

# THE NOMINAL AND VERBAL MORPHOLOGY OF WESTERN BADE

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*to the memory of Musa Gana Amshi*

## 1. Background

Bade is a Chadic language of the “B” subbranch of the West Chadic branch (Newman 1977). Bade is spoken in northeastern Nigeria, in the northern part of Yobe State. The administrative center of Bade Emirate is Gashua, which lies at the northeastern corner of the Bade-speaking area. Bade is dialectally diverse, with some dialects differing enough from each other that one is tempted to call them distinct languages. Even within relatively uniform dialect areas, the speech of every village has idiosyncracies. The present description focuses on the Western dialect of Bade, primarily the variety spoken in the town of Amshi. See Schuh (1981) for the criteria delineating Bade dialects and sub-dialects. The two other living languages in the same subgroup of West Chadic-B are Ngizim, spoken south of Bade, and Duwai, spoken east of Bade. See Schuh (2001) for discussion of the relationships between the living and now extinct languages of this subgroup.

The most detailed published description of any aspect of Bade is R. Lukas (1967/68). This is an extensive description of nominal morphology, based on data that Johannes Lukas collected during several field trips between 1933 and 1962. It is an amalgam of several varieties of Bade, all from the Western dialect area. The only other descriptive study of Bade morphology is Schuh (1977), which describes the determiner system (articles, demonstratives, genitive constructions) of Western Bade as well as those of two other dialects of Bade and those of the closely related Ngizim and Duwai languages.

Most of the data here comes from my own field research, which began in 1973-75, when I was a Senior Research Fellow in the Study for the Study of Nigerian Languages, then a research unit of Ahamdu Bello University, now part of Bayero University, Kano. I spent most of this period living in Gashua, collecting data on Bade and other languages of the region. In addition to Schuh (1977, 1981) mentioned above, writings resulting from this research include Schuh (n.d.a-c). I have been able to update some aspects of the description with data that I am collecting as part of a current three-year project on five languages of Yobe State, including Bade.<sup>1</sup> Though nearly all the data here comes from my own field work, this description of nominal morphology has profited from the publications of Johannes and Renate Lukas, particularly R. Lukas (1967/68). I refer to relevant sections of the latter publication throughout this paper.

## 2. Phonology

**2.1. Segmental phonology.** On the next page are tables of the consonant and vowel segments of Bade. Symbols are those of a practical orthography that we are using as part of the project mentioned in footnote 1.

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**Table 1. Western Bade consonants** (in cells with two symbols, the left is voiceless, the right is voiced)

	labial	alveolar	palatal	lateral	velar	labialized velar	laryngeal	labialized laryngeal
stop/affricate	p b	t d	c j		k g	kw gw		
glottal	ʔ	dʼ	ʔy/dʼy					
fricative	f v	s z	sh	tl jl			h gh	hw ghw
nasal	m	n	ny		ŋ			
liquid		r		l				
glide			y			w		

**Table 2. Western Bade vowels** (macron = distinctive vowel length)

	FRONT	CENTRAL	BACK
HIGH	i ī	ə	u ū
MID	ē		ō
LOW		a ā	

Numerous minimal pairs confirm the LOW vowel length distinction, e.g. **amón** ‘hand’ vs. **āmón** ‘water’, **mayan** ‘hunger’ vs. **māyān** ‘king’. MID vowels have no phonological length distinction, though all vowels tend to be somewhat shorter in closed syllables than in open syllables—cf. **jāgén** ‘etched design’ vs. **jàgètu** ‘etch’, **bon** ‘cooked millet balls [Hausa *fura*]’ vs. **bòbon** (reduplicated form with the same meaning)—where the mid vowel in a root has less duration in the first form, with a closed syllable, than in the second, with an open syllable. I will omit explicit length marking on mid vowels but will assume that all are phonologically long. There is a *phonetic* length distinction between short and long HIGH vowels in open syllables, e.g. **sìyu** ‘fish (verb)’ vs. **sìdu** ‘slaughter’, **dùkwan** ‘hearing’ vs. **dùkān** ‘blacksmith’. Whether this is a *phonological* distinction is a matter of interpretation. As we will see below, there is no medial phonological distinction between [i], [ə] (= IPA [ɨ]), and [u]. The consonantal and/or neighboring syllable environment determine the quality of these medial short high vowels. Under one interpretation, phonetic long [ī] and [ū] would be phonologically /īy/ and /ūw/ respectively. Several types of evidence support this interpretation, e.g. CVC- reduplicants such as **cìcìyu** ‘extract thing from a liquid’, **tùtùwu** ‘cock (a gun)’ (cf. **pèrpèru** ‘untangle’, with the same CVC+CVC- reduplicated form). With the understanding that a *phonological* representation might call for writing long high vowels as “īy” and “ūw”, I will nonetheless represent all phonetic long vowels with a macron over the simple vowel. It is worth noting that, unlike most Chadic languages, Bade DOES permit long vowels in closed syllables, e.g. **ràktu** ‘put up with’ vs. **ràktu** ‘compress’, **kàskàsa** ideophone for itching vs. **kàskàsān** ‘moonfish’. Phonetic long [ī], but not long [ū], may also appear in closed syllables, e.g. **wìstu** ‘buck’ (e.g. a donkey), **cìntu** ‘rub, polish’.

All the vowels except ə can appear phrase final, where they contrast. Verb forms illustrate this best: **màsù** ‘he bought [completive]’, **dà masì** ‘that he buy [subjunctive]’, **dè màsa** ‘he should buy [2<sup>nd</sup> subjunctive]’, **gàfo** ‘he caught [completive]’, **da gáfè** ‘that he catch and bring [ventive subjunctive]’. Phrase final ā and ī are uncommon, but they appear in a few words, e.g. **màsà** ‘here he is’, **m̀sì̀** ‘there he is’. There are no words with lexical final long ū, but phonetic final long [ū] is of frequent occurrence in nouns with the definite article /-w/ attached, e.g. **akú** ‘the goat in question’ < /akù + -w/ (see §3.3). In phrase medial position, the short high vowels are not in contrast, i.e. phonetic context determines the choice between [i, ɨ, ɪ]. A number of factors influence short high vowel color. The primary rules are as follows:

- [i] before or after y, e.g. **zìyān** ‘war’, but no \*zəyān or \*zùyān, **āyin** ‘gazelle’ but no \*āyən or \*āyun
- [u] before or after [+labialized] consonants (see Table 1 for consonants that have labialized counterparts), e.g. **dùkwan** ‘hearing’ but no \*dəkwan or \*dikwan, **kwùru** (written “kùru”) ‘refuse’ but no \*kwəru or \*kwiru (cf. **kəru** ‘steal’, with a plain velar preceding)
- [ə] elsewhere

These rules apply not only within words, but to word final vowels when they are in phrase medial position, e.g. /aci bənu/ → [acə bənu] ‘he cooked’, /atu yāye/ → [ati yāye] ‘as for her’, and so on.

**2.2. Vowels and syllable structure.**<sup>2</sup> Two interacting constraints determine morpheme structure in Bade:

- There can be no consonant clusters at syllable margins, i.e.  ${}_{\text{syllable}}[CC\dots$  and  $\dots CC]_{\text{syllable}}$  are impossible.
- Consonants must abut whenever possible. Most consonant sequences involving obstruents are possible. The major constraint on consonant sequences is against the sequence obstruent + sonorant consonant, i.e. sequences such as \*tr, \*bn, \*zy are disallowed.

If we consider the consonants and vowels other than the short high vowels to be lexically determined, with the positioning of short high vowels dictated by constraints on syllable structure, then we can apply the following algorithm to determine syllable structure: GROUP THE FIRST TWO CONSONANTS OF A ROOT IF THEY FORM A PERMISSIBLE SEQUENCE AND A LEXICALLY DETERMINED VOWEL DOES NOT SEPARATE THEM; INSERT A SHORT HIGH VOWEL IN #\_\_\_CC AND AFTER ANY CONSONANT THAT WOULD FORM AN IMPERMISSIBLE SEQUENCE IF IT WERE GROUPED WITH THE NEXT CONSONANT.<sup>3</sup>

- **sakán** ‘nest’, **pàtu** ‘get lost’, **rétán** ‘half’, **bàkso** ‘evil’ have lexically specified vowels in the first syllable, hence they have **CVC...** structure

<sup>2</sup> Schuh (1978) presents a detailed discussion of the facts summarized in the section, including a comparison of Bade dialects with closely related languages.

<sup>3</sup> R.Lukas (1967/68:§§40-43) refers to ə in the #\_\_\_CC environment as a *Stüttzpräfix*. To single out this particular vowel as a “prefix” is to misunderstand the broader phonological picture. This initial ə and all word internal ə’s have the same phonological function, viz. to assure proper syllabic structure.

