

The Sound Values of the Signs Gardiner D1 (Head) and T8 (Dagger)

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It is argued that the evidence in the Books of the Netherworld attested in the New Kingdom doubtlessly proves that the signs ⲥ and ⲩ corresponded to *dp* /t'(V)p/ and *dpt>dp̄i* /t'(V)p(V)(j)/ respectively, both with emphatic dental stop, in Middle and Late Egyptian. Further evidence dating between the 3rd and the 1st millennium BCE supports this hypothesis.

1. History of transcriptions

1.1. 1824–1864: απε – χω – γογειτ – φορπ

Jean François Champollion identified the signs  and  as distinctive female and male human heads, that both corresponded to either **xw**, e.g. in **𓀃 xw** ‘tête’, **𓀃 𓁢 𓁣 xw** ‘sur (la tête de)’, and **𓀃 𓁢 𓁣 𓁣 xw** ‘devant’ or to **ѧpε**, e.g. in **𓀃 ѧpε** ‘chef’ and **𓀃 ՚ ѧpε, ՚ ѧpε, ՚ ѧpε** ‘le premier’, which he analyzed as a masculine derivate of another word for ‘head’ **՚ ՚ ѧpε** ‘la tête’.¹ It is generally assumed today that the presence or the absence of the beard is only a graphic variation that has no effect on the graphemic interpretation of the signs; and already Champollion’s examples showed that the gender difference does not always match the gender of the word. He also observed that **՚** equaled **՚** since they were obviously interchangeable in certain words.² Gustav Seyffarth, to the contrary, proposed the pronunciation **p** and **k** for the head.³ Most other scholars, however, adopted the analysis of the French scholar Heinrich Brugsch, for example, transcribed the head as **kâ** [$\equiv \text{xa}$] and the dagger as **šorp(T)** [$\equiv \text{φօրπ(Τ)}$] in 1851,⁴ and Peter Le Page Renouf rendered **՚** as *HeR-AP* [$\equiv \text{շը-ѧپ}$] in 1860.⁵

² Champollion, *Grammaire*, p. 242.

³ Seyffarth, *Beitraege zur Kenntnis VII*, p.38 [r, g], 106 [r, k]; id., *Prüfung der Hieroglyphensysteme*, p. 10 [ρ, ρω and κ, κπι], but see p.69, 80, and 85.

⁴ Brugsch, *Inscriptio rosettana hieroglyphica*, p. 6, 20f [No.XII.11,14,25; XIII.58,61]. For ψωρπ see fn. 1.

5 Renouf, *Rituel funéraire*, pl.1.

1.2. 1864–1880s: *tep – āp – jp – t'a – t'at'a – (ha) – (hr)*

In 1864, Heinrich Brugsch first argued that the head corresponded to the “Aussprache ḫ” in most cases. He proved his claim through citing a spelling ḫ for ‘head’, two spellings of *hotp* with the head sign, all from the Ptolemaic Period (evidence 3 c,e,j below),⁶ as well as a Roman Demotic spelling *tepāu* [= *tpjw* (or *tpe*)] for ‘head’, Coptic ΤΠΕ ‘upon’ (< *tpe*) and ΤΩΠ ‘head’ (< *tep*), and the renderings of the first part of Egyptian Decan names ḫ in Greek ΤΠΗ.⁷ As another possible reading in particular words like ḫ he assumed the reading *ha* [= ՚].⁸ Brugsch also addressed the question whether the reading *āp* [= ՚p] (> ΑΠΕ) was still another possible reading, e.g. in ḫ, traditionally analyzed as *āpuā-u* [= ՚pẉc.w], for which he had found a spelling variant ḫ *tepuā-u*, which suggested that it should be read *tep* in those instances as well (evidence 3 d).⁹ Finally he argued that the dagger should also be read *tep*, citing a spelling ḫ suten *hem-t tep-t* ‘la première épouse royale’ from the Philae Kiosk that clearly combines both signs in a single word.¹⁰ Subsequently in 1867, the head is stated to correspond to *ap* [= *jp*] or *tep* in Samuel Birch’s Dictionary of Hieroglyphics, an addition to the English translation of C.C. Bunsen’s *Aegyptens Stelle in der Weltgeschichte*, but one can also find *ga* [= ՚ḍ]. For the dagger the grammar notes *shaa* [= ՚ṣ̌c] ‘first’.¹¹ In the same year, Emmanuel de Rougé listed for the head the readings *āp* [= ՚p] and, referring to Brugsch, *tep* alongside its use as a determinative.¹² Volume IV of Brugsch’s *Hieroglyphisch-demotisches Wörterbuch* published in 1868 contains the entries ḫ t'at'a-nu [= ՚ḍḍ.nw] (var. among others ḫ t'a-a [*t'at'a* = ՚ḍḍ]) ‘der Kopf’ and ḫ *tep* (var. among others ḫ, ՚, and ḫ *tep*, *tepi*) ‘Kopf’, ‘der erste’, ‘oben auf’, citing the Demotic successors ḫ *tep* [= ՚p, sic] and ḫ ḫ *tepāu* [= *tpjw*], occurring in the Roman Period, and the Ptolemaic spelling ḫ discussed earlier. There is, however, still an entry ḫ *āp* [= ՚p] ‘der Kopf, die Spitze, der Anfang’.¹³ In the sign list in his *Hieroglyphische Grammatik* published in 1872, he lists the readings *tep*, *āp*, and *her* as possible readings for the head, and *tep* for the dagger.¹⁴ In the *Grammatica copto-geroglifica* by Francesco Rossi the sign list notes

6 Brugsch, Review of: De Horrack, Notice ..., p.38; id., *Matériaux*, p.49–51.

7 Fecht, *Wortakzent*, §§ 187f; compare Osing, *Nominalbildung*, p.880f.

8 Brugsch, *Matériaux*, p.48f.

9 *Ibid.*, p.20, 50f.

10 *Ibid.*, p.51f.

11 Birch in Bunsen, *Egypt's Place in Universal History*, p.346, 528, 610, 628, for *ga* see p.573, 671, 680. It also contains the entries ḫ *ta* and ḫ ḫ, ḫ *tata* with the head as a determinative (p.532f). For the reading *ap* Birch cites Champollion, *Dictionnaire égyptien*, p.201 [՚] which does not contain an entry with the head in the edition finished in 1843. The transcription *a* can correspond to *j*, ՚, or ՚ in particular instances.

12 De Rougé, *Chrestomathie égyptienne*, fasc.1, p.121, [No.D41] p.85 [No.t,1] and p.148 [additions to p.69]; for *tepi* see *ibid.*, fasc.2, p.116 with fn.4. In the paragraph ‘De la Polyphonie’ he also lists *ha* [= ՚], *her*, and *t'et'* [= ՚ded] (*ibid.*, fasc.1, p.119).

13 Brugsch, *Hieroglyphisch-demotisches Wörterbuch* IV, p.1535–1539.

14 Brugsch, *Hieroglyphische Grammatik*, p.120 [No.63] and [No.402] 130; same list in *idem*, *Verzeichniss der Hieroglyphen*, p.5 and 15.

tep, *āp*, and the use as determinative for the head, and *tep* for the dagger.¹⁵ Besides *tp*, transcriptions equivalent to *jp* or *cp* were still defended and used by some scholars for both the head and the dagger in the 1870s.¹⁶ ☽ occasionally also used to be transcribed with equivalents to *dʒ* and *dʒdʒ*.

1.3. 1880s–1890s: *tep~tp – tep – t'at'a > dʒdʒ – āp – hetep~htp*

In 1881, Peter Le Page Renouf argued insistently that ‘whenever [...] the two signs ☽ and ☾ are used interchangeably, the only value which they represent is *hotep*.’¹⁷ In volume VII of his dictionary released in 1882, Brugsch, on the other hand, confirmed the reading *tp—scil.* one must understand *tp*, but not *āp*, *t'a*, or *t'at'a*—of the head sign also for Pre-Graeco-Roman times citing a cryptographic spelling *tp-ba* [≡ *dp-b*] in the Book of Caverns.¹⁸ He did, nevertheless, transcribe it with *tp*, not with *jp*. Ernest W.A. Budge, on the contrary, took the consequences out of Brugsch’s find and transcribed the head and the dagger regularly with *tep*, but only until the early 20th century.¹⁹ The sign list by Oscar von Lemm lists *tep* (and *āp*) as ideographic and *āp* as the syllabic value for the head, and *tep* for the dagger.²⁰ Another sign list by Simeone Levi in 1887 lists *āp* and *tp* as usual transcriptions for the head, and *bgs* and *htp* for the dagger.²¹ In an article in 1888 addressed to Karl Piehl, Peter Le Page Renouf argued for *tep* and *hetep* and probably *āp* as readings for the head and again for *h(e)tep* as readings of the preposition ‘on’ and the dagger.²² He also claimed to have found a spelling ☐ ☽ *tep* for ‘head’ in a papyrus from the 19th dynasty. Piehl, however, insisted on the reading *tep* in most instances mentioning among others three spellings ☽ for *tephe(t)* ‘cavern’ from the Graeco-Roman Period (evidence 5).²³ Adolf Erman used to transcribe the preposition ‘upon’ *tp*, the nisbe ‘first’ *tpi* or *tpi*, but the noun ‘head’ most often *dʒdʒ* (whereas his list also notes *tp-t*). This was partly due to the fact that he worked on Late Egyptian, in which the word *dʒdʒ* was used more often than the traditional word *tp*, and that he had published the *Papyrus Westcar* in which

15 Rossi, *Grammatica*, p.206f, 208, 352.

16 E.g. Renouf (Miscellanea V, p. 76f), Georg Ebers (*Papyros Ebers* II, p. 9, 49), and Richard Lepsius (Eine Aegyptisch-Aramäische Stele, p.129 fn.): “Der Kopf ☽ hat verschiedene Aussprachen: *tep*, *āpe*, aber auch *t'a't'a* und *ka* [seemingly for *ka* (=*k*? or *g*?), D.W.] ([...])”.

17 Renouf, Meaning of the Word *Hotep*, p.119, and again in id., Prepositions ☽ and ☾. This idea has been developed by Franz Joseph Lauth, Johannes Dümichen, and himself since the late 1860s.

18 Evidence 10 b below. The re-discovery of the evidence in the Book of Caverns about 120 years after Brugsch’s first mentioning of it happened to be the starting point for this study.

19 E.g. *tep* in Budge, *Easy Lessons* (1st ed.–4th ed.), p.55 [*tep*, *t'a't'a*] and 85 [*tep*]. In id., *Hieroglyphic Vocabulary of the Book of the Dead*, p.430f [*tep* ‘head’, ‘upon’ *tepi* ‘first’] and id., *Hieroglyphic Dictionary*, p.828–831, pls.105 and 137, however, he transcribed it with *tep* again.

