to the occasionally occurring additions in the cartouche with "Ptolemaios", i.e. as a marker of the name as a feminine word.

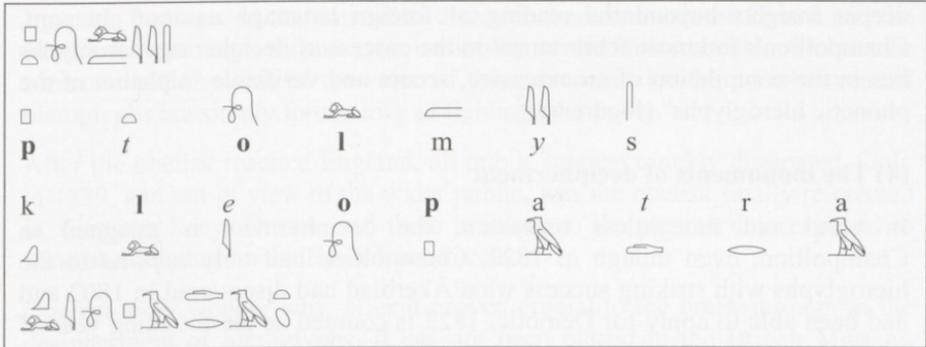


Figure 5. "Ptolemaios" and "Kleopatra": comparison of the hieroglyphic "letters" in the names.

Whichever way this worked in detail, these reliable correspondences led to a flood of readings of further Greek and Latin names in cartouches and also of the titles "Kaisaros/Caesar" and "Autokrator" equally written in a cartouche, as well as the epithets "Sebastos/Augustus" and "Sebastē/Augusta" on a variety of different monuments. In essence, it became possible to correctly assign phonetic values to a significant number of hieroglyphs. Thus, with some imagination, Champollion was able to explain the sequence of signs known from a cartouche in Karnak²⁹ as ΑΛ(Ε)ΚΣΕΝΔΡ(Ο)Σ "Aléxandros/Alexander" based on the phonetic values *a*, *l*, *s*, *e* and *r* that had been extracted from the names "Ptolemaios" and "Kleopatra". This, in turn, meant extracting new sound values, namely *k* for , *n* for and *s* for , the latter being an alternative for , just as *d* could stand for *t* in "Kleopatra". And so on. Even if it was still impossible to read a single Egyptian word, this is the decisive breakthrough for the "decipherment of hieroglyphs" that became linked with the date September 27, 1822, the day that Champollion reported in Paris on the results achieved until then. At the time, Champollion was silent about the fact that he had already gone one step further, that he thought he was now able to read native Egyptian royal names, and indeed he was, "Thutmose" and "Ramesses" (more on this below). He was therefore confident and could indeed be sure that he had not only discovered a special method for writing foreign-language names but also the key for reading words in the Egyptian language. The printed version of the report, the *Lettre à M. Dacier*, promises in

its title information on the "alphabet of the phonetic hieroglyphs used by the Egyptians to inscribe on their monuments the titles, names and epithets of the Greek and Roman rulers".³⁰ This refers to a set of signs which indeed constitutes an "alphabet" used to write non-Egyptian titles, names and epithets. Thus the firm expectation is raised that the chosen method would lead to deeper insights beyond the reading of foreign language names.³¹ In sum, Champollion's foremost achievement in the process of deciphering hieroglyphs lies in the compilation of an extensive, secure and verifiable "alphabet of the phonetic hieroglyphs" (Figure 6).³²

(4) The monuments of decipherment

In blind and thoughtless repetition, the decipherment is assigned to Champollion, even though in 1822, Champollion had only *applied* to the hieroglyphs with striking success what Åkerblad had discovered in 1802 and had been able to apply for Demotic. 1822 is counted as the founding year of Egyptology. To give just one recent example: the standard Egyptological reference work *Bibliographie Altägypten* starts with the year 1822.³³ Just as blindly the decipherment of hieroglyphs is linked with the discovery of the Rosetta Stone; and yet it was not the single non-Egyptian name "Ptolemaios" in the Egyptian version of that text, but the combination with the name "Kleopatra" as a second non-Egyptian name on the Philae obelisk that led to the decisive break-through. The British Museum houses the Rosetta Stone, not the Philae obelisk. In 1972, on the occasion of the 150th anniversary of the "decipherment" of hieroglyphs, the Rosetta Stone was lent to Paris for an exhibition, not the Philae obelisk. For the opening of the Grand Egyptian Museum currently under construction in Cairo, the Rosetta Stone is to be lent to Egypt, not, however, the Philae obelisk. In the Neues Museum in Berlin, Lepsius himself put on display a plaster cast of the Rosetta Stone, and as recently as in 2010, the guidebook to the architecture of the museum still states that it "was instrumental to Jean-François Champollion's decipherment of hieroglyphs in 1822".³⁴

In the countless works on the history of decipherment – too numerous to list here³⁵ – the key role of the obelisk is understood, but the role of the Rosetta Stone is not sufficiently or not decidedly enough put into perspective. Basically, the dating of the decipherment to 1822 and the fixation on the Rosetta Stone reflects the national rivalries in previous centuries, which we should well and truly leave behind today.

Without the slightest grain of doubt that Champollion was the best prepared for the work of decipherment, and without disputing that the decisive break-through towards decipherment happened in September 1822, it is important to note that the successful work on the decipherment did not begin only then and,

in particular, that decipherment had not yet been fully achieved at that time. Fixation on the Rosetta Stone still reflects the dispute over the ownership rights between the French, who found the stone and recognised its significance, and the British, who claimed the Rosetta Stone as spoils of war for England and took it to London. In the meantime, the Egyptians are claiming the Stone as Egyptian heritage. At the time of its discovery and removal, the French and the British were in angry dispute over ownership of the Philae obelisk, not because someone had any idea of the value of this monument for the decipherment of hieroglyphs but simply for the love of fighting over booty.

After the obelisk reached England, all public interest quickly dissipated. Only in 1839, and out of view of the wider public, was the obelisk finally re-erected in Kingston Lacy, Dorset, and there it stands to the present day, exposed to wind and weather on the English south coast.

One can only wonder why, after it proved crucial to the break-through in the decipherment of hieroglyphs, it has not been placed in the British Museum next to or near the Rosetta Stone and why to the present day the Egyptians have not claimed this object as Egyptian cultural heritage.

The lack of interest today may be a result of its bad state of preservation, particularly that of its Greek inscription. But the Rosetta Stone is not particularly attractive in its appearance either. In any case, there are innumerable ancient Egyptian objects that are far more impressive and yet attract less attention.

Also, other bilingual texts are known today, better preserved than the Rosetta Stone, but which are totally ignored by the wider public. The fascination with the Rosetta Stone only stems from it apparently being instrumental in the deciphering of hieroglyphs. This purpose would be much better fulfilled by the Philae Obelisk that in actual fact enabled Champollion to achieve the decisive break-through in his decipherment.

(5) Egyptian as Coptic

Champollion's second achievement is recognising the Egyptian written in hieroglyphs as Coptic. Others before him – Åkerblad, for example – had already attempted this, but by and large they were only successful in problematic and isolated cases. Champollion, on the other hand, on account of his intensive study of Coptic, was better prepared for the task and knew how to apply his skills most convincingly. In his *Lettre à M. Dacier*, Champollion presented the unequivocal proof that the image-based hieroglyphs can stand for sounds, at least in the writings of foreign language names such as "Ptolemaios" and "Kleopatra". Prior to him, Åkerblad had successfully proved this same mechanism for the signs of cursive Demotic. Finally, it became ever clearer that not only in the writings of foreign-

language names but also in the writings of Egyptian words, the signs of the script were used to represent sounds. As early as 1802, Åkerblad had already vaguely seen this possibility for the Demotic cursive script. Champollion definitely reached this insight shortly before his report to the academy on September 27, 1822: when studying drawings made by the architect Jean Nicholas Huyot in Abu Simbel, his attention was drawn to the hieroglyph , which he already knew from one of the royal names encircled by a cartouche³⁶ without an additional attribute and which also appeared in a cartouche encircling a royal name but with an additional attribute.³⁷ This was the royal name  (with a further attribute also )³⁸ and , whose readings as "Thutmose" and "Ramesses" could be concluded from the occurrence of  which they have in common: the first part of the name is found to be formed respectively by the image of the god  "Thoth/Thut" represented by the figure of an ibis on a standard and the sun-god "Re/Ra" represented in image-form as  (one knew the name and form of these two deities from the classical tradition); the second part of the name with the last consonants  and , Champollion already knew from the foreign names "Ptolemaios", "Kleopatra" or "Alexandros" as having the phonetic value *s*, could be expanded as *ms* or *mss* if one were to read the sign  – illegible so far – as *m*. Champollion was successful with the identification of the Egyptian royal names "Thutmose" and "Ramesses" and his interpretation is valid to the present day. But while the phonographic writing of the second part of the names as *ms* or *mss* is still read *ms* and *mss* today, the first sign thereof, Champollion's *m*, is now understood not as the uni-consonantal sign *m* but as a sign for *both* consonants *m* + *s*, i.e. as the bi-consonantal sign *ms* followed by its second consonant, namely *s*, repeated. The signs are not to be understood as *m* + *s* and *m* + *s* + *s* but as *ms* + redundant *s* and *ms* + redundant *s* + *s*. In today's terminology, such a repeated sign of phonetic value is called a complement. Below, we will return to this term "complement" and how it was invented by Lepsius.

Again, a flood of successful readings followed, this time for Egyptian-Coptic words. With the help of  *ms* that we have just explained, it was, for example, possible to identify the word  (line 10) "birthday" in the hieroglyphic version of the text on the Rosetta Stone – (TA)ΓΕΝΕΘΑΙΑ in the corresponding section of the Greek (line 46) – as the Coptic *hou-mise* "day of giving birth, day of birth".³⁹ The rapid progress Champollion made is documented in the "Précis du système hiéroglyphique des anciens Égyptiens" of 1824, a revised and expanded edition of which appeared only four years later, in 1828.⁴⁰ An impressive achievement! But what was being deciphered, identified and read phonetically were not as yet coherent texts, let alone the text of the Rosetta Stone, only individual words, formulaic expressions, captions to scenes and such like.

The extent to which Egyptian was Coptic was a moot point debated for decades. Only as late as 1866 was Lepsius drawn to say: "It is not at all one

language but two, the hieroglyphic and the Coptic, and they were not living languages at the same time."⁴¹ Of course, he did not mean that they are two languages but rather that they are two phases in the development of one language; indeed that the two phases differ fundamentally in their phonetic realisations was what Lepsius's statement referred to.

