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Abstract

In the third millennium BC, *Ältere Komposita* were a prolific kind of compound nouns with specific morphological features, above all, word stress on a non-last constituent. In order to match the stress and syllable structure patterns of younger stages of ancient Egyptian, *Ältere Komposita* were either mutilated or substituted with neologisms. At the same time, the graphical representation of retained *Ältere Komposita* became a playground for the learnèd élite between the poles of tradition and innovative substitution. This contribution explores strategies of substitution in the realms of morphology and of writing.

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Challenging Time(s): A New Approach to Written Sources for Ancient Egyptian Chronology

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CONTENTS

ARTICLES

Marc Brose
Die *nfr-ḥr*-Konstruktion in den königlichen Stelen der 18. Dynastie vor der Amarna-Zeit 1–23

Roberto A. Díaz Hernández
The Man-impersonal Verb Forms of the Suffix Pronoun Conjugation in Earlier Egyptian 25–90

Charlotte Dietrich
Ein besonderer basilophorer Name am Beginn des Neuen Reiches 91–112

Roman Gundacker
The Morphological and Graphical Substitution of *Ältere Komposita.* Etymological Archaism and Contemporaneous Perception as Opposing Principles 113–154

Brendan H. Hainline
Phonological Variants of the Old Egyptian Particle *sk/sṯ* in the Biographies of *Wnj* 155–170

Madeline Jenkins
On the Semantics of *jnd*.
A Lexical-Semantic Analysis of the 'Sadness' Lexeme *jnd* 171–200

Benoît Lurson
Du chaos à la métaphore.
Le régime des vents dans *Néferti* VIe–VIg 201–222

Carsten Peust
Zur Sonderentwicklung des Ayin neben Het 223–269

Joachim Friedrich Quack
Nochmals zum Lautwert von Gardiner Sign-List U 23 ..... 271 –289

REVIEWS

Ludwig D. Morenz, *Performative Superglyphen als eine graphisch inszenierte Göttersprache*
(John Coleman Darnell) 291–297

Simone Gerhards, *Konzepte von Müdigkeit und Schlaf im alten Ägypten*
(Camilla Di Biase-Dyson) 299–306

James P. Allen, *Coptic. A Grammar of Its Six Major Dialects*
(Ivan Miroshnikov) 307–312

Vincent W.J. van Gerven Oei, *A Reference Grammar of Old Nubian*
(Alexandros Tsakos) 313–316

Matthias Müller, *Grammatik des Bohairischen*
(Ewa D. Zakrzewska) 317–320

BOOKS RECEIVED 321

LingAeg – Studia Monographica: Recent Publications

LingAeg 30 (2022), 113–154

The Morphological and Graphical Substitution of *Ältere Komposita*

Etymological Archaism and Contemporaneous Perception as Opposing Principles

Roman Gundacker[1]

Eadem sunt quorum unum potest
substitui alteri salva veritate.
(G. W. Leibniz)

Abstract

In the third millennium BC, *Ältere Komposita* were a prolific kind of compound nouns with specific morphological features, above all, word stress on a non-last constituent. In order to match the stress and syllable structure patterns of younger stages of ancient Egyptian, *Ältere Komposita* were either mutilated or substituted with neologisms. At the same time, the graphical representation of retained *Ältere Komposita* became a playground for the learnèd élite between the poles of tradition and innovative substitution. This contribution explores strategies of substitution in the realms of morphology and of writing.

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1 Vienna (Roman.Gundacker[at]oeaw.ac.at). This contribution is based on data collected during the APART fellowship "Untersuchungen zur Nominalkomposition des Ägyptischen", which has been funded by the Austrian Academy of Sciences and hosted at the Institute for Oriental and European Archaeology of the Austrian Academy of Sciences, and on results from research conducted as part of the ERC Starting Grant "Challenging Time(s) – A New Approach to Written Sources for Ancient Egyptian Chronology" (GA № 757951), which has received funding from the European Research Council under the European Union's Horizon 2020 research and innovation programme at the Austrian Archaeological Institute, Department of Classical Studies, of the Austrian Academy of Sciences. All results published here are solely within the author's responsibility and do not necessarily reflect the opinion of the funding agencies or the host institution, which must not be held responsible for either contents or their further use.

I am particularly indebted to Julia Levenson and Stephan Hartlepp for providing me with the opportunity of presenting this paper at the transdisciplinary workshop "Substitution: Narrowing or Broadening of Knowledge", which took place at the Freie Universität Berlin, Schwendenstraße 8, 14195 Berlin, on 24th and 25th May 2019. It is highly regrettable that the proceedings volume, though substantial in content and seminal in scope, did not proceed to publication as part of the Sonderforschungsbereich "Episteme in Bewegung". Therefore, I would like to present this paper here, in the 30th issue of *Lingua Aegyptia*, as a most fitting substitute according to the definition of the term "substitution" by G. W. Leibniz (quotation after Biller et alii 1999: 846), which has served as the motto of the entire workshop in Berlin.

Furthermore, I would like to thank Charlotte Dietrich, Johannes Jüngling, Robert Kade, Koen Donker van Heel, Cary Martin and Joachim F. Quack for discussing Demotic examples quoted as well as Julian Posch, Annik Wüthrich, Melanie Gundacker and the anonymous reviewer for valuable suggestions and corrections. Nonetheless, needless to say, all responsibility for mistakes and errors of fact or judgment remains with the author alone.

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1 Assessing the Morphology of Ancient Egyptian: Compound Nouns

Research on ancient Egyptian morphology is impeded by substantial difficulties, which in part arise from the very nature of the Egyptian writing system itself. As hieroglyphs were designed only to denote consonants,[2] morphological research depends on additional sources of information such as Coptic offspring of Egyptian words[3] and the *Nebenüberlieferung* (i.e., Egyptian words rendered in cuneiform, Hebrew, Aramaic, Greek, Latin, Old Nubian or Arabic scripts).[4] Based on those sources, a rigid set of syllable structure rules and vowel and stress patterns has been deduced, which usually is called the *Zweisilbengesetz*[5] and, when the full consonantal skeleton of words is considered, can be summarised as a state of the Egyptian language,[6] in which

- every word starts and ends with exactly one consonant,
- every syllable starts with exactly one consonant and contains a vowel as its peak,
- syllables may end with a vowel (open syllables) or exactly one consonant (closed syllables),
- unstressed vowels are short, irrespective of the structure of the syllable,
- word stress is confined to the last or penultimate syllable of a (non-clitic) word,
- stress vowels are short when in a closed penultimate (ex. 1) or last syllable (ex. 2) of a word,
- stress vowels are long when in an open penultimate syllable (ex. 3) of a word.

Leaving aside pre-tonic syllables, this set of rules allows for only three different patterns of syllable structure and stress patterns. Not only does this hold true for the morphological

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2 Cf., e.g., Schenkel (1983a: 3–170); Kammerzell (1997); Peust (1999).

3 Cf. the Coptic standard dictionaries, Crum (1939); Westendorf (1965–1977); Černý (1976); Vycichl (1983).

4 There is no comprehensive up-to-date compendium of the materials preserved as part of the *Nebenüberlieferung*; great numbers of examples can be found in G. Fecht (1960) and J. Osing (1976a); C. Peust (1999: 67–78) provides an excellent overview of sources and publications; for toponyms, cf. also Peust (2010); Gundacker (2017).

5 "Two-Syllable-Law"; Edgerton (1947); Fecht (1960: §§ 1–9); Osing (1976a: I 1–35); Hintze (1980); Schenkel (1990: 58–78); Loprieno (1995: 28–50). The present contribution follows this traditional interpretation of the *Zweisilbengesetz*; cf. also Gundacker (2017: 101–103), (2018a: 159–165) & (2021). For modifications which are not *communis opinio*, cf. Schenkel (1983a), (1983b) & (1994); for an alternative interpretation of Egyptian syllable structure rules, cf. Peust (1999: 175–292). This approach has found substantial critique (Ternes 2002; Schenkel 2009) and, for the greater part, has been given up by C. Peust (2019: 146 [n. 25]) himself. Recently, J. P. Allen proposed again different syllable structure rules and rules for stress vowel development, which are largely based on supposed parallels with the morphology of Semitic languages (Allen 2013a: 12–17, 23–26, 2020: 5, 11–15, 19 [n. 27], 31, 46–47, 57, 71, 73–74, 78, 85, 87–88, 144, 161–179). This approach, which vastly draws on patterns of Akkadian word formation, lacks systematic definitions as well as a detailed discussion in the light of the *Nebenüberlieferung* and earlier research, has been met with substantial criticism by C. Peust (2020b).

6 Or rather an artificial (re)constructed state thereof, which more precisely should be called Palaeo-Coptic, cf. Edgerton (1947: 3); Fecht (1960: § 5); Schenkel (1983b: xii) & (1990: 61–62); Peust (1999: 179–180); Allen (2013a: 11 [with n. 4 on p. 202]).

shape of isolated words but also for that of phrases and compound nouns,[7] which were created as juxtaposita via the grammatical process of univerbation.[8] In phrases and compound nouns derived thereof, the stress vowels always belong to the last word or constituent respectively (exx. 1–3):

ex. (1)  *prw-ʿɜ ~ *părĭw-ʿắɜ > *pěr-ʿó́ ~* Neo-Assyrian *pe/i-e/ir-'u-u*
"palace, metonymically: the king, 'pharaoh' (literally: 'great house')"[9]

ex. (2)  *ʿɜ-ph.tj ~ *ʿắɜ-pắḥtăj > *ʿă-pắḥtě ~ Oc* ⲁⲡⲁϩⲧⲉ
"he with great power (an epithet of deities, kings and high officials)"[10]

ex. (3)  *mśw.t-rʿw ~ *mĭ́śwăt-rĭ́ʿŭ́w > *mĕ́śŭ-rḗʿ ~ SB* ⲙⲉⲥⲟⲩⲣⲏ
"Birth of Re (an eponymous feast and the month named after it)"[11]

The difference between idiomatic or proverbial phrases and juxtaposita is difficult to define and to describe.[12] Since univerbation is a gradually progressive process, intermediary stages with some features pertaining to phrases and others already anticipating compound nouns may be found. It is, however, undisputed that grammatically and syntactically correct, though otherwise unrestrictedly formed phrases do contain words which follow the common rules of inflexion. Yet, as soon as univerbation has taken place, it is no longer feasible that all elements of the juxtapositum inflect as if they were individual words,

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7 Cf., e.g., Abel (1910); Fecht (1960: §§ 238–255); Peust (1999: 284–285); for the even more burdensome questions regarding ancient Egyptian metrics as a colometric system, cf., e.g., the system of G. Fecht (1993 [with exhaustive bibliographical references]) and its critique by W. Schenkel (1972); J. F. Quack (1994a: 67–70); G. Burkard (1983) & (1996); C. Peust (1999: 292–293); G. Burkard & H.-J. Thissen (2008: 218–230).

8 "Univerbation is the traditional term for the welding of a syntagm into one word. [… It] is restricted to the syntagmatic axis and may affect, in perhaps idiosyncratic ways, any two particular word forms which happen to be habitually used in collocation." Lehmann (2015: 160–161); for further references, cf. Gundacker (2017: 101–102 [with nn. 4, 6]) & (2018a: 164 [with n. 36]).

9 Hieroglyphic token after the tomb of Nirekau (LG 87 = G 8158, IV dynasty; Lepsius 1849–1913: II Bl. 15.b; cf. Baud 1999: II № 105; Jánosi 2005: 368–372); Neo-Assyrian rendering after Ranke 1910: 32; Osing 1976a: II p. 477 [n. 135]); for the vocalisation patterns, cf. Osing (1976a: I 143, 261, II 836–837 [n. 1122]); Schenkel (1983b: 155, 196) & (2005); cf. also Fecht (1960: §§ 428–432); Gundacker (2017: 129 [n. 154]); for the origins of the metonymic usage in order to designate the king, cf. Osing (1982).

10 Hieroglyphic token after PT 365 § 622a in king Teti's version (VI dynasty; Sethe 1908–1923: I 334; Allen 2013b: III *ad locum*); Old Coptic spelling after Papyrus Bibliothèque Nationale, suppl. graec. 574, 23 (Preisendanz 1973–2001: I 67; Crum 1939: col. 284b; Westendorf 1965–1977: 157; Černý 1976: 132; Vycichl 1983: 167); for the vocalisation patterns, cf. Osing (1976a: I 143, II 478 [n. 136], 603 [n. 572]); Schenkel (1983b: 155); Loprieno (1995: 60); for usage as an epithet from the Old Kingdom onwards, cf. Hannig (2003: 256) & (2006: I 477); Leitz (2002–2003: II 22–23).

11 Hieroglyphic token after the outer coffin of Mesehti (CT 267 III 398a S2C, X dynasty; de Buck 1935–1961: III 398; Allen 1950: 32–33); for the Coptic spelling, cf. Crum (1939: col. 186b); Westendorf (1965–1977: 102); Černý (1976: 91); for the vocalisation patterns, cf. Osing (1976a: I 20–21, 82, II 546 [n. 400]); Schenkel (1983b: 89, 201); Edel (1994: II 361–362); cf. also Fecht (1960: § 95 [with n. 155]); Gundacker (2018a: 161 [with n. 13]).