20 Von Lemm, *Ägyptische Lesestücke*, p.10, 37.

21 Levi, *Vocabolario Geroglifico*, No.203, 1072/3.

22 Renouf, ‘Note on the values of the sign ☽’.

23 Piehl, Notes de philologie égyptienne, p.109–111, cf. *PM* V, 21 and 23. Renouf defended his own position in his ‘Note [...] on No.24’. Piehl reacted with a note ‘On the Formative Letter ☽’.

the name *Dʒdʒⁱ-m-ŋh*²⁴ ⲯ ⲩ ⲥ ⲩ ⲩ ⲩ suggested that the head in the earlier attested name ⲩ ⲩ was probably to be read *dʒdʒ* as well.²⁵

1.4. 20th century: *tp* – (*dʒdʒ*)

In 1899 in an article ‘Notes on Hieroglyphs’, which Alan Gardiner later referred to in his *Egyptian Grammar*, Francis Ll. Griffith reaffirmed that the Demotic spellings suggested *tp*—i.e. not *dʒdʒ*—as the standard reading of the older hieroglyphic ²⁶; but he stated that “it is possible that *tp* represents an early ²⁷ *zpz* [$\equiv dp$, D.W.], as no early variants exist; but certainly ²⁸ *zpz* was never *zzz* [$\equiv dʒdʒ$].”²⁵ Subsequently *tp* and *tpj* became the standard readings of the head and the dagger in the influential works of Adolf Erman²⁶, Kurt Sethe, Alan Gardiner, and others during the first half of the 20th century. Although some of the slips in the archive of the Berlin Dictionary were originally attributed to readings *dʒdʒ* for the head sign they were finally attributed to the reading *tp*. But the case of ⲩ ⲩ is still mentioned in the entry *tp* ‘head’ of the Dictionary.

Only recently Frank Kammerzell suggested *tp* (*/kap/ > /cap/) as the actual reading of the word ‘head’ in (Pre-)Old Egyptian (evidence 4).

All possible dental/alveolar and palatal phonemes concerning the initial stop of ²⁹ and/or ³⁰ in older Egyptian have until today at least been taken into account and a collection of the pieces of evidence available is presented here.

2. Reexamination

As far as the consonantal compatibility restrictions are concerned either reconstruction is theoretically possible: *t+p* (e.g. *htp* ‘to be pleased’), *t+p* (e.g. *tp̣.t*³¹ ‘cavern, hole’), *d+p* (e.g. *dpi*³² ‘to taste’), and *d+p* (e.g. *pd.t*³³ ‘bow’).²⁷ The sequence *dp*, however, is not attested in Old and Middle Egyptian so that the lexeme ⟨head/top⟩ would be the only one. The equivalence of ³⁴ and ³⁵ is proven by their interchangeability already in the Pyramid Texts.²⁸

24 Erman, *Papyrus Westcar* II, p.28 [prepos. *tp*], 30 [“²⁹ und seltener ⲩ ⲩ ⲩ ⲩ ⲩ ⲩ [...] *dʒdʒ* ,Kopf”]; id., *Neuaegyptische Grammatik*, 1st ed., §§31 [ⲩ ⲩ ⲩ ⲩ ⲩ ⲩ *tata* ‘Kopf’], 90 [“*tpi* (?) ‘der erste’], 118 [“³⁰ *hr tp* (? *tā? ga?*) ‘oben auf’], 2nd rev. ed., §§660f [*tp*, *dʒdʒ*]; id., *Agyptische Grammatik*, 1st ed., p.174 [“eig[entlich] *tp-t* Kopf, *dʒdʒ* Kopf; üb[er]tr[agen] *tp* auf; det. Kopf”], 188 [“üb[er]-tr[agen] *tpi* erster”], 131 [“*tp* (eig[entlich] Kopf o.ä.) ,auf“ ist veraltet”], word list p.58*, 67*f. To the problem of *tp* vs. *dʒdʒ* still Edel, *Altägyptische Grammatik* I, §§52f [p.23f]. For the names see Ranke, *Personennamen* I, p.380.2, 405.20.

25 Griffith, Notes on Hieroglyphs, p.269.

26 Erman, *Ägyptische Grammatik*, 2nd rev. ed., p.206 [“eig[entlich] *tp* Kopf, *dʒdʒ* Kopf; üb[er]tr[agen] *tpj* erster; det. Kopf, nicken, *gw*”], 162 [“*tp* (eig[entlich] Kopf o.ä.) ,auf“ ist veraltet”], 223 [“üb[er]tr[agen] *tpj* erster”], 163 [“³¹ *hr dʒdʒ* ‘auf (dem Kopf)’ (= 3rd compl. rev. ed., p.291, 238, 310, 239).

27 See also Peust, *Phonology*, p.195f, 299.

28 E.g. Pyr. 389c: W.: ⲩ ⲩ, N.: ⲩ; Pyr. 302b, Pyr. 701b, Pyr. 705a, Pyr. 724b,c.

The earliest hints on the nature of the initial stop that had been taken notice of were discovered by Brugsch. Except for the cryptographic spelling in the Book of Caverns, they all point to the non-emphatic dental *t* /t/ and date as late as the Graeco-Roman Period. Further evidence was provided by the slip archive of the Berlin Dictionary. There the earliest instances of (alpha)betical spellings of the stem are two renderings □ *tp(i)*²⁹ for the word ‘first’, dating to the 9/8th and 4th centuries BCE (evidence 1 and 2). Until the time of the compilation of the Berlin Dictionary, Brugsch, Piehl and the slip archive provided at least the following evidence, all of which dates to the Graeco-Roman Period (evidence 3 and 5): the noun ‘head’ □[◎] *tp*[◎] (2x), the nisbes ‘first’ □ *tp(i)* (4x) and ‘(being) upon/at the head of’ □ *tp(j.t)*³⁰, ‘ancestors’ □[◎] *tp(j.w-c(w))*³¹, ‘earlier’ □[◎] *tp(j.w-c(w))*³², probably the preposition ‘upon’ □ *tp~*□[◎] *tp*[◎] in a compound *tp-sw-10-nb* ‘decade, week’, ‘The one on top’ (i.e. the White Crown) □[◎] *tp(j.t)*³³, spellings of ‘peace’ *htp*³⁴ and of ‘cavern’ *tpḥ(t)* (<*tpḥ.t*) with the head, and the ambiguous renderings in Demotic  and in Coptic **τηε** and **τοη**³⁵. There were, however, Renouf’s spelling □[◎] *dp* in an hieroglyphic papyrus from the 19th dynasty,³⁶ one spelling □[◎] *dp(j.w-c(w))* ‘ancestors’ in the archive dating to the 4th century BCE and two ‘sportive’ spelling of ‘first’ as  *db*³⁷ in the Ptolemaic Period (evidence 15 and 17).

The oldest strong evidence for the nature of the initial stop can be found in the Books of the Netherworld attested in the New Kingdom. No less than 14 instances of the words ‘head’, ‘upon’, and ‘(Human) Headed (One)’ in the Amduat, in the Book of Caverns, and in two ‘enigmatic’ treatises on the second shrine of Tutankhamen and in the tomb of Rameses VI clearly prove the equivalence of ◎ to *dp* /t'(V)p/ as early as the 15th century BCE (evidence 8–11).³⁸ Since all of these spellings are situated in the so-called cryptographic passages, only few scholars who have taken notice of them took it seriously enough to question the reading *tp*—among them E.W.A. Budge (†1934) who transcribed *tep* for nearly three decades, but finally gave up and returned to the reading *tep*, and Peter Le Page Renouf (†1897).

29 Like Adolf Erman in the 1st ed. of his *Ägyptische Grammatik* (p.10, but not anymore in the 2nd ed., p.8) and Carsten Peust (*Phonology*, p.50), I use the transcription symbol *i* for ◄.

30 Turned out to be an error; see evidence 3 n.

31 Later, one of Brugsch’s finds turned out to be an error of Lepsius’ publication; see evidence 3 j.

32 Brugsch (*Matériaux*, p.51) cites Coptic **τοη** ‘head’ without any reference. None of the Coptic dictionaries do mention it, though.

33 Renouf, Note on the values of ◎, p.571f. For pBM 9971 see Shorter, *Catalogue*, p.11.

34 Scholars do not agree on the date of the compilation of the Amduat until now (Old Kingdom–early New Kingdom). Only recently Joachim F. Quack (Review of: Zeidler, Pfortenbuchstudien, p.557f) argued for the creation of many of the Books of the Netherworld in the Old Kingdom. The earliest text witness, however, dates to the reign of queen Hatshepsut (Mauric-Barberio, *Le premier exemplaire du Livre de l’Amduat*, p.333f).

But in fact there is no reason to doubt this evidence; certain rules underlying the cryptographic spellings of these works allow for a reliable interpretation of them.³⁵ In the Amduat the initial stop in question is spelled with \Rightarrow in all of the four occurrences of cryptographic spellings of \triangle . The large majority of the ‘cryptographic’ writings in this book are merely alienated spellings within the framework of the traditional sign interpretations (additionally deprived of most of the more or less redundant information like determinatives). Therefore the \Rightarrow most likely denotes a $d /t'.$ ³⁶ Hermann Grapow has wondered whether these spellings were evidence for a possible interchange of \triangle and \Rightarrow already in the time of the New Kingdom, at least in the word ‘head’.³⁷ In principle, it is not unthinkable that in analogy to the regular exchange of \triangle with \Rightarrow in cryptography \triangle could be exchanged with \Rightarrow too. But this would require that a sound shift analogous to the de-palatalization ($/c/ > t$ and $/c' / > t'$) that allowed for exchanges of the signs for palatal and for non-palatal stops could have also been observed for $t' / > t$ at the time of the creation of the Amduat, i.e. not later than the 15th century BCE³⁸. But from all we know about the emphatic opposition this was not the case until some hundred years later and even then only in certain positions.³⁹

In the later Books of the Netherworld, in addition to the alienation of the spellings, many signs were exchanged by others according to certain rules, i.e. they were encrypted in the strict sense. One of the most common devices was the exchange of signs that depict objects of the same category. Except for three instances in the Book of Caverns, in the other cryptographic spellings of the word ‘head’ and the derivate ‘the (human) headed one’ the initial stop is rendered by nw . This must be interpreted as being an exchange for unattested $*\text{t}/c'/(>/t')$ according to the category exchange principle, which itself should be interpreted as an exchange for m/t' according to the sound shift principle discussed above. In general Egyptian t/c , $t/t</c$ and t/t are all rendered by m , or occasionally by w , whereas d and $d(< d)$ are rendered by $\text{nw}/t'/(</c')$ in the cryptographic system of the later Books of the Netherworld.⁴⁰ In the

35 I am preparing a description of these systems with a list of all sign equivalences proven by equations in those passages written in standard orthography and cryptographic orthography.

