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Voici réunies les deux parties de cette esquisse concernant la langue tiba (gà ) publiées dans deux fascicules successives de la revue Afrika und Übersee.
L'interprétation la plus directe de cette documentation permet d'affirmer l'appartenance probable de cette langue au groupe mumuye-yendang de la branche adamaoua de la famille Niger-Congo, malgré l'assimilation massive de termes empruntés au tchamba-daka qui l'entoure et qui est connue et utilisée en bilinguisme parfait par les Tibas.
Cette conclusion est en contradiction avec la classification fournie par L'Ethnologue : http://www.ethnologue.com/show language.asp?code=ttb

# A Linguistic Sketch of Tiba (Gad), Part I 

by Raymond Boyd

## I.0. Introduction

The Tiba area can be reached at present by leaving the main Gombe-to-Yola road in the direction of Mayo Belwa, then continuing on through Jada towards Ganye via the longer route passing by Mbulo. The traveler will then turn westward at Mbulo towards Tola. Some twenty kilometers beyond the town of Pola lies Gambe, the Tiba center on this axis. Most Tiba people nevertheless reside, not in Gambe, but in hamlets on the surrounding hills. There are no census data or any means of counting the number of Tiba speakers, but a local speculative guess puts the figure at less than ten thousand.

The Tiba tend to shun outsiders, as many mountain peoples do. It was therefore with some difficulty that we found an informant, after several people had promised to help us and then not appeared. Finally, we were able to contact Abdullahi, called Awdi, son of VwèkKààmì and resident in the hamlet of KékPáán. He was unable to give himself a precise age but would seem to be in his early thirties.

It will be noticed that Awdi's father's name and the name of his hamlet are Chamba Daka (hereafter CD). This is said to be ordinary among the Tiba, i.e., at least when Islam was less widespread, they traditionally gave themselves CD names, and are certainly all fully bilingual in this language. They are also said to have adopted Chamba customs, but this has not been verified in any way. A doubt would even seem to be cast on this affirmation insofar as Awdi did not give an identical term for the fundamental Chamba institution of lángsí, and in fact seemed unclear about its exact nature.

The Tiba (Tíbá in CD) do not use this name for themselves. Rather, they call themselves àGàáa niā 'Tiba people') and their language àgà à̀yá ('Tiba mouth', i.e., 'Tiba language'). Roger Blench has called to our attention the fact that there is a word of the form tiba in the Adamawa group 4 language "Momi", which means 'blacksmith'. Now neither the Tiba themselves nor the surrounding Chamba seem to have any recollection that smithing was an original role of this people. While it may be that there was interethnic blacksmithing in this region (i.e., that one ethnic group would seek its blacksmith population among a neighboring group), and that this original relationship is now forgotten in the case of the Tiba, it may also be that terms for 'blacksmith' are not always obtained as some derivate of the terms for 'forge', 'to forge', or some other notion associated with smithing, but rather from words meaning 'outsider, stranger' (cf. CD $d \bar{o} \bar{o}$ 'stranger, outsider, pagan', "a pejorative term for stranger, especially non-Chamba speakers,
applied in particular to 'less developed' neighbors", Richard Fardon, pers. comm.). The common term for the Tiba people and for Momi blacksmiths may thus signify simply that both are viewed as "outsiders" with respect to their neighbors.

Our survey was conducted entirely in Nnakenyaare CD, as Awdi had practically no knowledge of English. Isa Saadu, a teacher currently resident in Pola, was present throughout in order to provide all the necessary clarifications. It might be feared that, if the informant were not committed and alert, such a procedure would tend to throw up large numbers of CD loanwords. There were indeed many cases in which the Tiba term was identical with the one recorded in CD, and it is possible that some of these cases may be attributable to the informant's fatigue after hours of the mechanical repetition required of him in the early stages of this survey. Nevertheless, the bulk of the lexical data is clearly distinct from CD, consisting either of different roots or of cognates showing important phonological variations. Grammatical and syntactic features, too, were characteristic, though often showing interesting correlations with CD. Our impression is that the degree of CD/Tiba interference was minimal.

Our sessions with Awdi took place over a period of exactly six days (plus a short additional session in 1998 to obtain further information on the pronominal system). While the author is practiced in linguistic survey work, it should be clear to everyone that, given the conditions, the data presented here are very far from sufficient for a reliable description of Tiba. The attempt has nevertheless been made to suggest some kind of analysis for most of the salient features of the language. The reader will take these analyses for no more than what they are worth: nothing said here is not subject to review in the light of further research.

## I.2. A cognate search

Tiba is a language concerning which practically no published information exists. Williamson (1989:269) calls it a "newly-reported" Benue-Congo language, insofar as the first linguistic knowledge concerning it came from survey work in the 1980's by Roger Blench. Williamson cites three terms in Tiba ('man', 'one', 'neck'), the first of which is assumed to be a "Benue-Congo innovation", the other two being "older [NC] roots". No other basis for classification is cited. In the same volume, Hedinger (1989:424), referring back to Williamson and Blench, cites Tiba as a separate branch of "Northern Bantoid"; Blench (1993) includes it with CD in "Dakoid".

The purpose of this article is not to dispute the classification of Tiba, though on a wider scale, the author would certainly dispute the usefulness of forcing many of the linguistic isolates in this region of intense contact into any branching sub-family structure, particularly in the case of NC languages. We simply note that a) Tiba is classifiable in Greenbergian terms as Adamawa (hereafter AD ); indeed, if CD is assigned to AD , it is inconceivable, on the basis of the material presented here, that Tiba should not be. b) Tiba is located in fairly close proximity to undisputedly AD languages (there are predominantly Mumuye settlements only a few kilometers away). It is therefore pertinent to examine what similarities exist on the linguistic level between Tiba and AD; we leave to other interested parties the task of working out the relationships which may exist between Tiba and other language groups ${ }^{1}$. Unfortunately, the published lexical data on
a number of languages which might interest us, particularly AD groups $5^{2}$ (precisely the one containing Mumuye), 8 (Kam), and 9 (Jen/Munga), are scarce (limited practically to Meek 1931). Nevertheless, we have ourselves been able to obtain a set of some 500 lexical items in Yendang ${ }^{3}$ (the other part of AD5), and we are fortunate to have some fairly extensive material from the Mumuye portion of AD5 (Shimizu 1983), from AD4 (Blench and Edwards 1988 for Momi, Raen 1985 for Pere, Bohnhoff 1991 for Dii or Duru), and from at least one AD2 language, Chamba Leko, hereafter CL (an unpublished wordlist from the Balkossa Literacy Center).

All the AD languages cited above are conceivably part of a larger AD grouping (see Boyd 1989a:179-80, where an AD2, 4, 5 subgroup was mooted), which we may provisionally call "Southwestern Adamawa" (SWAD). Since a first look at the data reveals a multiplicity of striking lexical similarities between Tiba and SWAD, this paper will concentrate on specifying as many of these as possible.

Obviously, any cognate search can be extended to other AD groups. One of these would be another AD grouping including AD6 (Mbum) and AD13 (Bua). In this paper, we shall indeed incorporate data from a few languages chosen fairly arbitrarily for accessibility of material. Four of these are from AD6: Mbum (Hino 1978), Karang, Koh (Ubels, n.d.), and Pana (Lim 1997), belonging to the "Central" group (Boyd 1989a:185); three others are from AD13: Kulaal, Kwa (not the Kwa surveyed by Kleinewillinghöfer 1996) and Niellim, using unpublished word lists prepared by Pascal Boyeldieu (n.d.), including material collected by Claude Pairault for Kulaal (cf. Boyeldieu 1985, Pairault 1969), among others. While some interesting correlations are revealed, this search is of greater interest as an illustration of the phenomenon of "diminishing returns" than for providing new AD links for Tiba. A check of the AD6/13 citations will show that the majority of these are either cases of common AD (or NC) roots, or proof of the classificatory separation of the two groupings involved, or both. In few cases do they provide the only available cognates for Tiba roots. On the other hand, there are numerous citations from only one or more languages from $\mathrm{AD} 2 / 4 / 5$. If we extend our search again to AD11 Fali (see Sweetman 1981), we will find even less unique citations, barely one or two, e.g., sip- 'bury' (cf. Tiba síl 'bury' and sib 'under'). Open-ended search processes are therefore of little use. Indeed, it will often quickly become apparent which languages give "results" (multiplicity and plausibility of cognates unattested on a wider scale) and which do not. Perhaps inevitably, the ones which do give "results" are close or fairly close geographical neighbors, or at least those with which recent historical contact can be affirmed.

There is, however, a third grouping, namely "Northwestern Adamawa" (NWAD) as defined by Kleinewillinghöfer 1996 (including AD7 Yungur, AD10 Longuda, AD1 Waja, AD9 Jen, and Bikwin and Kwa groups, unknown to Greenberg). A cognate search bringing this set of languages into play would be of considerable interest, particularly in view of the presence of AD9 Jen. Indeed, a check of the Jen and Munga lists presented by Meek (1931) reveals a certain number of interesting correlations, more in any case than with the other NWAD languages cited in that work. Furthermore, Kleinewillinghöfer stresses the affinities between the Jen and Bikwin groups and notes that neither has a noun classification system, unlike the other NWAD languages. A wider comparison between SWAD and NWAD is therefore in order; this, however,
will not be the subject of this paper. We shall here do no more than cite the relevant entries in Meek's Jen/Munga lists.

Naturally, given Tiba's geographical position, one hardly expects to find any BC language which could provide cognation on the same level as that provided by the $\mathrm{AD} 2 / 4 / 5$ grouping. This, of course, does not prove the classificatory position of Tiba in any more than a Greenbergian sense. In the light of basic vocabulary, CD and Tiba remain peripheral with respect to AD , each containing numerous items apparently unattested elsewhere. On the basis of a wider vocabulary, of course, CD and Tiba will group in the same way that CD and CL do, despite the surveyor's intuitive impression that these languages are markedly different.

Given the sparseness of data on some crucial languages, we shall proceed here in two steps: we begin by presenting a list of nominal roots, drawn from the lists used by Meek. Our first set of 38 nominals will show that there is a considerable degree of lexical concordance between Tiba and SWAD. This connection strikes one as stronger than the link between CD and AD (involving almost exclusively AD2 CL). As usual, however, two conclusions are possible: 1) there is some kind of fairly distended genetic grouping involved; or 2) these are contact phenomena of fairly ancient date, in which case the arrival of CD on the scene would hypothetically be more recent and of a nature such as to engulf certain smaller groups, but with little effect on a wider geographical scale.

The second set of 16 nominals shows how close the relationship between Tiba and CD is. In many cases, the degree of resemblance and the absence of cognacy elsewhere suggest that borrowing in the near past is the only plausible way to account for the present situation. In other cases, however, the phonological divergence is such that, if borrowing is indeed involved, it cannot be so recent.

In the final list of 19 nominals, the individuality of Tiba comes to the fore. This set includes items which either have no apparent CD or AD cognacy, or require the assumption of considerable phonological change to account for any correspondences.

In a part II of this study, we state all the tentative conclusions which we were able to reach with regard to phonology, tonology, morphology, and grammatical marking in Tiba, compare the situations in Tiba and CD, and provide a full Tiba-English word list, with all additional putative AD cognates which we have been able to find in the sources cited.

## LIST 1: ADAMAWA COGNATES FOR TIBA NOUNS WITH GLOSSES IN MEEK'S WORDLISTS

Notation: In CD, we use the characters $e, \varrho, \varrho$ to represent high mid vowels and $e, o$ to represent low mid vowels; $q$ represents a mid central vowel. For ease of typography and comparison, we have transposed material available in the other languages with four vowel heights cited here to this system whenever the distinction in mid vowel heights is clearly pertinent (the contrast is thus not marked for mid front vowels in Pere as it has no role in the native lexical stock). In the particularly complicated Dii system, both $e, o$ and barred $i, u$ are represented by $e, o_{3}$; this is unlikely to cause confusion, given the almost total complementary distribution of the vowel heights concerned. The representation of nasal vowels is required in some languages (including Tiba); this is done by underscoring. Consonant notation is conventional; note only that $v w$ represents a labial flap. In tonal notation, / represents downstep, while $\ddot{v}$ represents any vowel bearing the infralow tone in the four-register Yendang system. (Given the provisional nature of the Momi data, these are noted without tones.)

Meek's data are given in his nonphonetic notation, with the exception that $n g$ is noted $y$ where necessary.

Tiba nouns are presented in citation form, i.e., with à- or á/- prefix and final -á (the latter undergoing diverse alterations as described in part II). The retention of the prefix clarifies certain correspondences in Kam (AD8) where a similar element is apparently prefixed to many nouns.

Each set of items is arranged alphabetically by English gloss.

