

The Rosetta Stone Squandered: Decipherment's Twelve-Year Gap and the Fate of J.D. Åkerblad

Daniel Harbour

Abstract. Just three years after its much feted discovery, the Rosetta Stone fell into a period of sustained neglect. Two partial decipherments had been made of its demotic text but its hieroglyphic inscription had barely been investigated. I examine the reasons behind this fall from grace and argue that J.D. Åkerblad, the author of the more penetrating demotic study, could have made significant inroads into the decipherment of Egyptian hieroglyphs. His results would have presaged by twenty years results of the eventual decipherer of the script, Jean-François Champollion. This would have changed, with untellable consequences, the intellectual space in which Champollion and his main rival, Thomas Young, worked. The study's conclusions highlight the centrality of decipherment to philography/grapholinguistics and the importance, both to research and to researchers, of properly functioning academic institutions.

1. Introduction

The Rosetta Stone, 'that long-desired monument ... which will probably lead us one day to a knowledge of ancient Egyptian writing', fell into a period of scholarly neglect a mere three years after its discovery. Given the fanfare, and warfare, that surrounded the find—Napoleon's prize, then King George's—this sudden desuetude is astonishing. It was, furthermore, unwarranted. Johan David Åkerblad, quoted above (Åkerblad 1802b, p. 494), had made significant inroads into the Stone's demotic after just two months' study and was beginning to cast his eye on its hieroglyphs. Then adverse professional, political, and personal circumstances began to overtake him. This article revisits research on the Stone as it stood at the end of 1802 and demonstrates that the methods

I am grateful to Robert Crellin and Amalia Gnanadesikan for help and feedback, and to the organisers of /gʁafematik/ 2022 for the opportunity to present this work.

Daniel Harbour  0000-0002-6335-0097

Department of Linguistics (SLLF), Queen Mary University of London, Mile End Road, London E1 4NS, United Kingdom.

E-mail: d.harbour@qmul.ac.uk

Y. Haralambous (Ed.), *Grapholinguistics in the 21st Century 2022. Proceedings*
Grapholinguistics and Its Applications (ISSN: 2681-8566, e-ISSN: 2534-5192), Vol. 9.
Fluxus Editions, Brest, 2024, pp. 193–217. <https://doi.org/10.36824/2022-graf-harb>
ISBN: 978-2-487055-04-9, e-ISBN: 978-2-487055-05-6

Åkerblad deployed on its demotic were apt to yield further significant insights into its hieroglyphs. These could have brought key elements of their decipherment forward by as much as twenty years.

Decipherment is not a done-and-dusted discipline. Work on oracle bone Chinese, Aztec, and Linear Elamite has made major progress just in the past few years (Jiǎng 2018, Whittaker 2021, Desset et al. 2022). At the same time, pseudodecipherments continue to be proposed, including for the Rosetta Stone.¹ In this context, progress in decipherment consists not only in unlocking still mysterious scripts and signs but in revisiting past work. Just as mathematicians seek alternative proofs of established results, so can decipherers demonstrate the soundness of their tools by showing that paths not taken converge on the same end. That the same simple methods yield success in decipherment after decipherment points to an underlying unity in the nature of writing systems. This finding itself deserves a significant place in the emerging field of philography, which studies linguistic cognition as it is embodied in writing systems.

Åkerblad's fate and the twelve-year gap in Rosetta Stone research are two sides of the same case study in the importance of properly appreciating the power of the decipherer's tools. In 1799, the Rosetta Stone became the first ever monument to offer scholars a roughly parallel text in a known language, Greek, and an Ancient Egyptian script—two, in fact.² It consisted of fourteen lines of hieroglyphs, mostly incomplete, along with thirty-two lines of demotic and fifty-four of Greek, mostly complete. This immediately raised hopes of traction on decipherment. In 1802, and despite France's loss of the Stone to Britain, two scholars based in Paris, the French orientalist Silvestre de Sacy and Åkerblad, his Swedish diplomat student, published studies of the demotic inscription. Åkerblad's was clearly the better, correcting several errors in Silvestre de Sacy's and pushing substantially further into the script. Yet the field then stalled, not regaining momentum until the mid 1810s when Thomas Young and Jean-François Champollion, armed with a substantially larger supply of materials—in particular, the *Description de l'Égypte* and later the Philae obelisk (Commission des sciences et arts d'Égypte

1. In 2010, the Macedonian Academy of Sciences and Arts published a purported proof that the Rosetta Stone demotic records a Slavic language, closely affiliated, needless to say, to Macedonian itself. The work made no effort to engage with two centuries' worth of discoveries about demotic and its relationship to hieroglyphs and hieratic, for which reason I decline to cite it directly. It can be found at <http://manu.edu.mk/contributions/NMBSci/vol31p1.html>.

2. For studies of the Stone, its history, and its role in decipherment, see Parkinson 1999, Solé and Valbelle 1999, Adkins and Adkins 2000, Ray 2007, and Robinson 2012, amongst others.

1809–1822, Bankes 1821)—made the crucial breakthroughs on which the full decipherments of demotic and hieroglyphs ultimately rest.

Dominant narratives of the decipherment of Egyptian writing are often hostage to the charisma of clear, iconic hieroglyphs over squiggly, indistinct demotic and to the Romantic ideal of the lone genius over a field of complex, collaborative rivalry. Both factors lead to a focus on Champollion (who, in all fairness, does deserve substantial attention, just not the monopoly that some accounts afford him). Corrections to this partial view of history are usually framed in terms of an exaggerated Anglo-French rivalry between Young and Champollion, which was carried on by their fellow countrymen, and others, long after the two decipherers had largely healed their rift and, indeed, died.

The loser in all of this is Åkerblad. Though he received many accolades following his 1802c publication, his neglect also began at that time and was rooted in the gatekeepers of the institutions of orientalism that were then being erected. Yet the methods that he deployed on the demotic of the Rosetta Stone were readily applicable to its hieroglyphs. They could never have led to a full decipherment. However, they could have advanced key findings and reshaped hypotheses that were ambient when Young and Champollion joined the fray. Subsequent history might have been very different.

To make this case, section 2 presents Åkerblad's methods and results, emphasising in particular his willingness to go beyond the demotic text, repairing the Greek and venturing into the hieroglyphs. Section 3 briefly outlines why Åkerblad did not go on to further study of the Stone. Section 4 then examines what he might have discovered, had he had the opportunity to carry his investigation further into the hieroglyphic text. In particular, I argue that he could have partially deciphered the contents of the Stone's two hieroglyphic cartouches, identifying the names and epithets they contain and gaining insight into the extent of phonographic writing for foreign names, Egyptian names, and normal Egyptian words. Finally, section 5 shows that these results would have impacted on the field in at least five ways, confirming hypotheses of previous work and preempting later results of Silvestre de Sacy, Young, and Champollion.

2. Åkerblad: Method and Results

My claims about Åkerblad's potential contributions to the study of hieroglyphs are based on the expertise in Coptic that won him access to the Rosetta Stone lithographs (section 2.1), the methods that he deployed in his study of demotic and the results he drew from them (section 2.2), and his imaginative ability to leverage small finds to push beyond the confines of the demotic text (section 2.3).

2.1. Access

Johan David Åkerblad came to study the Rosetta Stone by a rather circuitous route. An orientalist by inclination and training, his diplomatic posting brought him to a Paris that had shortly before received a treasure trove of Coptic and other manuscripts, Napoleon's Vatican booty. He buried himself in these, producing studies of both Phoenician and Coptic (Åkerblad 1802a,b). The latter was crucial to his gaining access to the tightly guarded Rosetta Stone lithographs.

