Progress in Mubi studies

Review article of Herrmann Jungraithmayr, La langue mubi / Kaan gi monjul

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Abstract

Review article of Herrmann Jungraithmayr, La langue mubi / Kaan gi monjul (République du Tchad): Précis de Grammaire – Textes – Lexique (Sprache und Oralität in Afrika 27), Berlin: Reimer 2013, 226 pages (+ one map on a loose sheet), ISBN 978-3496028529, € 69.00

1. Progress in Mubi Studies - Review article of Herrmann Jungraithmayr, La langue mubi / Kaan gi monjul

§1   Mubi is one of the 40 or so languages of the Eastern branch of Chadic (and thus a member of the Afroasiatic stock), most of which have been very little researched. It is the native language of approximately 40.000 people[1] around and to the North of the town of Mangalmé (*Mìngálmè* in Mubi) in about the centre of the Republic of Chad. While Mubi is under some pressure by Chadian Arabic, the dominating language of the region, it is still passed on to children and not threatened by extinction in the near future.[2] The eminent Chadicist Herrmann Jungraithmayr conducted fieldwork on the language during the 1970ies and has been referring to Mubi data in numerous of his articles since that time. He has now assembled all his knowledge about the language, almost all of which goes back to that fieldwork period, in the present monograph. While Jungraithmayr is aware of imperfections that still remain, he saw no prospects that he would, at his advanced age, be able himself to perform another verification in the field (p.17). About simultaneously with the appearance of the monograph, he also published a shorter sketch of Mubi grammar in English

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1   Jungraithmayr (2012: 327).
2   Mbernodji & Johnson (2006: 9f.).

(Jungraithmayr 2012:327-342).

§2   The only research on Mubi prior to Jungraithmayr's was carried out by Lukas and evaluated in a short sketch (Lukas 1937: 155-191), compared to which Jungraithmayr's monograph marks a great step forward. In addition, two other studies on the language have recently appeared, too recently to have been considered by Jungraithmayr. These are a Master of Arts thesis on the Mubi verbal system by Prickett (2012) as well as a paper by Mbernodji & Johnson (2006) which contains mainly sociolinguistic information but also a 227 item word list (pp.23-28, no tone marks). This word list is reproduced in almost identical form in Marti et al. (2007:43-49). Furthermore, a 100 item word list of a language called 'Minjile' was published in Doornbos & Bender (1983:76-78). This is just the same language as Mubi, but under a name based on the ethnic self-designation of its speakers which, according to Jungraithmayr p.19, is *Mínjílò* masc. sg., *Mínjílè* fem. sg., *Mónjúl* pl. Finally, one may note as another source the list of Mubi numerals on http://lingweb.eva.mpg.de/numeral/Mubi.htm which have been collected by Emma Kuipers.[3]

§3   Jungraithmayr's book is now the most comprehensive reference on the language. But the independent sources on Mubi are, of course, highly welcome and will also be considered in this review. In a number of cases, the studies by Prickett and even Lukas can help to clarify some questions that are left open in Jungraithmayr's description.

§4   One may also want to adduce publications on related languages for comparison. The closest relatives of Mubi seem to be three languages on which we have very limited documentation: Kajakse (spoken to the East of the Mubi area; word lists by Alio 2004:229-248, Doornbos & Bender 1983:76-78 and Marti et al. 2007:43-49), Masmadje (to the North of the Mubi area; word lists by Alio 2004:278-285 and Marti et al. 2007:43-49), and Zirenkel (at some distance to the South-West; word list by Mbernodji & Johnson 2006:23-28). Some of the more distant relatives are known a lot better, such as Migama (grammar sketch and dictionary by Jungraithmayr & Adams 1992) and Dangla (well researched by several scholars, e.g. Ebobissé 1979, Fédry 1971, Shay 1999).

§5   Mubi is a language in which the typical Afroasiatic 'root and pattern' morphology has been preserved better than in most Chadic languages. This is particularly evident in the verbal system, where the lexeme is defined almost exclusively by its root consonants, whereas vowels and tones are inserted according to the morphological category. This verbal apophony is the main reason why Jungraithmayr has been characterizing Mubi as the most archaic Chadic language, or one of the most archaic languages, in several of his articles (e.g. Jungraithmayr 1978a, 1989).[4]

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3   'Language name and location: Mubi, Chad', http://lingweb.eva.mpg.de/numeral/Mubi.htm , on: Numeral Systems of the World's Languages, by Eugene Chan, http://lingweb.eva.mpg.de/numeral/ .
      Kuipers is also cited as the author of an unpublished paper 'Une brève esquisse phonologique de la langue Mubi' which I have not seen.

4   It has been questioned whether Mubi verbal morphology should really be described in terms of apophony or whether some other analysis is appropriate (Newman 1977; Wolff 1988). I do not want to enter into that discussion here, which has been complicated by conflicting definitions of 'apophony', as also by a confusion of synchronic and

§6 Jungraithmayr's monograph is organized in a traditional way. It starts with a short section on phonology (7 pages), followed by 72 pages of morphology, which makes up the bulk of the book, 25 pages of texts with interlinear glosses and translations, as well as a glossary. There is also a list of 136 Mubi place names (p.19-21). Syntax receives no separate treatment.

§7 The plosives of Mubi contrast four phonation types at the beginning of a word: voiceless, voiced, glottalized (presumably implosive, but Jungraithmayr does not elaborate on this) and prenasalized, e.g. for the dentals: *t, d, ɗ, nd*. The palatal series is transcribed by Jungraithmayr as *c, j, dy, nj* (as well as *ny* for the nasal). Others, such as Prickett (2012) and myself in this review, prefer the notations ʃ and ɲ over *dy* and *ny* in order to emphasize their character as unit phonemes. Word-internally, the voiced/voiceless contrast is largely neutralized: We usually find the voiced plosive between vowels and the voiceless one elsewhere. This neutralization is not mentioned by Jungraithmayr but becomes quite evident from his data as also from Prickett's (2012:14f. and 102) explicit statement. Admittedly, this is not a hard and fast rule, but some exceptions can be observed.[5] At the end of a word, all plosives coincide into a single, namely the voiceless one (Jungraithmayr pp.26 and 72). A systematic gap known from many other Chadic languages is also found in Mubi, namely the lack of a glottalized velar. But *-ɠɠ-* is recorded as an assimilation product: *sáɠ-ɠò* 'did not come' < **sák ɗò* (p.100).

§8 Mubi, like many East Chadic languages, has a classic five-vowel inventory (*a, e, i, o, u*) including an opposition of short and long vowels. It seems evident from several morphonological alternations that long vowels in closed syllables were shortened at some point in the history of the language, cf. *sùmàam-í* 'my ear' – *sùmàm-jí* 'your.FEM ear' (p.59); *lúnjóòc* 'friends' – *lúnjót-tá* 'your.MASC friends' (p.186); *ìsìi-jí* 'you.FEM alone' – *ìsí-t* 'he alone' (p.62); *màad-é* 'die.INF' – *mǎt* 'die.PERF' (from **màát*) (p.81).[6] Verbs of the class C_1iiC_2- (e.g. *wíig-í* 'support.INF') shorten their stem vowel when C_2 is a sonorant, after which, by another sound law, the final vowel is dropped (*wín* 'open.INF', from **wíin < *wíin-í*) (p.72f.). The same mechanism produces alternations also in the imperative: *wées-únù* 'spin!, IMPV. PL.', but *wél-nù* 'stir!, IMPV. PL.' (< **wéel-nù < *wéel-únù*) (p.99).

§9 Jungraithmayr mentions this law of shortening in several places (pp.71, 73, 79, 81, 99). Nevertheless, long vowels are not entirely absent from closed syllables. They appear in Arabic loans (*yòom* 'day'), in a few other words for which specific explanations are available (e.g. *úùm* 'bee,

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diachronic explanations.

5 Mainly in loans from Arabic but also in a few other items such as *ìjjím* 'thorn', p.35. In this particular word, *-jj-* might be a recent development from a nasal cluster as is suggested by *ìnjámó* 'thorn' in the related language Birgit (Jungraithmayr 2004: 354).

6 Based on the meagre evidence that was available at that time, Frajzyngier (1982: 135) proposed the opposite development for Mubi, namely a vowel lengthening rule.

honey'[7], *dèén* 'big.FEM.SG'[8]), and in particular in two large groups of words, nominal plurals on the one hand and imperfective stems of verbs on the other. These long vowels must either have come into existence after the shortening law had ceased to operate, or have been preserved by some kind of analogy.[9] In view of this anomaly, some doubts might be raised concerning the reality of the long vowels in imperfective verbs. This is particularly so as Pritchett (2012: 43) states that he was unable to clearly perceive the long vowels of the imperfect forms that he had seen in Jungraithmayr's articles during his own fieldwork. On the other hand, the long vowels in the imperfect are by and large confirmed by Lukas (1937). I therefore believe that Jungraithmayr's notations are authentic.