12 Cf. Spencer (1991: 319–343); Dressler (2006: esp. 27–28 [with further references]).

but the compound noun inflects as a single morphological unit (ex. 4). Correspondingly, new words are not derived from the head of the phrase but from the entire and intact compound noun, e.g., with suffixes added after its last element (ex. 5). Phrases may also have displayed a regular secondary or side stress in accordance with common rules of prosody, whereas, during univerbation, phrasal secondary or side stress was reduced and finally dropped, and the phrase's main stress developed into the resulting juxtapositum's word stress.

ex. (4)  *ḥw.t-ḥrw* ~ **ḥăwăt-ḥā́rŭw* > **ḥăt^{h}ṓrĕ* ~ Ἀθῦρ
"Hathor (etymologically 'mansion of Horus')"
 *ḥw.t-ḥry.w* ~ **ḥăt^{h}ā́ryă*
"Hathors (plural, not: **ḥw.wt-ḥrw* 'mansions of Horus')"[13]

ex. (5)  *ḥr-wrj* ~ **ḥăr-wā́rĭj* > **ḥ-wṓr* ~ *S* ϩογωρ
"Hur (a town, etymologically 'big face')"
 *ḥr-wrjj.t* ~ **ḥă'-wărī́yĭ*
"she from Hur (a divine epithet; nisba adjective, not: **ḥrj.t-wrj* (?) or **nj.t-ḥr-wrj* 'she belonging to a big face')"[14]

Based on the – albeit erroneous[15] – assumption that this frequent mode of word formation is a secondary and, thus, implicitly young process, juxtaposita are usually designated as *Komposita jüngerer Bildeweise* or, in short, as *Jüngere Komposita*[16] in Egyptological linguistics.

2 *Ältere Komposita*: Matters of Morphology

According to the material presented in the preceding section, all Egyptian compound nouns should conform to the *Zweisilbengesetz* and, therefore, bear word stress on their last

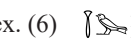
13 Hieroglyphic token after the Mycerinus triad Boston Museum of Fine Arts 09.200 (IV dynasty; Reisner 1930: 110 (12), pl. 38d, 44, 45, 46a–b); hieroglyphic token (hieratic original) of the plural after Papyrus Chester-Beatty VII = London, British Museum EA 10687, vo. 1,3 (XIX dynasty; Gardiner 1935: I 55–65, II pl. 36); for the Greek rendering, cf. Fecht (1960: §§ 120 [n. 202], 293 [n. 426]); Peust (1999: 159); for the vocalisation patterns, cf. Osing (1976a: I 185); Schenkel (1983b: 174); Gundacker (2013a: 61 [n. 216]) & (2018a: 162 [with n. 23], 165 [with n. 40]); cf. furthermore Leitz (2002–2003: V 75–79, 91).

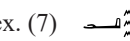
14 Hieroglyphic token after Sahure's pyramid temple (V dynasty; Borchardt 1910–1913: IIв Bl. 18); hieroglyphic token of the nisba adjective after the tomb of the nomarch Khety (Beni Hassan № 17, early XII dynasty; Newberry & Griffith 1893–1900: II pl. XVII); for the Coptic spelling, cf. Westendorf (1965–1977: 482); Černý (1976: 358); Vycichl (1983: 314); for the vocalisation patterns, cf. Osing (1976a: I 309, II 420–421 [n. 93], 498–499 [n. 179]); Schenkel (1983b: 170); Gundacker (2017: 130 [n. 160]); cf. furthermore Gauthier (1925–1931: IV 37); Gardiner (1947: II *84–*87); Montet (1957–1961: II 151–152); Helck (1974: 108); Timm (1984–1992: III 1115–1117); Peust (2010: 46).

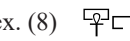
15 Cf. Gundacker (2017: 101–102) & (2018a: 161–165).

16 "Younger compounds" or "compounds according to the later (younger) mode of formation"; cf. Vergote (1973–1983: Ib § 94); Richter (1998).

element. However, already in 1904, G. Steindorff[17] called attention to a group of compound nouns which display different, entirely unexpected morphological characteristics (exx. 6–8).[18]

ex. (6)  *wȝḏ-wrr* ~ **wăȝŭḏ-wŭrĭr* > **wĕ́d-ŭ* ~ (-)γετοῦ
expected: **wăȝŭḏ-wŭ́rĭr* > **ŭd-wĕ́r* ~ *οὐτουῆρ
"sea, lake (etymologically: 'the great green')"[19]

ex. (7)  *ʿw-mw* ~ **ʿŭ́w-măw* > **ʿĕ́y-m* ~ *Oc* ⲛⲓⲙ
expected: **ʿŭw-mắw* > **ʿĕ-mắw* ~ *Oc* *ⲉⲛⲁⲩ
"canal, weir (etymologically: 'arm of water')"[20]

ex. (8)  *prw-ʿnḫ* ~ **părĭ́w-ʿănăḫ* > **prắ-(ʿ)nš* ~ *B* ⲫⲣⲁⲛϩ
expected: **părĭw-ʿắnăḫ* > **pr-ʿṓn(ĕ)š* ~ *S* *ⲡⲣⲱⲛϩ
"scriptorium, temple library (etymologically: 'house of life')"[21]

When the full consonantal skeleton of Earlier Egyptian (Palaeo-Coptic) is restored, compound nouns of this kind appear in open contradiction to the *Zweisilbengesetz*. Above all, it becomes salient that

- word stress rests on the antepenultimate (exx. 6, 8) or penultimate (ex. 7) syllable,
- word stress is found on a (non-clitic) non-last constituent of the compound noun.

Because of those peculiarities, a state predating the *Zweisilbengesetz* was determined, which, by analogy, was called the *Dreisilbengesetz*.[22] Since, in the perspective of language

17 Steindorff (1904: § 134); cf. furthermore Griffith (1909: III 301 [n. 2]); Sethe (1910: 25) & (1923: 190–193).

18 The only detailed and systematic investigation to date is Fecht (1960); cf. also Peust (1999: 277–284); Gundacker (2017: 101–104), (2018a: 159–165) & (2021).

19 Hieroglyphic token after Sahure's pyramid temple (V dynasty; Borchardt 1910–1913: IIв Bl. 30 [caption of a divine maritime being, perhaps the allegorised sea; cf. Leitz 2002–2003: I 259]); for the Greek rendering as part of a military title, which secondarily has been fused into the local high priest's titulary, cf. Griffith (1909: III 301 [n. 2]); Reymond (1966: 451–458); Zauzich (1977: 159 [adn. a]); Bricault (1998: 524–525); Lippert & Schentuleit (2006–2010: II 15, III 111); for the vocalisation patterns, cf. Fecht (1960: §§ 10, 19 [n. 40], 293, addendum to § 279); Osing (1976a: I 128, 149); Schenkel (1983b: 154, 158); Gundacker (2013b: 97 [n. 101]); cf. also Fecht (1960: §§ 17–20); Peust (1999: 278); Gundacker (2018a: 167 [with n. 56]) & (2021: 71 [with n. 55]).

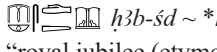
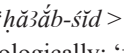
20 Hieroglyphic token after the tomb of Khety I (Assiut № 5, First Intermediate Period, Griffith 1889: pl. 15 [lin. 6]; cf. Schenkel 1965: 72); for the Old Coptic gloss as found in the Tebtynis Onomasticon, cf. Osing (1998: I 60, 105–106 [adn. n]); for the vocalisation patterns, cf. Osing (1976a: I 203, 292, II 488 [n. 159], 738–742 [n. 897]); Schenkel (1983b: 92); cf. furthermore Endesfelder (1979: 43–44); Gundacker (2018a: 166 [with n. 50]).

21 Hieroglyphic token after Coptos Decree C, lin. 10, of Pepy II (VI dynasty; Sethe 1933: 289 (8); Goedicke 1967: 118, 122); for the Coptic spelling, cf. Crum (1939: col. 374a); Westendorf (1965–1977: 193, 531); Černý (1976: 169); Vycichl (1983: 194–195); for the vocalisation patterns, cf. Osing (1976a: I 42–48, 261, II 836–837 [n. 1122]); Schenkel (1983b: 154, 193–194); Peust (1999: 278); Gundacker (2013b) & (2018a: 168–169 [with n. 65]); cf. furthermore Gardiner (1938); Ritner (2008: 222).

22 "Three-Syllable-Law"; Fecht (1960: §§ 402–406); cf. furthermore, e.g., Hintze (1980: 33–38); Schenkel (1983b: 133, 148–149) & (1990: 78–86); Loprieno (1995: 37, 55); Allen (2013a: 24);

evolution, the *Dreisilbengesetz* preceded the *Zweisilbengesetz*, compound nouns with word stress on a non-last element (and in particular those with word stress on the antepenultimate syllable) were considered as markedly old and thus called *Komposita älterer Bildeweise* or, in short, *Ältere Komposita*.[23] However, for a certain period of time, *Jüngere Komposita* and *Ältere Komposita* must have been created side by side, which renders either designation infelicitous at best.[24]

Given that *Jüngere Komposita* can be identified as juxtaposita, *Ältere Komposita* must represent something entirely different, i.e., morphological compounds.[25] *Ältere Komposita* are thus expected to inflect as indivisible units (ex. 9) and to be treated as such when serving as derivational bases (ex. 10).

ex. (9)  *ḫ3b-śd ~ *ḥă3ắb-śĭd > *ḥắb-ś́ ~*  *ḥbs*
"royal jubilee (etymologically: 'festival of vesting', Sed Festival)"
 *ḫ3b-śd.w ~ *ḥă3ăb-ś́dĕ*
"royal jubilees (plural, not: **ḫ3b.w-śd* 'festivals of vesting')"[26]

ex. (10)  *j3ḫj-bjt ~ *jă3ḫĭ̆j-bắjĭt > *ḥĕ́-bĕ ~* (-)χῆβις
"Chemmis (a town, etymologically: 'reed marsh of the bee numen')"
 *j3ḫj-bjtj.t ~ *jă3ḫĭ-bắjtĭ*
"she from Chemmis (a sacred cow; nisba adjective, not: **j3ḫjj.t-bjt* or **nj.t-j3ḫj-bjt* 'she from the reed marsh of the bee numen)"[27]

Gundacker (2017) & (2018). For a detailed investigation of the *Dreisilbengesetz* and its setting, cf. Gundacker (2021)..

23 "Older Compounds" or "compounds according to the earlier (older) mode of formation"; Griffith (1909: III 301 [n. 2]); Sethe (1923: 190); Fecht (1960: §§ 7–9).

24 Gundacker (2018a) & (2021). For the sake of convenience, both designations are applied in this contribution.

25 "Composition, as a schema of word-formation, presupposes a paradigm in analogy to which it proceeds and affects a class of stems according to a structural pattern." Lehmann (2015: 161); for further references, cf. Gundacker (2017: 101–102 [with n. 4]) & (2018a: 159 [with n. 2]).

26 Hieroglyphic token after the *Kleine Festdarstellung* in Nirewoser's sun temple (V dynasty; Freiherr von Bissing & Kees 1923: pl. 1.a); Demotic writing after Papyrus Berlin P 6750, x+10,3 (this instance alludes to homophonous *ḥbś ~ *ḥắbśăw > *ḥắbś ~* LF ϩⲁⲃⲥ "cover, blanket"; Widmer 2015: 292, 410; Osing 1976a: II 541–542 [n. 347]; Crum 1939: coll. 658b–660a; Westendorf 1965–1977: 355–356; Černý 1976: 276; Vycichl 1983: 289; cf. Erichsen 1954: 299–301; Johnson 2002–2014: fasc. ḥ, 90–97; I would like to thank C. Dietrich and R. Kade for discussing this token.); hieroglyphic token (hieratic original) of the plural after Papyrus Harris I = London, British Museum EA 9999, 50,1 (Grandet 1994: I 290, II 176–177 [n. 713]); for the vocalisation patterns, cf. Fecht (1960: §§ 137, 202); Gundacker (2009a: I 288 [n. 1806]); cf. also Osing (1976a: I 59–63, 220–228); Schenkel (1983b: 183–184); Gundacker (2018a: 165–166 [with n. 47]); cf. also Martin (1984); Lange-Athinodorou (2019: 3–5).

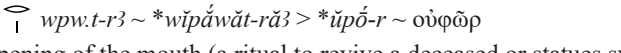
27 Hieroglyphic token after PT 519 § 1214b in king Pepi I's version (VI dynasty; Sethe 1908–1923: II 182; Allen 2013b: IV *ad locum*); hieroglyphic token of the nisba adjective after the stela of Nehi from Abydos (CG 20520d, 6; XIII dynasty; Lange & Schäfer 1902–1925: II 117; cf. Simpson 1974; Franke 2003: 115); for the Greek rendering, which is attested as part of personal names, cf. Griffith (1909: III 209 [n. 1], 223 [n. 18]); Preisigke (1922: col. 58); Foraboschi (1972: I 56); for the vocalisation patterns, cf. Osing (1976a: I 126, 313, II 602–603 [n. 568], 859 [n. 1332]); Schenkel (1983b: 155); cf. also Fecht (1960: §§ 49–53); Otto (1960b); Allen (1984: § 743 [s.v. *j3ḫj*]); Kahl (2008); Gundacker (2009a: I 196–209), (2013a: 77 [with n. 313]), (2017: 105–106) & (2018a:

It is also important to note that *Jüngere Komposita* persisted as a vivid and productive category all throughout the history of the Egyptian language, whereas *Ältere Komposita* became an obsolete category with the demise of the Old Kingdom at the end of the third millennium BC. *Ältere Komposita* are thus time capsules from the earliest phases of the Egyptian civilisation, which are far from being fully evaluated with regard to the historico-cultural and linguistic information enshrined in them.[28]

2.1 Etymological Archaism: Retaining *Ältere Komposita*

The dawn of the *Zweisilbengesetz*[29] towards the end of the Old Kingdom became a watershed for *Ältere Komposita*, which either fell away or were adjusted in order to match the newly advancing syllable structure and stress rules. Judging from those *Ältere Komposita* which have been preserved in later stages of ancient Egyptian, only those continued as part of the lexicon which either bore word stress on the penultimate syllable or otherwise could somehow be adapted morphologically to do so. Processes of modification included dropping the word-final syllable or the simplification of consonantal clusters in the compositional join with subsequent vowel elision.[30] This naturally resulted in the obscuration of the etymological origins of *Ältere Komposita* so that they became impenetrable fossils. It is therefore unsurprising that many *Ältere Komposita* only survived in or via a particular sociolect or technolect,[31] above all the *lingua sacra* (ex. 11), the *lingua magica* (ex. 12) and the *lingua scientifica* (ex. 13).

ex. (11) *wpw.t-r3* ~ **wĭpắwăt-ră3* > **ŭpṓ-r* ~ οὐφῶρ
"opening of the mouth (a ritual to revive a deceased or statues symbolically)"[32]

ex. (12)  *ḥś(j)w-mw* ~ **ḥĭś(j)ắw-măw* > **ḥĭśắw-mă* ~ **ḥĭśắm-mă* ~
"water conjuration (a spell to protect against crocodiles, etymologically: 'song of the water')"[33]

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167 [with n. 57]); cf. furthermore Gauthier (1925–1931: I 11, IV 173, 226); Gardiner (1947: II *191–*192, *261); Montet (1957–1961: I 73); Helck (1974: 164–165); Peust (2010: 77).