That Egyptian and Coptic were different, not only in their phonetic realisations, is an observation Lepsius had already made in passing and had clearly explained in 1837 in his *Lettre à M. ... Rosellini*: he had demonstrated that they differ in the sequence of subject and predicate in the verbal paradigm (Figure 7),⁴² which Champollion had erroneously wanted to interpret as a simple metathesis in the hieroglyphic writing. For example: "he gives / il donne" is **q-t** (*f-ti*) in Coptic, but in Egyptian, transliterated into Coptic letters, it is **t-q** (*ti-f*). The task left to be completed in 1866 was to define the system of the phonetics and their representation, a task for which Lepsius had to face the vehement protest of the staunch follower of Champollion, François Chabas, highly respected for his work on the explanation of Egyptian texts. Like Champollion before him, Chabas insisted on transcribing Egyptian with Coptic letters, while Lepsius – who as a matter of fact until 1837 was also transcribing Egyptian using Coptic letters – had in the meantime adopted the viewpoint still current today, that the sounds and phonetic values of Egyptian differ too much from Coptic to satisfactorily use the Coptic alphabet for its transcription. Lepsius explained this against the backdrop of the conflict with Chabas, to whom he refers only in passing, in a footnote on page 74 of his work.

There is also the other question of whether Lepsius should have engaged with the work of Edward Hincks, who in 1855, was the first to show that the sounds of Egyptian that were read as vowels (and which are still commonly taught to be pronounced as vowels today) are in fact consonants. In 1866, Lepsius should have been familiar with Hincks's work especially as the latter also firmly rejected the interpretation of Egyptian as a form of Coptic and instead favoured its connections with Semitic and even Indo-European languages.⁴³

(6) The situation following Champollion's death

In 1832, the work on the decipherment was seriously disrupted by the sudden death of Champollion at the age of 41. What he was able to achieve himself, is documented by the works his older brother Jacques Joseph Champollion-Figeac published posthumously: namely, the *Grammar*⁴⁴ in 1836 and the *Dictionary*⁴⁵ in 1841. At first it was completely open how things would develop: was Champollion on the right track or had the hour now come for the old rivals and sceptics? Heinrich Brugsch who, after Åkerblad's pioneering work, had as a high school student (Gymnasiast) in 1848 already succeeded in

*Tableau des Signes Phonétiques
des écritures hiéroglyphique et Démotique des anciens Égyptiens*

Alphabet Grecques	Signes Démotiques	Signes hiéroglyphiques
A	Ⲁ. Ⲁ.	
B	Ⲃ. Ⲃ.	
Γ	Ⲅ. Ⲅ.	
Δ	Ⲇ. Ⲇ.	
E	Ⲉ.	
Z		
H	Ⲑ. Ⲑ. Ⲓ. Ⲓ.	
Θ		
I	Ⲕ. Ⲕ.	
K	Ⲗ. Ⲗ. Ⲙ. Ⲙ. Ⲛ. Ⲛ.	
Λ	Ⲝ. Ⲝ. Ⲟ.	
M	Ⲡ. Ⲡ.	
N	Ⲣ. Ⲣ. Ⲥ. Ⲥ. ⲧ. ⲧ.	
Ξ	ⲉ.	
O	ⲓ. ⲓ. ⲕ. ⲕ.	
Π	ⲓ. ⲓ. ⲓ. ⲓ. ⲓ.	
P	ⲓ. ⲓ. ⲓ.	
Σ	ⲓ. ⲓ. ⲓ. ⲓ. ⲓ.	
T	ⲓ. ⲓ. ⲓ. ⲓ.	
Υ		
Φ	ⲓ.	
Ψ		
X	ⲓ.	
Ω		
TO. TA.		

Table de Champollion, sur une feuille séparée, n° 17.

17-18

Figure 6. J.-F. Champollion: Hieroglyphic and Demotic "Alphabet".

taking the next step in the decipherment of Demotic, reported in a review of the decipherment of the hieroglyphic script how incapable and unwilling the contemporaries were to recognise the stage knowledge had reached and to accept it. He criticized scholars ("Gelehrtenthum") who "felt impeded by the fruitful discoveries of a younger man [i.e. Champollion] and did not tire in staging clandestine and open attacks to cast doubt on or diminish Champollion's works".⁴⁶ Further, he writes: "It rained attacks on Champollion's achievements, and France itself, which did not tire in lauding the intellectual hero after his death, provided the sadest evidence that it lacked sympathy for the successful works of the future adornment of its nation. In England, it was the name of Dr Young that became a mascot, around whom the opponents of the young French scholar had grouped; in Germany, Professors Spohn and Seyffarth in Leipzig fought against the results of Champollion's decipherment; in Russia, it was Klaproth who attacked the method of the successful discoverer of the phonetic hieroglyphs, not to mention several other less well-known names who poured oil onto the flames of envious jealousy. Even men such as our great Alexander von Humboldt ... rejected the achievements of the young French scholar and could not restrain their distrust."⁴⁷

(7) Lepsius

Lettre à M. le Professeur Rosellini

In 1837, five years after Champollion's death, Lepsius published his *Lettre à M. ... Rosellini*, the open letter to Ippolito Rosellini, Professor of Oriental Languages in Pisa, a travelling companion of Champollion's. As mentioned above, in 1912 Erman thought that the task of decipherment had been completed. After what we have seen so far, however, this is highly doubtful because competent Egyptologists, including Lepsius, still spoke of the task as unfinished in the middle of the 19th century and particularly because the extensive posthumous works by Champollion were only starting to appear then, in 1836. The other part of Erman's comment of 1922 might, however, still stand: "that this small work [the open letter to Rosellini] was perceived as a liberation" and one "felt" that "the young discipline of Egyptology stood on firm ground".⁴⁸ But what was this liberating factor?

In the anniversary speech of 1922 quoted above, Erman praises Lepsius's great achievement, the discovery of the multi-consonantal signs (for the explanation of how they work, see § 5 above), and finally lets the cat out of the bag: "He cut down the enormous alphabet of 132 signs [on the actual number, see below], and restricted it from then on to a limited number of real alphabetical signs with only a few word signs [logograms or ideograms, for which see below]; these were alphabetical signs with a secure phonetic value. [Now the crucial statement:] But he was still obstructing this insight somewhat by being

unnecessarily convoluted, which is, however, a minor matter and whoever looks beyond the form in which this was said, will understand that this concise work had a liberating effect on his contemporaries."⁴⁹

One has the impression today that Lepsius's exposé is not very readily understood, but neither was it in Erman's time, so much closer to Lepsius's own. Also, as usual, Erman did not put much effort into internalising the thought processes of those who went before. Just how much Lepsius's findings still influence the grammar of Egyptian today, can be seen in the use of two terms created by Lepsius, but which are now used with a meaning different to the one intended by him: *ideogram* and *complement*.

Ideogram: the sign for a concept or the sign for a word?

The term "ideogram" already occurs in Champollion's work. But it does not designate what we call an ideogram today but rather what Egyptian hieroglyphs were thought to be before phonograms were proven: "ideographic characters, that is to say, simple signs for ideas".⁵⁰ Champollion himself classified what we call ideograms today into two groups: (1) the figurative hieroglyphs which represent what the (written) Egyptian word designates, and (2) the tropic hieroglyphs, which do not represent what the (written) Egyptian word depicts but rather only what they symbolise. Lepsius combines both these types in the category of the *ideogram* explaining his reason as follows:⁵¹

"... as each language by its nature is composed of words which express physical objects and words that express abstract notions, and as the tropic signs are for the abstract notions exactly what the figurative signs are for the physical objects, there can be no writing which does not from its inception encompass these two types of signs. The essential and historical point to make is that both types of signs correspond to entire words in the spoken language and not to syllables or to individual letters. In order to avoid misunderstanding, I will call characters of this type *ideographic* and will allow for further meaningful sub-categorization into figurative and tropical characters."

This means that Lepsius did not use the term ideogram in the same way as Champollion or as we do today. He speaks of these signs as designating "mots/words", not "idées/ideas", and therefore he is referring to what we now call logograms ("signs for words") not ideograms ("signs for concepts"). What Lepsius does not take into account in this summary statement is the fact that one and the same sign can be used for different words, such as ☉, the pictorial representation of the sun, which can stand for *r^cw* "sun/sun-god" and for *hrw.w* "day". It is not the case that "sun" and "day" are one and the same concept for the Egyptians; rather, the one sign has two meanings. In the one instance, it is used "figuratively" (using Champollion's terminology) for *r^cw* "sun", and in another context "tropically / symbolically" for *hrw.w* "day". In other cases, the

multiple uses also fall into the two sub-groups defined by Champollion. Another example: † stands for *hrp* "lead, control", and *shm* "to be powerful"; and while it is possible to see some semantic connection, this sign is not used for other words which belong to the same semantic field like, for example, *wsr* "to be powerful, strong". This is not the place to go into more detail on the matter. But in our context, it is important to note that signs can have multiple meanings yet they do not generally – as is possible for the determinatives – encompass any words that are semantically related. There is a good example for the problem of using "word" and "concept/idea" interchangeably: James H. Breasted's translation of Adolf Erman's *Ägyptische Grammatik*. What Erman calls "Wortzeichen / word-sign",⁵² Breasted translates as "ideogram".⁵³ That the term "ideogram" is widely used today is however not only due to a more generally anglophone tradition but in particular to the authority of Alan H. Gardiner, who in his *Egyptian Grammar* speaks of "ideograms or sense-signs", i.e. he does not blindly take-over a term rather he explicitly explains the "sense-sign".⁵⁴ In our context we should take note that he sees the "determinative" as a special case among the "ideograms / sense-signs".⁵⁵ In other words, an "ideogram" is what is known today as a "semogram", it is not an "ideogram / word-sign / logogram". All up, the situation is rather confusing. What is clear, however, is that Gardiner's "ideogram" and the "ideogram" in Egyptian grammar today do not have the same meaning as in Lepsius's day.