- **dəmān** ‘wood’, **təlān** ‘moon’, **vəru** ‘go out’, **bərtənu** ‘turn over’ have obstruent + sonorant as the first two consonants, an impermissible sequence, hence they have **CəC...** structure
- **ərvu** ‘sip’, **əktlan** ‘cow’, **əbdu** ‘ask’, **əspətən** ‘pile of millet heads’ have consonants that form a permissible sequence as their first two consonants and thus have **əCC...** structure. Note that in the last example, **p+t** also form a permissible sequence, but **...sp...** have already been grouped; grouping **t** with **p** would form a sequence **...spt...**, creating an impermissible CC sequence at a syllable margin.

This descriptive procedure accounts for 100% of biconsonantal roots and most longer roots. Some longer roots, however, have **CəC...** structure where we would predict **əCC...** structure, e.g. **məskətu** ‘turn’, where we would expect \***əmsəktu**. These longer roots are reflexes of an earlier historical stage when ALL roots had **CV...** structure. Bade has innovated by changing **CəC...** to **əCC...** where possible (cf. Bade **ərvu** ‘sip’ to the more conservative Ngizim **rəvu** ‘sip’), but in the case of roots comprising several consonants, Bade has usually resisted the radical reorganization of the entire root necessitated by changing initial **CəC...** to **əCC...**, though there are a few words where such reorganization has taken place, e.g. **əzgətu** ‘pierce’ — cf. Ngizim **zūktu**.

**2.3. Vowel hiatus.** Because vowels are common at both the beginnings and ends of words in Bade, vowels are frequently in hiatus in utterances longer than a single word. Vowel hiatus is ALWAYS resolved by elision or coalescence, never by separating vowels by a glottal stop or pronouncing the vowels as separate syllables:<sup>4</sup> The main effects of vowel hiatus are as follows:

- Hiatus of identical short vowels results in a short vowel (the short high vowels [i, ɨ, ɯ] are “identical” for purposes of this rule): /**aci gəfa əgwren**/ → [**acə gəfəgwren**] ‘he caught a hare’, /**dà masi əfcān**/ → [**dà masəfcān**] ‘that he buy a mat’
- A short high vowel in hiatus with any other vowel is elided: /**aci məsə akùn**/ → [**acə masakùn**] ‘he bought a goat’, /**aci gəfa əktlan**/ → [**acə gəfaktlán**] ‘he caught a cow’
- Short /a/ + long /i/ coalesces to [ē], /a/ + long /ū/ becomes the diphthong [au]: /**aci gəfa īgì**/ → [**acə gəfēgì**] ‘that he catch for you’, /**aci gəfa ùràkən**/ → [**acə gəfaurakən**] ‘he caught a leopard’
- Otherwise, short vowels elide in hiatus with long vowels: /**aci ùkwətā āmən póm**/ → [**acukwātāmən póm**] ‘he didn’t take water’, /**dà ùkwētē akún**/ → [**dàkwētékún**] ‘that he pick up and bring a goat’
- An appropriate glide separates unlike long vowels in hiatus: /**dà ùkwētē āmən**/ → [**dàkwētēyāmən**] ‘that he pick up and bring water’

**2.4. Tone.** Like all Chadic languages, Bade is a tone language. Words other than verbs have lexically specified tone patterns. Specific tone patterns associated with tense and other features determine verb tones. Nonetheless, tone has a low functional load in Bade. The only pair of words that I have found in Western Bade that are clearly minimally distinct for

<sup>4</sup> R. Lukas (1967/68) systematically writes a glottal stop preceding words with initial vowels, e.g. **’akan** ‘fire’, **’askun** ‘sky’. This is probably phonetically incorrect, and it is without question phonologically incorrect. Vowel hiatus is never resolved by intervening glottal stop as it is in languages like Hausa or Bole.

tone is **kàka** ‘grandparent’ vs. **kāka** ‘God’.<sup>5</sup> Moreover, there are no morphological processes that do not have segmental distinctions in addition to tonal distinctions.

Bade has a basic two-tone system, with grave accent marking low tone and absence of an accent marking high:

<b>fə́du</b>	(HH)	‘four’
<b>ə̀zdù</b>	(LL)	‘six’
<b>gumà</b>	(HL)	‘ten’
<b>gà́dɛ</b>	(LH)	‘one’

A phonetic falling tone, marked by circumflex accent, is common. As is typical for Chadic languages, non-final falling tones can generally be taken as H+L compressed onto one syllable. When an additional syllable becomes available, H and L components of the tone fall on separate syllables, e.g. **māngān** ‘friend’, plural **mangə̀gən**.<sup>6</sup> A phonetic rise occurs on a few monosyllabic words beginning in a voiced obstruent, e.g. **ghǎn** ‘pied crow’. Rise is not parallel to falling tone, which usually comprises two lexical tones compressed onto one syllable. The rise is a phonetic effect of a voiced obstruent, which depresses voice pitch in a particular environment.

Bade also has a downstepped high tone,<sup>7</sup> marked by an acute accent. The status of downstepped high remains cloudy to me. In some cases, it clearly derives from a H, which has been lowered by downdrift because of an intervening L, which is then suppressed, e.g. /nə̀ ùkwu/ → [nukwú] ‘I took (it)’. However, in many words where I have transcribed downstepped high, e.g. **akún** ‘goat’, I suspect that it is either a(n optional?) phrase final intonational feature of HH or just bad hearing!

The Bade/Ngizim group is notable for segmentally conditioned tonal spreading phenomena. There are two rules, which apply as follows in Western Bade:

LOW TONE SPREADING: L → H / H\_\_\_ if the L syllable is not word final and does NOT begin in a modally voiced<sup>8</sup> obstruent; applies iteratively until blocked

/nə̀ mə̀skə̀tu/	→ [nə̀ mə̀skə̀tú]	‘I turned’	cf. [jə̀ mə̀skə̀tu]	‘we turned’
/nə̀ tə̀mbə̀lu/	→ [nə̀ tə̀mbə̀lú]	‘I pushed’	cf. [jə̀ tə̀mbə̀lu]	‘we pushed’
/nə̀ bə̀zà̀rtu/	→ [nə̀ bə̀zà̀rtú]	‘I shamed’	cf. [jə̀ bə̀zà̀rtu]	‘we shamed’

<sup>5</sup> There are a few others in the Gashua dialect of Bade, e.g. **ə̀gji** ‘handle’ vs. **ə̀gji** ‘thirst’, but Western Bade has neutralized noun-final tonal distinctions by *nunation* (see §3.\_\_\_\_), i.e. **ə̀gjan** ‘handle’ = ‘thirst’.

<sup>6</sup> Some dialects pronounce all nouns with a final falling tone. R.Lukas (1967/68:§29) notes this and suggests that it is evidence for reconstructing *nunation*, which terminates all nouns (see §3.2 below), as \*nà. This cannot be correct. The effect of *nunation* has been to RAISE the final syllable of all nouns to H, regardless of their historical tone. This final falling tone seems to be a dialectal intonation feature, which is not restricted to nouns. The striking feature in listening to recordings of narration in such dialects is that every phrase seems to end in a fall.

<sup>7</sup> R.Lukas (1967/68:§5) refers to this as *Mittelton*. Unlike a true mid tone, downstepped high can occur only after high, and once voice pitch has dropped to the downstepped level, it cannot rise to a higher level in the same phrase.

<sup>8</sup> The qualifier “modally” excludes implosives, which do have voicing but which do not block LOW TONE RAISING.

In ‘I turned’ the H of the pronoun **nə** spreads to the initial syllable of the verb, which then spreads to the second syllable of the verb. Note the downstepped final syllable, an effect of the underlying preceding L. In ‘I pushed’, the pronoun spreads to the initial syllable of the verb, but the second syllable begins in a modally voiced obstruent, which blocks spreading. In ‘I thamed’, the initial voiced obstruent of the verb blocks spreading. The examples with the L pronoun **jə** ‘we (exclusive)’ show that it is the H of **nə** ‘I’ which conditions the verb tones.

HIGH TONE SPREADING:  $H \rightarrow L / L\_H$  if the potentially lowered high does NOT begin in a voiceless obstruent

/jə kərə kōrón/ → [jə kərə kōrón] ‘we stole a donkey’  
 /jə tàdə kōrón/ → [jə tàdə kōrón] ‘we released a donkey’  
 /jə dəpsə kōrón/ → [jə dəpsə kōrón] ‘we hid a donkey’

In ‘we stole a donkey’ and ‘we released a donkey’, the L of the first syllable of the verb spreads to the second syllable because that syllable begins in a consonant other than a voiceless obstruent and the following syllable is H. The voiceless **-s-** in ‘we hid a donkey’ blocks spreading.

### 3. Nominal Inflectional Morphology

**3.1. Gender and number** (Lukas §§36-39). Western Bade preserves the proto-Chadic (and proto-Afroasiatic) system that distinguishes MASCULINE and FEMININE grammatical gender in singular nouns but has a single PLURAL category that neutralizes the gender distinction. For humans, domestic animals, and some large wild animals, grammatical gender correlates with sex. The form of the noun itself reveals gender in only certain categories of nouns. Plurals normally add distinct plural morphology. The surest indicator of the category of a noun is the agreements that it conditions, particularly in demonstratives and pronouns. Mass nouns pattern with plurals in terms of agreement, even though they do not have plural morphology. In the examples below, the proximal demonstrative **mCo** (where **C** = **s** for MASCULINE, **c** for FEMININE, **d** for plural/mass) reveals noun category. See Schuh (1977) for details of the demonstrative system, which I will not discuss further in this paper.