28 Cf. Gundacker (2017), (2018a) & (2021).

29 Fecht (1960: §§ 325–437); Gundacker (2017: 137–142), (2018a: 161–165 [with further references]) & (2021).

30 Fecht (1960: §§ 264–324); Gundacker (2018a).

31 Cf. Fecht (1960: §§ 312–313); Gundacker (2017: 139–140) & (2018a: 164, 170, 176, 178).

32 Hieroglyphic token after a stela of Pepi I commemorating his first celebration of the Sed Festival (CG 1747, VI dynasty; Borchardt 1937–1964: II 172; cf. Sethe 1933: 114 (11)); for the Greek rendering, cf. Preisendanz (1973–2001: II 79–80; cf. also Vergote 1961: 213–214; Moyer & Dieleman 2003); for the vocalisation patterns, cf. Osing (1976a: I 78–88, II 369 [n. 49], 484 [n. 154], 668 [n. 734]); Schenkel (1983b: 198–201); Gundacker (2018a: 160 [with n. 9]); cf. furthermore Otto (1960a); Thissen (1991: 299–300); Smith (1993); Fischer-Elfert (1998); Quack (2015) & (2017a).

33 First hieroglyphic token (hieratic original) after Papyrus Harris 500 = London, British Museum EA 10042, ro. 6,10 (XX dynasty; Leitz 1999: pl. XVII); second hieroglyphic token (hieratic original) after the *Hirtengeschichte* (Papyrus Berlin P 3024, 14; XII dynasty; Gardiner 1909: pl. 16b; Parkinson & Baylis 2012: 60 [fig. 14]); for the vocalisation patterns, cf. Osing (1976a: I 78–88, 292, II 488 [n. 159]); Schenkel (1983b: 198–201) & (2005); Gundacker (2019); cf. furthermore Herb (2001: 257–314); Ritner (2008: 48, 225–231); Guth (2018: 129–193).

ex. (13) *rmnw-ḫr.j* ~ **rĭmnă̆w-ḫŭrĭj* > **rĕmnă̆-ḫr*(*ĕ*) ~ *Oc* (*)<ⲣⲉⲙⲛ>ⲁⲃ[ⲣ]
"bottom side, lower part (of the constellation Orion, a decan)"[34]

Apart from *termini technici*, *Ältere Komposita* were largely preserved as *nomina propria*[35] and toponyms (ex. 14),[36] but also as terms of great importance for everyday life (ex. 15) or, fossilised, as part of adverbial expressions in common parlance (ex. 16).

ex. (14)  *mꜣ-ḥḏ* ~ **mă̆ꜣ-ḥĭḏ* > **mŏ́ꜣ-ḥĕ* ~ (*)Mῶχις
"nome of the oryx antelope (named after the eponymous animal, etymologically: 'white deer')"[37]

ex. (15) *ḥḏ-tꜣ* ~ **ḥă̆ḏ-tă̆ꜣ* > **ḥă̆d-t*(*ĕ*) ~ *Oc* ϩⲁⲧ
"morning, dawn (etymologically: 'illumination of the earth')"[38]

ex. (16) *rj-ꜥw* ~ **ră̆j-ꜥŭw* > **rṓ-ꜥ* ~ *S* ⲣⲱ
"action, deed (etymologically: 'deed of arm', preserved in *m-rj-ꜥw* > S ⲙⲡⲣⲱ 'indeed')"[39]

In addition, the continuing morphological obscuration of persisting *Ältere Komposita* made it increasingly difficult to recognise them as compound nouns. As a result, knowledge

34 Hieroglyphic token after the inner coffin of Mesehti (CG 28118, XI dynasty; Lacau 1904–1906: II 108; Allen 1950: 32–33; cf. Neugebauer & Parker 1960–1969: I pl. 9–10); for the Old Coptic gloss as found in the Tebtynis Onomasticon and its restoration, cf. Osing (1998: I 41, 190–191); cf. also the Greek rendering ῥεμεναχ[ρέ] in Papyrus London, British Museum EA 98,65 (Neugebauer & van Hoesen 1987: 30; Quack (in preparation: sections 1.4 [end], 2.1.9); for the vocalisation patterns, cf. Osing (1976a: I 156–160, 314, II 550–551 [n. 420], 797–800 [n. 1016], 862 [n. 1340]); Schenkel (1983b: 167–169); Gundacker (2018a: 167–168 [with n. 58]; the tentative attribution of *rmnw* to noun class II.6 should be given up in favour of noun class II.4); cf. furthermore von Lieven (2007: I 223–254).

35 For *Ältere Komposita* among Egyptian personal names, cf. Gundacker (in preparation a).

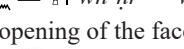
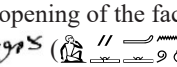
36 Gundacker (2017).

37 Hieroglyphic token after Snofru's temple near the Bent Pyramid (IV dynasty; Fakhry 1959–1961: I 37; cf. Arnold 2021); for the Greek rendering, which can be deduced (Gardiner 1947: II *93; Fecht 1960: §§ 199–200) from Μωχίτης τόπος "Mochite district" (Reinach 1905: 60, 89, 125, 229 [index]), cf. Gundacker (2017: 106–107); for the vocalisation patterns, cf. Edel (1961–1963: I 245, III 180); Fecht (1960: §§ 199–201, 270); Osing (1976a: I 127, II 604–605 [n. 574]); Schenkel (1983b: 163); Peust (1999: 156–157).

38 Hieroglyphic token after PT 639 § 1807c in king Pepi II's version (VI dynasty; Sethe 1908–1923: II 441; Allen 2013b: V *ad locum*); for the Old Coptic gloss as found in the Tebtynis Onomasticon and its restoration, cf. Osing (1998: I 112–113 [adn. j], 208–209 [adn. u]); for the vocalisation patterns, cf. Fecht (1960: §§ 21, 213 [n. 345]); Osing (1976a: I 36–48, II 420 [n. 93]); Schenkel (1983b: 193–194); Gundacker (2013b: 98–102); cf. furthermore Gilula (1976); Spalinger (1992); Gundacker (2012: 79).

39 Hieroglyphic token after the (auto)biography of Hesi (VI dynasty; Kanawati & Abder-Raziq 1999: pl. 33b, 59b; Stauder-Porchet 2015: 194–195); for the Coptic offspring, cf. Crum (1939: col. 290a); Westendorf (1965–1977: 161); Černý (1976: 135); Vycichl (1983: 171–172); for the vocalisation patterns, cf. Fecht (1960: §§ 179–186, 217); Osing (1976a: I 203, 213, II 369 [n. 49], 484 [n. 154], 668 [n. 734], 738–742 [n. 897]); Schenkel (1983b: 92); Gundacker (2018a: 176 [with n. 106]); cf. furthermore Winand (2009).

about their etymological origins must have faded away, which occurred hand in hand with processes of semantic specialisation and lexicalisation. In turn, the nexus between morphological structure and meaning was further loosened, just as in, e.g., *lord* < *hlāf-weard* "ward of the loaf (of bread)" and *lady* < *hlǣf-dīġe* "knitter of the loaf (of bread)".[40] This development resulted in words, the morphology of which was no longer transparent and the semantics of which had become the nucleus for new word families as is known from a group of *nomina abstracta* among *Ältere Komposita* which were reinterpreted as infinitives and thereby became the starting point for verbal paradigms (ex. 17).[41]

ex. (17)  *wn-ḥr* ~ **wa̋n-ḥă̆r* > **wa̋n-ḥă̆*
"'opening of the face', revelation"
 *wnḥ* ~ **wa̋nă̆ḥ* > **wőnḥ* ~ *S* ⲟⲩⲱⲛϩ →
→  *wnḥ=k* ~ **wănḥa̋k*
"to reveal (infinitive)" → "you shall reveal (subjunctive)"[42]

Even if the constituents of such an obscured compound noun were known, additional knowledge about the cultural and historical circumstances at the time of creation, about the mode of compounding and about language development would have been necessary to assess structure and etymological foundations. Becoming unanalysable lexicalised words was thus at least favourable for *Ältere Komposita* to survive the advent of the *Zweisilbengesetz*.

2.2 Contemporaneous Perception: From Substitution to Replacement

When the *Zweisilbengesetz* came into force, *Ältere Komposita*, which had not undergone significant semantic development, were at risk of losing the connections to the word families of their constituting elements due to the need of morphological adaptation. In order to maintain the etymological transparency, the creation of competitive idiomatic phrases and substituting neologisms commenced. This may account for the astonishing fact that,

40 For the Old English forms, cf. Durkin (2009: 53).

41 Cf. Gundacker (2013b) and ex. (26) further below.

42 Hieroglyphic token after the tomb of Khety II (Asyut № 4, First Intermediate Period, Griffith 1889: pl. 14 [lin. 83]; Kahl 1999: 24); for the Coptic offspring, cf. Crum (1939: col. 486a); Westendorf (1965–1977: 274–275); Černý (1976: 214); Vycichl (1983: 235); first Demotic writing after Papyrus London, British Museum EA 10588, VI,14 (*šˁ mte=f wnḥ n ḥr ḫn p-ḏwf* "until he was revealed as Horus in the papyrus swamp", Bell, Nock & Thompson 1931: 8, 12), second Demotic writing after the Magical Papyrus London-Leiden = Leiden I 383 + London, British Museum EA 10070, vo. XVIII,4 (*wnḥ=k r.ir=j* "May you reveal yourself to me!"; Griffith & Thompson 1904–1909: II *ad locum*); for a perfective *śḏm=f*, cf. Papyrus Carlsberg 456, x+III,5 (*wnḥ s wˁ-sḫ pr-ˁnḫ* /// "A scribe of the House of Life revealed him ///"; Ryholt 1998: 160 [with n. 49], 166, pl. XIX; I would like to thank Charlotte Dietrich and Johannes Jüngling for discussing this passage.), cf. Erichsen (1954: 92); Johnson (2002–2014: fasc. w, 103–104); for the identification as an *Älteres Kompositum* and the vocalisation patterns, cf. Osing (1976a: I 36–41, II 350 [n. 12], 355 [n. 17], 420–421 [n. 93]); Peust (1999: 280); for the vocalisation pattern of the subjunctive *śḏm=f*, cf. Fecht (1960: §§ 139, 251 [n. 356], 333); Osing (1976b: 32–36) & (1998: I 62); Schenkel (1990: 112–113); Gundacker (2013b: 99).

in many instances, very similar, if not the same, components which constituted an *Älteres Kompositum* were used to form a substituting neologism.[43] Besides, the common tendency to standardise inflectional patterns[44] rendered morphologically truncated or mutilated *Ältere Komposita* and their traditional declension highly irregular, which triggered and advanced suppletive paradigms. For that reasons, there may exist a fossilised masculine singular of an *Älteres Kompositum* with a secondary plural or feminine counterpart which has not been formed as an *Älteres Kompositum* or has not been derived from the masculine singular but formed as substitutes (replacement formations) to step in for old, untransparent plural or feminine forms.[45] In a number of instances, this may have been the point of departure for competitive substitutes (replacement formations) which, in a second step, replaced (the singular of) *Ältere Komposita* and left them to oblivion.

Due to the nature of the hieroglyphic writing system, information on the complex interactions of different dialects, sociolects and technolects is limited. While the *lingua sacra*, the *lingua magica* and the *lingua scientifica* remained a safe haven for fossilised *Ältere Komposita*, the *lingua regis*[46] not only lost its ability to create new *Ältere Komposita* with the demise of the Memphite court royal and the élite culture centred there, but the local idioms which replaced Old Kingdom "King's Egyptian" were not fit to continue the rhetoric tradition. There is thus a remarkable number of *Ältere Komposita* which, during the First Intermediate Period and the early Middle Kingdom, were straight forwardly replaced at the dawn of Middle Egyptian (exx. 18–19).

ex. (18)  *ḫnw-ʿw ~ *ḫa̓nă̓w-ʿŭw > *ḫa̓n-ʿŭ*
"chamber, cabinet (Old Kingdom, etymologically: 'inner part of the place')"
 *ʿw-ḫnwt.j ~ *ʿŭw-ḫănwa̓tĭj > *ʿŭ-ḫănwa̓tĭ*
"chamber, cabinet (from the First Intermediate Period onwards, etymologically: 'inner place')"[47]

43 Fecht (1960: §§ 330–347); Gundacker (2018a).

44 Cf. Fecht (1960: §§ 235–237 [adjectives/participles], 348–359 [infinitives and pseudoparticiples], 360–372, 412 [nouns]), for the complex relationship between singular and plural forms, the role of analogical levelling or replacement, and the significance and spread of secondary plural desineces, cf. Quack (2007).

45 Cf. Gundacker (in preparation b).

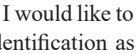
46 For an *Älteres Kompositum* which was created at the court royal of the VI dynasty, cf. ex. (24) further below.