§10　Not only in the imperfect of verbs, but in many more terms does Jungraithmayr note a long vowel where Prickett provides a short one, e.g.:

	Jungraithmayr	Prickett 2012)
'breast'	*fáabó (p.70)*	*fábò (p.13)*
'fear.PERF'	*ɓáàgà (p.163)*	*ɓaga (p.117)*
'finger'	*féerí (p.171)*	*férì (p.29)*
'hand'	*fòósó (p.172)*	*fósó (p.29)*
'neck'	*wíirì (p.202)*	*wìrì (p.24)*
'outside'	*fàará (p.170)*	*fárá (p.24)*
'root'	*càaró (p.33)*	*cáró (p.13)*
'word'	*káan (p.182)*	*kàn (p.13)*

§11　Independent confirmation of Jungraithmayr's long vowels can be found for several of these items (*fábó* 'breast' Lukas 1937:181; *ba:ga* 'to fear' Mbernodji & Johnson 2006:26; *férí* 'finger' Lukas 1937:181; *tʃa:ro* 'root' Mbernodji & Johnson 2006:24), so that I am inclined to prefer them over Prickett's notations.

§12　Like several other East Chadic languages, Mubi shows a tendency towards vowel harmony. Jungraithmayr states that 'les voyelles hautes (*i* et *u*) et les voyelles basses (*e, o, a*) s'excluent mutuellement' (p.47, cf. also pp.44, 89). This does explain certain alternations such as the allomorph selection of the infinitive marker (*-e* after *a, e, o ~ -i* after *i, u*) but cannot be maintained as a general law. No straightforward system of vowel harmony is applicable to the entire Mubi data, and it appears to me that an elucidation of the underlying rules would require more diachronic research, or in other words, that a more transparent system which may have been valid in the past was obscured by subsequent sound changes. Consider verbs of the root type *CeCeC*, which typically form their

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7　The cognate *awmì* 'honey' from closely related Kajakse (Alio 2004: 239) makes it likely that *uu-* is a recent development from **aw-*.

8　While written as a single word by Jungraithmayr p.175 and also by Prickett (2012: 30), this is in fact a contraction of two elements, the first one being the feminine attributive linker *dì* described on p.38.

9　A reason for the preservation by analogy might be that these forms often combine with suffixes (imperfect verbs with subject or object pronominals, plural nouns with possessives), which open the syllable.

imperfect stem on the model *CiCeeC* irrespectively of the root consonants (*lèwès-é* 'to mix', IMPERF. *lìwées*), and verbs of the root type *CaCaC*, which form an imperfective stem *CiCaaC* (*gàràg-é* 'to divide', IMPERF. *gìráak*). The latter form with *a* and *i* co-occuring in one word contradicts the above mentioned ideas about vowel harmony. But one notices that -*i*- in the imperfect of *CaCaC*-verbs, in contrast to that of *CeCeC*-verbs, is instable in the sense that the form changes to *CuCaaC* whenever the second consonant is a labial (*gàmàs-é* 'to laugh', IMPERF. *gùmáas*). This suggests to me that the *i*-vowels of the patterns *CiCeeC* and *CiCaaC* were not originally the same. Rather, I hypothesize that the stable *i* of *CiCeeC* is a genuine *i*, whereas the first vowel of *CiCaaC* might derive from a different vowel, possibly *ə.

§13   Like all other known Chadic languages, Mubi is a tone language. Jungraithmayr basically assumes a two-way contrast between high and low tone (*á, à*) but accepts also instances of mid tones (*ā*) as well as rising (*ǎ*) and falling (*â*) contour tones. He recorded mid tones only at the end of a word, for the most part when the preceding syllable has a high tone, and their phonological status remains questionable. While the existence of the rising tone appears to be well-founded, I will argue below that the falling tone can be dispensed with altogether.

§14   The best examples of tone contrasts are found in the nominal system, such as *sìn* 'foot' – *sín* 'brother', *sìnjí* 'your.FEM.SG brother' – *sínjí* 'her brother' (p.58), *fágé* 'bitch' – *fàgè* 'dogs', *lìísí* 'tongue' – *lìisí* 'my tongue' (p.54).[10] Another case in point is *kídí* 'earth, ground' – *kìdí* 'on the ground' (pp.101 and 183). This appears to be a petrified remnant of tonal case marking, a phenomenon not unknown from other Chadic languages. We may point to Mushere, a West Chadic language, whose tonal cases were studied by Jungraithmayr himself (Jungraithmayr 2005b), or to the more closely related language Dangla, in which the genitive-locative case of nouns may be characterized by tone changes (Fédry 1969:12f.; Shay 1999:102).

§15   When we compare the word forms provided by the three major sources available for Mubi today, which are Jungraithmayr's book under study, Prickett (2012) and Lukas (1937), tone is the field in which they differ most. Tone notations more often differ than agree between Jungraithmayr and Prickett. But I am confident that Jungraithmayr's tones are on the whole trustworthy. I believe so because they appear to be very systematic, even in areas where Jungraithmayr himself did not recognize the system, as will be demonstrated below. Note also that Prickett (2012:29) admits that he did not carry out a detailed analysis of the tone system.

Although Lukas's notations are somewhat rough, they tend to support Jungraithmayr as against Prickett with regard to tone. Only rarely do I find the inverse case that Lukas and Prickett agree against Jungraithmayr. One such item is 'blood', for which Jungraithmayr p.192 gives *òbòr*, whereas both Lukas (1937:184) and Prickett (2012:26) have *óbòr*.[11]

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10   Several more contrasting pairs are given by Jungraithmayr p.29.

11   H. Jungraithmayr confirms to me that he indeed recorded *òbòr* and this is not a misprint. The closely related

§16   While the sources often differ with regard to tone and vowel quantity, there is an almost total agreement between Jungraithmayr and Prickett concerning the segmental phonemes. It is worth mentioning that the glottalized plosives and the distinction between the five vowels must have been heard very well by both researchers, which cannot be said for all recent studies of Chadic languages (neither for Lukas's old sketch of Mubi).

§17   As is true of many Chadic or, more generally, Afroasiatic languages, each Mubi noun belongs to one of two grammatical genders (MASC., FEM.), which may or may not be formally marked by characteristic terminal vowels. There are complex means of plural formation, which typically involve internal vowel apophony (in fact more frequently than in any other known Chadic language) but also tone changes. Jungraithmayr summarizes the major apophonic alternations but does not attempt to provide an exhaustive description of each individual plural pattern. In particular, the tone changes are little discussed. They are admittedly quite complex but, of course, not without regularities. Jungraithmayr's glossary provides enough data to enable us to suggest a number of rules. For example, one common plural pattern of Mubi is $C_1ooC_2úC_2$ or $C_1ooC_2àC_2$, in which the last consonant is reduplicated, the tone of the reduplication syllable is determined by its vowel, while the first syllable appears to take over the tone of the corresponding singular form. Some SG./PL.-pairs of this kind are, with *-CúC*:

	singular	plural
'breast'	*fáabó*	*fóobúp*
'heart'	*gàk*	*gòogúk*
'hand'	*fòósó*	*fòosús* (possibly simplified from *fòósús)

And with *-CàC*:

	singular	plural
'sandal'	*ndúurì*	*ndóoràr*
'kidney'	*bùk*	*bòogàk*
'thigh'	*fùúdí*	*fòodàt*

§18   While these plural forms can be considered as being derived from the singular, the inverse case also occurs in which a singular noun, perhaps more properly termed singulative, is derived from a plural stem, perhaps more properly termed collective. This pattern is well-known from several other Afroasiatic, in particular Semitic and Cushitic languages, and may therefore reflect an old inheritance. I find as one typical pattern that the collective stem has low tone throughout, whereas a singulative is derived from it by a suffix *-o*. As regards tone, the singulative suffix either

language Kajakse has *àbàr* 'blood' according to Alio (2004: 233). Although the tone correspondences between the various East Chadic languages still need to be worked out, this would seem to support Jungraithmayr's notation.

has high tone: 'camel' SG. *lògòm-ó* – PL. *lògòm*, 'fish' *bògòs-ó* – *bògòs*, 'fly' *dùw-ó* – *dùw*, 'tree' *àdíy-ó* – *àdè*[12], or the suffix itself has low tone but imposes a high tone on the preceding syllable(s): 'hoe' *bórl-ò* – *bùròl*, 'leaf' *ɓéríy-ò* – *ɓèrè*, 'rabbit' *hòmbúr-ò* – *hòmbùr*, 'twin' *máaŋ-ò* – *màaŋ*.

§19   I noticed another tone regularity concerning the suffix *-i* which, alongside with *-e*, is one of the two characteristic terminal vowels of feminine nouns. When the preceding syllable has a low tone, the suffix almost always receives high tone: *bìrk-í* 'gazelle (sp.)', *kèww-í* 'fire', *rùum-í* 'girl' etc.[13] When a rising tone precedes, the suffix again has high tone: *dǔrs-í* 'tomb', *fǔúd-í* 'thigh', *lìís-í* 'tongue'. In the few cases where a long vowel with a falling tone precedes, the suffix has low tone: *ìmbéèl-ì* 'ashes', *tìgéèl-ì* 'calabash gourd'. When a high tone precedes, the suffix may have either high or low tone, and also some instances of mid tone are recorded in this situation: *éy-í* 'aunt', *ílg-í* 'year', *sìréeb-í* 'side'; *íríin-ì* 'eye', *gérn-ì* 'duck', *wèegír-ì* 'goat'; *bóor-ī* 'hyena', *díngír-ī* 'branch', *íŋéew-ī* 'tail'. It is also noticeable that the stem of such nouns for the most part contains the palatal vowels *e* or *i*, more rarely *o* or *u*, and never *a*, which is doubtlessly due to the still little-known vowel harmony rules of the language.