In his wanderings through the new acquisitions at the *Bibliothèque nationale*, Åkerblad had come across a short passage of an unknown involuted script at the end of a Coptic manuscript. His powerful command of that language enabled him to see that the script was an ornately cursive form of Coptic. He quickly deciphered and translated the passage, writing his findings up as a *lettre* to Silvestre de Sacy. The latter forwarded the work, with his own brief cover letter, full of praise for Åkerblad's Coptic prowess, to the editor of the *Magasin encyclopédique*, where it was duly published. Åkerblad's letter finished with a plea to his teacher (quoted more briefly at the opening of this article; Åkerblad 1802b, p. 494):

Je desire bien vivement, Monsieur, que l'inscription de Rosette, plus digne d'exercer la sagacité de ceux qui savent le copte, soit bientôt publiée avec vos savantes remarques. ... certes il est temps que l'on fasse connoître aux savans ce monument depuis longtemps désiré, et qui, probablement un jour, nous conduira à la connoissance de l'ancienne écriture égyptienne.

I desire most lively, Sir, that the Rosetta inscription, much more worthy to exercise the wisdom of those who know Coptic, soon be published with your wise remarks. ... surely, it is time that long-desired monument, which will probably lead us one day to a knowledge of ancient Egyptian writing, be made known to scholars.

The study to which Åkerblad alludes had been underway for some two years at the time and the authorities above Silvestre de Sacy had begun to lose patience. The twice victorious decipherer had written his results up (Silvestre de Sacy, 1802a) with evident embarrassment at their shortcomings. Possibly to save face, he suggested that someone with greater knowledge of Coptic might be capable of greater progress. The confluence in print of these three factors—Silvestre de Sacy's lack of Coptic competence, his ample praise of Åkerblad's, and the latter's plea for scholarly access to the Rosetta inscriptions—made Åkerblad's access to the precious lithographs all but inevitable. Silvestre de Sacy could at least be comforted that he was ceding access to his own protégé; but his feelings on this point would soon change.

2.2. Decipherment

Åkerblad's starting point might be termed 'Leibniz's lemma'. With typical acuity, Leibniz had observed, in a letter of published in a multilingual compendium of the Lord's prayer, that proper names in bilingual inscriptions provide an entry point for decipherment (Leibniz, 1715, p. 23):

Extant apud Palmyrenos & alibi in Syriâ, & vicinis locis complures inscriptiones antiquæ duplices, partim linguâ & Characteribus gentis, partim Græcè expressæ, quæ magnô studio ex ipsis saxis describi deberent. Inde enim fortasse constitui Alphabetum posset, & linguæ indoles tandem cognosci, cum Græca versio adsit, & Nomina Propria interveniant quorum eadem ferè in Patrio & Græco sermone pronuntiatio erat.

Among the Palmyrenes and elsewhere in Syria, and in the neighbouring places, there are several ancient double inscriptions, partly expressed in the language and Characters of the people, partly in Greek, which should be described with great study from the rocks themselves. For, when there is a Greek version, and Proper Names appear, the pronunciation of which was nearly the same in the Native and Greek languages, from this perhaps an Alphabet might be established, and the character of the language finally known.

Leibniz was the first to formulate this use of proper names explicitly. Earlier applications of the principle are to be found in Agustín 1587, a limited venture into Iberian, and Halley 1695, an unsuccessful attempt on Palmyrene.

Åkerblad's procedure was, first, to find repeated proper names, using the ratio of Greek versus demotic text lengths as a guide to their position. (For instance, names that appeared in lines 13 and 27 of the 54-line Greek text should be located around lines 8 and 16 of the 32-line demotic, that is, a quarter- and half-way through each.) Names found in this way served as landmarks from which to locate further names, especially nonrepeated ones. When sufficient names had been found, he set about distilling an alphabet, looking for letters shared between names that shared sounds. Finally, pushing beyond proper names, he looked for further legible words in semantically plausible contexts. Examples of his haul of names and other words are given in Fig. 1 and his resulting alphabet, in Fig. 2.³

Åkerblad's contribution was not in the originality of his method. Previous decipherers had leveraged proper names in a similar fashion: Barthélemy for Palmyrene and Phoenician (1759, 1764) and Silvestre de

3. Image files are drawn from public-domain copies available at <https://archive.org>, <https://biodiversitylibrary.org>, and <https://books.google.com>. I have not located copies of the *Institut d'Égypte* lithographs used by Åkerblad. Slightly anachronistically, I have used the 1803 engravings published by Society of Antiquaries (Vertue, Basire, Basire, and Basire, 1815).

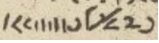
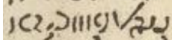

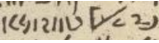
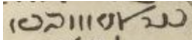
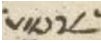
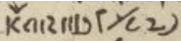

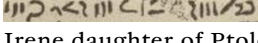
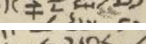
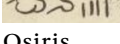
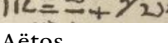
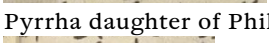

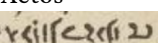
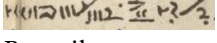
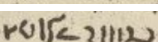
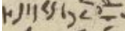

Ptolemy	Arsinoë	Egypt
		
		
	Areia daughter of Diogenes	
Alexander, Alexandria		Greek ('Ionian')
	Irene daughter of Ptolemy	
		Osiris
Aëtos	Pyrrha daughter of Philinos	
		taxes (< <i>syntaxeîs</i>)
	Benerikes	
		


FIGURE 1. Demotic names and words isolated by Åkerblad

α ... 2 ... 2 (α, β, γ)	ε ... 91 ... 91 ... 91 ... 91
β ... 4	τ ... 7 ... 7 ... 7
γ ... 7 (κ)	ι ... 1 ... 1
δ ... 7 (τ)	φ ... 3 ... 3 ... 3 ... 3 med.
ε ... 1 ... 2 ... 2 (α, β, γ)	χ ... 2
ζ ... 7	ψ ... 2 ... 2 (ψ, π)
η ... 11 ... 11 ... 11 (α, β, γ)	ω ... (0, 1) ... 1 ... 1
θ ... 7	υ ... 1 ... 1 ... 1 ... 1
ι ... 5 ... 1 ... 1	φ ... 4 ... 4
κ ... 7 ... 7 ... 7	χ ... 2 ... 2 ... 2
λ ... 7 ... 7	ψ ... 2 ... 2 ... 2
μ ... 7 ... 7 ... 7	ω ... 7 ... 7 ... 7
ν ... 7 ... 7 ... 7 med.	φ ... 7 ... 7 ... 7
ξ ... 7 ... 7 ... 7 (κ, λ)	χ ... 7 ... 7 ... 7
ο ... 7 ... 7 ... 7	ψ ... 7 ... 7 ... 7
π ... 7 ... 7 ... 7	ω ... 7 ... 7 ... 7
ρ ... 7 ... 7 ... 7	φ ... 7 ... 7 ... 7

FIGURE 2. Åkerblad's demotic alphabet



Sacy for Middle Persian and Parthian (1793), studies of which Åkerblad was well aware (Åkerblad 1802c, p. 4). Indeed, Silvestre de Sacy (1802a) had attempted the same strategy during his two-year monopoly. The results were, by his own admission, meagre. Åkerblad's contributions lay in his ability to see this method through in what, it would much later emerge, was not a simple alphabetic script of the kind where Barthélemy and Silvestre de Sacy's had enjoyed success. His results extended well

beyond his alphabet and concerned both the decipherment of demotic and insight into the rest of Stone.

Some of his discoveries corrected Silvestre de Sacy's errors. The latter had arrived at the—frankly, in the context of Near Asiatic scripts, odd—notion that 'Alexander' was spelled with four initial capitals. These are in fact stacked letters, the components of which are clearly discernible, as comparison of Fig. 1 and 2 shows. Åkerblad further identified that  was 'many', not, as Silvestre de Sacy had it, the goddess 'Isis', amongst several similar results.