47 Hieroglyphic token after the (auto)biography of Shepsesptah of Saqqarah (V dynasty; Gundacker 2015a: 65–67, 97; cf. Sethe 1933: 51 (13), (16); Kloth 2002: № 29). The *Älteres Kompositum ḫnw-ʿw*, albeit with a less specialised meaning, survived as part of the adverb *m-ḫnw-ʿw*, a synonym of *m-ḫnw* "in the interior (of)" (e.g., CT 405 V 208d, de Buck 1935–1961: III 208). Hieroglyphic token of the substitute (replacement formation) after tomb № 8 of Ahanakht at el-Bersheh (dawn of Middle Kingdom, Newberry 1894–1895: II pl. XXI [linn. 5–6]); for the identification as an *Älteres Kompositum* and the vocalisation patterns, cf. Fecht (1960: §§ 181 [n. 295], 334–335); Osing (1976a: I 203, 214, 309, II 738–742 [n. 897], 762–763 [n. 926]); Schenkel (1983b: 92, 181); cf. furthermore Gardiner (1947: I *44–*45).

ex. (19)  *nfr-ḥr* ~ **nắfĭr-ḥă̆r* > **nắf-ḥ*(*ĕ*) ~ Νάφ
"he with a beautiful face (rare after the Old Kingdom)"
 nfr-ḥr ~ **nă̆fĭr-ḥắr* > **nĕf-ḥŏ́* ~ Νέφως
"he with a beautiful face (frequent from the First Intermediate Period onwards)"[48]

It is unclear what caused the *lingua regis* of the early Middle Kingdom to abandon certain *Ältere Komposita*, but, perhaps, this reflects the origins of Middle Egyptian in Upper Egypt, where *Ältere Komposita* had already become an obsolete category.[49] The tendency to create substitutes was nevertheless counterbalanced by another trend, the origins of which are equally unknown. In the case of *Ältere Komposita* with internal genitival syntax, the mutilation of monosyllabic last elements in combination with the regular loss of certain consonants[50] set off a peculiar strategy of modification via the introduction of the *nota genitivi* (*n.j*).[51] In the beginning, this was perhaps an attempt to stabilise the dwindling structure of certain *Ältere Komposita*, but secondarily this became a common method of transformation. Even though, in a technical perspective, this is a way of retaining *Ältere Komposita*, it may be subsumed among the processes of substitution on a more pragmatic level because, as a result, the unaltered original and its modified substitute existed side by side (exx. 20–21).

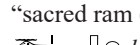
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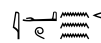
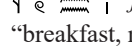
48 Hieroglyphic token after Sahure's pyramid temple (V dynasty; Borchardt 1910–1913: IIв Bl.17); hieroglyphic token of the substitute (replacement formation) after the stela of Neferher (British Museum EA 163, XIX dynasty; James 1961: 30–31, pl. XXVI); for the first Greek rendering (personal name) in a letter from the fourth century AD, cf. Grenfell, Hunt & Hogarth (1900: № 135,1); Preisigke (1922: col. 225); for the second Greek rendering (personal names borne by one and the same man) in a receipt from AD 178/179, cf. Meyer (1911–1924: 172 [№ 56]); Preisigke (1922: col. 231). In the Late Period, yet another replacement formation arose in agreement with morphological and grammatical standards of Demotic:  *nfr-ir-ḥr* ~ **nắfră-ḥắr* > **nĕfr-ḥŏ́* ~ Νεφέρως "he with a beautiful face" (mummy label of Nepheros; second or third century AD, Möller 1913: № 22,2); the same Greek rendering is stated as an alias of Νέφως mentioned above; I would like to thank C. Dietrich and R. Kade for discussing several aspects of this token.); for the identification as an *Älteres Kompositum* and the vocalisation patterns, cf. Fecht (1960: §§ 251 [n. 386], 333); Osing (1976a: I 128, II 350 [n. 12], 355 [n. 17], 420–421 [n. 93]); Gundacker (2013a: 94 [n 278]) & (2018b: 144 [n. 91]); cf. Ranke (1935–1952: I 198 (6)); Lüddeckens (1980–2000: 641); Scheele-Schweitzer (2014: № 1924); cf. also Leitz (2002–2003: IV 214–217); Hannig (2006: II 1282).

49 For dialects of Pre-Coptic Egyptian, cf. most recently Gundacker (2010), (2017: 137–142 [with further references]) & (2021); Winand (2015 [with further references]) & (2018); Zöller-Engelhardt (2016); Satzinger (2017); Ilin-Tomich (2018).

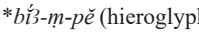
50 For the loss of *t* and *r* in anteconsonantal and in word-final position, of *w* and *j* in word-final position when not forming part of the stress syllable and for the general loss of *ꜣ*, cf. Edel (1955–1964: I §§ 113, 127–129, 136, 140, 146, 210); Fecht (1960: §§ 41, 54, 62 [n. 114], 74–76, 267–276, 367 [n. 514], addendum to §§ 279, 293–303); Lacau (1970–1972: I 57–67); Osing (1976a: I 28–30); Satzinger (1994); Peust (1999: 137–141, 151–156); for the impact on *Ältere Komposita*, cf. Gundacker (2018a: 163–164, 167–170).

51 Fecht (1960: §§ 146–166, 318); Gundacker (2018a: 169–172).

ex. (20)  *bꜣ-p.t* ~ **bḫꜣ-pǐt* > **bḫꜣ-pĕ* ~ *F* ⲃⲁⲡⲓ (?)
“sacred ram (a sacred animal, a deity, etymologically: ‘ram of heaven’)”
 *bꜣ-nj-p.t* ~ **bḫꜣ-nḭ̄j-pǐt* > **bĕ-nī́-pĕ* ~ Βένιπις (?)
“sacred ram (a sacred animal, a deity, etymologically: ‘ram of heaven’)”[52]

ex. (21)  *jʿww-rꜣ* ~ **jăʿŭ̆wŭ̆w-răꜣ* > **jăʿḗ’-l* → **ʿăjḗ’-l* ~ *Oc* ⲁⲓⲉⲗ
“breakfast, morning toilet (etymologically: ‘washing of the mouth’)”
 *jʿww-n.j-rꜣ* ~ **jăʿŭ̆wŭ̆w-nḭ̄j-răꜣ* > **jăʿŭ̆w-nī́-ră*
“breakfast, morning toilet (etymologically: ‘washing of the mouth’)”[53]

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52 Hieroglyphic token after the tomb of Amenemhet, called Surer (TT 48, XVIII dynasty; Kahl 2004: 236–237; Säve-Söderbergh 1957: 34–48, pl. 68–81); hieroglyphic token of the substitute (replacement formation) after a statue of Amenophis, son of Hapu (CG 583, XVIII dynasty; Sethe & Helck 1914–1961: 1814 (8); Borchardt 1911–1935: II 135); Greek rendering after the accounts of a beer seller from Tebtynis (first century AD, Grenfell & Hunt 1907: № 401,41; Preisigke 1922: col. 73); Greek renderings of this kind are usually identified as *bꜣ-n.j-p.t* “iron of heaven” (cf. Crum 1939: col. 40a; Blasco Torres 2017: 524, 677), but there is convincing evidence from sportive and allusive tokens in sources of the New Kingdom that, at least then, a morphological substitute **bĕ-nī́-pĕ* “ram of heaven” existed (cf. Fecht 1960: § 153; Gundacker 2017: 169 [with n. 68]), even though it is unclear whether such survived, e.g., as fossilised relicts as (part of) personal names, until the Graeco-Roman Period; for the Coptic offspring, which may be a Bohairic loanword in Fayumic, cf. Crum (1939: col. 39a); Westendorf (1965–1977: 24); Černý (1976: 23); Vycichl (1983: 28); Fecht (1960: §§ 162–164 [with n. 276]); Kahl (2004: 236). In the late New Kingdom to early Third Intermediate Period, yet another substitute (replacement formation) arose,  *bꜣ-m-p.t* ~ **bḫꜣ-ṃ-pĕ* (hieroglyphic token after the coffin of Pameshemu, CG 6012, Chassinat 1909: 42), which itself was finally supplanted with  () *bꜣ-ʿꜣ-n-p.t* ~ **bǐ-ʿắꜣ-ṃ-pĕ* → **b-ắʿ-ṃ-pĕ* ~ *SA* ⲃⲁⲗⲙⲓⲡⲉ “great ram of heaven” (Demotic writing after Papyrus Sorbonne 1248, 10, cf. de Cenival 1978: 2, pl. 1–2; Johnson 2002–2014: fasc. b, 5; for the Coptic offspring, cf. Crum 1939: col. 39a; Westendorf 1965–1977: 24, 494; Černý 1976: 23; Vycichl 1983: 28) in the Third Intermediate Period (cf. Gundacker 2018a: 169–172), perhaps due to the need of disambiguation against *bꜣ-n.j-p.t* ~ **băjăꜣ-nḭ̄j-pǐt* > **bĕ-nī́-pĕ* ~ *S* ⲃⲉⲛⲓⲡⲉ “iron of heaven” (cf. Fecht 1960: §§ 155–158; Crum 1939: coll. 41a–41b; Westendorf 1965–1977: 25; Černý 1976: 24–25; Vycichl 1983: 29–30; cf. also Gundacker 2018a: 171–172); for identification as an *Älteres Kompositum* and the vocalisation patterns, cf. Fecht (1960: §§ 32, 136–144, 147, 154 [n. 259], 157, 160–166, 172, 187, 403, 433 [n. 613]); Osing (1976a: I 143, 232, 314, II 403 [n. 87], 408 [n. 90], 429–432 [n. 97], 489 [n. 159], 490 [n. 163], 567–568 [n. 430], 652–653 [n. 676], 695 [n. 793]); Schenkel (1983b: 52, 119, 122, 155); Gundacker (2013a: 82); cf. furthermore Leitz (2002–2003: I 679–680, III 624–625); Gundacker (2017: 131–132).

53 Hieroglyphic token (hieratic original) after Medical Papyrus Kahun VI, 2,5 (XII dynasty; Griffith 1898: II pl. V; Collier & Quirke 2004: 60); hieroglyphic token (hieratic original) of the substitute (replacement formation) after Papyrus Boulaq XI 1,15 (CG 58070, XVIII dynasty; Mariette 1871–1872: pl. 3); for the Old Coptic gloss as found in the Tebtynis Onomasticon, cf. Osing & Rosati (1998: I 93); for the vocalisation patterns, cf. Fecht (1960: §§ 70 [with n. 126], 180, 186); Osing (1976a: II 369 [n. 49], 484 [n. 154], 668 [n. 734]). According to H. de Meulenaere (1981), the abbreviation  (“mouth from which water issues”, Gardiner D.154), which constitutes the vast majority of (alleged) attestations of *jʿww-rꜣ* “breakfast, morning toilet”, actually designates *ʿbww-rꜣ* “morning *repas*, breakfast (literally: ‘purification of the mouth’)”.

Despite superficial similarities, this kind of substitution must be held apart from the process of indirect genitives gradually replacing phrasal direct genitives.[54] It is unclear, whether, in some instances, *Ältere Komposita* were substituted with phrasal indirect genitives, but all examples for which vocalised attestations are preserved[55] display word stress on the *nota genitivi*. In all probability, this is the only morphological pattern to create *Ältere Komposita* after the end of the Old Kingdom, though, paradoxically, there is no trace that this was a genuine kind of *Ältere Komposita*. The origins of this secondary type are thus uncertain, but a mimetic morphological pattern which the learnèd élite of priests and scribes developed after some model of analogy is very likely.[56]

3 *Ältere Komposita*: Strategies of Writing

Even though there is a significant morphological difference between *Jüngere Komposita* and *Ältere Komposita*, this is often disguised beyond detectability by the hieroglyphic writing system. To a great extent, this can be traced to archaistic writing customs and trends to standardise or abbreviate. However, phonetic (unetymological) and sportive writing bears witness to the attempt of denoting a word with particular intentions, be it the representation of the actual pronunciation, be it a folk-etymological reanalysis in order to enrich the semantics or to construe a new (meta)meaning. Substituting traditional writings offers thus a rare opportunity of getting an impression of how the ancient Egyptians themselves may have perceived *Ältere Komposita* as part of their own language.

3.1 Etymological Archaism: Conservative Writing Customs

There are some *Ältere Komposita*, which are attested innumerable times from the origins of Egyptian civilisation and its writing system onwards, but always written in a strictly standardised way which does not allow for any conclusion on their morphology. Without Coptic offspring and renderings owing to the *Nebenüberlieferung*, it would be impossible even to identify them as *Ältere Komposita* (exx. 22–24).

ex. (22)  *Mn-nfr* ~ **Mĭ́n-năfăr* > **Mĕ́m-fĕ* ~ Μέμφις
"Memphis (a town, etymologically: 'the perfection [scil. of Pepi I] perdures')"[57]

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54 Cf. Schenkel (1962); Jansen-Winkeln (2000); Peust (2017).

55 Cf. Fecht (1960: §§ 146–166, 318); Gundacker (2018a: 169–172).

56 For the role of the priestly élite in preserving and cherishing *Ältere Komposita* as part of the *lingua sacra*, cf. Gundacker (2017: 139–140); cf. also Quack (2012).