- (S)WAD cognates
à-án-ā 'arm, hand'
CD wáā; the general root in $\mathrm{AD} 2 / 5 / 7 / 8 / 9$ is nasal + central or front vowel + nasal
à-tó-ā 'bow'
CD tąāām, $\mathrm{AD} 2 \mathrm{CL} t \bar{t} b, \mathrm{AD} 4$ Momi taau, Pere tābò, AD5 Zing Mumuye (hereafter ZM) tá $k$ )à, Yendang tāt, Meek AD8 Kam ace, cf. AD9 Jen kanto, Munga kantau; also PP *ta
à- 6 àk-á 'bushcow'
AD5 ZM bàkà, Meek Yendang bak (6ät)
à-ką̀ykiláā 'chicken'
AD5 ZM kìy, cf. Meek AD8 Kam kume; there is no nasal in AD2, thus CL kọoò, cf. CD kpàá, AD4 Momi $k \not q z$, AD6 Mbum káká vs. Koh kāy; the nasal reappears with a back vowel in AD4 Pere $k \overline{0} n \overline{1}$; the initial consonant is voiced in Meek's AD7 Yungur go; note a root in part of AD13, represented in Kulaal by hàlá, suggesting the Tiba term may involve two roots of similar meaning; also cf. terms for 'guinea-fowl'
à-nàmèn-á 'crocodile'
CD nàmèn, CL nàbà̧n, AD 4 Pere nàmą̀nè, Meek AD 5 Yendang name
à-náksā 'cow'
AD4 Momi nogs and Pere nàgò, Meek AD5 Yendang naki (nāk̄̄), AD6 Koh nākā, cf. PP *niak; but $\mathrm{CD}, \mathrm{AD} 2 \mathrm{CL}$ nàà, also in AD 7 ; AD 4 Dii has ndàà, AD 5 ZM has nàpo,
à- 6 ý-ā 'dog'
Meek AD7 Yungur bwe, Mboi abwa; possible cognacy with the AD6 series Mbum gói, Karang gáy, Kare váà; *bu is also PP
à-nín-á 'drum'
Meek AD2 Mumbake ringima


## à-tóc $\bar{c}$ 'ear'

CD táā, AD5 ZM shọọ (derivation from an earlier *twa, or *tue as in Common Bantu, seems patent), Yendang tọ̄k; the velar $\mathrm{C}_{2}$ is widespread: AD2 CL túng, AD4 Momi tok, Pere tógò, Dii tóg, cf. AD6 Karang súk
à-éy-á 'egg'
ZM wnaykaa; note Meek AD5 Yendang ha (hät), Kumba pa; the full AD5 set suggests cognacy with the widespread "pará" form (cf. AD10 Longuda fõla, AD14 Niellim hwáán̄̄)
à- $i s$ ā 'eye'
yir/l forms are widely attested in non-Bantu Bantoid (along with si and li) and in AD13; otherwise, we have PP *gis, to be compared with Fali (AD11) nisi and Bantu A. 90 Kako misi (also, of course, Fulfulde yeeso 'face', yiitere 'eye')
(à-)sè-é 'fingernail' (perhaps -sé-)
AD5 ZM saari, Yendang sóó, Meek AD8 Kam aciri-, AD9 Jen/Munga cina-
à-nè-á 'four'
AD4 Pere $n \bar{a} r \bar{o}, ~ D i i ~ n d \bar{a} d o ̛ ́, ~ Z M ~ d n e e r o ̣ ̀, ~ C L ~ n a ̄ a ̄ r a ̄, ~ M e e k ~ A D 5 ~ Y e n d a n g ~ n a t ~(n a ̀ t), ~ A D 8 ~ K a m ~ n a r ; ~ ;$ compare AD6 Karang nì̀, Kare nèy, Mbum nyày
à-vún-ā 'goat'
CD vî̀n, AD2 CL vą̣, Meek Wom/Mumbake vua, AD4 Momi buuz, AD5 Yendang bi ( $6 \overline{1} \mathbf{1})$, Kumba wii, Gengle/Kugama ayi, AD9 Munga naybu, AD6 Karang gúy, Koh vúỳ, AD13 Niellim 6wày
à-kpàngúm-tā 'groundnut(s)'
CD kpàáy 'groundnut', gúūm 'bambara groundnut', Meek AD2 Chamba (Leko) kpan[-]wara
à-gérá 'guinea-corn'
Meek AD2 Wom gbera, cf. CL yệd, CD yírí; also see -hágy- 'guinea-corn' below
à-sóksá '(body) hair'
AD4 Momi suuk 'hair', AD5 ZM sòò; a term noted sũri by Meek (Yendang sūū $r \overline{1})$ 'hair (of head)' (Meek does not record 'body hair') is widespread in AD5 outside Mumuye, cf. Dong suk 'hair' (Blench 1997), AD6 Koh sùy 'hair'; a comparable root appears in some A13 languages
à-gbōm-á (gbōóm) 'heart'
AD5 ZM gboģti
à-ny $\bar{a} n$-á 'horse'
CD nyāā $n$, CL $y$ āā, Meek AD8 Kam yeye
à-lúy-ā 'knee'
CD lúúrī, CL lígàráá, Meek AD2 Wom liŋbera; AD5 Teme luy, Kumba ningi, Gengle/Kugama ruy, also Yendang (yá/-)rúnká; AD8 Kam alunu (also A13 Bwa group d/rul vs. AD6 Kare (nzá)túiu)
à-bák-á 'knife'
Meek AD8 Kam abak; cf. AD4 Dii $p \bar{a} g$
yàásá 'leaf'
CL yȩsàa, cf. CD yáà and Meek AD5 Yendang nyãkahẽ (yánká, with classifier hë), Waka nyana, Teme jayga, AD9 Jen/Munga yangka
à-bẹ́-ā 'leg'
AD4 Momi bi 'paw'
à-bááá 'leopard'
AD4 Pere bàlà̀m, cf. CD gbę̣ę, AD5 ZM gbmee, Meek Yendang kpe (kpẹè̀); the relationships between these roots AD2 CL $g$ ạ̣, AD4 Momi gooz, and Meek AD7 fila, vila, ivula, AD8 impeli, AD9 hwi, vwi is obscure

## à-nyém-ā 'meat'

Meek AD9 Jen hiã, Munga xiam; other instances of this root in $\mathrm{AD} 2,7,8$ are not palatalized; this well-known NC root reappears in AD13 Kulaal nyám, Niellim nyàm

## (à-)fén-ā 'moon'

AD6 Karang féw, Meek AD7 Yungur -fe, -fa, AD9 Jen/Munga fi, hwi (Kleinewillinghöfer 1996 records cases of nasal vowels); also in AD13: Kulaal fẹ̀è, Niellim pyāā; PP *pyan has reflexes in both initial f and s , cf. 'sun'
à-dók-ā 'mountain'
Meek AD8 Kam aday
à-kă̄ - -á 'neck'
Meek AD5 Gengle/Kugama kõay, AD7 Libo kwȩena; elsewhere in groups 5 and 7, the forms are kir, kwer, kor, cf. AD2 CL kóól, AD4 Pere kōlą̀y; also cf. 'shoulder'
à- $j$ í-ā 'night'
AD4 Pere zègò 'darkness', AD5 ZM zii, Meek Kumba jim
à-bón-á 'river'
Meek AD5 Yendang boyko (bònkō), Waka baygo, etc. But the root is also apparently in "Mambiloid" Nizaa
à-yókúm-á 'salt'
Meek AD2 Mumbake nyuy, AD4 Pere yō̄ŋ, Meek AD9 Jen jukwẽ; also cf. CD nyénúm 'kind of salt', $\mathrm{AD} 2 \mathrm{CL} n w \overline{\mathbf{u}}$ ìm
à-yọ́-ā 'snake'
CD yę̣é; cf. Meek AD9 Jen dzo, Munga ząu, AD7 Mboi za, Libo i[-]zoyya, and all apparent cognates with initial s in AD5 and 7; also cf. AD4 Dii yó 'slough off (old skin)'; while this root is best known in BC (cf. Bantu *-j/yókà), it is also found in languages presumably subjected to little BC influence such as AD11 Fali joo and Ubangi Gbaya gók
à-té-é 'stone'
AD5 ZM tara, Meek Yendang tari (tārī), AD8 Kam atal, AD9 Jen/Munga te (cf. AD6 Karang -sàw); PP *ta
à-lér-á 'tongue'
Meek AD2 Wom lela, AD5 ZM rèetè, Yendang léká, but CD laǵģ̀
à-tár-á 'three'
CD tárā, ZM tat, CL tọ̄ọrā, Meek AD5 Yendang tat (tàt), AD7 Yungur (fi)ta, Libo tar(in), AD8 Kam car, AD9 Jen (wa)ta
àt tí-á 'tree'
AD4 Momi te; the root is also clearly represented in Meek AD5 Yendang (tééé), Waka, Teme and AD2 Mumbake, CL tȩ̧é, cf. CD tím with final nasal (AD10 Longuda shows a plural form with final -m, Kleinewillinghöfer 1996); also cf. AD13 Kulaal tȩ́ó, Niellim tẹ́lā, but AD6 Kare dì
à-lóem-ā 'war'
AD4 Dii lúú 'make war'; cf. AD6 Koh yúm̀, Mbum nyíi
à-jínjín-á 'water'
Meek AD2 Lekon (Chamba Leko) nyuyuna, cf. Wom/Mumbake yila, CL wą̣l; also compare AD4 Dii zíy 'urine', zì 'river'; possibly connected with the AD13 root represented in Kulaal by im but elsewhere by rim forms

- Cognate in CD
à-wér-á (wéé) 'arrow'
CD wąrí
à- $d(\overline{\mathrm{u}})$ ùm-á 'back, behind'
$\mathrm{CD} \operatorname{dim}($ áà ): primarily a BC root (particularly Bantu and Cross River), represented regionally in Vute and Mambila; the best AD correlate is Dii dạ̀n 'beyond, on the other side'
à-ýsỳn-á 'breast'
CD nyésà: cf. PP *basan; compare AD2 CL vūùm, AD4 Momi voom 'milk'
à-gày-á 'chief'
CD gàng: possibly an areal root, though plausible cognates all show unusual correspondences, cf. Mambila gáng, CL gààd, AD 4 Pere gènè, Dii gbāy, PP *gwam, among others


## à-kònlár-ā 'elephant'

CD kòngláā; CD has an apparently derived verb kōnglì 'bend' from which this root may in turn derive (relating, for example, to the form of the tusks); note, however, the existence of Meek AD7 Roba lara and AD10 Longuda larawa, suggesting this root could also theoretically be an ancient compound (also cf. AD4 Pere gònī)

## à-tōọ̀ y-á 'five'

CD túùná: initial t - is characteristic of $\mathrm{BC}\left(\mathrm{AD}\right.$ has mostly n -); back $\mathrm{V}_{1}$ can be found, for example, in Jukunoid
à-tú-ā 'head'
CD tīi: a NC root; but SWAD (including AD5) has mostly initial $y-, \mathrm{j}$ - (or $\varnothing$ as in Yendang $\overline{\mathrm{u}} k$ ), cf. nevertheless AD4 Dii tún 'face'; AD6 (excluding Mbum) has túl
à- $\overline{1} n t a^{\prime}$ 'pot'
$\mathrm{CD} \overline{\overline{11}}$; see -wàláy- below
à-nyik-á 'lion'
CD nyik
à-kémjí-ā 'monkey'
CD kéém jû̀, lit. 'red monkey': CB *-kímà (9/10)
à-(y)́́én-ā 'nose'
CD núùn: a well-represented NC root with many probable cognates in AD , though the correspondences are too complex for certainty, cf. for example AD2 CL nyid, AD4 Pere áā, AD6 Mbum hóók, Karang hókō but Koh múư, AD13 Niellim hùny
à-wóm-á 'oil'
CD múm, but Mapeo Chamba 'úm; this need not be the well-represented no( $m$ ) root (cf. AD6 Karang núm), as CD also has nòò 'be fat' and derivates from it; but in AD 13 where num is the common root, we also find Fanyan "mumé", according to Joly (1935); cf. Meek AD8 Kam man

## à-kisēn-á 'slave'

CD ką̀sēn, CL cf. kọg(')sá (Meek kwasa), apparently from a verb kọ' 'catch'
à-sā $m$-á 'spear'
CD sâāậm; cf. ZM shàlày, suggestive of Chadic; also compare AD2 CL sííd 'arrow', AD4 Dii sȩ̧ȩe 'war', sę̣ę 'arrow', AD5 ZM shòn, Yendang sọ̈n, both 'arrow', and AD13 Kulaal sòl, Niellim sàl, both 'combat'

## à-in-ā 'tooth'

CD niin: a NC root not well represented in AD unless cognacy can ultimately be established with AD2 CL ną́gą̧̆l, AD4 Momi nuur, Pere núúlè; cf. PP *niu
à- $b$ ęȩ̧r-á 'two'
CD bààrá: a very general root in BC ; rop forms in Adawawa 1, 7 are likely metatheses of the consonant components of this root.

- No SWAD cognates
à-ón-á 'bee'
Closest neighboring AD roots are AD5 ZM wara (cf. Meek AD5 Yendang fõri (vōri), Waka/Kumba võri, Teme vobe), AD2 CL núúd (cf. Meek Wom yora); also compare AD4 Pere ólè 'honey'
à-lá-ā 'belly'
$\mathrm{n} / \mathrm{la}$ is well represented in Bantoid and presumably related to a $\mathrm{PB}^{*}$-dà (9); it is also present in Mambila; note that CD has nàà 'in, inside'
á/-gbáy-á 'bird'
Related to AD4 Pere gááaī 'bat' and/or gbą́gò 'pigeon'?
à-lēká 'blacksmith'
CL lāān (Meek lama); cognacy is hypothetical given that every AD group has a different characteristic root; also compare AD4 Dii nāy
à- $g b \bar{a} m$-á (gbāám) 'blood'
à-mí-á 'door' (<mî̀ 'close'?)
à-gạ́ysā 'fly'
All matches unsatisfactory: CD gȩ̣̀, AD4 Momi gumkq̧z, Pere gúī; cf. Meek AD5 Yendang group kũ (kùn)
à-nyáà-á 'friend'
AD6 Karang yaşh , Meek AD8 Kam aywa, but cognacy is hypothetical given that practically every language has its own root for this gloss; CD mànáà is a derivate of màn- 'peer', often used as a prefix


## à-hą́y-á 'guinea-corn'

Cf. Meek AD5 Yendang koy ( $k \overline{0} n$ ), Teme kom, AD7 Yungur/Roba koma
à-jý-ā 'house'
Cf. AD5 ZM zhà $(k) a$; also Meek AD7 Mboi shu'do, Libo ishiria, Yungur hito; there are apparent AD13 cognates: Kwa Perim jòō: 'house', Kwa Cini jùùrá 'woman's house'; cf. PP *di, a root also represented in Voltaic
à-pígèè 'maize' (but curiously CD p $\overline{1}-\mathrm{g} \overline{0} \bar{o}$ 'cassava')
à-ísá 'mat'
Cf. AD6 Karang híh
à-k̄̄n-á 'one'
Meek AD5 Yendang bindi (bīntī), AD9 Jen 6ing; compare Kleinewillinghöfer (1996:95-6), who gives the initial consonant in the Jen group as $t s$, while the Bikwin group has either $k w$ or $c w$; this root is more widespread in NWAD (see Jungraithmayr 1968/9; also see Boyd 1989b); note the curious resemblance of AD4 Pere kīnè 'compact, dense'
à-wàláy-á 'pot'

## (à-)hą́nmā 'rain'

Also means 'saliva'; cf. AD2 CL $n w a ̄ n$ 'rain', also AD5 ZM sná 'rain (vb)', snáári 'saliva', AD6 Karang sám 'saliva'
à- $g$ āá $(g \underline{a ̄ a ́ a ́) ~ ' r o a d ' ~}$
à-sé-é 'sun, God'
CD súū; the semantic equivalence is very widespread in SWAD languages; also AD6 Karang séh; note AD2 CL sọ̀ọ, AD4 Momi see, Pere s는, Dii s ēē, Meek AD5 Yendang si, se, all meaning 'moon'
à-wóógo-ā 'ten'
Cf. AD4 Pere fób; a widespread AD root is kop (cf. AD5 ZM $k o s p$, Yendang $k \overline{\bar{o}} p$, AD2 CL $k \bar{o} b$ and Meek AD10 Hill Longuda kwoo); another is $b u$ in AD7/8 and perhaps 9
(á/-)sáyká 'toad, frog'

## I.3. Conclusion

The author takes this opportunity to reaffirm his opinion that Greenberg's classification of African languages leaves little room for readjustment. By mass comparison, every language must find its place in a small number of inclusive groups. CD, for example, finds its place in AD on the basis of its lexical similarities with the languages of AD2 (morphology, even vestigial traces of morphology, count for little here). If, however, a closer look shows that AD2 languages are "rather like" AD4 languages but really "quite different" from CD, it does not then become helpful to leave AD2 in place and shunt CD around, particularly on the basis of a handful or less of putative "diagnostic" roots (cf. Bennett 1983; the same is valid for the treatment of Dong by Shimizu 1979). If we wish to exclude CD from AD (or better, from each of the parts of AD), our best solution is to "leave it nearby". By this is meant a nonclassificatory approach, seeking whatever lexical and morphological resemblances are to be found with languages in the immediate geographical neighborhood. We need not doubt that there will be many of these; but at the same time, there will be a small number of identities with more distant languages and groups, some of these quite surprising (for CD, Boyd 1994 cites, for example, an striking nearidentity of the root for "wing" with the one found in Gurunsi, although Kleinewillinghöfer has now personally communicated similar forms in AD1 Waja and AD7 Yungur). Are such identities more significant than English/Farsi bad? We do not know, but unlike the case with English and Farsi, it is not at all easy for us to find out. This indeed is the crux of the matter: for many of the languages which interest us, we have no proper description; for most groups, we have no reliable reconstructions to any time depth; whatever the case, we have no documentary basis enabling us to check our historical hypotheses. Thanks to Greenberg, we can now say that the languages with which we are dealing in this paper are in the heart of a family called "Niger-Congo". This we need to know; but nothing whatsoever hangs on their subclassification. It is certainly a matter of the utmost indifference to know whether Platoid and CD had, several thousands or tens of thousands of years ago, a common ancestor that, say, AD2/4/5/8/9 did not, when we do not (and perhaps cannot) know anything about the intervening history of the two groups, prior at least to the 18th century. Language classification, indeed different kinds of language classification, have an important place in linguistics; but there is a time when classification, particularly of the "genealogical" (Manessy 1992) type has nothing further to offer, and we must rather turn, at least temporaily, to the individual languages to learn what they have to teach us.