36 An interpretation on the basis of the logographic acrophonic principle would require a contemporary pronunciation pattern such as /KV(?)/, /KV(j)/, or /KV(w)/ since it is normally not used when there is more than one ‘strong’ consonant. The history of the noun *dr.t* ‘hand’ can be reconstructed as '/c'a:rVt/ > /'t'o:rV/ > ^S**ΤΩΡΕ** ~ ^B**ΤΩΡΙ** /'t'orə/ (trad.: /'to:rə/; Peust, *Phonology*, see p.86, 253f; /'torə/ ~ /'tori/; Reintges, *Coptic Egyptian*, see p.27, 32: /'tɔ:rə/), but stat. pron. /'c'artV/ > /'t'a?t(V)/ > ^S**ΤΟΟΤ** ~ ^B**ΤΟΤ** /'t'ɔ:t/ (trad.: /'to:t/; Peust, *op.cit.*, p.212: /'tɔ:t/; Reintges, *op.cit.*: /'to:ot/). Compare Vycichl, *Dictionnaire*, p.219f. For the retention of the emphatic feature see discussion below.

³⁷ Grapow, *Studien zu Königsgräbern*, p.29. Similarly, only recently, Darnell, *Enigmatic Netherworld Books*, p.45 in case of some spellings on the second shrine of Tutankhamen.

38 But see f.34.

³⁹ Compare Peust, *Phonology*, p.84–86, esp. fn.72.

40 Piankoff, *Livre de querer* (no. refer to plates): $\text{^o} \rightarrow \text{e}$ [passim]; $\text{^l} \rightarrow \text{r} \sim \text{~y}$ (*ntr>ntr>*)ntj~nt
(>**NOYTE**) [73, 69]; $\text{^s} \rightarrow \text{s} \text{~T}$ ($\beta z >$)**s**(>**xwɔ**) [77]; $\text{^s} \text{~T} \text{~l} \rightarrow \text{s} \text{~T} \text{~l}$ h^d.yt (h^d>**zler**) [78];
 $\text{^s} \text{~d} \rightarrow \text{s} \text{~d}$ (?)sdf-hr [78]; $\text{^d} \rightarrow \text{d}$ (?)^d [146]; $\text{^m} \text{~l} \rightarrow \text{m} \text{~l}$ dm^dy [68, 149]

Book of Caverns, however, the initial stop of ‘head’ is rendered by once and by twice. The usage of in the Amduat shows that it most likely stands for /t'/ (or /t'a/) according to the acrophonic principle (/c'aw>/**t'**aw>^S**TOOY**~^B**TWOTY**⁴¹ /'t'ɔw~/-'t'ow/, trad. /'tow/⁴²).⁴³ The rendering as is suspicious though, since as according to the statements above one would have expected . We can either interpret this phenomenon as one of the less frequent spellings of consonants with the sign of standard orthography, or we can look at it as a case of an interchange of and (→)^{*~} for the opposition /c' : /t'/ according to the sound shift principle.

It is clear, however, that the cryptographic spellings in the Books of the Netherworld prove the emphatic nature of the initial stop of the lexeme ‘head’ and the nisbe ‘upon’ and so suggest a pronunciation /t'Vp/ for ‘head’ in the 2nd millennium BCE. The seemingly apparent evidence for a non-emphatic reading *tp* dating from the early 3rd millennium BCE found by Kammerzell should therefore be explained otherwise (evidence 4).

The possibility remains, nevertheless, that Middle Egyptian *dp* /t'Vp/ developed from a hypothetical Old Egyptian *dp* /c'Vp/.⁴⁴ Unfortunately no indubitable proofs from the time of the Old or Middle Kingdom have appeared, to my knowledge, to shed light on this question.⁴⁵ There is only one sign group in the pyramid of Unas which is most likely to be read *dp* ‘head’. Scholars have, until now, analyzed this as the phrase (*w*)*dj* *tp*; but the reading *dp* ‘head’ probably makes more sense and is grammatically less problematic (see evidence 6). Another hint in the Pyramid Texts that the initial stop was a *d*, indeed, could be instances of the word ‘head’ in poetic

(compare fn.43); → (*dr*~*dr*>)*dr* [62]; → ? *wdʒ*(>*oyxai*?) [149]; also → (*psd*>)*psd* [62].

41 Compare Vycichl, *Dictionnaire*, p.223f.

42 I tentatively assume that the Bohairic opposition **o** : **r** before stressed vowels corresponds to a doubly marked opposition /t/ [t^b] : /t'/ [t'], in which the emphatic opposition is still preserved from earlier Egyptian, whereas the breathy articulation is a (chronological and/or phonological) secondary phonetic feature. It is possible, however, that this breathy articulation was also present in the other dialects and/or earlier Egyptian but left no reflex in their writing systems (compare Peust, *Phonology*, p.83–88, who assumes an phonological opposition *t* /t^b/ : *d* /t/ already for earlier Egyptian but its neutralization in Sahidic). For the conditions of the retention of the emphatic feature in Coptic see discussion below.

43 Hornung, *Amduat* I–III (no. refer to pages): → *hndw* [195, 196, 310, 563 ()]; *h̥d.w* (*h̥d*>*gier*) [788, 791]; → *dmdw* (* *dmd*>*dmd*>*dmd*>**TWMT**~**TWMNT**) [661], compare *dmd.t* [484], = *dmd.yt* [557], and *dmd.t* [636].

44 Peust, *Phonology*, 123–125.

45 There is, however, one interesting case on the coffin of Queen Mentuhotep from the 17th century BCE found by Matthias Müller that unfortunately contains an error in the same word and does not hold as a strong proof: *mri=s* | “ *q=f m- qr(r).(w)t jm(j).(w)t dp*” =k ‘... for she wishes that it enters the cavity in your head(s)’ (Geisen, *Sarg der Mentuhotep*, p.22, pl.1; compare *CT* IV 410 c [777]). I also found two exceptional spellings of the nisbe ‘first’ with on two coffins from Deir el-Bersheh that I cannot offer a convincing explanation for: for *dpj* (*CT* IV, 377 c [346]: CG 28123) and for *dp(j).t* (*CT* VI, 436 h [1108]: BM 30842).

verses with apparent alliterations, e.g. *dm ds* \rightsquigarrow *=k* ... *dr dp.(w)t hsq* \rightsquigarrow *h³t(j).(w)* $\hat{\imath}$ *t* (see evidence 7).

There are additional pieces of evidence dating from the New Kingdom to the Arabic Period that may point to an emphatic pronunciation of the initial stop in *dp*¹ ‘head’ and in *dp(i)* ‘upon’ and ‘first’.

There is a word ^{*}*hr(i)db /hVrVt’Vb/* attested in Neo-Assyrian HUR-DI-BI *har(V)-tib(i)*, Old Testament Hebrew and Aramaic **הַרְתּוֹם** *hartom*, Demotic **𓀻𓀺𓀻** (*p-*)*hrdby*, and Greek φρίτοβ that designates an Egyptian literate official who, in some cases, gives advise to the pharaoh (evidences 13 b–e). It is very likely that this term derived from the second part of the older Egyptian title **𓀻𓀺𓀻** *hr(i)-h(3)b(.t) hr(i)-dp* ‘lector priest (and) chief~‘leading lector’, which, as a shortening for the hole, became a title for a person trained in hieroglyphs.⁴⁶ A ‘sportive’ spelling variant $\hat{\imath}$ for $\hat{\imath}$ suggests that this title was pronounced somewhat like ^{*}/ha'ri:t'ab/ as early as the 13th century BCE (evidence 13 a). This was subsequently borrowed into the languages of the cultures north-east of Egypt in the form ^{*}/har't'Vb/ at some point before the 7th century BCE. In Egypt itself ^{*}/ha'ri:t'ab/ developed into ^{*}(p^o)*ḥə'rit'*əb/,⁴⁷ which was rendered in Greek as φ(ε)ρίτοβ. If this analysis is correct the hieroglyphic spelling variant and the Neo-Assyrian and Hebrew borrowings all point to the marked nature of the dental stop rather than to a unmarked one.⁴⁸

Another case of a possible borrowing into Old Testament Hebrew has been proposed by Manfred Görg. He suggested that the *hapax* נָהָרָת *t^epāhōt* in the description of the cedar palace of King Salomon derived from Egyptian **𢃠𢃠𢃠𢃠** *dpⁱ-h(w).tⁱ* ^{*}/t'VphV(KV?)/, which had a feminine gender in Late Egyptian (evidence 14). The syllable structure with a vowel between *p* and *h* and the seemingly feminin-plural ending -ōt(< -āt) in the Hebrew word are suspicious, though.

Finally there is the interesting case of the Egyptian-Arabic town name **اطفيح** *Atfīh* which was inherited from Coptic ^S(ΠΕ·)ΤΠΗ² /(*pə*)*t^(,?)pīh*/ [*(pə)**t^(,?)pīh*]~^B(ΠΕ·)ΤΠΕ² /(*pə*)*t^(,?)pēh*/ [*(pə)**t^(,?)pēh*]>[*(pə)**t^(,?)bēh*] going back to earlier Egyptian **𢃠𢃠𢃠𢃠** *dpⁱ-jh.(w)* ^{*}/t'ap-'(j)u:hV(w)/ (evidence 18). On the basis of the traditional reading *tp(j)ⁱ-jh.(w)*, Wolfgang Schenkel had to explain the emphatic rendering of the dental in *Atfīh* as a phenomenon of secondary emphatization.⁴⁹ It is tempting to interpret this as a reflex of a Coptic predecessor ^{*}(*pə*)*t[']pīh* but since the dental stop had never been in direct contact with the stressed vowel the emphatic feature should have not survived into Coptic according to Schenkel’s claim discussed below. So maybe his explanation still points into the right direction.

46 Kees, Vorlesepriester, esp. p.130, 136.

47 For the retention of the emphatic articulation of /t/ see discussion below.

48 Hans Goedicke (*Hartummîm*, esp. p.27–30) rejects the equation of $\hat{\imath}$ and $\hat{\imath}$; and he argues that the Egyptian equivalent of the Hebrew title was ^{*}*hr(i) tm*.

