

TOWARDS THE AFRICAN ETYMOLOGY OF GREEK ἔβενος*

by

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*Dedicated to my dear Mother's¹
Mediterranean ebony-black hair*

ABSTRACT: This paper seeks the ultimate origin of our European term for ebony. The line of a number of borrowed forms has long been well known down to Egyptian, but all the problems surrounding the source of this term itself have so far not been subject to a careful investigation. First, we try to locate the Coptic reflex of Eg. hbnj in order to verify its supposed vocalisation. Secondly, all the diverse approaches to resolving its puzzling origin are critically evaluated. Thirdly, we present abundant linguistic evidence for an entirely new derivation from the ancestral Common Afro-Asiatic root stock itself with unavoidable implications on the mid-Holocene past of this oldest neolithic macrofamily.

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¹ Boós Erzsébet *ἔβενοτρίχη, a lady of a strange southerly beauty, the only link in my family to Classical studies. It is here that I have a modest opportunity to recollect her Latin studies (1959–1963) in the famous Leówey Klára College at Pécs (= Sopianae of Pannonia province with the catacombs of the earliest local Christians), whose unusual sub-Mediterranean climate and atmosphere she has recently re-discovered in her present home in the fabulous Balaton uphills, on whose southern slopes above this unique lake (Pelso), several Roman *villae rusticae* were and are scattered all along the ca. 70 km long coastline.

1. THE CLASSICAL TERMS

Our term in the European languages for the wood of ebony², as is well known from the standard works, have their immediate roots in the Classical antiquity, cf. Greek ἔβενος (m/f, first attested *apud* Herodotus III 97) vs. fem. ἔβενη (first attested *apud* Theophrastus, *Hist. plant.* IV 4, 6) ‘Ebenholz’ [LEWY 1895: 35] = ‘ébénier’ [BOISACQ 1916: 211] = ‘ébène’ [CHANTRAINE 1999: 309], borrowed into Latin *ebenus* ~ *hebenus* (first attested since Vergil and Ovid) ‘Ebenholzbaum’ [LEW I 387] and into several Semitic languages³. The Greek term, in turn, has long been commonly known as a loanword from a late variety of Eg. *hbnj* ‘das Ebenholz: 1. als Baum und als Rohstoff (aus den südlichen Ländern eingeführt), 2. als Material für Geräte aller Art, 3. in offizieller Verwendung in der Augenheilkunde’ (*PT-*, *Wb* II 487, 7–12)⁴. The weakening of Eg. *h-* into Greek *spiritus lenis* is attested⁵. The i-class vowel in Greek and Latin made B.J. NOONAN (2019: 90) assume the date of borrowing from Egyptian after the shift of *ū > *é in the Late Period. My investigation about the Coptic reflex has, however, convinced me a bit otherwise (cf. §5.6).

2. EBONY IN CANAANITE

Substantially earlier than Classical Antiquity, the ancient Canaanite term for ‘ebony’ was borrowed from one common (?) Egyptian source⁶. Ugaritic *hbn*

² Cf. e.g. English ebony, German Ebenholz, French ébène, Spanish, Italian, Portugese ébano, whose origin is Latin (h)ebenus/m. P. BANCEL (1989: 21, n. 1) derived English ebony directly from Latin, without an Old French mediation, “avec une lecture fautive de l’adjectif latin dérivé *ebeninus* en **ebenivus*, d’où v.-angl. *ebenif*, *ebonif*, puis *ebony*”.

³ Greek ἔβενος has been borrowed Ar. ?abnus-, Syriac ?abnūsō, Geez ?abnu/os ‘ebony’ (Sem.: DRS 360; LESLAU 1987: 4), cf. BEEKES 2010: 368. The Arabic form passed further into the Romance languages, cf. e.g. Provençal *avenuts*, Spanish *abenuz* ‘Ebenholzbaum, *Diospyrus ebenus*’ (cf. LOKOTSCHE 1927/1975: 1, #3).

⁴ Cf. e.g. LORET 1883: 126–127; SCHRÄDER in *RL* I 148; LEWY 1895: 35–36; SPIEGELBERG 1907: 131 (regarded by ERNSTEDT 1953: 10 to be the only convincing case in his list); BOISACQ 1916: 211; LEW I 387; NENCIONI 1939: 11–12; LAMBDIN 1953: 149; FOURNET 1989, 59, #4; CHANTRAINE 1999: 309; BEEKES 2010: 368. In the older literature (on which cf. LEWY 1895: 35), some authors (e.g. J.E. RENAN) were disposed to derive the Greek word directly from Hebrew (!), which was rightly disproved by H. LEWY (1895: 35–36).

⁵ Cf. e.g. Eg. *hbj* ‘Ibis’ > Greek ἵβις (on the question in general, see also SETHE 1925: 51–52, 56; FOURNET 1989: 59, #4, n. 12; CHANTRAINE 1999: 309).

⁶ Only few authors (LAMBDIN 1953: 149; G. DEL OLMO LETE and J. SANMARTÍN in *DUL loc. cit.*; NOONAN 2019: 90–91) were aware of the Canaanite borrowing to be about a millennium older than Hebrew due to the Ugaritic record. Others, like R. BEEKES (2010: 368) even most recently, have restricted their NW Semitic data purely to OT Hebrew.

‘ebony’ [DUL 333]⁷ occurs amidst imported woods in a Late Bronze economic text (KTU 4.402.6). Discussing the mentions of Eg. *hbnj* obtained from Western Asia in the form of finished objects from the middle of Dyn. XVIII (Thotmes III) on, D.M. DIXON (1961: 179–181) has vacillated regarding their source(s)⁸.

In the Old Testament (OT), the word is only known as a Hebrew pl. *hapax* (Ezek 27, 15) *hābnīm* or *ḥābnīm*⁹ (LORET 1883: 126: sg. **ḥābən*) ‘Ebenholz’ [GB 173a] = ‘ebony, *Diospyros mespiliformis*’ [KB 237] = ‘Egyptian ebony, African blackwood (as a traded commodity)’ [NOONAN] in a passage about the trade connection of Tyre (6th cent. BC) where ebony and ivory were delivered by the Dedanites, i.e., *dədān* people¹⁰. This term, rightly, did not appear already for A. MÜLLER (1877: 288, quoted *apud* LEWY *loc. cit.*) as being Semitic at all. For B.J. NOONAN (2019: 90–91) too, its mention amidst various imported items along with its atypical vocalisation pattern¹¹ *a priori* indicated a foreign

⁷ Not listed in the Ugaritic lexicons by C.H. GORDON (1955) and J. AISTLEITNER (*WUS*), but later, the former author (GORDON 1965, 389, #743) mentioned this as an item in a list of commodities following “oxen” and preceding “barley”.

⁸ He writes: “some of the items in question may have been heirlooms made from African wood, which had been handed down to the Syrian Chieftains by ancestors who had been on better terms with Pharaoh, who may have presented the objects, or the wood, to them as gifts. [...] On the other and, [...] it is very difficult to say whether *hbny*-trees ever grew in Syria itself or Palestine. On sites in both countries objects stated, rightly or wrongly, to be of ‘ebony’ are very rare. No plant resembling any modern ebony-producing species appears among the flora of Syria depicted in Thutmosis III’s so-called ‘botanical gardens’ at Karnak [...] or in any other scene of Syrian vegetation. [...] It seems therefore that the wood from which had been manufactured the *hbny* objects plundered by the Egyptians from the Syrian chiefs had been obtained by the latter from elsewhere than their own country, but from whence it is not easy to say”.

⁹ V.V. IVANOV (1981: 176; 1984: 71; GI 1984: 524–525) used the old reading *šenhabbīm* in this OT place rendered ‘ivory’, sufficient for them to prove a loan from Eg. 3b.w ‘1. elephant, 2. ivory’ (OK–, FD 2). The OHebrew has, however, been recently emended to **šen(wə)ḥābnīm* and rendered ‘ivory and ebony’ (cf. e.g. BLAŽEK 2001: 154, #f).

¹⁰ In the view of V. LORET (1883: 125), “On doit placer Dédan, d’après plusieurs autres passages de la Bible, à l’extrême sud de l’Arabie”. Dedan was placed by E. RENAN (quoted *apud* LEWY 1895: 35) in the Persian Gulf. D.M. DIXON (1961: 180) too, *ex cathedra* mentioned “Dedanites of Southern Arabia” without referring to literature on this localisation.

¹¹ Its reference (BAUER, LEANDER 1922: 571, §72.u) on its atypical vocalisation pattern, however, only states that “Einige Plurale zeigen die ursprüngliche Form (ohne den Svarabhaktivokal, oben s)”, but the rest of exx. listed therein having different vocalisation patterns (BAUER, LEANDER 1922, 571, §72u = n. 4 to §72q) are not at all usable for this case with the only exception of OT *bātnīm* ‘Pistazien’ [*loc. cit.*] < sg. **bātnā* ‘pistachio, the oval nut of the *Pistacia terebinthus*’ [KB 121], which indeed can be driven back to a Sem. basic form **buṭm-*. In his Hebrew historical morphonology, A.B. DOLGOPOLSKY (1999: 99, §f) has Masoretic Hbr. CōCeC (DLG.: ‘CoCeC), pl. CəCaC-fm ~ CāCaC-īm (DLG.: CəCā’C-īm ~ CōCā’C-īm, resp.) reflecting PSem. *CūC[V/V]C-, where “it is impossible to identify the posttonic vowel. [...] The regular reflex of **u* of the second syllable has been probably preserved in” Hbr. *bātnīm* (DLG.: bōt’n-īm) ‘fruits of *Pistacia vera*’, “which represents a rare *CuCuC-type of segolate nouns (cf. Akk. *buṭnu*, *buṭumtu*)”. His chart of the reflexes of the PSem. nominal structures lists, besides, **lu2u3- > Hbr. st. abs. *lo2e3*, pl. *lo2'3-īm/ōt* among others (p. 89, §9.1). L. KOGAN and S. LJOOZOV (2009: 323, §2.3.3.)

loanword. Relying upon Strabo's (XVI 4, 9, cf. *Periplus* §7) mention of Arabs crossing the straits of Bab el-Mandeb in his day (1st cent. BC) "in skin boats to obtain aromatics from 'Ethiopia' which they then sent up the west coast of Arabia to Syria-Palestine and Egypt", D.M. DIXON (1961: 182) assumed this practice to go back to much earlier¹², whence he assumed that "it is possibly in this way that the *Habnî(m)* used in Tyre reached that city". But he did not exclude its ultimate Yemenite or even Ceylonese-Indian origin via the trade routes of the Arabian peninsula¹³.

3. THE EGYPTIAN TERM

The common direct source of the ancient Mediterranean terms dealt with above was (in)directly and eventually¹⁴, as is well-known, Eg. hbnj 'Dalbergia melanoxylon G.P.R., ébénacées' (LORET 1892: 60, §96; BEAUVISAGE 1897: 78) = 'das Ebenholz: 1. als Baum und als Rohstoff (aus den südlichen Ländern eingeführt), 2. als Material für Geräte aller Art (gern zusammen mit Elfenbein, auch mit Gold)' (*Wb* II 487, 7–12) = '1. *Dalbergia melanoxylon* Guille. and Perrott., Papilionaceae (known commercially under various names such as African Blackwood, African Ebony, etc.), 2. *Diospyros mespiliformis* Hochst. ex A.DC., Ebenaceae (known commercially as Zanzibar Ebony, in West Africa as swamp ebony or monkey guava, one of the trees producing 'gum' of hbnj)' (DIXON 1961: 61, 80, 208) = '1. Afrikanischer Ebenholzbaum, afrikanisches Grenadill(eholz) (*Dahlbergia melanoxylon* Guill. et Perr., Familie: Hülsenfrüchte, *Leguminosae*), 2. Ebenholz' (OK: ÄWb I 748c; MK: ÄWb II 1562b < GERMER 1979: 49, 373; 1985: 97–98; 2002: 108; STÖRK in *LÄ* I 1162ab, n. 2 *pace* LORET in RT VI

are equally puzzled about our pl. form not following the "broken" apophonic *-a- pattern: "По неясной причине вставка *-a- не наблюдается в формах множественного числа некоторых ботанических терминов (*boṭn-im* 'фисташки', *pišt-im* 'лён', *šikm-im* 'сикоморы')...".

¹² "There is no reason why the inhabitants of Southern Arabia should not have been doing this centuries earlier and have included, in addition to aromatics, other commodities, such as ornamental woods".

¹³ "However, insofar as *hbny* may in part have been derived from one of the modern ebony-producing species, viz. *Diospyros mespiliformis* Hochst., there may have been no necessity even to cross the straits of Bab el Mandeb for it, for this species occurs in the Yemen and probably did so too in ancient times. It does not follow, however, that any hbnj which may have come to the Syrians from the Red Sea region would all have been derived from species growing in the Yemen or Africa. The occasional cargo from India, Ceylon, or possibly from even further east, could have arrived at the southern end of the Red Sea in coasting vessels, and some of this may have made its way up to Arabia and Syria".

¹⁴ This careful formulation is necessary as the Greek and Latin terms do not reflect the metathetic -j- "furtivum" of Demotic *hbjn* 'das Ebenholz' (Ptolemaic, Roman, *DG* 273), whence these presumably might have sprung directly. In other words, a Late Egyptian or pre-Ptolemaic Demotic (prior to the late 4th cent. BC) source is well conceivable, where the shift of -nj > -jn had not yet completed.

1885, p. 130; LUCAS, HARRIS 1962: 435) = ‘afrikanisches Ebenholz’ (*FÄW* 278) = ‘(semble s’appliquer principalement aux) faux ébénier (*Dalbergia melanoxylon*) qui croît en Afrique, (désigne vraisemblablement) tout bois de couleur sombre ou noir: *Diospyros mespiliformis* (Afrique, Yémén)¹⁵, l’ébène vrai (*Diospyros ebenum*, originaire de Ceylan)¹⁶ (MEEKS 2002: 280, cf. also SERVAJEAN 2019: 92, n. 18) = ‘Egyptian ebony (*Dalbergia melanoxylon*), i.e., African blackwood’ (NOONAN 2019: 91) = ‘African Blackwood (*Dalbergia melanoxylon*) and also perhaps jackalberry tree (*Diospyros mespiliformis*)’ (COOPER 2020: 289–290).

Although V. LORET (*loc. cit. supra*) and then the grand Berlin *Wörterbuch der ägyptischen Sprache* ed. by A. ERMAN and H. GRAPOW (*loc. cit. supra*) dates occurrence of the word only from the PT on, its earliest record is known from Dyn III (cf. *FÄW loc. cit.*), namely from the tomb of Khabauzeker (ḥ³-b3.w-zkr) at Saqqara where diverse items (e.g., ḥnd.w ‘stool’ and ḥrt-‘pen and ink container’) made of this wood are listed¹⁷.

The word, attested at the dawn of the Old Kingdom in the Saqqara mastabas, appears in its earliest records as hbn without the final -j, which fits in the OK trend of defective orthography of the so-called weak consonants, among others, that of the “Weglassung des j in der Schrift” (*AÄG* 61, §138). P. BANCEL (1989: 23) deduced how to exclude the double yod (appearing in the word after the OK) to stand for the masc. dual ending -wj¹⁸.

Already Th. LAMBDIN (1953: 149) vocalised our word as *hūbněj on the basis of the Hebrew loan, providing in his view a clear example of the shift *ú > *é in the Late Period. Unfortunately, he failed to demonstrate parallel instances of Eg. *C1úC2- reflected by qame[-atup of the Hebrew loan, which B.J. NOONAN (2019: 90) too, regarded as a reflex permitting to reconstruct Eg. *ú in the 1st syllable. In his logically argued view (*ibidem*, p. 91), the word was borrowed by Hebrew from Egyptian after the loss of the final -j (beginning with the NK), but prior

¹⁵ Of which two arrows were excavated, as pointed out by D. MEEKS (2002: 280, n. 75), in proto-dynastic Abydos. For its recent presence “dans les forêts résiduelles subsistant au Yémen à proximité des contreforts montagneux de la Tihama”, cf. also SERVAJEAN 2019: 92, n. 18 with literature.

¹⁶ Identified in the fragments found in the funerary temple king Neferirkare of Dyn V (cf. MEEKS 2002: 280, n. 76).

¹⁷ See the thesis by D.M. DIXON (1961: 27 and n. 1) with further references.

¹⁸ As he stated, “dans les attestations relevées par Erman et Grapow (1971, Belegstellen, II, 2te Hälfte, p. 739s), il s’en trouve autant à présenter le hiéroglyphe marquant le duel (soit *y) qu’à l’omettre (15 contre 14 respectivement). Ceci semble par ailleurs laisser un doute sur l’appartenance de ce phonème à la racine, puisque les attestations où il manque sont trop nombreuses pour être attribuées à des erreurs accidentnelles. A l’inverse, cependant, celles où il apparaît le sont également trop pour qu’il s’agisse à chaque fois du morphème du duel, d’autant qu’au moins l’une d’entre elles comporte en outre la marque du pluriel collectif (trois barres verticales parallèles)”.

to the shift *ú > *é (ca. 700 BC)¹⁹. The only problem is that he too has failed to adduce a convincing number of parallel instances²⁰. The use of an i-class vowel in Greek and Latin, in turn, indicated for NOONAN (2019: 90) a borrowing from Egyptian after its *ú > *é change in the Late Period, which is evident. The supposed Coptic reflex, however, points to an *-a- in the stressed 2nd syllable (cf. §5.6).

4. EBONY IN AND SOUTH OF ANCIENT EGYPT

Already the author of the most fundamental monograph on Pharaonic ebony, D.M. DIXON (1961: 58) surmised that Eg. hbnj “though did comprise mostly black or blackish woods, it probably had a wider range [...] and embraced in addition other woods differing widely in colour and probably structure, and possibly belonging to different botanical families”. He has concluded his researches by stating that Eg. hbnj “does not appear to have been the name of a particular species, but a general term for a number species probably belonging to various genera and families. Not all of these would at the present time be regarded as ebony-producers, and despite the linguistic relationship, of the names ‘hbny’ and ‘ebony’, botanically the two do not correspond exactly. In colour hbny was usually black or blackish, often streaked with lighter colours, and rarely all red or yellow” (p. 208).

DIXON (p. 80) surveyed in detail the characteristic features of both the *Dalbergia melanoxylon* Guillem. et Perrott.²¹ and the *Diospyros mespiliformis* Hochst.²² (p. 81). He also thoroughly scanned the current habitats of both the

¹⁹ For some sample of the most recent literature on both sound changes in Egyptian (*ú > *é and the lenition of final -j), see NOONAN 2019: 90, n. 189.

²⁰ Having checked NOONAN’s work (I do not possess it in whole), W.G.W. WATSON (p.c. on 3 March 2021) informs me of not having further instances of this alleged Egyptian > Hebrew isophone.

²¹ Described by him (*ibidem*) as “a much-branched, usually multi-stemmed deciduous tree or shrub from ten to twenty-five feet high, but occasionally as much as fifty feet. The trunk is short, seldom cylindrical, more or less crooked or irregular, and rarely over one foot in diameter. The branchlets are spinose, the sharp, woody spines being the hardened tips of short branches and often bearing leave and flowers. The bark is pale grey to grey-brown, thin, smooth, and flakes off irregularly. The sapwood is yellow and usually from a quarter to half an inch wide. The heartwood, which is very hard and heavy (up to 78–82 lbs. per cubic foot), is purplish-black. [...] The wood is difficult to work, but takes a beautiful polish, is very durable and resistant to insect pests. The tree is slow-growing”.

²² This species “is a large tree up to fifty feet in height. The bark is black with small regular scales; the narrow sapwood is white and the heartwood dark-brown to black. It takes a fine polish and is used by natives in the Sudan for making clubs. According to Unwin, it is termite-proof, though Eggeling only says that it is ‘fairly resistant to fungi, almost termite-proof’ [...] this species is very slow-growing. Dalziel states that ‘it seems clear that the freshly-cut stem of a tree in sound condition shows no black wood. The wood is, in fact, white or light reddish or often

former²³ and the latter²⁴ species, both of which he ended up to regard as basically the species Eg. hbnj must have certainly covered (among others). Regarding the usually smaller size of the “ebony” logs, DIXON (p. 99) suggestively concluded that “the average size of the unworked logs, as deduced from the representations [...], was not very much less than that of the logs of *Dalbergia melanoxylon* at present exported from Mozambique, West Africa, and Uganda”. He then projected the present situation back to the Pharaonic times: “In general, [...] the evidence afforded by the Classical writers, the Egyptian texts, and archaeological research indicates that there has been no basic change in the climate of Nubia after the Neolithic. The same conclusion was reached by the Committee appointed by the Sudan Government to consider the question of soil conservation: ‘The history of the Northern Sudan [...] covers a period of 5,000 years and there

greyish or greenish-white, and, although darkening to dark-brown, it may never, even in a thick stem, develop a black centre. According to Wernecke, the tree in Togo yields a whitish wood and is therefore called, *jeti-jigi*, whereas the true ebony tree is called *jeti ibo*, also *ati-ibo* [...] which is probably *Dalbergia melanoxylon*. Metzger describes the heartwood as dark brown to black giving a fine polish, not the balack uniform colour of commercial ebony, but brown watered markings on a black background [...]. The darkening occurs not only in the fresh state, but after cutting and exposure, as in the case of the redwood *Baphia*. Chevalier suggests that ebony-black portions in the heartwood are pathological” (*ibidem*).