More impressively, Åkerblad slipped the tether of proper names precisely where it would have hobbled him. Not all proper names are alike in their propensity to match across languages. Ethnonyms in particular are prone to mismatch (as the French, German, Italian, and Polish—*allemand*, *Deutsch*, *tedesco*, *niemiecki*—and indeed English for 'German' illustrate). Åkerblad deciphered that Egyptians called their country (something akin to) *k^bemi*, like the Biblical 'Land of Ham' (𐤇𐤍 *hām*), and regarded Greeks as *wynn* 'Ionians'. Both appellations depart from the Greek.

Åkerblad's discoveries confirmed that Coptic was the linguistic key to Ancient Egyptian. Georg Zoëga (1797, pp. 455, 552–553) had drawn attention to the similarity of Coptic words and the readings that Greek sources had attributed to some hieroglyphs. The sources were thin and the readings, scant, however. They amounted at best to a weak hypothesis about the relationship between Coptic and the language of Egyptian monuments. Åkerblad pinned this down by identifying *ašai* 'many' (in fact, *ʕšʕy*), which corresponds to Coptic ⲁϣⲁⲓ *ašai* 'many', and *nierfēwi* 'temples' (in fact, *irpy*), responding to Coptic ⲉⲣⲫⲉⲓ *erfei* 'temple'. He concluded (Åkerblad, 1802c, p. 40) *que la langue Copte contient les débris de l'ancien égyptien, et qu'elle doit par conséquent servir à interpréter notre inscription* 'that the Coptic language contains the remnants of ancient Egyptian, and that it must, in consequences, aid in interpreting our inscription'—an insight that would become orthodoxy (Bunsen, 1845).

Åkerblad drove the Coptic-Egyptian connection home through discoveries at the level of individual letters and their form. The Coptic alphabet is very obviously adopted from the Greek. However, it contains a handful of characters of non-Greek origin. Åkerblad showed that these stemmed from demotic. For instance, the *ʕ* of Coptic ⲁϣⲁⲓ *ašai* 'many' in the previous paragraph clearly resembles the corresponding symbol in the middle of the demotic word  *ašai* (*ʕšʕy*). Likewise, ⲥ *ē* of ΝΙϢϢΗ *nisočē* 'left' answers to the second last (second from left) symbol of  (Åkerblad, 1802c, 46, pl. 1).⁴ The continuity both of sounds and sym-

4. Curiously, these characters retained their sinistrovers orientation when exported to a dextrovers script.

bols strongly suggests continuity of language too (though the degree of similarity between Coptic and Ancient Egyptian would remain subject to debate for some time; Bunsen 1845, Hincks 1848).


2.3. Beyond Decipherment

Åkerblad's results extended beyond the demotic script and into the Rosetta Stone itself. He realised that the demotic was a translation of the Greek, not the reverse. One illustrative argument concerned the transliteration of Greek names. In the demotic, male names end in *-s*, as per *ptlwmys* 'Ptolemy', *ʔlksʔntʔs* 'Alexander', and *ʔyʔtws* 'Aëtos' (until further notice, I use current readings of the script, rather than Åkerblad's). No female names do (as in *ʔrsynʔ* 'Arsinoë', *ʔryʔ* 'Areia', and *brʔnʔ* 'Irene'), with one exception: *brnykʔs* 'Berenice'. By parity with other female names, it should have been *brnykʔ*. This name occurs as the first in a long string of genitives, for which the Greek feminine singular coincides with masculine nominative *s*. The erroneous *s* is explained, Åkerblad reasoned, if the scribe was translating the text from Greek as he carved. Presented with yet another name ending in *s*, he copied that sound into the demotic. Only afterwards, for the other members of the list, did he realise that the *s* was part of the Greek declension, not the name itself. (One wonders how he or his supervisors reacted.)

Not only did Åkerblad correct the ancient scribe of the Rosetta Stone but he did the same to contemporary copyists. The inscriptions had been reproduced in Egypt by the Napoleon's *savant* army in an early attempt at (literal) lithography. The innovative technology was not entirely reliable and one error it produced occurred in the phrase 'in the priesthood of Aëtos son of Aëtos' (line 4 of the Greek). The copy transformed Α to Δ, warping ΑΕΤΟΥ 'of Aëtos' into ΔΕ ΤΟΥ (there are no spaces in the Greek).⁵ The phrase thus produced came in for particular comment in Ameilhon's (1803) study of the Greek and he suggested that it (or just its article) was emphatic, translating the whole as *sub pontifice Aete ... quidem*, that is, 'under the priesthood of Aëtos indeed'. The demotic made clear to Åkerblad that this unusual phrase was wrong. The Egyptian text clearly repeated the name 'Aëtos' (Fig. 1, bottom left). A lithographic slip had wiped a generation of Aëtoses from history. Åkerblad restored them.

He used the demotic further to restore the Greek text from the missing bottom right of the Stone: 'in each of the temples of first, second, and third rank, in which a statue of the King shall be erected'. Crucially

5. Throughout the article, I use small caps for Rosetta Stone Greek, in imitation of the Stone itself.

for the argument that follows, Åkerblad supported this infill via a brief foray into the hieroglyphic text that surmounted the demotic. In the tally marks of , he saw a clear parallel for the rather more opaque numerals on the demotic and a completion of the sequence ‘first ... second ...’ partially present in the damaged Greek.

3. What Happened Next

Åkerblad’s contribution was substantive and ambitious but its immediate aftermath was mixed. There were accolades, including honorary memberships of academic institutions, dedicated editions of journals, and triumphant epithets from their editors (Thomasson, 2014). However, there was also criticism. Friedrich Münter, the almost-decipherer of Old Persian cuneiform, rightly observed that the task was far from done (Thomasson, 2013, p. 239). (No one appreciated at the time that there was far more to demotic than its consonantal alphabet. This insight had to await Young 1830 and Brugsch 1848, amongst other works.) More influential was Silvestre de Sacy’s reaction. Despite his fustian endorsement of several of Åkerblad’s key points, he rather pointedly withheld endorsement from others. Even without mounting a cogent case against them, his stature was such that the effect was chilling. Writing to Young thirteen years later, Åkerblad explained (Leitch 1855, p. 31; ‘[perhaps]’ is his addition) that:

as I had not the good fortune to satisfy the mind of the learned orientalist, to whom the letter was addressed, who formally declared, that ‘[perhaps] some remaining attachment to the ideas which he had himself advanced, embarrassed his opinion, and prevented his full conviction’ of the truth of my interpretation, I felt no further inclination to continue an investigation, in which nobody would have been interested, after such a declaration from one of the most learned men in France. I was besides at that time intrusted [sic.] with a diplomatic commission, at first in Holland, and then in France, which made me abandon almost entirely all further inquiry respecting the Inscription of Rosetta.

This quotation makes clear that Silvestre de Sacy’s reaction was not the only factor that diverted Åkerblad from further investigation. His career as a diplomat in the service of Sweden, a position that ill-fitted his antiroyalist convictions and that he would eventually abandon, preferring Rome to orders to return home, also intervened. Deprived of the Rosetta Stone lithographs, he nonetheless continued to contribute to orientalist linguistics, specifically Arabic and Samaritan, via the Leiden library (Thomasson, 2013, p. 242).

Silvestre de Sacy’s role in depriving the field of Egyptology of what might have become one of its leading lights appears more deliberate

than accidental. Åkerblad was one of three contemporary scholars who studied Egyptian place names in the hope of further insight into the ancient language of the country. The others were Etienne Quatremère and the eventual decipherer of hieroglyphs, Jean-François Champollion. Of the three, Silvestre de Sacy favoured his fellow royalist Quatremère. Champollion rushed his study to print once news of Quatremère's broke. Åkerblad's study, by contrast, had the misfortune to fall into Silvestre de Sacy's hands, where it languished in a deliberate act of what Young would have called 'literary injustice':

M. Étienne Quatremère ... traitait avec beaucoup d'érudition le même sujet ... Je crus alors inutile de donner aucune publicité au mémoire de M. Åkerblad, qui me reprocha même, non sans quelque fondement, d'avoir été cause qu'il avait été prévenu par M. Quatremère. ... j'avais fini par perdre de vue son mémoire manuscrit, qui était resté entre mes mains. Une circonstance dont il est inutile de parler m'en ayant rappelé le souvenir, j'ai cru convenable d'en faire jouir le public, et de réparer ainsi le tort involontaire dont je m'étais rendu coupable envers l'auteur.