## Notes

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1. Where obviously pertinent similarities exist, we shall nevertheless cite items from regional languages classified as Benue-Congo (BC), e.g., the "northern Bantoid" languages and Platoid,
particularly Gerhardt's (1969) "Proto-Plateau" (PP) reconstructions. Common Bantu (CB) forms from Guthrie (1967/71) are also cited.
2. Numbers are those assigned by Greenberg (1963).
3. Ulrich Kleinewillinghöfer, who took a short list of around 100 terms in this language, recorded a name with harmonized vowels: Yandang. Our speaker, however, used the form as recorded by Meek (1931): nā yéndáy 'Yendang language', wèé yéndāŋ-ù bīntī 'one Yendang person'.

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# A Linguistic Sketch of Tiba (Gà), Part II 

by Raymond Boyd

## II.0. Introduction

In this section, we present a set of observations, and the provisional conclusions reached concerning these observations, in the domains of phonology, morphology, and basic word order in simple constructions and predications.

## II.1. Tiba phonology

a) Consonants:

The initial consonant system of Tiba can be provisionally presented as follows:

| $m$ |  | $n$ |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $p$ | $f$ | $t$ | $s$ | $k$ | $k m$ | $k p$ |
| $b$ | $v$ | $d$ | $j$ | $g$ | $g m$ | $g b$ |
| $\beta$ |  | $\cdot$ |  |  |  |  |
| $v w$ | 1 | $y$ | $h$ |  |  | $w$ |

(The notation $v w$ is used here for the labial flap found in many languages of this region. In this chart, $y$ represents a palatal semivowel.)

Major differences with respect to Nnakenyaare Chamba Daka (CD) are:
i) A voiced "injective/plosive" contrast in the labial and dental orders. It will be noticed that the lexical frequency is such that this contrast might equally be envisaged as "fortis" (=injective) vs. "lenis" (plosive). To the ear, the $b / 6$ contrast is less perceptible than $d / d$; however, $d$ may be confused with $l$.
ii) Strangely, $f$ seems to be followed by unrounded vowels and $a$, but $v$ by rounded vowels and $a$. There is perhaps no $v / w$ contrast before the high front rounded vowel.
iii) The voiced palatal is affricated only before high front vowels; elsewhere it is a palatal fricative. The corresponding unvoiced consonant is a clear palatal fricative only before a high rounded front vowel; elsewhere, it is apical.
iv) There are postnasalized velar consonants (note that postnasals are also present in Mumuye, Shimizu 1983, but there duplicate almost the entire initial consonant system). The articulation of these consonants is such that they might just as well be described as postnasalized labiovelars.
v) There are a small number of terms having the structure: (Initial aspirate velar, $\left[\mathrm{k}^{\mathrm{h}}, \mathrm{g}^{\mathrm{h}}, \mathrm{h}\right]$ ) + high central vowel +y . (In fact, the relative weight of stop and aspiration is such that the phonetic notation might as well be $\left[{ }^{k} h,{ }^{\mathrm{g}} \mathrm{h}\right]$.) Now it turns out that, while we have at least one initial $k u$ y, we nowhere have terms of the form $k i \mathrm{y}, g i \mathrm{y}, h i \mathrm{y}$, or $i \mathrm{y}$. The latter are therefore reasonable phonological representations for these sequences; nevertheless, in our lists, they appear with vowel $a$ for easy identification of their peculiar nature. (Note that Shimizu 1983:13 also remarks central vowels before $\mathfrak{\eta}$ in ZM , and assigns them to phonological $i$, perhaps less convincingly insofar as his dictionary shows the preceding consonants to be arbitrary. Note a similar case in Tiba involving $q$ as $\mathrm{V}_{2}$, árá̧y 'fry'; it is not clear why this vowel should not be realized $i$, but at the same time, this verb has an aberrant canonic structure.)
vi) As in Mapeo Chamba (but not Nnakenyaare CD), lexical items may have an initial vowel preceded by glottal stop. Glottal stop is nevertheless not represented here, as there seems to be no useful phonological role for it.
vii) There are cases of initial labialized $m\left[\mathrm{~m}^{\mathrm{w}}\right]$. This realization is treated here as a $w+$ nasal vowel, but could also conceivably be a nasal counterpart of the postnasalized velars (cf. Shimizu 1983:12). Since it also appears intervocalically, however ([sùm"éee] 'worm'), this solution is questionable, aside from any phonetic implausibility. Its position in the system must be left undecided for the time being.

Tiba resembles the majority of Adamawa languages in having a sharply reduced noninitial consonant inventory. This seems to be:

| m | n |  | y |
| :---: | :---: | :---: | :---: |
| P | T | S | K |
|  | 1 |  |  |

There are, however, two important questions to be resolved:
i) Is there, as in CD, a $l / r$ noninitial contrast? On the basis of the data collected, it would seem this contrast does not exist intervocalically, where [1] and [r] seem to be allophones ( $r$ is used in our notation except between high back vowels, where [1] is perhaps exclusively preferred). There may, however, be a contrast after C , though this may be the consequence of borrowing from CD. Unlike CD, Tiba cannot be shown (at least by these data) to have $r \mathrm{C}$ or $l \mathrm{C}$ groups, although $\mathrm{CV} r \mathrm{VCV}$ may be such that $\mathrm{V}_{1}$ and $\mathrm{V}_{2}$ must be identical (or at least $\mathrm{V}_{2}$ is neutral). In such case, these items could be reanalyzed as CVrCV . (Given general scarcity of data together with difficulties in distinguishing compound terms, nothing will be said here about possible consonant sequences, which, as in CD, are likely to be severely restricted.)
ii) Do the semivowels $w$ and $y$ need to be represented intervocalically outside loan words? The data collected thus far suggest they do not, but the integration of loan words may be such that these phonemes should nevertheless appear in the intervocalic system.

## b) Vowels:

Tiba has a nine-vowel system: the usual seven-vowel triangle $(i, e, e, a, o, o, u)$ together with two rounded front vowels, $y$ (distinguished from the palatal semivowel elsewhere in this paper by tone marking or context) and $\propto$. There is apparently no need for the high central vowel found in CD. The presence of rounded front vowels is obviously unusual, but has been reported for Tikar at least (G. Guarisma, p.c.) in this general region.

Nasality: There seems to be a clear contrast between nonnasal and nasal vowels (the latter symbolized here by underscoring). There are probably only three distinctive heights for nasal vowels (only $\underline{i}, \underline{y}, \underline{e}, \underline{a}, \underline{o}, \underline{u}$ are thus far attested).

Furthermore, the nasal contrast can only appear in a limited number of positions: 1) V in CV\# (e.g., $t a$ 'pluck'/ta 'be early'; and 2) $\mathrm{V}_{1}$ in $\mathrm{CV}_{1} \mathrm{C}_{2}(\mathrm{CV})$ (where $\mathrm{C}_{2}$ is either a front or a back stop, e.g., tap 'sew'/gap 'count', dek 'forget'/sek 'go down', are attested.

There is also nonphonological nasalisation in Tiba. Firstly, both nasal and postnasalized consonants transmit their nasal feature to the following vowel. Furthermore, unlike CD, Tiba lengthens vowels before $-n$ - in $\mathrm{CV} n \mathrm{CV}$ structures (also a feature of Yendang); $-n$ - then tends to drop (in accordance with a CD-like exclusion of CVVCCV), leaving a long nasal vowel. At the same time, in Tiba as in most if not all neighboring languages, vowel nasality spreads to a preceding smivowel. Furthermore, there being no NV/N트 contrasts (just as in other Southwestern Adamawa, SWAD, languages, certainly Dii and probably Yendang), there is no justification for setting up $n y / y$ and $n w / w$ contrasts (unlike CD, where nasality can only be a consonantal feature). Thus, [waasi] 'body' is, if the rules above are indeed the only ones operative, phonologically /wansi/.

We may note that there is a strong tendency in Tiba to apply the CD rule that, if $\mathrm{C}_{1}$ in $\mathrm{C}_{1} \mathrm{~V}(\mathrm{~V}) \mathrm{N}$ is a semivowel, it must be nasalized; i.e., in Tiba terms, the vowel in this structure must be nasal. There are, however, apparent counterexamples in a sort of "adjective" class. Whether there is an explanation for these cases such as to render the rule absolute in Tiba remains to be seen.

Length: The question of the contexts in which vowel length is contrastive in Tiba requires further investigation. It would seem that the CD situation whereby lexical items cannot have the forms CV (only CV:), $\mathrm{CV} n$ (only CV: $n$ ), or CV:C (only $\mathrm{CVC}_{2}$ for any $\mathrm{C}_{2}$ other than $n$ ) also holds in Tiba. The rule requiring that $\varphi$, , $o$, be long in CD (except in C_CCV) does not, however, seem to hold. Tiba has cases of at least $\mathrm{C} \rho \mathrm{C}, \mathrm{C} \rho \mathrm{CV}$, and $\mathrm{C} \varrho \mathrm{C}$, though in the case of the latter, the length contrast is much clearer to the ear when a vowel suffix is added. Long $e$ and $\varrho$ in C_C and C_CV contexts are, however, limited to cases in which $\mathrm{C}_{2}$ is $r$ or $s$, and there are no suitable pairs for establishing a long/short contrast. It may thus well be that Tiba, like CD,
ultimately has the bulk of its vowel length contrasts in the $\mathrm{CV}(\mathrm{V}) \mathrm{CV}$ structure. For either phonological or morphological reasons, however, contrasts may be impossible to find before some $\mathrm{C}_{2}$ 's.

There are two more important differences between CD and Tiba in this respect, namely 1) that, when a -V suffix is added to a CV: $n$ term, the vowel is shortened (the notation $\mathrm{CV} n$ is therefore used in the word lists presented here); 2) though less frequent, vowel lengthening and nasalization followed by loss of the nasal consonant can also be observed in the case of CVyCV . (This situation involving a loss of the $n / \mathrm{y}$ contrast has been generalized in Zing Mumuye and Yendang.)

Vowel length is independent of tone, i.e., vowels are either short or long, whether they bear a simple or a contour tone. Contour tones are represented below by two vowels, but these vowels are only (phonetically) long in the environments specified above. Naturally, a sequence of identical vowels with identical tone represents a (phonological) long vowel in the appropriate (CVVCV) context. There is no clear case of a vowel length contrast under a contour tone; this is also true in CD, where a few apparent contrasts can be given a morphological explanation.

## c) CANONIC FORM:

The canonic forms $\mathrm{CV}(\mathrm{V}), \mathrm{CV}(\mathrm{V}) \mathrm{C}, \mathrm{CV}(\mathrm{V}) \mathrm{CV}$, and CVCCV , are attested for nouns and verbs, with some longer forms, particularly $\mathrm{CVC}(\mathrm{C}) \mathrm{VC}$, for nouns. (As indicated above, the $\mathrm{C}_{1}$ position may be occupied by glottal stop.)

The restrictions on $V_{2}$ are very strong, in Tiba as in CD , but will certainly have slightly different formulations in each language. Unlike CD, these restrictions are bound up, at least where nominals are concerned, with morphological phenomena. We may therefore anticipate on noun morphology in order to summarize the Tiba data as follows:

- $\mathrm{CV}(\mathrm{V}) \mathrm{CV}$ and CVCCV nominals have $i$ as $\mathrm{V}_{2}$ when the term is in nonfinal position; in final position, this vowel becomes á. (In the lists provided here, such nouns are written with final -á, making them easily distinguishable from $\mathrm{CV}(\mathrm{V}) \mathrm{CV}$ and CVCCV verbs, which have final -i.) Nouns with these forms in CD end in either $i$ or $a$ and are invariable.

The final-vowel tonology of these nouns requires an additional remark: the majority end in -Cí or -/Cí (i.e., downstepped $i$ ) in nonfinal position; some, however, do not. These will display $-a$ bearing a contour tone in final position, and $-i$ bearing the first component of that contour in nonfinal position. Actually, only two such possibilities seem to exist: 1) nominals with final -àá (cited here with final -à), hence nonfinal -i; and 2) nominals with final -áā, hence nonfinal -í, itself followed by downstep.