²³ “Eggeling and Harris give as the general area of distribution of *Dalbergia melanoxylon* ‘Sudan and Abyssinia southward through Uganda and Kenya Colony to Mosambique, Rhodesia, and the Northern Transvaal, and westward to Angola. Extends through Northern Nigeria and Togoland to the French Sudan and Senegal’. Chevalier states that it also occurs ‘dans toute la zone sahélienne de l’Afrique Occidentale et du Lac Tchad: région de Kaye, nord du Mossi, Monts Hombori, Niger français jusqu’au sud de l’Aïr, Baguirmi et Kanem. [...] il croît ça et là dans les endroits rocallieux de la zone des épineux comprise entre le Soudan et le Sahara et qui s’étendait autrefois bien plus au N[ord] (région sahélienne). La plante existe encore en pleine Mauritanie dans l’Adrar’. [...] Engler describes *Dalbergia melanoxylon* as ‘ein Bewohner lichter Wälder, parkartiger Gehölze und verschiedener Arten von Steppen, wie der Baumsteppen, der Dornbuschsteppen und der Akaziensteppen, weit verbreitet im tropischen Afrika [...]. In Deutsch-Ostafrikas Steppen und Trockenwäldern ist er stellenweise häufig, und zwar auf Ebenen sowohl wie Hügeln und Berghängen’. In Uganda it is found in Bunyoro, West Nile, Madi, Acholi, Karamoja, and Mbale, ‘in dry savanna, at elevations below 3000 ft.’. It is stated to grow ‘on very dry, often extremely rocky sites’” (DIXON 1961: 81–82). Elsewhere, he speculated that because of “the fact that *Dalbergia melanoxylon* is still found on the other side of Africa as far north as the Adrar of Mauretania i.e. roughly in the same latitude as Dongola, I am inclined to provisionally place the northern limit of these species west of the Nile at least as far north as the latitude 20° N. in the Middle and Old Kingdoms. The determination of their northern limit east towards the Red Sea is problematical, but they probably occurred further north than near the Valley, as they do at present, perhaps rather north of the latitude of Port Sudan, with possibly a pocket Jebel Elba” (pp. 155–156).

²⁴ “*Diospyros mespiliformis* has a very similar range, extending, according to Gilg, ‘von Yemen bis Senegambien, vom Sambesi bis Angola, auch in der Aequatorialprovinz und in Deutsch-Ostafrika’ [Tanganyika]. [...] The distribution [...] is very similar [i.e. to that of *Dalbergia melanoxylon*, GT], viz Mengo, Bunyoro, West Nile, Madi, Acholi, Teso, Karamoja, and Mbale. It occurs usually ‘in scrub forest in rocky gullies on hillsides, also common in open savanna, in the Northern and Eastern provinces’” (DIXON 1961: 82).

is nothing [...] to suggest that the climate was essentially different from that of to-day”’. Having discussed the history of soil erosion processes in these areas, DIXON (p. 142) regarded this factor insignificant: “Despite the impact of erosion on vegetation of what is now the Sudan, *Diospyros mespiliformis* and *Dalbergia melanoxylon* do grow even in badly eroded areas”.

The identification of the ancient Egyptian ebony plant species by R. GERMER (1979: 49) has since then become commonly accepted: “Ebenholz ist nicht der in Süd-Indien und Ceylon heimische echte Ebenholzbaum *Diospyrum ebenum*, sondern der im tropischen Afrika vorkommende Baum *Dalbergia melanoxylon*, dessen Kernholz purpur bis fast blauschwarz sein kann”, which, as she states, also “in den lichten Wäldern und des Steppen des Sudan und Äthiopiens wächst, bis 10 m hoch wird, dornige Zweige” (GERMER 1985: 97–98; also 2002: 108). The species *Dalbergia melanoxylon* that is today commonly believed to have been named by ancient Egyptians as ebony, was a species substantially different from modern ebony species like *Diospyros ebenum* (native to South India and Ceylon) as well as *Diospyros dendo* (known from West Africa)²⁵. *Dalbergia melanoxylon* is now only native to (the drier parts of) tropical Africa, i.e. considerably south of Egypt, i.a., in the Sudan²⁶, as north as Kordofan-Erythrea²⁷. But in ancient times, the *Dalbergia* plant was accustomed to the drier parts of tropical Africa also²⁸ and even further north (Meroe)²⁹. D.M. DIXON (1961:

²⁵ In their description, A. LUCAS and J.R. HARRIS (1962: 435) recalled that ordinarily “up to about 40 years ago” (in their day, i.e., up to ca. 1920), the species *Diospyros ebenum* of Southern India and of Ceylon was called by the word ebony, but “at the present time” (i.e., the middle of the past century) “true ebony” was *Diospyros dendo* from West Africa.

²⁶ Today, “die Heimat des Afrikanischen Ebenholzbaumes ist der Sudan, Mozambique, Rhodesien, Togo und Senegal” (GERMER 1979: 50). Cf. also NOONAN 2019: 91 and n. 191 with further references.

²⁷ STÖRK in *LÄ* I 1162ab, n. 3 (*pace* BEAUVISAGE in RT XIX 1897, pp. 77–83). Or, as stated by D.M. DIXON (1961: 208), “*Dalbergia melanoxylon* G. & P. [...] even at the present time is found as far north as the Adrar of Mauretania, in approximate latitude 20° N. In the Sudan Republic its northernmost occurrence seems to be near seasonal watercourses at the southern limit of the Acacia Short-Grass Scrub Region, as an outlier of the Acacia Tall Grass Forest Region”.

²⁸ For D.M. DIXON (1961: 208), “Its distribution in Pharaonic times is uncertain but during the New Kingdom it probably occurred west of the Nile Valley at least as far north as latitude 20° N., and possibly even further north on the Red Sea coast”. In the view of P. BANCEL (1989: 24), “La distribution de *Dalbergia melanoxylon*, une des rares espèces fournissant le bois d’ebène à ne pas être inféodée à la forêt pluviale, mais à croître en climat tropical sec, rend très probable qu’il se soit agi ici de cette espèce, et que c’était aussi le cas des importations égyptiennes les plus anciennes”. According to the most recent survey of the research on Egyptian ebony (with further references on its archaeological literature q.v.) by J.Ch. COOPER (2020: 289), “the distribution of these woods in Africa show that the closest stands were probably in the Eritrean lowlands, with Dixon reporting stands of *D. mespiliformis* at Erkowit. However, with changing ecological conditions and the possibility of over-exploitation in antiquity it is dangerous to assume that ebony was not more widespread in the second millennium BCE than it is today”.

²⁹ See STÖRK in *LÄ* I 1162ab, n. 4 *pace* Strabo XVII 2.

208) was more careful in reconstructing the possible habitat zones of Eg. hbnj: “it has not proved possible to determine the identity and distribution of other hbny-producing trees, some of which may have occurred even further north than *D. melanoxylon*”. Moreover, as he assumed (DIXON 1961: 159–160), judging by “the evidence as far back as the Predynastic period, we find that while climatically Nubia has undergone no basic change, it has suffered very considerably from soil erosion caused by over-concentration of livestock [...] and though *Diospyros mespiliformis* and *Dalbergia melanoxylon* do grow on badly eroded sites, we are probably justified in inferring that earlier they occurred further north than they do at present. *D. melanoxylon* still occurs in Mauretania in approximately the same latitude as Dongola [...] provisionally it may be placed roughly in the latitude of Dongola, i.e. within the province of Kush, in the New Kingdom and possibly further north earlier. The identity and distribution of other possible hbny-producing spp. cannot be determined, but some of them may well have occurred at one time near the First Cataract”. Besides, he (DIXON 1961: 52) followed J.W.B. BARNS in a suggestive comparison of “the use of the ‘gum of the hbny-tree’ as an adhesive in the ritual of embalming. On the Gold Coast the dark-coloured which exudes from the bark of *Diospyros mespiliformis* Hochst, the other species ebony at present found in the Sudan, is used as an adhesive to mend broken pots. It would be premature, however, to conclude, without further evidence, that it was this species which yielded the ‘gum of the hbny-tree’”.

Already in the Egyptian tombs from Dyn. I, small ebony objects (e.g., tablets, part of cylinder seals) were placed, whereas, from the Middle Kingdom, are found ebony arrow-heads (Dyn. XI) and caskets (Illahun treasure, Dyn. XII) and so forth³⁰. The dendronym is first attested at the dawn of the Old Kingdom (from Dyn. III) in the inventory of an offering list as a label of material common to several pieces of furniture³¹.

For the ancient Egyptians, where ebony did not grow, it was only available as a southern import³². When they first became acquainted with ebony, whose

³⁰ Cf. LUCAS, HARRIS (1962: 435) with references. What kind of products, furniture etc. were made later on by the ancient Egyptians, was dealt with in detail *ibidem* (pp. 435–436).

³¹ Like Eg. ‘nd.w ‘throne’ (*FD* 195), gs3 ‘Art Ruhebett’ (*Wb* V 206, 1) = ‘Liegestuhl in schiefer Form’ (*GHWb* 908), tmn ‘ein Möbel aus Ebenholz’ (*Wb* V 312, 16), hr.t.-‘w ‘writing materials’ (*FD* 204) = ‘ein Behälter für Schreibzeug und Akten (aus Holz)’ (*Wb* III 394, 1; *FÄW* 374), wtz ‘Tragsessel’ (*FÄW* 126). See also KAHL, KLOTH, ZIMMERMANN 1995, D3/Sa/11.

³² R. GERMER (1979: 49): “Als Lieferanten dieses Holzes dienten im Alten Ägypten die ‘Südländer’ (Nubien, Punt)”, which later she reformulated: ebony was an “Importartikel aus Nubien, Kusch und Punt” (1985: 97–98; also 2002: 108). P. BANCEL (1989: 23–24): “Les Egyptiens étaient donc susceptibles de s’en procurer d’origines aussi bien asiatique qu’africaine. Il ressort en tout cas de façon certaine des inscriptions qu’au moins une partie de leurs importations était de cette dernière origine, puisque plusieurs d’entre elles font mention de l’ebène comme d’un tribut versé lors d’expéditions militaires au Sud de l’Egypte, et notamment au ‘pays de Kush’”. African ebony (*Diospyros* sp.) was brought to the Middle Kingdom Red Sea harbour at Wadi Gawasis

presence is not evident from predynastic times, is obscure. Ebony was already in the OK imported from Nubia³³, while in the Egyptian texts from the empire of the 18th Dyn., there are abundant records of the wood imported from diverse southern countries³⁴.

Classical authors³⁵ agree in the abundance of ebony in “Ethiopia”, i.e., the territories lying south of Pharaonic Egypt. Herodotus (III 97) described ebony as an item of tribute from “Ethiopia”, where there was “abundance of elephants, and all woodland trees, and ebony”. But in his comments (NH XII 8), Pliny the Elder doubted Herodotus’ accuracy and in another book (XXIV 52) even claimed that ebony trees did not grow in Egypt (in which he included Ethiopia also), while elsewhere (XXXV 196) he speaks of “flourishing forests, mostly of ‘ebony’-trees” in what he meant as “Ethiopia”. Lucan (*Civil War* X 303–304) wrote of “Meroë [...] rich in the foliage of the ebony-tree” and the lavish use of “ebony of Meroë” in the palace of Cleopatra VII at Alexandria (X 117–119). Diodorus Siculus (I 33) spoke of “much ebony” growing in the Island of Meroë. Strabo (XVII 2, 2) claims the island of Meroë to abound in ebony.

5. A COPTIC DERIVATIVE OF EG. hbnj?

5.1. Although in the standard lexical tools, no Coptic reflex is known³⁶, the *hapax* (S) *hboine* (f), attested in the unguent recipe of general ophthalmological

(Mersa) from the northwestern slopes, according to K. BARD and R. FATTovich (2011: 128, cf. also n. 178 for references). Further, A. LUCAS and J.R. HARRIS (1962: 434) reported that, even in the early 19th century, “small logs of ebony (about a foot in length) were articles of trade at Shendi (little north of Khartoum)”.

³³ Brought by the expedition of Horchuf under Merenre I (Dyn. VI) in Jam, Wawat, jrt.t in the late OK (*Urk.* I 127, 1).

³⁴ A. LUCAS and J.R. HARRIS (1962: 434, nn. 4–9) listed (with text references) the Gnb.tj.w, Kush, Negro Lands (*sic!*), Nubia, Punt and the South Countries where ebony was imported from. W. HELCK (*MWNR* 907–908), then L. STÖRK (*LÄ* I 1162ab, nn. 5–9) precisely enumerated the following early NK sources ebony arrived from: in Hatshepsut’s reign from Punt (*Urk.* IV 326, 17 [skipped by HELCK]; 329, 5; 335, 7), whereas under Thotmes III first of all from Kush (*Urk.* IV 695, 16; 702, 16; 709, 1; 715, 16; 720, 15), but twice also Wawat (*Urk.* IV 728, 16; 1237, 3). In the latter source (= Gebel Barkal stela) “wird allerdings ausdrücklich Wawat als Herkunftsland von Elfenbein und Ebenholz genannt” as W. HELCK (*loc. cit.*) states, for whom “es ist sicherlich nicht zufällig, daß in den Annalen Tutmosis’ III. in stereotyper Weise die Anlieferung von Schiffen voll Elfenbein und Ebenholz fast nur aus Kusch angegeben wird”. He then quoted further texts from this period where “als Hauptprodukt Nubiens neben Gold und Elfenbein erscheint Ebenholz” (*Urk.* IV 524, 8; 983, 16; 950, 7; 1375, 17; 1442). L. STÖRK (*loc. cit.*, n. 9) quoted a further text (an inscription of the Sinai) attesting to Wetenet (wtnt.) as the source of ebony.

³⁵ Most of their words on ebony were best summed up and evaluated by D.M. DIXON (1961: 152 ff.), whose translations are quoted here too.

³⁶ E.g. *CD*, *KHW*. V. LORET (1883: 126) was also puzzled: “Je ne sais si le mot égyptien s’est conservé en copte; en tous cas, le nom copte de l’ébène ne s’est pas encore retrouvé”.

purposes of a Coptic medical papyrus³⁷, published by E. CHASSINAT (1921: 207, entry XCVI) with disputed rendering, deserves our attention: ΣΙ ΝΑΚ ΝΟΥΖ-ΒΟΙΝΕ ΝΚΘΕΝΟC ΜΝ ΟΥΧΗΛΛΟC (χυλός) ΝΜΕΣΜΟΥΖΕ ΑΑΥ ΝΚ· (i.e., kollion, κολλύριον) ΠΙΡΙΧΕ ΠΒΑΛ ΨΝΑΛΟ “Prends de la crasse (?) de peigne et du suc de pourpier, fais-en un collyre; étale autour de l’oeil, le mal cessera”. This purely speculative guess on ΟΥΖΒΟΙΝΕ³⁸ was, however, not adapted in the Coptic lexicography without reservations: “(meaning unknown: ...to be pounded with ΧΗΛΛΟC (χυλός) of purslane, for anointing eyes)” (CD 656b) = “Ingredienz eines Augenheilmittels (CD), nach Chassinat ‘mit Schmutz gemischtes Fett, das sich am Kamm ansetzt’ (Till)” (KHW 354 with reference to TILL 1951: 175c, 18.). A sticky substance like greasy filth on a comb can hardly be “pounded” with purslane sap as W.E. CRUM (*loc. cit.*) figured, although the verb is just an imperative ΑΑΥ (Ν-) ‘make these (into)’, let alone that ΝΟΥΖΒΟΙΝΕ ΝΚΘΕΝΟC is not a genitive, but an attributive construction suggesting something like ‘some ΖΒΟΙΝΕ from/belonging/similar to a comb’. All the more conceivable would be in this context a powdery stuff gained (by rubbing?) from a (worn-out?) comb, which, mixed with a vegetal juice, might more likely yield an unguent.

5.2. To the best of my knowledge, no better³⁹ idea has been suggested since then. Neither has anyone so far pointed out the parallelism in the use of the Coptic *hapax* with that of Eg. hbnj two millennia earlier “3. in offizieller Verwendung in der Augenheilkunde” (*Wb* II 487, 12), namely in pap. Ebers 345 (57, 2–4)⁴⁰,

³⁷ This recipe is the third item of the chapter entitled as ΟΥΚΟΛΛΙΟΝ ΕΝΔΑΝΟΥC ΕΦΩΝΕ ΝΙΜ ΣΝ ΝΒΑΛ “Bon collyre pour toutes les maladies des yeux” (CHASSINAT 1921: 206–207, §XCIV).

³⁸ E. CHASSINAT (1921: 208): “Je traduis ce mot conjecturalement. Associé à ΚΘΕΝΟC, il ne semble pas qu’il puisse désigner autre chose que la crasse qui se dépose sur les peignes. La crasse humaine était communément employée en médecine”.

³⁹ As confirmed also by Drs. K. HEVESI, my former apprentice in Egyptian and Coptic grammar a decade ago (ELTE, Hungary), now PhD fellow at Heidelberg and then Berlin, working on the unpublished Coptic magical papyri of the greater Western European collections (Strasbourg, Ägyptisches Museum und Papyrussammlung of Berlin, also Papyrussammlung of Heidelberg), who has kindly informed me (p.c., 26 Feb. 2021) that, up to now, she has not seen any theory on connecting this *hapax* with Eg. hbnj, neither has she any record of ebony in her Coptic materials. All the more is she convinced, since a PhD fellow of hers in Berlin (Miss Anne GRONS), a specialist on Coptic medical texts (excluding magic as much as possible), responsible for uploading these materials in the DDGLC project also, has even most recently only adopted E. CHASSINAT’s (*loc. cit.*) translation with a question-mark and no comments on it. A data-base like this – my pupil maintains – would certainly have contained such a piece of information if anything new had been suggested recently. Having inquired about the problem with a number of specialists on Coptic magical-medical literature, my pupil could only reaffirm (p.c., 3 and 4 March 2021) that she can now take (S) ΖΒΟΙΝΕ as granted not to have been dealt with in connection with ebony.

⁴⁰ “Ein anderes (Heilmittel) für das Zusammenziehen der Iris (mit Pupille) des Auges: *hp3*-Teil (Schuppen?)* vom Ebenholz 1, oberägyptisches *sj3*-Material 1, werde zerstoßen in Wasser, werde an die beiden Augen gegeben, sehr oft” (*HAM* 611).

pap. Ebers 404 (62, 6)⁴¹, Ebers 415 (62, 18–22)⁴², which all recommend mixing, among others, *hp3*-parts of ebony⁴³ in some fluid to get an unguent or “a pomade to be used in the treatment of the eye-disease called *h3ty*, identified as ciliary blepharitis” (DIXON 1961: 49), which is more than striking in this context.

5.3. In the entry for ebony in his *Materia Medica* (MM I 129), Dioscorides⁴⁴ also recorded its use in ancient Greece for healing the pupil of the eye. Observing

⁴¹ “Ein anderes (Heilmittel) [pace Ebers 402 = 62: 4–5 für das Beseitigen der weißen Stellen (Albugines), die in den beiden Augen entstanden sind]: {*hp3*-Teil (Schuppen?)* vom} Ebenholz; Bleiglanz; Wasser; ebenso [pace Ebers *ibidem*: werde fein gerieben, werde in die beiden Augen gegeben]” (HAM 620).

⁴² “Ein anderes (Heilmittel) für das Beseitigen von Verschleierung, Dunkelheit, Schwachsichtigkeit (und) Einwirkungen, die in den beiden Augen entstanden sind: feuliges/versteinertes Holz [...] 1, Malachit 1, Mehl/Brei der Johanniskroftrucht (*d3r.t*) 1, Blatt der Dornakazie 1, *hp3*-Teil (Schuppen?)* vom Ebenholz 1, Wasser (Saft/Extrakt) der *qbw*-Pflanze/Frucht 1, werde zu einer Masse gemacht, werde zu einem Teig gemacht, werde getrocknet, werde zerstoßen in Wasser, werde an die Außenseite der beiden Augen gegeben” (HAM 622).

⁴³ Rendered as ‘écorce’ (LORET in RT I 1879, p. 132) = ‘Feilspäne’ (HIRSCHBERG and LIPPERT in: AL-KAHHAL 1904: 295) = ‘chip’ (EBBELL 1937a: 58, 69, 75, 82, 92 etc.) = ‘resinbead’ (BARNES 1956: 18 *pace* DAWSON) = ‘écaille’ (LEFÉBVRE 1956: 70, 80, 81) = ‘Späne oder Sägemehl’ (HERMANN in RAC IV, col. 481) = ‘Perle oder Kückelchen (des Ebenholzes)’ (GERMER 1979: 50–51 with long discussion) = ‘*Harzperle’ (GHWb 633; ÄWb II 1977a *pace* DAWSON) = ‘Harzperlen (?) oder Schuppen (?)’ (HAM 843) = ‘*Ebenholzkückelchen (*Astlochinhalt)’ (ÄWb II 1562b). For D.M. DIXON (1961: 50), “most of these renderings appear to be little more than guesses. That of Hermann is apparently based on Theophrastus (IX, xx, 4), Pliny (N.H. XXIV, lii, 89), and Dioscorides (I, 129), all of whom refer to the use of dust or scrapings of ‘ebony’-wood in the treatment of eye-diseases. Pliny in addition says the root applied in water was employed to dispel white specks on the eyes (cf. Ebers 404 = 62, 6)”, whereas “Dawson’s suggestion [...] takes no account of the application of the word to *hbny*-trees, green eye-paint, and *3h*-loaves” in the opinion of DIXON (p. 51), so he himself turned back to Eg. *hp3* ‘umbilical cord’, whereof he concluded to *hp3* denoting in the ophthalmological contexts “the heartwood which, seen in a cross-section of trunk or branch surrounded by lighter coloured sapwood, might have suggested the idea of a navel. The weakness of this suggestion, however, as far as the modern Sudan ebony ssp. are concerned, is that the proportion of sapwood to heartwood is not usually such as to suggest the resemblance of the latter to the navel”. The true sense of this compound was left even most recently untouched by J.Ch. COOPER (2020: 290): “the *hp3* ‘navel’ of *hbny* is used for an ailment of the eye”, which is simply *nichtssagend*. Curiously, R. GERMER (1979: 51) objected, however, that “auch dieses Wort kann nicht ganz richtig sein, da *Dahlberga melanoxylon* kein Harz absondert, man könnte aber doch wohl Perle oder Kückelchen festhalten”. What about then the gum of ebony: qmj.(t) n *hbnj* ‘Harz des Ebenholzbaumes’ used in the embalming ritual (LP, Wb V 39, 5; HARRIS 1961: 158 and n. 20)? The legs are anointed with the juice of the gum of the ebony tree. Embalming substances in the text from pap. Boulaq 3 directed for use on the corpse are dealt with in detail by S.L. CHAPMAN (2016: 59, Table 10). Dioscorides (I 129), by the way, mentions Ethiopian ebony having the best gum (Eg. qmj.t)!