§20   As in most Chadic languages, Mubi nouns take possessive suffixes. But Mubi is special in that it possesses two series of them, which are distinguished most clearly in the 1st person singular (*-í* and *-jò* respectively). The selection of either series is lexicalized for a given noun. The 2nd pers. SG. MASC. suffix is given by Jungraithmayr as *-dá* for the *-í*-series and as *-dàgà* for the *-jò*-series (p.55). I believe that the difference in tone is more essential here than the presence or absence of *-ga*, which seems to be optional in either case: The noun *lì* 'thing', which combines with the *-í*-series, forms both *lìí-dá* (p.59) and *lìi-dágà* (p.137) 'your thing'. Similarly, the noun *hàt* 'belly', which combines with the *-jò*-series, forms both *hàt-tà* and *hàt-tàgà* (p.59).

§21   Jungraithmayr was unable to discover a rule for selecting the appropriate series. He says (p.57), as already did Lukas (1937: 165), that noun gender is not the decisive factor.[14] I argue, however, that the selection of the allomorph is almost totally predictable when we consider the combination of noun gender and tone. Based on the combined evidence of Jungraithmayr's grammar, his glossary, his texts, and Lukas (1937), I suggest that the following rules ought to be added to Jungraithmayr's presentation of the possessive suffix morphology:

§22   I start with nouns whose last stem syllable has high (or rising) tone. In this case, the possessive suffix is invariably chosen from the *-í*-series, regardless of gender, and the tone of the stem is usually changed to low: *mègír* MASC. 'uncle' – *mègìr-í* 'my uncle' (p.188), *káan* MASC. 'speech' – *kàan-í* 'my speech' (p.62), *cùllúm* FEM. 'beard' – *cùllùm-í* 'my beard' (p.94), *sámmám* PL. 'ears' – *sàmmàm-í* 'my ears' (p.59).

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12   I assume that *àdíyó* derives from **àdè+ó*.
13   The only exception is *jùlòol-ì* 'lance'.
14   Cf. also Jungraithmayr (2012: 334): "*Any criteria for a noun to choose set I or set II have not yet been identified*".

§23   When the noun ends in one of the terminal vowels that indicate gender (p.32 and discussion above), the possessive suffix attaches directly to the stem, replacing the terminal vowel. In this case, the possessive allomorph is not determined by the tone of the terminal vowel but of the last stem syllable. Consequently, when the last stem syllable has high tone, we find the -*í*-series, and the stem receives low tone: *síŋáaŋ-ò* MASC. 'tooth' – *sìŋàaŋ-í* 'my tooth' (p.61), *súmáam-ò* MASC. 'ear' – *sùmàam-í* 'my ear' (p.59), *fòós-ó* MASC. 'hand' – *fòos-í* 'my hand' (p.198, translated as 'my hands')[15], *tángál-ā* MASC. 'bull' – *tàngàl-í* 'my bull' (p.113), *kěmkám-ā* MASC. 'cowry' – *kèmkèm-í* 'my cowry' (p.183), *lèesíy-è* FEM. 'bride' – *lèesìy-í* 'my bride' (p.186).

§24   When the terminal vowel happens to be -*i*, which is frequent with nouns of feminine gender, the distinction against the form with a 1st pers. SG. suffix rests exclusively on tone:

éy-í FEM. 'aunt'	*èy-í* 'my aunt' (p.58)
lìís-í FEM. 'tongue'	*lìis-í* 'my tongue' (p.54)
kùúg-í FEM. 'armpit'	*kùug-í* 'my armpit' (p.185)
gùúm-í FEM. 'cheek' (p.176)	*gùum-í* 'my cheek' (Prickett 2012: 29, who writes *gùmî*)
wíir-ì FEM. 'neck' (p.202)	*wìir-í* 'my neck' (Lukas 1937: 165, who writes *wɪ̀rɪ́*)
fírs-í FEM. 'mare' (p.172)	*fìrs-í* 'my mare' (Lukas 1937: 167, who writes *fìrsɪ́*)
àkúy-ì 'fellow' MASC.	*àkùy-í* 'my fellow' (p.159)

§25   After a vowel or *n*, the suffix -*í* looses its syllabic character and its high tone is transferred to the preceding syllable, which is best seen in *àràn* PL. 'eyes' – *èríɲ* (< *àràn-î*) 'my eyes' (p.60). This also accounts for examples such as *sín* 'brother' – *síɲ* (< *sìn-î*) 'my brother' (p.58), *hǐn* 'mother' – *hǐɲ* 'my mother' (p.57), *bé-y* (< *bè-î*) 'my father' (p.161)[16], *wìyá* MASC. 'field' – *wìyé-y* (< *wìyà-î*) 'my field' (p.137), *mílá* MASC. 'well of water' – *mìlé-y* 'my well' (Lukas 1937: 166, he writes *mèléi̯*). I have seen a few more examples in which the expected low tone on the stem is absent for which I cannot offer any explanation, such as *ró* 'husband' – *róy-í* 'my husband' (p.58), *lánj-á* 'friend' – *lánj-í* 'my friend' (p.57) and *ʃáak-* 'with' – *ʃáak-í* 'with me' (p.169). A somewhat unclear case is *ídáan-ō* 'nose', whose possessive form 'my nose' was recorded by Jungraithmayr as both *ídáan-í* (no tone change, p.58 and 179) and *ìdàan-í* (with tone change, p.60).[17]

§26   Let me now proceed to stems that bear low tone. As a rule, their tone remains unchanged before possessive suffixes. Most of the nouns with low tone lack a terminal vowel, and they will be considered first. With these nouns, the choice of the possessive allomorph appears to strongly depend on gender and number. When the noun is masculine, a possessive suffix of the -*jò*-series is

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15   But *fóos-í* is given on p.96, which I have to consider as imprecise. The low tone is confirmed by Lukas (1937:165): *ɸòsɪ́* 'meine Hand'.

16   But the form is given as *báyí* on p.57.

17   H. Jungraithmayr informs me that these forms were taken from two different speakers, but he considers *ídáan-í* as more reliable. This is also the form given by Lukas (1937:166).

usually chosen: *bàŋ* 'mouth' – *bàn-jò* 'my mouth' (p.61), *sìn* 'foot' – *sìn-jò* 'my foot' (p.57), *hàt* 'belly' – *hàc-cò* 'my belly' (p.59), *gòl* 'shoulder' – *gòl-jò* 'my shoulder' (p.175), *gìn* 'face' – *gìn-jò* 'my face' (p.201), *gìr* 'house' – *gìr-jò* 'my house' (p.58), *jìc* 'body' – *jìc-cò* 'my body' (p.58), *kòrkòr* 'elbow' (p.184) – **kòrkòr-jò* 'my elbow' (Lukas 1937:166, he writes *kórkòr-jò*). I found one counter-example, namely *lì* MASC. 'thing' – *lì-í* 'my thing' (p.59).

§27   By contrast, feminine and plural nouns invariably select the *-í*-series: *lùk* FEM. 'wife' – *lùgw-í* 'my wife' (p.139), *kì* FEM. 'cow' – *kì-í* 'my cow' (p.62), *hâr* FEM. 'back' (Lukas 1937:182) – *hàar-í* 'my back' (Lukas 1937:166, he writes *hə̀rí*)[18], *là* PL. 'things' – *là-í* 'my things' (p.187), *gàabàp* PL. 'knees' – *gàabàb-í* 'my knees' (p.174), *lúnjóòc* PL. 'friends' – *lúnjóòj-í* 'my friends' (p.57), *wàagàr* PL. 'goats' – *wàagàr-í* 'my goats' (p.153), *màttàk* MASC. / FEM. / PL. 'great-grandfather(s)' – *màttàg-í* 'my great-grandfather(s)' (p.188). A somewhat special case seems to be *rìww-í* FEM. 'song' – *rìww-íi* 'my song' (p.137, where I would again have expected just *rìww-î*).

§28   I have found possessive forms of five nouns that have both a low tone stem and a terminal vowel. They appear to behave in the same way. Masculine nouns prefer *-jò*: *kòrl-ò* MASC. 'heart' – *kòrl-ì-jò* 'my heart' (Lukas 1937: 166), *tòg-ò* MASC. 'skin' – *tog-o-jo* 'my skin' (tones undocumented, Lukas 1937: 166) (both these nouns insert an epenthetic vowel between stem and suffix), an exception being *ɲàmb-á* MASC. 'namesake' – *ɲàmb-í* 'my namesake' (p.62). Feminines and plurals select *-í*: *sàm-è* FEM. 'name' – *sàm-í* 'my name' (p.60), *sàn-è* PL. 'feet' – *sàn-í* 'my feet' (p.196).

§29   The details of epenthetic vowels would require further study, but I find that if the root ends in a labial obstruent, an epenthetic vowel is regularly inserted before consonantal suffixes in order to avoid clusters that would be inacceptable in the language. This applies to both the *-í-* and the *-jò*-series: *gìp* MASC. 'knee' – *gìb-ì-jò* 'my knee' (p.58, -*jò*-series), *ɲàmb-á* 'namesake' – *ɲàmb-í-dá* 'your namesake' (p.62, -*í*-series).