The Alphabet: abbreviation and complementation

At a conference held in Halle in 1984 on the occasion of the 100th anniversary of Lepsius's death, Jean Leclant, subsequently appointed to the chair of Egyptology that had been established for Champollion at the Collège de France, sums up the general consensus on the issue of the term "complement" as follows: "He [i.e. Lepsius] establishes in particular that most hieroglyphic signs [i.e. the phonograms] stand for several consonants and he recognises the role of what we call the 'phonetic complements'".⁵⁶

The facts, however, are quite different: firstly, Lepsius did not discover the multi-consonantal signs and secondly, while he was the first to use the term "complement", he meant something different by it than we today. A narrower view than Leclant's in 1984 is displayed by Erman in 1922, 100 years after the infamous date of September 27, 1822. He does not mention the issue of the "complement" simply because he does not use the term himself; instead he prefers coining ad-hoc expressions in German, and generally, he is very little interested in how the colleagues outside the "Berlin School" describe phenomena. Instead, he places all the more emphasis on a consequence of introducing the concept of the multi-consonantal signs: the reduction of the number of uni-consonantals to a reasonable quantity. We discussed the

example of 𓆎 above. The uni-consonantal with the phonetic value *m* became the bi-consonantal *ms* we know today. For Erman, the "*Lettre à Mr. Rosellini*, by which he [i.e. Lepsius] put Champollion's writing system to the test",⁵⁷ confirms conclusively Champollion's decipherment of hieroglyphs, because "this test eliminated ... what had hitherto fuelled the reservations of the critics. He removed the unwieldy alphabet of 132 letters [i.e. the huge number of 132 uni-consonantal signs], and alongside a limited number of real alphabetical signs [i.e. uni-consonantal signs] there remained only word signs [i.e. logograms] which had a secure phonetic value."⁵⁸ The number of 132 uni-consonantal signs mentioned by Erman is a number extrapolated from Champollion's *Précis*.⁵⁹ If this number were correct, it would be unreasonably high by comparison with the 28 phonetic values that Champollion assigned, or the number of 23 phonetic equivalences, when the homophones are discounted that Erman would have overlooked and failed to include. Erman also overlooked that by reducing the number of uni-consonantals and classifying so many as multi-consonantals he left not only the word-signs/logograms but in particular the multi-consonantal *s* themselves which he does not discuss at all. And finally: Erman failed to take Champollion's *Grammaire* into account, where the latter deals with the even more exorbitant number of 232 equivalences with Coptic letters⁶⁰ – a number Lepsius knew about from a study preceding the *Lettre à M. ... Rosellini* and which Erman could have stumbled upon through Lepsius,⁶¹ if he had read Lepsius. In assessing the number of uni-consonantals, a glance at statistics from today's perspective may prove helpful: in the Corpus of the *Coffin Texts*⁶² alone, which contains about one million incidences of signs, one can establish a repertoire of 67 uni-consonantal, 178 bi-consonantal and 6 tri-consonantal signs.

We may never know whether the anti-Champollians – "the outsiders / die Außenstehenden" as Erman called them – were irritated by the discrepancy between the number of signs and the number of sounds represented by them. But Lepsius himself must have wondered about this as he was the one who saw the need to relate the great number of signs to the small number of only 15 sounds, which he thought Egyptian had. How Lepsius addressed this issue is best summarised in his list of phonographic hieroglyphs on one of his plates (Figure 8). Here he distinguishes three types of "phonetic" hieroglyphic signs.

The first group consists of the "alphabet phonétique général / general phonetic alphabet", i.e. all the general phonographic hieroglyphs, those that can be used without additional conditions. For the writing of 15 sounds postulated by Lepsius a total of 34 hieroglyphic signs are available. If such a table were drawn up today, it would look very different in detail, but it is still a table of generally valid uni-consonantals. That it closely resembles today's repertoire of uni-consonantals is evident – but obviously it does not easily compare with

today's classic-Egyptian teaching grammar, which does not account for later uses of the script in post-classic periods. Neither should one be irritated by the fact that Lepsius's table classifies among the uni-consonantals some signs which were bi-consonantals originally and which today again feature in the category of bi-consonantals in contemporary grammars of classic-Egyptian.

The second type of "phonetic" hieroglyphs are the "signes devenus phonétique au commencement de certains groupes / signs which become phonetic at the beginning of certain groups", i.e. the signs which occur in initial positions and which were interpreted secondarily as phonetic. We have already encountered one of these signs: ꜥ. It is the sign that occurs in the names "Thutmose" and "Ramesses" in initial position within the group ꜥꜥꜥ *ms*, and to which Champollion had assigned the phonetic value *m*. For Lepsius, too, the sign retained the phonetic value *m*. But what he added was the observation that, in contrast to the signs in the "general phonetic alphabet", this *m* cannot be used freely but only occurs when it is in initial position in a group with a following *s*. For today's reader and observer, this already smacks of the bi-consonantal *ms*, as we now understand this sign. The impact of this discovery may be more fully appreciated when assessing how the number of the signs in the first group of the "general phonetic alphabet" relate to the signs in the second group: the 34 signs of Type 1 relate to the significantly higher number of 54 signs in Type 2 plus further signs which Lepsius had left out because he considered the 54 signs as the most important ones for the purposes of what he wanted to demonstrate. As far as Lepsius was concerned, ꜥ was by no means a bi-consonantal, as we shall see below.

The third type of "phonetic" hieroglyphs are the "signes employés phonétiquement dans les noms des empereurs romain / signs used phonetically in the names of Roman emperors", i.e. the phonographic signs, which only appear in the names of the Roman emperors – more accurately: which only occur in the titles, names and epithets of the Ptolemaic kings and queens as well as the Roman emperors. As far as the system of the script is concerned, however, this is not really a third group of signs. They are only excluded from Type 1, the "general phonetic alphabet", because – based on Lepsius's knowledge – they were not available in all periods and did not randomly occur in any other contexts. With this decision, the "general phonetic alphabet" was significantly uncluttered, which would otherwise have contained twice the number with the 34 signs of Type 3; and from today's perspective, this would have created a severely distorted view of the use of uni-consonantals outside the late titles, names and epithets.

Thus Lepsius distinguishes between 3 types of phonographic hieroglyphs. The decisive advance on Champollion lies in excluding the second and third type from the complete repertoire of phonographic hieroglyphs. From this complete repertoire of 122 signs plus others not listed in the second type, 34 hieroglyphs

remain, which were to be taken as the "general phonetic alphabet", a set of signs of extensive and general use. The issue with the third type discussed above, was that it was a group of remnant uni-consonantal signs with only restricted use. Classifying them separately is only of interest, in that this reduces the volume of Type 1, the "general phonetic alphabet".

We now return to the second type: I am jumping ahead by explaining that these are the hieroglyphs which are today's multi-consonantal signs, i.e. signs like 𓆎 *ms* in the royal names "Thutmose" and "Ramesses" discussed above. The discovery of the multi-consonantal feature of such signs tends to be assigned to Lepsius, as Leclant did in 1984, whom I quoted above. The true story is quite different. It was not Lepsius who found out about the multi-consonantal nature of the signs in question, but Emmanuel de Rougé 30 years later, in 1867. This could have been known all along, if only Lepsius's labelling of the signs in the second group had been taken seriously: he had called them "signs which become phonetic at the beginning of certain groups", indicating that in this position they become uni-consonantals, the only type of phonographic sign that was then thought to exist. It must be said, however, that Lepsius's description of the material in the text of the *Lettre à M. ... Rosellini* is very complicated and indeed confusing. Erman, already quoted above, probably had these explanations in mind when he commented on them as being "unnecessarily convoluted / unnütze Künstelei". He probably did not even try to understand because to him, in contrast to Lepsius, the problem was solved. But Lepsius's starting point in addressing the matter is very clear, as shall be demonstrated in the following.

For this purpose we will not resort to the example of 𓆎 *ms* which we know from the royal names "Thutmose" and "Ramesses" and which Lepsius counted among the signs of the second type; instead, we will use the sign that Lepsius himself discusses first:⁶³ 𓆎 *nh* "life" and 𓆎 "to live, to be alive"; note that Lepsius still writes Coptic ⲛⲏ for 𓆎 . The word 𓆎 can either be written with 𓆎 alone, the sandal-straps (then known as the "looped cross / Henkelkreuz"), or alternatively as 𓆎 ⊙ , the sandal-straps combined with the water-ripple ~~~~ for the consonant *n* and the not securely identified object ⊙ for the consonant *h*. In both cases 𓆎 is an ideogram in Lepsius's sense of the word, namely a word-sign / logogram in today's terminology. The additional consonants are thought of today as complements. But what is a "complement"? In French, the language that Lepsius used and which is safest to refer to here, the word "complément", of Latin origin, has two meanings. In the first instance it means, "what is added or must be added to something for it to be complete".⁶⁴ The term is also clearly used this way in set theory in mathematics. The term is used more loosely in recent times in the field of grammar. Here "complément" designates a "word or phrase attached to another

Le verbe † donner, est par conséquent conjugué

en hiéroglyphes en copte

(pl. A. n. VIII. 3^{me} col.)

†-er	ei-†	je donne
†-K ou †-T	K-†	tu donnes
†-ej	ej-†	il donne
†-c	c-†	elle donne
†-n	n'-†	nous donnons
†-Tn	TETn'-†	vous donnez
†-cn	Or-† ou ce-†	ils donnent.

Figure 7. R. Lepsius (1837): Differences between Egyptian (left) and Coptic (right).

I. Alphabet phonétique général														
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.
Δ. Ο. C.	ΔΙ. ΓΙ. Ι.	Ο. ΟΥ.	Β.	Κ.	Τ.	Ρ. Λ.	Μ.	Ν.	Ξ.	Σ.	Ψ.	Φ.	Θ.	Ζ.
a. o. c.	ai. ei. i.	ou.	b.	k.	t.	p. l.	m.	n.	xi.	s.	psi.	phi.	th. all.	z.
II. Signes devenus phonétiques au commencement de certains groupes														
Α. Π. Ε.	Ι. Ω.	Ο. Τ. Η.	Κ. Ρ. Μ. Λ.	Σ. Τ. Ο. Τ.	Α. Ι. Ο. Υ. Ρ. Ε.	Μ. Π. Μ. Α.	Ν. Ο. Τ. Η.	Π. Ε.	Σ. Ο. Τ. Η.	Ω. Ψ. Δ.	Φ. Η. Η.	Θ. Η. Η.	Ζ. Η. Η.	Ζ. Η. Η.
la province	l'âne	le père	l'Égypte	l'offrir	parler	aimer	l'oeil	articulé avec le roi	domestique	maître et	le H	le H	le H	le H
Α. Π. Ε.	Ι. Ω.	Ο. Τ. Η.	Κ. Ρ. Μ. Λ.	Σ. Τ. Ο. Τ.	Α. Ι. Ο. Υ. Ρ. Ε.	Μ. Π. Μ. Α.	Ν. Ο. Τ. Η.	Π. Ε.	Σ. Ο. Τ. Η.	Ω. Ψ. Δ.	Φ. Η. Η.	Θ. Η. Η.	Ζ. Η. Η.	Ζ. Η. Η.
le maître	le dieu	le vert des	le drapeau	le grand	le drapeau	le drapeau	le drapeau	le drapeau	le drapeau	le drapeau	le drapeau	le drapeau	le drapeau	le drapeau
III. Signes employés phonétiquement dans les noms des empereurs romains														

Figure 8. R. Lepsius (1837): "Phonetic" hieroglyphic signs.

word or phrase to define its meaning more completely and precisely".⁶⁵ It is in this latter sense that we use the term "complement" in Egyptology today: the consonant *n* written with  and the consonant *h* written with  clarify the sound of the word as *ⁿnh* which is already contained in the sign . Lepsius, however, takes the term "complement" in the older, narrower sense: the two consonants *n* written with  and the consonant *h* written with  complete/complement/ make complete the preceding  for it to become the tri-consonantal *ⁿ-n-h*, i.e. in the group    the sign  does not stand for *ⁿnh*, the complete sound of the group, but only for the first of the sounds contained in it, namely *ⁿ*. As much as this might come as a surprise to the Egyptologist today, it can be explained by the way Lepsius (and Champollion before him) defined the origin of the uni-consonantal signs as based on the acrophonic principle: a sign is given the value of the foremost sound, in real terms the *first* consonant of the linguistic designation for the represented object. From the linguistic designation for the sandal-strap, *ⁿnh*, the uni-consonantal *ⁿ* is derived; when *ⁿnh* "life" etc is then written using this one-consonant sign, of course, the further consonants *n* and *h* need to be added to complete the writing.