⁴⁴ Quoted in the translation by T.A. OSBALDESTON and P. WOOD (2000: 129): “Ebenus cleans away things which darken the pupils of the eyes, and it is good for old discharges and pustules. If anyone makes a grinding pad of it, and uses it to rub eye salves or suppositories on they will work better. It is made into eye medicines: the scrapings or dust from it steeped in Chian [from Scios in the Aegean sea] wine for a day and a night, then carefully pounded and converted into eye salves or suppositories. Some beat it first, then sift it and proceed in the same way. Some use water

the overlapping components in the ancient Greek and Egyptian ophthalmological unguents in general, including ebony also⁴⁵, I. ANDORLINI⁴⁶ (2018: 17–18, §II 2–4) too has reported the use of ebony in further recipes of the Greek medical papyri (p. 18, §II 3)⁴⁷ elucidating their match among the above quoted cases of the Egyptian medical papyri⁴⁸.

5.4. The celebrated authority on mediaeval Arabic medicine, al-Kahhal Ali Ibn Isa (see MITTWOCH, HIRSCHBERG, LIPPERT 1904: 295) recorded the same knowledge as to the ophthalmological application of ebony: “Jetzt muss ich die Arzneien aufzählen, welche wir bei der Behandlung des Auges anwenden und ihre Wirkung am Auge, da mein Buch für das Auge spezialisirt ist. Ich sage also das folgende. 1. (Abanūs.) Ebenholz wirkt abwischend (reinigend) Verdunklung und Bedeckung der Pupille und alte Geschwüre”⁴⁹. In their commentary to this Arabic text, HIRSCHBERG and LIPPERT make a comparison with the same ancient Egyptian background quoted above: “Im Papyrus Ebers (1500 v. Chr.) werden Feilspäne von Ebenholz (chpe n hebnē) gegen Pupillensperre und Weissfleck empfohlen”.

instead of wine. It is also burnt in a new ceramic jar until it becomes coals, and is then washed like burnt lead [5–96]. This is good for itching eyes and dry inflammation of the eyes”. My thanks are due to Dr. H. Győry for this quotation (p.c. on 26 Feb. 2021).

⁴⁵ “L’unguento oftalmico descritto prevede l’uso di ‘schiuma di nitro’, un naturale antisettico e disinsettante, cf. PSI X 1180, 34 e Gal. *Comp. med. loc.* IV 8 (XII 801 K.), λευκώματα δὲ ταχέως ιᾶται νίτρου μετ’ ἐλαῖου παλαιοῦ λεανθὲν ἐπιμελῶς. Questo composto del carbonato di sodio era comune in Egitto e impiegato in molti settori, anche in qualità diverse da quello locale, vedi P.Genova I 62, nota 11. Al sodio si aggiungono ‘mirra’, una droga ottenuta dal ‘legno d’ebano’ e ‘miele attico’”.

⁴⁶ I express my gratitude to Mr. P. GABODA (Museum of Fine Arts, capital of Hungary, p.c. on 25 Feb. 2021) for making me acquainted with this work.

⁴⁷ Cf. “*Ricettario medico*” (PSICongr. XXI 3): “ἔβένου: l’uso medicinale di una droga ricavata dal legno d’ebano è peculiare e trova riscontro, nei papiri medici a noi noti, solo in un collirio riportato da SB VIII 9860 c, 11 ἀπόζεμα, σποδοῦ ἔβένου ε d, 12 ἔ[β]ένου κατεξυσμένης (δρ.) β. [...] Anche nella medicina greca veniva utilizzato, ridotto in polvere sottile e sciolto in un recipiente, come mezzo erosivo in grado di asportare le macchie corneali: Dsc. MM I 98 (I 89, 18–19), δύναμιν δὲ ἔχει σμηκτικήν τῶν ἐπισκοτούντων ταῖς κόραις, ἀνδρικῶς δὲ ποιεῖ καὶ πρὸς τὰ παλαιὰ δύναματα καὶ φλυκτίδας, Gal. *Simpl.* VI 5 (XI 867, 14–16 K.) ἔβενος τῶν εἰς χυλὸν ἀναλυόμενον ἔστι ξύλων εἰ παρατρίβοιτο μεθ’ ὕδατος ὥσπερ ἔνιοι τῶν λίθων. Si tratta tuttavia di un metodo terapeutico assai rudimentale, fortemente erosivo (Plin. NH XXIV 89: ...hebe-num medici et inter erodentia adsumunt). Procedimenti del genere vennero però ridimensionati dai medici più tardi, cf. Aet. VII 39 (p. 290,31 ss.)”.

⁴⁸ “Il prodotto era invece impiegato per uso oftalmico nella medicina egiziana (*hp3* [sic: h- in place of h, GT] *n hbnj*, vd. Deines – Grapow 1959, 329, 413; pEbers 58, in Ebbell 1937, 69); la qualità migliore si identifica col *Diospyros Ebenum*, la cui polvere contiene acido umico e un pigmento nero adatto per le *tincturae albuginum*”.

⁴⁹ My true thanks go to Mr. P. GABODA for calling my attention to this quotation (p.c. on 25 Feb. 2021).

5.5. If the ancient Egyptian means of healing the pupil of eye by unguent containing some ebony product survived in ancient Greek and Arabic medicine 1-2 millennia later, why could this not have been the case also with Coptic medicine, where ophthalmology, as is well-known, had an overwhelming role? To the best of my knowledge, in this text corpus, such an association has so far not emerged. In my impression at the moment⁵⁰, the examples from the pap. Ebers cited above, corroborated by the Greek and Arabic evidence of an ancient Egyptian knowledge about the pupil healing effect of ebony, may lead to resolving the puzzle of the *hapax* of CHASSINAT and to establishing a new Coptic gloss and its ancient Egyptian etymology: (S) ȝBOINE (f) '(some product of?) ebony wood' (TG) < an unattested OEg. *hbnj.t (fem.) '(sg. from) ebony wood (?)'. What kind component of the unguent is denoted by our attributive construction **OYȝBOINE NKӨENOC** has to be subject to further philological investigation⁵¹.

5.6. Finally, our hopeful new Coptic gloss with an apparent stressed second syllable (S) -o- < *-ā- and the -j- *furtivum* (epenthesis of the final weak consonant into the stem)⁵² perfectly reflects the same etymon as Demotic hbjn 'das Ebenholz' (both Ptolemaic and Roman, *DG* 273). If our theory is valid, the pharaonic etymon of the Coptic fem. *hapax* may have been vocalised *hābānj.āt (OK–MK)⁵³ > *hābājn.ā (NK–3rd IMP) > *hēbōjn.ē (LP). The regular metathesis of the weak consonant in the *Auslaut* (sort of *yod furtivum*) appears to have only been facilitated by the proximity of a preceding stressed vowel as in our case, which *vice versa* corroborates the stress on the second syllable. This is opposed by the Egyptian etymon reflected by the Hebrew masc. pl. *hapax* with the long vowel in the first syllable and the reduced second one (even if its Hebrew pl. ending was grammatically stressed), along with the equally masc. Greek loan

⁵⁰ We plan to examine this Coptic *hapax* from diverse aspects of philology in a separate study.

⁵¹ Inversely, one might of course easily render it "a comb from ebony-wood", but one can hardly figure how it could fit as such (without being further processed, e.g., abraded or ground?) into preparing an unguent by being mixed (!) with a vegetal sap. This being apparently out of the question, more realistic sounds a plain attributive construction: "some ebony-wood (stuff) from a comb". Difficult is to resist the temptation of recalling here Eg. ḥp3 n hbnj 'Schuppen (?) vom Ebenholz' used two or perhaps three times in the pap. Ebers for making an ophthalmological unguent, which seems to represent a suspicious parallel or, at least, evoke strange associations to (S) **OYȝBOINE NKӨENOC**, whose signification has to be further examined.

⁵² V. LORET (1883: 126) is mistaken vocalising Eg. *habīn on the basis of Dem. hbjn, since its -j- was due to a late metathesis if the the final weak -j which had originally nothing to do with the stem vowels.

⁵³ Quite close to the *sādām type (*NBÄ* 42–48, §2), if we count with an added affix -j, but perhaps all the closer to the naturally *Vrad*. inf. stem pattern implying in our case a naturally *Ivae infirmae* OEg. root √hbnj, cf. (S) ȝTOPTP 'aufrütteln' < MEg. *hātārtār or (S) CKOPKP < MEg. *sāqārqār (*pace* TILL 1955: 137, §275) and (S) ȝLOEΙAΕ, ȝPOEΙPΕ 'schwimmen, auf dem Wasser schwaben' < MEg. *hārājrāj (*KHW* 365 and n. 6 *pace* *NBÄ*), less probably also (S) ȝIOME (pl. to C-2IME 'Ehefrau', *KHW* 358) < MEg. *hājām.āt (TG).

with an accent on the first syllable (above), which would imply either a masc. OEg. (1) *hábän(ăj) or better (2) *hábn(ăj) or perhaps (3) *hábän(j.ăw). In any case, in both loanwords we find a perfect agreement between the stressed first syllable and fully regular zero reflection of the older final -j which was not subject to metathesis here. The decision about *-á-/*-ă- in the OEg. 1st syllable is hardly at this moment possible regarding the anomaly of Hebrew qames-ḥatup and Greek ἔ-. To sum up, the Demotic-Coptic evidence may only lead us to assuming a LLeg. *hěbōjně (be it masc./fem. with an eroded final *-w/*-t, resp.), although the Hebrew and Greek forms suggest something like LLeg. *hg/ób(ě)n(ěj). In principle, for the time being, the *-a- vocalism of (S) hboine (f) can only be suspected to have substantially differed from that of its masc. counterpart (the source of the Hebrew, Greek and Latin) whose Coptic reflex we do not know as yet. The background of this anomaly can only be elucidated in the light of new facts.

6. OUT-DATED SPECULATIONS ON THE NATIVE AND “NUBIAN” ORIGINS OF EGYPTIAN hbnj

The only native Egyptian etymology of the term I know is due to V. LORET (1892: 61, §96): “La forme primitive du mot *Habni* est *Hab*, dont je connais trois exemples [...]; cette racine signifie ‘être aigu, pointu’, et fait allusion aux épines de l’Ébènier”. Such an ancient Egyptian verbal root has, however, not been attested according to our standard lexicographical sources, let alone that, as pointed out by D.M. DIXON (1961: 48), “the examples regarded as exhibiting ‘la forme primitive’ are merely defective or late writings [...] of [...] the fuller form *hbn*”. Later, to the best of my knowledge, no researcher has seriously considered the chances of an inner Egyptian derivation for this import item.

Until now, whenever the question of its etymology has been raised at all in Egyptology or Greek philology, the authors unambiguously supposed Eg. hbnj to be a Nubian word for some obscure reason without presenting, however, any single piece of real lexical evidence of it from Nubian ever, in fact. All this may originate from W. SPIEGELBERG’s (1907: 131) apparently purely *ex cathedra* guess, who, in his *Koptisches Handwörterbuch* (1921, *loc. cit.*), wondered “ob das äg. Wort seinerseits ein altes nubisches Lehnwort ist”, which was uncritically followed, e.g., by G. NENCIONI (1939: 11–12) and J.-L. FOURNET (1989: 59, #4), and has until now so stubbornly survived over more than a whole century that this has even penetrated the most recent Greek etymological lexicons by P. CHANTRAIN (1999: 309) and by R. BEEKES (2010: 368) regarding the word as “ultimately perhaps Nubian” (!) without any other reference but SPIEGELBERG 1907. W. VYCICHL (*DELC* 39) was, too, convinced that Eg. hbnj “est certainement un mot africain puisque l’ébène venait de Nubie, de Kouch et Punt”. Following him and ignoring P. BANCEL’s (1989) suggestion (below), both

R. EL-SAYED (2011: 231) and ZIBELIUS-CHEN (2011: 179) surmised an African loanword in general, although no source term has been named by them either⁵⁴. Even the most recent research, like that by B.J. NOONAN (2019: 90–91), is merely speculating about Eg. hbnj as “probably a loan from some African language, perhaps Nubian”. Most recently, V. BLAŽEK (unpublished) seems to have found some noteworthy dendronyms in Nubian⁵⁵.

7. BANCEL'S SUGGESTION ON A NIGER-KORDOFANIAN ETYMOLOGY

7.1. So far, to the best of my knowledge, P. BANCEL (1989: 20–37) has presented the only really documented etymology of Eg. hbnj among the African language families, namely Niger-Kordofanian and esp. its Bantu branch. In his hypothesis (p. 21), this word is “a very likely borrowing from a Negro-African language” (*sic*), whose cognates he was seeking, beside the Niger-Congo and Mande languages, among others, in Proto-Bantu *-pínd- (BANCEL's notation), i.e. *-pínd- ‘to become black’ [GUTHRIE 1971, part 1, vol. II, 136, #1555]⁵⁶. Among the reflexes of this root⁵⁷, we also find those with plain *Auslaut* -n- resolved from the cluster *-nd-. Aside from the cognates signifying the colour black (not a tree name), he also dealt with some reflexes in Bantu (p. 28): Tunen (Cameroon) í-píndépíndà ‘ébène’, which he surprisingly identified with that he regarded as other Tunen reflexes of *-pínd- like u-mbil, i-mbil ‘noirceur’, -íl- ‘être noir

⁵⁴ Both of these recent works are unfortunately extremely poorly elaborated regarding their comparative linguistic data as I pointed out in my reviews on them (TAKÁCS 2013 and 2014).

⁵⁵ In his view (p.c., June 2021), there are interesting *comparanda* in Nile Nubian: Mahas hambū, ámbi, Dongolawi hámbo, Kenuzi ámbū ‘doum-palm (*Hyphaena thebaica*)’ (MURRAY 1923: 8, 68). He mentioned the bark of this tree as characterised by the dark-grey hue (cf. https://en.wikipedia.org/wiki/Hyphaene_thebaica). Both semantically and regarding its consonantal sequence, however, this term, in my view, can hardly represent a possible source of Eg. hbnj.

⁵⁶ BANCEL (1989: 24, n. 6): “Cette racine correspond à la C.S. 1555 de Guthrie; ce dernier l'écrit *-pýnd, où *ý note une voyelle très fermée. Il faut noter par ailleurs que cette racine n'est pas reconstruite par Meeussen (1969), qui propose pour la même glose *-piít-, ainsi que *-pi (sans tonalité), obscurité. Il paraît certain, même en l'absence de séries comparatives publiées par Meeussen, que ces reconstructions reposent sur d'autres données. Par contre, elles pourraient éventuellement témoigner de la persistance au stade PB d'un doublet plus ancien, ainsi que le pose Mukarowsky [*sic!*: -w-, GT] (1987) pour le Proto-Nigritique Occidental...”.

⁵⁷ Quoted by the author (p. 25) as follows: “Guthrie (id., vol. 4, p. 67) en cite des réflexes dans toute une série de langues du nord-ouest du domaine bantu (ses zones A, B et C): A.11 Lundu (Cam.) -ind-, A. 24 Duala (Cam.) -wind-, A.34 Benga (Guinée Equat., Gab.) -bind-, A.43a Basaa (Cam.) -hent, A.74 Bulu (Cameroun) -vin-, B.11a Mpongwe (Gab.) -þind-, -pind-, B.22b Ngom (Gab.) -wind-, B.61 Mbete (Congo) -piin-, B.75 Ibali (Cong., Zaïre) -peen-, C.32 Bobangi (Zaïre) -yind-. De plus, Guthrie fournit deux autres réflexes présentant une évolution sémantique et provenant des parties centrale et orientale de l'aire bantu: L.31a Luba Lulua (Zaïre) -find- ‘être obscur’, E.55 Kamba (Kenya) ke-þindu ‘obscurité’. L'on remarquera que le second des deux est un déverbal, et que l'on peut retrouver dans la zone A cette dérivation [...]: A.75 Fang (Gabon) e-vína (cl. 7) noir(ceur), -víñ- ‘être noir’”.

(à propos de fruits mûrs)’, mbilikitikitikiti (ideophone) and fiííí ‘très noir’. To be frank, one can only be puzzled by such a confusing presentation of lexical data perfectly devoid of outlines of the historical processes and the regular *Lautverschiebungen* connecting them. E.g., where is the author’s insight into the historical phonology of such *comparanda* as, e.g., Tunen -íl- vs. u-mbil, i-mbil vs. fiííí treated as the “reflexes” of Bantu *-pínd-? Strangely, the author forgot to present them⁵⁸. One can hardly follow his further line of controversial speculative guesses on Tunen verbal root -híj- ‘être noir’ either, which he regarded as a further remarkable cognate form whose precise Bantu derivation he again left uncertain (p. 28, n. 11)⁵⁹. No better is BANCEL’s typically ambiguous remark when he attached a further Bantu dendronym, Ipuñu ívílə ‘ébène’ as cognate whose controversial alternative derivation from a proto-root variety seems purely arbitrary, being utterly devoid of any exact argumentation (p. 29, n. 12)⁶⁰. Only later we arrive at probably the most impressive piece of Bantu lexical data corroborating “la série lexicale du tunen” presented by BANCEL: Njabi (Gabon) i-vindu (tones unmarked) ‘ébène’⁶¹ vs. -pínd- ‘être noir’, which “montre [...] la possibilité d’une mutation sémantique de noir à ébène dans une langue africaine” (p. 29). It is a pity that BANCEL failed to set just this term in the focus of a thorough diachronic study and to reply or even to address the evidently arising questions: (1) what the prefix here was (*ki- > *hi- > Njabi i- or otherwise??), (2) whether this Bantu form was the sole term for ‘ebony’ among the possible reflexes of the underlying common Niger-Kordofanian root and, if yes, (3) in which form might one deduce for the latter more ancient level a *lautgeschichtlich* plausible parental lexeme for ‘ebony’. Noteworthily, BANCEL only devoted a footnote (p. 25, n. 7) to the fact that “Guthrie reconstruit un thème nominal signifiant ébénier”, apparently misquoted by him as *-péngò (*sic*), but in fact listed by M. GUTHRIE (1971:

⁵⁸ Instead, without any further reasoning, he only admitted the simple fact that “Chacun de ces réflexes, y compris celui désignant l’ébène, est irrégulier en quelque manière au regard des correspondances phonologiques établies par Guthrie (1967–71) entre PB et tunen” (p. 28).

⁵⁹ He argued: “De fait, une autre. Il pourrait s’agir ici encore d’un réflexe irrégulier de *-pínd-, être noir, mais l’évolution d’une nasale alvéolaire à une vélaire, bien qu’inexpliquée, semble sporadiquement attestée en tunen, ainsi que dans les langues du groupe A.70. Mais il est tout de même intriguant de constater qu’il pourrait aussi bien s’agir d’un réflexe déverbal, phonologiquement régulier, du thème *-péngò, ébène, étant donné que /h/ est le réflexe régulier de *p en tunen. On aurait alors un exemple de la mutation sémantique inverse de celle que nous supposons ici (mais identique à la dérivation *ebony* > *ebonite*), avec la mutation (être pareil à l’)ébène > être noir” (p. 28).

⁶⁰ In his view, this form “...relève probablement de la variante *-piít- reconstruite par Meeussen, alors que, dans cette même langue, abondent les réflexes (irréguliers) de *-pínd-. Ceci, à notre sens, renforce l’hypothèse d’un doublet”.

⁶¹ S. CAPO CHICHI (kind p.c. on 19 Jan. 2021): “La forme *i-vindu* semble être du tunen et non de l’ibali (ou ibaliban langue dont je n’ai pas entendu parler)”.

136, #1533) as *-píngò ‘ebony-tree’⁶². This form may apparently have dissatisfied BANCEL, so he ignored it⁶³.

7.2. Outside the Bantu subbranch, at least in BANCEL’s list (p. 26), this root has numerous cognates in some other branches of the Niger-Kordofanian phylum: i.a., (1) Niger-Congo⁶⁴: (1a) Gur, Oti-Volta: Moba binn, Birifor biri, Wama bitirida, Gbanyan -bila, Hanga bir-, Dagara ble, all ‘black’; (1b) Kru: Dida bliú ‘très noir’; (1c) Kwa: Igbo bílìbili ‘obscurité’, Fon wì ‘être noir’; (1d) Adamawa-Ubangi: A2 vikri, A4 Dourou vît/vil, Péerè vinè, A5 virki, A6 pir, E1e Monjombo bī, Gbanzili bíkì, E3 Nzakara bī-bílì ‘noir’; (2) Mande: Soninke binne ‘noir’⁶⁵, Tura bílìbili ‘très noir’, Bozo pī, Jula fi ‘noir’. The problem here too, is that this rich, albeit not at all impressive, variety of look-alikes was accumulated in the fashion of the mass comparison, i.e., without any well-founded reconstruction, a method very useful in GREENBERG’s day (1950s) at that stage of AA comparison, but now long out-dated in all those linguistic domains (e.g., in the examined ones also) where since then the regularities of historical phonology have been more or less elaborated. His lexical data were, in fact, not subject for BANCEL to a detailed diachronical analysis demonstrating the regularity of the individual sound shifts according to some paradigm of Niger-Congo and Mande historical phonology, resp. Therefore, the mass of data above in its present shape can hardly yield any use for our investigation.