- There are exceptions to the rule just stated: these include a small number of terms with final -á or -áā which remain invariable in nonfinal position (i.e., their final vowel does not become-i). There is also one attested case of a CVCCV noun behaving like a CVV nominal in both having a final contour tone and being invariant in final and nonfinal positions: pùglàá 'armpit'. It may
be that the term for 'sickle' alternates between invariance (bàámsàá) and variance (nonfinal bàámsà, final bàámsàrá, see 'Noun morphology' below).
- A small number of nouns have final -àà; the one case of alternation (gýsàā, gýsỳn) suggests this structure was originally-v̀n-á. The -á marking final position has thus been incorporated into the root, the form in nonfinal position being (-)/Cāa (with downstepped mid tone).
- There are also $\mathrm{CV}(\mathrm{V}) \mathrm{CV}$ nominals with high $\mathrm{V}_{1}$ and final èè (wésèe '(load of) firewood' with mid $\mathrm{V}_{1}$ being an apparent counterexample), which could conceivably be analyzed as deriving from $-i-+$-á in final position; however, these terms do not change their vowel in nonfinal position (their tone pattern becomes HM). This analysis is therefore better seen as diachronic than as synchronic.
- There are a further three $\mathrm{CV}(\mathrm{V}) \mathrm{CV}$ nouns, sìjij, a variant of siìì, 'civet cat', sáátí 'porcupine', and jèrí 'whirlwind', which have root-final -i (-iy?), giving -i-á in utterance-final position.
- Like CD, Tiba allows CVCum (also CyCym) and CVCVy (with $\mathrm{V}_{1}=\mathrm{V}_{2}$ ). There are also terms with CVCen structure corresponding well to CD terms with identifiable -én or -éē $n$ suffixes, and others which correspond to nothing in CD. (See "Derivational affixes" under II.4.a below.)
- Tiba also has a variety of $\mathrm{V}_{1}-\mathrm{V}_{2}$ combinations in $\mathrm{CVC}(\mathrm{C}) \mathrm{VC}$ terms with final y and $k$ (and even in one case, final $n$ ) which are unfamiliar in CD. The possibility that at least some of these terms are original compounds (or even synchronic compounds involving items not yet recorded individually) should be considered.

From the above, it should be clear that the $V_{2}$ position does not provide a full set of vowel contrasts. Indeed, final $-i$, whether for nominals or for verbs, is a lax, slightly lower variant of this sound than appears in $\mathrm{V}_{1}$ (root) position, doubtless owing to this neutralization of contrasts. There is furthermore some tendency to total assimilation when $\mathrm{V}_{1}$ is either $e ̧$ or $y$. (It may be noted that Tiba does not seem to have the $\mathrm{C} e \mathrm{C} e$, and $\mathrm{Co}, \mathrm{C} \varrho$ structures found in CD .)
d) Tones

Tiba has a three-level tone system, complicated by downstep and grammatical tone alternation.

Downstep occurs automatically (as a mere phonetic realization) after a rising (LH) contour tone. It also occurs syntactically (i.e., as a mark of certain syntactic relationships without necessarily requiring postulation of any "underlying" (deleted) L tone), and as a "surface" phenomenon, i.e., where the deletion of an underlying tone may be supposed. Within lexical units, this underlying tone may be structurally L; but the most frequent deletion affects HM contour tones and patterns ( $\mathrm{C} v \bar{v}>\mathrm{C} \dot{v} /, \mathrm{C} \dot{\mathrm{v}} \mathrm{C}(\mathrm{C}) \overline{\mathrm{v}}>\mathrm{C} \dot{v} / \mathrm{C}(\mathrm{C}) \hat{\mathrm{v}})$. This situation, resulting from the abundance of such tones and patterns in nominal lexical units (see below), is largely identical to the one in CD.

## Tiba II, 30.11.99

Tonal alternation in some nouns in associative constructions is described below (noun morphology).

Noun tone classes: Note that about one half of all nominals have a HM or H tone pattern; another quarter has MH or M. Other fairly well represented nominal root tone patterns are LH, LHM, HL(M), and L. The others are marginal and perhaps derivable in some way from the above.

Such a situation is historically interpretable in terms of an original two-register system, increased to three by addition of a third infralow level. There is, however, no evident comparative evidence of such a phenomenon (with the exception of the four-level Yendang system, which may have suffered Chadic influence, the languages compared here all have three tones as well). Tiba is, however, rather unusual in displaying unexpected tonal correspondences for very wellattested roots (see, for example, 'louse'; the fact that CD has láká for this gloss may help to account for this particular irregularity).

Verb tone classes: In the material presented here, the majority of transitive verbs appear in simple predications with 3 S subject $k^{\prime}(/)$ and nominal object. It appears that this construction is unfortunately not suited to revealing verb tone-class distinctions. Indeed, most transitive $\mathrm{CV}(\mathrm{C})$ verbs have a falling tone, (/)́viv̀ or $\overline{\mathrm{v}} \mathrm{v}$, in this context, the L component being perhaps attributable to the deleted à- prefix of the object (although such verbs in elicitation also seem to have a HL tone). This L component disappears when verbs are followed by a nominal object with á- prefix or a nonnominal term. These verbs are therefore given in the glossary with H tone. A few transitive $\mathrm{CV}(\mathrm{C})$ verbs seem, however, to have L tone in the same context and are so marked, although this may not reflect any real difference in lexical tone. Indeed, some of the verbs which appear several times in the data have either the $\mathrm{H} / \mathrm{ML}$ contour tone or L tone according to some as yet unidentified feature of the context (perhaps subject tone, object tone, or both).

In the same way, transitive CVCCV verbs have a HL or ML pattern, apparently in (free?) variation. When, in careful speech, the à- prefix of the following noun is retained, this pattern becomes MM. Two unexplained cases of HH and five of HM were, however, observed and are cited in the glossary.

A more helpful context for distinguishing transitive verb tone classes seems to be the use of a 3S pronominal object, $k i$. Indeed, this seems to yield at least three classes, $\mathrm{H}(\mathrm{H} / k i), \mathrm{M}$, and again a very small number of $L$ ( $M$ is perhaps sometimes realized $H$ with no following downstep). Very few $\mathrm{CVC}(\mathrm{C}) \mathrm{V}$ verbs were recorded in this context, and no tone class distinctions were observable (all seem to be M). Verbs cited with $M$ tone in the glossary were observed in this context. It may be noted that, in CD , this context neutralizes verb tone-class distinctions.

Another context in which tone classes can be distinguished is that of the perfective suffix -nȩá, which can be used with intransitive verbs (which never take an object) as well as with objectless transitive verbs. Again, three classes can be distinguished: $\mathrm{HL}, \mathrm{H}(/)$, and L (verbs with

HL tone in the glossary were observed in this context; verbs observed with $L$ tone in this context are marked "intr"). The position of downstep after H in this form varies: H/néá or Hnę/á. It has been impossible to determine whether or not this variation is conditioned.

A third context in which a number of verbs have been observed is with following locative ( $\overline{1}$ ) or definite (ní, á) markers. There are insufficient examples, but a first impression is that this context may disturb the lexical tone patterns of verbs. Tone patterns do, however, contrast there.

A fourth context for determination of verb tone classes may be as the first verb $V_{1}$ in a $\mathrm{V}_{1}-\mathrm{V}_{2}$ sequence. $\mathrm{H}-$, $\mathrm{M}-$, and L-tone verbs may be discernible here, as well as HL .

One final feature requires mention: some verbs have been found to take HL pattern in transitive constructions and $L$ in intransitive ones (these are so marked in the glossary). This precise tone alternation, which may be an inflectional or a derivational phenomenon, is well attested in AD4; it may even be said that the unmarked intransitive form is L, and the unmarked transitive form H , although there are apparently exceptions to this rule.

## II.3. The pronominal system

The following system of subject pronouns was obtained:

| 1S subject $\grave{m}$ | 1PL subject wií |
| :--- | :--- |
| 2S subject à | 2PL subject mií |
| 3S subject $k i$ | 3PL subject wá |

These pronouns are apparently obligatory markers, at least for the first verb in a series. In subject function, no other morpheme has been observed to intervene between them and the verb, wherefore they may be considered part of morphology.

The possessive markers are directly preposed to the noun they modify (i.e., between the prefix $\grave{a}-$ and the noun root), unlike CD where the possessives are all postposed. The system of these markers is:

| 1S (à-)mēē- | 1PL (à-)wétét- |
| :--- | :--- |
| 2S (à-)wēē- | 2PL (à-)métȩ́.- |
| 3S (à-)gúú- | 3PL (à-)wóóntí- |

It would seem, then, that the plural possessives in fact bear the non-final form of the plural suffix. Similar nominalizations seem to provide the "independent" forms of the personal pronouns (i.e., pronouns used in functions other than that of subject marker, e.g., in topicalizations).

These possessives may be used both for nouns which would generally be classified as "alienable" (e.g., 'pot') and for those which would be "inalienable" (e.g., 'head'), in languages which make such distinctions. Some kinship and relational terms (e.g., 'father', 'mother', 'husband'), however, have different forms for the 2S and/or the 3S. These are:

It is quite curious to note that the 1PL and 2PL forms above seem to be precisely the inverse of the 1 S and 2 S forms. Knowing that informants accustomed to only oral use of language will encounter a certain difficulty in providing "translations" of pronominals, we therefore questioned Awdi insistently about this, but were in the end satisfied that he was indeed giving us the forms we were requesting.

We must now proceed to examine the differences and similarities in the Tiba and CD pronominal systems.

The Tiba 1S subject pronoun is essentially as in CD; its point of articulation is assimilated in subject position to that of any following consonant. The CD 1S possessive is postposed mèè. (The CD independent 1S pronoun, however, is nòk, for which no Tiba correspondence has yet been observed.)

In CD, the 2 S pronoun is a M-tone nasal in subject position (à is a variant in certain contexts and obligatory in imperative forms), but the object pronoun is -à. The CD independent 2 S pronoun is $w \overline{11}$, related to the postposed possessive wẹẹ. There is therefore a good correspondence here with Tiba, though the Tiba 2 S imperative seems to be yil̀.

CD has no 3S subject pronoun, but the 3 S independent forms are doubtless derived from *gú 'animate', *gí 'inanimate'. The object form is kù (gù in Mapeo Chamba); this is also the subject form used in indirect discourse, though it undergoes diverse changes in S-V tone patterns. The CD 3S possessive is kęẹ̀ (gęée in Mapeo Chamba). There is thus again a fairly good correspondence between the two languages.

It may be noted that Tiba $k i$, whether in subject or object position, is apparently followed by downstep. In CD, this feature would normally be associated with a raised L tone.

Furthermore, a usage of this pronoun with a possessive sense has been observed before a following noun, corresponding to a similar usage of the independent pronouns in CD.

The CD 1PL subject pronoun is á, the independent form wóó, related to the possessive wọog. If the Tiba form is to be connected, the vowel change must be explained.

The CD 2PL and 3PL subject marker is $i$. The object markers are likewise identical (-bú). The independent 2PL form is in all likelihood derived from an earlier $v u$, the possessive being $v e ̨ e ̣$. . The independent 3PL is likewise derived from bú, with possessive bẹẹ. This distinction among the independent pronouns is not, however, invariably maintained, and it is probable that these two forms are in fact doublets of some original form. Tiba thus differs clearly from CD, both in the form of the 2PL and 3PL elements and in avoiding their confusion.

The Tiba pronominal system thus has points of agreement and of disagreement with the CD system. The agreements may extend to the use of a variant of the 1 S pronoun as the logophoric singular, though this requires textual verification.

Demonstrative: Only one demonstrative was repeatedly requested (CD déèn 'this, that (one in question)' as noun modifier). This is translated as a form -(i)nk(áli) (perhaps involving some unexplained tonal phenomena). Specific questioning yielded no indication of a near/far distinction or other complication making it possible to contrast the Tiba and CD systems. There was also a single instance representing the CD -àán demonstrative ('this (here and now)') in à-míyóéè (prefix|day|this) 'today' (CD mór-àán).

## II.4. Tiba morphology

a) Noun morphology

Classificatory inflection: In general, nominals have a prefixed à- when they are found in initial position. Some nominals, however, have a high-tone á- prefix, followed by downstep, suggesting a structural áà-. The nominals with this prefix mostly designate animate beings, although one plant is included (see below). The case of common or cultivated plants being classed grammatically as animate is known from Zande.

Nominal prefixes are segmentally unstable, but their tones may persist. Thus, in more rapid speech, à- may drop before a nominal in initial position, particularly when the latter has a (phonetically or phonologically) long, H -tone first vowel, with the L tone of the prefix shifting to the root. An interesting case in this regard is á/jàánsā 'tiger nut', confirming that the á/- prefix is in fact á-à-.

Likewise, à- and even á/- may drop when the noun follows a verb as its object, but the tone patterns of verbs suggest that the prefix tones shift to them.

Nominals with a canonic form ending in a C suffix -á in final position. If, however, the nominal root ends in $-\mathrm{V} r$, the nonfinal form ends in -V rather than $-\mathrm{V} r$.

Nominals with canonic form CV suffix -á in final position unless V is $-e-,-\underline{e}-,-o-,-\underline{O}$, or $-\infty$-, in which case the vowel is lengthened with an added H tone. Final-vowel alternation in longer canonic forms with final V has been described above in the course of the phonological discussion.

Note that this requirement that utterances (in this case, utterances with a final nominal) end in a vowel is a well-known regional feature. CD (or at least certain dialects such as the Mapeo form) distinguish themselves by requiring final -í, while CL, for example, resembles Tiba in taking final -á.

Reduplication is observed in some Tiba nominals. No specific semantic feature can be assigned to it, unless it be a particular association with mass nouns.

Plural: the plural is regularly formed by suffixing - $t$-(á $/$ í) to the root. A small number of plurals (involving human beings in the data thus far) are irregular.

It will be noted that in AD4 Pere the plural suffix is -to and that there is a plural suffix $-t$ in AD 4 Momi.

Syntactic inflection: Tiba has one rule of noun tone alternation which is not present in CD: H and HM nouns undergo a tone change when they are modified by a preceding H or HM noun: they become M (e.g., lúū 'yam' + són 'staple food' > lúúu /sōn(á), ísī 'eye' + sóksá 'hair' > i/sí sōksá 'eyelash').

Locative: There are two locative noun suffixes, -né and -mé, similar to the ones found in AD4. More examples are required to determine the conditions of their appearance; a first impression suggests that -né is used for position ('at, in, within') and -mé is used for movement ('from, to'), although this would be typologically unusual for an African language in this region.

## Derivational affixes:

AdJectivizer: The suffix -èn can be added to some nouns to produce a derived adjective. This suffix is doubtless ultimately related to the adjectivizing verb suffix (b.iv below), but the tonological behavior of both requires further clarification.

Nominalizer: There is a suffix -gúr- which can be added to any (nominal or verbal) adjective to form an abstract nominal, e.g., péék'new', -pék-/gúr-á 'newness'. In the case of verbal adjectives ending in $n \overline{\mathrm{e}}$, this suffix may tend to be tonally assimilated ( $-g \overline{\mathrm{u}} r$-).

## b) Verb morphology

Inflection: There is undoubtedly tonal inflection of verbs (such inflection has been noted in association with an imperative form, but the data are not sufficient for any conclusions to be drawn). Segmental inflection in the strict sense is not attested, although it is possible to cite a focalizing particle, construed exactly as in CD by suffixation to the verb + object pronoun group: this is -gú-á. (It is also used to translate the CD "durative" when it has an emphatic or adversative sense, "definitely, contrary to expectations", indicating that the Tiba durative does not have the same range of meaning.)