What this explanation does not address is that "life" can still be written with the sandal-straps alone. In such a case, the sign would have to be understood as an ideogram, i.e. a word-sign/logogram. We no longer explain things in this way: in any case, we take the sandal-straps, whether or not the other signs follow, as a tri-consonantal phonogram (or better: a tropical/symbolic ideogram, i.e. a word-sign/logogram), and the additional signs, when they occur, as additional clarification for the reading of the word. But in this case it is no longer a complement in Lepsius's sense. The term "complement" goes back to Lepsius, but not the meaning that it has in Egyptology now.

An older explanation for the writings as offered by Champollion⁶⁶ was firmly rejected by Lepsius. Champollion had understood the sign  on its own as an abbreviation for the complete writing   , this is the reverse argument: the sign  initially has the sound *ⁿ* and only when it becomes the abbreviation for    does it gain the full sound of *ⁿnh*.

But this is not the objection Lepsius has to Champollion's explanation. In fact what he objects to is that such abbreviations (the first phonogram of a group of phonograms being the abbreviation for the entire group) do not exist at all. Had Lepsius known then what we know now, he could not have used the argument he put forward because exactly such an abbreviation is found in the widely used phrase    *ⁿnh wꜥꜥ snb* "life, prosperity, health", where  *s* is the common abbreviation for the sequence of phonograms  *s + n + b*.

But enough now of Champollion's abbreviations and Lepsius's acrophonics. The one who discovered the true function of the so-called complements was

not Lepsius but Emmanuel de Rougé, Champollion's successor on the chair that had been established for the latter at the Collège de France. It is the same de Rougé mentioned above in the context of assessing the state of decipherment around the middle of the 19th century and who at this time was the first to successfully translate a complete, albeit short text, and analyse larger passages of another text of some length.⁶⁷ Later still, 30 years after Lepsius, in 1867, he explained how the complements work using the example that Lepsius had started with and which I have just presented, showing how φ is complemented in the writings of ϵnh "life".

He distinguishes three ways in which φ is used in the writing of "life".⁶⁸ Firstly, the word ϵnh "life" can be written with φ alone; in this case, the sign functions as an ideogram, better: a word-sign/logogram. Secondly, the word can be written in a phonetically complete way as the sequence of three "letters", i.e. uni-consonantal signs $\leftarrow \square$ for ϵ , \sim for n , \ominus for h followed by φ ; in this case, the first three "letters" already account for the sound of the word, so that the last sign is a determinative, which only has the function to *clarify* the meaning of the word; this is an explanation that still stands today. And thirdly:⁶⁹

"The same sign can be accompanied in full or in part by the letters [i.e. uni-consonantals] with which the word $\bar{a}n\chi$ [i.e. ϵnh] was written [as in the 2nd case above]; this is what was called the phonetic complements: ... thus one normally finds $\varphi \ominus$, with the 2nd or 3rd complement [i.e. with a complementation of the 2nd and 3rd consonant]; but $\leftarrow \varphi \ominus$ or $\leftarrow \varphi \ominus$ would also conform to these rules."

This means that the "complement" does not complete, it accompanies something that is already complete in itself.

Concerning the use of this problematic term "complement" from the middle of the 19th century, the following observations can be made: the "complements" are understood correctly as additional signs that adjoin the "complemented" sign and can precede, follow or surround it. This fact is described in a variety of ways. In recent times, in search of an exact expression, terms such as "Präzisierung / specification", "Kennzeichnung / characterization", "Interpretament / interpretament" and others more have been coined. Up until now, however, the most frequently used term is Lepsius's misunderstood "complement". Here is not the place to follow this up in greater detail.

Let us return to Lepsius, even if I do find it difficult to provide a brief summary of his next thoughts – should I have fully understood them myself – in which, by the way, the term "complement" is no longer encountered. Our example dealt with the special function of an initial sign and the phonetic value ϵ of $\varphi \epsilon nh$ gained on the basis of the acrophonic principle. In the heading of the

relevant paragraph Lepsius speaks of "caractères initiaux d'une valeur phonétique spéciale / initial signs with a special phonetic value".

Our focus is now on the following section, which according to the heading deals with "signes initiaux d'une valeur phonétique limitée / initial signs with limited phonetic value" (the relevant signs are marked in his table by an asterisk). From a quick perusal of the paragraph one might gain the impression that he is now indeed discussing multi-consonant signs. In the first example, one would today spontaneously read \cup , a basket, in the writing for *nb* "lord" or *nb* "everyone", as the bi-consonantal *nb*. But not so Lepsius. Perhaps we need to re-read his headings. The first heading, dealing with acrophones, refers to "caractères/letters"; in the second heading, however, which is of greater interest to us now, he only speaks in more general terms of "signes/signs" and not of "cactères/letters", which one would expect to apply to the multi-consonantal signs. One is left wondering what he in fact meant by "valeur phonétique spéciale / special phonetic value" and "valeur phonétique limitée / limited phonetic value". Is it really the phonetic value that is special or limited? Or is it rather the sign with its phonetic value which is special or limited? I would think he meant that these signs are special signs with a specific phonetic value and – of interest in our context – with restricted phonetic value; in other words: these are signs which can only be classified as phonograms under certain conditions.

Basically, Lepsius is only saying that there are initial signs by which multi-consonantal words with a variety of meanings can be written with or without complements; for example, the whip $\curvearrowright mh$ ("a type of strap / une certaine bandelette" according to Lepsius) is used to write all the words – following the Coptic – pronounced as (Coptic) *mh* (**M2**). In my understanding these are quasi ideograms, word-signs/logograms, and not really phonograms. In the given context, however, Lepsius was interested mainly in the semantics, i.e. in the question of how the words of different meanings written with the consonants (Coptic) *m* and *n* (**M** and **2**) can be differentiated in the script (this is achieved in each individual case by adding determinatives). But the problem of distinguishing between the different meanings of words is not the topic at this point.

Another issue that was on Lepsius's mind is the usage of multi-consonantal signs in non-initial position, e.g. the gaming board 𐀀𐀁 (a "crenalated parallelogram / parallélogramme crénelé" according to Lepsius) in the god's name 𐀀𐀁𐀂 "Amun". He here made an observation which one might be inclined to acknowledge as recognising the multi-consonantal sign *mn*.⁷⁰

"It must be noted that in the entire language [i.e. in all the textual evidence] the sole role of this group [correct: this character, i.e. 𐀀𐀁] is to combine the two letters **M** et **N** so that before **N** there is never any

other form of **M** [i.e. no other phonogram with the phonetic value **M**]; and if occasionally a letter other than **N** occurs after the crenelated parallelogram, it must be added in the pronunciation."

For the placename *mn-nfr* "Memphis", for example, alongside the writing with complements  there is the writing without complements . The *nfr* written with  (heart with windpipe; "lute" as one said at that time) is of no interest to us here; it can be explained following the example of  *nh* "life" discussed above. When  is complemented with  *f* and  *r*, then according to Lepsius it is an acrophonic *n* plus the phonograms *f* and *r* from the "general phonetic alphabet". When  is written alone, then it is the ideogram/word-sign/logogram *nfr*. – Coming back to *mn* , which can be written with and without complement: Lepsius's understanding becomes clear in his comments on the writing without complement; here he said that the *n* "must be added in the pronunciation / il faut le restituer dans la prononciation", in other words, for him  had the phonetic value *m* and not *mn*, which we assign today.

Here I conclude and summarise what needs to be remembered regarding Lepsius and his alleged discovery of the multi-consonantal signs and the term "complement" that he introduced. There is no doubt that Lepsius discovered real problems. But he did not yet see that these problems could be solved by assuming the existence of multi-consonantal signs and re-interpreting the "complements" as "signs that serve to clarify meaning". It is beyond doubt that, by taking out the problematic cases, he was the one who established the manageable number of hieroglyphic signs which he rightly called a "general phonetic alphabet", of course within the context of the knowledge of Egyptian at the time.

*Prussia*⁷¹

It was not the young Lepsius's idea or desire to engage with the issue of what stage the decipherment of hieroglyphs had reached. It was the personalities of the intellectual elite in Prussia who got the ball rolling:

- Christian Carl Josias von Bunsen, then Prussian envoi at the Holy See, who envisaged a comprehensive work on *Egypt's Place in Universal History*, the original German edition of which subsequently appeared in print in five volumes between 1844 and 1857 (see section (1) above);
- the archaeologist Eduard Gerhard, who conceived the idea and the plan to found in 1829 the Instituto di Corrispondenza Archeologica in Rome, that was later to become the German Archaeological Institute; from 1833, Gerhard was professor in Berlin.
- the Classical philologist August Böckh, founder of "Sachphilologie", i.e. of the discipline that incorporates the study of antiquity in general ("historische Altertumswissenschaft"), a member of the Royal Prussian

Academy of Sciences and Humanities; and finally

- Alexander von Humboldt, explorer and scientist internationally renowned for his study of earth sciences and as the originator of ecology.