57 Hieroglyphic token after the personal name  *ʿnḫ=j-m-Mn-nfr* "My life is (in[?]) Memphis!" as attested in a tomb at Saqqarah (Jéquier 1929: 112 [misspelt], pl. 15; Fischer 1996: 73 [n. 8], 74; Gundacker 2021: 93–97); for the Greek rendering, cf., e.g., Herodotus, *Historiae* II 2–3 etc. (Hude 1927: I *ad locum*); for the vocalisation patterns, cf. Osing (1976a: I 36–48, 72, 127); Schenkel (1983b: 162, 195); cf. also Fecht (1960: §§ 81–84); Gundacker (2010: 105) & (2013b); for the name patterns of pyramids and pyramid towns, cf. Fischer (1996: 73–77); Gundacker (2009b); cf. furthermore Gauthier (1925–1931: III 38); Gardiner (1947: II *122–*126); Montet (1957–1961: I 27–32); Helck (1974: 147–149); Peust (2010: 59). In the Graeco-Roman Period, a synonymous substitute (replacement formation) *Mn-nfrw* ~ **Mĭn-nắfrŭw* > **Mĕn-nŏ́frĕ* ~ Μένοφρις is known

ex. (23)  *ḥm-nṯr* ~ **ḥǎm-nătĭr* > **ḥŏnt* ~ *SB* ϩⲟⲛⲧ
"priest (etymologically: 'god's servant')"[58]

ex. (24)  *ḥw.t-nṯr* ~ **ḥăwăt-nătĭr* > **ḥ'ŏ-ntĕ* ~ Old Nubian -ϩⲟⲛⲧⲉ
"temple (etymologically: 'mansion of god')"[59]

It is hard to explain why, with examples found so frequently in texts and inscriptions, writing customs were so rigid and static. Maybe this is indicative for the Egyptians perceiving the iconic and condensed combination of hieroglyphs as a self-contained unit, i.e., as a compound logogram or some kind of rebus.[60] Furthermore, the examples given were all created as part of élite vernaculars of the Early Dynastic Period and Old Kingdom, among them the name of the pyramid complex and pyramid town of king Pepi I, which later became the name of the nearby Egyptian capital (ex. 22), and two key terms from the cultic sphere of ritual and worship (exx. 23–24). As such they are essential expressions continually used in the *lingua regis* and the *lingua sacra* as well as in everyday vernaculars all throughout Egypt. *Ältere Komposita* so widely known were certainly stable in meaning over millennia and, therefore, predisposed to develop a permanent and firm nexus between the spoken word and its standardised written representation. Owing to the common usage of those *Ältere Komposita* in the *linguae speciales* and in common parlance, the original forms prevailed over both morphological and written substitutes (replacement formations).[61]

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from the so-called "Era of Menophris" (τὰ ἀπὸ Μενόφρεως); cf. Biot (1823: 303–309); Krauss (1978: 264–273); Gundacker (2018a: 175 [with n. 102]), (2018b: 166 [n. 199]) & (2021); cf. also Osing (1976a: I 72); Schenkel (1983b: 195).

58 Hieroglyphic token after the tomb of Nachtanti at Badari (early III dynasty; Brunton 1927: 11–12, pl. XVIII [№ 10]; cf. Kahl 2002–2004: III 305–306); for the Coptic offspring, cf. Steindorff (1908); Crum (1939: col. 691b); Westendorf (1965–1977: 380); Černý (1976: 288); Vycichl (1983: 306); for the vocalisation patterns, cf. Fecht (1960: §§ 78–80); Osing (1976a: I 213, II 616 [n. 617]); Schenkel (1983b: 182); Peust (1999: 279 [with n. 350]); cf. also Gundacker (2018a: 160 [with n. 10]). In the XVIII dynasty, a synonymous substitute (replacement formation) *ḥm-nṯr* ~ **ḥǎm-nắtă* > **ḥǎm-nắtă* ~ Middle Babylonian *-ḫa-am-na-ta* is attested as a personal name in the Amarna correspondence; cf. Ranke (1910: 15); Rainey (2015: I 418–419, 422–423); Gundacker (2018a: 174–175 [with n. 99]) & (2021: 113–115).

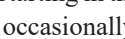
59 Hieroglyphic token after false door fragments of an unknown official now in Berlin (III dynasty; cf. Kahl, Kloth & Zimmermann 1995: 202–205; Kahl 2002–2004: III 300–301); for the Old Nubian rendering of a Coptic offspring in a stauros hymn of the ninth or tenth century AD, cf. Roquet (1972); Peust (1999: 279 [with n. 351]); for the vocalisation patterns, cf. Osing (1976a: I 213, II 441 [n. 102]); Schenkel (1983b: 182); Gundacker (2013a: 61 [n. 216]). On the (pseudo-)block statue of Nemlot (Kunsthistorisches Museum Wien, Ägyptisch-Orientalische Sammlung 5791, XXII dynasty; Rogge 1990: 152), a synonymous substitute (replacement formation)  *ḥw.t-nṯr.t* ~ **ḥăwăt-nŭ̄trĭt* > **ḥĕ-nĕ'tĕ* ~ *S* ϩⲉⲛⲉⲉⲧⲉ can be found, which in Sahidic became the common term for "monastery" (cf. Crum 1939: col. 689a; Westendorf 1965–1977: 379–380; Černý 1976: 289; Vycichl 1983: 306); cf. furthermore Osing (1976a: I 213, II 441 [n. 102]); Schenkel (1983b: 182); Gundacker (2018a: 175–176 [with n. 104]).

60 Cf. Schenkel (1981) & (1983c); Vernus (1982) & (2018).

61 For additional references, cf. Gundacker (2018a: 160 [with n. 10], 163 [with n. 25], 174–176 [with nn. 99, 102, 104]) & (2021).

3.2 Contemporaneous Perception: Phonetic (Unetymological) Writing

Apart from Coptic offspring and the *Nebenüberlieferung*, phonetic (unetymological) writings are among the most important sources of information for identifying *Ältere Komposita*.[62] Starting in the late Old Kingdom,[63] traditional and etymologically transparent writings were occasionally substituted with innovative ones. The sole purpose of this kind of writing was to denote unambiguously the actual pronunciation of peculiar words (exx. 25–27). Judging from the geographical distribution of phonetic writings and occasionally detectable dialectal variation[64] among *Ältere Komposita*, all vernaculars all throughout Egypt were acquainted with this phenomenon.

ex. (25)  *ḥmw.t-r3* ~ **ḥămŭwŭt-ră3* >
"art of speech (etymologically: 'art of the mouth')"
>  *ḥmr* ~ **ḥmĕ́r* ~ *Oc* ϩⲙⲏⲣ
"(1) magical spell, (2) and so forth (a *terminus technicus*)"[65]

ex. (26)  *śn-t3* ~ **śắn-tă3* > **śắn-tă* >
"proscynesis (etymologically: 'kissing of the ground')"
>  *śntj* ~ **śắntĕ*
"(1) proscynesis, (2) to adore, to honour"[66]

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62 Cf. the examples recorded in Fecht (1960); Gundacker (2017), (2018a) & (2021).

63 For  *w3d̲-w* ~ **wă3ŭd-wŭ*, the earliest phonetic writing of an *Älteres Kompositum*, which represents a truncated form of *w3d̲-wrr* "sea, lake" (ex. 6), cf. Blackman (1914–1953: IV 36–37, pl. XIV); Fecht (1960: §§ 10, 19 [n. 40], 293, addendum to § 279); Gundacker (2017: 140 [n. 97]), (2018a: 167 [with n. 56]) & (2021: 105–111).

64 Cf. Fecht (1960: §§ 153 [n. 257], 305 [n. 434], 433 [n. 613]); Gundacker (2011: 66 [with n. 259]). (2017), (2018a: 160 [with n. 9], 167 [with n. 56], 174 [with n. 97]) & (2021).

65 Hieroglyphic token (hieratic original) after Papyrus Berlin P 3027 vo. 6,1 (Second Intermediate Period or early New Kingdom; Erman 1901: 50–51; Westendorf 1999: I 72); phonetic writing (hieratic original) after Papyrus Salt 825 = London, British Museum EA 10051, 10,4 (Ptolemaic Period; Derchain 1965: I 141, II 13*, pl. X); for the Old Coptic spelling as found in Papyrus London, British Museum EA 10808, cf. Gardiner *apud* Crum (1942: 28); Osing (1976b: 68–69, 112); Westendorf (1965–1977: 373); Černý (1976: 284); Vycichl (1983: 301). Apparently, the semantics of this compound noun developed in two different ways. On the one hand, "art of the mouth" became a *terminus technicus* for "magical spell" in view of complex ritual performances which included reciting the magical spells according to a rigid set of rules, and, on the other hand, "art of the mouth" became a *terminus technicus* of ancient Egyptian textual criticism meaning "and so forth, *et cetera*" when spontaneous improvisation in order to elaborate enumerations was required. For the vocalisation patterns, cf. Fecht (1960: § 233); Osing (1976a: I 100, II 369 [n. 49], 484 [n. 154], 580 [n. 477], 668 [n. 734]); Schenkel (1983b: 207); cf. furthermore Morenz (1997: 195); Ritner (2008: 42–43); Gundacker (2018a: 168 [with n. 62]).

66 Hieroglyphic token after an inscription of Merenre near Hesse (VI dynasty; Sethe 1933, 110 (13)–(16)); phonetic writing (hieratic original) after the "Instruction of Ani" according to Papyrus Boulaq IV, 16,7 (CG 58042; XXI dynasty; Quack 1994a: 55–56, 90–91, 155–156, 286). Secondarily, the *nomen abstractum* "kissing of the ground" was reinterpreted as an infinitive (cf. Peust 1999: 279 [n. 352]; Gundacker 2018a: 172–173 [with n. 89]). For the vocalisation patterns, cf. Fecht (1960: § 21); Osing (1976a: II 420 [n. 93]); Gundacker (2013b: 98–102).

ex. (27)  *ʒww.t-jbw ~ *ʒăwŭwŭ́t-lĭbŭw* >
>  *ʒwbw ~ *ʒăwwŭ́bĕ*
"joy (etymologically: 'width of heart')"
 *ʒww.t-jb ~ *ʒăwŭ́wŭt-jĭb* >
>  () *iytm ~ *'ăyḗtḥ ~ *'ăyḗtm*
"joy (etymologically: 'width of heart')"[67]

In general, there is a difference according to text genre and script, since, apparently, secular texts were more susceptible to applying phonetic writings than religious texts, and hieratic texts were more prone to making use of them than (monumental) hieroglyphic inscriptions. In Demotic, however, phonetic (unetymological) writing is a frequent phenomenon for all kinds of phrases and expressions of the classical language, in particular the *linguae speciales*, which had no Demotic standard writing, and can be found in all kinds of text genres, specifically including religious texts rich in archaic phrases and expressions.[68]

In the case of *Ältere Komposita*, the growing obscuration of their morphological origins in the course of adaptation to the *Zweisilbengesetz* set them apart from their original word families. This was further bolstered if an *Älteres Kompositum* had undergone some kind of semantic shift or specialisation and, as a *terminus technicus*, had become restricted to special vernaculars. Extensive Demotic and Old Coptic glossing[69] of largely traditional hieratic writings in the Tebtynis Onomasticon[70] bears witness to such intricacies and to attempts of keeping the *lingua sacra* alive via the safeguarding of pronunciation conventions. The substitution of traditional writings is consequently indicative of difficulties in recognising the nexus between the standard written form and the contemporaneous pronounced word. At the same time, phonetic writings can be identified as a progressive feature which arose from the need for clarification.

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67 First hieroglyphic token after Sahure's pyramid temple (V dynasty; Borchardt 1910–1913: I Bl. 11); phonetic writing (hieratic original) after "A Tale of Woe" after Papyrus Moscow 127, 6,4 (late New Kingdom or Third Intermediate Period; Caminos 1976: 6, 16; cf. also Quack 2001: 174 [n. 57]); second hieroglyphic token after queen Hatshepsut's inscription in Hathor's chapel in her mortuary temple at Deir el-Bahari (XVIII dynasty; Naville 1895–1908: IV pl. 106); phonetic Demotic writing after Papyrus Berlin P 6750, x+5, 3 (Widmer 2015: 93–94, 159, 451); for the vocalisation patterns, cf. Fecht (1960: § 122 [n. 205]); Osing (1976a: I 64–77, 97–106), (1976b: 5–6, 63, 69–70, 110, 123–124) & (1998: I 82, 84 [n. 384], 172–173, 177 [adn. p], 208); Gundacker (2011: 66 [with n. 259]), (2018a: 174 [with n. 97]) & (2021: 109–111).

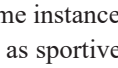
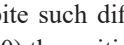
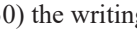
68 Phonetic (unetymological) writings in Demotic are extraordinary insofar as they make use of homo(eo)phonous words in order to indicate the exact pronunciation. This can render it particularly difficult to grasp the actual meaning of a passage which looks like a potpourri of isolated words. Besides, the strategy of "alphabetic" writing largely relying on the use of monoconsonantal signs can be found. For the complex topic of phonetic (unetymological) writings, all with extensive references, cf., e.g., Hoffmann (2002); Stadler (2008), (2012) & (2022: 35–57); Quack (2012); Widmer (2014) & (2015: 44–47); cf. also Vleeming (2013); Quack (2014).

69 Cf. Gundacker (2015b: 102–103 [n. 79]), (2017) & (2018b); Quack (2017b).

70 Osing (1998); Osing & Rosati (1998).

3.3 Learnèd Reanalysis: Poetic Etymologies

Sometimes, Late Period and Graeco-Roman hierogrammateis wrote words uncommon to them, among them *Ältere Komposita*, in a way which not only indicated their actual pronunciation but, at the same time, hinted at an additional or alternative semantic (meta)level. Starting from hieroglyphic monumental texts, L. Morenz[71] labelled this "visually poetic", whereas G. Widmer[72] called this phenomenon as found in Demotic texts "réécriture non étymologique". Somewhere between writing with historical groups[73] and cryptography,[74] etymological reanalysis and phonetic (unetymological) writing thus brought about a complex and broadly varying way of denoting archaic words and phrases. In some instances, it is even hard to recognise whether a certain way of writing should be taken as sportive or at face value, thereby constituting a textual variant in its own right.[75] Despite such difficulties, there are instructive examples among *Ältere Komposita* (exx. 28–30) the writings of which cross the lines between poetic puns and folk etymology.

ex. (28)  *ḥrw-wpšw-tꜣ* ~ **ḥa̯ărŭw-wăpšắw-tăꜣ* > **ḥăr-ŭpšő-tĕ*
"Horus, the illuminator of the earth (planet Jupiter)"
(a)  *ḥrw-wpj-štꜣ* ~ **ḥa̯ărŭw-wăpĭj-šắtăꜣ* > **ḥăr-ŭp-šő́t*(*ĕ*)
"Horus who opens the mystery (planet Jupiter)"
(b)  *ḥrw-pꜣ-štꜣ* ~ **ḥa̯ărŭw-pắꜣ-šắtīꜣ* > **ḥăr-p-šő́t*(*ĕ*)
"Horus, the mysterious (planet Jupiter)"
(c) *ḥrw-pꜣ-šwwt.j* ~ **ḥa̯ărŭw-pắꜣ-šĭwắwtĭj* >
 () *ḥr-pꜣ-šwṯ* ~ **ḥăr-p-šő́t*(*ĕ*) ~ *Oc* ϩⲁⲣⲡⲱⲱⲧ
"Horus, the merchant (planet Jupiter)"[76]

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71 Morenz (2002), (2003) & (2004).