MASCULINE:	<b>mazərə-mso</b>	‘this castrated goat’
	<b>gwàmà-mso</b>	‘this ram’
	<b>əbdàmə-mso</b>	‘this road’
	<b>zàyə-mso</b>	‘this rope’
FEMININE:	<b>təmàku-mcó</b>	‘this ewe’
	<b>əktlâ-mco</b>	‘this cow’
	<b>wudə-mcó</b>	‘this knife’
	<b>aka-mcó</b>	‘this fire’

PLURAL/MASS:	<b>gwāmənâ-mdo</b>	‘these rams’
	<b>təmâkunâ-mdo</b>	‘these ewes’
	<b>əbdàmâmò-mdo</b>	‘these roads’
	<b>akəkâ-mdo</b>	‘these fires’
	<b>sàsâ-mdo</b>	‘this meat’
	<b>âmâ-mdo</b>	‘this water’

**3.2. Nunation** (Lukas §§29-35). The citation forms for all common nouns in Western Bade have a final ‘n’ (“n” plus high tone on the syllable bearing the n). R. Lukas (1967/68), following J. Lukas (1968), referred to this ‘n’ as *nunation*, the term used in traditional Arabic scholarship to refer to final -n on Arabic nouns. *Nunation* in Western Bade is functionally similar to Arabic *nunation* and probably developed through similar historical processes (Schuh 1983:163-167), but in Bade, it is a relatively recent innovation, having affected only Western Bade since its separation from other Bade dialects. See Schuh (1973/74) for a detailed discussion of comparative Bade and the origin of nunation.

Nunation arises historically from a demonstrative that has become what Greenberg (1978) called a “Stage II Article”, i.e. a determiner that has become a grammaticalized affix on nouns and whose presence or absence is conditioned by the types of grammatical constructions the noun appears in. A cognate of nunation is found in the Gashua Bade masculine distal demonstrative suffix, -âni, e.g. **kwàm** ‘bull’, **kwàmâni** ‘that bull’, but in Western Bade, nunation has extended to all nouns, not just masculine.

In proto-Bade, a particular final vowel (or absence of vowel) was a lexical property of each noun, with no correlation to gender. Gashua Bade reflects something close to this situation. It is instructive to compare Western Bade nouns to Gashua Bade cognates:

	Western Bade	Gashua Bade	
a. masculine, -ân	<b>əvjān</b>	<b>əvji</b>	‘monkey’
	<b>kùnān</b>	<b>kùnu</b>	‘stomach’
	<b>gəmān</b>	<b>əgmà</b>	‘thigh’
b. feminine, -an	<b>əktlan</b>	<b>tlà</b>	‘cow’
	<b>dan</b>	<b>dà</b>	‘eye’
c. masculine, -ən	<b>mazàrən</b>	<b>mazàl</b>	‘castrated goat’
	<b>d’acən</b>	<b>’yat</b>	‘hair’
d. feminine, -ən	<b>akún<sup>9</sup></b>	<b>akù</b>	‘goat’
	<b>gùmçən</b>	<b>gùmci</b>	‘chin’
	<b>jìjəmən</b>	<b>jèjèm</b>	‘thorn’
e. masculine, -en, -on	<b>ùgzen</b>	<b>ùgzai</b>	‘pubic hair’
	<b>fəfón</b>	<b>fəfáu</b>	‘breast’

<sup>9</sup> The word ‘goat’ is underlying /akwən/, with the medial -u- being conditioned by the preceding labialized velar. The final -ù in the Gashua variant must be lexically specified.

f. feminine, <b>-en, -on</b>	<b>gùnen</b> <b>àpson</b>	<b>gunái</b> <b>èpsau</b>	‘hip’ ‘ <i>Bauhinia reticulata</i> ’
g. masculine, <b>-in</b> feminine, <b>-in</b>	<b>màpəndín</b> <b>dàbín</b>	<b>màpəndì</b> <b>dàbi</b>	‘young man’ ‘hoe’

The relationship of nominal gender and the form of nunation is as follows:

- (a) Masculine nouns, -ān: The noun originally ended in short vowel, which has been replaced by **-ān**. (This also applies to mass nouns, which, as noted above, take plural agreement, e.g. GB **sàsi** ‘meat’, WB **sàsān**, GB **âbu** ‘excrement’, WB **ābān**, GB **kajlùwà** ‘guinea corn mush’, WB **kajlùwān**.)
- (b) Feminine nouns, -an: The noun originally ended in **-a**, to which **ín** has been added.
- (c) Masculine nouns, -ən: The noun ended in a consonant, to which **-ən** has been added. The **-ə** is present to prevent the formation of a CC cluster at the end of a syllable.
- (d) Feminine nouns, -ən: A small number of feminine nouns ended in consonants, to which **-ən** was added as in (c), but the large majority of feminine nouns originally ended in a vowel, and those that ended in **-i** or **-u** and have simply added **ín**, causing neutralization of the high vowel distinction that existed only in word final position (see §2.1).
- (e-g) Nouns ending in -en, -on, -in: These nouns have added **ín** to the original nouns. There is no formal correlation with gender, either in the nunated forms of Western Bade or in the historical source.<sup>10</sup>

The word **đān** ‘town’ has nunation with long **-ā** but is feminine. In Gashua Bade, this word is **đā** and is the only noun with long final **-ā**. Western Bade has added **ín** directly to the noun, as for all other feminine nouns. There are no words with long final **-ū** in Gashua Bade, and as a corollary, no words in Western Bade having nunation of the form **-ūn**. It is not clear why a small number of nouns have nunation of the form **-in**, with a long **-ī**. Such nouns end in short **-i** in Gashua Bade, leading one to predict nunation of the form **-ān** for masculine nouns and **-ən** for feminine nouns.

R. Lukas (1967/68:§29) calls nouns with nunation *der unbestimmten Form*, the “indefinite form”. A list of environments where nunation is ABSENT shows this to be a reasonable characterization of the function of nunation. The primary environments where nunation is ABSENT are the following:

- Proper names and vocatives, e.g. **Gāji** (youngest sibling), **Kavàyo** (first born of male twins), **Càkwà** (first born of female twins), **Madàwi!** ‘Oh, Shepherd!’ (cf. **madàwān** ‘a shepherd’), **Usè, Ágwre!** ‘Hello, Hare!’ (cf. **ágwren**). Proper names can take nunation in the meaning “a person named□”, e.g. **Gājān**, **Càkwan**.

<sup>10</sup> Gashua Bade has changed all word final mid vowels to diphthongs, and Western Bade has turned all diphthongs into mid vowels, so without evidence external to Bade, it is not possible to know what the original sound was. Compare Ngizim **apsáu** ‘*Bauhinia reticulata*’ with the Bade forms in the table vs. Ngizim **dəbīnò** ‘date’ but GB **dàbīnàu**, WB **dàbīnón**.

- Nouns with overt determiners, including modification by genitive adjuncts, e.g. (from *gwàmān* ‘ram’) *gwàmā-w* ‘the ram in question’, *gwàmā-mso* ‘this ram’, *gwàmā-ri* ‘his ram’, *gwàmə-ŋ māyān* ‘ram of an emir’.
- Repeated mention of a referent in narrative: In narrative, the first mention of a referent usually has nunation, but subsequent mentions of the same referent cannot have nunation. Here is a short selection from Lukas (1974/75:95). The first mention of each referent, with nunation, is singly underlined; subsequent mentions, minus nunation, are doubly underlined. I have edited the text slightly in terms of transcription.

*Lābārən* [sic]<sup>11</sup> *mīnan d'èk dālān. Dəla vərə à nē ī arākanən sai aci da gāmī d'èŋ wunəjān. Wunəjī ī dəla mā, “Yà nē d'ən?” Dəla mā, “Na nē ī arākanən.” Wunəjī ī dəla mā, “Na d'əgāi bi?” Dəla mā, “Ad'gēyu fà!” Akci arākan d'èŋ wunəjī sai akci dā gāmī d'è ghān. Ghaw* [noun with PRM—§3.3] *ī dəla mā, “Awùn nà nē d'ən?” Dəla ī ghā mā, “Jārākan d'èŋ wunəjī.”*

‘A story of a lion and a jackal. The jackal went out and went walking when he met up with a dog. The dog [spoke] to the jackal saying, “Where are you going?” The jackal said, “I’m going for a walk.” The dog [spoke] to the jackal saying, “Might I join you?” The jackal said, “Join me!” The dog and he were walking [lit: they were walking with the dog] when they met up with a crow. That crow [spoke] to the jackal saying, “Where are you going?” The jackal [spoke] to the crow saying, “The dog and I are walking [lit: we are walking with the dog].”