It was all about participating in a new area of scholarship, the study of ancient Egypt. After Champollion's death the state of affairs needed to be explored and the question needed to be clarified of how far the decipherment of hieroglyphs had progressed.

Lepsius was thought capable and trustworthy to clarify the situation as he had a profile as a Classical philologist and as a linguist, and had also ventured advances in the area of Egyptian and Coptic.⁷² An important role was played by an early judgement made by Wilhelm von Humboldt, brother of Alexander von Humboldt, who died in 1835; as a linguist in a linguistic study published in 1834,⁷³ he recognised that Lepsius was highly qualified for this type of task.⁷⁴ In 1933, a son called Bernhard Lepsius, wrote in his book *Das Haus Lepsius [The Lepsius family]*:

"The idea of working on hieroglyphs and advancing Champollion's efforts with the scientific tools and methods at his disposal came from Gerhard. (...) Gerhard invited Lepsius to come to Rome, firstly to compile all old Italic inscriptions, and secondly to devote himself to studying the language of the ancient Egyptians. Gerhard had also recommended him to Bunsen. (...) The latter strongly supported the invitation as he could only welcome such a hard-working collaborator. [paragraph] Lepsius agreed to Gerhard's first proposal [old Italic inscriptions] [as it was in line with his specific philological interest]. But he was very sceptical about the second suggestion despite the great honour of Bunsen's direct invitation. (...) {Thus} <This was because> Lepsius was not in a position to form an adequate picture of the hieroglyphs issue, and as he was without a secure future, he was not inclined to devote his energies to exploring such an enormous and difficult subject area. [paragraph] But concerning both, Bunsen knew how to dissipate these reservations, about which Lepsius had reported in detail to his father. Bunsen also cared for the material well-being of his protégé, procuring through his and Gerhard's influence, a scholarship for him from the Berlin Academy [and Böckh had a role to play in this]. (...) [paragraph] In all this, Bunsen had also been able to secure the assistance of one man, who like no other was willing to promote serious scientific goals and hard-working promising young scholars: Alexander von Humboldt."⁷⁵

So, Bunsen needed a collaborator and Gerhard made the task of working on hieroglyphs palatable to Lepsius by combining it with further study in the area of his special interest subject, the old Italic inscriptions; and finally, Böckh was involved in providing scholarships, and Alexander von Humboldt, following the judgement of his brother Wilhelm, gave his blessing to it all.

Lepsius was thorough. My summary here is based on Bernhard Lepsius:⁷⁶ To begin with, Richard Lepsius attempted to gain as complete an overview of the available hieroglyphic texts as possible. He travelled to Paris, where with the support of Alexander von Humboldt he had access to the wealth of material in the collections there [and where he was also able to peruse Champollion's papers].⁷⁷ The next station was Turin, where the Egyptian collections were among the largest and richest. In Pisa, he visited the professor of Oriental languages Ippolito Rosellini who generously gave him access to his records from the expedition to Egypt which he had conducted together with Champollion in 1828–1829. Finally, in May 1836, he arrived in Rome, where among other things he was employed as editorial secretary for the institute and for Bunsen himself, and where he worked on his report on the "hieroglyphic alphabet" that he dedicated to Rosellini, and which appeared in 1837 in the ninth volume of the *Annali dell' Istituto di Corrispondenza Archeologica / Annales de l'Institut de Correspondence Archéologique*.

In view of Uhlemann's position, still espoused in his *Comprehensive Handbook of Egyptian Antiquity*⁷⁸ in the 1850s, one is surprised that in 1837 Lepsius did not engage in any way with those who considered Champollion's explanation of the hieroglyphic script to be fundamentally flawed and who increasingly polemicised against Champollion's approach: Spohn, Klaproth, and in particular Seyffarth. The explanation is simple. Already in 1835 in his discussion of the Egyptian "alphabet" he dismissed the opponents in a mere footnote:⁷⁹ "Whoever still doubts C h a m p o l l i o n ' s major discoveries, namely his hieroglyphic alphabet, has brought it on himself to still be ignorant of one of the most significant discoveries of recent science; the matter itself has long been clearly evident."

In the 1830s, obviously none of the Prussian intelligentsia took the alternative approach seriously, which was still being propagated by Uhlemann two decades later. Today, as a matter of course, we are on the side of Champollion and his disciple Lepsius. Therefore I have not engaged with Champollion's opponents in detail either.

What then, in conclusion, was Richard Lepsius's contribution to the decipherment of hieroglyphs? In my opinion, the decisive achievement lay in the fact that he, by presenting and systematising the state of knowledge at the time, was thus able to provide the influential individuals of Prussia's scientific elite the certainty that Champollion's approach was correct in principle. Only after this achievement was the great expedition that Lepsius led to Egypt in 1842–1845 conceivable and possible. This also applies to the professorship of Egyptology founded for Lepsius in Berlin in 1846, the second in the world following that created in 1831 for Champollion at the Collège de France in Paris, which established Egyptology in Prussia as an independent field of historical studies.

(8) Excursus: Åkerblad and the Demotic version on the Rosetta Stone

In contrast to the hieroglyphic version of the Rosetta Stone, where only the royal name "Ptolemaios" of Ptolemy V Euergetes remains, the almost completely preserved Demotic version of the text contains several other names that Åkerblad was able to identify:

(1) The names of royal personages (in cartouches)

- *Ptolemaios V Euergetes*
(ll. 3, 8, 9, 38 [here: "Pto<le>maiou"], 39, 41, 49)
- *Ptolemaios IV Philopator* and *Arsinoe III*: the parents of Ptolemy V
(ll. 9, 41)
- *Berenike II*: the paternal grandmother of Ptolemy V, wife of Ptolemy III Euergetes (l. 5)
- *Arsinoe II*: the paternal great-grandmother of Ptolemy V, wife of Ptolemy II Philadelphos (l. 5)
- *Alexandros*, i.e. Alexander the Great (l. 4); also in the name of the city of Alexandria (l. 17)

(2) Non-royal names in the dating of the priestly decree

- *Aetos*, son of *Aetos*, priest in the royal cult of Alexander the Great and of the older Ptolemies (l. 4)
- *Pyrrha*, daughter of *Philinos*, Athlophoros(-priestess) in the royal cult of Berenike II, wife of Ptolemy III Euergetes (l. 5)
- *Areia*, daughter of *Diogenes*, Kanephoros(-priestess) in the royal cult of Arsinoe II, wife of Ptolemy II Philadelphos (l. 5)
- *Eirene*, daughter of a non-royal *Ptolemaios*, priestess in the royal cult of Arsinoe III, wife of Ptolemy IV Philopator (ll. 5–6)

As Silvestre de Sacy had tentatively done before him, Åkerblad succeeded in identifying the names in the Demotic version of the text, even though he did not recognise in the royal names the Demotic signs for the beginning of the cartouche and its end,⁸⁰ and this despite the fact that the names of non-royal persons do not at all have such markers. Obviously, he took his bearings from the relative position of the names in the text; from the repetition of signs in the names and in exceptional cases also from within one and the same name; from the juxtaposition of signs within a name and finally also from the signs that precede or follow signs or groups of signs whose contents he could identify or at least thought he could identify. From the corpus of these names, and less successfully from the few Egyptian words he identified and thought he was able to read phonetically, he compiled an "alphabet" (Figure 3).⁸¹

From today's perspective, the "letters" Åkerblad extracted from the names can more or less be represented as in the table below; the actual inflected forms of the names are given and the Egyptian phonetic forms commonly used for the Greek names are added in brackets and marked with an asterisk *.

ÅKERBLAD'S DECIPHERMENT OF GREEK NAMES FROM THE DEMOTIC VERSION OF THE ROSETTA STONE (1802)		
Λ	<i>ʒrsynʒ</i> <i>ʒlksʒntrs</i> <i>ʒyʒtos</i> <i>ʒryʒ</i> ---	Arsinoēs (*Arsinoē) Alexandrou, Alexandreian (*Alexandros) Aetou (*Aetos) Areias (*Areia) Åkerblad wrongly explains <i>h</i> in Eirēnē (*Heirēnē) as <i>a</i>
Β	<i>brnygʒ</i>	Berenikēs (*Berenikē) ⁸²
Γ/Κ	<i>ʒlgsʒntrs</i> <i>brnygʒ</i> <i>tyʒgns</i>	Alexandrou, Alexandreian (*Aleksandros) Berenikēs (*Berenikē) Diogenous (*Diogenēs)
Δ/Τ	<i>ptlomy(ʒ)s</i> <i>ʒyʒtos</i> <i>tyʒgns</i> <i>ʒlgsʒntrs</i>	Ptolemaios, Ptolemaiou, Ptolemaiōi (*Ptolemaios) Aetou (*Aetos) Diogenous (*Diogenēs) Alexandrou, Alexandreian (*Alexandros)
Ε	---	at least 2 nd and 3 rd form not applicable; for Greek e, see Υ below
Ζ	---	unattested
Η	---	Åkerblad: ai, ei, i
	<i>ptlomy(ʒ)s</i> <i>ʒrsynʒ</i> <i>brnykʒ</i> <i>ʒyʒtos</i> <i>pyluns</i> <i>ʒryʒ</i> <i>tyʒgns</i>	Ptolemaios, Ptolemaiou, Ptolemaiōi (*Ptolemaios) Arsinoēs (*Arsinoē) Berenikēs (*Berenikē) Aetou (*Aetos) ⁸³ Philinou (*Philinos) Areias (*Areia, *Area) ⁸⁴ Diogenous (*Diogenēs)
Θ	---	same form as in Δ/Τ; unattested in the names discussed
Ι	---	all forms not applicable; for <i>i</i> see Η
Κ	---	same sign also under Γ; for attestations see Γ/Κ above
Λ	<i>ptlomy(ʒ)s</i> <i>ʒlgsʒntrs</i> <i>pyluns</i>	Ptolemaios, Ptolemaiou, Ptolemaiōi (*Ptolemaios) Alexandrou, Alexandreian (*Aleksandros) Philinou (*Philinos)
Μ	<i>ptlomy(ʒ)s</i> ---	Ptolemaios, Ptolemaiou, Ptolemaiōi (*Ptolemaios) only 1 st form applicable; the other forms not from names
Ν	<i>ʒrsynʒ</i> <i>brnygʒ</i> <i>pyluns</i> <i>tyʒgns</i> <i>hrʒnʒ</i> ---	Arsinoēs (*Arsinoē) Berenikēs (*Berenikē) Philinou (*Philinos) Diogenous (*Diogenēs) Eirēnēs (*Heirēnē) Åkerblad's 1 st form not applicable; 2 nd form partially applicable, 3 rd and 4 th form correct
	group <i>ʒ+n</i> <i>ʒlgsʒntrs</i>	Alexandrou, Alexandreian (*Aleksandros)
Ξ / ΚΣ	---	both combinations of <i>k</i> + <i>s</i> correct; see attestations for Κ and Σ
Ο	---	not applicable