§30   Two high tone nouns exceptionally select *-jò*, namely *rúm-jò* 'my daughter' and *róm-jó* 'my children' (p.57). In the latter, the high tone even extends onto the suffix, which is exceptional. The MASC. equivalent *ràm-jò* 'my son', however, is as expected. Another exceptional case might be *săt* FEM. 'liver' (p.195, Lukas 1937: 185 has *sât*) – *sâc-cò* 'my liver' (Lukas 1937: 166), but it is not very clear what to expect for a stem with rising tone.

§31   The 3rd SG. MASC. suffix of the *-í*-series is usually *-át*, but we sometimes find a zero suffix after nouns terminating in *-n*, e.g. *sín* 'brother; his brother' (p.58). I hypothesize that a vowel elision and subsequent cluster simplification took place here: **sínát > *sínt > sín*.[19] But *-át* can be restituted by analogy as in *íríinì* 'eye', *ìrín ~ ìrìnát* 'his eye' (p.60). The secondary nature of *ìrìnát* is proven

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18   Lukas distinguishes between *hâr* FEM. 'Rücken' and *hàr* MASC. 'Hinterseite', whereas Jungraithmayr p.177 only knows *hàr* MASC. 'dos'.

19   Another piece of evidence for this simplification rule comes from the 2nd pers. PL. subject suffix of series II, which is *-gún* instead of the expected **-gún-t* (p.45).

by its short medial vowel, which must have been subjected to the vowel shortening rule in closed syllables (see above) that could only have applied to the form lacking the *-a-*: **iriin-t > *iriin > ìrín* > (by analogy) *ìrìn-át.*

§32   We still need to discuss the terms for the grandparents, whose understanding is marred by inconsistencies in Jungraithmayr's presentation. He states on p.57 that the base form is *màbò*, that *màbòo-jò* means 'my grandmother' and *màb-í* 'my grandfather'. By contrast, the glossary on p.188 has *màbò* 'grandfather', *màbè* 'grandmother', *màbòojò* 'my grandfather' and *màbí* 'my grandmother'. We are lucky that enough evidence is available to resolve the ambiguity and to decide that the glossary provides the correct meanings. First, a contextual attestation on p.153 shows *màbí* as 'my grandmother' with clearly feminine grammatical agreement. Second, Lukas (1937: 166) has '*màbò-jò* 'mein Greis' as a masculine noun. These forms can now be explained as follows: The noun *màb-ò* 'grandfather' is treated in the same way as *tòg-ò* 'skin' discussed above. As a low tone masculine noun, it attaches the suffix *-jò*. The feminine equivalent *màb-è,* however, has to select the suffix *-í*, which replaces the terminal vowel.

§33   An issue that definitely needs verification is the alleged existence in Mubi, in addition to pronouns of the 1st pers. PL. inclusive and 1st pers. PL. exclusive (as encountered in most Chadic languages), of another 1st person pronoun, namely of the (inclusive) dual. Jungraithmayr claims that this category exists (p.40), but in my view he did not record convincing examples of dual forms. The examples adduced by him (p.42f.) document an opposition not between different types of 1st person pronouns but rather between the perfect and the subjunctive, a tense that otherwise receives little treatment in his book. He contrasts *tíi-ná* 'we ate.PERF' vs. *tèe-ná* 'that we eat.SUBJ' (p.42f.) and again, slightly differently transcribed but with the same meanings, *tée-ná* PERF. vs. *tèe-nā* SUBJ. (p.66). Furthermore, neither Prickett (2012) nor Lukas (1937) mention a specific dual form. The presentation concerning Mubi in Jungraithmayr (2005a:413-415) was still a slightly different one. There, he distinguished only between a dual form (= PL. inclusive of the monograph) and a plural form (= PL. exclusive of the monograph). Until more conclusive evidence will be brought up, I assume that Mubi possesses just two forms of the 1st person plural: an inclusive form, which in practice may often refer to the speaker and his addressee and then appears as if it were a dual, on the one hand, and an exclusive form on the other.

§34   I will now proceed to the verbal system which receives a particularly detailed treatment in Jungraithmayr's book. The number of morphological categories in Mubi verbs is quite low. There is only an infinitive (verbal noun, nomen actionis), a perfect, an imperfect, an imperative and (not well documented) a subjunctive stem.[20] Mubi lacks a distinct aorist stem as found in some related languages (e.g. Bidiya, Alio 1986: 300f.), secondary tenses derived by suffixes as in Migama

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20   'Subjunctive' is the usual term in Chadic linguistics, yet 'optative' would be a better label. Note also that the subjunctive paradigm given on p.66 evidently contains imperative forms in the 2nd person slots, cf. p.100.

(Jungraithmayr & Adams 1992:56f.), or pre-verbal TAM markers as familiar from many Chadic languages including Hausa. Jungraithmayr considers the Mubi system as the most original one. I find this convincing in general terms, but I feel that more research is needed before we can decide whether the aorist is an innovation of languages other than Mubi, or whether it was lost (or merged with the perfect) in Mubi.

§35   Compared with the nominal system, where the functional load of tone is significant, tone appears to be much less contrastive in the verbal system. Prickett (2012:34f.) plainly states that all verb forms have low tone throughout.[21] By contrast, Jungraithmayr notes various tones on verbs, but it becomes obvious, in part explicitly from his description and in part implicitly from his data, that tone is almost entirely predictable from the combination of morphological category and root consonants. This implies that there is no distinction of different tone classes of verbs in Mubi.[22] It remains open to me whether this is an archaism or an innovation.

§36   I will start by discussing the perfect stem. The tone rules for the imperfect stem will not be investigated here but are similar in many ways. Perfect stems essentially carry high tone: *hérít* 'to knot', *rép* 'to cook'. But, as stated by Jungraithmayr p.27, initial voiced obstruents impose a low tone on the beginning of the word: *gèrík* 'to divide', (low-high rising:) *děk* 'to carry'. The association of voiced obstruents with low tone is known from a wide variety of languages (Bradshaw 1999: 5-45; Wolff 1983). If the notations are precise on this point, some but not all instances of *w* seem to impose a low tone, too: *wěǹ* 'to open' as against *wék* 'to support'. This even seems to create a rare contrasting pair: *wǎà* 'to give birth' – *wáà* 'to call' (pp.78 and 90). The data are inconsistent for *wéc* (p.202 and also Jungraithmayr 1978a: 314) ~ *wěc* (p.79) 'to hit'. Also the lateral *l* may have a lowering effect as in *lîi* 'to do' (p.78) and some other *l*-initial verbs.[23]

§37   Then, Jungraithmayr (p.28) claims that final sonorants also impose a low tone, in a way that he transcribes falling tones in this case: *hérîn* 'to smell', *fêr* 'to stay'. Such a correlation is unknown from other languages, which casts some doubt on this rule. I will therefore suggest an alternative analysis. My first assumption is that Mubi sonorants can carry a tone on their own, so that I would change the notations from *hérîn*, *fêr* to *héríǹ*, *férˋ*.[24] In special cases where required by typography, this notation has already been employed by Jungraithmayr himself (*děǹ* 'to cook', p.73). Second, I assume that there is a general final low tone located on the right edge of Mubi perfect stems, but

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21 The only verbal form for which Prickett (p.78) acknowledges high tone is the 2nd pers. SG. imperative, such as *tégíl* 'close!'. This is corroborated by Jungraithmayr p.97f.

22 Many other Chadic languages contrast at least two tone classes, high tone and low tone verbs.

23 H. Jungraithmayr, personal communication, considers his notation of *lîi* as reliable and suggests to me the possibility that *l-* might count as a voiced obstruent, too. I propose as a possible explanation that one source of Mubi *l* is the Proto-Chadic voiced lateral fricative *ɮ (Jungraithmayr & Ibriszimov 1994, I: xxix), which is indeed an obstruent. It should be investigated in the future whether the low tone occurs specifically in those verbs whose initial *l* derives from *ɮ.

24 There are plenty of Chadic languages in which apparent composite tones are restricted to syllables closed by a sonorant, for which the same analysis could be envisaged. I cite just Gùrdùŋ (Haruna 2003: 27) as an example.

that this tone can, for phonetic reasons, only surface on sonorants, whereas no trace of the inherent low tone remains in forms such as *hérít, rép*. It should be remarked that Mubi has a class of verbs whose perfect stem ends in a vowel *-à* with consistent low tone, a fact which confirms the underlying final low tone. This class encompasses almost all verbs of Arabic origin (Baldi & Jungraithmayr 2008: 28f.) but also a few verbs that seem to be native (e.g. *éesà* 'to refuse' p.72, *séndà* 'to lift' p.81).

§38   Since this is the major context in which Jungraithmayr notes falling contour tones, I want to go one step further by proposing that there is no falling tone at all in Mubi, at least not on short vowels. Consider the following verbal paradigms with tone marks reproduced from Jungraithmayr's glossary (the three forms are infinitive – perfect – imperfect):

	Infinitive	Perfect	Imperfect
to boil	*kòlòsé*	*kúlús*	*kúlóos*
to awaken	*còból*	*cúbûl*	*cúbóòl*
to dream	*sònó*	*súnù*	*súnóò*

§39   As explained above, I would rewrite the second series as *còból – cúbûl̀ – cúbóòl̀*. The final low tone that I assume to exist in perfect stems (and also in imperfect stems) cannot surface on *-s*, but it does so on *-l*. The verb 'to dream' shares the same inflectional pattern but lacks a final consonant altogether. The low tone surfaces here by completely replacing the high tone. It does not combine with the high tone into a falling tone (**súnû*) because, as I suggest, there simply is no falling tone in Mubi. As for the long vowels, it remains a matter of theoretical preference whether to admit a falling tone on long vowels or whether to prefer a composite analysis as two short vowels in a sequence, each one having its own tone.