49 Schenkel, Glottalisierte Verschlußlaute, p.42: *Atfīh* < Copt. ^{*}*Petp'ēh* < Eg. *Pr.w- *tap.ii- i̇ḣ.w.*

Crucial to the interpretation of the post New Kingdom evidence is the question until when and in which positions the proposed emphatic feature of the $t : d$ -opposition ($\text{⁻}/t/$, $\text{⁻}/c/$ vs. $\text{⁻}/t'/$, $\text{⁻}/c'/$) is preserved and until when it is rendered in the different writing systems. The earliest hints for a possible loss of the emphatic feature date to the later New Kingdom⁵⁰ and Schenkel argued that the emphatic opposition is regularly preserved in Coptic, at least before and after stressed vowels with or without a sonorant between the two (→ Eg.-Arab. $\text{ـ}/t/ : \text{ـ}/t'/$).⁵¹ It is well known that there is still a reflex of the opposition in the Bohairic Coptic writing system before the stressed vowels (> **Theta** [t^h] : **Tau** [t'], trad. **Theta** [t^h] : **Tau** [t]).⁵²

As far as the writing systems are concerned it is traditionally assumed that the apparent merger of emphatic and non-emphatic graphemes in Demotic and the interchangeability of the two in the hieroglyphic system of the Ptolemaic temple texts reflect a loss of the emphatic opposition on the phonological level. It is not clear, however, whether this exchange reflects an actual sound shift or merely a neutralization of the graphemic opposition in particular texts and/or phonological environments.⁵³ This is especially likely for the archaic words discussed here, the history of which can tentatively be reconstructed as follows:⁵⁴

- ⌚ OEg. *'/t'ap/ (possible var. ) , stat.pron. *'/t'apVK/ (var. ) 'head'
 > MEg.-LEg. *'/t'ap/ (crypt.  ~  ~  ; poss. hierogl.  in 19th dyn.)
 > Gr.-Rom. Neo-MEg. *'/t'ap/, *'/t'ɔp/ (var.  !)
 > OCopt. *'/t'ap/, /t'ɔp/ (stat.pron. **TOB-Q** ['t'ɔb^əf]),
 Rom.-Demot.  ~  (p-)dp(e)^q /'(p^ə)-t'Vp(ə)/ (compare (t-)cpe^q below)
 > Copt. † (one would expect **AL-**ΤΑΠ**, **SB-**ΤΟΠ**),⁵⁵
 but non-stressed part in compounds:
 > LEg. *'/t'əp-/ ([t'əp]~[t'əb])
 (> Napat.  d(i)b- */Təb-/, in which the opposition of *d* and *t* is neutralized)
 > Demot. -db(y) *'-t'əb(V)/ [-t'əb(V)] (directly succeeding stressed vowel)
 > Copt. ^B**ΤΕΒ**- /t^əb/ [t^əb](?)~^{SALF}**ΤΒ**- /tβ/ [tβ]~^S**ΤΟΥ**- /tw/,
 but directly before stressed vowel also ^{SB}**ΤΠ**- /tp-/ [tp-] (in **ΤΠΗΩ**),
 and exceptionally in compound ^{SALBF}**ΤΑΠ**-~^M**ΤΕΠ**- (in **ΤΑΠΡΟ** /t'ap'rɔ/, f.).⁵⁶

50 But compare Peust, *Phonology*, p.84–86, esp. fn.72.

51 Schenkel, Glottalisierte Verschlußlaute, esp. p.13–16.

52 For the doubly marked opposition /t/ [t^h] : /t'/ [t'] assumed here see fn.42.

53 Schenkel, Glottalisierte Verschlußlaute, p.52.

54 Only references to those evidence not mentioned in the evidence list are given here. O[ld]Eg[yp-tian], M[idle]Eg[gyptian], L[ate]E[gyptian] , Demot[ic], O[ld]Copt[ic] , Copt[ic].

55 **TOB-Q**: Osing, *Papyrus BM 10808*, p.89f, 106. *dp(e)*^q: EDG 626. There also seems to be a demotic gloss *dp* [t'VpV] ‘to stitch’ (LEg. Hieratic *dp(j)*^q (?), trad. *tp(j)*^q) > ^S**ΤΩΠ**, ^{SB}**ΤΟΠ**=) to hieratic  in a papyrus from Tebtunis, of which only the determinative is well preserved (Osing, *Tebtunis I*, p.91f; Vycichl, *Dictionnaire*, p.219). **ΤΟΠ**: See fn.32.

56 Compare Fecht, *Wortakzent*, §67 with fn.120. *db(y)*: EDG 321f. Copt.: Vycichl, *Dictionnaire*, p.211, 165, 219. **ΤΟΥ**-: Osing, *Nominalbildung*, p.713. For **ΤΟΥ**- and the archaic pronunciation [b] of **Θ** /β/ in word-final position in Bohairic see Peust, *Phonology*, p.134 and 136.

MEg. */t'a:'pe:/ *‘head (& neck?)’
 > LEg. */t'a:'pe:/ (possible var. [t'a:'bə:f], see evidence 12)
 > Neo-MEg. reanalyzed as *(t)a:'pe:/ with definite article
 > Rom. Demot. (t-)cpe */(t)a:'pe:/ ‘head’
 > Copt. ^B(τ·)αφε / (t)a'pe/ [(t)a'p^hε] ~^{SAL}(τ·)απε ~^F(τ·)απη.⁵⁷

OEg.–LEg. */t'Vp/ ‘upon’
 > Neo-Meg. */t³p/ (probably var. in compound *tp-sw-10-nb*)
 > Demot. †.

OEg. */t'V:'pij/ ‘(being) upon’
 > MEg.–LEg. * /t'V:'pe(j)/ (fem. crypt. * /t'V'pe/) * /t'V'pe(j)/
 > Neo-MEg. (4th century BCE) * /t'V'pe/ (var. pl. * /t'V'pew³V/)
 > Neo-MEg. * /tV'pe/ (var. fem. * /tV'pe/, pl. * /tV'pVw³V/)
 OCopt. ** /t³pe/ (var. in **ΤΒΑΪ**(ΤΩΥ) ['tbaej(t'ow)], fem. **ΤΕΠΙΕ** [təp'jɛ],
 probably in compound **ΤΠΡΟ·Κ** [t³p'rɔk])
 > Copt. ^{SL}**ΤΠΙΕ** /tpɛ/,⁵⁸

and the variant of the latter

OEg. */t'V:'pij/, stat.pron. */t'Vp'jVK/ (rare var. ‘first’
 > MEg.–LEg. * /t'V:'pe(j)/
 > Early Neo-MEg. * /tV:'pe/ (one var. from 9/8th century)
 > Neo-MEg. * /tV:'pe/ (var. ; var. [tV:'bɛ]: ‘sportive’ var. * /tV:'bV/)
 > Rom. Demot. * /tV'pe/ (var.)
 > Copt. †.⁵⁹

‘head’ (stressed; m.)	t'ap	.....	t'ap	.....	t'ap/ t'ɔp~'t'əb	.....	†
‘head’ (unstressed; m.)	t'ap	.....	t'əp	.....	(t ³)əp)	.....	(t ³)p
					t'əb	.....	t ³ əb t ³ b~t ³ β
‘upon’ (prep.)	t'Vp-	.....	t'əp-	.....	(t ³)əp-)	.....	†
‘on top’~‘first’ (m.)	t'V:'pij	.....	t'V:'pej-	.....	(t ³)ə'pej-) ... (tbaej-)	...	†
					t'V:'pe:	.....	t ³ V:'pe:~t ³ V:'bɛ: .. tə'pe:..... 'tpɛ
‘on top’~‘first’ (f.)	t'Vp'jit	.....	t'Vp'je	.....	(t ³)Vp'je) .. (təp'je) ..	.....	†
					t'V'pe	.....	t ³ V'pe tə'pe 'tpɛ
‘upper (body?)’>‘head’ (f.)			t'a:'pe~t'a:'bɛ	.....	(t) ³ a:'pe (t)a:'pe .. (t)a'p ^h ε		

3000 2000 1000 BCE 0 CE 1000

57 *cpe*: EDG 59. **αφε**: Vycichl, *Dictionnaire*, p.14. For the later initial vowel and the development of /V/ > earlier Demot. /a/ > later Demot. /ə/ > Copt. α /a/, and for /a(:)/ > α(~ε) see Peust, Vortontokale, esp. p.70f, 73; id., *Phonology*, p.102f, 149.

58 Osing, *Nominalbildung*, p.311, 313, 634f, 798f. **ΤΒΑΪΤΩΥ**: Spiegelberg, *Koptische Kleinigkeiten*, p.133. **ΤΕΠΙΕ**: Osing, *Papyrus BM 10808*, p.116. **ΤΠΡΟΚ**: *Ibid.*, p.74. **ΤΠΙΕ**: Westendorf, *Handwörterbuch*, p.239. Copt.: Vycichl, *Dictionnaire*, p.221, 218. Haardt (*Versuch einer Altkoptischen Grammatik*, p.32–35) argues that OCopt. β can correspond to [v] or [b].

59 Demot. var.: EDG 321f.

Especially in light of the evidence from the Books of the Netherworld, we can conclude that apart from uses as determinatives the signs  and  corresponded to *dp* /t'(V)p/ or *dptj > dpi* /t'(V)p(V)(j)/ respectively in Middle Egyptian and there are some hints in the Pyramid Texts (compatibility restrictions, a possible spelling , and alliterations) that this was already the case in Old Egyptian.