continued on next page

Åkerblad's decipherment of greek names from the demotic version of the rosetta stone (1802)		
Π	<i>ptlomy(3)s</i> <i>pr3</i> <i>pylyns</i> ---	Ptolemaios, Ptolemaiou, Ptolemaiōi (*Ptolemaios) Pyrrhas (*Pyrrha) Philinou (*Philinios) Åkerblad's 3 rd form ("fin") not applicable
P	<i>3rsyn3</i> <i>brnyg3</i> <i>pr3</i> <i>3ry3</i> <i>hr3n3</i> <i>3lgs3ntrs</i> ---	Arsinoēs (*Arsinoē) Berenikēs (*Berenikē) Pyrrhas (*Pyrrha) Areias (*Areia) Eirēnēs (*Heirēnē) Alexandrou, Alexandreian (*Aleksandros) Åkerblad's 1 st , 2 nd and 5 th form correct (in group <i>t/d + r + s</i> form imprecise); 3 rd and 4 th form not applicable
C	<i>ptlomy(3)s</i> <i>3rsyn3</i> <i>3y3tos</i> <i>pylyns</i> <i>ty3kns</i> <i>3lgs3ntrs</i> ---	Ptolemaios, Ptolemaiou, Ptolemaiōi (*Ptolemaios) ⁸⁵ Arsinoēs (*Arsinoē) Aetou (*Aetos) ⁸⁶ Philinou (*Philinios) Diogenous (*Diogenēs) Alexandrou, Alexandreian (*Aleksandros) Åkerblad's 2 nd and 3 rd form correct; 1 st , 4 th and 5 th incorrectly isolated; for <i>s</i> in group <i>g/k + s</i> and <i>t/d + r + s</i> , see ϣ 1 st form
T	---	sign of 1 st form also under Δ ; for attestations see Δ/T above; 3 rd and possibly 2 nd form incorrect
Υ	---	non-initial <i>3</i> : Åkerblad could not assign a specific phonetic value
	<i>ptlomy(3)s</i> <i>3rsyn3</i> <i>brnyg3</i> <i>3y3tos</i> <i>pr3</i> <i>3ry3</i> <i>ty3gns</i> <i>hr3n3</i>	Ptolemaios, Ptolemaiou, Ptolemaiōi (*Ptolemaios) ⁸⁷ Arsinoēs (*Arsinoē) ⁸⁸ Berenikēs (*Berenikē, *Berenike) Aetou (*Aetos, *Ae?tos, correctly *Ajetos) Pyrrhas (*Pyrrha) Areias (*Areia) Diogenous (*Diogenēs) Eirēnēs (*Heirēnē)
Φ	---	not applicable (not in names)
Χ	---	not applicable (not in (personal) names)
Ψ	---	not applicable (not in names)
Ω	---	Åkerblad: ou
	<i>ptlomy(3)s</i> <i>3y3tos</i> ---	Ptolemaios, Ptolemaiou, Ptolemaiōi (*Ptolomaios) Aetou (*Aetos) 1 st form not applicable (not in names)
ϣ	---	all forms not applicable (not in names)
Ϙ	---	2 nd form correct; 1 st form not applicable (not in names)
ϙ	---	not applicable (not in names)
Ϛ	---	unattested
ϛ	---	not applicable (not in names)
Ϝ	---	not applicable (not in names)
ϝ	---	not applicable (not in names)
Ϟ	---	not applicable (not in names)

* This article is based on a lecture presented in Berlin on January 11, 2011 within a series commemorating Richard Lepsius's 200th birthday (December 23, 2010). A German version of this contribution is found in: Verena M. Lepper / Ingelore Hafemann (eds.), *Karl Richard Lepsius. Der Begründer der deutschen Ägyptologie* (Berlin 2012).

¹ "Am 27. September 1822 wurde der Pariser Akademie mitgeteilt, daß die Hieroglyphen entziffert waren".

² Adolf Erman, *Die Hieroglyphen* (Berlin / Leipzig, 1912) 11.

³ "Letter [rather: Open letter] to Monsieur Dacier, permanent secretary at the Royal Academy of Inscriptions and Belles-Lettres, concerning the alphabet of the phonetic hieroglyphs used by the Egyptians to inscribe their monuments with the titles, names and epithets of the Greek and Roman rulers".

⁴ Champollion le Jeune, *Lettre à M. Dacier ...* (Paris, 1822).

⁵ "Letter [rather: Open letter] to Professor H. [Hippolyte, *Ippolito*] Rosellini, member of the Istituto di corrispondenza archeologica in Rome etc. etc. concerning the hieroglyphic alphabet". For comments on the form of the name of the institute (later to become the German Archaeological Institute) as "istituto" not "istituto", see Hartmut Mehltz, *Richard Lepsius, Ägypten und die Ordnung der Wissenschaft* (Berlin, 2011) 24, note 34. Note that Mehltz uses "archaeologica" in the name, whereas I can only find the form "archeologico", see the title of Volume 9 of the *Annali dell' Instituto di Corrispondenza*, quoted in the next note.

⁶ Richard Lepsius, *Lettre à M. ... Rosellini ...* (Rome, 1837). It was published in the *Annali dell' Instituto di corrispondenza archeologica / Annales de l' Institut de correspondance archéologique* vol. 9 (1837) and separately outside the series.

⁷ Adolf Erman, "Die Entzifferung der Hieroglyphen" in: *Sitzungsberichte der Preussischen Akademie der Wissenschaften, phil.-hist. Kl.* (Berlin, 1922) XXVII–XLIV (quoted from Erman, *Akademieschriften (1880-1928)* [Leipzig, 1986] 301–17, esp. 317: "daß diese Arbeit auf die Zeitgenossen befreiend wirkte ... [und man aus ihr] fühlte ..., daß die junge Wissenschaft der Ägyptologie jetzt auf festem Boden stand; die Entzifferung einen Abschluß erreicht hatte".

⁸ Max Uhlemann, *Handbuch der gesammten ägyptischen Alterthumskunde*, 4 vols (Leipzig, 1857–1858).

⁹ Uhlemann, *Handbuch* I, 68.

¹⁰ English translation by Charles H. Cottrell: Christian Carl Josias von Bunsen, *Egypt's Place in Universal History: An Historical Investigation in Five Books* (London, 1848) I, 267; Christian Carl Josias von Bunsen, *Aegyptens Stelle in der Weltgeschichte. Geschichtliche Untersuchung in fünf Bänden* (Hamburg / Gotha, 1844–57) I, 320: "... wir sagen mit ... Bestimmtheit, daß kein Mensch lebt, welcher [nach Champollion's System] im Stande wäre, irgend einen Abschnitt des Todtenbuches ganz zu lesen und zu erklären, noch viel weniger eine der geschichtlichen Papyrusrollen."

¹¹ Emmanuel de Rougé, "Mémoire sur l'inscription égyptienne du tombeau d'Ahmès chef des nautoniers", in: *Mémoires présentés par divers savants à l'Académie des*

- Inscriptions et Belles-Lettres de l'Institut de France*, series 1, vol. 3 (1853) 1–196; reprinted in Emmanuel de Rougé, *Œuvres diverses*, vol. 2 (Paris, 1908) 1–202; quote from reprint p. 201. The presentation at the academy itself took place in May 1849, and it was also published separately in 1851. Another, earlier attempt: E. de Rougé, "Essai sur une stèle funéraire de la collection Passalacqua (Nr. 1393), appartenant au Musée Royal de Berlin: dédié à M. Alexandre de Humboldt", Berlin 1849 (reprint in: Emmanuel de Rougé, *Œuvres diverses* 1 (Paris, 1907) 331–34).
- ¹² "La traduction de ces lignes eût été impossible dans l'état où Champollion a laissé la science égyptienne".
- ¹³ Richard Lepsius, "Über eine Hieroglyphische Inschrift am Tempel von Edfu (Appollinopolis Magna), in welcher der Besitz dieses Tempels an Ländereien unter der Regierung Ptolemaeus XI Alexander I verzeichnet ist", in: *Aus den Abhandlungen der Königl. Akad. der Wissenschaften zu Berlin 1855* [pp 69–114] (Berlin, 1856) 71: "Ja es giebt nicht wenige Inschriften, von denen wir nach unserer bisherigen Kenntniß noch gar nichts verstehen, und welche kaum ihren oberflächlichen Inhalt errathen lassen".
- ¹⁴ Uhlemann, *Handbuch*, I, 226.
- ¹⁵ Lepsius, *Über eine hieroglyphische Inschrift*, 70: "... nicht einmal die Inschrift von Rosette ist bis jetzt einer philologischen Erläuterung unterzogen worden. Man hat immer nur die nackte Übersetzung nach Anleitung des griechischen Textes gegeben"; Thomas Young had produced such a "translation", if need be, on the basis of the Demotic (!) text: anonymous, in: *Archaeologia* 18 (1815) [not seen] (reprint in: John Leitch (ed.), *Miscellaneous Works of the Late Thomas Young ...*, vol. 3: *Hieroglyphical Essays and Correspondance, &c* (London, 1855) 1–15 (containing in parallel a "Conjectural Translation of the Egyptian Inscription" and a "Translation of the Greek Inscription").
- ¹⁶ According to the wording in the last section of the three versions; on the texts in general, see for example Stephen Quirke / Carol Andrews, *Rosetta Stone, facsimile drawing with an Introduction and Translation* (London, 1988).
- ¹⁷ Used to supplement the text of the Rosetta Stone in Kurt Sethe, *Hieroglyphische Urkunden der griechisch-römischen Zeit* (Leipzig, 1904) 166–98.
- ¹⁸ Heinz-Joseph Thissen, in: Wolfgang Helck and Wolfhart Westendorf (eds.), *Lexikon der Ägyptologie* V (Wiesbaden, 1984) col. 314f.
- ¹⁹ Antoine Isaac Silvestre de Sacy, *Lettre au Citoyen Chaptal, Ministre de l'Intérieur, Membre de l'Institut national des sciences et arts, &c., au sujet de l'inscription égyptienne du monument trouvé à Rosette* (Paris, 1802).
- ²⁰ In an appendix to the work by Johan David Åkerblad, discussed in the following.
- ²¹ Johan David Åkerblad, *Lettre sur l'inscription égyptienne de Rosette, Adressée au C.^{en} Silvestre de Sacy, Professeur de langue Arabe à l'école spéciale des langues Orientales vivantes, &c.* (Paris, an X = 1802 v. st.).
- ²² Heinrich Brugsch, *Die Aegyptologie. Abriss der Entzifferungen und Forschungen auf dem Gebiete der aegyptischen Schrift, Sprache und Alterthumskunde* (Leipzig, 1891) 9: "Ich stehe ... nicht an, Akerblad als denjenigen Gelehrten zu bezeichnen, welchem unzweifelhaft die Ehre gebührt, das erste Licht in das demotische Schriftsystem gebracht und die Methode zur Entzifferung des hieroglyphischen

inauguriert zu haben."