7.3. Unfortunately, the same is valid about how BANCEL (p. 27), following H.G. MUKAROVSKY (1987), adduced and handled some distant parallels (?) to his Niger-Kordofanian cognates (?) from other African phyla like Nilo-Saharan: Zarma bi ‘noir’, bì-rì ‘noirceur’ and Afro-Asiatic: WCh.: Karekare berem || CCh.: Musgoy mbleñmbleñ || ECh.: Sumrai minyo | Mokulu bíriny~ (*sic*: -ny~) ‘noir’.

⁶² Whereas one finds no mention of it at all *apud* GUTHRIE (1971: 135), following the entry for Bantu *-pèŋ ‘to put leaning’ (#1486).

⁶³ As he expressed it: “mais celui-ci ne convient pas à une hypothèse d’emprunt, d’abord par la distribution géographique exclusivement orientale de ses réflexes, soient les zones de Guthrie E, G et P (c.à.d. Kenya, Tanzanie, Malawi, Mozambique and Afrique du Sud), donc loin du foyer originel de dispersion du Proto-Bantu, ce qui nous empêche de le considérer comme relevant obligatoirement de ce stade...”.

⁶⁴ He commented on this attestation: “Dans la branche primaire Niger-Congo, le seul rameau manquant est l’Ouest Atlantique, qui n’a cependant pas fait l’objet d’investigations approfondies. Avec les attestations du Mande, ceci indique clairement que la racine est en fait très ancienne, bien qu’elle ne soit pas reconstruite par Mukarowsky (1976–77) pour son Proto-Nigritique Occidental. Cependant, nous n’avons pas eu accès à la documentation lexicale dans les langues kordofaniennes, et leur absence du tableau de données ci dessus n’est donc significatif que de cette lacune” (p. 27).

⁶⁵ As Mr. S. CAPO CHICHI (p.c. on 19 Jan. 2021) kindly informed me, “le mot *binne* est tiré de Mukarovsky et signifie ‘noir’. Il est aussi documenté dans le dictionnaire de Diagana, Ousmane Moussa. Dictionnaire Soninké-français : Mauritanie, Paris: Karthala, 2011”.

7.4. Then, BANCEL ventured to justify “la plausibilité de la mutation sémantique de noir à ébène impliquée par l’hypothèse de l’emprunt”, i.e., how the Niger-Kordofanian etymon⁶⁶ evolved into the Egyptian dendronym, which led him to “considérations générales sur le fait que la noirceur de l’ébène est sa plus remarquable particularité à l’intérieur de sa classe sémantique naturelle (/bois, arbre/, [...]...)”, which is just as original an observation as his other conclusion: “le mot *ébène* lui-même [...] a donné naissance au dénominal *ébonite*, sur la seule base sémantique de la noirceur” (pp. 27–28). But all this hardly proves a bit about Eg. hbnj as being borrowed from Bantu *-pýnd- ‘black’. More thinkable, but equally hypothetic is his argument from the classical antiquity⁶⁷.

7.5. Undisturbed by the phonological controversies, BANCEL *a priori* concluded that one may assume a direct phonological correspondence between Eg. heben(y)⁶⁸ (*sic*) vs. PBantu *(ki)-pind-V (pp. 29–30)⁶⁹. As for the unexplicable anomaly of Eg. h- ~ Bantu *k-, he launched again into mere speculation (p. 31)⁷⁰ about the element *ki⁻⁷¹, with which one can barely agree as the lenition of OK (or later) Eg. h- < *k- has not been observed⁷². Thus, it is hardly of any use for Eg. hbnj. Apparently dissatisfied with this scenario, BANCEL alternatively suspected Eg. h- to reflect the Proto-Bantu prefix *pi- evolving into hi- in some

⁶⁶ Supposed, in his words, “en l’absence de documents attestant la réalité de cette mutation [...] pour la langue supposée être à la source de l’emprunt” (p. 28).

⁶⁷ “D’ailleurs dans la koiné gréco-latine des botanistes, *melenoxylon*, bois noir, est le descriptif de plusieurs espèces d’ébéniers. Ceci pourrait déjà être une indication d’un contexte d’emprunt où une forme véhiculaire – type linguistique faisant en règle générale un large usage de descriptifs – d’une langue africaine aurait été utilisée”

⁶⁸ BANCEL (*loc. cit.*): “L’égyptien *h (et la ‘copie’ grecque ἔ ou ἐ de la syllabe initiale du mot égyptien) représente ce préfixe obligatoire. Au moins au stade PB tous les préfixes ont en effet la structure *CV-”.

⁶⁹ BANCEL (*loc. cit.*): “La racine PB est reconstruite sans préfixe, mais ne peut en aucun cas être réalisée sans. Ceci est valable au stade PB, mais aussi à tous les stades Niger-Kordofan pertinents en l’occurrence...”.

⁷⁰ For him “L’identification précise du préfixe reste incertaine, à cause des 2 millénaires séparant l’emprunt égyptien du stade PB. Cependant, il est tentant d’établir un lien avec le préfixe PB *ki- (classe 7), qui fournit une correspondance satisfaisante [*sic*] avec la séquence *h(e) de l’égyptien” (*loc. cit.*), which is out of the question for me (cf. EDE I 143–148).

⁷¹ BANCEL (*loc. cit.*): “ce préfixe est également celui actuellement employé dans la dérivation dénominale des réflexes de *-pind-, et en particulier en tunen et njabi pour désigner l’ébène. Ce préfixe n’est d’ailleurs pas canonique pour les noms d’arbres en bantu, quoique certains noms d’arbres et de plantes appartiennent à cette classe (genre 7/8) dans les langues actuelles. Cependant, une des valeurs sémantiques identifiées pour ce genre est de regrouper divers objets matériels, ce qui convient à la fois aux vocables tunen et njabi (ébène et non ébénier) et à la situation présumée de l’emprunt, où l’ébène se présente comme une matière première et non un végétal”.

⁷² I found but one single case of Eg. h- corresponding to Cu. *k- (EDE I 295), which proves here nothing.

modern languages (p. 31)⁷³, on which his theory *eo ipso* collapses, his pre-Bantu **hi-pýnd- ‘ebony’ being fully anachronistic and ill-founded. As to the Egyptian 2nd radical, BANCEL has chosen the path of assuming an interchange of Bantu *b ~ *p (p. 31)⁷⁴. Interestingly, he overlooked the cases of labial variation in Egyptian⁷⁵. As for the 3rd radical, BANCEL was undisturbed by the anomaly of Eg. n ~ Bantu *nd too (p. 32)⁷⁶. Even if we accept (*pace* BANCEL above) that the age of Proto-Bantu was a couple of millennia later than the Old Kingdom, what about the even more recent shift of *-nd- > -n- in certain Bantu daughter languages? How could any of these serve as the source of borrowing for an OK word? Being apparently embarrassed by such an anachronistic scenario implied, he immediately moved on to his second scenario to speculatively explain the anomaly of the final radicals as some sort of “secondary” shift⁷⁷. But one may ask: where is the thorough demonstration of such a daring allegation in Bantu historical linguistics? Or in BANCEL’s paper? Why is there no mention of it? No surprise that, instead, he at once turned to his third scenario on the final radicals: “L’hypothèse que la correspondance soit en fait égypt. *ny ~ PB *nd reste une autre possibilité étayée par la présence de semi-consonnes palatales en sumrai et mokulu, corrélativement à la possibilité d’une évolution *d > y, attestée, par exemple, en bantu A.70”. This comparison of the final radicals in Bantu with those in Afro-Asiatic (Chadic) daughter languages (without having examined their internal *Lautgeschichte*) is, however, just the same anachronistic *ad hoc* guess without any piece of comparative evidence. Then BANCEL dealt with the “correspondence” he formulated as “*y ~ ?”; not wasting a word on the Old

⁷³ “Cependant, d’autres préfixes PB pourraient également se prêter à la comparaison avec la séquence CV initiale de l’emprunt égyptien, notamment *pi-, cl. 19, dont on connaît des évolutions en /hi-/ dans les langues actuelles. Mais la correspondance avec ce préfixe n’est pas du tout confirmée sur les plans morphologique et sémantique”.

⁷⁴ BANCEL (*loc. cit.*): “Cette correspondance peut sembler triviale par elle-même. Il est cependant à remarquer que dans le contexte intervocalique qui nous intéresse, si l’évolution *p > b est effectivement naturelle, l’inverse ne l’est pas. L’antériorité du terme emprunté par l’égyptien sur la racine PB impliquerait donc l’existence de deux branches collatérales dès la date de cet emprunt, l’une ayant préservé le *p d’une racine commune encore antérieure, et aboutissant au PB, l’autre ayant très tôt procédé au voisement du *p et fournissant le terme à l’égyptien. Cependant, le fait que la plupart des cognats, hors du groupe bantu, aient une initiale voisée, ainsi que le problème des doubles réflexes des occlusives en bantu laissent ouverte cette question”.

⁷⁵ Among the numerous instances of Eg. b vs. Sem./AA *p (discussed e.g. in EDE I 284–286), I collected also some (ca. 3) reliable exx. also.

⁷⁶ BANCEL (*loc. cit.*): “Cette correspondance est également naturelle dans sa forme inverse par rapport aux datations respectives, c’est-à-dire que *nd > n est bien plus attendu que l’inverse. De fait, un certain nombre de réflexes de *-pind- ont réduit la prénasalisée à une nasale simple”.

⁷⁷ BANCEL (*loc. cit.*): “Cependant, l’on trouve ci-dessus, dans les données extérieures au PB, deux géminées (en moba et soninke), ainsi que des séquences C2VC3 alvéolaires comprenant généralement une nasale (en wama, karekare, musgoy, sumrai et mokulu), qui pourraient faire attribuer le *nd du PB à un développement secondaire”.

Kingdom phenomenon of defectively (un)written weak consonants, he again just scattered diverse guesses. First, he tried to maintain a *mater lectionis* nature of the final Eg. -j (pp. 32–33)⁷⁸. He then alternatively formulated the second hypothesis: “Nous avons vu ci-dessus qu’il pourrait également être l’image d’une **C*₃ ayant abouti avec **C*₂ au PB **nd*”. But right at once he put forward a third one: “De plus, *y pourrait également correspondre à la *V* finale de la variante grecque ἐβένη, et cette voyelle elle-même, ne différant que par la longueur des deux précédentes, correspondant elles-mêmes au PB **i*, pourrait être l’image d’un *-i ou d’un *-e finaux”. Luckily, he himself immediately admitted the absurdity of this anachronistic comparison of Old Kingdom Egyptian with Greek morphology two millennia later⁷⁹. All in all, BANCEL equally failed in either way to explain and demonstrate any of the dubious Bantu matches to the root consonants of Eg. hbnj. Still, he maintained the match itself (pp. 33–34)⁸⁰, which thus remains just an arbitrary and ill-founded hypothesis.

7.6. Still, BANCEL was undisturbed to draw a daring “conclusion de cette comparaison phonologique” (*sic*) (p. 34), which, as I indicated above, has not even happened in fact. He supposed the ultimate source of our dendronym in the Niger-Kordofanian phylum so that “des locuteurs d’une langue de ce phylum se trouvaient il y a quelque 5000 ans dans une région en contact avec l’Egypte”, which is but an all too daring speculation built upon this one single phonologically ill-founded and thus dubious parallel. It used to be elaborated the reverse way! Where is the linguistic evidence, i.e., a considerable number of isoglosses shared by Egyptian and Niger-Kordofanian proving an areal contact? A decade later (1999), I have collected among the non-AA lexical parallels to Egyptian roots at least 21–23 cases where Niger-Kordofanian is implied, and among these, a strikingly high percentage of Bantu matches (*EDE* I 38–46)⁸¹, but even this

⁷⁸ “Avec les réserves exprimées plus haut quant à la nature radicale ou non du *y égyptien, nous pouvons néanmoins constater qu’il correspond à la fois à la voyelle de la racine PB, et aux voyelles radicales reflétées par le grec (avec toutefois un écart d’un degré d’aperture). Cette correspondance est cependant à rejeter, impliquant que le hiéroglyphe qui le représente ne soit jamais à la place assignée par sa position dans la séquence phonologique”.

⁷⁹ “Ceci n’est pourtant pas un argument très fort, puisque la *V* finale grecque est une terminaison féminine régulière, et peut représenter une réflexion purement hellénique aussi bien qu’un phonème du mot égyptien. En tout cas, la finale grecque -ος de la seconde variante, ne correspondant à rien dans la racine égyptienne, est à coup sûr un (autre ?) exemple d’une telle régularisation”.

⁸⁰ “Soulignons cependant que plusieurs des faits déjà mentionnés renforcent indirectement la correspondance, à savoir fondamentalement la correspondance entre ἐβένη et *-pīnd-, et celle, beaucoup moins sûre, entre voyelles de la première syllabe, ainsi que la présence du *y dans la racine égyptienne, difficile à attribuer avec certitude”.

⁸¹ Namely, Eg. (?) rn ‘Name’ (OK–, *Wb*)*, ph or mph (udder det.) ‘udder’ (PT 1548, FAULKNER 1969: 235, n. 4), (?) hp3 ‘Nabel’ (PT–, *Wb*), bn.w ‘waist or buttocks’ (PT 1464, FAULKNER 1969: 226, n. 17), tbn ‘Gehirn’ (Med.–, *Wb*)*, qn ‘fett (sein)’ (Med.–, *Wb*), tr [regular < *kr] ‘das Rote, als Bezeichnung für Blut’ (PT, *Wb*), wdd ‘Galle(nblase)’ (Med.–, *Wb*)*, p^cp^c ‘gebären’ (GR, *Wb*)*,

modest evidence (along with that from Nilo-Saharan and Khoisan) had not compelled me to any hasty allegations⁸². Unconvincing is BANCEL's speculation how to overcome the apparent time gap separating the Old Kingdom (3rd mill. BC) from Proto-Bantu (1st mill. BC)⁸³. As for the historical context of his hypothesis, he felt the borrowing into pharaonic Egypt to have taken place in Sudan⁸⁴. Thence, following his line of speculations, he unstoppably proceeded further to deduce the primary habitat of Niger-Kordofanian to have been right here⁸⁵. But

znej 'vorbeigehen (LP–GR: von der Zeit)' (PT, *Wb*)*, b 'Böses' (LP–, *Wb*)*, jb.w 'Zufluchtsstätte' (MK–, *Wb*) = 'shelter, refuge' (FD 15)*, dbb ~ dbl 'verstopfen' (MK–, *Wb*)*, km 'vollständig machen, vollenden' (MK, *Wb*)*, tt.t (fem.) 'Fesslerin' (PT, *GHWb* 967)*, ffnfn.w 'Lohn' (XVIII, *Wb*) = 'recompense' (FD 98)*, dt [regular < *g.t] 'Hörige' (OK–, *Wb*) = 'serf' (FD 318)*, hp.t 'Steuerruder' (MK–, *Wb*) = 'oar' (FD 168)*, jwrjt 'Bohne' (MK–, *Wb*), jc'n 'Pavian' (OK–, *Wb*) = 'baboon' (FD 11)*, jnp.w 'Anubis' (OK–, *Wb*) = 'recumbent dog (rather than a jackal)' (EG 1927, 451, E15), (?) jtn [if *jtl < *jtyl] 'sun' (MK, *Wb*). The Niger-Kordofanian matches of the asterisked (*) Egyptian glosses are also attested in Bantu.

⁸² Instead, I only dared to put some questions (*EDE* I 47): "Can we suppose that, after the split-up of the Afro-Asiatic unity, the Proto-Egyptian tribes had a long coexistence with the ancestors of Chadic as well as of Nilo-Saharan somewhere in the Saharan macroarea? Can we identify the bearers of the paleolithic-neolithic Saharan culture with a wide conglomeration in which Proto-Egypto-Chadic and other ancient African (Nilo-Saharan, Bantu etc.?) populations could also have taken part?"

⁸³ BANCEL (*loc. cit.*): "Nous avons déjà implicitement admis que la racine PB était postérieure à celle empruntée par l'égyptien. En effet, si les calculs glotto-chronologiques nous paraissent devoir faire l'objet de grandes précautions, il nous semble dans ce cas particulier que l'assez faible profondeur temporelle de l'éclatement du Proto-Bantu, et l'important écart avec la date minimale de l'emprunt égyptien excluent la contemporanéité des deux".

⁸⁴ He claimed: "qu'il a été démontré que le foyer de l'expansion bantu se trouve sur la côte Ouest de l'Afrique, et donc qu'il faut rajouter à la date de dispersion quelques siècles au moins pour que des locuteurs de langues bantu aient pu se trouver dans une région géographiquement susceptible d'avoir été en contact avec l'Egypte. Par contre, les langues de la branche primaire kordofanienne du phylum Niger-Kordofan, dont l'ancienneté les rend tout à fait susceptibles de correspondre à la profondeur temporelle de l'emprunt égyptien, sont actuellement parlées dans le sud du Soudan actuel, et répondent donc également aux impératifs géographiques de l'emprunt" (*loc. cit.*).

⁸⁵ BANCEL (1989: 35): "Il découle de ceci une conséquence tout à fait importante. La forte présomption qu'à cette époque, des locuteurs d'une langue de ce phylum aient pu se trouver dans les parages de l'actuel Soudan, laisse à penser que cette région pourrait bien être le berceau de la famille toute entière. Dans cette hypothèse, les branches primaires Niger-Congo et Mande résulteraient de migrations vers l'ouest à partir de ce foyer originel. Cette théorie, basée sur un rapprochement lexical indirect, paraîtra certainement risquée. Il est certain que l'identification de cognats de *-pind- dans des langues kordofaniennes actuelles (auxquelles nous n'avons pas eu accès pour la rédaction de ce travail) la renforcerait considérablement. Il nous semble en tout cas que le facteur d'erreur imputable à la méthode glottochronologique à cette profondeur temporelle empêche ses résultats d'être valablement opposés à notre hypothèse. Inversement, il n'est pas exclu qu'elle puisse être invalidée par la découverte d'une racine d'une autre famille linguistique qui se prêterait aussi bien à l'emprunt égyptien. La famille Nilo-Sahara pourrait éventuellement être ici en cause, voire la famille Khoisane que l'on soupçonne d'avoir occupé dans des temps reculés une aire bien plus vaste que celle qui lui est aujourd'hui dévolue en Afrique australe". In the English abstract to

it is not clear where all the linguistic facts thereof are, and how their analysis, necessary for corroborating the supposed temporal and areal coordinates, is replaceable by but one unconvincing look-alike, which is by far not sufficient for any guess about ancient contacts. The daring theory above would expectably badly need a careful elaboration of an extensive linguo-archaeological context.

7.7. Nevertheless, following his path a decade later, V. BLAŽEK (2001: 154, #f) too, looked for the source of Eg. hbnj among the Niger-Congo languages only quoting Soninke (Mande) binne ‘black’ and Ibalí (Bantu) i-vindu ‘ebony’, i.e., *‘blackwood’ vs. -peen- ‘to be black’ < proto-Bantu *-pínd- ‘to be black’, although he also left the controversy of Bantu *-nd- vs. Eg. -nj- untouched.

8. SOUTH ASIAN ORIGIN OF EGYPTIAN hbnj?

8.1. An idea of the Asiatic provenance of Eg. hbnj as an open question, still declined by V. LORET (1892: 125)⁸⁶, occurs as early as G. BEAUVISAGE (1897: 78)⁸⁷. Perhaps the most thorough survey on the ebony trade in Ancient Egypt is the thesis by D.M. DIXON (1961), a milestone on the subject, where the author has given the most careful and detailed examination, ever known to my mind, of all the facts suggesting a possible Indian and/or Ceylonese source of what is meant by Eg. hbnj. He explained the complete silence of Classical authors “on the occurrence of ‘ebony’ in the coastal region of the Red Sea” at any African port by supposing that goods from Arabia, East Africa, and India “did not enter Egypt by the Red Sea, but travelled thither overland and down the Nile, though in the Graeco-Roman period the Nile route was little used on account of the hardships involved” (pp. 152–153). Having surveyed all main ebony-producing species of India and Ceylon (pp. 169–174), first he gave an exhaustive account of previous views on ancient Egyptians’ ebony import from there (pp. 175). Enumerating a few items from prehistorical Egypt⁸⁸, “the nearest source of supply” for which

his paper, accordingly, BANCEL ended up assuming that the ancestor root of Bantu *-pjnd- “could well have been the source of the Old Egyptian borrowing, although the age of the Egyptian attestations prohibits a borrowing directly from Proto-Bantu, whose dispersion may hardly be older than the first millennium B.C. This suggests that languages belonging to the Niger-Kordofan family, were spoken at the beginning of the 3rd millennium B.C. in the region where the Kordofanian languages are now spoken (South of the Sudan)” (p. 21).

⁸⁶ He wrote: “Les égyptiens n’ayant connu que l’ebène éthiopienne, c’est la seule dont je m’occuperai ici”.

⁸⁷ Whether solely Ethiopian or also Indian ebony was used by the Egyptians, he left undecided: “À la question ainsi posée j’apporte une réponse partielle: [...] Il était certes permis de supposer que les anciens Egyptiens employaient plutôt l’Ebène de l’Ethiopie que l’Ebène de l’Inde; mais c’était peut-être s’aventurer bien imprudemment que de transformer cette hypothèse en une affirmation affirmative”.