List of evidence ...⁶⁰

... for a spelling *tp*

- (1) Spelling variant on a block statue of Neser-Amun (reign of Sheshonq III[a?]; 9/8th century BCE):

 *hm-ntr-Jmn-R^c (n)zw-ntr.(w)*
(jmi-)3bd(=f)-Jmn-R^c hr¹-z3 tp(i) Ns-r-Jmn—m^{3c}-hrw

‘Prophet of Amun-Râ King of the Gods, month-priest of Amun-Râ in the First Phyle, Neser-Amun—justified’ (DZA 31.049.170; CG 42221: Legrain, *Statues et statuettes*, p.48 [c])

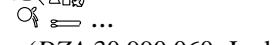
- (2) Spelling variant on the pyramidion of Nesmin (30th dynasty[?]; 4th century BCE):

 *hm-ntr tp(i) n(i)- Jni-hr(j).t* ‘First Prophet of Onuris’
(DZA 31.045.420; A[vignon] 30: De Meulenaere, *Pyramidions d’Abydos*, p.9f, pl.IV)

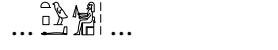
- (3 a–o) Spelling variants on Graeco-Roman temples (Graeco-Roman period;

3rd century BCE–1st century CE):

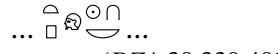
 *tp(i)-Hr(w) -pw* ‘He is the first of Horus.’
(DZA 28.037.250: Clère, *Porte d’Evergète*, pl.3, Chons temple, reign of Ptolemaios III Euergetes)

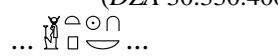
 *mh tp =t* ‘Garlanded is your head, ...’
(DZA 30.990.060: Junker, *Pylon Philä*, p.250f, Philae temple, reign of Ptolemaios VI Philometor)

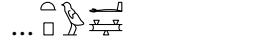
 *tp n(i)- ntr-nb* ‘... head of every god ...’
(Brugsch, *Matériaux*, p.49, id., *Wörterbuch IV*, p.1535): Sauneron, *Esna II*, No.16.2;
Ptolemaic Period)

 *tp(j).w-c(w)* ‘... ancestors ...’
(Brugsch, *Matériaux*, p.50; *PM VI*, 230 (253), Philae temple, reign of Ptolemaios VIII Euergetes II)

 *m- htp* ‘... in peace ...’
(Brugsch, *Matériaux*, p.50; Philae temple, Ptolemaic Period)

 *tp-sw-10-nb* ‘... every decade ...’
(DZA 30.330.400; *PM VI*, 230 (254), Philae temple, reign of Ptolemaios VIII Euergetes II)

 *nb.(t)-tp-sw-10-nb* ‘..., mistress of the decade, ...’
(DZA 31.013.850; *PM VI*, 230 (253), Philae temple, reign of Ptolemaios VIII Euergetes II)

 *tp(j).w-c(w)* ‘...earlier’
(DZA 31.059.110; *PM VI*, 230 (271), Philae temple, reign of Ptolemaios VIII Euergetes II)

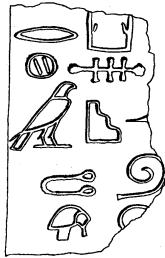
 *(d(d)-mdwt) hrp n=k tp(t) dmd-r- n.t*
‘ “The White Crown united with the Red Crown is conducted to you ...’
(DZA 31.076.540; Chassinat, *Mammisi d’Edfou*, p.30.7: reign of Ptolemaios VIII Euergetes II)

60 I am grateful to Günter Vittmann for drawing my attention to the Hebrew *hartummîm*, as well as to Wolfgang Schenkel, Frank Kammerzell, and Carsten Peust for sharing their opinion on the evidence available with me. Dieter Kurth helped me to verify the evidence from the Edfu temple and kindly shared information of his forthcoming grammar *Einführung ins Ptolemäische* with me. I also wish to thank Joachim Quack and Matthias Müller who pointed out three inexplicable spellings to me that are easy to explain on the basis of the new reading *dp*. I have, however, included only the strongest evidence here.

- DZA erroneous which turned out to be ; *m- htp* ‘... in peace, ...’
 (Brugsch, *Matériaux*, p.50; but see Chassinat, *Temple d'Edfou VI*, p.189 with fn.3)
- ... *tp(i) n(i)- [(W)s]r(w)*⁶¹ ‘..., the first of [Os]iris.’
 (DZA 31.052.940: Junker, *Pylon Philä*, p.81f, Philae temple, reign of Ptolem. XII Neos Dionysos)
- ... *tp(i) n(i)- (W)sr(w)* ‘..., the first of Osiris.’
 (DZA 31.039.200: Junker, *Geburtshaus Philä*, p.400f, Philae temple, reign of Augustus)
- ... (var.) *zh tp(i)* ‘The first hall ...’
 (DZA 31.043.350 [var. 31.043.330]; Dümichen, *Baugeschichte*, pl. 15 [15], *PM VI*, 44, 78 (238–247): Dendera temple, reign of Augustus)
- DZA erroneous *tp(t)- s.t-mshn(t)*⁶², which turned out to be
 ‘*hnt* (so) *s.t-mshn*’ ‘..., at the head of the mammisi.’
 (DZA 31.033.690: but see Junker, *Geburtshaus Philä*, p.186f, Philae temple, reign of Tiberius)
- ... *šc tp(i) jri wnn.t* ‘... the first initial one, who made what exists, ...’
 (DZA 31.049.450: *PM VI*, 204 [Z] (25), Philae temple, reign of Tiberius)

... for a spelling *tp*

(4) Spelling variant on oil docket (reign of Dewen[?]; 30/29th century BCE):



(Petrie, *Royal Tombs I*, pl.XIV.11; see pl. XI.6)

Frank Kammerzell (*Pre-Old Egyptian*, p.x+37, see also p.x+35 –x+37, x+46 [table 20-c]) suggests the readings *tp*-{...}(1+x)] ‘upon [(1+x) jars]’ or *tp*[(j)-*h3.t*] ‘top quality [oil]’. According to Peter Kaplony (*Inschriften der Frühzeit I*, p. 313) one should expect *st(j)-Hr thnw*(?). A possible—though not completely satisfying—reading assigning the to *s(t(j)-Hr(w)* could be ... *st(j)-Hr(w) dp(i)* ...] ‘Horus-Fragrance, excellent quality [...].’

(5 a–c) Spelling variants on Graeco-Roman stelae (Graeco-Roman period):

- *Hcp(i)* *m- t{t}p>h(.t)=f* ‘..., Hapi-in-his-cavern, ...’
 (Piehl, *Notes de philologie égyptienne*, p.110: CG 22074, Kamal, *Stèles*, p.70.6, but see pl.24)
- *H(c)p(i)* *m- tph(.t)=f* ‘..., Hapi-in-his-cavern, ...’
 (Piehl, *Notes de philologie égyptienne*, p.110: Bouriant, in: *Rec. Trav. 7*, p.122 (7.), *PM V*, 21)
- *H(c)p(i)* *m- tph(.t)=f* ‘..., Hapi-in-his-cavern, ...’
 (Piehl, *Notes de philologie égyptienne*, p.110: Bouriant, in: *Rec. Trav. 9*, p.90 (66.), *PM V*, 23 [present position unknown])

The contemporary pronunciation of *tph.t* > *tph(t)* was most likely /tVphV/.

61 For the reading of the Theonym see Zeidler, *Etymologie des Gottesnamens Osiris*.

... for a spelling *dp*

(6) Pyramid Text 270 (not later than reign of Unas, 24th century BCE):



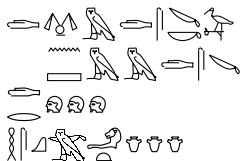
*jw dWnjs(j) r- s.t[‡]-(j)t[‡]f-tw
hnt(j)- s.(w)t[‡]
h³(j)- ntr^{‡-c³”}*
dp db³(.w)
*hnw.t[‡] spd.t(j) nh³(.tj)
hrj -s(j) ds[‡] spd[‡] zw³ ht(y).t[‡]
wd^c.t šnw m- dp-k[‡]
s.³hd.t jm(j).w- kkw[‡]
hnw.t[‡] wsr.t h³(j).t- ntr^{‡-c³}*

(Sethe, *Pyramidentexte I*, p.146 [Pyr. 270 a-e, W])

'Unas is heading towards this throne of his father(?), ahead the (other) thrones, behind the "Great" God, the head adorned, a horn sharp and strong—it having a sharp blade that can cut a throat, which can separate a hair(?) from(?) a bull's head and makes those in the dark shiver—a powerful horn behind the Great God.'

But notice the traditional interpretation (*w*)*di tp*: Sethe, *Kommentar Pyramidentexte I*, p.275–282: 'mit (wieder)gegebenem Kopfe' (a *nfr-hr* construction ?), Faulkner, *Pyramid Texts*, p.62: 'whose head is set in place' ((*w*)*di tp*(=j) > (*w*)*di tp**=f* ?); Mercer (*Pyramid Texts I*, p.77): 'with bowed head' (?).

(7) Pyramid Text 962 (not later than reign of Pepi I, 24th/23rd century BCE):



dm ds[‡]*=k - Dhw^t(j) -*
nšm(.w) mds(.w)[‡]
dr dp.(w)t
hsq[‡] ***h³t(j).(w)***[‡]*t*

(Sethe, *Pyramidentexte II*, p.37 [Pyr. 962 a-b, M])

'Whet your blade – Thot – so that it may be **keen(?, hapax) and sharp(?)! Remove the heads and cut out the hearts!'

See Kammerzell, *Zur Interpretation graphemsprachlicher Varianz*, p.72.

(8 a-d) Amduat (not later than reign of Hatshepsut,⁶² 15th century BCE)

in standard → *cryptographic orthography*

..|..	→	..|..	dp.(w)-ntr.(w) [‡]	'heads of the gods'
(*|*)	→	|—|	d s r dp	'Sacred-of-head' (a snake's name)
|—|	→	|—|	dp(j).t r [‡]	'from the mouth'
|—|	→	|—|	dp(j).t r [‡]	'from the mouth'

(Hornung, *Amduat II*, p.477 [6th hour])
 (Ibid., p.442 [5th hour])
 (Ibid., p.435f [5th hour])
 (Ibid., p.438f [5th hour])

62 See fn.34.

(9 a–j) Netherworld Book on the second shrine of Tutankhamen (not later than reign of Tutankhamen, 14th century BCE):

	→		dp↔Hr(w)	'Horus' head'
				(Piankoff & Rambova, <i>Shrines</i> , fig.42 [upper reg., middle])
	→		s.tni dp	'With-lifted-head'
				(<i>Ibid.</i> , fig.42 [lower reg., middle])
	→		dp	'head'
				(<i>Ibid.</i> , fig.41 [upper reg., right])
	→		dp.y	'(Human) Headed' (a snake's name)
				(<i>Ibid.</i> , fig.41 [lower reg., left])

See also Darnell, *Enigmatic Netherworld Books*, p.110, 139, 45, 49f, 90, 94f. The name of this snake is spelled with the head in standard orthography and is most likely derived from the word for 'head' since it has a human head in all its representations in the Books of the Netherworld:

	dp.y	→		dp.y	(Hornung, <i>Amduat</i> II, 4th hour, p.355, No.279)
	dp.y				(Hornung, <i>Buch von den Pforten</i> I, p.338)
	dp.y				(<i>Ibid.</i> , p.340)
	dp.y	→		dp.y	(Piankoff&Rambova, <i>Shrines</i> , fig.41 [l.reg., left])
	dp.y				(Piankoff, <i>Création</i> , p.29 with fn. 3)

A special case is the spelling

	dp.y	→		{r}dp.y	(Piankoff, <i>Livre de quererts</i> , pl.149.26)
					in Petamenophis' version of the Book of Caverns from the 7th century BCE.