- Nouns used adverbially, e.g. *dəmānən* ‘rainy season’ but *dùwau nàhu ā dəman* ‘the river fills during the rainy season’, *ad'ābzəkən* ‘rubbish heap’ but *jə pa akutín ī ad'ābzəkī* ‘we dumped trash on the rubbish heap’.<sup>12</sup> Likewise, simple adverbs, which might be considered a type of noun, lack nunation, e.g. *sābu* ‘today’, *pūte* ‘west’.

**3.3. Previous Reference Marker (“definite article”) -w** (Lukas §§30-34). When a referent is known, either through previous mention or implication from context, it may take the Previous Reference Marker (PRM) -w. The PRM functions something like the English definite article, though it is never required by syntax and always has a meaning of “the one previously mentioned, the one in question”. It is never used, for example, to refer to “uniques”, such as ‘the sun’, ‘the king’, or generics, e.g. ‘the hedgehog is an insectivore’.

Western Bade marks a noun with the PRM by replacing nunation with -w. Compare the following with the nouns illustrating nunation in the table in §3.2.

<i>əvjāw</i>		‘the monkey’
<i>gəməw</i>		‘the thigh’
<i>əkflaw</i>		‘the cow’
<i>daw</i>		‘the eye’
<i>mazàruw</i>	[ <i>mazàrū</i> ]	‘the castrated goat’

<sup>11</sup> I think this should be *lābārəŋ mīnan...* ‘a story-of a lion...’, where -ŋ is the form the genitive linker, /-k/, takes before a nasal consonant. *Lābārən*, with nunation, followed directly by a noun would have no obvious grammatical analysis.

<sup>12</sup> See §3.4 for discussion of why an indefinite nominal form is generally incompatible with adverbial uses. R. Lukas (1967/68:§§61-66) singles out nouns that lack nunation in locative phrases as having a *Lokativform*. As the discussion here shows, however, use in locative constructions is just one context in which nouns appear without nunation. Here, and in Schuh (1973/74, 1977), I therefore refer to these forms as “definite forms” (see §3.4).

<b>ḏàcuw</b>	[ḏàcū]	‘the hair’
<b>akúw</b>	[akú]	‘the goat’
<b>gùmcuw</b>	[gùmcū]	‘the chin’
<b>gùnew</b>		‘the hip’
<b>àpsow</b>		‘the <i>Bauhinia reticulata</i> ’
<b>dàbiw</b>		‘the hoe’

The Western Bade simple *-w* PRM derives historically from *\*-ku*, with the widespread Chadic (and Afroasiatic) determiner base *\*k* (Schuh 1983). Gashua Bade still realizes the PRM as a separate syllable, *-wu*, after vowels, e.g. **aku-wú** ‘the goat’. Ngizim preserves the velar stop in its PRM, *-gu*, e.g. Ngizim **jlùgwàn-gu** ‘the sauce’, and eastern varieties of Duwai apparently retain the original *\*k* in constructions such as **yi pàtl-kó** ‘I will dig it’ (Schuh 1977:§2).

**3.4. Definite Form** (Lukas §§61-66). Nouns in Western Bade can appear without nunation or any suffixed determiner. I refer to this as the “definite form” of a noun. I mentioned the primary contexts for the definite form in §3.2, where I discussed contexts in which nunation is ABSENT. To those, we can add a fourth context, (d) below.

- (a) Proper nouns and vocatives.
- (b) Repeated mention of a known referent in narrative.
- (c) Nouns used adverbially, either in temporal or locative phrases or as primary adverbs.
- (d) Verbal nouns used as the head of a finite verb phrase.

The justification for calling nouns in contexts (a-b) “definite forms” (and, conversely, the justification for calling nunation an overt marker of indefiniteness) is clear: (a) proper names and vocatives refer to specific, known individuals, and (b) a referent, once introduced into a narrative, is a specific, known participant in that narrative. See §3.2 for examples of contexts (a-b).

In the case of (c), simple temporal and locative adverbs such as **ǹ̀z̀̀ri** ‘day after tomorrow’, **ẁ̀ya** ‘next year’, **p̀̀te** ‘west’, **re** ‘here’ (< **ren** ‘place’, with nunation) refer to specific, known times or places. Greenberg (1978:63-69) has noted a crosslinguistic tendency for languages to omit Stage II articles, like Western Bade nunation, in locative phrases. This seems to reflect the origin of Stage II articles as specific determiners and the fact that such determiners are irrelevant or redundant in certain kinds of adverbial phrases—cf. English **in spring** = **in the spring**, **at home** (not *\*at the home*), **in/on line** (usually not *\*in/on the line*), and the British English usage **in hospital**. Western Bade exemplifies this cross-linguistic tendency by having largely grammaticalized definite forms rather than nunated forms in temporal and locative phrases, such as those given in §3.2 or **k̀̀l̀̀n ǹ̀be à k̀̀z̀̀re** ‘there’s no food during the dry season’ (cf. **k̀̀z̀̀ren** ‘dry season’), **ǹ̀ka kuẁ̀n askuk d̀̀m** ‘I saw a snake on the wood’ (cf. **d̀̀m̀̀n** ‘wood’), **j̀̀è p̀̀àkp̀̀è d̀̀to à k̀̀m̀̀ò** ‘we chased birds on the farm’ (cf. **k̀̀m̀̀ón** ‘farm’). Note that nunated nouns can appear in locative phrases if an indefinite meaning is required, e.g. **sai agwa-rga ī d̀̀n b̀̀m** ‘let’s migrate to a different town’ (cf. **d̀̀n** ‘town’). Here, the context shows that the town is NOT specific and known.

Finally, turning to the context in (d), Bade and many other Chadic languages use a nominal form of the verb as the main verb in certain tenses/aspects, usually with future and/or progressive meaning. Although the citation form of Bade verbal nouns take nunation, verbal nouns used as main verbs do not, e.g. **na taksà** ‘I will tie’ (cf. **taksán** ‘tying’), **na**

**gəfi** ‘I will catch’ (cf. **gəfən** ‘catching’). The origin of nunation is in the determiner system. It is hard to say what a nominal determiner, especially one that has evolved into a marker of indefiniteness, would mean on a word used as the head of a verb phrase. The forces that have led to the development of nunation in the citation form of common nouns must never have played a role in nominal forms used as main verbs.<sup>13</sup>

As shown in §3.2, nunation in Western Bade comes from a determiner **-n** added to nouns that originally ended in lexically specified vowels or consonants. Western Bade definite forms must thus be reflexes of the proto-Bade citation forms of nouns. This raises the question of whether the lexical forms for Bade nouns might not be the definite forms, with nunation added for purposes of citation. Neither comparative nor internal evidence support such an analysis, i.e. in modern Western Bade, definite forms seem to be derived by rule from nunated forms, or, for some nouns, definite forms may be lexically specified alongside nunated forms.

(1) **-en, -on (either gender), -an (feminine)**

Preserve original termination?	Gashua	Western nunation form	Western definite form	
yes	<b>lakâi</b>	<b>raken</b> (m)	<b>rakè</b>	‘bed’
yes	<b>bâi</b>	<b>ben</b> (f)	<b>bè</b>	‘thing’
yes	<b>àkau</b>	<b>àkon</b> (m)	<b>àko</b>	‘back’
yes	<b>àpsau</b>	<b>àpson</b> (f)	<b>àpsò</b>	‘ <i>Bauhinia reticulata</i> ’
yes/no	<b>fəfáu</b>	<b>fəfon</b> (m)	<b>fəfo/fəfi</b>	‘breast’
yes	<b>pârďa</b>	<b>pârďan</b> (f)	<b>pardà</b>	‘shoulder’
yes	<b>patà</b>	<b>patán</b> (f)	<b>patà</b>	‘the bush’
yes/no	<b>təmà</b>	<b>təmán</b> (f)	<b>təmà/təmì</b>	‘mortar’

(2) **-ān (masculine, from nouns originally ending in short vowels)**

yes	<b>əvji</b>	<b>əvjān</b>	<b>əvji</b>	‘monkey’
yes	<b>kùnu</b>	<b>kùnān</b>	<b>kùnù</b>	‘stomach, inside’
no	<b>kugú</b>	<b>kùwān</b>	<b>kuwì</b>	‘snake’
no	<b>tāgwda</b>	<b>tāgdān</b>	<b>tagdì</b>	‘money’
yes/no	<b>gwàyi</b>	<b>gwàyān</b>	<b>gwàyì/gwàyà</b>	‘ <i>Acacia albida</i> ’
yes/no	<b>ùgdu</b>	<b>ùgdān</b>	<b>ùgdu/ùgdà</b>	‘large, round gourd’
yes/no	<b>dəgà</b>	<b>dəgān</b>	<b>dəga/dəgì</b>	‘arrow’
yes/no	<b>aptá</b>	<b>aptān</b>	<b>aptà/aptù</b>	‘flour’

<sup>13</sup> In Western Bade, main verbs never bear elements traceable to the determiner system, even where the verb is nominal in origin. In Gashua Bade and Ngizim, however, transitive verbs of nominal origin do affix the PRM, a determiner otherwise restricted to nouns, when an understood object is omitted, e.g. GB **nà tákṣa-w** ‘I will tie it’. The PRM here functions pronominally in the meaning “the previously mentioned object”.