§40   Under this reanalysis, only a few exceptions remain where Jungraithmayr notes a falling tone on a short vowel. One of them is *célû* 'dig.PERF' (p.70). Since the root of this verb is √*clw* (INF. *càláw*), I believe that a more proper notation would be **célúẁ* with *w* as a sonorant carrying a tone. In fact, Prickett (2012: 43) writes this form as '*celuw*'.[25] Another case in point is *ébî* 'fall.PERF' (p.76), for which I tentatively suggest an analysis as **ébíỳ*, even though there is no confirmation from Prickett in this case (he writes '*ebi*', p.117). I have to make the reservation that a falling tone on short vowels is also recorded in a few Arabic borrowings where it reflects stressed long vowels of the source language, e.g. *khàlâs* 'it's finished' (p.101), *tês* 'ram' (p.199).

I will now discuss the tone of the infinitive, for which Jungraithmayr does not suggest any rules but nevertheless provides data that turn out to be very systematic. The usual suffix of the infinitive is *-é*

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25   Verbs such as 'to dig' which I, as does Jungraithmayr (p.70), would posit with *w* as the final radical form their imperfect stem in *-áà* instead of the expected **-áàw* (e.g. *cíláà* 'dig'). But according to Prickett (2012:104), the **w* of such forms reappears before the 1st person SG. subject suffix *-én*, which is a nice confirmation of the final radical.

(after *a, e, o*) ~ *-í* (after *i, u*); more rarely do we find *-á*. This suffix consistently carries high tone. The stem has either high or low tone depending on the root type. The stem is high for 'verbes à deux radicaux' (*ság-é* 'to come', *ríib-í* 'to cook'). The stem is low for 'mediae infirmae' (*màad-é* 'to die'), 'IIae geminatae' (*dòkk-á* 'to kiss'), 'pseudo-monoradicales' (*cìy-á* 'to take') and for all bisyllabic / triradical stems (*àwàd-é* 'to bite'). To these basic rules, two further specifications need to be added:

(1) As already with the perfect stems, initial voiced obstruents impose a low tone even on root types that would normally require a high tone (*bàs-é* 'to moisten', *dìig-í* 'to carry on one's head').

(2) When the last consonant is a sonorant, the suffix is dropped and its high tone moves to the preceding syllable (*càgál* 'to hide' < **càgàl-é*).

Both rules can cooccur and are then applied in this order. For 'to give' (√*br*), we thus get **bár-é* (underlying form of a 2-radical verb) > **bàr-é* (lowering by *b-*) > *bár* (tone movement). For 'to fly' (√*biir*), we get **bíir-í* > **bìir-í* > **bíir* > *bír* (vowel shortening in a closed syllable as discussed above). Nowhere in his book does Jungraithmayr try to propose formal derivations of such kind, whether they might be called generative rules or historical reconstructions. But the fact that plausible and systematic rules can be found confirms for me the precision of his tone notations.

§41   With 'verbes à deux radicaux', the surface form of the infinitive changes considerably along with the final root consonant. We thus get *ríib-í* 'to cook' for a final obstruent verb, but *bír* 'to fly' for a final sonorant verb. The vowel loss after sonorants is recorded with full consistency by Prickett (2012: 54 and 116). Jungraithmayr, however, cites verbs in which the loss and the subsequent stem shortening apply only optionally or not at all (e.g. *súul-í* ~ *súl* 'to be silent', pp.79 and 197). The longer variant is likely to be an analogical recreation.

§42   Additional rules would be required for causative derivations of verbs, for which the published material is not abundant enough. But it appears that, at least for some roots, the infinitives of the base verb and of the causative derivation are distinguished solely by tone: *ságé* 'come (INF.)' vs. *sàgé* 'bring (causative INF.)' (pp.29, 85, 95, 195).

§43   Since Prickett (2012) acknowledges neither Jungraithmayr's verbal tones nor most of his long vowels, two conjugation classes coincide in his study which Jungraithmayr keeps distinct: Jungraithmayr's verbs 'mediae infirmae' (p.80f.) such as *màadé* 'to die (INF.)' – *măt* PERF. – *mùwáat* IMPERF. and the 'verbes biradicaux' (p.73f.) such as *ságé* 'to come (INF.)' – *sák* PERF. – *súwáak* IMPERF. In Prickett (2012: 115), they appear as if they belonged to the same pattern: *made–mad–muwad*, *sage–sag–suwag*. A final confirmation would be welcome, but I assume for the time being that Jungraithmayr's distinction is a real one.

§44   While the most common infinitive suffix in Mubi is *-é* ~ *-í*, some related languages show an additional final nasal (e.g. *-ɛŋ* in Bidiya, Alio 1986: 274), which I believe to have existed in earlier stages of Mubi as well. First, the glossary contains two short irregular verbs that still have a final *-n*

in the infinitive: 'to lie down' *dán* INF. – *dàâ* PERF.[26] – *dìdáá* IMPERF., 'to know' *yán* – *yèwít* – *hìyèewít*. Second, Jungraithmayr says (pp.60 and 67) that an additional *-n* appears on the infinitive whenever it is expanded by a possessive suffix. Third, I suggest that Jungraithmayr's 'paradigme IV de la conjugaison à suffixe' (p.96f.), which he treats like a tense in its own right, is nothing else but the aforementioned combination of an infinitive and a possessive suffix: *sàgínjí gà* 'lorsqu'elle est venue' is therefore to be analyzed as *sàgé(n)* 'to come' + *jí* 'her' + *gà* (postposition) = 'at her coming' = 'when she came'.

§45 There are several series of personal pronouns in the language, among them two series attached to verbs which Jungraithmayr calls 'pronom personnel sujet préposé' and 'pronom personnel sujet suffixé' respectively (p.41f.). I will discuss the subject suffix first. When verbs combine with subject suffixes, almost all categories of verbs exhibit two stem alternants conditioned by vowel harmony, one before high vowel suffixes (such as *-gū* 'he') and another before low vowel suffixes (such as *-ánà* 'I').[27] Jungraithmayr does not systematically describe how these two alternants of suffix conjugated verbs relate to the bare verb form without suffix.[28] But enough data can be culled from the works of Jungraithmayr, Lukas and Prickett to answer this question at least for the more common verbal categories. Both logical possibilities are in fact attested: The suffixless stem is identical with the high vowel alternant in the perfect of triradical stems (*hárád-ánà* 'I knotted', *hérít-kū* 'he knotted', *hérít* 'knotted', p.88; *éwèn-nà* 'I bound', *íwín-gū* 'he bound', *íwîn* 'bound', p.90), in the perfect of monoradical stems (*tée-nà* 'I ate', *tíi-gú* 'he ate', *tîi* 'ate', p.66 and Prickett 2012:95), and in the perfect of the irregular verb *òjé* 'to buy' (*ój-ánà* 'I bought', *új-úgù* 'he bought', *úc* 'bought', Lukas 1937:170).

§46 By contrast, the suffixless stem is identical with the low vowel alternant in the perfect of all types of biradical stems (*bàs-ánà* 'I moistened', *bès-ìgū* 'he moistened', *bǎs* 'moistened', p.43; *óm-mà* 'I saw', *úm-gú* 'he saw', *ôm* 'saw', Lukas 1937: 177 and Prickett 2012: 93, 99), in the perfect of verbs that Jungraithmayr describes as IIae geminatae (*éddá-ná* 'I passed' p.43, ?*iddi-gu* 'he passed' not attested, *éddà* 'passed'), in the perfect of the irregular verb *káw* 'to say' (*káa-nà* 'I said', *kée-gú* 'he said', *káà* 'said', Lukas 1937: 170)[29], and apparently in the imperfect of all verbs (e.g. *híráad-ánà* 'I knot', *híréet-kū* 'he knots', *híráat* 'knots', p.88).

§47 A small but interesting detail should be mentioned with regard to vowel harmony in imperfect stems of triradical verbs. It was remarked above that a local assimilation changes the usual pattern *CiCaaC* to *CuCaaC* when the second radical is a labial. This *-u-* shifts back to *-i-*

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26 As I dispute the existence of a falling tone, I would rewrite this form as *dǎà*.

27 Prickett (2012:99f.) says that the imperfect of the *e-* and *o-*subclasses of triradical verbs is exempt from vowel harmony. There are no relevant examples in Jungraithmayr or Lukas to cross-check this.

28 He claims in Jungraithmayr (2005a:415) that the perfect forms with subject suffixes are not formed from the perfect stem but from the infinitive stem. This idea appears to be wrong and is not repeated in the monograph.