(10 a–d) Book of Caverns (not later than reign of Merenptah, late 13th century BCE):

	→		dp-b ³	'head of the bâ'
				(Piankoff, <i>Livre de quererts</i> , pl.147.8)
	→		dp-R ^c (w)	'Râ's head'
				(<i>Ibid.</i> , pl.79.29)
	→		dp-R ^c (w)	'Râ's head'
				(<i>Ibid.</i> , pl.146.5)
2x	→		dp.y	'(Human) Headed' (a snake's name)
				(<i>Ibid.</i> , pl.76.3, pl.64.II)

Evidence a) has already been published by Champollion in his *Notices descriptives* and was quoted by Brugsch (*Wörterbuch* VII, p.1318). For the name of this snake see evidence 9 d–j above.

(11) Enigmatic treatise in the tomb of Rameses VI (not later than reign of Rameses VI, 12th century BCE):

	→		dp.w ¹ n(i)- nn(-nii)-ntr.w ¹	'heads of these gods'
				(Piankoff, <i>Ramesses VI</i> , pl.180 [middle reg., middle])

Darnell, *Enigmatic Netherworld Books*, p.203f.

(12) New Kingdom spell (Ramesside Period; 13th–12th century BCE):

	d'b¹.t²=f	'his head'
	tbn³=f	'his head'
	tb<?>⁴=f	'his head'

(DZA 31.367.630, WB V, 434.11; oLeipzig 42: Černý & Gardiner, *Hieratic Ostraca I*, pl. 91,1 rt. 1)
 (pBM 10731, vs. 1: Edwards, Kenhikhopshef, pl. 24.2)
 (oLeipzig 32=oGardiner 300: Černý & Gardiner, *Hieratic Ostraca I*, pl. 3,1 rt. 2)

A Synopsis of the spell may be found in *KRI IV*, 181f.

(13) Neo-Middle Egyptian–Demotic *hr(i)db /hVrVt'Vb*

- a) Near-homophonic spelling variant (not later than 19th dynasty, 13th century BCE):

MEg.	<i>(hr(i)-h(j)b(t)) hr(i)-dp</i>	'(lector priest and) chief'
> Neo-MEg. ~	<i>hr(i)-dp</i>	'chief lector priest, chief'

(Quaegebeur, *hartummîm*, p.167–169)

This phenomenon points to a phonetic shift in one of the phrases *hr-(j)db* or *hr(i)-dp*. Either *hr-(j)db* became */hVr-(j)Vt'Vp/* by losing the sonority of the final stop and subsequently coming close to */hVrV(j)-t'Vp/*, or the pronunciation of the final stop in *hr(i)-dp* became more lax */hV'rV(j)-t'Vb/* coming close to */hVr-(j)Vt'Vb/*. Looking at the evidence b)-e), the second scenario seems to be more likely. See Quaegebeur, La désignation (*p3*) *hry-ip*, p.392. For */b/*>*/p/* and */p/*>*/b/* see Peust, *Phonology*, p.134f.

- b) Cuneiform spelling (reign of Asarhaddon, 7th century BCE):

Neo-M.Ég. ~	<i>hr(i)dp /hV'rVt'Vb/</i>	'chief lector priest, chief'
(→ Hebr.?, see c)		

→ Neo-Assyr. *harVtib* (trad. *hartibi*) ‘interpreter of dreams’ (CAD H,116) The signs used can represent different phonological patterns: ≡ *hur~har*, ≡ *di~de*, ≡ *bi~be*, (Labat, *Épigraphie Akkadienne*, No.401 [p.187], 457 [p.205], and 214 [p.123]). Vowels can be left unwritten after KVK-signs and the sequence KV-KV can stand for KVK (Streck, *Keilschrift und Alphabet*, p.83f, 78f).

- c) Borrowing into Old Testament Hebrew and Aramaic (not later than 6th century BCE⁶³):

Neo-MEg. ~	<i>hr(i)dp /hV'rVt'Vb/</i>	'chief lector priest, chief'
(→ Neo-Assyr.?, see b)		

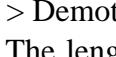
→ Hebr. חַרְטָמִים ~ חַרְטָמֵי *hartummîm*, חַרְטָמֶה ~ *hartummê-* (pl.) ‘magicians’

(OT: Genesis 41:24, Exodus 7:22, 8:14-15, 9:11, Daniel 1:20, 2:2; Qumran texts: 4QMyst^b 1.2)

→ Aram. חַרְטּוֹם *hartom* [Sg.], חַרְטָמִים ~ *hartummîn* [Pl.] ‘magician’ (OT: Daniel 2:27, 44) Botterweck & Ringgren, *Theologisches Wörterbuch III*, col.189–191; Clines, *Classical Hebrew*, p.316; Koehler & Baumgartner, *Hebräisches und Aramäisches Lexikon*, p.339, 1711.

63 For the dates of the compilation of these OT books see Kratz, *Komposition der erzählenden Bücher*, p.285f (Gen 41), 244–246 (Ex 7–9) and esp. the chart on p.331 (Gen–Reg).

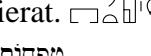
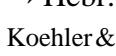
d) Demotic spellings (Ptolemaic Period):

Neo-MEg.   *hr(i)dp /hV'rVt'Vb/* ‘chief lector priest, chief’
 > Demot.  [≡  *hrdb(y)* ‘magician, chief, (lector priest)’ (*EDG* 321)
 The length of the sign for the dental stop may point to a reading *d* rather than *t*. Whether there is a graphemic or only a graphic opposition between both signs in the Demotic of the Ptolemaic Period of particular texts is not clear, however. For two possible Demotic renderings *hrbt* see Osing, *Tebtunis I*, p.172 and 201.

e) Greek transcription (Graeco-Roman Period):

Neo-MEg.   *hr(i)dp /hV'rVt'Vb/* ‘chief lector priest, chief’
 > Demot.  *(p-)hrdb(y)* /(*p^o*)*hV'rVt'Vb(V)*/ ‘magician, chief, (lector priest)’
 → Gr. φριτοβ /'p^hritob/ ~ φεριτοβ ~ φριτβ ~ φριτωβ /'p^hritob/
 (Quaegebeur, La désignation (*p^o*) *hry-tp*, p.388f)

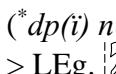
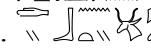
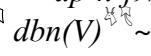
(14) Borrowing into Old Testament Hebrew (not later than 6th century BCE⁶⁴):

MEg.  *dpⁱ-hw.t[□]* */t'Vp-hV(wV?)/ (*WB V*, 290.8–18)
 > LEg. hierat.  *dpⁱ-hw.t[□]* (fem.) ‘roof’ (Lesko, *Dictionary*, p.80)
 → Hebr.  *t^epāhōt* ‘roof’(?) (OT: 1. Kings 7₉)
 Koehler & Baumgartner, *Hebräisches und Aramäisches Lexikon*, p.362.
 See Görg, *Palastbezirk*, p.7–10.

(15) Variant spelling on Naucratis stela (reign of Nectanebos II, 4th century BCE):

 (for ) *dp(j).w-c(w)* ‘the ancestors’
 (DZA 31.057.850, see Posener, Notes sur la stèle de Naucratis, p.146f)

(16) Spelling in Napatan-Egyptian (reign of Nastasen, 4th century BCE):

(**dp(i) n(i)-c w.t* */t'V:pV(j) nV'V:wV/ ‘best of the livestock’)
 > LEg.  *dp-n-j³w.t* */t'əp³n'w:u:w/ [t'əp³nu:] ‘livestock’ (*WB V*, 267.4)
 → Napat.  *dbn(V)* ~  *dbn* */TəbnV/ (*WB V*, 438.17)
 (DZA 31.368.730–31.368.760; see Peust, *Das Napatanische*, p.204)
 (> Copt. ^{SL}**ΤΒΝΗ** /tβ'nⁱ/ ~ ^A**ΤΒΝΙ** ~ ^{BF}**ΤΕΒΝΗ** /t^oβ'nⁱ/ [t^ob'nⁱ?] ‘livestock, animal’
 (Westendorf, *Handwörterbuch*, p.223, 545))

For the interpretation of the spelling of the Napatan word see Peust, *Das Napatanische*, p.95, 108. The opposition of emphatic and non-emphatic dentals seems to be neutralized in Napatan Egyptian though (*Ibid.*, p.225). For the Coptic renderings see Peust, *Phonology*, p.134, 135f.

64 See Kratz, *Komposition der erzählenden Bücher*, p.331.

(17 a–b) Spelling variants on Edfu temple (Ptolemaic period; 3rd–1st century BCE):

... ○  ... *zp db' n(i)- p³wt(i)* ‘... the First Time of the primeval age ...’
(DZA 31.039.220; Rochemonteix & Chassinat, *Temple d’Edfou I*, p.33.2f. reign of Ptolemaios IV)

...  *mj- z{b db'* ‘... like at the First Time.’
(DZA 31.039.210; Edfu temple, Ptolemaic Period)

(2v) $m = \frac{C^2 h}{d^2}$ (DIA 31.039.216. Edfu temple, Ptolemaic Period)

(Chassinat, *Temple d'Edfou VI*, p.155.3 and 7: reign of Ptolemaios IX Soter II)

The word 'hippopotamus' (*WB* V, 433.14–17 [m. *db* ~ *dbj*, Gr. var. *tp*], 434.1 [f. *db.t^{ςιλ}*]) was probably pronounced /tV:^hbV/ (</t'V:^hbV'/~/t'V:^hbVt/) in the Ptolemaic period.

(18) Borrowing into Egyptian-Arabic:

MEg. Ἀφροδίτης \otimes *dp̄-jh.*(*w*) \otimes^* /t'ap-'ju:hV(*w*)/ (town name) Aphroditopolis

> Demot. [≡] (pr¹-nb.(t)-) dp-jh.(w)¹xx (EDG 627)

> Copt. ^s**τιμή2**, normally with definite article (Layton, *Coptic Grammar*, §127 b):

^s(πε·)τπη^χ / (pə)t^{(,?)'}pīħ/ [(pə)t^{(,?)'}pīħ]

$\sim^B (\pi e \cdot) t p e \bar{e} / (p \partial)^{(?,?)} p e \bar{h} / [(p \partial)^{(?,?)} p e \bar{h}] > [(p \partial)^{(?,?)} b e \bar{h}]$

→ (reanalyzed as /(p-)ət^(?)pi:h/) Eg.-Arab. اطفيح *Atfiḥ*

(Vycichl, *Dictionnaire* p.165; Westendorf, *Handwörterbuch*, p.479, 575)

¹ Compare Fecht's (*Wortakzent*, §§67–69: */tapéiji̥h̥w/) and Schenkel's (Glottalj-

Compare Frech's (Wörterbuch, §§ 37-39; Kapitel 47) and Schenker's (Griechische Verschlußlaute, p.42: *Pr.w.-*tap.ii-¹*l̄h̄.w*) different analysis of the MG.

Bibliography

Botterweck, G. Johannes & Ringgren, Helmer (eds.). *Theologisches Wörterbuch zum Alten Testament* III: תְּהִרְמָר, Stuttgart: W. Kohlhammer.