(3) *-ən* (masculine, from nouns originally ending in consonants)

yes/no	<b>zəm</b>	<b>zəmən</b>	<b>zəm/zəmì</b>	‘grass’
no/no	<b>āsək</b>	<b>àskən</b>	<b>askì/askà</b>	‘market’
no/no	<b>vək</b>	<b>vəkən</b>	<b>vəkì/vəkà</b>	‘hole’

(4) *-ən* (feminine, from nouns originally ending in a consonant, *-i*, or *-u*)

yes	<b>amî</b>	<b>amón</b>	<b>amì</b>	‘hand’
yes	<b>wudŭ</b>	<b>wudón</b>	<b>wudù</b>	‘knife’
yes	<b>dəman</b>	<b>dəmənən</b>	<b>dəman</b>	‘rainy season’
yes/no	<b>akû</b>	<b>akún</b>	<b>akù/akwì</b>	‘goat’
no/no	<b>màkwàs</b>	<b>makwasən</b>	<b>makwasì/makwasù</b>	‘throat’

There is variation in definite forms, even for individual speakers, and I have not collected definite forms for most nouns nor information on all admissible variants for those I do have. Nonetheless a certain general picture emerges, viz. there is a tendency, first, for definite forms to end in *-i* regardless of original final vowel and, second, for definite forms to end in L tone regardless of original tone. The tendency toward definite forms in *-i* is strongest in group (2) *-ān* masculine nouns, which neutralize all three original word final short vowels. This tendency is weakest in group (1) nouns, where the vowel in the nunated form relates unambiguously to its historical source and its prepausal form. Many, if not most nouns have alternative definite forms in *-i* and *-a*. In elicitation, speakers sometimes claim that there is a meaning difference (usually that the form in *-i* is “general” and the form in *-a* is “specific”).

In short the variation in definite forms for particular nouns and the drift away from the historical antecedent forms of nouns to more generalized patterns in final vowel and tone makes it untenable to take these forms as lexically basic, with nunated forms being derived from them.

**3.5. Genitive stems.** With genitive adjuncts, Western Bade noun stems have different forms depending on whether the genitive adjunct is a pronoun, a “specific” noun (most notably, a proper name), or a common noun. Details of genitive constructions go beyond the scope of this paper. I provide here a brief sketch. See Schuh (1977:47-56) for a comprehensive description.

Nunated form	1 pl. exclusive adjunct	Proper noun adjunct	Common noun adjunct (‘bird’)	
<b>kùnān</b> (m)	<b>kunā-n-jà</b>	<b>kunā-k Tāví</b>	<b>kunə-k dītɔn</b>	‘stomach of...’
<b>əzgərən</b> (m)	<b>əzgərə-n-jà</b>	<b>əzgərə-k Tāví</b>	<b>əzgərə-k dītɔn</b>	‘leg of...’
<b>dan</b> (f)	<b>dà-tkə-jà</b>	<b>dà-tkə-k Tāví</b>	<b>dà-k dītɔn</b>	‘eye of...’
<b>gùmçən</b> (f)	<b>gùmçə-tkə-jà</b>	<b>gùmçə-tkə-k Tāví</b>	<b>gùmçə-k dītɔn</b>	‘chin of...’

Genitive constructions have the form NOUN STEM + LINKER + GENITIVE ADJUNCT (=□ possessor”). The exact form of the genitive LINKER will not concern us, but roughly speaking, the masculine linker with pronouns is *-n-*, the feminine linker with pronouns and proper nouns is *-tkə-*, and the linker elsewhere is *-k*. Each of these linkers has several allomorphs (Schuh 1977: 47-56).

Of primary interest here is the form of the head NOUN STEM. With pronominal and proper noun adjuncts, the head noun of a genitive construction has the form that it would

have with nunation (§3.2) or the PRM (§3.3). This is most obvious for masculine nouns with a nunated form in **-ān**, but tonal properties show it to be true for all nouns.<sup>14</sup> With common noun adjuncts, however, the head noun genitive stem has a form that resembles the definite form of the noun (§3.4).

**3.6. Summary of Western Bade noun stem forms.** In reviewing §§3.1-5, we find that Western Bade noun stems have two basic forms.

- **Determined stem:** This is the form with nunation (**zàyān** ‘rope’), the PRM (**zàyā-w** ‘the rope’), definite determiners (**zàyā-mso** ‘this rope’), pronoun genitive adjuncts (**zàyā-n-jà** ‘our rope’), and proper noun possessors (**zàyā-k Tāví** ‘Tavi’s rope’).
- **Non-determined stem:** This is the definite form (**nə zùwu kàrgunən ī zàyì** ‘I wiped medicine on the rope’) and the form with common noun genitive adjuncts (**zàyì-k yâgan** ‘rope for a boundary’).

This distinction is most evident in masculine nouns where the “determined stem” has long **-ā-** as its final vowel, as in the examples here with **zàyān** ‘rope’, but the distinction shows up with other nouns as well, particularly in tones.

The historical source of the distinction was whether or not a definite determiner was affixed to the noun. One such determiner is the source of Western Bade nunation. The form of the noun with nunation has become the citation form of the noun, with the effect that the reflexes of the original “free”, or “non-determined” stems now appear to be largely derived by rule.

**3.7. Nouns inflected for gender** (Lukas §36). In proto-Bade, simple noun stems had no correlation of form with grammatical gender. The addition of nunation has, however, created such a distinction. Masculine nouns that originally ended in short vowels have a nunated form ending in **-ān** whereas feminine nouns that ended in short vowels have nunated forms ending in **-an** < **-a** or **-ən** < **-i**, **-u** (§3.2). Thus, nouns that ended in **-a**, **-i**, or **-u** and could have either masculine or feminine referents were originally epicene in form, but in Western Bade, they are formally distinct.<sup>15</sup>

W. Bade masc.	W. Bade fem.	Original vowel	
<b>cə̀bənán</b>	<b>cə̀bənán</b>	GB <b>cìpənà</b>	‘namesake’
<b>māngān</b>	<b>māngan</b>	GB <b>mānga</b>	‘friend’
<b>sōbān</b>	<b>sōbán</b>	GB <b>sōbà</b>	(m) ‘friend of husband’ (f) ‘wife of a friend’
<b>jān</b>	<b>jan</b>	GB <b>jǎ</b>	‘dog’
<b>gagārān</b>	<b>gagàran</b>	WB adj. <b>gagàra</b>	‘old person’
<b>gājān</b>	<b>gājən</b>	WB name <b>Gàji</b>	‘youngest sibling’
<b>tikwán</b>	<b>tikún</b>	GB <b>tikù</b>	‘spouse of a sibling’

<sup>14</sup> The basic rule is that noun stems with nunation and in genitive constructions with pronominal or proper noun adjuncts have final H tone, stems with common noun genitive adjuncts have L. Other, phonetically conditioned tone rules may obscure these effects (§2.4). Tones of some of the forms in this table puzzle me, however.

<sup>15</sup> Nouns with original terminations other than short vowels remain epicene in Western Bade, e.g. **mazàmən** ‘blacksmith (masculine or feminine)’ (GB **māzam**), **dàraken** ‘younger brother or sister’ (cf. GB **dàràkai** ‘afterward, later’).

<b>gàrān</b>	<b>gàrən</b>	WB adj. <b>gàrì</b> ‘big’	‘older sibling’
<b>lākān</b>	<b>lākən</b>	WB adj. <b>lākì</b> ‘small’	‘younger sibling’
<b>tàrkwān</b>	<b>tàrkun</b>	GB <b>tàlku</b>	‘orphan’
<b>kùtūrān</b>	<b>kùtərən</b>	GB <b>kutəru</b>	‘puppy’
<b>màpīcān</b>	<b>màpīcən</b>	cf. GB <b>pīci</b> ‘a lie’	‘liar’
<b>magūrān</b>	<b>magūrən</b>	cf. GB <b>gūlu</b> ‘jealousy’	‘jealous person’
<b>màḏarān</b>	<b>màḏarən</b>	GB <b>maḏalú</b>	‘one who talks’
<b>màḏgān</b>	<b>màḏgən</b>	< <b>əḏgu</b> ‘follow’	‘one who follows’

The last four examples in the table have an agentive derivational prefix **ma-** (see §5.1). I did not systematically collect cognate forms with this prefix across dialects. In Gashua Bade, **ma-** agentives usually end in **-u** (cf. GB **maḏalú** ‘one who talks’). This vowel, rather than the final vowel of the base noun or verb, is the source for the **-ān/-ən** gender distinction in Western Bade.