72 Widmer (2004: 677–682), (2014) & (2015: 44–47).

73 Stadler (2022: 35–57).

74 Cf. Baines (1990); Assmann (1997); for cryptography in Egypt, cf. Darnell (2004: 1–34); Drioton & Fairman (1992); Leitz (2001); Gabolde (2016); Klotz & Stauder (2020); Pantalacci (2020); Roberson (2020); for the multiplying number of sound values of hieroglyphs in the writing system of the Graeco-Roman Period, cf. Daumas (1988); Kurth (2007–2015: I).

75 Quack (2012: 211–212).

76 First hieroglyphic token after the astronomical ceiling of the tomb of Petosiris at Atfih (now destroyed, Ptolemaic Period; Daressy 1902: 176; Neugebauer & Parker 1960–1969: III 65 [fig. 15]); second hieroglyphic token after the zodiac from the second Osiris chapel in the temple of Hathor at Dendera (Louvre, constellation of 50 BC; Cauville 1997a: I 174, II pl. 60, 86 & 1997b: I 90, II 79–80; Aubourg 1995); third hieroglyphic token (semi-hieratic original) after the coffin of Heter (now lost, AD 125; Brugsch 1860 & 1862–1863: pl. XVII; Neugebauer & Parker 1960–1969: III 93, pl. 50; I would like to thank A. Wüthrich for comments on this particular writing.); Demotic writing after Ostracon Leiden 333 (Roman Period; Nur el-Din 1974: 264–265, 651 [№ 333]; cf. Quack 1994b; Goebs 1995). This writing is peculiar in two details: firstly, the article is very flat, almost as if it consisted of two dots or a tilde-like tick (cf. Mattha 1945: № 81, 1.4; Lichtheim 1957: № 127, 2; Thissen 1971); secondly, *šwṯ* "merchant" looks as if *šyṯ* were meant, but this appears to be nothing but a somewhat condensed writing (cf. Ostracon Bodleian Library 1303, 2, Tait & Préaux 1955: № 1089; Johnson 2002–2014: fasc. š, 71; I would like to thank C. Dietrich, K. Donker van Heel and C. Martin for discussing this token, which they read without an article under the assumption

During the Old Kingdom, Jupiter was most likely called (*ḥrw*) *wpšw-p.t* "(Horus,) illuminator of heaven",[77] which appears as the natural counterpart and twin of *ḥrw-wpšw-tꜣ* "Horus, the illuminator of the earth". Remarkably enough, this latter designation is first attested at the dawn of the Ptolemaic Period, although, starting in the time of Ramesses VI,[78] a variant *ḥrw-wpšw-tꜣ.wj* "Horus, the illuminator of the Two Lands" can be found, which looks like a typical substitute (replacement formation) with a stressed dual (*tꜣ.wj*) instead of an unstressed singular (*tꜣ*).[79] Nevertheless, it must be stated that the earliest references in planetary tables from the XVIII dynasty refer to Jupiter as *ḥrw-tꜣš-tꜣ.wj* "Horus, who partitions the Two Lands".[80] Jupiter thus must have borne a variety of epithets, perhaps of different origin and age, and it is not big a surprise that those epithets invited to (pseud)etymological speculation. In one branch of tradition, such a process of poetic and etymological reinterpretation started with *wpšw-tꜣ* "illuminator of the earth" and strongly relied on homo(eo)phony as the guiding principle. In order to match *Oc* (-)ⲡⲫⲱⲧ, *wpšw-tꜣ* "illuminator of the earth" must be reconstructed as an *Älteres Kompositum* **ŭpšṓ-tĕ* < **wăpšắw-tăꜣ*.[81] In a first step, *wpšw-tꜣ* "illuminator of the earth" was segmented differently and perceived to mean (a) *wpj-štꜣ* "who opens the mystery", **ŭp-šṓt(ĕ)* < *wăpĭj-šắtăꜣ*,[82] which, in a second step, with loss of (syllabic) *w* ~ **ŭ* due to some kind of labial dissimilation or in the course of reducing and dropping unstressed vowels,[83] was understood as (b)

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that the tick here understood as such forms part of the subsequent "feather with diacritic strokes", Gardiner H.6A; cf. el-Aguizy 1998: № XC); for the Old Coptic spelling as found with the horoscope of Papyrus London, British Museum EA 98, 132.168 from AD 95, cf. Černý, Kahle & Parker (1957: 87–89, 91, 97–98, 100, pl. XI–XII); Neugebauer & van Hoesen (1987: 33); Bartyn (1994: 86–90); cf. also Osing (1998: I 50, 78 [adn. e], 143 [adn. f], 282). For the vocalisation patterns, cf. Fecht (1960: § 22); Osing (1976a: I 154–161, 185, II 709 [n. 817]); Schenkel (1983b: 174); for further references, cf. Neugebauer & Parker (1960–1969: III 177–178); Quack (1994b), (2018: 85–86, 90) & (2019); Goebs (1995).

77 PT 266 § 362b, PT 570A § 1455a (Sethe 1908–1923: I 189, II 294; Allen 2013b: II *ad locum*, V *ad locum*; cf. Goebs 1995: 219 [n. 17]).

78 Piankoff (1954: II pl. 162); cf. Leitz (2002–2003: V 249); Neugebauer & Parker (1960–1969: II pl. I, III 177, pl. 12, 58).

79 For this kind of substitutes (replacement formations), cf. Gundacker (2018a: 176–177 [with nn. 106–107]).

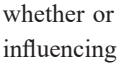
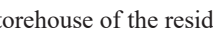
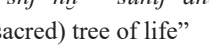
80 Neugebauer & Parker (1960–1969: III 177–178); cf. Leitz (2002–2003: V 294); Quack (2019).

81 With a stress variant of a *nomen agentis* belonging to noun class II.6 as its first element; for the vocalisation patterns, cf. Fecht (1960: § 22); Osing (1976a: I 168, II 667–669 [nn. 735–736]); Schenkel (1983b: 168).

82 With **šắtăꜣ* "secret" tentatively assigned to noun class III.1b; for the vocalisation patterns, cf. Fecht (1960: § 94); Osing (1976a: I 120–133, 212–219); Schenkel (1983b: 154–161, 181–182).

83 Cf., e.g., the personal name *wsjr-ḥpjw* ~ Ὀσόραπις besides Σάραπις "Osiris-Apis, Serapis", Preisigke (1922: coll. 245, 363); Foraboschi (1972: III 216, IV 281); cf. also Osing (1976a: II 481 [n. 142], 532–533 [n. 342]); cf. furthermore Fecht (1960: §§ 22, 95, 120 [n. 202], 189 [n. 312], 219 [n. 352]); Peust (1999: 139).

p3-št3 ~ **p-šṓt(ĕ)* < **pă3-šắtĭ3* “the mysterious one”.[84] Yet another reinterpretation as (c) *p3-šwwt.j* ~ **p-šṓt(ĕ)* < **pă3-šĭwắwtĭj* “the merchant (etymologically ‘he who belongs to trade’)”[85] arose in the broader Near Eastern context of Jupiter as symbol and guiding star for trade and commerce,[86] but it is nevertheless unclear whether or not this is the direct result of Mesopotamian astrological knowledge influencing Egyptian astrology during the first millennium BC.[87]

ex. (29)  *šnᶜ-ẖnw* ~ **šănắᶜ-ẖănăw* > **šĕnắᶜ-ẖăn* ~ **šĕnắᶜ-ẖĕn*
“storehouse of the residence (Kafr Ammar, a town)”
(a) *šnj-ᶜnḫ* ~ **šŭ̆nĭj-ᶜănắḫ* >  () *šn-ᶜnḫ* ~ **šĕn-ᶜănắḫ*
“(sacred) tree of life”
(b)  *šnj.w-ᶜnḫ* ~ **šŭ̆njăw-ᶜănắḫ* > **šĕn(ĕ)-ᶜănắḫ*
“(grove of sacred) trees of life”
(c) *šnᶜ-ẖr* ~ **šĭnằᶜ-ẖĭ́r* >
>  *šnᶜ-ẖn* ~ *šnᶜ-ẖl* ~ **šĕnắᶜ-ẖĕ́l*
“off-warder of the enemy”[88]

According to its name, this town was most likely founded as a royal domain during the Old Kingdom and grew to become the capital of the 21st Upper Egyptian

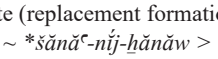
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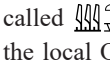
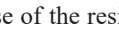
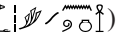
84 With an adjective conceivably belonging to noun class II.1; for the vocalisation patterns, cf. Fecht (1960: § 242 [n. 378]); Osing (1976a: I 120–133); Schenkel (1983b: 154–161); cf. also Osing (1998: I 50, 78 [adn. e], 143 [adn. f], 282).

85 It is most likely that this is a substantivised nisba. The derivational basis of this nisba, a *nomen actionis* *šww.t* ~ **šĭ́wwắt* >  *šwjj.t* ~ **šĭ́wyắ*’ “trade, trading” (first attested in the New Kingdom, cf. Kitchen 1969–1993: III 138 (11)), is tentatively assigned to noun class I.6 (cf. Osing 1976a: I 78–88; Schenkel 1983b: 198–201), which allows for the reconstruction of the nisba (first attested for Qenena, owner of the Book of the Dead Leiden T2, late 18th or early 19th dynasty; cf. Leemans 1882: pl. I–XXVII) as  **šĭwắwtĭj* > **šĕwắytĭ* ~ **šĕwắ’tĭ* > **ᵉšwṓ’tĕ* > **ᵉšṓ’ŏt* ~ **šṓt* ~ *SB* ϣⲱⲧ, ϣⲱⲧ “merchant” of type Ia according to Osing (1976a: I 309–314); for the Coptic offspring of the nisba, cf. Crum (1939: coll. 590a–b); Westendorf (1965–1977: 43); Černý (1976: 253–254); Vycichl (1983: 49–50).

86 Goebs (1995 [with further references]).

87 For the disputed extent of Mesopotamian influence and further references, cf. Brown (2018: 52–60); Quack (2018: 93–107); cf. also Stockhusen (2020 [I would like to thank J. Jüngling for bringing this PhD dissertation to my attention]).

88 First hieroglyphic token (hieratic original) after the Onomasticon of Amenemope № 392 (XX dynasty; Gardiner 1947: II *118–*119); second hieroglyphic token (hieratic original) after the “Book of Hours”, Papyrus London, British Museum EA 10569, VIII, 5, IX, 23 (Ptolemaic Period; Faulkner 1958: 5–6, 29–30, 11*–12*); third hieroglyphic token (hieratic original) after the Book of the Dead of Mutemmeres, Papyrus CtYBR 2754 + Louvre 3132, V, 16 (XX dynasty; Herbin 1999: 178, 207; cf. Darnell 1987; Cauville 1991: 96 [with n. 26]; cf. Bohleke 1997); Demotic writing after Papyrus Berlin P 13575, 6 (71 BC; Zauzich 1990: 123–125, pl. 12); for the Coptic offspring of the substitute (replacement formation) as found in the Tebtynis Onomasticon,  *šnᶜ-n.j-ẖnw* ~ **šănắᶜ-nĭ́j-ẖănăw* > **šănắᶜ-nḗ-ẖl* ~ *Oc* ϫⲁⲛⲁⲛⲉϩⲗ, cf. Osing 1998: I 57, 151, 154 [adn. v], II pl. 12 V4, 22; for the vocalisation patterns of the *Älteres Kompositum* and its substitute (replacement formation), cf. Fecht 1960: § 32; Osing 1976a: I 214, 258–260, 314, II 620 [n. 629], 762–763 [n. 926], 861–862 [n. 1338]; Gundacker 2017: 117–119 & 2018a: 169–170).

nome.[89] In the broader setting of the cultic landscape and its mythological frame,[90] this toponym invited to (pseud)etymological reinterpretation in the context of the Osirian myth. Apart from two sacred trees assigned to Min and Chnum,[91] one of which indicated the entrance to the netherworld, there was a famous grove called  *šḫ.t-šnḏ.wt* "field of acacias"[92] near Kafr Ammar connected to the local Osirian relic, the left leg of Osiris.[93] One of those sacred trees, maybe that associated with Chnum, was alluded to with the term (a) *šn-ꜥnḫ* "tree of life",[94] which, in Papyrus Berlin P 13575, can be found as a variant writing of the toponym "storehouse of the residence (Kafr Ammar)" spelt  (facsimile ,) and, partly damaged,  (facsimile ,).[95] The reading of the fully preserved writing is difficult to interpret insofar as the *n* displays an unexpected, somewhat peculiar form and as there is an additional tick before the determinative of *šn*(*j*) "tree".[96] Parallels for this particular ductus of the *n* are also found in lines 1 () and 13 (), and the tick is most likely nothing but a filler since it is without parallel in the damaged second writing.[97] Given the lack of any indication of a plural, the first element of this particular writing can be identified as the singular *šnj* "tree". With the second element, a horizontal stroke and a dot are found as part of the group *ꜥnḫ* "life",

89 Cf. Gauthier (1925–1931: V 136); Gardiner (1947: II *118–*119); Montet (1957–1961: II 195–197); Yoyotte (1961: 87–97); Helck (1974: 126–127). For similar toponyms, cf. Jacquet-Gordon (1962: 52–53, 55, 62, 68, 117, 189, 194, and, for the feminine counterpart, *šnꜥ.t* "storehouse", 43, 52, 59, 117, 448, 452) and Hannig (2003: 1310).