M. Étienne Quatremère ... treated the same subject with much erudition ... I thought it then useless to give any publicity to M. Åkerblad's memoir, who yet reproached me, not without some foundation, for having been the cause of his preemption by M. Quatremère. ... I ended up losing sight of his manuscript, which remained in my hands. Having been reminded of it by a circumstance of which it is useless to speak, I thought fit to offer it now to the public, and thus to repair the involuntary wrong of which I had been guilty towards its author.

Silvestre de Sacy wrote these words in 1834. Åkerblad had died in 1819. His manuscript, the first of two intended parts, had been completed almost a decade before (Åkerblad, 1834 [1810], p. 435). The question that the passage and its double use of 'useless' rather raises, is (as Thomasson 2014, p. 285 observes), "Useless for whom?"

Åkerblad's continued study of Coptic after 1802 and his work on Arabic and Samaritan make a compelling case that he would have continued with his investigations of the Rosetta Stone, had his professional and personal circumstances been different.

4. What Might Have Happened

In the closing paragraph of his *Lettre*, Åkerblad remarks that *jusqu'à présent je n'ai eu le temps d'examiner que fort légèrement [la partie hiéroglyphique]* 'I have had time to examine but most lightly [the hieroglyphic part]' of the inscription (1802, p. 63). What would have happened had he had time, inclination, and encouragement to apply his methods and mind to the Rosetta Stone hieroglyphs?

4.1. Finding Ptolemy

The obvious starting point for any attempt on the Rosetta Stone hieroglyphs are its cartouches. In a sea of unfamiliar symbols, these ringed and repeated portions of text stand out. The surviving fragments of the hieroglyphic inscription contain two distinct cartouches, one short, one long. As the right alignment in Fig. 3 highlights, the short one is the initial portion of the long. The long cartouche occurs three times: near the end of the inscription (end of line 14), at the start of line 12, and around the middle of line 6. The short one occurs twice, both times on line 6, shortly after the first long cartouche. Just as these double- and triple-repeated sequences seem to be highlighted to draw the reader's eye, so do they draw the decipherer's.

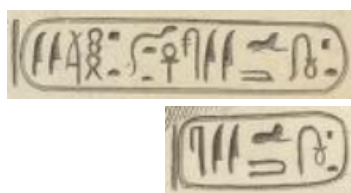



FIGURE 3. The long cartouche of the Rosetta Stone subsumes the short one

Zoëga's study of hieroglyphs, a major component of his magnum opus on obelisks, which appeared just before the discovery of the Rosetta Stone, established two key results relevant to these cartouches. First, he had used repeated phrases, occurring sometimes with and sometimes without line breaks, to establish the direction in which hieroglyphs were read, namely, against the direction in which figures in profile face (rightwards reading of leftward-facing fragments, leftwards reading of rightward-facing ones). Åkerblad would have been able to confirm this direction of reading—or arrive at it independently—based on the sinistreverse order of 'first, second, third' .

Second, Zoëga and his predecessor Anne-Claude-Philippe de Tubières-Grimoard de Pestels de Levis Caylus had hypothesised convergently as to the function of cartouches, three decades apart. Caylus, or rather his assistant Barthélemy, reasoned by way of captioned portraits and the formulaic structure of obelisks (1762, p. 79):

Je pense que ... ces hiéroglyphes ... sont réunis dans des ovaux ou des quarrés, pour représenter peut-être des noms de Rois & de Dieux. C'est ainsi que sur la bande inférieure de la Table Isiaque trois Figures principales sont accompagnées d'inscription hiéroglyphiques, renfermées dans de petites tables de différentes formes; c'est ainsi que

sur chaque obélisque les hiéroglyphes renfermés dans des ovales, sont communément distingués des hiéroglyphes que contiennent les ovales des autres obélisques;

I think that ... these hieroglyphs ... are gathered in ovals or squares, to represent perhaps the names of Kings and Gods. It is thus that on the lower band of the [Bembine] Table of Isis, three main Figures are accompanied by hieroglyphic inscriptions, enclosed in small tables of different shapes; it is thus that on each obelisk the hieroglyphs enclosed in ovals are commonly distinguished from the hieroglyphs contained in the ovals of the other obelisks;

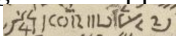
Zoëga by contrast compared the in-cartouche text with its surrounds (1797, pp. 465–466):

Conspiciuntur autem passim in Aegyptiis monumentis schemata quaedam ovata sive elliptica planae basi insidentia, quae emphatica ratione includunt certa notarum syntagmata, sive ad propria personarum nomina exprimenda sive ad sacratiores formulas designandas. ...; uti nec illa syntagmata in alio loco inveniuntur, quae sunt ovatis schematibus inclusa.

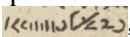
In Egyptian monuments, certain schemata are everywhere seen set in an oval or flat elliptical base, which, by way of emphasis, include expressions corresponding to proper names of persons or more sacred formulae. ...; nor are those expressions which are included in oval shapes found elsewhere [on the monuments].

Caylus' reasoning was inapplicable to the Rosetta Stone but Åkerblad could readily have checked that contents of his cartouches were indeed confined to quarters as Zoëga had specified. The question then was which names and/or sacred formulae the Rosetta Stone cartouches were likely to contain.

Common sense says to look for 'Ptolemy' on that which is Ptolemy's. This is precisely how Åkerblad had begun his investigation of the demotic. If the correct approach, then the short cartouche would be 'Ptolemy' with zero or more epithets and the long cartouche, 'Ptolemy' with at least one epithet more.

The reasoning by ratios that Åkerblad had used to locate names in the demotic confirms these associations. The first long cartouche, around the middle of line 6, is three times as far from the final long cartouche as the second one is. The final cartouche occurs near the end of the hieroglyphic text, hence almost at the end of line 14, whereas the second occurs near the start of line 12. Thus the first and second cartouches are at distances of eight and half and just under three lines from the last one. This gives an approximate ratio of three to one. In the demotic, the phrase  (epithetised 'Ptolemy') occurs with the same ratio of distances, ten lines and three-and-a-bit lines, from the end (more specifically, towards the end of line 22 and two thirds of the way along line 29 in a 32-line text).

Distribution of the remaining cartouches further supports the identification of 'Ptolemy'. Both short cartouches occur in quick succession

after the first long one. This points the decipherer to the start of line 23, where there are indeed two occurrences of , the very sequence that Åkerblad had deciphered as 'Ptolemy'. Figure 4 aligns this and the previous demotic phrase in the same fashion as Fig. 3, showing that the demotic, like the hieroglyphs, share their initial (right) segments. Thus, the long-short-short pattern of the cartouches on line 6 of the hieroglyphic text matches that of 'Ptolemy' with and without epithets on lines 22–23 of the demotic.