29 The same applies to the similar verb *bów* 'to go', perf. *báà*: Cf. *bée-gú* 'he went' cited by Jungraithmayr p.50.

when subject suffixes require the high vowel stem alternant. This rule is ignored by Jungraithmayr but clearly stated by Prickett (2012: 106) who gives the example *huwar* 'bark' – *hiwergu* 'he barks' (probably more precisely *húwáàr, híwéer-gú*), and it is also confirmed by Lukas's (1937:178) phrases: *suwagìndé* 'ich werde bringen' – *siweegit* 'er wird bringen'.[30] The same change applies to the imperfect of monoradical verbs as we learn from Jungraithmayr (2005a:414): *túwáa-nà* 'I eat', *tíwée-gú* 'he eats'.

§48   While the suffix pronoun invariably marks the subject, this is not true for Jungraithmayr's so-called 'pronom personnel sujet préposé'. As he states himself (pp.42 and 48), the pre-verbal pronouns may also refer to the (direct or indirect) object. Lukas (1937:164) found them in this function so often that he called them 'Objektspronomina'. But both terms are misnomers. Prickett (2012:85f.) is the only one to have stated the rule correctly: These pronouns refer to the object when there is a subject suffix on the verb, and to the subject when there is none. I suggest to just call them 'proclitic pronouns'.

§49   For clauses in which both the subject and the direct object are pronominal, there are three possibilities of expression. The most common pattern, abundantly attested in Jungraithmayr's data, consists of the sequence proclitic pronoun (= object) – verb – suffix pronoun (= subject), such as in *kí ʃém-mà* (< **kí ʃém-ánà*) 'you – love – I' = 'I love you' (p.170). A second pattern mentioned by Lukas (1937:164) and Prickett (2012:84), but not by Jungraithmayr, is proclitic pronoun (= subject) – verb – independent pronoun (= object). Since I do not find any examples of this in Jungraithmayr's texts, I infer that this pattern is at best marginal and might be an artifact of attempts at eliciting an expected SVO-order, or even a literal translation by the informant of expressions provided by the researcher. As a third option, one can employ a series of dedicated object suffixes on verbs. Prickett (2012:88f.) says that these only attach to verbs that already carry subject suffixes, or to imperatives. This is confirmed by Jungraithmayr's examples (pp.48-51 and 56), though he does not explicitly state this rule. While the different sources agree well on the form of most object suffixes, I find a discrepancy with regard to the 3rd person PL. suffix 'them', which is *-dúgór/dùgòr* for Jungraithmayr (p.49), *-dor* for Prickett (2012:89), and *-dúr* in the phrase *wɛ́-dúr* 'call them!' recorded by Lukas (1937:179).

§50   Finally, there is a fourth option of expressing an object, consisting of a suffix *-é* that is equivalent to a 3rd person SG. pronoun (Jungraithmayr p.51; Prickett 2012:88). This one never combines with a subject suffix. We can make the interesting observation that the inherent length of the perfect of *CiiC-*/*CuuC-*stems reappears before this suffix: *ʃêm* 'loved' but *ʃéem-é* 'loved him'; *ôm* 'saw' but *óom-é* 'saw him' (p.51). One might ask whether this lengthening also occurs when subject suffixes attach to such stems. The evidence is conflicting on this point, there being examples with

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30 Suffixes of series II discussed below. We should expect *-gut* instead of *-git*, which is rather the 3rd person SG. feminine suffix, but this imprecision is irrelevant for the present argument.

lengthening (*rép* 'cooked' – *réeb-ánà* 'I cooked' (p.95); *tók* 'chased' – *tóog-índé* 'I chased' (p.91)) but also without (*tós* 'accompanied' – *tós-ánà* 'I accompanied' (p.200); *rót* 'entered' – *ròd-àná* 'we entered' (p.43)).

§51   It may be worth mentioning in this context that the inherent length of this stem type also reappears before the participle suffix *-it,* which – with application of vowel harmony – seems to attach to the perfect stem: *măt* 'die.PERF' but *mèed-ít* (< **màad-ít*) 'dead' (p.37); *mêl* 'become heavy.PERF' but *míil-ít* 'heavy' (p.86). The same might be true for the homophonous causative suffix *-it*. But the only relevant example is confusing and appeared puzzling even to Jungraithmayr. For the verb 'to be silent' (PERF. *sôl*, IMPERF. *súllà*), he cites on p.86 the causative derivations *súllít* PERF. and *súulít* IMPERF. 'to make silent'. I tentatively suggest that both forms might have been erroneously swapped in the documentation. If *súllít* were in reality the imperfect, it could easily be derived from *súllà*, whereas *súulít* looks like being based on the inherently long perfect stem **sool-*. Generally, the functions of the *-it*-suffix(es?) require further study. Jungraithmayr (2012: 339) provides some complementary information on this point not found in the monograph.

§52   Mubi also has specific means of marking indirect objects. First, there is a variant series of subject suffixes ('paradigme II de la conjugaison à suffixe', pp.45 and 90-92) which implies the presence of an indirect object in the clause. The indirect object is then frequently expressed by a proclitic pronoun, just as what was described above as the most common pattern of expressing a pronominal direct object. The subject suffixes of series II resemble the usual subject suffixes extended by an element *-t*, e.g. *-gū* 'he', *-gút* 'he (+ dative)'. A noticeable irregularity exists for the 1st person sg., which is *-ánà* 'I' but *-ndé* 'I (+ dative)', possibly taken over from the independent pronoun which is likewise *ndé* 'I'.[31]

§53   Second, there are dedicated suffixes also for the indirect objects (pp.51-53 and 56). They show substantial differences from the direct object suffixes (e.g. *-dín/-dìn* 'me', *-dár/-dàr* 'him' for the direct object vs. *-dó* 'to me', *-dìgí* 'to him' for the indirect object), even though both series coincide in all 2nd persons. The syntax of the indirect object suffixes mirrors that of the direct object suffixes. That is, they appear only after subject suffixes (p.51) and after imperatives (not mentioned by Jungraithmayr but by Prickett 2012:90f., cf. also *bèr-dő* 'give me!' from Lukas 1937:165 and *wèe-dó* 'call to me!' from Jungraithmayr p.53[32]). Finally, indirect and direct object suffixes can be combined, in this order, as we learn from Prickett (2012:91): *ber-do-dar* 'give it to me'.

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31   Details on epenthetic vowels that intervene between stem and suffix still need to be worked out. It is worth noting that the correct form for 'I knotted (for somebody)' is *hárád-í-ndé* as given on p.90, while *hárád-á-ndé* that was cited in Jungraithmayr (1987: 57) is mistaken (H. Jungraithmayr, personal communication).

32   His French translation 'appelle-moi Abubakar!' is ambiguous as to whether 'moi' ought to be understood as a direct or as an indirect object, but H. Jungraithmayr (personal communication) informs me that the intended meaning is 'Summon Abubakar to me!'.

Data are scarce on how to express a nominal indirect object, but one option seems to be to use the 'paradigme II' of subject suffixes together with a noun marked by a preposition: *jóról á bóorī ík-kút* 'fox to hyena say-he+dative' = 'Fox said to Hyena' (p.121).

§54   Alongside with the subject suffixes with implied indirect object, Jungraithmayr assumes another series ('paradigme III de la conjugaison à suffixe', pp.45-47 and 92-96) whose forms are almost identical but for the 1st person sg. which goes *-én* instead of *-ndé* of series II. The function of these series III suffixes still requires further study. According to Jungraithmayr, they tend to imply a causative reading of the verb rather than an indirect object. Prickett (2012:104f.), too, encountered the suffix *-en* without having been able to explain its function.

§55   Let me return to verbal morphology proper. A highly irregular verb is the verb for 'to say', whose morphology is described only insufficiently in Jungraithmayr's book (p.90). We can glean some more information from the accompanying texts, in which this verb occurs no less than 43 times. A form *ékté*, attested 4 times (pp.107, 109, 135, 149), seems to be the basic perfective stem when used without subject suffix. Of much wider use, however, are forms with subject suffixes such as *én-gū* 'he said', composed of a root *en-* plus the usual subject suffix (Jungraithmayr's paradigm I).[33] When an explicit indirect object precedes the verb, the subject suffixes of Jungraithmayr's paradigm II are used instead, but this time they attach to a root *ik-*, e.g. *ík-kút* 'he said (to ...)'. This rule is also given by Jungraithmayr (p.90), although he assumes, I think incorrectly, that the suffixes are those of his paradigm III. The same form used without overt indirect object presumably includes an understood pronominal object: *íkkút* 'he said to him/ her/ them', even though it is hard to prove from most contexts whether 'he said' or 'he said to him' ought to be understood. Alternatively, an explicit indirect object may follow rather than precede the verb. In this case, both paradigm I and II suffixes seem to be acceptable (2 examples each). Finally, the isolated form *égíndêy* (p.131) seems to be an instance of the subjunctive, a tense for which Jungraithmayr has only fragmentary data (p.66), and is apparently composed of a root *eg-* plus the 1st pers. sg. subject suffix of paradigm II *-nde* (*-y* remains without explanation): 'I will tell (him)'.