Derivation: A certain number of likely derivational suffixes are attested in these data. It is not, however, possible to decide whether Tiba must be thought to have a highly developed and productive system like that of CD which is not apparent for reasons of chance distribution, or whether on the contrary it has, as seems to be the case, a more vestigial system like the one found in AD5 ZM. The "suffixes" observed are as follows:
i) The -si suffix: Many verbs have the form CVVsi or CVCsi. The majority of these are not identifiable as derived from CVV or CVC verbs, respectively, perhaps simply because no possible sources appear in the data. A few are, however, so identifiable, cf. sýỳm- ' be dry', sýmsì 'dry (tr)'; wōp 'run, fear', wópsì 'ride (horse, i.e., make it run)'. These are clearly causative-type derivates. Others are the same kind of "medial" causatives or benefactives found in CD and elsewhere, e.g., $d_{\bar{\circ}} n$ breathe' $^{\prime} d_{\bar{O} n s i ̄}$ 'rest (i.e., make oneself breathe, breathe for oneself)', while others have more complex agentive relationships: kýy 'cut (down), clear (a field)', k'ýsis 'chop (into pieces)'. Others still are evident calques of CD, e.g., Géksì Greak, smash', cf. CD vwēksì, "frequentative" of $v w e ́ k$ 'split'.

There are a few verbs of the form CVsi with $e$ or $e$ as $\mathrm{V}_{1}$. It may be remarked that verbs of this form in CD would be derived from CV $t$ verbs; it is difficult to tell whether a similar phenomenon might exist in Tiba.
ii) Other "suffixes": $-k i,-l i,-t i,-r i$ : The suffix $-k i$ is represented by only three CVCki examples, two of them clear CD loans; -li appears in only two CVCli verbs, one a Fulfulde loan; $-t i$ is used in four CVCti verbs, three of them clear loans from CD, where the corresponding suffix is -li; and -ri occurs in two CVCri verbs, one being an evident CD loan, and one CVVri verb. There are thus only one or two examples of each of these suffixes with a plausible Tiba origin; none of the verbs in question can be related to any corresponding base verb with the possible exception of jánrì 'dry (meat)' (<jāŋ- 'hot'?). Nothing, then, can be said about the semantic content of these "suffixes". Note, however, that, in CD, the term corresponding to Tiba bùmki- 'resound, be noisy' is a frequentative derivate in -kì of a different root, while the term for 'tickle' (Tiba $d \overline{1} g \overline{1})$ is also a CVCli verb. Only one CVCtì verb (a sort of "diminutive") and no CVVti appear in CD. ZM does, however, have -se verbs with much the same meaning range as those in Tiba, as well as -ke and -le suffixes with "intensive" (essentially equivalent to "frequentative") sense, -le with "habitual" sense, and a small number of -te suffixes with no clear meaning content (see Shimizu 1983: 64-7).
iii) The verbal noun suffixes $-\bar{m}$ and -dim: The verbal noun, or infinitive, is obtained by giving the verb root a M tone pattern and by suffixing $-\bar{m}$, unless the verb has the form CVm or $\mathrm{CV} n$, in which case the suffix is -dim. Like any noun, the verbal noun can take an à- prefix and an -á suffix. If the noun suffix is $-\bar{m}$ and $-\mathfrak{a}$ is added, the result is phonetically [ $\overline{\mathrm{v}} \overline{\mathrm{m}} \mathrm{m}$ á]. The verb root in the infinitive may be followed by a pronominal object (as in CD) or by a nominal object (unlike CD). In such case, the verb's tones are only determined by its relation to its object, and the infinitive marking is limited to a phrase-final $\bar{m}$.

There are nevertheless a certain number of CVV verbs which, for an undetermined reason, are given with suffix -dim.
iv) The adjectivizing suffix -nē: some stative verbs have a derived adjective with this suffix; it may also be that some adjectives with this suffix derive from verbs no longer in the language. Roots with this suffix are attested with $\mathrm{H}, \mathrm{M}$, and LH tones.

## II.5. Word order and proposition marking

Basic word order is $\mathrm{SV}(\mathrm{O})(\mathrm{C})$, where C represents predicate and utterance modifiers in general. The preposition of the syntactic object to the verbal noun, attested in CD, has not been observed. Nevertheless, as in CD, Tiba word order in noun phrases is such that a modifying noun precedes the "head" noun, while a modifying "adjective" follows it.

A number of prepositional markers characteristic of CD are also attested in Tiba:

1) the definite marker ní preceding utterance-final modifiers (CD é(n)); a marker á or há seems to alternate freely with ní and is conceivably a direct borrowing from CD;
2) the locative marker ( $n$ ) $\overline{1}$ preposed to noun phrases (perhaps related to the above);
3) the locative anaphoric gáà preposed to locative terms (also in CD );
4) the preadverbial marker $j i$ (observed only utterance-finally with the sense "simply", also found in CD).

The following predicate and utterance markers have been observed:
ASPECT: There is an utterance-final marker tranlating both the "real" marker ( $-i$ ) and the perfective (gò) in CD: this is nę́á (presumably nę + -á) after L tone, nę/á or /nęáa after H tone.

There are some tonal exceptions: some where the preceding H is itself downstepped or not subject to tone lowering (...pẹée tóm nȩ́á'...work'), and a number of thus far unexplained cases in which the downstep is treated as M and followed by another H (nęéáa).

There is an utterance-final marker translating the CD durative ( $t \overline{\mathrm{e}} \overline{\mathrm{e}}$ ): this is $j \overline{\mathrm{a}}-\mathrm{a}^{\text {á. It may }}$ be preceded by the definite $n i$ ( CD é $t \overline{\mathrm{e}}$ ).

Negative: There is an utterance-final negative marker: dá. Its compatibility with aspect markers was not tested.

Interrogative: There is an utterance-final interrogative marker -è, identical with CD. (In CD, this marker is used in verbal propostions only if the verb is in the absolute affirmative form.)

## II.6. Conclusion

We believe that the data presented here authorize us to conclude that our informant Awdi was indeed fully bilingual in Chamba Daka and Tiba, and that he maintained a clear separation between the two systems at almost all times (excepting perhaps only a small set of lexical items). We may stress that, while many features of the two language systems resemble each other, Tiba may be found in some cases to have a more complex system than CD. Furthermore, the lexical correspondences show precisely the irregularities we would expect for languages which have had a long period of contact involving borrowing at different historical stages.

The full set of lexical data recorded appears below. Terms marked by an asterisk (*) are those which are identical in Tiba and CD, allowing for regular correspondences (e.g., CD $q=$ Tiba $e_{\text {}}$ ) and uncertainty regarding verb tonology, or display only minor tonal variations. Corresponding CD items and comparative remarks on a wider scale appear after a bar (|). The conventions of language notation are as in part I, but Tiba nominals are presented without their affixes, except where they prefix á-. (Consequently, since, in Tiba as in CD, the intervocalic labial plosive is phonetically [b], the dental plosive is [r], but the velar plosive is [k], while in final position all plosives are unvoiced [ $\mathrm{p}, \mathrm{t}, \mathrm{k}$ ], noun roots with final plosive will appear below with final $b, r, k$ after deletion of the -á suffix; while verbs will have final $p, t, k$, corresponding to the citation form.)

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LIST 2：A TIBA－ENGLISH GLOSSARY WITH ADAMAWA COGNATES

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á, exceed, surpass | cf. AD4 Momi ar-, Pere yór- 'pass'
á, gather, scoop up
árą{\, fry | CD nyānglì (possible metathesis)
án, open (wide), yawn (+ óćérá) | a widespread ideophonic root: CD yáá yáā, AD4 Momi
    aga̧n-, Pere àà-, Dii áá, AD5 Yendang hánk-, AD6 Kare 'á
áp, seek
ápsì, feel, touch (prob. < áàp 'seek')
a̧g\kpàà, mouth (also ç̀\, language, speech) | AD4 Pere yāgò, Dii ya\overline{a}g, AD5 Yendang ya\underline{a}}k,\mathrm{ AD6
    Karang nzák are conceivably cognate with this (probably compounded) root
ģą̄⿹⿻一⿻口人丨又一, arm, adj. ą́nnèè, relating to the arm (see list 1)
ǵą\y, name | AD5 Yendang ị1 k
a̧,y, know | cf. AD13 Kulaal ọn, Niellim 'ùnà
é, dry (something in the sun) |CD yērì, AD4 Momi yend-, Pere yilir-, Dii yè̀', AD5 Zing Mumuye
    (ZM) yà, AD6 Kare yé 'dry'
ék, tear, rip, pluck | AD4 Dii yè' 'split'
é\eta, egg (see list 1)
*ę̧k, burp | CD yaǵk
ésì (HH?), cough | CD wūsì, cf. AD6 Kare hèl
il, lie, lie down, sleep | AD4 Dii \overline{1}
in}n\mathrm{ , tooth (see list 1)
isá, mat (MH?) (see list 1)
isā (ȩsā?), eye (see list 1)
*ísèn, broom | CD yisèn
ón, bee (see list 1)
órēn, cold |CD wárēn
ónsì, lick
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óọinà, who? $\mid \mathrm{AD} 5 \mathrm{ZM}$ wọ
$\dot{\alpha}$, wash (oneself) | AD4 Dii yòō 'wash something', AD5 ZM welè, wolè, Yendang hū-, AD6 Karang wòk, Kare 'ò̀
(y) óóān, nose (see list 1)
đ́é́ráá (or ór ), yawn (n)
*úk, hear, feel \| CD wúk, cf. the reflexes of Proto-Plateau (PP) *fwak
$\dot{y}$, knead | cf. AD4 Dii vù 'pound (flour)'
$\bar{y}(n \bar{e})-$, cool (as shade) $\mid \mathrm{AD} 2$ Chamba Leko (CL) nwūùm
$y$ ýp, crush (under foot)
ỳrýýym, ancestor spirit | CD wùrú( $\overline{\mathrm{u}}) m$; cf. AD 4 Dii yòō $b$
ýsì (HH?), suck
$y$ ýsi, twist, wring (perhaps identical with the preceding term) $\mid \mathrm{cf}$. . AD4 Pere vìy'sỳn, breast (see list 1)
bá, leopard (see list 1)
*bàk, follow | CD bàk, also AD2 CL bàg
*bàk, stick, block | CD bàk
bám, big (be) |CD gbóóm, AD5 Yendang gbā $n$ 'heavy, old'
baáámsà(r), sickle | CD gbòómsà, AD4 Momi gamsqgz, but Pere gbànè
bāŋkù̀lúūy, elbow
*bàr(ù) $b$, twin $\mid \mathrm{CD}$ bàrùp
*béēb, money |CD béēp
bén, granary $\mid \mathrm{AD} 4$ Pere binè, cf. CD bóón, AD 2 CL bóón, AD 5 ZM bợọ; AD 4 Dii ván
*bèréèn, gazelle (kind of) |CD bérèng
*bì, seed, kind (bi as N2) |CD biì
bîl, quiver (for arrows) | CD bęẹ̀n
*bōksī, accompany |CD bōksì
bòr, big | CD wàrí, pl. wòpsá, AD 4 Pere bògà̀rè̀, AD 5 ZM bòrò are all likely cognates búmlá, round
búy, kill | cf. CD bùt, AD4 Momi but-s- 'kill a sleeping animal'
býýrì, draw, decorate with drawing $\mid$ AD4 Momi bii-, AD5 ZM bii but Yendang vēē-; cf. CL bād

Gá (6à with subject $\grave{m}$ '1S'), come | CD báá, rarely with sense 'come' in AD, but cf. AD4 Pere bá'come forward'
6ák, hug, embrace, cradle | CD kpạ́k, AD 4 Pere kpà̀-, kpày-
Gák, knife (see list 1)
$b a ̀ k$, bushcow (see list 1)
Gáksì (+ túū 'head'), think, worry about
báámá, midst