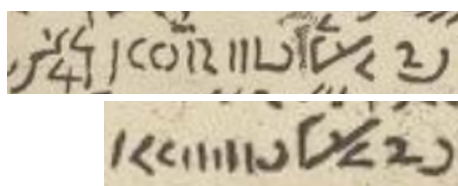
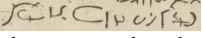
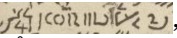



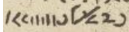


FIGURE 4. A second superstring/substring pair: demotic correspondents of the long and short cartouches

There is a problem, however. The demotic ends with  instead of the epithetised 'Ptolemy' , which a completely parallel text would lead us to expect. (Åkerblad would have been primed for such mismatches, having discovered several between the demotic and Greek.) Only the very first character and the last few of the two images coincide. Åkerblad might have seen the initial character as the opening curve of the cartouche. Instead, he misread this 'punctuation mark' as Coptic *m*, an article. Notwithstanding, he would not have been at an impasse here. The opening portion  of what should be the final cartouche is ubiquitous in the demotic text, with well over two dozen occurrences. Its recurrence in quick succession on line 1 of the demotic suggests the reading 'king', given the repetitions of the root *ΒΑΣΙΛ-* on line 1 of the Greek: *ΒΑΣΙΛΕΥΟΝΤΟΣ ΤΟΥ ΝΕΟΥ ΚΑΙ ΠΑΡΑΛΑΒΟΝΤΟΣ ΤΗΝ ΒΑΣΙΛΕΙΑΝ ΠΑΡΑ ΤΟΥ ΠΑΤΡΟΣ ΚΥΡΙΟΥ ΒΑΣΙΛΕΙΩΝ ΜΕΓΑΛΟΔΟΞΟΥ* 'In the reign of the youth who has inherited the kingship from his father, Lord of Kingdoms great of glory'.⁶ 'King' is a common-sense alternant with 'Ptolemy'. Their interchangeability is confirmed by  (line 28 middle), which comprises the demotic equivalent of the long cartouche but with 'king' in place the demotic 'Ptolemy'. The phrase that concludes the demotic passage of the Rosetta Stone is, then, precisely that from line 28 but with a further epithet inserted in the middle.

6. The translation follows Quirke and Andrews 1988.

The absence of the expected demotic correspondent to the long cartouche at the end of the text is therefore not merely not a problem: it is a boon. The interchangeability of  'king' and  'Ptolemy' suggests that the short cartouche is simply 'Ptolemy' alone, without epithets.

4.2. Fixing the Epithets

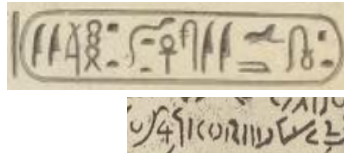


FIGURE 5. Homologies: the long cartouche and its demotic correspondent

With the meaning of the shorter the cartouche possibly fixed, the next question is which epithets embellish 'Ptolemy' in the longer cartouche. Placing the longer cartouche above the corresponding demotic reveals a clear homology in the characters that follow 'Ptolemy' (Fig. 5). The crook of the ankh and the sweep of the serpent are recognisable in both. This is obvious to anyone undertaking a decipherment-level inspection of the material but the underlying principle had previously been identified. Half a century before Åkerblad, Caylus (1752, pp. 70–72) had written:

les lettres Égyptiennes proprement dites, n'étoient au fond que des hiéroglyphes pareils à ceux des obélisques, mais simplifiés & modifiés par le besoin & par l'usage. ... pour s'en convaincre, on n'a qu'à jeter les yeux sur le N^o. I. de la XXVI^e. Planche.

Egyptian letters, properly so-called, are at root but hieroglyphs like those found on obelisks, yet simplified and modified by need and by usage. ... to convince oneself of this, one need only cast an eye on [Fig. 6].

There is then a mismatch between the hieroglyphs and the corresponding demotic. (As we have already seen with regard to the final cartouche, the two texts are not exact translations.) The demotic is 'Ptolemy'+X and the hieroglyphs, 'Ptolemy'+X+Y. In the Greek, the king's name occurs with fullest epithets as ΠΤΟΛΜΑΙΟΣ ΑΙΩΝΟΒΙΟΣ ΗΓΙΑΠΗΜΕΝΟΣ ΥΠΟ ΤΟΥ ΦΘΑ ΘΕΟΣ ΕΠΙΦΑΝΗΣ ΕΥΧΑΡΙΣΤΟΣ 'Ptolemy, the everliving, beloved of Ptah, the god manifest, the benevolent'. (This counts as three epithets because 'god manifest' and 'benevolent' always cooccur.) Assuming the order of epithets to be invariant between the three Rosetta Stone texts, X could be 'the everliving' and Y, either a second epithet 'beloved of Ptah' or a sequence of two 'beloved of Ptah, the

Pl. XXVI

Hieroglyphes.	Lettres.	N. 1 ^{re}	Hieroglyphes.	Lettres.
1.	ϣ	ϣ	12.	ϣ
2.	ϣ	ϣ	13.	ϣ
3.	ϣ	ϣ	14.	ϣ
4.	ϣ	ϣ	15.	ϣ
5.	ϣ	ϣ	16.	ϣ
6.	ϣ	ϣ	17.	ϣ
7.	ϣ	ϣ	18.	ϣ
8.	ϣ	ϣ	19.	ϣ
9.	ϣ	ϣ	20.	ϣ
10.	ϣ	ϣ	21.	ϣ
11.	ϣ	ϣ	22.	ϣ

FIGURE 6. Caylus' hieroglyphic-demotic homologies

god manifest, the benevolent'; or X could be the longer phrase 'the ever-living, beloved of Ptah', in which case Y could only be the remaining epithet 'the god manifest, the benevolent'.

Evidence from Horapollon whittles these options down. His *Hieroglyphica* reports that represents 'time',⁷ 'eternity', and 'love' (book 1, chapters 42 and 1 and book 2, chapter 26, respectively; Cory 1840, pp. 5, 64, 104). 'Time' and 'everlasting' support reading X as 'the everliving'. 'Love' supports reading Y as being or including 'beloved of Ptah'.

Scholars from the mid-nineteenth century onwards came to realise that Horapollon was rather unreliable. However, this was not known at Åkerblad's time, before and after which he was a standard source for studies of hieroglyphs (Kircher 1654, Zoëga 1797, Champollion 1824). Åkerblad was not alone in the fealty he afforded Classical sources. He believed, for instance, that demotic had seven vowel characters (Åkerblad, 1802c, p. 56) based on a mere passing illustration of the importance of enunciation in Demetrius' second-century style manual (Roberts, 1902, 104–105, §71):

Ἐν Αἰγύπτῳ δὲ καὶ τοὺς θεοὺς ὑμνοῦσι διὰ τῶν ἑπτὰ φωνηέντων οἱ ἱερεῖς, ἐφεξῆς ἡχοῦντες αὐτά, καὶ ἀντὶ αὐλοῦ καὶ ἀντὶ κιθάρης τῶν γραμμάτων τούτων ὁ ἦχος ἀκούεται ὅπ' εὐφωνίας, ... ἀλλὰ περὶ τούτων μὲν οὐ καιρὸς μηκύνειν ἴσως.

In Egypt the priests, when singing hymns in praise of the gods, employ the seven vowels, which they utter in due succession; and the sound of these

7. A more accurate reading, closer to the actual one of 'life' (ϣnx), would have been available to Åkerblad via the ecclesiastical histories of Socrates Scholasticus (book 5, chapter 17) and Salaminus Sozomen (book 7, chapter 15), which, in relating an early trademark dispute (ankh versus crucifix) between pagans and Christians at the destruction of Temple of Serapis, give the reading 'life to come' (Schaff and Wace, 1890, pp. 127, 386).

In the Greek and its French transcription, the onsets of these names differ: ΠΤΟΛΕΜΑΙΟΣ and *Ptolémée* versus ΦΘΑ and *Phtha*. Åkerblad's native Swedish spellings of these names, resembling the English, might have helped him. But alphabetic vagaries need not detain us. Evidence from Åkerblad's own work shows that he was well able to formulate the hypothesis that the shared hieroglyphs correspond to shared sounds.

An initial starting point might have been Greek grammarians like Aristides Quintilianus, Aristotle, and Dionysius Thrax (Allen, 1968, p. 16). They recorded that, before <φ> and <θ> were sounded as the continuants /f/ and /θ/, they stood for the aspirates /p^h/ and /t^h/. The mismatch between 'Ptolemy' and 'Ptah' was not as large as /pt/ to /fθ/ but only /pt/ to /p^ht^h/.