A characteristic feature of most Chadic languages is the existence of pluractional verbs ('pluriel verbal'). In Mubi, they are usually formed by *a*-apophony. In addition, a handful of verbs lengthen the second root consonant, which is an evident archaism. Based on the combined information from Jungraithmayr's description of this feature (p.82f.), his glossary, as well as Prickett, I can identify 7 such verbs:

SG	PLUR		
fègéɲ	*fàkkáɲ*	to burn	Jungraithmayr p.84, Prickett 2012:76

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33   I assume that *éŋgó* p.115 must be an imprecise recording for *éŋgú* and can hardly, as implied by the gloss, include a plural pronoun 'leur'.

gèdém	*gàttám*	to stab	Jungraithmayr p.83, Prickett 2012:76
kèjér	*kàccár*	to kick	Prickett 2012:76
lèlèʃé	*làllàʃé*	to taste	Jungraithmayr p.83
tòɗú	*tàɗɗá*	to throw	Jungraithmayr p.200
tògór	*tàkkár*	to push	Jungraithmayr p.83
wàjàgé	*wàccàgé*	to stand up	Jungraithmayr p.83

§56 A particularly irregular pluractional stem is found with the verb *òbú* – PL. *fádé* 'to fall' (Jungraithmayr p.192). Both forms can perhaps be united under an approximate root √*ʔb(d)* with *f* deriving from a geminate *b*, which is a regular sound law (pp.27 and 73).

Also *àlláw* 'to cry' (p.159) formally resembles a pluractional stem, but the hypothetical base form of this verb appears to be no longer in use and is at least not attested in any source on Mubi. We do, however, find it in the related language Dangla: *álè* 'émettre un son, d'où pleurer, chanter (oiseaux), crier' (Fédry 1971:19). This is therefore one of the 'frozen pluractionals' which are not infrequent in Chadic (cf. Schuh 2008:278).

§57 Let me quickly pass on to the imperatives. Jungraithmayr distinguishes between a 2nd person SG. and a 2nd person PL. imperative, such as *díir-á* SG. – *dír-nù* PL. 'put!' (p.98). The stem form to which the suffixes attach generally resembles the perfect stem but would seem to require some more investigation. In particular, it remains enigmatic to me why, within the same stem classes, some verbs have a long and some a short stem vowel (*díir-á* 'put!', *wáal-á* 'stir!', but *dĭn-á* 'cook!', *bág-á* 'roast!', p.98f.).

§58 Prickett (2012:77-83) knows both of these forms, too (*dírá* – *dîrnu*), but he documents an imperative of the 1st person PL. in addition: *dîrna* 'let's put!'. This may be a gap in Jungraithmayr's data, but more research would be welcome to exclude the possibility that this form might rather be the 1st person pl. inclusive of the subjunctive tense. We also miss a statement on how imperatives are negated. For this, we have to go back to Lukas (1937:172) who provides examples such as *isi bɑ̃gà 'do* 'fürchte dich nicht!'. This tells us that the pattern of the negative imperative is composed from a particle *isi* (certainly related to Jungraithmayr's verb *íisí* 'to refuse', with this translation also in Prickett 2012:117) followed by (probably) the perfect stem of the verb and finally the general negative particle *dò*.

Exceptionally, the verb for 'to go' seems to derive an imperative from the imperfect stem. While this form is not mentioned in Jungraithmayr's grammar section, it is contained in his glossary (*njû*, p.182) and also confirmed by other sources (*njū̂,* Lukas 1937:171; *njú,* Doornbos & Bender 1983:77[34]).

§59 No separate chapter is dedicated to the syntax of the language, which is probably the biggest

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34 I find that all verbs contained in Doornbos & Bender's word list are cited in the imperative form.

remaining gap in Jungraithmayr's book. To mention just one issue, it remains rather opaque what determines the use of the subject suffixes, although a number of relevant remarks are scattered throughout the book (p.24, 41, 43f., 66, 88; cf. also Jungraithmayr 2005a:415 and 418). The function of the subject suffixes in the related language Bidiya, which is probably comparable to some extent, was treated by Jungraithmayr himself in more detail (Jungraithmayr 1987). The recent study by Shay (2008) of the same topic in the related language Dangla is also worth being compared. Also issues such as interrogative or relative clauses, or non-verbal predication, remain largely undescribed, yet some examples of such constructions can be culled from the texts.

§60   Jungraithmayr's book concludes with a Mubi-French glossary of about 1000 entries (cross-references not counted; pp.159-204), in which also a number of short phrases have been incorporated, followed by a French-Mubi index. This is the most comprehensive Mubi glossary to date. Nevertheless, it does not entirely replace the earlier sources. Some items of the basic vocabulary that can be found elsewhere are missing, such as 'who?' (*ŋằtú* Lukas 1937:167 ~ *ŋatu* Doornbos & Bender 1983:78 and Mbernodji & Johnson 2006:27), 'yesterday' (*mbồ* Lukas 1937:184 ~ *mbò* Prickett 2012:20 ~ *bo* Mbernodji & Johnson 2006:27), or 'bark; shell of egg' (*kúrốrò* Lukas 1937:183 ~ *kuroro* Mbernodji & Johnson 2006:24). Occasionally, other sources give different and possibly superior terms. This includes 'heart', which to Jungraithmayr is *gàk* (a word glossed as 'breast' by Lukas 1937:182 and as 'chest' by Prickett 2012:13), whereas *kɔ̀rlɔ̀* (Lukas 1937:183) ~ *kɔrlò* (Doornbos & Bender 1983:77) ~ *korlo* (Mbernodji & Johnson 2006:23) seems to be the more precise term.[35] Another instance is 'to show', for which Jungraithmayr only has the Arabic loan *wàssàfá*, whereas a native term seems to survive as *ora* (Prickett 2012:117; Mbernodji & Johnson 2006:26). For 'seed', Doornbos & Bender (1983:77) cite a term *busün* (= /*busuŋ*/?) that is not provided by any other source but seems to be a significant inherited term with cognates in other East Chadic languages (e.g. Dangla *búsàm*, Fédry 1971:103, and Migama *búsìnì*, Jungraithmayr & Adams 1992:72). These attestations might even require a revision of the Proto-Chadic 'seed'-root as reconstructed by Jungraithmayr & Ibriszimov (1994, I:146 and II:286f.).

§61   There are a number of inconsistencies within Jungraithmayr's book, most frequently in the field of tone. Some of them can be regarded as minor details or even notational variants, such as 'give birth.PERF' *wàâ* (pp.90 and 113) ~ *wǎà* (p.203); 'do.PERF' *lìî* (pp.68 and 135) ~ *lîî* (p.187); 'approach.PERF' *mót* (p.28) ~ *mŏt* (p.190); 'body' *jìc* (p.35 and Jungraithmayr 2012:332) ~ *jìt* (p.181); 'tooth' *síŋáaŋō* (p.196) ~ *síŋáaŋò* (p.61); 'ear' *súmáamō* (p.197) ~ *súmáamò* (p.59) ~ *sùmáamō* (p.30) (I assume that the last one is a misprint; Lukas 1937:185 confirms *sú-*).

But the book also contains a number of more significant inconsistencies. Some of them are outright typos, while others arise from the fact that conflicting field notes were used and not thoroughly

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35 As is suggested by parallels from related languages, e.g. *kórlá* 'heart, bell' in Migama (Jungraithmayr & Adams 1992:101).

homogenized. I was in personal contact with H. Jungraithmayr and received confirmations of the following corrections from him:[36]

- For *béelì* 'river' (p.25) read *bèelí* (correctly on p.29).
- For *dèyìgó* (p.33) 'guest' read *dèyígó* 'guest' (correctly on p.32 and p.166; cf. also *dèégó* on p.103).
- 'Fig tree' was recorded as both *ɟiirí* (p.35) and *gìirí* (p.174). It is not clear whether both forms are in actual use, or one of them was misheard.
- For *cìrkí* 'gazelle sp.' (p.35) read *bìrkí* (correctly on p.163).
- The noun *kìléyyìl* is glossed as 'marmite (à sauce)' on p.183. The same meaning ('Schüssel') is given in Jungraithmayr (1978b:128). The translation 'clef' provided on p.35 is wrong and came into being by misreading the German gloss as 'Schlüssel'.
- For *nèégó* (S. 35) 'orphan' read *néygó* (correctly on p.191).
- For *lùnjóòc* 'friends' (p.35) read *lúnjóòc* (correctly on p.186).
- For *màràŋó* 'thief' (p.35, also Jungraithmayr 2012:332) read *màràŋò* (correctly on p.188).
- The adjective *dǐilít* is glossed as 'frais' on p.38, but its basic meaning is 'sweet' (cf. pp.86, 168, 200, also confirmed by Lukas 1937:181).
- For *kíi* 'my cow' (p.58) read *kìí* (correctly on p.62).
- For *bàn* 'mouth' (p.61) read *bàŋ* (correctly on p.161, confirmed by all other authors: Doornbos & Bender 1983:77, Lukas 1937:180, Mbernodji & Johnson 2006:23, Prickett 2012:13). The correct plural form is *bòŋúŋ* or *bùúŋ*.
- *gìn* 'face' is not FEM. as said on p.61 but MASC. as said on p.174.
- The translation of the phrase *mà gíssà dàŋ mí* (p.64) was accidently omitted. It should read 'Et le conte est quoi?'.
- For *nàâ* 'ripen.PERF' (pp.75 and 190) read *náà* (correctly in Jungraithmayr 1978a:314).
- For *mìlîl* 'discuss.PERF' (p.80) read *mílîl* (correctly on p.189).
- For *léelím* 'ask.PERF' (p.98) read *lèelîm* (correctly on p.186).
- For *lílíc* 'taste.PERF' (p.98) read *lìlíc* (correctly on p.187).
- For *càáró* 'root' (p.164) read *càaró* (correctly on pp.33, 222 and in Jungraithmayr 2012:329).