Bade also has a feminine derivational suffix **-ako-** (§5.4), e.g. **akuyān** (m), **akuyakon** (f) ‘deaf person’. There is a rough “division of labor” between the two methods of distinguishing gender. The inflectional distinction in the form of nunation applies primarily to terms of interpersonal relationship (kin terms, ‘friend’, etc.), nouns derived by adding nunation to primary adjectives (cf. words above derived from ‘old’, ‘big’, ‘small’), and **ma-** agentives. The derivational distinction, marked by the feminine suffix **-ako-** added to a masculine base form, applies primarily to terms referring to personal traits or afflictions (cf. the example ‘deaf person’ mentioned immediately above), occupations, ethnic designations, and nouns with the stative/adjectival prefix **ga-** (§5.2). There are a few exceptions to these generalizations, such as the words for ‘dog’ and ‘puppy’ in the table above, where we might have expected derived forms in **-ako-** for the feminines, or the pair **madàltān** (m), **madàltàkon** (f) ‘dyer’, a **ma-** agentive where the feminine form has the derivational suffix.

**3.8. Noun plurals** (Lukas §§92-127). Bade has several productive pluralization processes. There is variation from town to town as to which plurals are preferred with which nouns, and even within one variety of Bade, many nouns allow more than one plural type. I have not identified any factors that allow one to predict the plural that a noun will take from its singular form. Data here are primarily from the Amshi variety of Western Bade. I include references to the relevant sections in R. Lukas (1967/68). Judging by her lists of examples, the types that are common in Amshi are also common elsewhere in Western Bade. However, she includes some types that I did not attest in Amshi. Types (1) and (2) below are common in both mine and Lukas’s data, and type (3) looks to be the default type for both data sets, being a frequent alternative to one of the other types.

Like singular nouns, plurals are cited with nunation. I have inserted a hyphen before nunation in the plurals to make the plural morphology easier to isolate.

(1) Plural suffix **-ən-** or **-an-** (Lukas §§95, 111): The plural suffix replaces the final vowel of the base. The base retains the tones of the singular on syllables preceding the plural affix, but assuming that I have accurately transcribed the tones, I have been unable to discern what rules, if any, determine the tone of the syllable bearing the plural affix.

<b>gàskamān</b>	m.	<b>gàkamən-ən</b>	‘rooster’
<b>əfcān</b>	m.	<b>əfcən-ən</b>	‘mat’
<b>jlàjləgān</b>	m.	<b>jlàgjləgən-ən</b>	‘dung beetle’

<b>kârbân</b>	m.	<b>kârbân-ən</b>	‘year’ (< Kanuri <b>kârwù</b> )
<b>ciyākân</b>	m.	<b>ciyākân-ən</b>	‘grey hornbill’
<b>dāwan</b>	f.	<b>dāwun-ən</b>	‘francolin’
<b>pâtən</b>	f.	<b>pâtən-ən</b>	‘cat’ (< Kanuri <b>fātu</b> )
<b>gaptón</b>	f.	<b>gaptən-ən</b>	‘feather; shoulder’
<b>gàngan</b>	f.	<b>gàngən-ən</b>	‘large drum’ (< Kanuri or Hausa)
<b>ngàsən</b>	f.	<b>ngàsən-ən</b>	‘spear’
<b>tàrkwān, tàrkun</b>	m., f.	<b>tàrkùn-ən</b>	‘orphan’
<b>màlhān, màlhən</b>	m., f.	<b>màlhən-ən</b>	‘speaker, one who speaks’

Nouns with the feminine derivational affix **-ako-** (§5.4) drop this affix in the plural. For nouns that use this affix to distinguish a feminine noun from the masculine counterpart, the gender distinction is neutralized in the plural (cf. the last two examples in the table above).

<b>vənàkon</b>	f.	<b>vənən</b>	‘fish’
<b>kāzəḏàkon</b>	f.	<b>kāzəḏ-ən</b>	‘chicken’
<b>āḏywakən</b>	f.	<b>āḏyən-ən</b>	‘fronds of dum palm’
<b>nsā, nsàkon</b>	m., f.	<b>nsən-ən</b>	‘hippopotamus’
<b>màcākān, màcākakón</b>	m., f.	<b>màcākən-ən</b>	‘cloth weaver’

The words for ‘fish’ and ‘chicken’ require comment. The word for ‘fish’ either lacks nutation or lacks the plural suffix. This seems to be a result of haplology to avoid too many **n**’s in a row. Lukas (§120) gives further examples that seem to lack an **-ən** syllable for the same reason, viz. **ìwàṇən** ‘day’, (pl.) **wàṇən** (= **wàṇon** in Amshi), **àṇàṇùwān** ‘testicle’, (pl.) **àṇàṇən** (Amshi uses the latter as a singular, with a **-wat-** plural).<sup>16</sup> In ‘chicken’, the sequence **-əḏ-**, rather than **-ən-**, serves as the plural suffix.<sup>17</sup>

A few nouns with the **-ən-** plural reduplicate a consonant. For nouns with only two base consonants, the last consonant is reduplicated. For longer bases, it is sometimes the final consonant, sometimes the penultimate consonant that is reduplicated. Parallel to the plural for ‘chicken’ above, some of these use the **-əR-** (**R** = reduplicated consonant) as the plural suffix rather than **-ən-**.

<b>əzdān</b>	m.	<b>əzdəḏən-ən</b>	‘vein, tendon’
<b>ngwā-</b>	f.	<b>ngùg-un</b>	‘household, one’s home’
<b>māngān, māngan</b>	m., f.	<b>mangəg-ən</b>	‘friend’
<b>pəlkà</b>	adj.	<b>pəlkək-ən</b>	‘black’
<b>gùràṁən</b>	f.	<b>gùràrmən-ən</b>	‘dum palm’
<b>magèràvān, magèràvən</b>	m., f.	<b>magèràrvən-ən</b>	‘guest, stranger’

Some nouns that have a labialized velar as the last base consonant delabialize the velar in the plural: **aikwán** (m), pl. **aikən-ən** ‘finger’; **gudkwán** (f), pl. **gudkən-ən** ‘cooking

<sup>16</sup> Compare Ngizim **ànan** ‘testicle’, pl. **àṇàṇin**. This is a productive plural type in Ngizim, which reduplicates the last **-VC-** and adds the suffix **-in**, e.g. **dəvu** ‘road’, pl. **dəvəvin**. In the word for ‘testicle’, however, a **-Vn-** sequence has been omitted.

<sup>17</sup> Historically, **-əḏ-** is not part of the root—cf GB **kazá**.

pot’; **gùskwān** (m), pl. **gə̀skən-ən** ‘worm, grub’ (the latter with both velars delabialized). This is not a general rule, however—cf. the plurals **tə̀rkùn-ən** ‘orphans’ and **ng̀ùg-un** ‘households’ (**Ku** = /**Kwə**/ where **K** = any velar). The word **gwàmān** (m), pl. **gwāmən-ən** ‘ram’ has an unexpected H tone on the first syllable and long vowel in the root syllable (also noted in Lukas §115). In my data, a few nouns have a suffix **-ən-** rather than **-ən-**,<sup>18</sup> e.g. **zawan** (f) ‘stick’, pl. **zawan-ən**, **bàwan/bàwàkon** (m/f), pl. **bàwan-ən** ‘water spruit’. I suspect these may be transcription errors for the **-ən-** plural. Lukas lists no plurals of this type.

(2) Plural suffix **-āCo-** or **-əCo-** (Lukas §§110, 113): In Amshi, the two plural terminations are in near complementary distribution, the **-əCo-** type, being limited to monoconsonantal bases and the **-āCo-** type being used elsewhere.<sup>19</sup> The **C** is usually a copy of the last base consonant, but for a few nouns with more than two base consonants, the **-ā-** of the plural marker is inserted between the last two consonants. One word, ‘Kanuri person’, reduplicates the entire root, with **-ā-** inserted in the second reduplicant. The tone on **-ə-** or **-ā-** is L unless the preceding tone is H and the consonant initiating the **-Cā-** syllable is not a voiced obstruent.

<b>dan</b>	f.	<b>də̀don</b>	‘eye’
<b>ďân</b>	f.	<b>ďə̀ďon</b>	‘town’
<b>adán</b>	f.	<b>adə̀ďon</b>	‘head’
<b>amən</b>	f.	<b>aməmón</b>	‘hand’
<b>dùngwān, dùngwàkon</b>	m., f.	<b>dùngwàgon</b>	‘leper’
<b>ə̀tkwan</b>	f.	<b>ə̀tkwàkon</b>	‘body’
<b>tə̀bán</b>	f.	<b>tə̀bàbon</b>	‘woven pot cover’
<b>bə̀gjlān</b>	f.	<b>bə̀gjlàjlon</b>	‘pigeon’
<b>kazāmən</b>	f.	<b>kazàmàmon</b>	‘young woman’
<b>və̀kən</b>	m.	<b>və̀kàkon</b>	‘hole’
<b>āyapən</b>	m.	<b>āyapāpon</b>	‘crime, fault’ (< Kanuri <b>aiwù</b> )
<b>kùtə̀rān, kùtə̀rən</b>	m., f.	<b>kùtāron</b>	‘puppy’ (< Kanuri <b>kùtùru</b> )
<b>gùtān</b>	m.	<b>gwàton</b>	‘ear’
<b>mānyəmən</b>	m.	<b>mānyāmon</b>	‘boy’
<b>kudgùmən</b>	f.	<b>kudgwàmon</b>	‘widow’
<b>màpə̀ndīn</b>	m.	<b>màpə̀ndāyon</b>	‘young man’
<b>zànən</b>	m., f.	<b>zanzànon</b>	‘Kanuri person’

<sup>18</sup> In my data, 82 nouns have a **-ən-** suffix, 8 have a **-an-** suffix.