90 Yoyotte (1961: 87–97); Leitz (2012: 260–263), (2014: I 165) & (2017: I 343–350).

91 Yoyotte (1961: 90–92); Osing (1998: I 154 [adn. v]); Leitz (2012: 261–262) & (2014: I 167).

92 Chassinat, Le Marquis de Rochemonteix, Cauville & Devauchelle (1897–1990: IV 191); for this grove and its significance, cf. Gauthier (1925–1931: V 59); Montet (1957–1961: II 200); Leitz (2012: 261–263), (2014 : I 169) & (2017: I 344–345); Tattko (2014 : 178–179).

93 Yoyotte (1961: 101–104); Beinlich (1984: 136–137); Leitz (2012: 261–263) & (2014: I 165).

94 Cf. Chassinat (1966–1968 : I 255–260); Jasnow (1992 : 48); Koemoth (1994: 119–121); Smith (2005: 184–185); Osborne (2014).

95 Linn. 6.8; Zauzich (1990: 123–125, pl. 12); cf. Johnson (2002–2014: fasc. š, 159). I would like to thank C. Dietrich for meticulously drawing facsimiles of either attestation.

96 I am very much indebted to C. Dietrich and J. Jüngling for clarification of this writing in personal correspondence. Alternatively, K. Donker van Heel (personal correspondence), whom I would like to thank, supposed that there are two ticks, but the actual graphic value of those two ticks (cf. el-Aguizy 1998: № II–III), which usually are rendered  and transcribed *i* or *e*, is disputed. K. Sethe (1927: 8–12) assumed that this group is polyvalent with various origins, among them when *n* precedes, which J. F. Quack (personal correspondence) expressly endorses. Moreover, both of them object to transcribing this group as *e* (thus Spiegelberg 1925: § 4 [№ 3] and the Chicago School, e.g., Johnson 2000: 2) and deny that it can represent a vowel *-*e*- at all, since demonstrable usage as a vowel letter appears to be limited to glossing systems as found in the Magical Papyrus London-Leiden = Leiden I 383 + London, British Museum EA 10070 (cf. Griffith & Thompson 1904–1909: III 113–136; Quack 2004; cf. also the Tebtynis Onomasticon, Osing 1998: I 45–46, 280).

97 J. F. Quack (personal correspondence), whom I would like to thank, supposed that the tick after *n* forms part of a variant of the determinative "herb + plural strokes" (Gardiner M.2 + Z.3; cf. el-Aguizy 1998: № CXVIII, CCV).

which is a feature observed in this document with the noun ʿ*nḫ* “oath” (e.g., linn. 4 ,  and 16 , ).[98] If this interpretation be correct, the second element of this writing is marked as homo(eo)phonous with the noun ʿ*nḫ* “oath”. Based on those observations, either element thereof, *šnj* ~ **šn̆nĭj* > **šn̆́n* ~ *SALF* ϣⲛⲛ “tree”[99] and ʿ*nḫ* ~ **ʿănn̆́ḫ A* ⲁⲛⲁϩ > **ʿănn̆́š* ~ *SBL* ⲁⲛⲁϣ, “(1) life, (2) oath”,[100] can be revocalised. In the Graeco-Roman Period, **šn̆n-ʿănn̆́ḫ* “tree of life” was thus a fairly good approximation of **šn̆nn̆́ʿ-ḥăn* “storehouse of the residence (Kafr Ammar)”,[101] which differs in only three details: the consonantal sequence *-ḥ-n-* vs. *-n-ḫ-*,[102] the stress syllable and the position of ayin (*-n̆́ʿ-* vs. *-ʿă-*).[103]

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98 K. Donker van Heel (personal correspondence) suggested that, with the toponym under discussion, this is a “ripple of water” (Gardiner N.35, cf. el-Aguizy 1998: № XV) referring to the sequence of consonants as found in the original toponym *šnʿ-ḥnw* “storehouse of the residence”. This explanation, as attractive as it may appear at first glance, neither does account for the dot nor is it compatible with the same group found with ʿ*nḫ* “oath” in lines 4, 16 and with ,  (*nṯr.w*) ʿ*nḫ*(*.w*) “living (gods)” in line 8 (I would like to thank C. Dietrich for meticulously drawing the facsimiles of tokens from lines 4 and 8). Furthermore, reminiscent writings can be found in a letter from the XXI dynasty (ʿ*nḫ* “oath”, Papyrus hiératique Strassbourg 39, 14, cf. Spiegelberg 1917: 21, pl. I), in texts of the Graeco-Roman temple of Horus and Sobek at Kom Ombo (ʿ*nḫ* “oath”, de Morgan, Bouriant, Legrain, Jéquier & Barsanti 1894–1909: II.2 № 878) and in the Demotic portion of the Rosetta Stone (lin. 32, ,  ʿ*nḫ*(*.w*) (*ḏ.t*) “may he live (forever)”; Korte 2020: ad lin. 32 [with n. 13]; Quirke & Andrews 1988: foldout plate; cf. furthermore Spiegelberg 1922: 110–111 [№ 58], 207–208 [№ 417]; Simpson 1996: 270–271; I would like to thank R. Kade for hinting at this important variant). For the interference between the verbal form as part of the oath formula ʿ*nḫ* ~ **ʿănḫn̆́-* “by the life (of god NN/the king)”, which actually is a fossilised subjunctive verbal form “may (god NN/ the king) live”, and personal names starting with the same verbal form, cf. Quack (1991: 92–93); cf. also Erichsen (1954: 64); Johnson (2002–2014: fasc. ᶜ, 82–85); Fecht (1960: § 139 [n. 229]).

99 For the vocalisation patterns, cf. Osing (1976a: I 148, II 637–639 [n. 660], 887 [addendum to n. 660]); Crum (1939: col. 568b); Westendorf (1965–1977: 317); Černý (1976: 245); Vycichl (1983: 265).

100 This *nomen abstractum* started with the meaning “life” as counterpart (cf. Gundacker 2013b) of the infinitive ʿ*nḫ* ~ **ʿănn̆́ḫ* > **ʿőnḫ* ~ *SB* ⲱⲛϩ “to live, life” (Osing 1976a: I 36–41; Crum 1939: coll. 12b, 525a–b; Westendorf 1965–1977: 9, 293; Černý 1976: 10, 228; Vycichl 1983: 14, 250) and, by the time of the Middle Kingdom, developed the secondary meaning “oath” (cf. Osing 1976a: I 42, II 505–506 [n. 214]) which gradually superseded and finally replaced the original meaning “life”.

101 The analysis in Gundacker (2017: 119 [n. 100]) & (2018a: 169–170 [n. 69]) has to be modified accordingly.

102 For the interchange of *ḥ* and *ḫ*, cf. Westendorf (1962: § 56); Vycichl (1990: 52–53); Peust (1999: 117). The exact date of *ḥ* and *ḫ* merging into a single phoneme (Coptic ϩ) is unknown, but it must have occurred after the palatalisation of *ḫ*, which, perhaps in several stages, took place in the late first millennium BC (cf. Peust 1999: 117–118, 123; Gundacker 2013a: 48 [n. 92]). According to the dictionaries (Erichsen 1954: 63; Johnson 2002–2014: fasc. ᶜ, 83–84), there are no demotic documents which would indicate the palatalisation of *ḫ* in ʿ*nḫ* “oath”, which is in perfect agreement with oath formulae (Erichsen 1954: 64; Johnson 2002–2014: fasc. ᶜ, 82–83) and personal names based on such (Lüddeckens 1980–2000: 98–105; Quack 1991).

103 In Papyrus Harkness 3,28 (Smith 2005: 184–185; cf. Johnson 2002–2014: fasc. š, 159), there is an additional variant  () *šn*(*j*)*.wj-*ʿ*nḫ* “the two trees of

Another pseudetymological variant, (b) *šnj.w-ʿnḫ* "(grove of sacred) trees of life", which is most likely a designation for the grove of acacias and the sacred trees thereof, follows the same track.[104] The plural of *šnj* "tree" can be reconstructed as *šnj.w* ~ **šn̆jăw* > **šĕn(ĕ)* ~ *F* ϣⲉⲛ "trees",[105] which, when combined with **ʿănăḫ* "life", results in **šĕn(ĕ)-ʿănăḫ* "trees of life", an equally close approximation to **šĕnăʿ-ḫăn* "storehouse of the residence (Kafr Ammar)". Instead of the plural proper, however, a *nomen collectivum* or a special kind of plural formation[106] *šnjw* ~ **šănŭjăw* > **šănĕ* ~ **š(ĕ)nĕ* "trees, grove" may be suggested. When the unstressed variant thereof is combined with **ʿănăḫ* "life", this results in **š(ĕ)nĕ-ʿănăḫ* "(grove of sacred) trees of life" with a suitable degree of similarity, but with an additional vowel **-ĕ-* before ayin. If so, this might indicate a variant **šĕnĕʿ-ḫăn* of the original toponym with the common raising of **-ă-* to **-ĕ-* before ayin in Fayumic and Oxyrhynchitic.[107] Nonetheless, in view of the fame of this sacred grove, which also brought about the Greek designation of this town, Ἀκανθὼν πόλις,[108] its name may have been of considerable age and may have formed part of the pristine Osirian myth.[109] If so, *šnjw-ʿnḫ* itself may have been an *Älteres Kompositum*, **šănŭjăw-ʿănăḫ* or *šŭnjăw-ʿănăḫ* > **šĕn'ă-ʿnăḫ*, which would result in an even closer match.[110] In addition, it should be remembered that the sacred

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life" alluding to both the sacred trees of Min and Chnum. In case this involves a genuine dual, **šŭnĭ̆jwăj* > **šnĕ̆wwĕ* ~ **šnĕ̆wĕ* > **šnĕ̆w* ~ **šnĕw*, or its *status constructus *šnĕw-* (for this tentative reconstruction, cf. Fecht 1960: §§ 18, 360, 367; Osing 1976a: II 419–421 [n. 93], 592 [n. 531] & 1998: I 281; Gundacker 2021: 66–71, 76–77, 102–104, 115–122), this would result in *šn(j).wj-ʿnḫ* ~ **šŭnĭ̆jwăj-ʿănăḫ* > **šnĕw-ʿănăḫ* "the two trees of life". It is, however, difficult to judge whether, in this instance, the dual survived or has been replaced with the plural (cf. Quack 2007: 545–547).

104 Yoyotte (1961: 94–96, 100); Leitz (2012: 261).

105 According to E. Edel's (1961) observations, word-final shwa should have been preserved in this instance, but most likely a loss of word-final shwa occurred due to some kind of analogical levelling when pre-Coptic singular **šĕn* and plural forms **šĕnĕ* lost their distinction according to number (sg./pl. **šĕn* ~ sg./pl. **šĕn(ĕ)*). Unfortunately, it is unclear when this came about and, therefore, whether the word-final shwa of **šĕnĕ* had already dropped by the Late Period or the Ptolemaic Period. For the vocalisation patterns, cf. Osing (1976a: I 148, II 637–639 [n. 660], 887 [addendum to n. 660]); Crum (1939: col. 568b); Westendorf (1965–1977: 317); Černý (1976: 245); Vycichl (1983: 265).

106 For this kind of "external plural" and collective nouns, cf. Fecht (1982); Osing (1976a: II 751–755 [n. 914]); Schenkel (1983a: 204–207); Quack (2007: 551–552). Cf. also the kind of plural formation indicated by supralinear glosses in the Tebtynis Onomasticon (Osing 1998: I 50, 282), which for *šnj* "tree" would indicate an alternative plural *šnj.w* ~ **šŭnĭ̆jăw* > **šnĕ̆j* or, perhaps more likely, *šnjw.w* ~ **šŭnĭ̆jwăw* > **šĕnĭ̆jyă* > **šnĕ́y* "trees", but this is conceivably a secondary pattern of plurals with this class of nouns.

107 Cf. Till (1961: 8); Osing (1976a: I 11); Peust (1999: 238); for a different explanation, cf. Peust (2020a: 199–202).

108 Yoyotte (1961: 72–80, 100); for the accentuation according to Aelius Herodianus, cf. Lentz & Ludwich (1867–1912: I 29); Gundacker (2017: 117–118 [n. 96]).

109 For *Ältere Komposita* associated to this myth, cf. Gundacker (2017: 105–107, 113–116, 121–122, 127–131) & (2018a: 160, 163–165, 167–168).

110 Thus tentatively Gundacker (2017: 117–119).

trees at Kafr Ammar were acacia trees (*Vachellia nilotica (L.) P.J.H. Hurter & Mabb.*),[111] a species well-known for its long thorns. This characteristic feature provided for an allusion to *šnᶜ* ~ *šṽnăᶜ* "thorn bush" > *L* ⲥⲛⲁ "thistle, thorny shrub",[112] which, by the Late Period, had become homophonous with *šnᶜ* ~ **šănăᶜ* "storehouse" > *L* ⲥⲛⲁ "tomb, barracks"[113] and thus brought about a totally different reinterpretation. Within the same mythological framework, *šnᶜ-ḫnw* "storehouse of the residence" was therefore reanalysed as (c) *šnᶜ-ḫr* "off-warder of the enemy".[114] In the course of this process, the first element was understood as a *nomen agentis* **šĭnăᶜ* or, rather less likely, **šĭ́năᶜ* "off-warder"[115] and the remains of the second element as *ḫr* ~ **ḫĭ́r* > **ḫé́* → **ḫé́r* ~ *Oc* ϭⲉⲣ ~ **ḫé́l* "enemy".[116] Owing to Fayumic influence and nasal dissimilation *n* > *l*,[117] the toponym **šĕnắᶜ-ḫăn* ~ **šĕnắᶜ-ḫĕn* in its local variant **šĕnắᶜ-ḫăl* ~ **šĕnắᶜ-ḫĕl* closely matched, on a purely phonetic level, the pseudetymological reinterpretation *šnᶜ-ḫr* ~ **šĭnă̆ᶜ-ḫĭ́r* > **šĕnăᶜ-ḫé́r* ~ **šĕnăᶜ-ḫé́l* "off-warder of the enemy".

ex. (30)  *kmj-wrr* ~ **kămmĭ́j-wŭrĭr* > **kămmắ-w* > **kămmŏ́-w*
"great black one (Bitter Lake(s))"
 *km-mjw* ~ **kăm-măjắw* > **kăm-mŏ́w*
"black (waters) of the cat (Bitter Lakes)"[118]

This hydronym, which denoted a body of water on the Isthmus of Suez, most likely the Bitter Lakes,[119] is known from the Old Kingdom onwards. The Pithom Stela[120]

111 Formerly *Acacia nilotica (L.) Willd. ex Del.*, Germer (1985: 90–91); for the revised nomenclature, cf. Kyalangalilwa et alii (2013: 515); for the controversy around the renaming process, cf., e.g., Moore et alii (2011).