Gán, farm (vb) | CD bààn, AD4 Momi baa-, Pere bàà-, Dii bàà, but AD6 Karang pā, AD13 Kulaal wáy, Niellim wāy
$6 \bar{a} n$, field, farm | CD $b \bar{a} a ̄ n$, AD4 Momi bant, Dii bāb, but AD6 Karang pà̀, AD13 Kulaal ùààl, Niellim wáál
bé-sibá, (down on) ground $\mid$ cf. perhaps CD $b \bar{e} n$ for the initial element
béē, bushbuck | cf. CD bạ̧y, AD4 Momi bayamz 'duiker', Dii bál 'kob'
$b \overline{\mathrm{e}} k$, (clay) dish
Géksì, break, smash | ideophonic root: CD vwēksì, cf. AD6 Karang vwēh 'cut' and even AD13 Niellim 6ạ̀grì
bẹ́, leg (see list 1)
bę̄n, bring | CD bēnì; cf. AD13 Kulaal wẹ̀n
6 ęệr, two (see list 1)
6í, lie, tell lies (+ léèm) |cf. AD4 Pere mì̀- + 'tongue'
Gínsì, refuse $\mid \mathrm{AD} 5 \mathrm{ZM}$ bèn
Gíp, ask, ask for |cf. AD4 Dii vì, AD5 Yendang $6 \overline{1}-$, AD6 Karang $v w \overline{1}$
Góōm, wound, sore
Góòn, 6òn, cut, slash; split (intr); break (as day)
bón, river (see list 1)
bó, bean
bọ, throw | AD4 Dii gbò, AD6 Karang $v w \overline{\mathrm{u}}$
*Gọb, blind(ness) |CD bợọp
Gọọób, dance (n)
Gọ́p, dance (vb) | possible cognate in AD13 Niellim $6 \overline{0} n$
Górrùm, thunder, lightning | CD bọ́ọ, AD4 Dii bóóó, cf. AD6 Karang pớmnā; but also CD bélùm, AD4 Momi bulmi 'flame' (see yér(i)má 'flame')
Gùmkì (intr), resound, be noisy
búūu, ash, dust |CD būnā 'dust'; *buy is PP and Proto-Jukun
búysā, (harmattan) wind
Gýy $\bar{y}, \operatorname{dog}$ (see list 1)
býmsā, brain(s) | CD bólòmsí, AD4 Pere bórè; note AD6 Karang lī-pám
$b \bar{y} r$, white | CD $b \overline{\mathrm{u}} r k i$ ', AD2 CL $b \bar{i} i ́ d, ~ A D 4 ~ M o m i ~ b u(n i) ~ ' w h i t e ', ~ b u r-~ ' b e ~ w h i t e ', ~ P e r e ~ b u ́ \overline{1}, ~ D i i ~ b u ́ ~$ 'be white', AD6 Karang búí, but also pùkí, cf. AD5 ZM puru
dá, copulate $\mid$ CD léén, AD 5 ZM laa
dá, take out, remove
*dábrì, wrap (in leaves to cook) $\mid \mathrm{CD}$ dābrì
*dáydáy, bitter | CD dángdáng
dáásì, choose, select (<dáà 'remove')
dén, cloth, clothing
$d \bar{e} n$, vagina
$d i ́$, press
$d \mathbf{1}(n \overline{\mathrm{e}})-$, heavy, prob. < dí 'press' | CD dingdìng, but initial continuant elsewhere: AD4 Dii $z i \grave{l}, \mathrm{AD} 6$ Kare $z i ̀$, Karang $y i$
dîî, long | CD dẹẹ̀rí 'long, far', AD4 Dii dî̀, AD6 Karang dî 'far'
$d \overline{1} g \overline{1}$, tickle | AD6 Kare dikilì, cf. CD gē $n g l i$
ding (perhaps diñ), eyebrow
dipsá, cloud
*dók, plant (vb) |CD dòk, also AD4 Momi dokw-
*dóm, greet | CD dóóm
dón, sing
dóō̄, misery, poverty | related to AD 5 ZM ráńn?
$d u ̀$ (or $d y$ ỳ), ridge (in farm)
$d u \bar{u} k$, mountain (see list 1)
*dùk (intr), finish, come to an end | CD dùk, cf. tý'finish' below
dùk- stomach (but syntactically adjectival) |cf. ZM dùku 'skin bag'
*dúksì, finish, be used up | $\mathrm{CD} d \overline{\mathrm{u}} k s i ̀<d u ̀ k$
dùm (intr), collapse, fall off, down
dùm, short, shallow
*(á) dúmá gày, vulture CD dúmá gàng
*dùngbàl, hippopotamus | CD dùngkpàlì
*dúytì (HH?), deceive | CD dūnglì
$d y$, wet, moisten, soak | cf. AD4 Momi yii-; perhaps ultimately connected with CD dùrí 'rain' dỳn (intr), go (in) $\mid$ AD5 Yendang tìn-; Pere dó-, Dii dó, but AD4 Momi tor-; also AD6 Karang rih
$d \bar{y} r$, deep | AD4 Pere lùù- 'be deep'
dâ (intr), break, shatter (from falling) | AD5 ZM daasè 'break (a piece) off', AD6 Karang dòr, Kare dọ̀rọ̀
dé, taste | AD5 Yendang lék-, AD6 Karang lēh; cf. AD4 Momi doo'
dè, testicles
dè, granary
dè, put, place | AD4 Momi de'(s-), Dii 'yé
dëk, forget | AD6 Karang yèkrē
dę̣, other
dí, burn ( tr ), light (fire) $\mid \mathrm{CD}$ dì̀ but AD 2 CL dúú; according to Kleinewillinghöfer (pers. comm.), Bambuka in the Bikwin group has lii
dîy, navel
$d$ ôb, in-law
$d \bar{o} b \bar{e} n$, cowife
dóōk, mouse | AD5 Yendang rö̈k 'kind of (domestic) rat'
dón, breathe | AD4 Momi doy 'groan', Pere dìu- 'blow, snore'; however, CD gòng, AD4 Momi yoys- 'snore', AD5 ZM gno ' 'snore'
dónsì (< dón 'breathe'), rest | same derivation in CD gōngsì; but AD5 ZM wno̧kè; cf. AD6 Karang $\dot{o k}$
dóṑ̄, hip (joint); thigh | cf. AD2 CL $d \overline{\mathbf{u}} n$, A4 Pere $d \bar{o} r e ̀, ~ D i i ~ d o ̄ o ̄, ~ a l l ~ ' l e g ' ~$
dộộ káạày, matriclan (compound with N2 'face'?)
$d \overline{\mathrm{u}} k$, penis $\mid$ AD4 Dii ndọgg, but Momi deek; AD6 Karang ndìw
dùùm, perhaps also dúmà, back (> düm 'behind') (see list 1)
dûmsā, urine |cf. AD 2 CL nwóòm, AD 6 Karang tọ́m
dū̀n, hole | CD dọ̣̄̄, AD4 Momi duur, but CL déél, Pere dạ̄lè; also AD5 ZM tọọ; AD6 Karang lókō
fâktì (intr), tasteless, insipid
fé, burn (tr/intr) | CD pií, AD2 CL pi' 'heat', AD4 Dii pì 'be hot', AD6 Kare più 'singe' fé, twenty
féēn, moon, also fén /wī1 'stars' (see list 1)
fésì, full, complete (be)
fí, take (staple food with fingers)
fün(n)ì, begin (< Fulfulde fuda? )
gá, illness
gá, get, receive $\mid \mathrm{CD}$ gààn
gáā, strainer (for beer), sifter (for flour); also fishtrap | AD4 Pere gáy 'fishtrap', cf. CD gȩ̣è
gāá, road (see list 1)
gàá, Tiba

* $g$ ā $m$, horn $\mid \mathrm{CD} g$ āā $m$
*gày, chief (see list 1)
*gàāy-túnén, donkey $\mid \mathrm{CD}$ gàng-pén-túnén
gàáy (sātáā, i.e., 'sour'), pepper | AD5 ZM gáńzin where the meanings of zin are 'clot of blood' and 'fish'
gàngár, drum (kind of) $\mid<$ Hausa gàngá
gáp, count | AD5 ZM gna, Yendang gàn-, AD6 Kare ngè (also ké), but non-nasal elsewhere: AD2 CL gád, AD4 Momi ga'-, Pere gáár-(do)
gápsì (HM?), divide, distribute (adj. gāpsé(nē)- 'forked')| CD gāpsì
gāāsá, (dry) season | AD4 Pere gāā, Dii gāāg, but AD6 Karang káy, Kare kéọ
gásì (HM?), think (about), recall | AD4 Pere gèl-, cf. AD6 Karang kèr
gánsì (HM?), strain, sift | CD gāāsì
gạ́psā, fly (n) (see list 1)
gą́y, hunch (on back) |cf. AD5 Yendang $k \bar{u} k i$; also CD $g \bar{a} y, \mathrm{AD} 2 \mathrm{CL} g \bar{a} a ̄ d$
$g$ ą̣ y , large potsherd |CD gió
géè, sorrel
gé, cross (river)
géè $k$, (bambara) groundnut
$g \bar{e} k$, grave | CD gāká, AD4 Pere gāgò
gém, scream, dream, nightmare (also a verb, 'affect (as a bad dream)')
gén, break, snap (tr) | AD4 Pere gạ̀- 'break (tr)' with derivative gà̀l- 'break into pieces (tr)'
gēn, medicine | CD gạ̧ạa $n$, AD2 CL gāān, AD5 ZM gnān, but AD4 Momi genbagz, Pere gaabò, Dii $g a ̄ m$
*gèn (intr), flow $\mid \mathrm{CD}$ gèèn
gérá, guinea-corn (see list 1)
géséy, scorpion
gî̀k, chest | cf. AD 2 CD gìll, AD 5 ZM ginn, but CD gàngà, AD 4 Pere gògī, gàgsàlè, AD 6 Kare gòn
gìm, smelly (be) | cf. CD gúún, AD6 Kare gùnè 'smelly'
*git, abstain | CD git
gītáámá, green
gó, pay (back)
gón, answer
*gònssá, breath | CD gòngsí, see the doublet gbàysá 'snoring' below
$g \overline{0}$, catch, seize | CD gùt, AD 4 Pere gùù-, AD 5 Yendang gö-
gù (intr), fall
* $g \bar{u} b$, thorn $\mid \mathrm{CD} g \overline{\mathrm{u}} p(\mathrm{cf} . \mathrm{AD} 4$ Momi kapt)
(á/)gýsàà, also gýsỳn, pigeon
gbá, call, call out | AD5 ZM baa (+ nyaa 'mouth')
gbá, vomit
gbắ, dig, dig up | AD2 CL gbạ̀̀', AD5 ZM gbmaa
gbák, grind (dry grain) | CD gòk
gbák, slip
gbāám, blood (see list 1)
gbāntīlớór $r,($ earth)worm
(á) gbáy, bird (see list 1)
gbà̀sá, snoring | CD gbāngsì 'groan' (compare dón 'breathe', gònsá 'breath')
gbàysì (intr), finish, run out | AD4 Momi gbams-, Pere bàm-, AD5 Yendang gòòs-
gbéè, forest
gbér , dassie
gbōóm, heart (see list 1)
gmésì, move, shift (tr) | CD gbāsì; cf. AD2 CL gbá' 'advance', AD4 Dii 'mẹ' 'move near' gmòp (intr), crawl
hám, salt
háp, bind, wrap (up)
hárā, headpad |cf. AD2 CL kālà, AD4 Pere kàarè, Dii kāā, AD5 Yendang kāntān
hą́y, guinea-corn (see list 1)
há̧y $m \overline{\mathrm{a}}$ (or ká̧y $m \mathrm{a}$ ?), rain, saliva (see list 1)
$j a ́ ~($ or $j a ́ a ̄ ~ o r ~ j a ̣ ́), ~ l a z i n e s s ~ \mid ~ C D ~ j a ̀ a ̀ l e ́ n ~ ' l a z y ~ p e r s o n ', ~ A D 6 ~ K a r e ~ z o ̀ z o ̀ ~$
$j a ́$, smear, anoint; step (in something sticky)
$j a ́ k$, cook, brew | AD6 Karang nzē but CD sāki
*jàm (intr), stand (up), swell (adj jām(nē)-)|CD jààm
(á)jàànsá, tiger nut $\mid \mathrm{CD}$ jáān but AD 5 ZM sáñ, Yendang tánká
jánrì, dry (meat) (<jāŋ-?)
$j \bar{a} y(n \bar{e})-$, hot, feverish (be) | AD4 Dii zágā 'sun', AD6 Karang záynā 'fever', Kare zàn
*jáāy, tendon | CD jáāy
jēé, scabies | AD5 ZM znàkn
jēmká, stranger, outsider |cf. AD4 Momi genz, AD5 ZM zanti, Yendang zántá
jērá, locust | cf. AD5 ZM zòro
jèrí, whirlwind
$j e ̨$, see $\mid \mathrm{AD} 5 \mathrm{ZM} z e ̀$
$j i \hat{1}$, night (see list 1)
$j i \overline{1}$, theft, thief | CD yílē $n<y i i ́$ 'steal'
$j \overline{11} b a ̀ r$, pocket | < Fulfulde jiiba
$j \bar{j}$ ntá, (cooking) pot (apparently singular though plural in form) (see list 1)
jíyjíy, also jíyà (in compounds, e.g., óy jíyà 'bee water', i.e., honey), jílíin, water (see list 1)
*jīnláā $r$, hyena | CD jīngláā
$j \overline{0}$, on, upon $\mid \mathrm{CD} j \overline{\mathrm{u}} m$
jóōb, poison | AD5 ZM znọ́po, Yendang zòn
jóm, squat | CD jọ̣̀̀m
*jón, laugh (vb) |CD jòòn
jòōy, jòná, red | AD5 Yendang yòntí
$j \nprec e(?)$, laughter | CD jòná, AD4 Pere zònè, Dii zọ̄m
*jū, up(wards) $\mid \mathrm{CD} j u \bar{u} u$
$j$ ūm, flour |CD jọ̄ọ̄m, AD2 CL zạ̄ạ̄m, AD5 ZM zuman, but AD6 Karang sọ́m, AD13 Niellim hùm
júy, mortar | AD5 ZM dun
jún, pound
$j \dot{j}$, pour