⁸⁸ Like (1) a stone axe possibly made of jadeite from the neolithic settlement at Merimde, (2) a predynastic nephrite axe from Hamra Dom, (3) the bark (identified as possibly either sandal

“would presumably have been India”, he pointed to the lapis lazuli (whose nearest source was Badakshan in north-eastern Afghanistan) found in several sites of predynastic Egypt, which, in his theory, may have been imported from overseas by the so-called square-boats (“type of vessel with high vertical prow and stern and straight keel”, depicted in the rock-drawings of Wadi Hammamat and elsewhere on the routes connecting the Nile Valley with the Red Sea and also at the coast), which appeared also from Mesopotamia (pp. 176–177). All this led DIXON to state that the square-boats “were very probably the means whereby contact was [...] maintained, between Egypt and Iran and further east” (p. 178)⁸⁹. Already the Classical authors distinguished “l’ebène d’Éthiopie au bois noir luisant et sans noeud, et l’ebène de l’Inde à taches blanches et rougeâtres” (CHANTRAINE 1999: 309). DIXON also pointed to the peculiar yellow streaks of black wood as depicted by the Egyptians⁹⁰, which by no means agree with the typically white-streaked ebony of Nubian origin⁹¹ and – as he admitted – “which resemble more those on certain species found in Asia producing what is known as Calamander wood or Andaman marble-wood or zebra-wood” (p. 183). Hence, DIXON surmised an South Asian provenance (p. 184)⁹². But he voiced his doubts also: “...even if it were possible to equate this yellow-streaked *hbny* with one or more species at present found in India and Ceylon, it would not necessarily follow that it was always obtained from thence. Even now comparatively little is known of the ecology of these species and nothing of their distribution in

or cinnamon, neither having ever grown in ancient Egypt or the southern Red Sea area according to D.M. DIXON *loc. cit.*, “despite the statements of the Classical writers”) among the contents of a large two-handled pot from the predynastic village débris at Badari.

⁸⁹ Elsewhere, DIXON assumed that “from Phaaronic times [...] lapis-lazuli continued to enter Egypt, though now apparently almost entirely from the north, via the land-route across Western Asia” (p. 178).

⁹⁰ “Among items received from Punt depicted in the tomb of Puyemrē are two piles of black logs prominently streaked with various shades of yellow and golden yellow [...] labelled ‘*hbny*’. Other representations of black or blackish wood streaked or blotched in varying degree with shades of yellow are attested from the New Kingdom and as far back as the Third Dynasty”. DIXON (1961: 201, n. 61) enumerates mostly MK and NK instances of such a peculiar depiction of what he supposed to be Eg. *hbnj*: “In the publications this wood is usually termed ‘ebony’. Though it is not labelled, it may very well depict a variety of *hbny*. It is, of course, impossible to draw any conclusions regarding the availability of such wood from the frequency with which it appears in the tomb-paintings”. He did not exclude that this depiction “was highly prized on account of its decorative appearance and therefore often imitated”.

⁹¹ DIXON (*loc. cit.*): “the colour of the *hbny* shown being delivered by Nubians [...] is either black or sometimes streaked with lighter colours, but it is never streaked or blotched with yellow. Again, though much of the wood now sold in the Sudan is streaky, no species of African wood at present regarded as ebony shows these pronounced golden-yellow markings”.

⁹² DIXON (*loc. cit.*): “Is this yellow-streaked *hbny*, then, to be identified with one or more species at present found in India and Ceylon? It is by no means impossible that products from these lands found their way to the southern end of the Red Sea, particularly in the New Kingdom”.

ancient times. They may, therefore, have occurred [...] even in Africa” (p. 186)⁹³. As a further argument for a South Asian origin of Eg. hbnj is the fact of a clear distinction made in the Annals of Thotmes III between hbnj vs. “black wood” as shown by DIXON (1961: 187)⁹⁴, which may well be in accordance with W.F. LEEMANS’ (1960: 11 with n. 5) statement that “the kinds of ebony which come from tropical Africa are blacker than those from India and Ceylon”. Finally, DIXON has carefully only concluded (among others) that, “while it is not impossible that quantities of *hbny* were also obtained from Asia (India, Ceylon), there is as yet no definitive evidence that such was the case” (p. 208). P. BANCEL (1989: 21) too, seems to have played even with the idea of an Asiatic source of ebony in ancient Egypt that “must have been an imported product from tropical regions, either African or Asiatic”⁹⁵. This species, as opposed to *Diospyros dendo* of West Africa, is the *Diospyros ebenum* which is in principle not supposed to have occurred in ancient Egypt. Claiming, however, that “there is no evidence for these latter species’ presence in ancient Egypt”, B.J. NOONAN (2019: 91, n. 191) has unfortunately ignored the data about a specimen of ebony from Dynasty V (examined by L. WITTMACK) stated to be *Diospyrum ebenum* as mentioned among others by L. BORCHARDT (1909: 68)⁹⁶ and then by A. LUCAS and J.R. HARRIS (1962: 435). The latter, however, of course, remained sceptical: “but as it seems to be improbable that ebony should have been obtained from India and Ceylon at such an early period, and as it is difficult to be sure of the species from an examination of the dead wood, this identification needs confirmation...”. Elsewhere in this fundamental handbook (p. 467), the chapter “Historical Summary” warned “as worthy of note that, so far as is known, there was not any

⁹³ He further argued that “in view [...] of regular and ruthless felling of *hbny*-producing trees, the possibility remains that this black and yellow was derived from an African species, supplies of which were long ago exhausted” (pp. 185–186). “In this connection”, DIXON referred to “the existence on the island of Bahrein (Tylos) in the fourth century B.C. of a tree producing a very heavy wood, variegated ‘like the tiger’s skin’”, according to Theophrastus, “which Thiselton-Dyer suggested might possibly be Calamander wood” (p. 186).

⁹⁴ Cf. *Urk.* IV 666, 16; 667, 4–5 vs. *Urk.* IV 705, resp.

⁹⁵ Elsewhere also in his paper, P. BANCEL (1989: 23–24) claims that “Son origine a été très discutée, étant donné que des arbres fournissant un bois noir ainsi désigné croissent dans toutes les zones tropicales du globe [...], notamment *Dalbergia melanoxylon* (Afrique), *Diospyros spp.* (Inde et Indonésie)”.

⁹⁶ L. BORCHARDT (1909) described the object in question found during his Abusir expedition (excavating the burial monument complex of king Neferirkare, first half of Dyn. V, ca. late 25th cent. BC) as follows: “...das Mittelsück (Berl. Mus. Nr. 18 171) eines Schiebedeckels von einem kleinen, etwa 20 cm lang gewesenen Holzkästchen, dessen Material Geh.-Rat Wittmack als Ebenholz (*Diospyrum ebenum*) bestimmte, und das sauber eingeritzt die Inschrift trug: [...] Der König von Ober- und Unterägypten *Nefer-ir-ke3-re*...”. Equally very briefly has written L. WITTMACK himself (1910: 191) on this strange find of his, where, in fact, he merely repeated the description of the object *apud* BORCHARDT but, for some unspecified reason, omitting the ebony specimen: “Dieser Deckel ist, wie ich fand, aus Ebenholz und trägt nach Borchardt eingeritzt die hieroglyphische Inschrift”. That is all.

material used in ancient Egypt until about the Eighteenth Dynasty that can be traced to India, though India and Ceylon possessed [...] commodities [...] that were in great demand in Egypt [...]. It is possible that some of the fragrant woods mentioned in Egyptian records as having been received from Punt may have been of Indian origin". Referring to the fragments of Ceylonese ebony species from Dynasty V according to the new thesaurus of Egyptian plant remains by C. DE VARTAVAN (1997: 103, 106–107), also D. MEEKS (2002: 280, cf. also n. 76) carefully ventured to suspect trade with regions beyond Arabia at that period⁹⁷. The reluctance to assume trade between early pharaonic Egypt and India is persistent until the present time⁹⁸. In their monograph on the Puntite sea trade in the Middle Kingdom, K.A. BARD and R. FATTovich (2018: 168) confirmed, among the import from Punt, also some (!) "Diospyros sp.", which they, strangely, regarded as "African ebony"⁹⁹. In this respect, C. DE VARTAVAN's (*loc. cit. supra*) result was quoted most recently by J.Ch. COOPER (2020: 289, n. 919) with the same scepticism as seen *apud* J.R. HARRIS (*loc. cit. supra*): "... although one should doubt the Fifth Dynasty entry of *Diospyros ebenum*, as this would entail trade reaching India". However, recently, *Diospyros* species was excavated by the team of R. GERISCH¹⁰⁰ at Mersa Gawasis (i.e., at the Middle Kingdom Egyptian Red Sea harbour built for the Puntite trade), one of the sources of the Egyptian ebony import, which, most recently, A. MANZO (2011: 76, n. 74; 2020: 11)¹⁰¹ and J.Ch.

⁹⁷ "Ces vestiges, datant de la V^e dynastie, sont donc contemporains des premiers voyages maritimes entrepris vers Pount. On imagine qu'un bois aussi exotique a plus vraisemblablement transité par la péninsule arabique que par le continent africain, pour parvenir jusqu'en Égypte".

⁹⁸ Pondering whether rendering Eg. tj-śps as 'cinnamon' may be right, I. INCORDINO's (2017: 48) eventual counter-argument was the presupposed lack of such a trade: "since the most important source of cinnamon is Sri Lanka, it seems unlikely that India was included in the Egyptian trade network already during dynastic period".

⁹⁹ They wrote (*loc. cit.*): "Several fragments of carbonized ebony wood (*Diospyros* sp.) have been excavated in deposits in front of the gallery-caves at Wadi Gawasis. [...] Ebony was certainly part of the cargo of the ships returning to the harbor site as this hard wood had been imported to Egypt since the 1st Dynasty and was recorded among the products from Punt [...]. African ebony (*Diospyros* sp.) could be obtained from the northwestern slopes of the highlands in Eritrea [...], which supports the hypothesis that Egyptian ships from Saww reached the coast of the northern Horn of Africa. The discovery of four rod-like pieces of ebony at Mersa/Wadi Gawasis suggests that the wood was cut in this shape in Punt in order to be more easily transported to Egypt...".

¹⁰⁰ For the archaeobotany of the Wadi Gawasis excavations in general see BOROJEVIC, GERISCH 2007 and 2010. The dendrological examination of the charcoal and wooden finds is due to R. GERISCH (2007a, 2007b and BOROJEVIC, GERISCH 2007: 43–45, 2010: 51–58). He stated the presence of *Diospyros* sp. brought in the form of logs and rods among the trading goods from Punt (see esp. GERISCH 2007b: 183–184; 2010: 56–57).

¹⁰¹ A. MANZO (2011, *loc. cit.*) corroborated that "African ebony (*Diospyros* sp.) may have been imported from Punt and was discovered at Mersa/Wadi Gawasis, from where several expeditions to Punt were launched in the 12th Dynasty. [...] So far, the finds from Mersa/Wadi Gawasis seem to confirm that this prized wood imported from Punt should be identified at least in the Middle Kingdom with *Diospyros* sp. and not with *Dalbergia melanoxylon*, contra GALE, GASSON, HEPPER,

COOPER (2020: 322)¹⁰² equally pointed to. One wonders where the ships loaded with *Diospyros* species may have arrived from.

8.2. All this, however unlikely the chances of an Indian import may appear at this moment, suggests that we check the term in Proto-Dravidian also, which may have potentially been contemporary with neolithic Egypt (5th–4th mill. BC) and the dawn of the united kingdom in the lower Nile Valley (3rd mill. BC). In the *Dravidian Etymological Dictionary* by T. BURROW and M.B. EMENEAU (1961), I found, beside the widespread common Dravidian root *tum- denoting diverse *Diospyros* sp. [DED 217, #2732], only two further locally (south) restricted roots: *kar(V)k- [DED 90, #1077] and *paničči (or sim.) (Tamil and Malayalam) [DED 271, #3323], but even the latter's form stands all too distant from Eg. hbnj. At my request, G. STAROSTIN (RGGU/RSUH, Moscow, p.c. on 29 Jan. 2021), recently specialised on Dravidian root reconstruction, summed up the present state-of-the-art on this matter 50 years after DED: “there are quite a few terms for specific subspecies of ebony, but the one that is the most common is *tum- [...], it can hardly be the source for the Egyptian word. Nor can other terms be found scattered in various South Dravidian languages”¹⁰³.

9. THE NEW CHADIC MATCH FOR EG. hbnj

9.1. On the basis of some striking cognates found at least in three Central Chadic groups, which have never been examined in this context so far, we can

and KILLEN 2000, 338–340”. He maintained (MANZO 2020, *loc. cit.*): “At Mersa/Wadi Gawasis, the harbour on the Egyptian Red Sea coast from where the maritime expeditions to the land of Punt were launched during the Middle Kingdom, fragmentary rods of *Diospyros* sp. (a dark hard wood perhaps to be identified with that named *hbny* by the Egyptians) were collected”.

¹⁰² As J.Ch. COOPER (2020: 322, Chapter 5) stated, “The excavations at *Mersa Gawasis* have identified both *Diospyros* as well as *D. melanoxylon* in local charcoal deposits” (see also his n. 1069 listing the brandnew archaeological finds from some decade ago). F.A.K. BREYER (2016: 420), in turn, had hardly anything original to say about ebony from Punt repeating purely the well-known facts stated by others in general: “Kurioserweise war das altägyptische Ebenholz gerade nicht das klassische Dalbergia ebenum, sondern die Art Dalbergiamelanodendron/-xylon”. For a deservedly sharp critique of BREYER’s work see the thorough review by D. MEEKS (2018), whose ultimate opinion agrees with our impressions: “Bien qu’il ait pris la peine de réunir une abondante documentation, parfois hors sujet, par l’attitude adoptée vis à vis des tenants d’opinions autres que la sienne, l’A[uteur] n’a pas, non plus, fait preuve de maîtrise dans sa démarche ni contribué à la sérénité des débats” (p. 292).

¹⁰³ From his extensive database (<https://starling.rinet.ru/>), G. STAROSTIN (kind p.c. on 25 Feb. 2021) listed for me, beside Proto-Dravidian *tum ‘ebony’, all the roots for ‘ebony’ in Proto-South Dravidian he knows of, namely: *är- ‘Bauhinia tree’, *ät-i ‘mountain ebony’, *ir- (?) ‘a kind of tree (blackwood)’, *kar-ŋ-äl- ~ *kar-V-mar- ‘blackwood’. He concluded that “Это только South Dravidian, но по другим ветвям дравидийской семьи ничего, кроме *tum-, рефлексов не обнаруживает. Наверняка есть еще разные отдельные слова по отдельным словарям, но это уже не очень интересно, нас все-таки интересуют этимологии, претендующие на какую-то древность. Ничего похожего на египетское слово вроде бы нет, так что чадская этимология, наверное, верна”.

assume an etymon ***haban-** ‘ebony tree’ [GT], none of which can evidently be treated as an Egyptian loan: Logone ávana ‘*Diospyros mespiliformis*, afrikanischer Ebenholzbaum (Pflaumenbaum)’ [NACHTIGAL *apud* LUKAS 1936: 83] = àbáná [TOURNEUX]¹⁰⁴ | Mafa-Mada (proto-Matakam) *hawan ‘ebony’ [GRAVINA]¹⁰⁵: Mafa hágán ‘*Diospyros mespiliformis* (Ebenacées)’ [BARRETEAU, BLÉS 1990: 172] = hawan ‘sicomore’ [NDOKOBAI quoted by GRAVINA]¹⁰⁶, Mofu North héw’er [-r < *-n] ‘*diospyros mespiliformis*’ [GRAVINA], Mofu-Gudur háwar, héwer [-r < *-n] ‘*Diospyros mespiliformis* Hochst. ex A. DC (Ebenacées)’ [BARRETEAU 1988: 131] = héwer ‘arbre fruitier’ [GRAVINA], Merey (Mofu of Meri) hewer [-r < *-n] ‘espèce d’arbre (ébène?), ebony tree’ [GRAVINA *et al.* 2003], Uldeme [-r < *-n] xwāxwár ‘*Diospiros* [sic: -pi-] *mespiliformis* Hochst. ex A. DC *Ebenaceae*’ [DE COLOMBEL 1997: 257, 303] = hwahwar [hwàhwár] [-r < *-n] ‘arbre dont le bois est utilisé pour la manche des houes, *Diospiros* [sic: -pi-] *mespiliformis*’ [KINNAIRD, OUMATÉ 2009: 70], cf. also Gis/ziga huwaŋ ‘*Balanites aegyptiaca*, Wüstendattel’ [LUKAS 1970: 124] = huwuŋ [TOURNEUX], Giziga-Moutourwa huwuŋ, huvbuŋ (*sic: -vb-*)¹⁰⁷ ‘arbre fruitier’ [MICHIELAN *apud* GRAVINA] | Sukur hawun ‘1. tree: Nigerian ebony’ vs. hawun ‘2. plants (is a tree mostly used for fruits and firewood)’ [GRAVINA *pace* THOMAS, DAVID].

9.2. These parallels are all the more curious, since, as R. GRAVINA (p.c., 23 Feb. 2021) also voiced, “ebony was from the rain forest, and not the Sahel. The gloss ‘ebony’ does appear a lot in the data though”. Since the Egyptian and the Central Chadic dendronyms are supposed in the *communis opinio* to cover different species, H. TOURNEUX (kind p.c., 1 May 2013)¹⁰⁸, the doyen of Central Chadic linguistics, is inclined to consider this resemblance to be due to pure chance. For

¹⁰⁴ During my research for an Etymological Dictionary of Egyptian, I had until 2020 come across but this one single potential cognate. The Egypto-Logone parallel was first published by G. TAKÁCS (2013: 574), which was adopted now by J.Ch. COOPER (2020: 289, n. 919). But R. GRAVINA (p.c. on 25 Feb. 2021) did not record this word: “Unfortunately I don’t have the Logone /abana/ in my data”.

¹⁰⁵ I owe much of the Mafa-Mada data to R. GRAVINA (p.c., 23 Feb. 2021).

¹⁰⁶ The information on the Mofu-Gudur and Gisiga parallels was kindly shared with me by H. TOURNEUX (p.c., 22 Feb. 2021).

¹⁰⁷ R. GRAVINA’s comment on this special cluster: “I don’t have a regular correspondence between *w and vb. There is a marginal phoneme /C/ in several languages, represented orthographically as ‘vb’ which is a {voiced} labio-dental flap. It is possible that *w developed into this phoneme in one dialect, but it is unlikely that the ‘vb’ represents a retention of an earlier sound” (kind p.c. 25 Feb. 2021). Cf. also https://en.wikipedia.org/wiki/Voiced_labiodental_flap.

¹⁰⁸ As he informed me, the species the Logone word denoted “c’est un grand arbre qui donne de gros troncs. Chez les Kotoko de Logone-Birni, on en tire des chevrons utilisés en construction [...] pour faire des pirogues. Son bois n’est pas noir, mais gris rosâtre veiné et très lourd”, which greatly differs from “l’érable des pharaons ou ébenier du Sénégal (*Dalbergia melanoxylon* Guill. et Perr., Fabaceae) [...] bien connu au Nord Cameroun [...] un petit arbre épineux dont le bois de cœur est brun foncé à violet noir, très dur et très lourd”. Besides, the local Arabic word for *Dalbergia melanoxylon* is bābanūs.

this and similar considerations, R. GRAVINA (p.c., 25 Feb. 2021) was equally sceptical: “The most likely scenario is that it’s a chance resemblance. With the current data, we can’t be certain that it’s referring to the same object”. But upon an extensive archaeobotanical examination, most recently, J.Ch. COOPER (2020: 290 and also 289, n. 919) – perhaps to all our surprise – concluded that Eg. hbnj covered both species: “The balance of this evidence may suggest that Egyptian ebony, as per Dixon’s argument, could also include *D. mespiliformis*, as well as the commonly cited *D. melanoxylon*”. Even if this were not so, what about the possible shifts between subspecies among the cognates denoting the same species in the diverse daughter languages pending on their individual climatic-environmental conditions after their separation from the parental community? Why such an astonishing match emerges precisely from these two geographically apparently distant branches of the Afro-Asiatic macrofamily¹⁰⁹ and where is the lexical evidence for the regularity of their phonological correspondences – all these we shall investigate below.

10. EVIDENCE OF CHADO-EGYPTIAN AND AFRO-ASIATIC PHONOLOGY

Because a comprehensive Egypto-(Central) Chadic comparative phonology has not yet been written, in this case we need to examine each case of consonantal matches in the light of sufficient lexical evidence:

10.1. Logone Øa/V- vs. Eg. h- is only poorly documented. Still, along with two indirect parallels¹¹⁰, one firm Eg.-Logone match is also certainly attested:

- Logone am (pl.) ‘Wasser’ [LUKAS 1936: 90] = aamáj [CYFFER], Buduma aamáj ~ ámei ‘Wasser’ [NACHTIGAL *apud* LUKAS 1936: 83] etc. < PCh. *ham-‘water’ [GT]¹¹¹ ||| (?) Brb. *a-[H]am-an¹¹² ‘water’ [GT]: esp. i.a. Guanche: Gran

¹⁰⁹ Comprising six branches: Semitic, Egyptian, Berber, Cushitic, Omotic and Chadic.

¹¹⁰ ● Logone árdo ‘geschnittener Riemen’, bíle tóphel árdo ‘Lederarbeiter’ [NACHTIGAL *apud* LUKAS 1936: 84] ||| Bed. harid ‘to slaughter’ [ROPER 1928: 198] ||| Sem.: Ar. harada ‘1. déchirer, fendre, 2. cuire trop la viande, la réduire en charpie’, hard- ‘désordre, émente’ etc. [DRS 450]. ● Logone úee, ue-le ‘gebären, erzeugen’ [NACHTIGAL *apud* LUKAS 1936: 84] < Common Ch. *hawVy-/*wahVy-/*hVyaw- ‘to give birth’ [CLD] (Ch. data: JI 1994: II 160–161) ||| Bed. hīw ‘Kamelfolen’ [REINISCH 1895: 130] = hīwa ‘camel foal up to 6 months old’ [ROPER 1928: 200] ||| SCu. *h/yawa ‘children’ [EHRET 1980: 381, #4] > Rift *hawa ‘children’ [EHRET 1987] (Cu.: EHRET 1987: 127, #552) ||| SBrb.: Wlmd. ahw, Ayr əhw, cf. also Ahaggar √wh̥h; iwi, pf. iwā, Nslm. iwi ‘naître’ (SBrb.: PRASSE 1969: 90, #63I). Ch.-SCu.-SBrb.: CLD V 97–98, #95.