The *Lettre* shows that Åkerblad had made this connection and in fact a broader one. Commenting on the demotic spelling of 'Philenos' with an initial *p*, he writes (1802, pp. 24–25):

La première lettre que nous avons reconnue jusqu'ici pour un P, représente ici le Φ, Ph; ce qui, j'espère, ne souffrira aucune difficulté. Les Égyptiens ont cependant une lettre aspirée qui répond plus particulièrement au Φ des Grecs; mais il paroît qu'ils n'étoient pas très scrupuleux sur le changement des lettres du même organe. Leurs descendans, les Coptes, prennent à chaque instant la même liberté; ils écrivent, par exemple, ΡΕΒΕΡΝΟΒΙ au lieu de ΡΕΦΕΡΝΟΒΙ, &c.

The first letter, which we have hitherto recognised as a P, represents here a Φ, *Ph*; which, I hope, will cause no difficulty. The Egyptians have, though, an aspirated letter which responds more particularly to the Φ of the Greeks; yet it appears they were none too scrupulous in changing letters of the same organ. Their descendants, the Copts, take the same liberty at every moment; they write, for example, ΡΕΒΕΡΝΟΒΙ [*rebernobi*] instead of ΡΕΦΕΡΝΟΒΙ [*refernobi*], &c.

This passage takes the correlation one step further than is needed here. Åkerblad recognises that letters for homoorganic sounds (by which, most likely, he intends specifically obstruents) are liberally substituted for one another. He cites in support an example of Coptic <Β> being used for /f/ and /b/. Elsewhere (Åkerblad 1802c, pp. 48–49; again using Coptic to transcribe the demotic), he addresses the alternation between <Π> and <Ϙ>, which ordinarily denote /p/ and /f/ respectively, noting that ὠποϣρο or ὠφοϣρο are equally valid representations of 'the king'.

In his response to Åkerblad's *Lettre*, published as an appendix thereto, Silvestre de Sacy wrote (Silvestre de Sacy, 1802b, p. 66):

Il n'y a assurément rien à dire contre les suppositions par lesquelles vous substituez le Π au Φ, le Τ au Δ et la Κ au Γ; et c'est une des idées les plus heureuses que vous ayez pu employer pour vous frayer la voie au déchiffrement de cette inscription.

There is surely naught to be said against the assumptions by which you substitute Π for Φ [*p* for *f*], Τ for Δ [*t* for *d*], and Κ for Γ [*k* for *g*]; and it is one of

the happiest ideas that you could employ to clear a path to the decipherment of this inscription.'

An implication of Åkerblad's broad formulation of substitutability is that, orthographically, the *ts* of 'Ptolemy' and 'Ptah' were just as interchangeable as the *ps*. Towards the end of the *Lettre* (Åkerblad, 1802c, pp. 55–56), he addresses an instance of this in the context of assessing a purported problem identified in Silvestre de Sacy's earlier study (Silvestre de Sacy, 1802a). I quote the passage in full as it will be relevant shortly:

toute la phrase Grecque ΗΠΑΓΗΜΕΝΟΣ ΥΠΟ ΤΟΥ ΦΘΑ est exprimée par le seul mot *ῥταμει* *ou* *ῥταμαι* *qui signifie la même chose. Cette composition n'est pas exactement conforme à l'usage de la langue Copte, dans laquelle on diroit bien* *μαιϥθα* *pour désigner quelqu'un qui aime Phtha ou Vulcain, mais pas aussi grammaticalement* *ϥθαμαι* *celui qui est chéri de Phtha: cependant je ne la crois pas contraire au génie de la langue; et ces petites discordances entre l'ancien idiome et le langage moderne ne doivent pas nous étonner.*

the whole Greek phrase ΗΠΑΓΗΜΕΝΟΣ ΥΠΟ ΤΟΥ ΦΘΑ is expressed by the single word *ῥταμει* [*ftamei*] or *ῥταμαι* [*ftamai*], which means the same thing. This combination does not quite conform to usage in the Coptic language, in which one would say *μαιϥθα* [*maifθa*] to designate one 'who loves Phtha or Vulcan', but not with equal grammaticality *ϥθαμαι* [*θamai*] 'he who is cherished by Phtha': notwithstanding I do not think it contrary to the spirit of the language and these little divergences between the ancient idiom and the modern language should not surprise us.

The alternation crucial to the current argument, between <Τ> and <Θ> in *ῥτα*/*ϥθα* 'Ptah', passes without comment. It is therefore evident that Åkerblad could readily have recognised 'Ptolemy' and 'Ptah' as having started with the same sounds in Egyptian.


Still, syntax poses a potential impediment to seeing that both names were written with *ϥ*. The Greek for 'beloved of Ptah', ΗΠΑΓΗΜΕΝΟΣ ΥΠΟ ΤΟΥ ΦΘΑ, places 'Ptah' at the end. If *ϥ* spells the beginning of 'Ptah', then the name must be phrase initial in the Egyptian. The passage just cited—which we are lucky to have as Åkerblad included it *au hasard* 'at random' as a single example of several others excluded for fear *de fatiguer votre patience, et d'outré-passer les bornes d'une lettre* 'of trying your patience and overstepping the bounds of a letter'—recognises this fact directly. It argues that the long Greek phrase is translated by a single, and crucially *Ptah*-initial, word *ftamei/ftamai*. (The Egyptian word order can be better captured in English as 'Ptah-beloved'.)



The reading of *ῥταμει* as *ftamei/ftamai* returns us to the second overlap in hieroglyphs between 'Ptah-beloved' and 'Ptolemy'. Given *ῥταμει* *ptolemaios*, Åkerblad could well have supported his readings by concluding that *ῥ* represents the /ai/ sound common to *ftamai* and *ptolemaios*, thus

finding a second instance of phonography in the hieroglyphs he could tentatively read.⁹

5. Plausibility and Impact

In this counterfactual history of decipherment, I have deliberately avoided implausible steps (as in footnote 9), leaps that seem sensible only to modern scholars who know what the ultimate solution was. Extremely able scholars did not take the path sketched above. The next to take up the baton, more than a dozen years after Åkerblad, was Young. His landmark *Encyclopaedia Britannica* article, though substantive in its progress on the script, contained numerous errors, misreading ‘Ptah’ as ‘loved’ for instance (Young, 1824 [1819], pl. 76). Small as this particular mistake is, it would have undone the argument above. It thus cannot be taken as given that Åkerblad would have followed the path we have just traced.

Nonetheless, his doing so is plausible. The steps above are in keeping with his work on the Rosetta Stone demotic and at the same time sympathetic to his general mindset. Åkerblad and Young differed fundamentally in the role they afforded phonography in Egyptian writing. Åkerblad sought to extract the alphabet that he believed had been promised by Plutarch (*Of Isis and Osiris* §56; Thuault 2018). Young regarded phonography as marginal in all Egyptian writing. His encyclopaedia article refers to Åkerblad’s alphabet as ‘supposed’. Later, he was more emphatic: ‘no [explanatory] alphabet would ever be discovered, because it had never been in existence’ (Young, 1823, p. 13). With fewer materials at his disposal, Åkerblad had a more constrained domain to investigate and was more open to phonographic hypotheses alongside the logographic reading his *Lettre* adduced for  (‘first’, ‘second’, ‘third’; section 2). The steps above conform to the reasoning he had employed in his analysis of the demotic and/or build on analysis of his predecessors. Indeed, several crucial insights (especially concerning the interchangeability of letters and crosslinguistic differences of word order) were explicitly formulated by him.

9. The correct reading of , namely *mere*, would have supported the same conclusion, given the variable representation of vowels in demotic, which Åkerblad identified, to Silvestre de Sacy’s distaste. However, it is excessively anachronistic to impute this reading to Åkerblad. For *mere*, one must allow for single signs that stand for several sounds at once, like  *mr* (*mer*). Although Young advocated such readings, it took evidence from the *Description de l’Égypte* (Commission des sciences et arts d’Égypte, 1809–1822) for him to make the step. Understanding of biliteral signs did not emerge until half a century after Åkerblad (Rougé, 1853).