<sup>19</sup> Lukas (§110) gives a number of the **-əCo-** type with nouns having two or more consonants. The only such word in Amshi is **hwīďān** ‘cheek’, pl. **hwīďə̀ďon**. An apparent exception, **matlān** ‘wound’, pl. **matlə̀tlón**, is a **ma-** derived form (§5.1) from the monoconsonantal verb **tlo** ‘to rise’, i.e. “a place which rises”. The word **ə̀bān** ‘bow’, pl. **ə̀bàbon**, with **-āCo-** in a monoconsonantal root, may be an exception in Amshi, or it may represent a subregularity, being the only monoconsonantal masculine noun taking this type of plural. The word **amən** ‘hand’ has an alternative plural **amāmón**, possibly indicating a shift toward regularizing plurals of this type toward all having the form **-āCo-**.

The word **wunàjân** ‘dog’ (literally ‘son-of-dog’ —cf. **jân** in some dialects and **jă** in Gashua Bade) has the plural **jàjen**, differing only in final vowel from the **-əCo-** type. Lukas (§§93, 110) gives a few more with **-e-** or **-o-** plurals not used in Amshi. One is **fəfon** ‘breast(s)’, with singular **fəfān**. In Amshi **fəfon** is a singular (or collective) with no morphological plural. Historically, it must have been a plural of the **-əCo-** type, like ‘eye’. Lukas’s singular **fəfān** is probably a collective (see type (7) below).

(3) Plural suffix **-awat(ən)-** or **-at(ən)-** (Lukas §104): This is the most common type of plural in Amshi, and judging by the number of examples in Lukas (1967/68), it probably is in her data as well. In Amshi, it serves as the default and is an alternative plural for many nouns, particularly those that also have the **-āCo-** type, e.g. **ətkwan** ‘body’, pl. **ətkwākon** or **ətkwàwàtənən**.

The form of the suffix is something of a puzzle. Consider the following singulars and plurals from three Bade dialects and closely related Ngizim (I was unable to find a set of words using this plural on cognate words in all four language varieties):

	SINGULAR	PLURAL	
Amshi (WB)	<b>agùren</b>	<b>agùrèwàtənən</b>	‘hare’
Lukas §104 (Bizi—WB)	<b>agùren</b>	<b>agùrèwàtən</b>	‘hare’
Gashua Bade	<b>âulai</b>	<b>aulàyàwat</b>	‘hare’
Ngizim	<b>bārəmë</b>	<b>bārəmèucin</b>	‘weapon’

Comparing the Lukas form, from the Bizi variety of Western Bade, to the Gashua Bade form, it looks as if the plural suffix is **-wat-**, with the Western form differing only by the addition of nunation (§3.2). The Amshi form, with a termination **-ənən** looks as if it has “double nunation”. The Ngizim form, however, calls this analysis into question, since the Ngizim plural termination seems to correspond, segment-for-segment, with the Amshi plural minus nunation (the regular plural ending in Ngizim is **-in** and **tɛ→[ɛ]\_i** by a productive rule):

Ngizim: **u c in**

Amshi: **wa t ən** (+ nunation)

It appears either that Amshi and Ngizim have merged distinct plural terminations into a single suffix or that Bizi and Gashua have dropped the **-Vn** portion of the original termination, but at present I have no historical scenario for the full range of facts that does not involve a paradox in relative chronology. With this caveat, I will take the Amshi plural suffix to be **-awatən-**, to which nunation is added. Evidence in favor of this is the fact that the definite form (§3.4) of these plurals retains the first **-ən-**, e.g. **àjlùwān** ‘grey heron’, pl. **àjlùwàwàtənən**, definite form of plural **àjlùwàwàtəni**.

The underlying initial vowel of the suffix is **-a-**, which replaces the stem final vowel unless the vowel is **-e-** or **-ī-**, in which case the **-a-** of the plural suffix is elided by the stem final vowel. The tones of **-awatən-** are **-LLH-** except where the final stem tone is H and the consonant initiating the plural suffix is not a voiced obstruent.

<b>əjlgīn, əjlgàkon</b>	m., f.	<b>əjlgìwàtən-ən</b>	‘blind person’
<b>gumājīn</b>	f.	<b>gumājìwàtən-ən</b>	‘shirt’
<b>raken</b>	m.	<b>rakēwàtənən</b>	‘bed’

<b>badén, badèyàkon</b>	m., f.	<b>badèwàtən-ən</b>	‘Bade person’
<b>ben</b>	f.	<b>bèwàtən-ən</b>	‘thing’
<b>əfcān</b>	m.	<b>əfcàwàtən-ən</b>	‘mat’
<b>akarān, akarakón</b>	m., f.	<b>akarawatən-ən</b>	‘thief’
<b>əvdan</b>	f.	<b>əvdàwàtən-ən</b>	‘open area’
<b>mīwán</b>	f.	<b>mīwawatən-ən</b>	‘nursing mother’
<b>kwàmən</b>	m.	<b>kwàmàwàtən-ən</b>	‘bull’
<b>kūdfón</b>	f.	<b>kūdfawatən-ən</b>	‘tortoise’
<b>dīton</b>	f.	<b>dītawàtən-ən</b>	‘bird’
<b>haron</b>	m.	<b>harawatən-ən</b>	‘root’
<b>kazán</b>	m.	<b>kazàwàtən-ən</b>	‘heart’
<b>pərdón</b>	f.	<b>pərdàwàtən-ən</b>	‘grasshopper’
<b>dān</b>	f.	<b>dàwàtən-ən = dādón</b>	‘town’

A handful of words in my data end in only one **-ən**, e.g. **fùwān** ‘horn’, pl. **fùwàwàtən**, **kāmnān**, pl. **kāmnawatən** (< Kanuri—cf. **kām** ‘man’, **kamu** ‘woman’). This may be dialect mixing or sporadic haplology.

A small number of nouns have a plural **-Vtən-** (**V** = **-a-** or **-e-**). These may or may not be related to the **-awatən-** type, with the syllable **-wa-** absent. Only four such plurals occur in my data from Amshi. Lukas (§§98-99) lists a fairly large number from other dialects. In §100 she lists a couple ending in **-ot-**, and in §§105-107, she lists several with **-Vyet-**. I found no nouns with these types in Amshi.

<b>lākwanāmān,</b> <b>lākwanāmàkon</b>	m., f.	<b>lākwanāmatən-ən</b>	‘court parasite’ (probably < Kanuri—cf. <b>lākkàn-</b> ‘talk to, convince’)
<b>mādḡān, mādḡən</b>	m., f.	<b>mādḡatən</b> (only 1 <b>-ən</b> )	‘follower’ (< <b>ədfgu</b> ‘follow’)
<b>kāmón</b>	m.	<b>kāmetən-ən</b>	‘farm’
<b>zanen</b>	m.	<b>zanetən-ən</b>	‘man’s gown’

Two further nouns have plurals in **-atən**: **aman/gàman** ‘wife/female, woman’, pl. **āmàtən**, **nìsən/gəmsən** ‘husband/male, man’, pl. **nìsàtən**. I suspect that these are irregular plurals unrelated to those above, but I list them here because of the morphological similarity.

(4) Plural suffix **-cən-** (Lukas §103): A small number of plurals add a suffix **-cən-**. In some of these there are unpredictable consonant additions, deletions, or vowel changes.<sup>20</sup>

<b>nìzàmən</b>	m.	<b>nìzàmçən-ən</b>	‘hunter’
<b>ngàrən</b>	m./f.	<b>ngàrcən-ən</b>	‘old person’
<b>ətlkùmən, ətlkùmàkon</b>	m., f.	<b>ətlkwàmçən-ən</b> (with <b>-a-</b> in root)	‘fool’

<sup>20</sup> This plural suffix looks like **-cin** that is fairly common in Ngizim plurals, but in Ngizim, an additional **-u-** almost invariably precedes the suffix, which has caused me to relate it to the type (3) Western Bade **-awatən-** plural (see preceding section). As already noted, the interrelationship of these plural types seems clear, but the historical picture is not.

<b>akuyān, akuyakon</b>	m., f.	<b>akuyākcən-ən</b>	‘deaf person’
<b>kwalamān, kwalamakon</b>	m., f.	<b>kwalamākcən-ən</b>	‘fornicator’
		(last two with inserted <b>-āk-</b> )	

(5) Internal -a- plurals (Lukas §112): Since the publication of Greenberg (1955), research on Chadic and Afroasiatic languages have frequently mentioned so-called “internal-a” plurals in Chadic, parallel to the “broken plurals” of Semitic and Berber. I am skeptical that such plurals are part of the Chadic repertoire. Most examples cited from various languages, including Hausa, are like those of types (1) and (2) above, which utilize reduplication but instead of adding **-VC-**, where **C** = a reduplicated consonant, the **-V-** is inserted between the last two root consonants. There are, however, a couple of nouns in Bade that appear to have true internal vowels. One is the word ‘fool’, listed with plurals of type (4), which also adds a suffix. The only clear example where an internal **-a-** is the primary mark of pluralization is **dəmān** ‘wood, tree’, pl. **dām-ən** (cf. the definite forms **dəm** sg., **dām** pl., and the respective Gashua Bade singular and plural forms, **dəm/dām**). Lukas (§112) lists a couple of others that have **-āCo-** plurals in Amshi.