¹¹¹ Cf. e.g. WCh. *hama ‘water’ [STOLBOVA 1987: 229; 1977: 64]; PAngas-Sura *ham [GT 2004: 153] | Ron *ham [GT after JNG. 1970: 390] | Bole-Tangale *am [SCHUH 1984: 214] || CCh.: Mofu àam [STRÜMPPELL] = yám [BARRETEAU] etc. (CCh.: STRÜMPPELL 1922–1923: 127) || ECh.: Mubi ?àamé ‘water’ [JNG.] etc. (Ch.: NM 1966: 240; JNG. 1970, 420; PRH. 1972: 15, #4.1.; NEWMAN 1977: 34; JI 1994: II 340–341).

¹¹² If this is a pl. of the root *-Ham- (analysis debated) (Guanche/Brb. data: WÖLFEL 1955: 87, #22; Guanche: MILITAREV 1991: 165 *pace* WÖLFEL 1965).

Canaria a-hemon ~ a-hamen etc. ‘water’ [WÖLFEL] ||| Sem.: Ar. hamūm- ‘qui abonde en eau, qui contient/donne beaucoup d’eau (puits), qui verse une quantité abondante de pluie (nuage)’, hamīm- ‘3. pluie fine, 4. lait qui est resté longtemps dans une outre et dont on ne fait pas de beurre’, hamīm-at- ‘2. (pl.: hamāyam-) pluie douce qui tombe par petites gouttes’, tāhīm- ‘pluie fine’, cf. hamma I ‘5. faire fondre, liquéfier de la graisse’, VII ‘1. être fondu, liquéfié (se dit de la graisse)’ [BK II 1442–1443; DRS 424] || Tigre ham?a ‘tremper dans l’eau’, ham? ~ ham?at ‘dissolution’ [DRS 420] < AA * \sqrt{hm} ‘1. water, 2. fluid’ [GT]¹¹³.

10.2. Mafa-Mada *h- seems to agree regularly with Eg. h- in a considerable number of instances, let alone the indirect evidence of its derivation < AA *h-¹¹⁴.

¹¹³ For this etymology: MILITAREV 1991: 256, n. 9; HSED #1156; SKINNER 1995: 34. G. TAKÁCS (2004: 63, #357) suggested further reflexes of this root in the AA anatomical terminology, cf. Sem.: Ar. \sqrt{hmy} I: hamā (n. act. hamy- ~ hamiy- ~ himyān-) ‘1. couler (de l’eau ou d’une larme qui s’échappe de l’œil), 2. verser, répandre des larmes (des yeux)’, also hmw: hamā (n.act. hamw-) ‘couler (d’une larme)’ [BK II 1450; DRS 422], cf. Maghrebi Ar. hamā? ‘couler (larmes), répandre des larmes (des yeux)’ [DRS 420, HM? 2] ||| Eg. hmh ‘Speichel’ (NK, Wb II 490, 8; GHWb 492) ||| SCu. *hVm- ‘sweat’ [GT]: Iraqw hame ‘sweat’ [EHRET] = hamē [MAGHWAY 1989: 102] | Dahalo himma ‘dirt of the body’ [EHRET] = himā ‘sweat, dirt of body’ [EEN 1989: 15] (SCu.: EHRET 1980: 305).

¹¹⁴ • Mafa-Mada * \sqrt{hyv} ‘exhausted’ [GT]: Uldeme hivi (hivi) ~ var. hivo ‘fatigue extrême’ [KINNAIRD, OUMATÉ 2009: 68], Muktele yávèk and Mofu yivó ‘tired out’ [ROSSING 1978: 348, #748] ||| Sem.: Ar. \sqrt{hyf} : I hāfa ‘être mince, élancé’, Marazig dialect hāf ‘maigrir, perdre ses forces’, Egyptian Ar. hāf ‘être intellectuellement limité, se faire prendre sa part’, Sudanese dialect ‘périr’, hāyaf ‘démolir, abîmer’, hāyif ‘vil, méprisé’, cf. also Ar. \sqrt{hyf} : I hāfā ‘être affamé, mourir de faim’, Hadramaut hāf ~ hāfī ‘périr, diminuer, maigrir’ etc. (Sem.: DRS 404, 440). • Uldeme hats (hâts) ‘cherchant à finir, s’arrêter pile’, -hats (-hâts) ‘1. arrêter de couler, reculer qqch., remonter, 2. amoindrir’, -hətsay (-hətsāy) ‘cesser de...’ [KINNAIRD, OUMATÉ 2009: 67–68] ||| Sem.: Ar. hu-sus- (pl.) ‘hommes qui périssent’ [DRS 397]. • Uldeme həžā (həžā), also hizaj (hizāñ) ‘forge’ [KINNAIRD, OUMATÉ 2009: 68–69] ||| Sem.: Ar. hašša ‘abattre du feuillage pour le bétail’, Iraqi dialect hašš ‘croquant, croustillant’ [DRS 463]. • Gisiga hana ‘dies’ [LUKAS 1970: 121], Mbuko héna₁ (adv.) ‘maintenant (now)’, héna₂ ‘ici’ [GRAVINA *et al.* 2003], Muyang hini [xíní] ‘this’ [SMITH 2003: 39], Uldeme hanene (hānénē) ‘ainsi’ [KINNAIRD, OUMATÉ 2009: 67] ||| NOm. *ha/en- ‘now’ [GT] > Macro-Ometo-Koyra *(h)a(n)T- [BENDER] | Kefoid *and ‘now’ [BENDER 2003: 170, #97] | Mao: Hozo heŋjé and Sezo helde (*sic:* -l-) ‘now’ [ATIEB and BENDER in BENDER 2003: 277, #97] ||| LECu.: Somali han (pron. demonstr. m. nach Vokalen) ‘dieser’ [REINISCH 1902: 204] etc. ||| SCu.: WRift *han ~ *hin (anaphoric demonstr. pron. base) > e.g., Burunge han ~ hin, cf. also Iraqw hanōs/q ‘there it is!’ [KIESSLING, MOUS 2004: 131–132] ||| Sem.: e.g., Hebrew hēn ‘voici’, hēnnāh ‘(par) ici’ | Ar. hunnā, dial. hanna ~ hinna ‘ici’ (Sem.: DRS 427). • Muyang hilfi [-l- < *-r-] ‘grain’ [ROSSING 1978: 262, #322], Uldeme helefe (hēlēfē) ‘1. graine, sémence, 2. famille’ [KINNAIRD, OUMATÉ 2009: 67] ||| Sem.: Hebrew hāri(y)pōt (pl., only 2x: 2Sam 17, 19 and Pr 27, 22) ‘graines (?)’, traduction latine: orge mondée (pas d’interprétation sûre)’ [DRS 457 with discussion] = emended h̄yārīpōt ‘grains of sand, added to the grain when it is crushed’ [KB 256, 353]. • Uldeme halahalaŋ (hālāhālāñ) [-l- < *-r-] ‘envie, avare, convoitise’ [KINNAIRD, OUMATÉ 2009: 66] < Ch. *hVvVy/wVr- ‘to love, want’ [STOLBOVA] ||| Bed. haru(w) ‘suchen, wollen, wünschen’ [REINISCH] ||| Sem.: Ug. hrr ‘to be inflamed about, crave’ || Tigre harär ‘to wish ardently’ (DUL I 342). CLD V 118, #147: Ch.-Sem.-Bed. • Mofu-Gudur -háhiy- ‘désirer, aimer’ [BARRETEAU 1988: 132], Uldeme -hayen (-hàyèñ) ‘aimer, apprécier, féliciter’, cf. also hawa (hàwá) ‘cour’, mègyá hàwá ántā wál ‘faire la cour à une femme’ [KINNAIRD, OUMATÉ 2009: 67], Zulgo hawá (ŋá) (m) ‘désir’ [HALLER 2003: 13] ||| WCh.: Pa'a hwo ~ ho ‘to like, love, want, wish’ [M. SKINNER 1979: 180] < Ch. *hVvVy- ‘to love, want, be eager’ [STOLBOVA] ||| LECu.: Oromo hawwa ‘to wish for, desire’, hawwī ‘ambition,

• Uldeme -hubay (-hùbày) ‘danser’ [KINNAIRD, OUMATÉ 2009: 66] || Eg. hb.t ‘Tanz (?) (zur Huldigung vor [...], mit n)’ (XVIII, *Wb* II 486, 13) vs. jhb ‘1. tanzen, 2. Tanz(lied), 3. Tänzer (?)’ (OK–, *Wb* I 118, 12-17) > jhb.w ‘Jubelliedsänger und –tänzer’ (1st IMP, *ÄWb* I 199b) || Sem.: Hadramaut hawb ‘danse’ [DRS 383: isolated].

• Gisiga hov ‘bearbeiten (Farm)’ [LUKAS 1970: 121], Mofu-Gudur -hèv- ‘cultiver, houer’, nomen instr.: mèhèvey ta slá ‘charruer’ (litt.: ‘cultiver avec boeuf’) [BARRETEAU 1988: 131] || Eg. hb Pflug’ (OK–, *Wb* II 485, 10) || Sem. *√hyb > Syr. hiba | Dathina hīb, hībah ‘hache, houe’ (Sem.: DRS 399).

• Mbuko hamay ‘payer (une dette), pay debt’ [GRAVINA *et al.* 2003], Merey hama ‘payer’ [GRAVINA *et al.* 2003] || Eg. hm.t ‘Fährlohn’ (PT–, *Wb* II 490, 5) > LLeg. hm.w ‘fare’ (*DLE* II 83) > Dem. hm.t ‘Fracht, Lohn’ (*DG* 275).

• Gisiga han ‘1. sich niederlegen, 2. die Nacht verbringen’ [LUKAS 1970: 121], Zulgo héná ‘1. se coucher, 2. passer la nuit’ [HALLER 2003: 13], Merey héna ‘coucher’ [GRAVINA *et al.* 2003] < Ch. *hV(w)Vn- ‘to lie etc.’ [STOLBOVA] || Eg. hn ‘aufhören (mit etw.)’ (XVIII, *Wb* II 492, 6; from 1st IMP: *ÄWb* I 750) = ‘to halt, cease’ (*FD* 158) || NBrb.: Qabyle henni ‘1. calmer, laisser tranquille’ [DALLET 1982: 292] || Sem.: Thamudi hwn ‘repos’ [DRS 389], Ar. √hwn ‘se reposer, se calmer, s’endormir’, hawn- ‘2. repos, tranquillité’ [BK II 1460–1461] || Tigre han gä?a ‘devenir désert’, also hən gä?a ‘rester muet, être stupéfait’ [DRS 427–428], Tigrinya hana ~ hona ‘ruines, destruction’ [DRS 433]. Ch.-Ar.: CLD V 112–113, #134. Here may eventually belong also AA *√hn ‘night’ [GT], cf. Sem.: Ar. hin?– ‘partie de la nuit’ [DRS 428] || NOm.: Kafa hánā ‘der Abend’ [REINISCH 1888: 297] = hánā ‘evening’ [BENDER 2003: 170, #95] | She ēhn ‘night’ [CERULLI in BENDER 2003: 170, #95] || ECh.: Ndam ?īnyán ‘night’ [JNG. in JI 1994 II 257].

• Uldeme -hej (-hèŋ) ‘briser, démolir’ [KINNAIRD, OUMATÉ 2009: 67] || Eg. whn ‘A. eigtl.: (Mauern) niederreissen, zerstören, B. intr.: 1. zerfallen (von einem Bauwerk und vom Menschen), 2. (Med.) vom Abfallen des Scharfs einer Geschwulst’ (MK–, *Wb* I 345, 11–13).

• Uldeme hahawa [hàhàwà] ‘cage pour les animaux pendant la saison sèche (usage: clôture faite d’épines dans laquelle les animaux viennent prendre l’air après le pâturage)’ [KINNAIRD, OUMATÉ 2009: 66] || Eg. *h ‘courtyard’ (*EG* 1927, 481, O4). Ch. EHRET (1995: 379, #768) combined the Eg. word also with Cu. *hă ‘outside’ [EHRET 1987: 126, #545] based on his comparison of Bed. hata ‘outside, space in front or outside house or village’ || SCu. *hā ‘beyond’.

desiring’ [GRAGG 1982: 205], Somali hawo ‘désir, passion’ [COHEN] | HEcu.: Burji hayy- ‘to love, like, agree’ [SASSE] etc. || (?) Eg. hj ‘Jauchzen, Jubeln’ (MK–, *Wb* II 483) || Sem. *hwy ‘to love’ [GT]: Ar. hwy III ‘1. aimer qqn. d’une affection vive, 2. caresser, flatter, cajoler’, hawa^a ‘amour, passion qu’on éprouve, désir, vive affection, objet des désirs’ [BK II 1462] || MSA: Cjibbali √hwy: šhēbē ‘to appreciate sg. (beautiful), think sg. is fine, like sg. overmuch (aimer à l’excès)’ [JOHNSTONE 1981: 100], Mehri √hwy: šəhwū ‘to like (aimer)’ [JOHNSTONE 1987: 162] (Sem.: DRS 386) < CAA *√hwy ‘to love’ [GT]. LECu.-Sem.: COHEN 1947: 97, #92; Ch.-Sem.-ECu.: CLD V 92, #86.

• Mafa-Mada *-huwa ‘to run’ [ROSSING 1978: 318, #601]: Mafa pà-hwá [ROSSING], Mbuko haw ‘courir, fuir’ [GRAVINA *et al.* 2003], Merey hway ‘courir’ [GRAVINA *et al.* 2003], Muyang ts-hwa [ROSSING] = huwa₁ [hʷà] ‘run, chase’ (n.) [SMITH 2003: 41], Muktele hwáy [ROSSING], Mofu-Gudur -hw(á) ‘1. courir, (s’en)fouir, 3. rouler vite (voiture, mobylette)’, háwa ‘viens-vite ici! accours!’ [BARRETEAU 1988: 132] | Sukur xwí ‘to run’ [WOLFF 1974 cited in DAVID 2003: 16] = huwi [DAVID 2004: 13] < Ch. *hVwVy- ‘to run’ [STOLBOVA] ||| SCu.: WRift *haw?-ut (med.) ‘to go away’ [KIESSLING, MOUS 2004: 134] || LECu.: Saho haw-ere ‘to go away’ [M. VERGARI, R. VERGARI 2003: 95] ||| SBrb.: Ahaggar ø-hy [< *h₂h,y?] ‘chasser devant soi très rapidement’ [PRASSE 1969: 73, #441] ||| Eg. hhw ‘davonlaufen (von den Füssen)’ (Lit. MK, Wb II 485, 1) ||| Sem. *vhw: i.a., Egyptian Ar. dialect hawa ‘vite!’ || Tigre hawā ‘s’enfouir, laisser échapper’, Tigrinya haw bälä ‘se hâter, partir précipitamment, s’éloigner’ (Sem.: DRS 385-386). Sem.-Eg.-SBrb.-ECu.: DRB 385; Ch.-Eg.: CLD V 93, #88.

• Mbuko hawar ‘brûler qqn.’ [GRAVINA *et al.* 2003], Muyang hèrá ‘to burn’ [ROSSING 1978: 218, #100] etc. < Ch. *hVwVr- ‘to burn’ [STOLBOVA] ||| SCu.: WRift *hur-im (dur.) ‘to cook’ [KIESSLING, MOUS 2004: 145] ||| ECu. *hUr- ‘to kindle’ [GT] > PSam *huri ‘schüren (Feuer)’ [HEINE 1977: 292] = ‘to kindle’ [HEINE 1978: 63] | Burji hur-i- ‘to kindle fire’ [SASSE 1982: 102] | Dullay *hōr-[GT] > Dobase hor-as- (caus.) ‘kochen’, Gollango hōr- ‘wärmern’ (Dullay: AMS 1980: 162, 202) ||| Eg. h3 [regular < *vhr] ‘rösten (in den Bez. für Brotsorten)’ (NE, Wb II 475, 9) = ‘Glut’, ‘q n h3 ‘Röstbrot’ (GHWb 486) ||| Sem.: Ar. hara?a I ‘4. cuire trop les viandes, au point qu’elles soient en charpie’, hari?a ‘être en charpie pour avoir été trop cuit (se dit des viandes)’ [BK II 1409] || Tigrinya harhar bälä ‘être en flammes’ [DRS 451] < AA *vhr ‘to heat up (?)’ [GT]. Cf. also CLD V 118–119, #148: Ch.-ECu.-Eg.

• Mbuko huhwal ‘tomber (fall)’ [GRAVINA *et al.* 2003] ||| NOm. *hUl- ‘to fall’ [GT] > Wolayta ul- ‘to fall’ [MORENO in BENDER 2003, 317, #28] | Kafa hol ‘to fall’ (cf. Burji hal) [CERULLI *apud* BENDER 2003: 340, #28] ||| HECu.: Burji hal- ‘to fall’ [SASSE 1982: 90: isolated in ECu.] ||| Eg. h3j [regular < *vhl] ‘herabsteigen’ (PT-, Wb II 472–474) = ‘to come/go down, descend, fall’ (FD 156). NOm.-Eg.: HODGE 1990: 646, #11.

• Mafa-Mada *hay ‘grain’ [ROSSING 1978: 262, #322] > i.a. Uldeme hay ‘mil’ [KINNAIRD, OUMATÉ 2009: 66] < Ch. *(h/u)h[a]y- ‘kind of corn (guinea corn)’ [STOLBOVA] ||| Eg. jhj ‘Art Getreide’ (OK, Wb I 118, 10). Ch.-Eg.: OS 1992: 183; HSED #1167; CLD V 98-99, #97.

10.3. The shift of Mafa-Mada -w- < *-b- was unfamiliar to R. GRAVINA¹¹⁵, the greatest authority on Central Chadic historical phonology for the time

¹¹⁵ Who stated: “I don’t have any evidence for *b- > w-, so it would be hard to make a link with Eg. The English word comes from the Eg., but I’m not sure we can make that connection for

being¹¹⁶. Although, of course, some cases for a current Mafa-Mada -w- < AA *-w- appear in, e.g., Mafa¹¹⁷, Gisiga¹¹⁸, and Mofu-Gudur¹¹⁹, still, a great deal of strong pieces of a counter-evidence of medial Mafa-Mada *-w- < AA *-b- is also attested in my data. Cf., e.g., the following cognates directly proving a match of Mafa-Mada -w- = Sem. and Eg. *-b-:

- Mofu-Gudur záwal záwal ~ zéwél zéwél ‘traîner qqch. (corde, placenta)’ [BARRETEAU 1988: 265] ||| Eg. zbj [-j possible < palatalised *-l] ‘2. (tr.) führen, geleiten, aussenden, vertreiben, herbeibringen usw.’ (PT-, *Wb* III 429–431) = ‘2. (tr.) to send, conduct, spend/pass (time), attain (good repute)’ (FD 219) > zbt ‘Transport’ (OK, *Wb* III 432, 5) ||| Sem. *√zbl ‘porter’ [DRS]: Akk. zabālu ‘(trans-, sup)porter’, zubbulu ‘porter, faire attendre, languir (de maladie)’ || Hebrew *zābal

CCh. We would need evidence from other branches of Ch., and Brb. or Cu., before that could be established with confidence”.

¹¹⁶ Cf. his epoch-making monography on Central Chadic historical phonology (2014), where, however, the external (WCh., ECh., AA) evidence was unfortunately not considered.

¹¹⁷ ● Mafa téwél- ‘faire le tour de’, cf. ntewélé-wélé ‘faire le tour d’un arbre en s’y tenant par la main (jeu d’enfant)’, téwél ged ~ ntewéla ged ‘rite sp. (litt.: faire le tour de la tête)’ [BARRETEAU, BLÉIS 1990: 275, 354] ||| SBrb.: EWlmd. & Ayr e-tawel ‘disque, plateau circulaire (de cuisine), etc.’ [PAM 2003: 805] ||| Sem.: cf. a probable metonymic survival of this root in Ar. √twl I tāla ‘exercer un enchantement, un sortilège’, tawl-at- ‘3. un enchantement, sortilège à l’aide duquel une femme cherche à se concilier l’amour de son mari’ vs. tabala ‘3. rendre fou, tourner la tête à qqn. (s.d. d’une femme qui inspire une passion violente)’ [BK I 192, 211]. ● Mafa záwál- ‘faire une ronde de surveillance’ [BARRETEAU, BLÉIS 1990: 394] < Ch. *zVwVl-/*zVlVl- ‘to look at’ [CLD III 128, #465] ||| Eg. z3w ‘bewachen, hüten’ (PT-, *Wb* III 416–417).

¹¹⁸ ● Gisiga duwal [l < *r] ‘morgen’ [LUKAS 1970: 121] ||| HECu. *dar- ‘morning’ [GT]: Hadiyya dara ‘morning’, cf. Kambatta sōdarārō ‘early morning’ (*darār- contracted with sōz- ‘to dawn’) [HUDSON 1989: 89] ||| Eg. dw3.w ‘1. Morgenfrühe, 2. morgige Tag’ (MK-, *Wb* V 422–423) = ‘1. dawn, morning, 2. tomorrow, the morrow’ (FD 310). ● Gisiga tuway (tuwi) ‘weinen’ [LUKAS 1970: 136] < Mafa-Mada *tuway ‘to cry (tears)’ [ROSSING 1978: 232, #170] < Ch. *√tw ‘to weep’ [JS 1981: 284B] = *tVw/y- ‘to weep, (funeral) crying’ [ChED 317, #724] ||| Bed. tiw ‘schreien, brüllen, muhen, grunzen u.s.w. (von Tieren überhaupt)’ [REINISCH 1895: 232]. ● Gisiga žuwan ~ žuwon ‘sich fürchten’ [LUKAS 1970: 121] < Mafa-Mada *žun-wađ ‘to fear’ [ROSSING 1978: 249, #257] ||| (???) Eg. snd ‘sich fürchten, Furcht haben’ (PT-, *Wb* IV 182–183) ||| Sem.: (???) Ar. √šmṣ VII ‘être saisi de frayeur, trembler de peur’ [BK I 1270] < AA *√SNç ‘to fear’ [GT].