- ²³ In parallel: Thomas Young, *Hieroglyphs, Collected by the Egyptian Society* (London, 1823) 16–30; identifications in: *Encyclopaedia Britannica*, Supplement IV/1 (1819) 53–71 and pls. 74–78 (Section VI: Analysis of the triple inscription of Rosetta).
- ²⁴ Åkerblad, *Lettre*, 54f.
- ²⁵ See, for example, Erman, *Die Entzifferung der Hieroglyphen*, 6; Henri Sottas, in: *Champollion, Lettre à M. Dacier, Édition du centenaire précédée d'une étude sur le déchiffrement par Henri Sottas* (Paris, 1922) 11 note 1.
- ²⁶ After Richard Lepsius, *Auswahl der wichtigsten Urkunden des ägyptischen Alterthums* (Leipzig, 1842) pl. XVII (right: the obelisk; lower left: the base; the fragments on the upper left belong to another, second obelisk).
- ²⁷ On the details of this object and its story: Erik Iversen, *Obelisks in Exile 2* (Copenhagen, 1972) 62–85; Patricia Usick, *Adventures in Egypt and Nubia. The Travels of William John Bankes (1786–1855)* (London 2002).
- ²⁸ Of the three Greek inscriptions which each contain the three names, only the longest was available at the time of the decipherment efforts; on these texts see also Henri Gauthier, *Le livre des rois d'Égypte IV* (Cairo, 1916) 323f. (Greek texts only in extracts).
- ²⁹ *Description de l'Égypte, ou Recueil des observations et des recherches qui ont été faites en Égypte pendant l'Expédition de l'armée française, publié par les ordres de sa Majesté l'Empereur Napoléon le Grand, Antiquités*, vol. III (Paris, 1812) pl. 38.
- ³⁰ "alphabet des hiéroglyphes phonétiques employés par les Égyptiens pour inscrire sur leurs monuments les titres, les noms et les surnoms des souverains grecs et romains".
- ³¹ Champollion, *Lettre à M. Dacier*, 40–42.
- ³² "alphabet des hiéroglyphes phonétiques".
- ³³ Christine Beinlich-Seeber, *Bibliographie Altägypten, 1822-1946, Ägyptologische Abhandlungen* 61 (Wiesbaden, 1998).
- ³⁴ Adrian von Buttlar, *Neues Museum Berlin, Architekturführer* (3rd rev. ed.: Berlin / Munich, 2010) 48: "nach dem Jean-François Champollion 1822 die Entzifferung der Hieroglyphen gelang".
- ³⁵ Here we only refer to the illustrations of this obelisk in publications of the British Museum, which, of course, focus on the Rosetta Stone: Richard Parkinson, *The Rosetta Stone* (London, 2005) fig. 16; Richard Parkinson, *Cracking Codes. The Rosetta Stone and Decipherment* (Berkeley / Los Angeles, 1999) fig. 13.
- ³⁶ *Description de l'Égypte III*, pl. 38, Nr. 8.
- ³⁷ Wolfgang Schenkel, "Ramses. Die Erfindung einer Graphie in der Nacherzählung der Entzifferungsgeschichte der Hieroglyphen", in: *Göttinger Miszellen* 191 (2002) 85–88, esp. 87 (with reference to Champollion's "Précis du système hiéroglyphique", to be discussed in more detail below); on the rapid development in decipherment when the cartouches with additional attributes were included in the study: W. Schenkel, "Ramses, Ptolemaios und die Sprache der Hieroglyphen: Noch einmal zur Nacherzählung der Entzifferungsgeschichte der Hieroglyphen" in: *Göttinger Miszellen* 198 (2004) 105–12.

- ³⁸ *Description de l'Égypte* III, pl. 38: nos. 1, 2, 4, 7, 11, 12 (Champollion includes this writing with *bis*-numbering into his "Précis du système hiéroglyphique", which is discussed in more detail below; 1st ed. 1824, pl. XIII opposite p. 240; 2nd ed. 1828, pl. XVII opposite p. 290).
- ³⁹ See Champollion's letter to Young on 23 Nov. 1822: John Leitch (ed.), *Miscellaneous Works* 3, 243–47 (extract of pages 244–46 in: Schenkel, in: *GM* 198 (2004) 110f).
- ⁴⁰ Jean François Champollion (M. Champollion le Jeune), *Précis du système hiéroglyphique des anciens égyptiens, ou recherches sur les élémens premiers de cette écriture sacrée, sur leurs diverses combinaisons, et sur les rapports de ce système avec les autres méthodes graphiques égyptiennes* (Paris, 1824); 2nd ed., Revue par l'auteur, et augmentée de la Lettre à M. Dacier, relative à l'Alphabet des hiéroglyphes phonétiques employés par les Égyptiens sur leurs monumens de l'époque grecque et de l'époque romaine ([Paris], 1828) (note: this *Lettre à M. Dacier* is also a "revue"; therefore, in historiographic discussions it can not be quoted as the original!).
- ⁴¹ Richard Lepsius, "Ueber die Umschrift der Hieroglyphen" in: *Zeitschrift für ägyptische Sprache und Alterthumskunde* 4 (1866) 75 (*contra* Chabas who insists on Champollion's Coptic transcription).
- ⁴² Lepsius, *Lettre à M. ... Rosellini*, 73.
- ⁴³ See Wolfgang Schenkel, *Einführung in die altägyptische Sprachwissenschaft* (Darmstadt, 1990) 30–33; W. Schenkel, "Review of Kevin J. Cathcart, *The Correspondence of Edward Hincks, Dublin 2007*", in: *Orientalia* 77 (2008) 408–11, esp. 411 (Both Hincks's rejection of Lepsius's explanation for the multi-consonantal signs, which in the review is still erroneously thought to be the discovery of what we call "complements" today, and Hincks's alternative explanation for the "complements" as "expletive characters" based on the "syllabic" writings of foreign words ought to be revisited in the light of the revised history of decipherment presented here).
- ⁴⁴ Jean François Champollion (Champollion le Jeune), *Grammaire égyptienne, ou principes généraux de l'écriture sacrée égyptienne appliquée à [capitalised in the original] la représentation de la langue parlée* (Paris, 1836[-1841]); reprinted under the sub-title: Paris, 1984.
- ⁴⁵ Jean François Champollion (J. F. Champollion le Jeune), *Dictionnaire égyptien en écriture hiéroglyphique* (Paris, 1841[-1843]).
- ⁴⁶ "... ein Gelehrtenhum ... das durch die fruchtbaren Entdeckungen eines jüngeren Genossen [i.e. Champollion's] sich beeinträchtigt glaubte und in heimlichen und offenen Angriffen die Ergebnisse der Champollionischen Arbeiten zu bezweifeln oder herabzusetzen nicht müde ward".
- ⁴⁷ Brugsch, *Die Aegyptologie*, 13–14: "Es regnete von Angriffen auf die Leistungen Champollions, und Frankreich selber, welches den Geisteshelden nach seinem Hinscheiden zu verherrlichen nicht müde ward, lieferte die traurigsten Beweise für die mangelnde Theilnahme an den erfolgreichen Arbeiten der künftigen Zierde seiner Nation. In England war es der Name des Dr. Young, um welchen sich die Gegner des jungen französischen Gelehrten wie um eine Fahne geschaart hatten, in

- Deutschland bekämpften die Leipziger Professoren Spohn und Seyffarth die Ergebnisse der Champollionischen Entzifferungen, in Russland Klaproth, welcher die Methode des glücklichen Entdeckers der phonetischen Hieroglyphen angriff um von andern weniger bekannten Namen zu schweigen, die heisses Oel in die Flammen des eifersüchtigen Neides gossen. Selbst Männer wie unser grosse [sic] Alexander von Humboldt ... verhielten sich ablehnend gegen die Leistungen des jungen französischen Gelehrten und konnten ihr Misstrauen dagegen nicht unterdrücken".
- 48 "... daß diese kleine Arbeit [the Open Letter to Rosellini] auf die Zeitgenossen befreiend wirkte" and "man ... fühlte ..., daß die junge Wissenschaft der Aegyptologie auf festem Boden stand".
- 49 Erman, *Die Entzifferung der Hieroglyphen*, 17: "Er beseitigte das ungeheuerliche Alphabet von 132 Buchstaben [on the actual number see below], und neben einer beschränkten Zahl von wirklichen alphabetischen Zeichen blieben fortan nur Wortzeichen [logograms or ideograms, see below] übrig, die einen festen lautlichen Wert hatten. [Now, the crucial statement:] Noch verwirrte er sich diese neue Erkenntnis durch unnütze Künstelei, aber das ist eine Nebensache, und wer über sie hinwegsieht, der begreift es, daß diese kleine Arbeit auf die Zeitgenossen befreiend wirkte."
- 50 Champollion, *Précis du système hiéroglyphique*, 2nd ed., 182: "caractères idéographiques, c'est-à-dire, de simples signes d'idées" (differently: 1st ed., 130: not "signs of/for ideas" ("signes d'idées") but "idea-signs" ("signes d'idée") and accordingly before p. 131, "sound-signs" ("signes de son") where the 2nd ed. p. 182 has "signs of/for sounds" ("signes de sons").
- 51 Lepsius, *Lettre à M. ... Rosellini*, 23: "... comme chaque langue est composée, d'après sa nature, de mots exprimant des objets physiques et de mots exprimant des idées abstraites, et que les signes tropiques sont, pour les idées abstraites, absolument ce que les signes figuratifs sont pour les objets physiques, il ne peut pas y avoir d'écriture qui ne renferme, dès son origine, ces deux espèces de signes. Le point essentiel et historique est que toutes les deux espèces correspondent à des *mots entiers* dans la langue parlée et non à des syllabes, ou lettres séparées. J'appellerai, pour éviter tout malentendu, cette classe *idéographique*, en laissant subsister les subdivisions utiles des caractères *figuratifs* et *tropiques*."
- 52 Adolf Erman, *Ägyptische Grammatik* (1st ed.: Berlin, 1894) 13.
- 53 Adolf Erman, *Egyptian Grammar*, Translated by James Henry Breasted (London / Edinburgh, 1894) 12.
- 54 Alan H. Gardiner, *Egyptian Grammar* (1st ed.: Oxford, 1927) § 22.
- 55 Gardiner, *Egyptian Grammar*, § 23.
- 56 Jean Leclant, "Champollion, Bunsen, Lepsius" in: Elke Freier / Walter Friedrich Reineke (eds.), *Karl Richard Lepsius (1810–1884). Akten der Tagung anlässlich seines 100. Todestages, 1.-12.7.1984 in Halle*, Schriften zur Geschichte und Kultur des Alten Orients 20 (Berlin, 1988) 53–59, esp. 58: "Il [i.e. Lepsius] y met en évidence en particulier le pluriconsonantisme de la plupart des signes hiéroglyphiques [i.e. the phonograms] et reconnaît le rôle de ce que nous appelons les 'compléments phonétiques'".