Bouriant, Urbain. Petits monuments et petits textes recueillis en Égypte, in: *Recueil de Travaux relatifs à la philologie et à l'archéologie égyptiennes et assyriennes* 7 (1886) p. 114–132, 8 (1886) p. 158–169, 9 (1887), p. 81–100.

Brugsch, Heinrich. *Hieroglyphisch-demotisches Wörterbuch I–VII*, Leipzig 1867–1882; J.C. Hinrichs.

—. Hieroglyphische Grammatik, oder übersichtliche Zusammenstellung der graphischen, grammatischen und syntaktischen Regeln der heiligen Sprache und Schrift der alten Ägypter zum Nutzen der studierenden Jugend, Leipzig 1872: J.C. Hinrichs.

—. *Inscriptio rosettana hieroglyphica, vel Interpretatio decreti rosettani sacra lingua litterisque sacris veterum aegyptiorum redactae partis*, Berlin 1851: F. Dümmler.

—. *Matiériaux pour servir à la reconstruction du calendrier des anciens égyptiens*, Leipzig 1864: J.C. Hinrichs.

—. *Recueil de monuments égyptiens*, Leipzig 1862–1863: J.C. Hinrichs.

- . Review of: Philippe Jacques de Horrack, Notice sur le nom égyptien de cèdre (in: *Revue Archéologique* 9, 1864, p.44–51), in: *Zeitschrift für ägyptische Sprache und Alterthumskunde* 2 (1864), p.37–38.
- . *Verzeichniss der Hieroglyphen mit Lautwerth in der gewöhnlichen und in der geheimen Schrift sowie der allgemeinen Deutzeichen in dem Schriftsystem der alten Ägypter*, Leipzig 1872: J.C. Hinrichs.
- Brugsch Bey, Heinrich. *Dictionnaire géographique de l'ancienne Égypte*, Leipzig 1879: J.C. Hinrichs.
- Budge, Ernest Alfred Wallis. [*Egyptian Language*.] *Easy Lessons in Egyptian Hieroglyphics with Sign List*, Books on Egypt and Chaldaea 3, London 1⁸99 (3¹910, 4¹922): Kegan Paul, Trench, Trübner.
- . *An Egyptian Hieroglyphic Dictionary, with an Index of English Words, King List and Geographical List with Indexes, List of Hieroglyphic Characters, Coptic and Semitic Alphabets*, 4 vols., London 1920: Murray.
- . *A Hieroglyphic Vocabulary to the Theban Recension of the Book of the Dead : with an Index to all the English Equivalents of the Egyptian Words*, new rev. and enlarged ed., Books on Egypt and Chaldaea 31, London 1911: Kegan Paul, Trench, Trübner.
- Bunsen, Christian Carl Josias. *Egypt's Place in Universal History* V, *Translated from the German by Charles H. Cottrell with Additions by Samuel Birch*, London 1867: Longmans and Green. (German edition without grammar and sign list: *Aegyptens Stelle in der Weltgeschichte, geschichtliche Untersuchung in fünf Büchern* V, Gotha 1857: F.A. Perthes)
- CAD *H* = Oppenheim, A. Leo (ed.). *The Assyrian Dictionary of the Oriental Institute of the University of Chicago. Volume 6: H*, Glückstadt 1956: J.J. Augustin.
- Černý, Jaroslav & Gardiner, Alan H. *Hieratic Ostraca I*, Oxford 1957: University Press.
- Champollion, Jean François. *Dictionnaire égyptien en écriture hiéroglyphique*, ed. by Jacques-Joseph Champollion Figeac, Paris 1841[–1843]: Didot.
- . *Grammaire égyptienne, ou, Principes généraux de l'écriture sacrée égyptienne appliquée à la représentation de la langue parlée*, ed. by Jacques-Joseph Champollion-Figeac, Paris 1836[-1841]: Didot.
- . *Précis du système hiéroglyphique des anciens égyptiens*, 2 vols, Paris 1824: Treuttel & Würtz (2nd rev. and augm. ed. Paris 1⁸28: Treuttel & Würtz).
- Chassinat, Émile. *Le temple d'Edfou*, 14 vols., MMAF 10–11, 20–31, Paris 1897–1934: Leroux.
- . *Le Mammisi d'Edfou*, MIFAO 16, Cairo 1939: IFAO.
- Clère, Pierre. *La porte d'Évergète à Karnak 2: Planches*, MIFAO 84, Cairo 1961: IFAO.
- Clines, David J.A. *The Dictionary of Classical Hebrew III י–ע*, Sheffield 1996: Sheffield Academic Press.
- CT = De Buck, Adriaan. *The Egyptian Coffin Texts I–VII*, OIP 34, 49, 64, 67, 73, 81, 87, Chicago 1935–1961: The University of Chicago Press.
- Darnell, John C. *The Enigmatic Netherworld Books of the Solar-Osirian Unity*, OBO 198, Göttingen 2004: Vandenhoeck & Ruprecht.
- Dümichen, Johannes. *Baugeschichte des Denderatempels und Beschreibung der einzelnen Theile des Bauwerkes nach den an seinen Mauern befindlichen Inschriften*, Strassburg 1877: Karl J. Trübner.
- DZA = *Das digitalisierte Zettelarchiv [des Wörterbuches der ägyptischen Sprache]* <<http://aaew.bbaw.de/dza/index.html>>, in: *Altägyptisches Wörterbuch* <<http://aaew.bbaw.de/>>, Berlin: Berlin-Brandenburgische Akademie der Wissenschaften (access: August 2001–October 2004).
- Ebers, Georg. *Papyros Ebers, das hermetische Buch über die Arzneimittel der alten Ägypter in hieratischer Schrift*, [...], mit einem hieroglyphisch-lateinischen Glossar von Ludwig Stern, 2 vols, Leipzig 1875: Wilhelm Engelmann.
- Edel, Elmar. *Altägyptische Grammatik I–II*, Analecta Orientalia 34/39, Roma 1955/1964, Pontificium Institutum Biblicum.
- EDG = Erichsen, Wolja, *Demotisches Glossar*, Kopenhagen 1954: Ejnar Munksgaard.
- Edwards, Iorwerth E. S. Kenhikhopshef's Prophylactic Charm, in: *The Journal of Egyptian Archaeology* 54 (1968), p.155–160.

- Erman, Adolf. *Ägyptische Grammatik, mit Schrifttafel, Litteratur, Lesestücken und Wörterverzeichnis*, Porta linguarum Orientalium 15, Berlin 1894 (2nd compl. rev. ed. ²1902, 3rd compl. rev. ed. ³1911, 4th rev. ed. ⁴1928): Reuther & Reichard.
- . *Neuaegyptische Grammatik*, Leipzig 1880 (2nd compl. rev. ed. ²1933): W. Engelmann.
- . *Die Märchen des Papyrus Westcar I-II*, Mittheilungen aus den orientalischen Sammlungen [der] Königliche[n] Museen zu Berlin 5–6, Berlin 1890: W. Spemann.
- Faulkner, Raymond. O. *The Ancient Egyptian Pyramid Texts. Translated into English*, Oxford 1969: At the Clarendon Press.
- Fecht, Gerhard. *Wortakzent und Silbenstruktur. Untersuchungen zur Geschichte der ägyptischen Sprache*, Ägyptologische Forschungen 21, Glückstadt/Hamburg/New York 1960: J.J. Augustin.
- Geisen, Christina. *Die Totentexte des verschollenen Sarges der Königin Mentuhotep aus der 13. Dynastie. Ein Textzeuge aus der Übergangszeit von den Sargtexten zum Totenbuch*, Studien zum Altägyptischen Totenbuch 8, Wiesbaden 2004: Otto Harrassowitz.
- Goedicke, Hans. Ḥarṭummîm, in: *Orientalia (Nova Series)* 65 (1996), p.24–30.
- Görg, Manfred. Lexikalisches zur Beschreibung des salomonischen Palastbezirks (1 Kön 7, 1-12), in: *Biblische Notizen* 11 (1980), p.7–13.
- Grapow, Hermann. Studien zu den thebanischen Königsgräbern, in: *Zeitschrift für ägyptische Sprache und Altertumskunde* 72 (1936), p.12–39.
- Griffith, Francis Llewellyn. Notes on Hieroglyphs (The Head. The Papyrus Roll. The Soldier), in: *Proceedings of the Society of Biblical Archaeology* 21 (1899), p.269–272.
- Haardt, Robert. *Versuch einer Altkoptischen Grammatik*, PhD thesis, Vienna 1948: [unpublished].
- Hornung, Erik (ed.). *Das Buch von den Pforten des Jenseits I*, ÄEH 7, Geneva 1979: Faculté des Lettres de l’Université.
- (ed.). *Texte zum Amduat I-III*, ÄEH [1]3/14/15, Geneva 1987/1992/1994: Faculté des Lettres de l’Université.
- Junker, Hermann, *Der grosse Pylon des Tempels der Isis in Philä*, ÖAW, Phil.-hist. Klasse, Denkschriften – Sonderband, Wien 1958: Rudolf M. Rohrer.
- Junker, Hermann & Winter, Erich. *Das Geburtshaus des Tempels der Isis in Philä*, ÖAW, Phil.-hist. Klasse, Denkschriften – Sonderband, Wien 1965: Hermann Böhlaus Nachf.
- Kamal, Ahmed. *Stèles ptolémaïques et romaines*, CG 22001–22208, Cairo 1904–1905: IFAO.
- Kammerzell, Frank. Egyptian and Pre-Old Egyptian. Tracing Linguistic Diversity in Archaic Egypt and the Creation of the Egyptian Language, in: *Texte und Denkmäler des ägyptischen Alten Reiches, Wissenschaftliche Tagung der Hermann und Elise geborene Heckmann Wentzel-Stiftung, Schloß Blankensee bei Berlin 2001*, Berlin [in print]: Berlin-Brandenburgische Akademie der Wissenschaften, 77 pages.
- . *Sprachkontakte und Sprachwandel im Alten Ägypten*, Habilitationsschrift, vorgelegt der Philosophischen Fakultät der Georg-August-Universität Göttingen, 1998 (publication in preparation).
- . Zur Interpretation einiger Beispiele graphemsprachlicher Varianz im Ägyptischen, in: *Göttinger Beiträge zur Sprachwissenschaft* 2 (1999), p.61–97.
- Kaplony, Peter. *Die Inschriften der ägyptischen Frühzeit*, 3 Volumes, Ägyptologische Abhandlungen 8, Wiesbaden 1963: Otto Harrassowitz.
- Kees, Hermann. Der sogenannte oberste Vorlesepriester, in: *Zeitschrift für ägyptische Sprache und Altertumskunde* 87 (1940), p.119–139.
- Koehler, Ludwig & Baumgartner, Walter. *Hebräisches und Aramäisches Lexikon zum Alten Testament*, 3rd new ed., fasc. I–V, Leiden ³1967–1995: E.J. Brill.
- Kratz, Reinhard G. *Die Komposition der erzählenden Bücher des Alten Testaments. Grundwissen der Bibelkritik*, UTB für Wissenschaft 2157, Göttingen 2000: Vandenhoeck & Ruprecht.
- KRI IV = Kitchen, Kenneth A. *Ramesside Inscriptions. Historical and Biographical IV*, Oxford 1982, B. H. Blackwell.
- Labat, Réne & Malbran-Labat, Florence. *Manuel d'épigraphie Akkadienne (Signes, Syllabaire, Idéogrammes)*, 6th rev. and augm. ed., Paris ⁶1988.: Paul Geuthner (reprint 2002).
- Layton, Bentley. *A Coptic Grammar*, Porta Linguarum Orientalium, Neue Serie 20, Wiesbaden 2000: Otto Harrassowitz.