112 von Deines & Grapow (1959: 497–498); Koemoth (1999); Westendorf (1999: I 508); cf. also Westendorf (1965–1977: 316); Vycichl (1983: 265).

113 For the suggested vocalisation pattern of *šnᶜ* ~ **šănăᶜ* "storehouse", cf. Gardiner (1947: II *209–*210); Osing (1976a: I 258–260, II 620 [n. 629]); Gundacker (2017: 119 [n. 100]) & (2018a: 169 [n. 69]).

114 Griffith (1916: 142); Yoyotte (1961: 87–89); Gundacker (2017: 117–119) & (2018a: 169–170).

115 Osing (1976a: I 138–146, 150–156); Schenkel (1983b: 162–167).

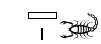
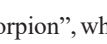
116 Etymologically "the falling one" or "the one made fall" with *r* analogically restored; cf. Osing (1976a: I 127) & (1976b: 94, 221–222 [n. 732]); Schenkel (1983b: 163); Crum (1939: col. 571b); Westendorf (1965–1977: 316); Vycichl (1983: 265).

117 Cf. Till (1961: 7); Kammerzell (1997: xlvii–l); Osing (1998: I 58); Peust (1999: 130–131, 166); cf. also the substitute (replacement formation) *Oc* ⲍⲁⲛⲁⲛⲉϧⲗ mentioned earlier; for the interchange of *ḫ* and *ḥ*, cf. further above.

118 First hieroglyphic token after PT 366 § 628b in king Pepi I's version (VI dynasty; Sethe 1908–1923: I 339; Allen 2013b: III *ad locum*); second hieroglyphic token after the Pithom Stela, lin. 24 (reign of Ptolemy II Philadelphus; CG 22813; Sethe 1904: 102 (9); Thiers 2007: 70). For the vocalisation patterns, cf. Fecht (1960: §§ 24–27); Osing (1976a: I 149, 161); Schenkel (1983b: 158, 170); Gundacker (2017: 119–120).

119 Gauthier (1925–1931: V 202–203); Montet (1957–1961: II 216); Fecht (1960: § 24); Bruyère (1966: 30–35); cf. Helck (1974: 172–174, 194–195); Gundacker (2017: 119–120).

120 Sethe (1904: 100 (1)–103 (4)); Thiers (2007: 67–75, 107–117); cf. Roeder (1959–1961: I 114–128); Hölbl (1994: 73–83).

relates a journey of Ptolemy II Philadelphus down a canal through Wadi Tumilat to  *šj-śrḳ.t* "Lake Scorpion", which most likely is Lake Timsah,[121] and further on to another body of water written  (lin. 20),  (lin. 22)[122] and  (lin. 24). There, a town dedicated to and named after his queen consort, Arsinoë II,[123] was founded before the king sailed on along an early precursor of the Suez Canal[124] to the shore of the Red Sea and sent a fleet southwards.[125] Since Lake Scorpion is undoubtedly a theriophorous hydronym, it is easily understandable that the hierogrammateis were inspired to interpret the second one in a comparable manner and to associate it with the word for "cat". A prerequisite for such a reinterpretation is that *mjw* "cat" and (a part of) *kmj-wrr* "great black one (Bitter Lake(s))" were homo(eo)phonous at the time of Ptolemy II Philadelphus. Luckily, *mjw* "cat, tomcat" is preserved in Greek Πεμαῦς, a rendering of the personal name  *p3-mjw* "the cat"[126] or, should the cat stand for Re,[127] *p3-n.j-mjw* "he belonging to the cat (i.e., Re)". Based on this evidence, *mjw* "cat, tomcat" can be reconstructed as **măjă̆w*, obviously an onomatopoetic noun "the miaowing one",[128] and its hypothetical offspring in a Coptic dialect of Lower Egypt, i.e., an early variant of Bohairic, as **mŏ̄w* ~ *B* *ⲙⲱⲟⲩ or **ᵉmᵊŏ̄w* ~ *B* *ⲉⲙⲱⲟⲩ/ⲁⲙⲱⲟⲩ.[129] By the time of Ptolemy II Philadelphus, the hydronym *kmj-wrr* ~ **kămmĭ̆j-wŭrĭr* "great black one (Bitter Lake(s))" had become **kămmă̆-w*, which, affected by a non-obligatory sound change *-*ĭ̆w*(-) > *-*ĕ̆w*(-) > *-*ă̆w*(-) > *-*ŏ̄w*(-)[130] in (Proto-) Bohairic, may have developed a by-form or simply advanced to **kămmŏ̄-w*.[131] The latter indeed sounds as if it contained *B* *ⲙⲱⲟⲩ "cat" and another element, **kăm*-, which was perceived as "dark waters".[132] Via resegmentation, **kămmŏ̄-w*

121 Gauthier (1925–1931: V 123); Montet (1957–1961: II 217); Barguet (1962); Thiers (2007: 37–38); Leitz (2012: 351–352) & (2014: I 259 [with further references]).

122 C. Thiers (2007: 67) supposed that the mammal here is an "animal of Seth" (Gardiner E.20), but the hieroglyph is poorly carved (Thiers 2007: pl. IV) and can be identified as a "cat" (Gardiner E.13, cf. Sethe 1904: 101 (4)) and even is accompanied by a "milk-jug as carried in a net" (Gardiner W.19), which endorses the phonetic value of the preceding sign.

123 Cohen (2006: 308–309, 328); Mueller (2007: 130–131).

124 Redmount (1995); Aubert (2004); Cooper (2009); Wolze (2019: 1275–1279).

125 Thiers (2007: 127–148 [with further references]).

126 Hieroglyphic token after the tomb of Paheri at el-Kab (Middle Kingdom, Tylor & Griffith 1894: pl. VII, X; cf. Ranke 1935–1952: I 105 (7)); for Demotic attestations, cf. Lüddeckens (1980–2000: 187); for the Greek rendering, cf. Preisigke (1922: col. 303).

127 Cf. Leitz (2002–2003: III 240–241); Vernus & Yoyotte (2005: 522–523).

128 For the vocalisation patterns, cf. Osing (1976a: II 354–355 [n. 16]); Vernus & Yoyotte (2005: 78, 710 [n. 33]).

129 Cf. Till (1961: 9); Osing (1976a: I 11); Schenkel (1990: 87); for the feminine counterpart, cf. furthermore Crum (1939: col. 55b); Westendorf (1965–1977: 35); Černý (1976: 35); Vycichl (1983: 42–43).

130 Osing (1976a: I 11, 17, II 447–448 [nn. 103–104]); Schenkel (1990: 87).

131 Gundacker (2017: 120–121 [n. 111]).

132 A mention of  *mw kmjj* "black water" can be found in the texts of the temple of Hathor at Denderah (late Ptolemaic or early Roman Period, Chassinat, Daumas & Cauville 1934–2005: XII.1 201 [no. LXXVIII], XII.2 pl. 125).

> was consequently analysed as **kăm-mṓw* "dark waters of the cat", which then brought about the poetically ambitious and etymologically innovative writings in the Pithom Stela.[133]

Peculiar writings which result from poetic play and etymological reinterpretation are particularly difficult to assess as this requires a firm grasp of the perception, interpretation and allusions which drove hierogrammateis in their way of thinking and speculating along the lines of plays on words, élite knowledge and theology of the time. Since this demands a profound and detailed acquaintance with the ancient Egyptian language and its pronunciation, this remains a delicate and difficult enterprise in the face of sportive and creative writing traditions and, at the same time, our deficient knowledge of morphology and phonology due to a writing system which *per se* does not denote vowels.[134]

4 Conclusion

When dealing with *Ältere Komposita*, it must be borne in mind that the material accessible is the result of incidence of preservation. An unknown number of *Ältere Komposita* may remain undetected due to the lack of vocalised offspring and conservative or logographic (semographic) writing conventions. In the course of time, however, an unknown number of *Ältere Komposita* was given up, reshaped beyond recognition or replaced with neologisms.

The advancing development of vowel and stress patterns rendered *Ältere Komposita*, which once, in the third millennium BC, were a vivid category, fossilised relicts.[135] Due to outstanding morphological features, they struggled to make it from the language of the Old Kingdom, which was dominated by the *Dreisilbengesetz*, into a state of affairs shaped by the *Zweisilbengesetz*.[136] The transitional phase certainly saw the loss of many *Ältere Komposita*, which could not be adjusted to the new syllable structure and stress rules. However, those *Ältere Komposita* which were capable of adaptation often suffered from truncation and morphological mutilation. In conjunction with processes of semantic specialisation and lexicalisation, many *Ältere Komposita* became relicts in special vernaculars (*linguae speciales*).[137] As a result, various strategies of substitution evolved both on a morphological level, which brought about competing replacement formations,

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133 It is interesting to note that the same idea of "dark or black waters" was the starting point for the original hydronym more than two and a half millennia before the reinterpretation in the Pithom Stela; cf. Schenkel (2016); Gundacker (2017: 119).

134 The principles and expertise of the hierogrammateis (Escolano-Poveda 2020: 105–114; cf. Derchain 2000; Aufrère 2014) found all throughout temple texts from the Graeco-Roman Period are also inherently present as guiding lines and inspiration in the Neoplatonic reception of the Egyptian writing system (Thissen 1994, 1998 & 2006b; von Lieven 2010) as preserved in the works of Chaeremon (van der Horst 1984; Thissen 2006a) and Horapollo (Sbordone 1940; Thissen 2001; for specific examples, cf. Spiegelberg 1900 & 1923; Fecht 1985; Thissen 1996; Preys 1999).

135 Cf. Gundacker (2017), (2018a) & (2021).

136 Fecht (1960: §§ 325–437); Schenkel (1990: 58–86); Loprieno (1995: 28–50); Gundacker (2018a: 165–167) & (2021).

137 Cf. Fecht (1960: §§ 312–313); Gundacker (2017: 139–140) & (2018a: 164, 170, 176, 178).

and on the level of writing, which saw the creation of substitute writings for increasingly incomprehensible traditional writings.

The increasing morphological and etymological obscuration of *Ältere Komposita* resulted in strategies of substitution via the creation of, at first, competing neologisms, which, secondarily, often replaced their forerunners.[138] Processes of this kind were prevented in case an *Älteres Kompositum* had become a core expression of the common vocabulary or an established *terminus technicus* of a *lingua specialis*. In addition, a number of *Ältere Komposita* have been preserved as toponyms or personal names due to their frequent use, some are found as adverbs or part of compound adverbial expressions.[139]

Even in the *linguae speciales*, changing phonological and morphological properties of *Ältere Komposita* posed problems to the cultural élite, since it became necessary to learn by heart the actual pronunciation of such *Ältere Komposita*, which did not form part of common parlance and which were pronounced very differently from what was expected when judging the traditional standard writing.[140] If this did not happen, the risk for *Ältere Komposita* to falling out of use and to being substituted with a synonymous replacement formation or to being superseded by an already existing, competing synonym increased significantly.

As soon as it became impossible to recognise the elements forming an *Älteres Kompositum*, archaic (etymological) writings did no longer match the actual pronunciation according to common standards of the hieroglyphic writing system. On the one hand, this triggered a tradition of adjuvant glosses,[141] but, on the other hand, this promoted novel writings in order to substitute traditional ones which now were perceived as complex logograms or some kind of rebus. Once the nexus between (traditional) writing and (actual) pronunciation had collapsed, modernisation brought about innovative writings, among them purely phonetic writings extensively using monoconsonantal signs[142] or elements of group writing.[143] The lack of easily noticeable etymologies also allowed for new writing conventions with the development and introduction of phonetic (unetymological) writing, which the highly sophisticated philological tradition applied to convey the actual pronunciation by means of combinations of similarly pronounced words and, in some etymologically poetic instances, to express a newly contrived semantic (meta)level. Reinterpreting and reanalysing the morphology of *Ältere Komposita* thus often served as a starting point for the creation of new semantic associations and the substitution with entirely new writings, but our limited knowledge of morphology and phonology presents specific challenges. It is likely that exactly this kind of associations, reinterpretations and

138 Cf. Fecht (1960); Gundacker (2017), (2018a) & (2019).
139 Cf. Fecht (1960: §§ 179–186, 340); Gundacker (2018a: 173–174).
140 Cf. Gundacker (2018a) & (2021); cf. furthermore exx. (6)–(8) and (25)–(27) further above.
141 Cf. exx. (7), (13), (15) and (18) further above; cf. also Osing (1998: I 40–65); Quack (2017b).
142 Stadler (2008); Quack (2012); Widmer (2015: 44–47); for additional references, cf. n. 64 further above.
143 Albright (1934); Edel (1966: 61–91); Helck (1971: 505–581); Hoch (1994: 505–512); Quack (2010); Kilani (2019).

substituting hybridisations belonged to the core repertoire of methodologies which the hierogrammateis applied.[144]

Despite difficulties in detection and analysis, *Ältere Komposita* form a distinctive morphological category and provide a unique opportunity for the investigation of the ancient Egyptians' perception of their own language. This holds true for spoken vernaculars and for the written tradition alike. Future research may thus help to improve our overall understanding of the Egyptian philological tradition and the mindset of the ancient Egyptians via their own language.

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144 Exx. (28)–(30) further above may illustrate the difficulties to overcome in the course of evaluation; cf. also Gundacker (2017) & (2021) and the references in n. 134 further above.

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