Had Åkerblad pursued this route, the impact on contemporary understanding would have been substantial, advancing decipherment in five different ways. First, Caylus and Zoëga had argued that cartouches contained names and similar formulae. Åkerblad's reading of the short cartouche as a name and the long one as a name plus epithets would have proven this conjectural argument correct.

The idea that Egyptians would ignore signs' inherent semantics to write names phonetically was not proposed until 1811, in a Chinese-inspired footnote to Silvestre de Sacy's review of the study of Coptic place names that he had favoured over Åkerblad's (Silvestre de Sacy, 1811, p. 184):

On sait que les Chinois ... sont obligés quelquefois d'employer un certain signe pour avertir que les caractères qui entrent dans l'expression d'un nom propre, sont réduits à cette seule valeur. Je conjecture que dans l'inscription hiéroglyphique de Rosette, on a employé au même usage le trait qui entoure une série d'hiéroglyphes.


We know that the Chinese ... are obliged at times to use a particular sign to warn that the characters that enter into the expression of a proper name are reduced to this single [phonetic] value. I conjecture that, in the hieroglyphic inscription of Rosetta, the feature that surrounds a series of hieroglyphs was used for the same end.

There are two elements to Silvestre de Sacy's conjecture, one correct, one not.

The correct part is that hieroglyphs used for proper names might be read phonetically. Reading  as 'Ptolemy' only makes sense in phonetic terms. To construe the signs semantically, one would have to claim that a lion on something apparently platform-like, surrounded by reeds and a lasso, themselves flanked by a fold, a square, and a semicircle (now known to be cloth, a mat, and a loaf), represented the meaning 'Ptolemy' to the Egyptian mind. Kircher (1654, 1666) was the *reductio ad absurdum* of such interpretations. By the time of Zoëga, such fantasies had been abandoned but no concrete understanding of how hieroglyphs could be used to write proper names (or much else) had yet been achieved. The phonetic use of hieroglyphs for /p/, /t/, and /ai/ would have been Åkerblad's second contribution, anticipating Silvestre de Sacy's conjecture about cartouches by almost a decade.

Avoiding the incorrect part of Silvestre de Sacy's conjecture would have been Åkerblad's third contribution. He suggested that the cartouche itself signalled to the reader the suspension of semantic reading and the switch to phonography. Champollion (1824) would eventually show that phonetic readings were ubiquitous outside cartouches but Åkerblad could have forestalled the converse half of Silvestre de Sacy's error. The presence of the ankh sign, meaning (from available sources) 'time' or 'life to come', in the phrase 'everliving', would have strongly suggested the semantic readings remained available within cartouches.

The discovery that Egyptians wrote not just foreign names like ‘Ptolemy’ but their native names like ‘Ptah’ phonetically was a pivotal moment in decipherment history, marking Champollion’s decisive break from Young. So important and contentious was it that Champollion did not include it (except as a promissory note) in his 1822 *Lettre*. Instead, it waited until his 1824 *Précis*, a work six times the length of the *Lettre*, where the claim could be elaborated at leisure. Åkerblad’s fourth potential contribution, the discovery of the onset of ‘Ptah’ written phonetically, would have presaged this result by two decades. It might possibly have altered Young’s antiphonetic thinking—in which case, the whole history of decipherment could have looked very different.

Finally, the presence of  read phonetically in ‘beloved’, that is to say, in a word, not a name, might have led to the tentative hypothesis that phonetic writing was not confined to names. This possibility was not mentioned in Champollion’s *Lettre*. It had to await the *Précis* even to be formulated. The conceptual space for this insight could have been earmarked decades earlier by applying Åkerblad’s methods to hieroglyphs.

6. Conclusions

Institutions need to guard standards of scholarship. Spurious decipherments—‘the Rosetta Stone demotic is Slavic Macedonian’, ‘the Voynich manuscript is an unknown Romance language’, ‘the Phaistos Disk is early Georgian’ (again, I omit references deliberately)—need to be recognised as such. One way to achieve this is to reexamine past decipherments and the tools that led to them, ensuring that these are accessible, well understood, and subject to repeated verification. I have attempted to do this above by demonstrating that Åkerblad’s methods, which proved successful for demotic, would have yielded material insight into hieroglyphs, advancing the field by some twenty years.

Although guardians of standards, those of us in institutions need also to guard against ourselves, making sure we do not overlook crucial contributions from quarters that we have deliberately or inadvertently excluded. Åkerblad is far from an isolated case in the history of decipherment or academia more broadly. His research foundered not just because his diplomatic obligations took him elsewhere but because he was discouraged and denied opportunities to advance his thought and field.

Decipherment is the bedrock of philography, the study of writing systems. A key philographic finding is the highly convergent evolution of independent writing systems designed for disparate languages. This convergence looks mysterious if we think of writing systems only as the products of specific peoples, languages, cultures, and material resources. Convergence is expected, however, if we view all writing systems as the

product of a single, shared object, the human mind. A proper appreciation of the power of the decipherer's rather spartan toolkit provides important insight into the mental forces that mould writing. So viewed, decipherment constitutes its own pathway to insight into the human capacity for language.

References

- Adkins, Lesley and Roy Adkins (2000). *The Keys of Egypt: The Race to Read the Hieroglyphs*. London: HarperCollins.
- Agustín y Albanell, Antonio (1587). *Dialogos de medallas, inscripciones y otras antigüedades*. Tarragona: Felipe Mey.
- Åkerblad, Johan David (1802a). *Inscriptionis Phœniciae Oxoniensis nova interpretatio*. Paris: Typographiâ Reipublicæ.
- (1802b). "Lettre de M. Akerblad au C. Silvestre de Sacy, sur la découverte faite par lui de l'écriture cursive copte." In: *Magasin encyclopédique: ou journal des sciences, des lettres et des arts* 7.5, 489–494 plus plate.
- (1802c). *Lettre sur l'inscription Égyptienne de Rosette: adressée au citoyen Silvestre de Sacy, Professeur de langue arabe à l'École spéciale des langues orientales vivantes, &c.* Paris: L'imprimerie de la République.
- (1834 [1810]). "Mémoire: Sur les noms coptes de quelques villes et villages d'Égypte." In: *Journal Asiatique* 13.4–5, pp. 337–377, 385–435.
- Allen, W. Sidney (1968). *Vox Graeca: A Guide to the Pronunciation of Classical Greek*. Cambridge: Cambridge University Press.
- Ameilhon, Hubert-Pascal (1803). *Éclaircissemens sur l'inscription grecque du monument trouvé à Rosette, contenant un décret des prêtres de l'Égypte en l'honneur de Ptolémée Épiphane, le cinquième des rois Ptolémées*. Paris: Institut National.
- Bankes, William John (1821). *Geometrical Elevation of an Obelisk ... From the Island of Philæ, Together with the Pedestal ... First Discovered There by W.J. Bankes ... in 1815: At Whose Suggestion & Expense, Both Have Been Since Removed ... For the Purpose of Being Erected at Kingston Hall in Dorsetshire. [Engravings of the Hieroglyphics and Inscriptions.]* London: John Murray.
- Barthélemy, Jean-Jacques (1759). "Réflexions sur l'alphabet et sur la langue dont on se servoit autrefois à Palmyre." In: *Mémoires de littérature, tirés des registres de l'Académie royale des inscriptions et belles-lettres* 26, for the years 1752–1754, 577–597, pl. I–III.
- (1764). "Réflexions sur quelques monumens phéniciens et sur les alphabets qui en résultent." In: *Mémoires de littérature, tirés des registres de l'Académie royale des inscriptions et belles-lettres* 30, for the years 1758–1760, pp. 405–427.
- Brugsch, Heinrich (1848). *Scriptura Aegyptiorum demotica ex papyris et inscriptionibus explanata*. Berlin: Gærtner.