§62 • The verb 'to burn' is *fègéŋ* with an intensive derivation *fògóŋ* (thus on p.84 and in Jungraithmayr 2012:339). The glossary is imprecise because it only has *fògóŋ* (pp.172 and 207). However, the intensive form seems to be in more general use than the base form of this verb, as it is also preferred by all other sources (Doornbos & Bender 1983:77, Lukas 1937:182, Prickett 2012:76).

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36 E-mail communication in autumn 2013. These corrections may either mean that Jungraithmayr decided which variant is the more trustworthy according to his records, or that he identified real typos in the printed book.

- For *lìwís* 'mix.PERF' (p.187) read *líwís*.
- For *lùgûy* 'shake.PERF' (p.187) read *lúgûy.*
- For *wíráày* 'sit down.IMPERF' (p.202) read *wíréèy.*
- For *zúubí* 'to be uncultivated' (p.204) read *zùubí* (correctly on p.71).
- For *ìnyáalò* 'grass' (p.215) read *ínyáalò* (correctly on p.180).

§63   I find in Jungraithmayr's monograph a general tendency towards underanalysis. He presents plenty of data but does not put much effort to uncover rules or generalizations, let alone underlying representations or historical developments. The only historical statement is hidden in his use of the term 'apophony (Ablaut)', which implies that 'apophonic' vowel mutations must be very old. This represents one extreme end of a scale on which Prickett (2012) occupies the other. Prickett's study is characterized by what I would call overanalysis. Much of his discussion is devoted to deciding on the 'underlying' representation of verbs, or which of the verb forms is 'unmarked', and how to derive all the surface forms from the supposed underlying roots. Since the answer to such questions is strongly theory-dependent, readers who happen to follow another theory may find his complex apparatus of derivation rules rather futile. But I want to emphasize that, despite my critique, I consider Prickett's monograph an extraordinary achievement for a Master of Arts thesis by a newcomer to Chadic linguistics.

§64   Jungraithmayrs monograph now constitutes the most extensive documentation of an important but previously little known Chadic language. This is after Jungraithmayr has already provided major descriptions of numerous other Chadic languages (e.g. Bidiya, Birgit, Mawa, Migama, Mokilko, to cite just some from the Eastern branch). While in the case of Mubi, the difficult fieldwork conditions did not allow him to cover all aspects of grammar in depth, the fundamental issues of morphology are treated in great detail and with ample illustration. Together with the texts and the glossary, his book promotes Mubi to one of the best documented East Chadic languages to date, and this is the first time ever that we possess reliable records concerning its tones. This book will be particularly useful to historical linguists since it focusses on the issues that are most important to them (precise phonetic notation, core grammar and vocabulary). There certainly remains a lot to be done on all levels of language description, most prominently on syntax, but also on the still unresolved issues of morphology (such as the formation of the subjunctive and imperative of verbs) and phonology (such as the status of the mid-tone and the vowel harmony rules). Readers who work through Jungraithmayr's texts will here and there discover passages that seem to hide still unexplained pieces of grammar. One can only hope that work on Mubi will be continued either by Jungraithmayr himself or by other scholars in a not too distant future. Jungraithmayr's book has laid a thorough foundation for doing so.

Abbreviations

FEM	feminine
IMPERF	imperfect
IMPV	imperative
INF	infinitive
MASC	masculine
PERF	perfect
PL	plural
SG	singular
SUBJ	subjunctive

References

Alio, Khalil 1986

Essai de description de la langue bidiya du Guéra (Tchad). Phonologie, grammaire. Berlin: Reimer

Alio, Khalil 2004

'Préliminaires à une étude de la langue kajakse d'am-dam, de toram du Salamat, d'ubi du Guéra et de masmaje du Batha-Est (Tchad)'. In: Takács (ed.), pp.229-285

Baldi, Sergio & Jungraithmayr, Herrmann 2008

'Mots d'origine arabe en mubi (Tchad)'. *Zeitschrift der Deutschen Morgenländischen Gesellschaft* 158:25-37

Bradshaw, Mary 1999

A crosslinguistic study of consonant-tone interaction. PhD thesis Ohio State University

Doornbos, Paul & Bender, M. Lionel 1983

'Languages of Wadai-Darfur'. In: Bender, M. Lionel (ed.) *Nilo-Saharan Language Studies*, pp.43-79. East Lansing: African Studies Center

Ebobissé, Carl 1979

Die Morphologie des Verbs im Ost-Dangaleat. Berlin: Reimer

Fédry, Jacques 1969

'Syntagmes de détermination en dangaléat'. *Journal of West African Languages* 6:5-19

Fédry, Jacques 1971

Dictionnaire dangaléat (Tchad). PhD thesis Lyon

Frajzyngier, Zygmunt 1982

'The underlying form of the verb in Proto-Chadic'. In: Jungraithmayr, Herrmann (ed.) The Chad languages in the Hamito-Semitic border area, pp.123-143. Berlin: Reimer

Haruna, Andrew 2003

A grammatical outline of Gùrdùŋ / Gùrùntùm (Southern Bauchi, Nigeria). Köln: Köppe

Jungraithmayr, Herrmann 1978a

'Ablaut und Ton im Verbalsystem des Mubi'. *Afrika und Übersee* 61:312-320

Jungraithmayr, Herrmann 1978b

'Gebrochene Plurale im Mubi (Ost-Tschad)'. In: Jungraithmayr, Herrmann (ed.) *Struktur und Wandel afrikanischer Sprachen,* pp.121-131. Berlin: Reimer

Jungraithmayr, Herrmann 1987

'Zur Suffixkonjugation im Osttschadischen'. *Afrika und Übersee* 70:49-60

Jungraithmayr, Herrmann 1989

'Is Hausa an early or late stage Chadic language?' In: Frajzyngier, Zygmunt (ed.) *Current progress in Chadic linguistics,* pp.251-266. Amsterdam: Benjamins

Jungraithmayr, Herrmann 2004

'Das Birgit, eine osttschadische Sprache – Vokabular und grammatische Notizen'. In: Takács (ed.), pp.342-371

Jungraithmayr, Herrmann 2005a

'Prefix and suffix conjugation in Chadic'. In: Fronzaroli, Pelio and4 Marrassini, Paolo (eds.): *Proceedings of the 10th meeting of Hamito-Semitic (Afroasiatic) Linguistics*, pp.411-419. Firenze: Dipartimento di linguistica

Jungraithmayr, Herrmann 2005b

'Tonal cases in Mushere (Plateau, Nigeria)'. *Frankfurter Afrikanistische Blätter* 17:131-137

Jungraithmayr, Herrmann 2012

'Chadic'. In: Edzard, Lutz (ed.): *Semitic and Afroasiatic: Challenges and opportunities*, pp.296-368. Wiesbaden: Harrassowitz

Jungraithmayr, Herrmann and Abakar Adams 1992

Lexique migama. Migama-français et français-migama (Guéra, Tchad) avec une introduction grammaticale. Berlin: Reimer

Jungraithmayr, Herrmann and Dymitr Ibriszimov 1994

Chadic lexical roots, 2 vols. Berlin: Reimer

Kuipers, Emma. 2010a

Une brève esquisse phonologique de la langue Mubi. N'Djamena: SIL. Manuscript

Lukas, Johannes 1937

Zentralsudanische Studien. Hamburg: Friederichsen

Marti, Marianne, Calvain Mbernodji and Katharina Wolf 2007

L'enquête sociolinguistique des langues Birguit – Kadjakse – Masmedje du Tchad. SIL

International

Mbernodji, Calvain and Eric Johnson 2006

Enquête sociolinguistique de la langue Moubi du Tchad. SIL International

Newman, Paul 1977

'The formation of the imperfective verb stem in Chadic'. *Afrika und Übersee* 60:178-192

Prickett, Davis 2012

The phonology and morphology of verb forms in Mubi, Master of Arts thesis Grand Forks / ND. http://www.academia.edu/4566217/The_Phonology_and_Morphology_of_Verb_Forms _ in_Mubi (25.06.2014)

Schuh, Russell G. 2008

'Finding cognates in West Chadic'. In: Takács (ed.), pp.272-283)

Shay, Erin 1999

A grammar of East Dangla: the simple sentence. PhD thesis Ann Arbor / Mi

Shay, Erin 2008

'Coding the unexpected. Subject pronouns in East Dangla'. In: Frajzyngier, Zygmunt and Erin Shay (eds.) *Interaction of Morphology and Syntax. Case studies in Afroasiatic*, pp.85-105. Amsterdam: Benjamins

Takács, Gábor (ed.) 2004

Egyptian and Semito-Hamitic (Afro-Asiatic) studies in memoriam W. Vycichl. Leiden: Brill

Wolff, Ekkehard 1983

'Tonogenese in tschadischen Sprachen'. *Afrika und Übersee* 66:203-220

Wolff, Ekkehard 1988

'"Ablaut" and accent in Chadic'. In: Brauner, Siegmund and Ekkehard Wolff (eds.) *Progressive traditions in African and Oriental studies*, pp.165-179. Berlin: Akademie-Verlag