- 57 "die Lettre à Mr. Rosellini, in der er [i.e. Lepsius] Champollions Schriftsystem einer Prüfung unterzog".
- 58 Erman, *Die Entzifferung der Hieroglyphen*, 17: "bei dieser Prüfung verschwand ... das, was bis dahin den Anstoß für die Außenstehenden gebildet hatte. Er beseitigte das ungeheuerliche Alphabet von 132 Buchstaben [i.e. the huge number of 132 uni-consonantal signs], und neben einer beschränkten Zahl von wirklichen alphabetischen Zeichen [i.e. uni-consonantal signs] blieben fortan nur Wortzeichen [i.e. logograms] übrig, die einen festen lautlichen Wert hatten."
- 59 Champollion, *Précis du système hiéroglyphique*, 1st and 2nd ed., pls. A-K; note that the 2nd edition is revised in some detail but the number of signs remains unchanged.
- 60 Champollion, *Grammaire*, 35–45; when deducting from the total number of signs – as Lepsius did later (for which see below) – those that Champollion only found attested under the last Lagids/Ptolemies and the Roman emperors, only 290 general signs remain.
- 61 Lepsius, *Zwei sprachvergleichende Abhandlungen*, 73: by including Champollion's exceptions of p. 46 here, Lepsius speaks of 260 "phonetic hieroglyphs / phonetische Hieroglyphen".
- 62 Adriaan de Buck, *The Egyptian Coffin Texts*, vols. I–VII (Chicago, 1935–1961).
- 63 Lepsius, *Lettre à M. ... Rosellini*, 43–51.
- 64 Josette Rey-Debove / Alain Rey (eds.), *Le nouveau Petit Robert, Dictionnaire alphabétique et analogique de la langue française*, Nouvelle édition du Petit Robert de Paul Robert (Paris, 1993) 473: "ce qui s'ajoute ou doit s'ajouter à une chose pour qu'elle soit complète".
- 65 *Le nouveau Petit Robert*, 473: "mot ou proposition rattaché(e) à un autre mot ou à une autre proposition, pour en compléter ou en préciser le sens".
- 66 List of abbreviations in Champollion, *Grammaire*, 64–66 (§ 82).
- 67 Emmanuel de Rougé, *Essai sur une stèle funéraire*; de Rougé, *Mémoire sur l'inscription égyptienne du tombeau d'Ahmès*.
- 68 Emmanuel de Rougé, *Chrestomathie égyptienne ou Choix de textes égyptiens ... précédés d'un abrégé grammatical*, Première partie: Introduction à l'étude des écritures et de la langue égyptiennes (Paris, 1867) 51f.
- 69 "Le même signe ꞥ peut être accompagné de tout ou de partie des lettres [i.e. uni-consonantals] avec lesquelles s'écrivait [as in the 2nd case above] le mot *ānχ* [i.e. *ḥnḫ*]; c'est ce qu'on a nommé les compléments phonétiques: ... Ainsi on trouve ordinairement ꞥꞥ, avec le 2e et le 3e complément [i.e. with a complementation of the 2nd and 3rd consonant]; mais ꞥꞥ ou ꞥꞥ serait également conforme aux règles."
- 70 Lepsius, *Lettre à M. ... Rosellini*, 52: "Il faut même remarquer que ce groupe [to be corrected: ce caractère, i.e. ꞥ] est exclusivement destiné à la combinaison des deux lettres **h** et **n** dans toute la langue [i.e. in all the linguistic evidence], de manière qu'avant **n** on ne trouve jamais une autre forme de l'**h** [i.e. another phonogram with the phonetic value **h**], et si on rencontre quelques fois une autre lettre que **n** après le parallélogramme crénelé il faut le restituer dans la prononciation".

- ⁷¹ Now in great detail: Hartmut Mehlitz, *Richard Lepsius, Ägypten und die Ordnung der Wissenschaft* (Berlin, 2011) 22–57.
- ⁷² Richard Lepsius, *Zwei sprachvergleichende Abhandlungen*. 1. Über die Anordnung und Verwandtschaft des Semitischen, Indischen, Äthiopischen, Alt-Persischen und Alt-Ägyptischen Alphabets. 2. Über den Ursprung und die Verwandtschaft der Zahlwörter in der Indogermanischen, Semitischen und der Koptischen Sprache (Berlin, 1836); the first of these works also in: *Abhandlungen der Königlich Preußischen Akademie der Wissenschaften*, 1835 (1837) 177–225.
- ⁷³ Richard Lepsius, *Paläographie als Mittel zur Sprachforschung. Zunächst am Sanskrit nachgewiesen* (Berlin, 1834).
- ⁷⁴ Mehlitz, *Richard Lepsius*, 32–33.
- ⁷⁵ Bernhard Lepsius, *Das Haus Lepsius. Vom geistigen Aufstieg Berlins zur Reichshauptstadt* [!] (Berlin, 1933 [!]) 18–20: "Die erste Anregung, sich mit den Hieroglyphen zu beschäftigen und die Versuche Champollions mit dem ihm zu Gebote stehenden wissenschaftlichen Rüstzeug fortzusetzen, empfing Lepsius von Gerhard. ... Gerhard lud Lepsius ein nach Rom zu kommen, um dort erstens eine Sammlung aller altitalischen Inschriften zu veranstalten und zweitens sich dem Studium der Sprache der alten Ägypter zu widmen. Gerhard hatte ihn auch an B u n s e n empfohlen, ... Dieser unterstützte die Einladung auf das Lebhafteste, da ihm ein so tüchtiger Mitarbeiter nur erwünscht sein konnte. [paragraph] Lepsius war mit dem ersten Vorschlag Gerhards [old Italic inscriptions] einverstanden [as it was in line with his specific philological interest], stand jedoch dem zweiten, trotz einer ehrenvollen direkten Einladung Bunsens äußerst skeptisch gegenüber. ... Lepsius konnte sich {somit} <nämlich> kein ausreichendes Bild über den Stand der Hieroglyphenfrage machen und war daher, ohne einer gesicherten Zukunft entgegenzusehen, nicht geneigt, seine Kräfte der Erforschung eines so großen und schwierigen Gebietes zu widmen. [paragraph] Aber Bunsen wußte diese Bedenken, über die Lepsius auch seinem Vater eingehend berichtet hatte, beiden gegenüber zu zerstreuen und sorgte überdies für das materielle Wohlergehen seines Schützlings, indem es seinem und Gerhards Einfluß gelang, ihm ein Stipendium der Berliner Akademie [and Böckh had a role to play in this] ... zu erwirken. [paragraph] Hierbei hatte sich Bunsen auch noch der Unterstützung eines Mannes versichert, der wie kein Anderer überall zu helfen bereit war, wo es galt ernste wissenschaftliche Bestrebungen und tüchtige viel versprechende junge Gelehrte zu fördern: A l e x a n d e r v o n H u m b o l d t".
- ⁷⁶ Bernhard Lepsius, *Das Haus Lepsius*, 21–22.
- ⁷⁷ Mehlitz, *Richard Lepsius*, 39 with note 54.
- ⁷⁸ *Handbuch der gesammten ägyptischen Alterthumskunde*.
- ⁷⁹ Lepsius, *Zwei sprachvergleichende Abhandlungen*, 58 note 1: "Wer noch immer an den Hauptentdeckungen C h a m p o l l i o n ' s , namentlich an seinem Hieroglyphenalphabet zweifelt, hat es sich selbst zuzuschreiben, daß er noch unwissend über eine der wichtigsten Entdeckungen der neuern Wissenschaft geliebt ist; die Sache selbst liegt schon längst klar vor."
- ⁸⁰ In the royal name "Ptolemaios", Åkerblad explains the beginning of the cartouche as a Coptic *m*: "un préfixe qu'on place devant presque tous les cas, tant au singulier

- qu'au pluriel / a prefix that one places in initial position in almost every (grammatical) case, both in singular and in plural" (p. 7). Obviously, he is thinking of the genitive particle and the plural article. On pp. 20–21, he reads the end of the cartouche as the consonant *s*.
- 81 An advanced, but still comparable, Demotic "alphabet" occurs in Champollion, *Lettre à M. Dacier*, pl. IV (see our Figure 6).
- 82 Åkerblad (p. 19) considers that *b* could be a variant of *p*.
- 83 Åkerblad (p. 21) gets entangled in a contradiction (see below at γ).
- 84 As in "Ptolemaios", Åkerblad reckons that the Greek diphthong, here *ei*, could already be pronounced *e* as in modern Greek and therefore Demotic *y* may also correspond to *e* (pp. 25–26).
- 85 When *ʒ* does not precede, in order to make up for it, Åkerblad wrongly shortens *s* by the left stroke.
- 86 "La dernière lettre S est précédée par deux petits traits comme dans Arsinoë / The last letter S is preceded by two small strokes as in Arsinoë" Åkerblad (p. 21); see also the tentative reading of Berenikē as Berenikos (p. 19). Note: the two strokes are part of the S.
- 87 If the name is written without *ʒ*, in the group of signs ("ramas de petites lignes tantôt courbées tantôt droites / group of short lines, some curved, some straight" p. 8) that begin with *y* and end with *s*, Åkerblad takes the first stroke of the *s* as *ʒ*; the thereby shortened *s* is understood as a variant of *s*.
- 88 *o* as in "Ptolemaios" (Åkerblad, p. 13); but then *ē* is missing, which Åkerblad reads as the end of the cartouche.

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