*kámkì, gather ( $\operatorname{tr}$ ) |CD kā $m k i ̀$ (frequentative of $k a ̄ m i$ )
kán, anklet
kán, find, meet | AD4 Dii kàn, cf. AD5 ZM kosè
kán, tie (prob. a derivative sense of the preceding verb) |cf. AD2 CL kāā' 'rope', AD6 Karang $n g$ à $h$
káāy, cobra
kàytá or kāytá, calabash
káýtá, tortoise |cf. AD4 Dii kpạ̀rgạ́d
káárá, wing, feather
kánsì, join, meet (<kán)
kğạạ̄, face, forehead
$k$ ạà, neck (see list 1)
ką̀gkiláa (invariable?), chicken (see list 1)
*kásí, strainer (for flour) |CD kāsí
kéè, cough (n) $\mid$ AD5 Yendang kól- (vb)
ké, say, speak
*kèlùm (also attested -kēlùm-, -kèlūm-, pl. kèlùmtá), baobab | CD kèl $\overline{\mathrm{u}} \mathrm{u} u m$
*kémjiñ, monkey (see list 1)
*kęẹé, refuse | CD kéģá
*kęẹr, mad(man)|CD kȩ̣é
*kȩẹékȩ̧ē, hedgehog | CD ką̣ákáạą
*kę́nsì, bother, disturb | CD kạansì
késā, (rainy) season | cf. PP *kwas
kēsá, side (of body), rib cage
*kilèn, loan | CD kilēèn
$k \overline{1} n$, one (see list 1)
*kìnéēn, leper, leprosy | CD kinéēn
*kìsēn, slave, captive (see list 1)
(á)kiyàà, (in) front, before
kó or kón, carry (a child on the back) | CD kōlì, AD4 Pere kúú-, AD5 ZM kpmáá
kò, put on (clothes)
*kók, rub | CD kók, cf. AD5 Yendang kpös-
kóm, urinate
*kóm, arrive |CD kóóm
*kònàr, smallpox | CD kònà
*kònláār, elephant (see list 1)
*kóntì, gather, pile up | CD kōnglì; also AD5 Yendang kòò-
*kóp, draw, fetch (water) |CD kóp; also note AD5 Dii kò
kọ, guinea-fowl \| CD kāā, AD4 Pere kì̄̄, Dii kọ̣ò, AD6 Karang kpèh but Kare kòrè 'perdrix', cf. 'chicken'
* $k$ ō, (enclosure) mat |CD kō̄ō
kọọr (intr), thin (be)
kónsì, untie
kú, sweep | CD kūrì, AD4 Momi koor-s-, AD5 ZM kọọ
$k \grave{u}$ (intr), old (be) (person)
$k \bar{u} k$, $k$ ūkú, grandmother | compare CD kāk, AD2 CL kàá; also AD13 Kulaal káá, Niellim kàà
$k u \bar{l} \bar{u} \eta$, boat | root with an unusual distribution: apparent cognates exist in AD13, e.g., Niellim kwáá: $r$, pl. kórgę̣, but may spread as far as Ubangi Zande kùrúngbà; also note Fulfulde koombowal
*kúmtì, make (a fist) |CD kūmlì
kūplúy, shoulder | cf. AD4 Pere kòollè and 'neck' (list 1)
$k y$, cut (down), clear (a field) | AD5 ZM kog 'cut (in two)', Yendang gòò- 'cut (down)'
kí, bright, clear (be)
$k y ́ y ́ s i$, chop (into pieces) (<ky' cut (down)')
$k \bar{y} r$, (wrist-, ankle-)bone, joint
kỳ̀́, hare | CD kùt
kméè, pull (up, out)
$k m e ̄ k$, squirrel
kpà, cut, break off (tr/intr)|AD4 Dii kpà̧n, kpạ̀ạ
kpạ́, skin | AD5 ZM kọo, cf. AD2 CL kpá̧gas̀l 'bark'
$k p \bar{a} m$, joking partner |CD $k p \bar{o} \bar{o} m$
kpàngúmtā groundnut(s) (see list 1)
*kpát, weed (a field) |CD kpát
kpé, fish, go fishing |AD4 Momi gbee-, AD5 Yendang kpëës-, both 'fish by bailing'; cf. AD2 CL $k p \bar{̣}{ }^{\prime}$ 'fishhook'
kpiksimsá, chin
kpìn, nest
*kpisáãr, billy-goat | CD piùsáā
*kpō̄áār, deaf | CD kpóngáā
láā, belly (see list 1)
láã, sleep (n) | invariable final nasal: CD láām, AD2 CL lạąām, AD4 Momi rąm, Pere nặm, Dii nạ̄m, AD5 ZM nú-rọn, AD6 Karang nám, except AD5 Yendang nóó-rōō
là (intr), fall (as rain) |always initial nasal elsewhere: CD nàà, AD2 CL nāy, AD4 Dii nāy, AD5 Yendang nā-
(á)lágòn, chameleon |cf. AD5 Yendang gònlí
làk, forge (vb) |cf. AD4 Dii làgā 'sharpen'
làm, lost (be)|cf. AD4 Pere lēē, AD5 ZM rín
láàn, cry (vb)|cf. AD4 Dii lég, AD6 Kare rę-rę̣ọ
*láy, surround |CD láng
láysá, side of face | CD lā̄ngsí 'temple'; also AD4 Pere làrą́y, AD6 Koh lāākùn
lēká (pl. lēkétá), blacksmith (see list 1)
léè $m$, lie (in biì lémā 'tell lies', cf. lér 'tongue')
léēn, grinding stone | AD 5 ZM réé; cf. CD nààn, also AD 2 CL nāgạ̀l, AD 5 Yendang (ú/-)ná lén, drip | AD4 Dii lęg 'flow'
*lép, buy | CD lép, cf. AD4 Momi yiip-; *dyap is PP
*lépsì, sell|CD lēpsì
lér, tongue (see list 1)
léérá, louse | AD2 CL lààg̀ 'flea', AD4 Pere lààrè, Dii lèèd, AD5 ZM rnèèti, Yendang rëësí
*léérá, flute | CD lęérá (a regional root: AD2 CL lęééd, AD4 Momi liiracz; also AD4 Dii lętȩ̣ẹd)
léésì, lèèsì, spoil (tr), rot, spoil (intr) | CD lę̧ēşi 'moisten', AD4 Pere lií-, AD5 ZM lèsè
$l e ̨ ̧$ ȩ, grass, bush (cf. pẹ́ lé /pȩ̃ 'animal (thing-bush-thing)')
lẹ, prepare, get ready $\mid$ cf. AD2 CL l̄̄ $b, ~ A D 4$ Pere lè, Dii lè, AD5 Yendang rē-, all 'produce, give birth'
*lę̧, scar, blemish | CD lę̧ē
(á) lí, when?
$l i ́$ (+ Gáámá), sky, above | AD2 CL lēg
 'house'; also AD13 Niellim līì;, Kwa liē, both 'house'; *di is PP for 'compound, house'
*lî̀k (líkā ?), dirt(y) | CD líkā, cf. AD2 CL lígą́d, also AD4 Dii lớgọ́d 'be dirty'; *dik is PP (á)lín, (day after) tomorrow | cf. AD2 CL lim 'morning'
ing, between, through
líysì, sell, hawk
Tîttá, gut, intestine | cf. CD nągrí
*lípsì, turn, change | CD lipsì, but also AD5 ZM rì
liísā, smoke
$l \bar{o} k$, take | AD5 Yendang là-, also AD4 Dii lơ, but the root may be Chadic, cf. Bachama lù lókā or lōká, cry (n) |CD lōki 'speak, tell'
lóe $\bar{c} m$, war (see list 1)
lúū, yam | $\mathrm{AD} 2 \mathrm{CL} d \overline{\mathrm{u}} d, \mathrm{AD} 5 \mathrm{ZM}$ logo̧ti
$l \overline{\mathrm{u}} k$, lump (on body, head)
$l \overline{u ̄}$ mòr , market $\mid<$ Fulfulde luumo
lùmsá, man
(á)lūùùmsá, husband (cf. 'man')
lúūy, knee (see list 1)
lỳ, move (residence, $j \dot{y} \bar{y}) \mid$ AD4 Dii lúū 'go away'
lýỳm, male | CD lúùm
lỳn (intr; also lýlỳn for 'get, stand up'?), get up, fly | CD dùm, AD4 Momi ruu-, Pere lú-, Dii lùū 'lift', AD5 ZM dù, AD6 Karang zō̄; also note Bachama lì (apparently not a reconstructible Chadic root, Carnochan 1975)
lýnsì, raise, throw up, make fly
má, knead, work (mud, clay), build (building) |CD mākì, AD2 CL mā'make, do', AD5 ZM maa, Yendang màà-, but AD4 Dii $m b$ ọ̄̄̄, AD6 Karang $m b$ ọ̄ $h$
*mák, show | CD màk
*máká dikār (máká invariable?), (red) millet | CD máká (meaning of second element in Tiba unknown)
*máksì, try, try on, out | CD māksì
mékā, green, unripe
mékā, paste
$m e ̂ ̧ s i m s a \bar{a}$, dew $\mid \mathrm{CD}$ mēnsán, $\mathrm{AD} 2 \mathrm{CL} m \overline{1} 1 \mathrm{sà}, \mathrm{AD} 4$ Momi met, Pere mērè, Dii $m \overline{\mathrm{e}} d, \mathrm{AD} 6$ Karang mím, but AD5 Yendang móó (vs. mēē 'water')
mí, day
$m i$, door (<mí 'open, close') (see list 1)
miñ, excrement
$m i ́$, close, open
mín, shave
mí-wà, day before yesterday
mó, bear, give birth to $\mid$ AD6 Karang mbūy; cf. AD4 Dii mbóg 'fix, get ready'
mó ( $m o ̀$ with object $t i$ 'tree'), climb
múná, earth
ná (nà with indirect object wé'child'), give | CD nyáá, AD 5 ZM an; this form reappears in AD 13 :
Kulaal néé, Niellim nā
ná (nà with object pȩ́ 'thing'), do | CD nàk
náksā, cow (see list 1)
*nàmèn, crocodile (see list 1)
$n$ ān, nāàn, how?, how much? | CD nyāā, nyákā, AD2 CL lā, lęȩè, AD4 Momi na(yee), AD5 ZM dnee 'how much', AD6 Karang ánī, Mbum nániù 'how'
nè, four (see list 1)
nèé ( pl . nī̄), person | CD nèé, AD 2 CL néd, AD 4 Pere nán
$n \bar{k} k$, owner | AD6 Kare nàá
nēŋnéēy, axe
n̄̄, mother (but ną̀ạ́yá 'your mother'); cf. nī-wé, sibling (mother's child) |AD5 ZM yina, Yendang $y \overline{\mathrm{e}} n$ (with prefix?)
níy, drum (see list 1)
*níysì, hurry | actually CD nīngsèn < nīngsì 'make tremble'
*nọ, (oracle) poison | CD nọọ̀
nóksì, enough, equal (be) $\mid \mathrm{CD}$ nēkèn
$n$ ōm(nē)-, good, pleasant, tasty | AD2 CL làm, AD4 Dii nèm 'be salty'
*nòm, anger | CD nòòm
nòntà, root | cf. AD5 Yendang nīnkán; *nan is PP
nóósì (HM?), shake
(tọ́)nùk, (bow)string
$n \bar{u} y$, locust bean tree
$n u \bar{n} g \bar{u} r$, locust bean (tablet)
núymā, wax
pá, put in, on (as hat, shoes) | CD pàk, AD 2 CL páàn, AD 4 Dii pàg
(bón) pà̀, (river)bed, gulley
páān, place
pát, all | a regional term attributable to Fulfulde
péèk, new | AD4 Momi paç(-ni) but AD6 Mbum féké, Koh fię̄
pé, go |cf. AD2 CL pāa' 'take, carry', AD4 Momi pee- 'take away'; also Dii hẹ' 'go off, away'
pééé, thing | CD pén; cf. AD2 CL īn, AD4 Pere ēnè, Dii hē $n, ~ \mathrm{AD} 5$ Yendang hë, AD6 Karang fè $p i ̀$ (intr), return, go back, change (into) |CD pè̀e (compare $p \overline{1} r i ̀$ 'put back'), $\mathrm{AD} 2 \mathrm{CL} p \mathrm{i} g$ à̀ l'return', AD4 Pere pìn- 'do again' but fil- 'change into', AD6 Kare fęrę̧̀; cf. 'exchange': AD2 CL péèn, AD4 Dii pí
*pí̀, Beni seed |CD pií
pígèè, maize (see list 1)
*pilày, (large) basket | CD pilàng, a regional root
píymá, charcoal \| AD6 Karang hékrē
pó, butcher, cut open