¹¹⁹ ● Mofu-Gudur -dúwl- [l < *r] ‘supplier, demander, prier en parlant aux ancêtres’ [BARRETEAU 1988: 111] ||| SBrb. *√dwṛ: EWlmd.-Ayr ə-ṭṭar ‘demander (à Dieu) dans la prière (qqch.)’, Ayr e-ṭṭar ‘demande en mariage’ [PAM 2003: 797] ||| Eg. tw3 ‘jemandem bittend angehen, jemandem bittend etwas vortragen’ (MK-, *Wb* V 248, 6–7) = ‘to put a claim (on s’one), claim from (s’one), appeal to (s’one)’ (FD 295). ● Mofu-Gudur -tawar- [r < *n] ‘chercher partout, partir en quête’ [BARRETEAU 1988: 247] ||| Sem.: Ar. √tn VI: tatāwana ‘poursuivre sa proie et chercher à la tourner tantôt du côté droit, tantôt du côté gauche’ [BK I 211]. ● Mofu-Gudur ‘zewéq ‘corde en fibre végétale mâchée, ficelle’ [BARRETEAU 1988: 265] < Mafa-Mada *zawi(d) ‘rope’ [ROSSING 1978: 317, #596] ||| SBrb.: EWlmd.-Ayr ə-zđu, Ayr ə-zđu ‘1. tisser, 2. natter (cheveux), 3. tresser (corde, cravache, natte), 4. être tissé, tressé etc.’ [PAM 2003: 912]. ● Mofu-Gudur -zawal- [l < *r] ‘tomber (nuit), obscurcir’ [BARRETEAU 1988: 265] ||| ES: Gurage: Ennemor, Endegeny, Gyeto zäwre, Chaha, Ezha zore, Muher zorä ‘greyish (cattle), dark-brown’ [LESLAU 1979: III 717] = ‘brun, sombre (bé-tail)’ [DRS 709].

‘élever, exalter’ [DRS] | Ar. zabala ‘to carry’ [WARD] = ‘(em)porter’ and Ar. (southern dial.) zabal ‘jeter, lancer’ [DRS] (Sem.: WARD 1963: 426; DRS 674).

• Mafa tsawar- ‘enlever un morceau pourri d’un fruit, de viande’ [BARRETEAU, BLÉIS 1990: 364] ||| Sem.: Ar. sabrada ~ sabada ‘1. raser (les cheveux, le poil), 2. dépouiller la tête de cheveux en les arrachant (avec acc. de la tête)’ [BK I 1043]. For the iconsonantal origin of this isogloss, cf. WCh.: Hausa sábè V ‘e) cut off hair from head’, šaššaaboo [assimilation < *šabšāb-] ‘a) cut off large lump of meat, c) cut green wood’ [BARGERY 1934: 876, 932] ||| Eg. sbj ‘(als Überschrift einer Beschneidungsszene)’ (OK, *Wb* IV 81, 15), s²b ‘(Stiere) verschneiden, kastrieren’ (MK, *Wb* IV 43, 11) ||| Sem. *šbb ‘разрезать’ [*SISAJa*]. Eg.-Sem.: *SISAJa* III #18; HSED 458, #2168.

• Gisiga gawla [l < *r] ‘junger (erwachseener) Mann’, gawlay ‘junge Leute’ [LUKAS 1970: 121], Mofu-Gudur gúwla ‘jeune homme, jeune (avec une connotation de puissance sexuelle)’ [BARRETEAU 1988: 121] ||| SCu.: Dahalo gáßara ‘male lion’ [EHRET 1980: 234, §VII A.3; EEN 1989: 31] ||| Eg. *db³ [regular < *gbr] (?) > Cpt. (SL) ξαβαλτ⁺ ‘hart, fest, kräftig sein’ (*KHW* 414) vs. (B) ξοπ⁺ ‘hart, streng, grausam sein’ (*KHW* 429) ||| Sem. *gabr- ‘homme fait, dans toute sa force’ >/~ i.a. Akk. gabr- ‘fort’, gab/páru ‘vaincre, être supérieure’ || Hbr. gābar ‘être fort’, Punic gybrh ‘puissance’ | Ar. ġabr- ‘1. puissant, 2. esclave corvéable, 3. force, contrainte’, ġubār- ‘violence’ || Tigre gäbrä ‘faire violence’ (Sem.: DRS 97). Dahalo-Sem.: HSED 194, #860.

Numerous further cognate sets equally evidence the correspondence of Mafa-Mada -w- = Sem. *-b- (i.e., indirectly also Eg. -b-) < AA *-b-, even without an Egyptian match¹²⁰.

¹²⁰ • Mofu-Gudur -dáwár- [r < *n] ‘1. se gâter, se perdre, 2. devenir malheureux, maudire’ [BARRETEAU 1988: 107] ||| SBr.: Ahaggar é-debni, pl. i-debn-ân ‘sépulture préhistorique (tombeau antérieur à l’introduction de l’islamisme)’ [FOUCAULD 1951–1952: 159] ||| ES: Amharic däbbänä ‘mourir vite’, Gurage-Muher dobbänä ‘mourir sans être égorgé (bétail)’, Gafat dəbänä ‘cadavre’ (Sem.: DRS 210 pace Leslau 1956: 195; 1979: III 196). • Mofu-Gudur tewére [r < *n] ‘petite flûte sp.’ [Barreteau 1988: 247] ||| Sem.: Ar. tabn- ~ tibn- ‘1. paille’ [BK I 192]. • Mofu-Gudur zuwét ‘lance’ [BARRETEAU 1988: 265] ||| Sem.: Ar. dialectal *zbt ‘schleudern’ [GT] > i.a. Dathina zabaṭ ‘donner un coup de pied’, Maghrebi Ar. zbaṭ ‘(se) contraindre, (se) forcer, lancer violement (sur un mur, sur le sol), face contre le sol’, tt-żabbat ‘se laisser tomber, se jeter lourdement’, Hassaniya ‘terrasser violement, abandonner brutalement sa femme’ (Sem.: DRS 672). But cf. also Maghrebi Ar. zāwət ~ zāyət ‘lancer avec force’ [DRS 701]. • Mofu-Gudur -zázwál- ‘grandir rapidement’ [BARRETEAU 1988: 265] ||| Sem. *zbl ‘to rule’ [WARD]: Ug. zbl ‘prince, souveraineté’ [DRS], Hbr. PN zəbūl (*DRS*: lit. ‘résidence’), ʔizebel (the Phoenician wife of Ahab) (Sem.: WARD 1963: 426; DRS 674) upon the analogy of Sem.: Hbr. nāṣî? ‘Fürst’ < √nṣ ‘(er)heben’ [GB 522–525] or SBr.: EWlmd. ənəy, Tadghaq, Nslm. ənəy ‘1. Tadghaq, Nslm.: monter (+ monture), 2. Tadghaq, EWlmd.: commander, présider sur, gouverner, régner sur, dominer, 3. être puissant (chef régnant)’, EWlmd.-Ayr tā-naya ‘autorité suprême, commandement, pouvoir absolu (de Dieu Omnipotent)’ [PAM 2003: 634]. Alternatively, if the meaning of this Semitic root was secondary, i.e., originally < *to conduct’ (?) [GT], it may well imply an ultimate cognacy with Sem. *zbl ‘porter’ [DRS] (usually linked to the preceding Semitic root) ||| Eg. zbj [-j < *-l?] ‘2. (tr.) führen, geleiten, aussenden, vertreiben, herbeibringen usw.’ (PT-, *Wb*) = ‘2. (tr.) to send, conduct, spend/pass (time), attain

10.4. The Eg. medial -b- normally continues earlier (AA) *-b-. The development of AA *-VwV- > Eg. *-b-, if existed at all, may only be paralleled by some exceptionally rare items (2 pieces) of counter-evidence, which makes the probability of OK hbn < proto-Eg. *hwn unlikely:

- Eg. sbq ‘Bein’ (PT–, *Wb* IV 93, 12–17) = ‘calf of leg’ (*FD* 220) = ‘general word for leg’ (WARD 1972: 23) ||| Sem. *šāk- ‘coscia’ [FRONZAROLI] = ‘thigh, leg’ [*SED*]¹²¹. Sem. *šāk- < **šawk- = Eg. sbq from *swq? < *sawq- as it has commonly been supposed for more than a century by now¹²².

- Eg. zbt [regular < *zbk] ‘lachen’ (PT–, *Wb* III 434) ||| Ch. *žVk- ‘to smile, be happy’ [STOLBOVA] > WCh.: PAngas *žuk [GT]: Angas žuk ‘to smile’ [FOULKES 1915: 204] = žuk (Kabwir dialect) ‘to smile’ [JNG. 1962: 15] || CCh.: Mandara žak-a [dzak-a] ‘to laugh’ [MIRT in JI 1994: II 219], Malgwa žáka [LÖHR: dzáka, STOLBOVA: vowel assim. < *žeka < *žəka] ‘(aus)lachen’ [LÖHR 2002: 291], Paduko žérgda ‘comedie, amusement’ [JARVIS, LOGONA 2005] (Ch.: *CLD* III 237, #1093). Should we assume a special Angas-Eg. *mediae* -w- isogloss (“hollow root”) yielding PEg. *zwk → early OK *zbk → OEG. zbt? The special isogloss of CCh.: Muyang jék-jék₁ [žék-žék], i.e., žék-žék (in the Muscovite notation) ‘happy’ [SMITH 2003: 43] ||| Sem.: Ar. dakdak-at- ‘1. tranquillité d’esprit, absence

(good repute)’ (*FD*) ||| Mofu-Gudur záwal záwal ~ zéwél zéwél ‘traîner qqch. (corde, placenta)’ [BARRETEAU] (details above). • Mafa tsawel- ‘rincer un récipient’ [BARRETEAU, BLÉIS 1990: 364] ||| Sem.: Ar. sabbala IV ‘1. verser, laisser couler un torrent (de larmes, de pluie, s.d. de l’homme, des yeux, du ciel)’ [BK I 1047]. Biconsonantal, cf. Ch. *cVbə ‘to wash sg.’ [NEWMAN 1977: 33, #141] ||| SBr.: EWlmd. & Ayr säbb-ät ‘1. absorber, 2. purifier (plaie), 5. s’imprégnier, être imprégné (d’un colorant), etc.’ [PAM 2003: 699]. • Mofu-Gudur -gáwál- ‘2. tourner qqch. dans sa bouche’ [BARRETEAU 1988: 121], Muktele gwálá ‘to turn’ [ROSSING 1978: 351, #763.a] ||| Sem. *vglb > i.a. Neo-Hebrew gábal ‘pétrir, délayer’, Neo-Syriac gáwil ‘1. former, façonne, 2. mélanger’, Aysor gävil ‘mélanger’, gämbil ‘tournoyer’ | Ar. ġabala I ‘2. mêler de la terre avec de l’eau, de la chaux, du sable’ (Sem.: DRS 96). • Mofu-Gudur -láwád- ‘marcher en se déhanchant, onduler (serpent) marcher timidement’ [BARRETEAU 1988: 159] ||| ECh.: Mokilkö libídá ‘(en)rouler’ [Jng. 1990: 132] ||| Sem.: Ar. labaṭa I ‘2. aller au galop en faisant tomber à la fois les deux pieds de devant sur le sol’, V ‘1. se coucher, être couché par terre, 2. se vautrer, se rouler par terre’, VIII ‘1. se coucher par terre et s’étendre tout du long, 3. aller au galop, lever et faire tomber à la fois les deux pieds de devant’, labaṭ-at- ‘1. course d’un homme ou d’une bête qui boite beaucoup, 2. galop’ [BK II 960]. The same AA root seems to be present in SBr.: EWlmd.-Ayr √lbđ: nălbăđ (refl.) ‘se réunir réciprocement l’un avec l’autre’ [PAM 2003: 446] ||| Sem.: Ar. √lbđ VIII ‘5. entourer qqn. et se grouper en masse autour de lui’ [BK II 960]. For the CCh. root cf. alternatively Ar. √rws I: rāsa ‘1. s’écartier de la ligne droite, en allant à gauche ou à droite, 2. prendre la direction d’un lieu pour s’y réfugier, replier sur un point’ [BK I 953].

¹²¹ Cf. e.g. Hbr. šōq ‘Schenkel, Bein’ [GB] = ‘Unterschenkel’ [ERMAN] = ‘thigh, fibula, shank of an animal’ [KB 1448] | Ar. sāq-, pl. sūq, siqān-, ?aswuq- ‘jambe, tibia (entre le genou et la cheville du pied)’ [BK I 1167] = ‘Bein’ [ERMAN] = ‘tibia (in medical terminology), shank, leg’ [WARD 1972: 23] (Sem.: SED I 212–213, #241).

¹²² This chain of shifts facilitating this etymology was commonly assumed by the adherents of the old school of Egypto-Semitic comparison: ERMAN 1892: 118; HOLMA 1911: X, 134; EMBER 1911: 90; 1912: 90; ESS §7.c, §18.a.22, §20.a.17; FARINA 1924: 13; COHEN 1947: #265; LACAU 1970a: §§329–335 (reviewed by WARD 1972: 23).

de soucis, 2. gaieté, bonne humeur' [BK I 776; DRS 332: isolated] < (?) AA * $\sqrt{z}k\check{z}k$ 'gay' [GT] may also be akin.

11. THE AFRO-ASIATIC BACKGROUND OF THE EGYPTO-CENTRAL CHADIC DENDRONYM

11.1. Not too surprisingly, our Egypto-Central Chadic dendronym seems to be rooted in the deeper layers of the Afro-Asiatic ancestral root stock if we look at SAA * $\sqrt{h}bn$ 'dark' [GT], whose outlines seem to emerge behind North Cushitic: probable cognates with a nasal assimilation and a substantial semantic shift testifying to * $hEmni(y)$ 'afternoon' [GT]¹²³ || ECu. *habn- > *hawn- '1. darkness, 2. evening' [GT] > LECu.: Somaloid (PSam) *hibéèn 'night' [HEINE 1978: 63] = *hawēn- 'Nacht, Zeit der Dunkelheit' [LAMBERTI] = *habēn- [GT]: Somali habēn 'der späte Abend, die Nacht', cf. habēn-o 'Schwachsichtigkeit' [REINISCH 1902: 195] = hábēn, pl. hábēnnó 'night', habēní-mo 'night-time', inđa^habéno bān lé^hahay 'I have weak sight' [ABRAHAM 1964: 100] = habēn-ka 'night' [HEINE], NSomali hābē:n 'Nacht, Zeit der Dunkelheit' [LAMBERTI], Jabarti hamēn-ki (m) 'die Nacht' [REINISCH 1904: 68] = hamíŋ 'night' [HEINE], Boni *hàbée 'night' [HEINE 1982, 119] = hawé: (m), det. hawé:ni 'Nacht' [SASSE 1980: 98] = hāb/we: 'Nacht' [LAMBERTI], cf. Boni haw'ēŋ-ka 'this night' [HEINE], Garre habē [$*hawē$] 'Nacht, Zeit der Dunkelheit' [LAMBERTI], Rendille ib'én, pl. ib'énne (m/f) 'night' [HEINE] = ībē:n 'Nacht, Zeit der Dunkelheit' [LAMBERTI] (Sam.: HEINE 1978: 63) | HECu.: (???) Burji hawun- 'to cover'¹²⁴ [SASSE 1982: 93] | PDullay *awn- 'Nacht' [GT *pace* AMS]: cf. also Gollango áwnētē 'in der Nacht', awnuy- 'Nacht werden' (Dullay: AMS 1980: 25) | Yaaku áún (f, no pl.) 'night', 'áún (f) 'nighttime, darkness' [HEINE 1975: 123, 130] = awn- 'Nacht (mit Nullstufe)' [LAMBERTI] (ECu.: LAMBERTI 1986: 268, 364, 427, n. 146) ||| SOM./Aroid * $\sqrt{(h)}bn$ [GT]: Hamer (?)ibān [FLEMING], Hamer-Karo ibon [FLEMING *apud* BENDER 1994: 149] 'evening' (Som.: BENDER 2003: 214, #95 s.v. 'night'). It is still hard to say whether WCh.: Kulere má-fwòn 'schwarz' [JNG. 1970: 353] = ma-ffòn

¹²³ There can be hardly any doubt, on the one hand, about the relatedness of Beja hemeni(t) 'Abend', hemenáya 'Abends verreisen' [MUNZINGER *apud* BLÁŽEK] = húmnay 'Nachmittags reisen (abreisen)' [ALMKVIST 1885] = húmnay & húmne (f) 'der späte Nachmittag, die Zeit um Asser, Abend' [REINISCH 1895] = hemni (f) 'afternoon' [R. HUDSON] = himni (f) 'afternoon, the period from about 2 p.m. to sunset' > himənai 'to set off in the afternoon', himənīt 'to spend the afternoon' [ROPER 1928: 196] = (Ammar'ar dialect) himni 'afternoon' [STARKEY] = 'late afternoon' [EHRET]. The match of Bed. -mn- vs. ECu. *-bn- can hardly pose a serious problem, although one would need to have further instances of Bed. -mn- < *-bn-. But the stimulus of the meaning change would have to be explained.

¹²⁴ Perhaps originally 'to darken sg. by covering it'? H.-J. SASSE (1982: 93) insisted on a phonologically dubious derivation < ECu. *hagōg- 'to cover over', where both Burji -w- and -n- would remain rather obscure. Perhaps a contamination of these two roots?

[GT: < *ma-fwon] ‘black’ [IL] (prefix ma-)¹²⁵ | Warji vina- in: vina-hinna ‘black’ [GOWERS] (WCh.: JI 1994: II 28), in which one might easily figure the usual Chadic spirantisation of internal *-b- > f ~ v (i.e., of *hVbVn), represent a scarce proof for the existence of Southern Afro-Asiatic */hbn ‘dark’ [GT] also in Chadic. Curiously, in Northern Afro-Asiatic, in turn, SAA */hbn is opposed solely by a metathetic root variety, cf. SBrb./Twareg */h₂nby [PRASSE]: Ahaggar hənbəy ‘avoir la tête noire’, adj. vb. e-hənbəy [PRASSE 1969: 59, #298], EWlmd. & Ayr hənbəy ‘1. avoir la bouche noire (âne), 2. avoir la bouche fardée en noir (femme)’, tă-hənbəy-t vb.n., Ayr həbbəy (Gh. Mohamed: = hənbəy) ‘1. avoir les lèvres fardées en noir, 2. femme aux lèvres fardées en noir’, hənbəy ‘femme à la bouche fardée en noir’ [PAM 2003: 325, 337], whose *IVae infirmae* root surprisingly reminds us of Eg. hbnj *sine* metathesis. From all these data, a safely reconstructible **Common Afro-Asiatic** root appears to emerge, namely SAA */hbn ~ Twareg */hnbny ‘dark’ [GT], where our special isogloss of the **Egypto-Central Chadic** dendronym *haban- ‘African blackwood’ [GT] (dating back not earlier than the 8th mill. BC) may have originated from. If this hypothesis is right, we may assume that the Saharan ancestors of the Egyptians arrived first in the Nile valley with the knowledge of the blackwood in general and its term hbnj (whichever species it may have covered) that they, in fact, never ceased to have contact with.

11.2. A concurring etymological theory on the proto-Cushitic etymon, which was serving as the basis for the reconstructions above (§11.1), should also be discussed in this article. Ch. EHRET (1987: 127, #549) equated Bed. himni ‘late afternoon’ and his PSomali *hammēn ‘night’ (reconstructed from the dialectal forms above) directly with the Hadiya and SCu. reflexes of a biradical Cushitic root for ‘black’ with original C₂ *m¹²⁶, all of which he derived from his PCushitic simplex *ha/im- ‘darkness’¹²⁷. The parental root for the Cushomotic forms quoted above was figured the same way by V. BLAŽEK (p.c., June 2021) too, for whom, in the Beja and some Somali dialectal reflexes, the C₂ *-m- seems to be primary

¹²⁵ It remains puzzling if Fyer bwii ‘schwarz’ [JNG. 1970: 353] is eventually related along the rule of Chadic implosives carrying the trace of a lost laryngeal + plain plosive (onto which the glottalisation was transposed secondarily), i.e., Fyer bwii < *hVbwī, but there seems now to be no reason to assume in *-ī < *-i(n), i.e., an etymon like **hVbwīn.

¹²⁶ • LECu.: Elmolo híme ‘darkness of a moonless night’ [HEINE] | HECu.: Libido and Hadiya hímo ‘night, evening’ vs. hëma-ča ‘black’ [KORHONEN *apud* BLAŽEK] = Hadiya hëm- ‘to be black’, hëm-ačča ‘black’ [HUDSON 1989: 28] || SCu. *ham- ‘black’ [EHRET]: Ma'a -háme ‘to be black’ | Dahalo hímmate ‘black’ vs. híma ‘night’ > híma-ne (TOSCO: sg. of híma? EEN: no comment ‘tomorrow’ [EEN 1989: 15; TOSCO 1991: 135] (SCu.: EHRET 1980: 304, #D.5). Note that Asa huma ‘red’ attached by Ch. EHRET to SCu. *ham- may better be akin to Sem. */ħmr ‘to be red’ [GT *pace* DRS 884–885]..