- Legrain, Georges. *Statues et statuettes de rois et de particuliers III. Catalogue général des antiquités égyptiennes du musée du Caire N°s 42192–42250*, Cairo 1914: Imprimerie de l'IFAO.
- Von Lemm, Oscar. *Aegyptische Lesestücke zum Gebrauch bei Vorlesungen und zum Privatstudium, mit Schrifttafel und Glossar I*, Leipzig 1883: J.C. Hinrichs.
- Lepsius, Carl Richard. Eine Aegyptisch-Aramäische Stele, in: *Zeitschrift für ägyptische Sprache und Alterthumskunde* 15 (1877), p.49–78.
- Lesko, Leonard H. (ed.). *A Dictionary of Late Egyptian I–V*, Providence 1982–1990: B.C. Scribe.
- Levi, Simeone. *Vocabolario geroglifico copto-ebraico I*, Torino 1887: Litografia Salussolia Pietro.
- Mauric-Barberio, Florence. Le premier exemplaire du Livre de l'Amdouat, in: *Bulletin de l'Institut français d'archéologie orientale* 101 (2001), p.315–350.
- Mercer, Samuel A.B. *The Pyramid Texts in Translation and Commentary I–IV*, New York/London/Toronto 1952: Longmans, Green & Co.
- De Meulenaere, Herman., Pyramidions d'Abydos, in: *Jaarbericht van het Vooraziatisch-Egyptisch Gezelschap Ex Oriente Lux* 20 (1967–1968 [1968]), p.1–20.
- Osing, Jürgen. *The Carlsberg Papyri 2, Hieratische Papyri aus Tebtunis I*, Texts and Plates, CNI Publications 17, Copenhagen 1998: Museum Tusculanum Press.
- . *Die Nominalbildung des Ägyptischen*, [DAIK-Sonderschrift 3], 2 vols., Mainz 1976: Philipp von Zabern.
- . *Der spätägyptische Papyrus BM 10808*, Ägyptologische Abhandlungen 33, Wiesbaden 1976: Otto Harrassowitz.
- Petrie, William Matthew Flinders. *The Royal Tombs of the First Dynasty I*, Memoir of the Egypt Exploration Fund 18, London 1900: Egypt Exploration Fund.
- Peust, Carsten. *Egyptian Phonology. An Introduction to the Phonology of a Dead Language*, Göttingen 1999: Peust & Gutschmidt.
- . Möglichkeiten einer Rekonstruktion ägyptischer Vortonvokale aus dem Befund der koptischen Dialekte, *Göttinger Miszellen* 149 (1995), p.67–82.
- . *Das Napatanische. Ein ägyptischer Dialekt aus dem Nubien des späten vorchristlichen Jahrtausends*, Göttingen 1999: Peust & Gutschmidt.
- Piankoff, Alexandre. *La création du disque solaire*, BdÉ 19, Cairo 1953: Institut français d'archéologie orientale.
- . *Le livre des quererts*, Cairo 1946: Institut français d'archéologie orientale (compilation of articles in *Bulletin de l'Institut français d'archéologie orientale* 41–43,45 (1942–1947)).
- . *The Tomb of Ramesses VI*, Bollingen Series 40.1, New York 1954: Pantheon Books.
- Piankoff, Alexandre & Rambava, Natacha (ed.), *The Shrines of Tut-Ankh-Amon*, Bollingen Series 40.2, New York 1955: Pantheon Books.
- Piehl, Karl. Notes de philologie égyptienne, in: *Proceedings of The Society of Biblical Archaeology* 13 (1891), p.106–118.
- . On the Formative Letter ꝑ, in: *Proceedings of The Society of Biblical Archaeology* 13 (1891), p.366f.
- PM = Porter, Bertha & Moss, Rosalind L. B. *Topographical Bibliography of Ancient Egyptian Hieroglyphic Texts, Reliefs, and Paintings I–VI*, Oxford 1927–1939: At the Clarendon Press.
- Posener, Georges. Notes sur la stèle de Naucratis, in: *Annales du Service de Antiquités de l'Égypte* 34 (1934), p.141–148.
- Pyr. = Sethe, *Pyramidentexte*.
- Quack, F. Joachim, Review of: Jürgen Zeidler, Pfortenbuchstudien (GOF IV.36, Wiesbaden 1999), in: *Bibliotheca Orientalis* 57 (2000), col.541–559.
- Quaegebeur, Jan. On the Egyptian Equivalent of Biblical ḥarṭummîm, in: Israelit-Groll, Sarah (Hg.). *Pharaonic Egypt. The Bible and Christianity*, Jerusalem 1985: Hebrew University, p.162–172.
- . La désignation (p^3-) *ḥry-tp :phritob*, in: Osing, Jürgen & Dreyer, Günter (eds.). *Form und Mass. Beiträge zur Literatur, Sprache und Kunst des alten Ägypten*, Festschrift Gerhard Fecht, ÄAT 12, Wiesbaden 1987: Otto Harrassowitz, p.368–394.
- Ranke, Hermann. *Die ägyptischen Personennamen I*, Glückstadt 1935: J.J. Augustin.

- Reintges, Chris H. *Coptic Egyptian (Sahidic Dialect). A Learner's Grammar*, Afrikawissenschaftliche Lehrbücher 15, Cologne 2004: R. Köppe.
- Renouf = Le Page Renouf, Peter. The Egyptian prepositions Θ and $\Psi\Delta$ Θ , in: *Proceedings of The Society of Biblical Archaeology* 6 (1884), p.93–95.
- . [The Meaning of the Word *Hotep*], in: *Proceedings of The Society of Biblical Archaeology* 3 (1881), p.117–121.
- . Miscellanea V, in: *Zeitschrift für ägyptische Sprache und Alterthumskunde* 10 (1872), p.72–79.
- . [Note by Mr. Renouf on No.24], in: *Proceedings of The Society of Biblical Archaeology* 13 (1891), p.119–120.
- . Note on the Values of the Sign Θ , in: *Proceedings of The Society of Biblical Archaeology* 10 (1888), p.571–578.
- . *Traduction d'un chapitre du rituel funéraire des anciens égyptiens*, Aschaffenburg 1860: J. Schmitt.
- Rochemonteix, Marquis de & Chassinat, Émile. *Le temple d'Edsou I*, 2 vols., MMAF 10, 2nd rev. and corr. ed., Cairo 1984: IFAO.
- Rossi, Francesco. *Grammatica copto-geroglifica, con un' appendice dei principali segni sillabici e del loro significato, illustrati da esempi*, Rome/Torino/Firenze 1877: Bocca.
- De Rougé, Emmanuel. *Chrestomathie égyptienne, ou, Choix de textes égyptiens, transcrits, traduits et accompagnés d'un commentaire perpétuel et précédés d'un abrégé grammatical I*, Paris 1867 [fasc.1]–1868 [fasc.2]: A. Franck.
- Sauneron, Serge, *Le temple d'Esna*, Esna II, Cairo 1963: IFAO.
- Schenkel, Wolfgang. Glottalisierte Verschlußlaute, glottaler Verschlußlaut und ein pharyngaler Reibe-laut im Koptischen, in: *Lingua Aegyptia* 10 (2002), p.1–57.
- Sethe, Kurt. *Die altagyptischen Pyramidentexte nach den Papierabdrücken und Photographien des Berliner Museums I–IV*, Leipzig 1908–1922: J.C. Hinrichs.
- . *Übersetzung und Kommentar zu den altägyptischen Pyramidentexten I–VI*, Hamburg [1935–1962]: J.J. Augustin.
- Seyffarth, Gustav. *Beitrag zur Kenntnis der Literatur, Kunst, Mythologie und Geschichte des alten Aegypten VII*, Leipzig 1840: J.A. Barth.
- . *Beiträge zur Prüfung der Hieroglyphensysteme*, Leipzig 1846: [no publ.].
- Shorter, Alan Wynn. *Catalogue of Egyptian Religious Papyri in the British Museum, Copies of the Book Pr(t)-m-hrw from the XVIIIth to the XXIInd Dynasty*, London 1938: British Museum.
- Spiegelberg, Koptische Kleinigkeiten, in: *Zeitschrift für ägyptische Sprache und Altertumskunde* 54 (1918), p.131–135.
- Streck, Michael P. Keilschrift und Alphabet, in: Borchers, Dörte; Kammerzell, Frank & Weninger, Stefan (eds.). *Hieroglyphen – Alphabete – Schriftreformen. Studien zu Multiliteralismus, Schriftwechsel und Orthographiene Regelungen*, Lingua Aegyptia – Studia monographica 3, Göttingen 2001: Seminar für Ägyptologie und Koptologie, p.77–97.
- Vycichl, Werner. *Dictionnaire étymologique de la langue copte*, Leuven 1983: Peeters.
- WB = Erman, Adolf & Grapow, Hermann (eds.). *Wörterbuch der Aegyptischen Sprache I–V*, Leipzig 1926–1931: J.C. Hinrichs (reprint Berlin 1955: Akademie-Verlag).
- Westendorf, Wolfhart. *Koptisches Handwörterbuch*, Heidelberg 1977: Carl Winter (reprint 1992).
- Zeidler, Jürgen. Zur Etymologie des Gottesnamens Osiris, in: *Studien zur Altägyptischen Kultur* 28 (2000), p.309–316.

Corrigendum zu

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S. 197:

Statt „ dp.yw (Piankoff, *Création*, p.29 with fn. 3)“
lies „ dp.y{w} (Piankoff, *Création*, p.29 with fn. 3)“
[= Earth Sz. 28/neu, R6, caption 1]

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