pùglà, armpit
púūk, púk̄̄, (maternal) uncle | cf. CD póp, AD4 Dii pāā
$p \overline{\mathrm{u}} k$ ( $p \overline{\mathrm{u}} k$ á?), bark (of tree), shell | CD $p \overline{\mathrm{o}} k \overline{\mathrm{o}}$
pýy $\bar{y}$, viper | AD4 Dii kpùù
$p \bar{y} \bar{y} g \mathrm{e}$, cassava | CD $p \overline{11}-g \bar{o} \bar{o}$
pýn, tired (be) $\mid \mathrm{CD}$ pút
$p \bar{y} n$, fatigue
*sáà, (father's other) wife $\mid \mathrm{CD}$ sáà
*sā, net |CD sāā
sá, ooze, have diarrhea (+ mîī) | CD sáá, AD4 Dii sōō 'leak', AD5 ZM sọo, but san 'forge', Yendang $s \underline{\bar{a}}-\mathrm{'ooze}$; melt' (whence sā$k i$ ' iron'), AD6 Karang sà̀h 'moisten'
$s \underline{\bar{a}}$, mud $\mid$ AD5 Yendang $s \underline{\bar{o}} k$
sák, hang, carry (on shoulder)
*sàk, genet cat | CD sàk
sám, bark (vb)
$s \bar{a} m$, spear (see list 1)
(ăy) sámkā, left (hand)
sán, carve
$s \bar{a} n$, hoe |cf. AD4 Dii $t \underline{\underline{o}} \underline{\eta}$
sānsá, muddy pool|cf. sā
sánsì, grind (flour) | AD4 Pere sán- 'grind (fresh, damp grain)', whence relationship with sá, sā (á/)sáyká, frog, toad (see list 1)
*sánkì (HM?), teach, learn | CD sānki
*sáásì, do (repetitively) $\mid \mathrm{CD}$ sāāsì (auxiliary verb)
sàtáá or sātáā, sour
sáátí, porcupine
sátō $k$, (beer) pot
sé (also sééwá), sun, God (see list 1)
sè (intr), lacking, scarce (be) |AD5 Yendang sę
sē, also sésèè, nightjar (?, translates CD táàmáā)
(á̧y) $s$ ē (or sé), fingernail (see list 1)
*séb, witch | CD sép 'bewitch'; cf. AD4 Dii sòb 'use witchcraft', sóōg 'witch', séy 'witchcraft' séēk, anklet | AD4 Pere ségò 'castagnette'
sék, go (down), also séksì | AD2 CL siìm, AD4 Dii sí, cf. AD4 Pere sí- 'sit'; also cf. sí 'down' *sèm, (prepubescent) girl, female (animal) |CD sèèm 'girl' but -sę 'female animal'
sèmsémtá sand | cf. AD4 Pere silī̀, AD5 ZM sneeli (note particularly sengsengli from the Saawà dialect of Mumuye, Shimizu 1979:98); Kleinewillinghöfer 1996:97 also reports forms like swaa in Bikwin; cf. AD6 Kare màsálá and AD13 Niellim hyāān from an earlier form with initial $s$
sén, waist | AD4 Momi seem, AD5 ZM sáń
sén, add (to), increase
*sènèn ( pl . sènén- $t$-), guest $\mid \mathrm{CD}$ sènén
sènéēy, strong, healthy |cf. CD sēnì 'be too strong', AD4 Dii sèn 'make an effort' prob. < sȩ̣̀e 'be potent, effective'
*sènì, difficult (be) |CD sēnì
sénsì, pull (off, out)
sèér, pl. of yá́mīk, young, small (child)
sèèrá, truth
sé, scratch (itching) |cf. AD5 ZM sneeté 'itch'
si, speech, matter
$s i$ (intr), black, dark (be) |cf. AD5 ZM tinri 'dark'; also cf. jî 'night'
sí, bury
sí, plait (hair) | AD4 Momi si- 'make rope'; otherwise CD tií, Pere tìi- 'weave', AD5 ZM tisé
$s i ́$, also sî̀ down(wards) $\mid$ AD5 Yendang sę̣ẹ, cf. CD $\overline{\imath 11}, ~ A D 5$ ZM tí(p)ì, AD6 Kare tià, also cf. síb 'under', sék 'go down'
sì, wait for $\mid \mathrm{CD}$ sit, AD 2 CL sìd, both 'be patient'
sī, show
sib, under, below | CD $\overline{1} m$, also AD5 ZM tipí, AD6 Karang siba, both 'earth'; cf. sí 'down'
sigáy(á), much, many
sìjiji, also sììi, civet cat | CD sì̀, AD2 CL sì̀d
*sím, beer | CD sî̀m; cf. AD4 Pere fûm, AD13 Kulaal hám, Niellim hám
sî̀r, porridge |cf. AD4 Momi sii- 'cook porridge'
*sir, boil, abcess |CD sit
sisèè, switch, whip
*sì̀sá, insult (n) |CD sìsí
só, drink | CD sóóó; the general AU root is represented by AD4 Dii zò; *swa is PP
só, butt, ram (perhaps identical with the following term) $\mid \mathrm{AD} 2 \mathrm{CL} s \overline{\mathrm{u}} d$
sóó, break (intr) |AD4 Dii sóób
sò, pierce, stab |AD5 ZM suu, Yendang só-, AD6 Karang sū, but AD2 CL sāb 'pierce', AD4 Pere sà-, sàà-, Dii sà; compare CD sót, AD 2 CL sód 'plant (a stake)'
sók, wash (something) | CD sūksì, AD 4 CL sūg, AD 4 Pere sòg-, AD 5 ZM sòkè, AD 6 Karang sọ̀h 'wash oneself'
*sókàr, (land monitor) lizard |CD sókà
sóksá, hair (on body) (see list 1)
sóksá (used with bọ́ 'throw'), whistling
són, (staple) food | AD 5 Yendang soòo, cf. CD túm, also AD 13 Kulaal hààl, Niellim hàà:n; cf. 'eat, chew'
*són, antelope (kind of) $\mid \mathrm{CD}$ sóng
sóp, blow (on)
sópsì, lick (up)
sớ⿹̧, also sóórā, wind |cf. AD13 Kulaal hààp, Niellim sààb
sọ́n, carry (off, away) |cf. CD tùùn, AD5 Yendang tọ̣̄̄, both 'carry on head'
$s \bar{o}$, mucus | cf. AD2 CL sāb 'pus'
só́óni, leave (a path), branch
sónsì, put out (fire)
sūksá, soup | AD5 Yendang sōnkò
súmsì, sùmsì, gather (something); gather (together) $\mid \mathrm{CD}$ sòòm, AD 4 Pere sùm-, both 'gather up', AD5 Yendang sòò 'take out, remove'
sùwéé, (intestinal) worm $\mid \mathrm{CD}$ sọọ̀miñ, AD 2 CL sọ̀bȩéẹ
súpsi, swell, blister
súsùy, shade | AD5 ZM sunrú, cf. AD6 Karang súy 'night'
sýỳ, thirst | CD súù, AD 2 CL súùd
sýỳm, dry (be) $\mid \mathrm{CD}$ sùm
sýmàā, empty
sýmsì, dry (tr) | CD sūmsì
sýn, grow, develop; go out | cf. CD túún 'develop, grow up' > tūnèn 'go out'; also AD6 Karang $\underline{\underline{i} h} h$ 'go out'
sýȳn, tail | AD2 CL sūū; also cf. AD13 Kulaal héé, Niellim hinā
sýnsì, resemble
sȳt̄̄m, bright, shiny (be); smooth, slippery, mucilaginous (be) $\mid \mathrm{AD} 5$ Yendang sọr- 'be slippery'
tá, hit, kick, shoot | CD tàt, AD2 CL tāàn, AD4 Momi taa-, Dii tà', AD5 ZM ta, Yendang tā, cf. té 'sting...'
tá (or táa), pick, pluck (fruit); excrete | AD4 Dii tò ' 'pick'
*tá, butcher (vb) |CD tàà
tá, early (be, get up) |AD4 Dii tá'ád
*táāb, sandal \| CD táāp
táàm, tàm, jump (over), jump (intr)
táp, sew | AD2 CL tāb, AD4 Dii tā, both 'tie'; compare CD $t$ tạạ $l i$
*tárá, three (but cf. 'eight' týn-/tárārāa)|CD tárā (see list 1)
té, sting, prick, dazzle; appear | CD tàt, AD4 Momi ta̧ks- 'reveal', cf. tá 'hit...'
té, stone (see list 1)
(yén $n$ ) tè (<té?), anus
tébmá, luck(y) (translates CD jî̀ 'red' in nílín jî̀ 'luck(y person)', lit. 'red face')
(á))tékā(行?), gecko
tém, pass (through) |CD tēlì 'pass by', AD2 CL tāàn, AD4 Pere tàl- 'pass', AD5 Yendang tár-, AD6 Kare tá
témsì, insult
*tẹ́, push, sweep, carry along |CD tşìg̀
*tẹ́ksì, begin |CD tặksì
*tȩ̣ẹmsà, sheep | CD tạ̀ămsí; also note AD4 Pere tàmī, AD5 Yendang dāā
tí, tree, stick (see list 1)
ti, father (but tẹéẹná 'your father') |AD4 Pere táā, but túnú 'his father', cf. AD5 ZM yera, Yendang $y$ ōrì (with prefix $y V-$ ?)
$t i(y) \bar{a} m$, afternoon
tik, gourd $\mid \mathrm{AD} 4$ Dii tig
*tiksá, snail \| CD tíksáā
(á))tí/sáā (<áltisàà?), owl | AD5 Yendang túnsún
tísēy (or tísèn), ant
*(pęé) tóm, work (n) $\mid \mathrm{CD}$ pén tóóm
tón, eat, chew | CD tààn, AD5 Yendang tāā-; also AD13 Kulaal tú but Niellim túy 'eat (staple food)', compare són 'staple food', AD5 ZM shaa 'eat', and AD6 Kare só 'chew'
*tóy, play (+ tóo $\bar{o}$ 'ear') | CD tòng táā
toón( $n \overline{\mathrm{e}}$ )- (also tùynè), good, effective, clean, beautiful \| AD4 Dii tō̄ and AD5 ZM tnọo, Yendang tän, all 'good, tasty'; cf. AD6 Karang sù
*tóntón, strong, healthy $\mid \mathrm{CD}$ tóngtóng
tớ, miss, err
tọ̣́̄, bow (see list 1)
tóo $\bar{x}$, ear (see list 1)
tớō$b$, Shea butter tree | CD túū $p$; cognates in AD13: Kulaal tóí, Niellim tāàm
túá, here
túü, head (see list 1)
* (pȩée) túnén, baggage | CD pén túnén $<$ tùùn 'carry'
tún/sým, shame | cf. AD2 CL są́m, AD4 Pere ségò, Dii séḿm, AD5 ZM yúú-sne with yú 'head' (also of course Fulfulde semt-)
 /tárārā 'eight', túùy-sí-nèá 'nine', cf. wúp-séẹè-tūù $\mathfrak{y}$ á 'fifteen') (see list 1)
túy, point (at) | CD tợò, AD6 Kare tò
túúg, push | CD tùt, Dii tư', but AD4 Pere tą̀ģr--; also AD5 ZM dnọ́
tý, finish, complete (tr) | AD4 Dii tú 'be completely destroyed'; cf. CD dùk, dūksì
tỳrým, between, among | AD2 CL tọ̀ọd 'half'; cf. AD4 Dii tà̧g
týn, spit | AD2 CL tợ', AD4 Dii tợ'ọ̀ but AD4 Momi tạ́n-, AD5 Yendang tēn-; CD tūsì
(á) vàà, (kind of) lizard
válli, help | < Fulfulde walla
vó, squat
vúm, roast
vúūn, goat (see list 1)
(á) vúnsá, mosquito | CD bọọọsi, AD 4 Momi woos, Pere vórè, Dii vád, Karang vwọ́rō̄, Kare wórọ́, cf. AD5 ZM wara 'bee', Yendang vㅡㅡrì 'bee', wę̣rę̧ 'honey'
$v y ́$, die | CD wúú, AD4 Momi wa̧r-, Pere vò-, AD5 ZM vo̧, Yendang wȩs-, AD6 Karang hū, AD13 Kulaal úií, Niellim 'úy; cf. AD2 CL vād
$\nu \bar{y} \bar{y} s$ á, shadow $\mid \mathrm{AD} 2 \mathrm{CL}$ nyisà; cf. PP *vu 'shade'
$v w e ̣$,̧, beat, hit | clearly ideophonic: CD vwàt, AD6 vwă elsewhere AD4 Momi bee', Dii vģ̧̣̀̀, cf. AD6 Karang vwàr, Kare vwęrẹ̀ 'break'
wá, fire | AD4 Pere vēē, Dii vēe; cf. AD5 ZM yaa, but waa in various other Mumuye dialects; this well-represented AD-Ubangi root is not found in CD, but is present in both Mambila and Vute
wá, sharpen
wák, wákú, grandfather
wàláy, (cooking) pot (see list 1)
wáásá, heat, hot (cf. 'fire') | also compare ZM wnaa 'hot'
wánsá, body
wá, leave, let |CD vét
wé, year, time, season $\mid \mathrm{AD} 4$ Momi wiir, Pere vērè, Dii vē ${ }^{\prime}$
wé (pl. wị), child |CD wẹẹ́'small, child', AD2 CL wāā, AD4 Pere wārwā, Dii wāā, AD5 Yendang vàà; *van is PP
wéjìm, morning
wéjìn, tomorrow
(á/)wékkā, (his?) wife ('woman' with prefix à-) | a general feature of SWAD (and CD: lérùm 'man', né(-)nwù 'woman'), perhaps absent in Tiba, is (vestigial) compounding of terms for 'man' and 'woman'; if Tiba 'woman' were of this type, it might be related to AD4 Dii $w \overline{\mathrm{a}}(-) k \underline{e ́ e}$, etc.; otherwise it may be connected with an eastern root: AD6 Kare wî̀, Karang wùúy, AD 13 Kulaal wáá, Niellim wày
*wép, mix | CD wèp
wér, arrow (see list 1)
wérùm-we., (small) bird |cf. AD4 Momi welmąz 'nightjar'
wésèè, firewood
wésì, hurt | CD nwōnì (but Mapeo Chamba wēni), AD4 Pere wòò-
$w e ̨ k$, hide (tr)
wẹęrá, mushroom
wî̀ (wî̀n?), female | AD6 Karang wìúy, Kare wîí 'woman' (also Koh máy)
$w \overline{1}$, sit, stay, wait | AD4 Momi wi'iisk- 'set (as sun)'
winsá, thatching grass
*wó, want | CD wòò
wó, take off (clothes) $\mid \mathrm{CD}$ wōō $s i$
wó, watch (over) |CD nwáán, AD 2 CL nwáàn, AD 4 Pere wór-
$w \bar{o} b$, baboon
$w \bar{o} g b i ́ \mathrm{y}, \mathrm{bat}$
wóm(nè)-, cooperative, conjoint (labor)
wóm, oil (see list 1)
wómsā, elephant grass
wón, fight (vb) | CD nòng but nòòm 'be angry', cf. AD4 Pere gòo- 'fight' but noò- 'be angry', AD5 Yendang yómán
$w \underline{\bar{o}} \mathrm{y}$, fight ( n ) $\mid \mathrm{CD}$ nōng
wòp (intr), run | AD5 Yendang ō-, cf. CD nwòp 'avoid'; also see wúp 'fear'
wópsì, ride (horse)

*wớ, hide (intr) |CD wọ́ǵ, cf. AD5 Yendang kúú
wọ́b, bone | cf. the well-represented NC root appearing, e.g., in PP as *kup (but AD5 Yendang $k \bar{u} n)$
$w o ́ g ̣ b$, ten (see list 1$)$
wú, drunk (be) |cf. CD wìt
wù, fat (be) | CD nòò, AD4 Momi non-, Pere nùù-, AD5 ZM nọ́
wúp, fear | cf. CD yíp, AD5 ZM yú, both 'run', perhaps associated with a Chadic Bata root gip; also AD6 Kare wáù; see wòp 'run'
wúptá, fear (n)
yá, go (and visit, + sènén) $\mid \mathrm{AD} 2 \mathrm{CL} y$ āàn, $\mathrm{AD} 4 \mathrm{Dii} y a ̀$, both 'arrive'
$y \overline{\mathrm{a}}$, (over) there $\mid \mathrm{cf}$. AD4 Dii $y \overline{\mathrm{a}}$ 'place'
yà (intr), rot, spoil; be surprised | CD nyāngì, AD2 CL nyā', also yēèl 'spoil, destroy', AD5 Yendang yänsān-
*yáā, what?, why? | CD nyáā
yáà, friend (see list 1)
yá, old, used
yă (intr), swallow | cf. AD4 Dii yó ${ }^{\prime}$
(á/)yà, where? | AD5 Yendang īyāä
yámīk, pl. sèér, young, small (child) |cf. CD mií (pl. méém); also note the use of a yáclassificatory prefix in AD5 Yendang
yáān, bad
* $y \underline{a} n$, horse (see list 1)
yáásá, leaf (see list 1)
$y e ́$, (at) home \| CD nyēm, AD2 CL yīil 'house, compound', AD4 Dii yēe 'courtyard', AD5 ZM ye yé, ready, ripe, healed (be), adj. yénèē | AD4 Dii yéńná 'true, good', cf. 'cook'
yéksì, light (fire from another fire) $\mid \mathrm{AD} 4$ Pere yèg-
yér(i) má, flame | AD2 CL yèél 'red, flame'; cf. Bórrùm 'thunder, lightening'
yéè $m$, meat (see list 1)
$y \underline{\overline{\mathrm{e}}} m$, carry (to), present (something) with an obeisance $\mid$ cf. CD nyē $n i$
*nyèmny $\overline{\mathrm{e}} m$, yesterday $\mid \mathrm{CD}$ nyèm
yémsā, song | CD nimsí but AD4 Dii yéé, AD5 Yendang yȩ̀k
yéé $n$, buttocks
yég, sow (by casting), scatter | CD yèè, AD 4 Pere yà̀m- 'disperse'
*yéē, bedbug | CD nyéēng
yéèn, cold (be) (as wind)
*yénlá, digging stick | CD nyénlí
yí, eat|CD lií, AD2 CL liìn, AD4 Momi ree, Pere lé-
*yí, steal | CD yí
*yilk, lion (see list 1)
yírîk, black |CD vírkī, AD4 Momi wii-, wiir- 'be black', Pere víi- 'be black', Dii vî̀ = î̀ 'be black', AD5 ZM viiki, but also AD4 Pere dirī̄, AD5 Yendang yī̀ì, AD6 Kare yírí (both having cognates in AD13 as well)
(ấy) $) y \overline{11} m \bar{m}$ ( $<y i i^{\prime}$ 'eat'), right (hand)
yó, pull, stretch | cf. CD nwòt, AD4 Dii wòò; also AD5 ZM gnọ 'pull', znọ 'pull out'
yógréēn, soft | AD4 Momi yakw-, Dii yọ̧̣̣̄ 'be soft' vs. CD wógléē $n, \mathrm{AD} 2 \mathrm{CL}$ óg 'be soft'
yóók, cook (staple food) |AD4 Pere yó-, AD4 Dii yó 'be ripe, cooked' (cf. yé 'ready...(be)'); also cf. AD4 Momi ruu'-
yókúm, salt (see list 1)
yóm (y $\overline{\mathrm{o}} m(n \overline{\mathrm{e}})-)$, bite, be sharp | AD5 ZM yon; elsewhere, the usual initial $l / n$ alternance: CD lóóm, AD 2 CL lùm, AD 4 Momi rom( $(-d-)$, AD 4 Dii nò̀, AD 5 Yendang rūn-, AD 6 Karang nūy, Mbum lón
yóọ, snake (see list 1)
yó, weave, plait
yọóṣ́sá, rope | CD yisí, AD4 Momi yokla
yọ́ọsi, swim, cross a river by swimming | AD4 Pere wó(g)-; cf. CD yááą 'climb, cross a river (by any means)', AD4 Pere yáá- 'cross (a river by means other than swimming)'
yúū, death, dead body $\mid$ cf. CD wééę, AD5 ZM voç, Yendang wę̧rì, AD6 Karang húl, AD13
Kulaal ùààl, Niellim 'úúlū, all probably related yúú, hunger | CD wúú, AD 5 ZM wnọkọ; cf. AD13 Niellim nyúnī 'thirst' yúksā, fish | CD wúūk, cf. AD4 Momi duga, duukt, Pere dúrè, AD6 Karang nzúy yým (or yóm), collide (with) |AD5 Yendang ÿ̈n