¹²⁷ Later, in the gigantic dictionary of additional AA roots by Ch. EHRET (2000 MS: 322, #2515), we find this as PCu. *hám- ‘to become dark’) with an original C₂ *-m- (with no mention at all of the C₂ -b- forms above).

with regard to the existence of apparently related forms (Hadiya, SCu.) without the third radical *-n-, which, in his view, could have caused the change *-b- > *-m-. A reverse process (*-bn- assimilated into *-mn-), nevertheless, may have just as well been the case, so this can hardly be used as an argument in either way. The problem is, in any case, that, on the one hand, the C₁- of the underlying biradical CAA root could be but *h¹²⁸ (the Dahalo cognate being the only firm proof of a variety with *h-), let alone its variety extended by a dental C₃ can solely be set up as CAA *hVnT¹²⁹ (where the cluster *-nT- was assimilated regressively from *-mT-). The Twareg cognate */hnby with metathesis, on the other hand, equally provides a firm support for *-b- in the Cushitic root, in my view. All of this suggests that above we are dealing with two distinct PAA roots: */hbn vs. */m (var. */hm), which may have denoted diverse dark tones.

11.3. Remarkable is the (quite normal) lack of the first syllable *hV- in the West Chadic cognates, which H.G. MUKAROVSKY (1987: 97) has not hesitated to affiliate with Soninke binne (binna-, binni-) ‘black’ in Mande along with highly dubious Chadic parallels having medial -l-/r- < Ch. */blm ‘black’ [JS 1981: 44A_s] and ECh.: Somray minyo ‘black’ [JNG.], whose derivation < *biny is so far baseless, to which he (the same page but as a distinct entry) even attached

¹²⁸ The corresponding forms also appear in Sem. (in fact, just based on Ar. data) birad. */hm ‘to be black’ [EHRET 2000 MS: 305, #2436]: Ar. √hmm ‘devenir noir’, humam- ‘charbon, suie, cendres’, himhim- ‘très noir’ (sic: -h-), hamā and ham²-at- ‘vase noire’, Dathina hūnum ‘suie’, hmūm ‘saleté’ || Mehri ḥōm ‘recueillir du charbon de bois’, Mehri & Harsusi ḥōmīm, Mehri ḥēmūm, Jibbali ḥūm, Soqotri hēmhōm (sic: -h-) ‘charbon’ || Geez ḥōmmat ‘charbon, suie’, Tigrinya ḥōmmät ‘charbon’ etc. (Sem.: DRS 878–879, 882). For Ar.-Cu.: HSED 273, #1232. For Sem.-Hadiya: Ehret 2000 MS: 305, #2436. By the way, elsewhere Ch. EHRET (2000 MS: 322, #2515) affiliated his PCu. *ḥām- ‘to become dark’ with Ar. hamt- (v.n.) ‘to disappear’.

¹²⁹ Attested in Sem.: Ar. ḥandas I and II ‘être très-sombre (se dit de la nuit)’, II also ‘2. tomber de faibless, et n’avoit pas assez de force pour se relever’, ḥindis- ‘nuit très-sombre, ténèbres’, ḥundusiy- ‘très-noir, -sombre’ [BK I 502] ||| SCu.: WRift *ḥāntē ‘1. darkness, 2. shadow’ [KM]: Iraqw hanta ‘1. shadow, 2. spirit’ [EHRET] = ḥāntē ‘1. darkness, 2. shadow, 3. emptiness’ [KM], Gorowa ḥāntē ‘1. darkness, 2. shadow’ [KM], Burunge hante ‘darkness’ [EHRET] = ḥāntē ‘1. darkness, 2. shadow’ [KM], hence: WRift *ḥāntē-s- (caus. *-s- suffix) ‘1. to obscure, 2. hide, cover’ [KM] | (SCu.: EHRET 1980: 304, #D.5) ||| NOm. *ūnt ‘night’ [GT]: Chara ūnt-a ‘night, evening’ [AKLILU YILMA in BENDER 2003: 91, #95] | She int ‘night’ [FLEMING in BENDER 2003: 170, #95] || WCh.: Geruma hanžini ‘black’ [GOWERS] = žinni [SCHUH] || CCh.: Masa *henže (with *-E < **-DE???) ‘night’ [GT] || ECh. *?ānT- ‘1. darkness, 2. night’ [GT]: (?) Ndam ?īnyān [-y- < *-ž- < **-d-???] ‘night’ [JNG.] | Lele induwá ‘black’ [GOWERS], Kabalay ḥāndā ‘black’ [CAPRILE] | Dangla-Migama *?ānd- ‘night’ [GT] > EDangla áandò (f) ‘la nuit, de nuit’ [DM 1973: 15], WDangla áandó (f) ‘nuit’ [FÉDRY 1971: II], Migama ?āandò ~ ?āandò (m) ‘nuit’ [JA 1992: 63] | Mubi-Toram *?anT̄nV ‘darkness’ [GT]: Toram ?andenji “obscurité” [ALIO 2004: 252, #19], Birgit ?āndānjé (m), pl. ?āndājāy ‘nuit’ [JNG. 2004: 350], Jegu ?āntij ‘Nacht’ [JNG. 1961: 110], Kofa ?āntijí (m) ‘night’ [JNG. 1977 MS: 9, #201] (ECh.: JI 1994: II 28–29 and 257). Besides, Ch. EHRET (1980, *loc. cit.*) directly equated the WRift C₃ *-t- forms with the SCu. biconsonantal root. R. KIESSLING and M. MOUS (*loc. cit.*), in turn, conceived of this WRift stem as a ‘noun of quality’ of their WRift *ḥām ‘to be lost’ assuming the former stem to go back to a pre-WRift **ḥāmitē “which underwent syncope and nasal assimilation”. Semantically untenable.

forms like WCh.: Fyer bwìi < Ch. *fi/pi ‘black’ [NM], whose cognacy in this form is certainly out of the question¹³⁰. Consequently, although one wonders why a term for ‘black’ had to be borrowed, if there was any link between the etyma of Warji vina- vs. Soninke binne in the frames of a Mande-Chadic areal cohabitation visioned by the outstanding Viennese Africanist, it could only have been possible substantially later, i.e., subsequent to the proto-Chadians’ arrival in the Mega-Tchad area through Wadi Howar (?) after their definitive separation from proto-Egyptians in the East Sahara (6th mill. BC the latest), which can logically only allow us to suppose the Chadic term to have passed into Mande (but by no means *vice versa*). Summing up: the mass of diverse Chadic words for ‘black’ listed by H.G. MUKAROVSKY (*loc. cit.*), having a distinct *Lautgeschichte*, have hardly anything in common with **East Cushito-Aroid-West Chadic** *√hbñ.

11.4. In addition to all this, finally, it remains unavoidable to mention a curiously isolated match in LECu.: Somali háyb-a ‘Gattung Baum mit schwarzer Rinde aus dessen festen Holze Stöcke, Knüttel, sowie die Kugel für den mohammedanischen Rosenkranz geschnitzt werden’ [REINISCH 1902: 214] = háyb-e ‘type of tree (túsbah is made from it)’¹³¹, cf. háybe bù u égyahay “he’s very dark-skinned” [ABRAHAM 1964: 106] = haybe (≈ hurre) ‘(in Somali:) midob madawdhalaal ah (English: a kind of shining black color)’ [PUGLIELLI, ABDALLA 2012] = haybe (Djibouti) ‘1. (in Somali:) magac ama naanays loo baxsho wiil midab aad u madaw leh (English: name or nickname given to a boy whose complexion is very black), 2. (magac, lab, keli) geedka ugu wanaagsan geedaha tusbaxa laga qoro (the best one of the trees from which rosary beads are carved)’ [BELELOO 2013 *pace* ABRAHAM and REINISCH]. Having no idea about the Cushitic cognates of this puzzling Somali word, G. BANTI (kind p.c., 2 March 2021) has confirmed that Somali yusur is the southern dialectal word, whereas haybe is known for the tree only in the northwest (REINISCH, ABRAHAMS, Djibouti dictionary by BELELOO) only pointing out the former’s match with another Arabic loanword in LECu.: Afar yusúr ~ yasúr ‘1. ébène, perles d’ébène, 2. ext.: couleur d’ébène, noir intense’¹³². I.e., we

¹³⁰ In West Chadic, MUKAROVSKY ignored that the regular spirantisation of the intervocalic *-VbV- as well as of the cluster *bw- are usual shifts, which can only mean in WCh. the cognates like Kulere má-fwòn ‘schwarz’ [JNG. 1970: 353] = ma-ffòn [GT: < *ma-fwon] ‘black’ [IL] (prefix ma-) and Warji vina-hinna ‘black’ [GOWERS] (listed above) a former triradical root with an extinct first syllable (*CIVbVn), lost due to lenition of an initial *h-, and their ultimate cognacy with the Aroid word for ‘evening’ where the syllabic trace of the first *hV- has been retained, cf. Hamer (?ibân [FLEMING], Hamer-Karo ibon [FLEMING *apud* BENDER 1994: 149].

¹³¹ As G. BANTI (p.c. on 2 March 2021) kindly informed me, the Somali-Italian dictionary has only yusur, quoted in R.C. ABRAHAM’s (1964) dictionary, as possibly related to haybe ‘glossy black complexion’: (m) ‘1. colore nero lucido della pelle, 2. pianta dal cui legno scuro si ricavano perle per il rosario’. FARAH and HECK (1993) apparently missed it.

¹³² For Somali yusur, beside Afar, G. BANTI (p.c. on 3 March 2021) has only found Arabic yusr in PIAMENTA’s dictionary of Mediaeval Yemeni Arabic and in HINDS and ALSAID BADAWI’s dictionary of Egyptian Arabic, translated as ‘black coral’. The authors of the Sem. root lexicon

have here a precious unique piece of evidence for a NWSomali *hayb-* ‘very black’ vs. ‘ebony’ at a time (!) without a third *-n, whose loss (by any historical phonology in Somali) is unattested to the best of my knowledge.

11.5. Naturally, we cannot speak of a direct (synchronic) etymological connection between Somali *hayb-* vs. Somaloid *habēn-, only of their ultimate cognacy having sprung from a remote PAA biradical common source. The meaning of north-western Somali *hayb*-being confirmed by G. BANTI as ‘shining black wood’, irrespective of its apparent isolation, at least, for the time being¹³³, the question obviously arises: does it display a fossilised sporadic remnant of the original PAA biconsonantal root *v̥h(y)b whence SAA *v̥hb and (Egypto-???) Twareg *v̥h₂nby were derived by the root extension?

12. IMPLICATIONS ON THE AFRICAN PREHISTORY

12.1. Based purely and merely upon his ill-founded Niger-Kordofanian > Bantu etymology of Eg. *hbnj* that we have clearly discarded above, P. BANCEL (1989: 34) was not reluctant to deduce a daring scenario of areal contacts between Egyptians with Niger-Kordofanian ancestors ca. 3000 BC¹³⁴. These guesses, built upon one single supposed borrowing along with a confessed failure even to check the whole root stock of his own chosen linguistic target domain, let alone his having failed to collect beforehand a considerable set of parallel Niger-Kordofanian borrowings, led him (p. 35) to go forward drawing even some major prehistorical conclusions on the Sudanese homeland of the entire Niger-Kordofanian family and the westward migrations of the Niger-Congo et Mande branches¹³⁵.

(DRS 1154) compared also JPAram. (no form quoted) and Moroccan Ar. *yusr-* ‘grains de corail noir’ [DOZY II 852] || Geez *yotor* (*sic*: -t-) ‘pierre précieuse’ [LESLAU 1987: 628], Tigre *?esurat* ‘sorte de chapelet des Musulmans fait de perles de bois noir’ [LITTMANN, HÖFNER 1956: 362].

¹³³ As G. BANTI (p.c. on 2 March 2021) kindly informed me, the Somali-Italian dictionary has only *yusur*, quoted in R.C. ABRAHAM’s (1964) dictionary, as possibly related to *haybe* ‘glossy black complexion’: (m) ‘1. colore nero lucido della pelle, 2. pianta dal cui legno scuro si ricavano perle per il rosario’. FARAH and HECK (1993) apparently missed it.

¹³⁴ His daring theory was, however, solely based on his ill-founded Niger-Kordofanian etymology of Eg. *hbnj* (above): “...nous devons [...] supposer que des locuteurs d'une langue de ce phylum se trouvaient il y a quelque 5000 ans dans une région en contact avec l'Egypte. [...] Sur le plan historique, [...] il a été démontré que le foyer de l'expansion bantu se trouve sur la côte Ouest de l'Afrique, et donc qu'il faut rajouter à la date de dispersion quelques siècles au moins pour que des locuteurs de langues bantu aient pu se trouver dans une région géographiquement susceptible d'avoir été en contact avec l'Egypte. Par contre, les langues de la branche primaire kordofanienne du phylum Niger-Kordofan, dont l'ancienneté les rend tout à fait susceptibles de correspondre à la profondeur temporelle de l'emprunt égyptien, sont actuellement parlées dans le sud du Soudan actuel, et répondent donc également aux impératifs géographiques de l'emprunt”.

¹³⁵ BANCEL (*loc. cit.*): “Il découle de ceci une conséquence tout à fait importante. La forte présomption qu'à cette époque, des locuteurs d'une langue de ce phylum aient pu se trouver dans

12.2. The phonologically regular Egypto-Central Chadic dendronym is both in form and semantics a logical derivative of SAA * \sqrt{hbn} ‘dark’ akin to Twareg * \sqrt{h}_2bny ‘black’, which proves its native origin perfectly beyond any doubt, i.e., Eg.-CCh. *haban (?) ultimately rooted in the Common Afro-Asiatic (ca. 10th, but prior to the 8th mill. BC) ancestral colour terminology. Whether the CAA root has anything to do with P. BANCEL’s (1989) PBantu *(ki)-pind-V ‘black’ is to be easily answered regarding a whole series of obstacles elucidated above: (1) a several millennia older native CAA (Levant) root, whose anachronism is *eo ipso* clear, could hardly have been borrowed from the Bantu stem (2) with, by the way, an anomalous first consonant (\neq CAA *h-) and *-nd- (\neq CAA *-n-), (3) let alone that the semantic motivation for borrowing a colour name in place of the attested native one would be incomprehensible.

12.3. In my parallel paper on the etymology of Eg. qmj.t > Greek κόμη ‘gum’¹³⁶ (cf. its §12) forthcoming in the next volume of “Eos”, I have outlined the linguistic and possible archaeological background of how the Egypto-Chadic isogloss for ‘gum’ may be set in the context of the supposed areal cohabitation of the Egyptian and Chadic ancestral communities projected into the mid-Holocene East Saharan savannah zone. However attractive may a cultural loaning *a priori* appear for Eg. hbnj from some other language family, the lack of a convincing foreign source makes an impression that some cultural exchange cannot necessarily be relevant in this case. Moreover, the Central Chadic match (§9.1) and the Cushomotic cognates (§11.1) convince us that there can be no talk about such an extra-Afro-Asiatic scenario whatsoever here. From the evidence in §§9–11, it is seems likely that our dendronym may and could only have been “invented” by the proto-Egypto-Chadic community from their native (i.e., SAA) root stock when they got acquainted with the ebony tree without borrowing a local foreign name, but it may perhaps be better to suggest instead a temporary (?) extension of their habitat to some tropical zone or even *vice versa*. But this daring line of thoughts has to be stopped at this point as it would lead us to assuming the savannah-dweller proto-Egypto-Chadians to have explored the closer

les parages de l’actuel Soudan, laisse à penser que cette région pourrait bien être le berceau de la famille toute entière. Dans cette hypothèse, les branches primaires Niger-Congo et Mande résulteraient de migrations vers l’ouest à partir de ce foyer original. Cette théorie, basée sur un rapprochement lexical indirect, paraîtra certainement risquée. Il est certain que l’identification de cognats de *-pind- dans des langues kordofaniennes actuelles (auxquelles nous n’avons pas eu accès pour la rédaction de ce travail) la renforcerait considérablement. [...] il n’est pas exclu qu’elle puisse être invalidée par la découverte d’une racine d’une autre famille linguistique qui se prêterait aussi bien à l’emprunt égyptien. La famille Nilo-Sahara pourrait éventuellement être ici en cause, voire la famille Khoisane que l’on soupçonne d’avoir occupé dans des temps reculés une aire bien plus vaste que celle qui lui est aujourd’hui dévolue en Afrique australe”.

¹³⁶ Entitled *Greek κόμη: Its Ultimate Origin and Implications on the Afro-Asiatic Prehistory*.

tropical parts by themselves¹³⁷. Therefore, these investigations are only to be pursued further by using the expertise of palaeobotanists.

13. CONCLUSIONS

Our goal was to present and critically evaluate all available facts and theories relevant to the origin of Eg. hbnj ‘ebony’, rather puzzling until now. Doing so, we have arrived at a number of unforeseen and even unexpected new results. First of all, a brandnew strong suspicion could be formulated about its plausible Coptic (so far uncharted) reflex attested as a *hapax* in an ophthalmological unguent (§5.1) neatly agreeing with the parallel use of ebony in remedies for the pupil of the eye in pap. Ebers (§5.2) as well as in the ancient Greek (§5.3) and mediaeval Arabic medical texts (§5.4). Coptic (S) ȝBOINE (f), besides, if our rendering is correct, would corroborate the consonantal (and not *mater lectionis*, i.e., *quasi* vowel) value of the final -j of MEg. hbnj > medial -j- of Dem. hbjn (§5.6) forming *pro forma* (*sine semantics*) an astonishing *IVae infirmae* exclusive isogloss with Twareg *√h₂nby (§11.2 and §11.5). After having dealt with and ruled out the unsuccessful theories on some obscure (never specified) “Nubian” (§6) and Niger-Kordofanian (§7, also §12.2) etymologies of Eg. hbnj, a recent suspicion about the Puntite naval (?) import of *Diospyros* sp. (of Indian origin) (§8.1) compelled me to thoroughly check any possibility of its borrowing from proto-Dravidian. But here too, the outcome was completely negative (§8.2). My new theory on the cognacy of Eg. hbnj with an etymon *haban- ‘ebony tree’ [GT], abundantly attested in at least three Central Chadic language groups, is demonstrated in every detail (§9.1) along with a considerably etymological evidence adduced for the regular nature of the underlying consonantal correspondences (§10). This Egypto-Central Chadic dendronym is then set in its native Afro-Asiatic lexical root stock context as a special Egypto-Chadic innovation inherited from SAA *√hbn ‘dark’ [GT] (§11.1) akin to Twareg *√hnby ‘black (of lips, head)’ [GT], a *pro forma* astonishing *IVae infirmae* match with Eg. hbnj (§11.2). These facts examined above suggest that the name of ‘ebony’ was presumably an exclusively Egypto-Chadic innovation during their supposed East Saharan cohabitation (ca. 7th–6th mill. BC, not later) due to their contact with this tropical tree (§12.3). In a way, D.M. DIXON’s (1961: 208) purely speculative assumption on Eg. hbnj as “probably the Egyptian rendering of a vernacular name [...] a general term for a number of species probably belonging to various genera and families”, may turn out to be right in the light of our present investigation

¹³⁷ As confirmed by for me by A. ZBORAY (p.c. on 16 Jan. 2021), a leading expert of Holocene Saharan archaeology and rock-art, ebony tree had certainly grown only in the tropical rain forests, which may have perhaps expanded in the Holocene pluvials northwards more than in the historic times, but max. up to the Kordofan, hardly further.

suggesting that the ancestors of the Egyptians had long known the term Eg.-Ch. *haban- ‘black wood’ since the time of their areal community with the Proto-Chadians, which the descendants settled in the neolithic Nile Valley labelled diverse species varying according to diverse historical conditions.

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ABBREVIATION OF LANGUAGE NAMES

AA: Afro-Asiatic (Semitic-Hamitic); **Akk.:** Akkadian; **Ar.:** Arabic, Aramaic; **Ass.:** Assyrian; **(B):** Bohairic; **Bab.:** Babylonian; **Brb.:** Berber, C: Common; **CAA:** Common Afro-Asiatic; **Ch.:** Chadic; **Cpt.:** Coptic; **Cu.:** Cushitic; **E:** East; **Eg.:** Egyptian; **GR:** Greek (Ptolemaic) and Roman period; **Hbr.:** Hebrew; **L:** Late or Lowland; **LECu.:** Lowland East Cushitic; **LP:** Late Period; **M:** Middle; **Med.:** ancient Egyptian medical texts; **MK:** Middle Kingdom; **N:** New/o- or North; **NK:** New Kingdom; **O:** Old; **OK:** Old Kingdom; **Om.:** Omotic; **NOm.:** North Omotic; **OT:** Old Testament; **P:** Proto-; **S:** South; **(S):** Sahidic; **Sem.:** Semitic; **SOM.:** South Omotic; **Syr.:** Syriac; **W:** West; **WCh.:** West Chadic; **XVIII:** 18th dynasty; **XIX:** 19th dynasty.

ABBREVIATIONS FOR AUTHOR NAMES

AMS: AMBORN, MINKER, SASSE; **BK:** BIBERSTEIN KAZIMIRSKI; **DLG.:** DOLGOPOL'SKII; **DM:** DJIBRINE, MONTGOLFIER; **EEN:** EHRET, ELDERKIN, NURSE; **GB:** GESENIUS, BUHL; **GI:** GAMKRELIDZE, IVANOV; **GT:** (Gábor) TAKÁCS; **JA:** JUNGRAITHMAYR, ADAMS; **JI:** JUNGRAITHMAYR, IBRISZIMOW; **JNG.:** JUNGRAITHMAYR; **JS:** JUNGRAITHMAYR, SHIMZU; **KB:** KOEHLER, BAUMGARTNER; **KM:** KIESSLING, MOUS; **NM:** NEWMAN, MA; **OS:** OREL, STOLBOVA; **PAM:** PRASSE, ALOJALY, MOHAMED; **PRH.:** PORHOMOVSKIJ.

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