- Bunsen, Christian Charles Josias (1845). *Ägyptens Stelle in der Weltgeschichte: Geschichtliche Untersuchung in fünf Büchern*. Vol. 1. Hamburg: Friedrich Perthes.
- Caylus, Anne-Claude-Philippe de Tubières-Grimoard de Pestels de Levis (1752). *Recueil d'antiquités égyptiennes, étrusques, grecques et romaines*. Vol. 1. Paris: Desaint et Saillant.
- (1762). *Recueil d'antiquités égyptiennes, étrusques, grecques, romaines et gauloises*. Vol. 5. Paris: Tilliard.
- Champollion, Jean-François (1822). *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*. Paris: Firmin Didot Père et Fils.
- (1824). *Précis du système hiéroglyphique des anciens Égyptiens, ou Recherches sur les éléments premiers de cette écriture sacrée, sur leurs diverses combinaisons, et sur les rapports de ce système avec les autres méthodes graphiques égyptiennes*. Paris: Treuttel et Würtz.
- Commission des sciences et arts d'Égypte (1809–1822). *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*. Vol. 1–24. Paris: Imprimerie Impériale.
- Cory, Alexander Turner (1840). *The Hieroglyphics of Horapollo Nilous*. London: William Pickering.
- Desset, François et al. (2022). “The Decipherment of Linear Elamite Writing.” In: *Zeitschrift für Assyriologie* 112.1, pp. 11–60.
- Halley, Edmond (1695). “Some account of the ancient state of the city of Palmyra, with short remarks upon the inscriptions found there.” In: *Philosophical Transactions of the Royal Society of London* 19.218, pp. 160–175.
- Hincks, Edward (1848). “Egypt and the Bible.” In: *The Dublin University Magazine* 32.190, pp. 371–388.
- Jiǎng, Yùbīn 蒋玉斌 (2018). “释甲骨文中的‘蠡’兼论相关问题 [An Elucidation of the Oracle Bone and Bronze Script Character 蠡 and Related Problems].” In: *Fudan Journal (Social Sciences)* 5, pp. 118–138.
- Kircher, Athanasius (1654). *Oedipus Aegyptiacus*. Vol. 3 *Theatrum hieroglyphicum*. Rome: Typographia Vatisil Mascardi.
- (1666). *Obelisci Aegyptiaci: nuper inter Isaei Romani rudera effossi interpretatio hieroglyphica*. Rome: Typographia Varesij.
- Leibniz, Gottfried Wilhelm (1715). “Letter dated 13 January 1714.” In: *Oratio dominica in diversas omnium fere gentium linguas versa et propriis cuiusque linguae characteribus expressa: Una cum dissertationibus nonnullis de linguarum origine variisque ipsarum permutationibus*. Ed. by John Chamberlayne. Amsterdam: Willem & David Goeree, pp. 22–31.
- Leitch, John, ed. (1855). *Miscellaneous Works of the Late Thomas Young*. Vol. 3. London: John Murray.

- Parkinson, Richard (1999). *Cracking Codes: The Rosetta Stone and Decipherment*. with contributions by Whitfield Diffie, Mary Fischer, and R.S. Simpson. Berkeley and Los Angeles CA: University of California Press.
- Quirke, Stephen and Carol Andrews (1988). *The Rosetta Stone: Facsimile Drawing with an Introduction and Translations*. London: British Museum Publications.
- Ray, John (2007). *The Rosetta Stone and the Rebirth of Ancient Egypt*. Cambridge MA: Harvard University Press.
- Roberts, W. Rhys (1902). *Demetrius on Style: The Greek Text of Demetrius de Elecutione Edited after the Paris Manuscript with Introduction, Translation, Facsimiles, etc.* Cambridge: Cambridge University Press.
- Robinson, Andrew (2012). *Cracking the Egyptian Code: The Revolutionary Life of Jean-François Champollion*. Oxford: Oxford University Press.
- Rougé, Emmanuel de (1853). "Mémoire sur l'inscription du tombeau d'Ahmès, chef des Nautoniers." In: *Mémoires présentés par divers savants étrangers à l'Académie* 3, pp. 1–196.
- Schaff, Philip and Henry Wace, eds. (1890). *A Select Library of the Nicene and Post-Nicene Fathers of the Christian Church*. Vol. 2 of series 2, *Socrates, Sozomenus: Church histories*. New York, NY: Christian Literature Company.
- Silvestre de Sacy, Antoine Isaac (1793). *Mémoires sur diverses antiquités de la Perse, et sur les médailles des rois de la dynastie des Sassanides; suivis de l'histoire de cette dynastie, traduite du persan de Mirkbond*. Paris: Le Louvre.
- (1802a). *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: L'imprimerie de la République.
- (1802b). *Réponse du C.^{en} Silvestre de Sacy*. appendix to Åkerblad 1802c, 64–70.
- (1811). "Mémoires géographiques et historiques sur l'Égypte et sur quelques contrées voisines, recueillis et extraits des manuscrits coptes, arabes, etc., de la Bibliothèque impériale, par Et. Quatremère, professeur de littérature grecque à l'Académie de Rouen, correspondant de la Société royale de Gottingue, et de l'Institut de Hollande." In: *Magasin encyclopédique: ou journal des sciences, des lettres et des arts* 4, pp. 177–202.
- (1834). *Note préliminaire*. preface to Åkerblad 1834 [1810], 337–338.
- Solé, Robert and Dominique Valbelle, eds. (1999). *La Pierre de Rosette*. Paris: Seuil.
- Thomasson, Fredrik (2013). *The Life of J.D. Åkerblad: Egyptian Decipherment and Orientalism in Revolutionary Times*. Leiden: Brill.
- (2014). "Silvestre de Sacy et J.-D. Åkerblad: Compétition et coopération dans les études égyptiennes." In: *Silvestre de Sacy: Le projet européen d'une science orientaliste*. Ed. by Michel Espagne, Nora Lafi, and Pascale Rabault-F Feuerhahn. Paris: éditions du Cerf, pp. 271–293.

- Thuaault, Simon (2018). "Egyptian Hieroglyphs in Classical Works, Between Pride and Prejudice." In: *Aegyptiaca: Journal of the History of Reception of Ancient Egypt* 3, pp. 191–212.
- Vertue, George et al., eds. (1815). *Vetusta monumenta: quæ ad rerum Britannicarum memoriam conservandam Societas Antiquariorum Londini sumptu suo edenda curavit*. Vol. 4. London: Society of Antiquaries.
- Werning, Daniel A. and Eliese-Sophia Lincke (2019). *The Rosetta Stone Online Project*. <http://hdl.handle.net/21.11101/0000-0001-B537-5>, accessed 26 August 2022.
- Whittaker, Gordon (2021). *Deciphering Aztec Hieroglyphs: A Guide to Nahuatl Writing*. Oakland CA: University of California Press.
- Young, Thomas (1823). *An Account of Some Recent Discoveries in Hieroglyphical Literature, and Egyptian Antiquities: Including the Author's Original Alphabet, as Extended by Mr. Champollion, with a Translation of Five Unpublished Greek and Egyptian Manuscripts*. London: John Murray.
- (1824 [1819]). "Egypt." In: *Supplement to the Fourth, Fifth, and Sixth Editions of the Encyclopædia Britannica*. Ed. by Dugald Stewart et al. Vol. 4. published anonymously. Edinburgh and London: Archibald Constable et al., 38–74 and plates LXXIV–LXXVIII.
- (1830). *Rudiments of an Egyptian Dictionary in the Ancient Enchorial Character; Containing All the Words of Which the Sense has been Ascertained*. Published posthumously as an appendix to Henry Tattam *A compendious grammar of the Egyptian language as contained in the Coptic and Sabidic dialects; with observations on the Bashmuric: together with alphabets and numerals in the hieroglyphic and enchorial characters; and a few explanatory observations*. London: John and Arthur Arch.
- Zoëga, Georg (1797). *De origine et usu obeliscorum ad Pium Sextum, Pontificem Maximum*. Rome: Lazzarini.