(6) Plurals marked with a -g- (Lukas §§101-102, 111): Lukas lists several groups of plurals that incorporate a **-g-**. These all look like a blend with other, more generally used plural affixes. I found only five in the Amshi variety, which I present here with no attempt at further analysis:

<b>(ārān</b> ‘side, beside’)	m.	<b>aràrgə̀n-ən</b>	plural form = ‘ribs’
<b>āyín</b>	f.	<b>āyègə̀nān</b> —cf. type (7)	‘gazelle’
<b>dùwun</b>	m.	<b>dùwàngə̀n-ən</b>	‘horse’
<b>ə̀vjān</b>	m.	<b>ə̀vjàgè̀tən-ən</b>	‘monkey’
<b>̀nsān, ̀nsàkon</b>	m., f.	<b>̀nsàgè̀tən-ən</b>	‘hippopotamus’

(7) Plurals/collectives ending in -ān (cf. Lukas §93): In Amshi, about a dozen nouns have plurals ending in **-ān**. Rather than true plurals, I suspect that, historically at least, these are collectives, which, in Western Bade, usually have the **-ān** form of nunation and take plural agreement (§3.2). Most of the **-ān** “plurals” are plant names whose singulars have the **-ako-** feminine derivational suffix (§5.4), and conversely nearly all, if not all plant names of this form have an **-ān** plural. The plural may have originally referred to the fruits as a collectivity. This is reminiscent of Arabic, where formally singular collectives have derived feminine “singulatives”, e.g. Arabic **tīnun** ‘figs’, **tīnatun** ‘a fig’. In Bade, however, the **-ak-** portion of the feminine form appears in the plural/collective, suggesting that it is actually based on the feminine singular. This is in contrast to other plural types in Bade, where the feminine suffix is absent in the plural—see esp. type (1) above.

I list the **-ān** “plurals” in four groups: (a) **-ān** is added directly to the base, (b) **-ān** is added to the base with a reduplicated final consonant, (c) **-ənān** (plural **-ən-** + **-ān**?) is added directly to the base, and (d) **-ənān** is added to the base with a reduplicated penultimate consonant.

(a) <b>ə̀ktlan</b>	f.	<b>ə̀ktlān</b>	‘cow’ (cf. English collective ‘cattle’)
<b>jìjè̀mən =</b>	f.	<b>jìjè̀mān</b>	‘thorn’
<b>jìjè̀màkon</b>			

cf. <b>sāvànyin</b> < Lukas §93)	f.	<b>sāvànyān</b>	‘guinea fowl’
		(Amshi <b>sāvànyàwàtən-ən</b> )	
(b) <b>akán</b>	f.	<b>akəkán</b>	‘fire’
<b>âgwɔ̄n</b>	m.	<b>agwɔ̄ùd̄ān</b>	‘desert date ( <i>Balatines aegyptiaca</i> )’
(c) <b>apapīwán</b>	f.	<b>apapīwənan</b>	‘the burr grass <i>Cenchrus catharticus</i> ’
<b>məsākón</b>	f.	<b>məsākənān</b>	‘tamarind ( <i>Tamarindicus indica</i> )’
(d) <b>əpcàràkon</b>	f.	<b>əpcàràrkənān</b>	‘Sodom apple ( <i>Calotropis procera</i> )’
<b>asakón</b>	f.	<b>asaskənān</b>	‘cornstalk’
<b>hàyàkon</b>	f.	<b>hàyàikənān</b>	‘jujube ( <i>Zizyphus jujuba</i> )’
<b>màràkon</b>	f.	<b>màràrkənān</b> <sup>21</sup>	type of large fish trap

Both Lukas (§95) and I have listed several plurals with a suffix **-an**. I suspect that these are all mistranscriptions for **-ān**. All such examples in our data refer to plants, domestic animals, or household items that tend to be kept in groups. For example, **àpson** ‘*Bauhinia reticulata*’, pl. **àpsəsan** [sic], **patlakén** ‘large water pot’, pl. **patlatlkənān** [sic], and from Lukas, **tāman** ‘sheep’, pl. **tāmənan** [sic], **ədgán** ‘arrow’, pl. **ədgənān** [sic].

(8) Suppletive and irregular plurals (Lukas §§121-122): Bade has a few nouns, mostly referring to humans, with suppletive plurals or unique plurals that no regular rules account for.

<b>m̀dən, m̀dènàkon</b>	m., f.	<b>m̀dan</b>	‘person’ (pl. ‘people’)
<b>gagàrān, gagàran</b> (= <b>ngàrən</b> )	m., f.	<b>ngàrcən-ən</b>	‘old people’
<b>gàrān, gàrən</b>	m., f.	<b>kàrgon</b>	‘important person; elder sibling’
<b>mānyəmən</b>	m.	<b>yārón</b> <sup>22</sup>	‘boy’ (pl. = children of any sex)
<b>wunyān</b>	f.	<b>mānyān amatən</b>	‘girl’ (pl. literally = ‘female children’)
<b>wùnón, wunyán</b>	m., f.	<b>ùktlen</b>	(m) ‘son’, (f) ‘daughter’, (pl.) ‘offspring’
<b>akún</b>	f.	<b>gàrwon</b>	‘goat’

#### 4. Verbal System

**4.1. Verb classes.** Lukas (1970-72) laid out a framework of five verb classes for verbs in Bole (= Bolanci), a West Chadic cousin of Bade. These five classes are reconstructable for at least proto-West Chadic and have reflexes in many West Chadic languages, including

<sup>21</sup> This noun does not fit semantically with other nouns having **-ān** “plural” suffix. The Gashua Bade form is **m̀l̀àkwà**, pl. **m̀l̀àkùn** (a regular type (1) plural with a **-ən** suffix —/kwən/ → [kùn]). It appears that when Western Bade added nunation to this noun, the phonetically resulting form sounded like a noun with the **-àkon** feminine derivational suffix (§5.4), and thence, like one of the plant names that would normally take the **-ān** plural.

<sup>22</sup> This plural is widespread in Western Bade and known and sometimes used in Amshi, though the more commonly used form in Amshi is the regular type (2) plural **mānyāmon**. This plural looks surprisingly like Hausa **yārò** ‘boy’, but the resemblance is probably accidental. It would be difficult to explain why Bade would borrow a *singular* noun as a plural, esp. for a high frequency item like ‘boy’. Moreover, the **-āCo-** of Bade **yārón** fits one of the common Bade plural templates.

Bade. I am adopting this classification scheme for Bade as a way to facilitate cross-linguistic comparison and avoid proliferation of terminology.

The verb classes are reflected particularly in TAM forms (§4.2) and verbal nouns (§4.3). The completive form of the verb provides a consistent and unique way to identify each class. I therefore use this as the reference form for verb classes. The classes are as follows:

**Class A1:** verbs ending in **-u** in the completive with roots of the form **\*CVC-** (=monomoraic roots)

**Class A2:** verbs ending in **-u** in the completive with roots of the form **CVC-** or roots with more than two consonants (=multi-moraic roots)

**Class B:** verbs ending in **-o** (< **\*-au**) in the completive with roots of the form **CVC-**

**Class C:** verbs ending in **-u** in the completive with monoconsonantal roots

**Class D:** verbs ending in **-o** (< **\*-au**) in the completive with monoconsonantal roots

The starred **\*CVC-** root form for class A1 verbs refers to the reconstructed form. Many A1 verbs retain this form in modern Bade, e.g. **bənu** ‘cook’, **baku** ‘burn’, but verbs with the reconstructed root form **\*CəC-** now have the root form **əCC-** where the root consonants form a permissible sequence, e.g. **əbdu** ‘ask’ < **\*bədu** (Schuh 1978).

<b>Class A1</b>	<b>màsu</b>	‘buy’
	<b>tlənu</b>	‘blow one’s nose’
	<b>əftu</b>	‘postpone’
	<b>ədfhwu</b>	‘lose, throw away’
<b>Class A2</b>	<b>bənu</b>	‘vomit’
	<b>kətu</b>	‘call’
	<b>varku</b>	‘encircle’
	<b>kudvu</b>	‘carry on back’
	<b>cəcetu</b>	‘filter’
	<b>kuntəbu</b>	‘become turbid’
	<b>əbjəgu</b>	‘invert’
	<b>ətlkwəmtu</b>	‘be foolish’
<b>Class B</b>	<b>gəfo</b>	‘catch’
	<b>kəfo</b>	‘exceed’
	<b>əzgo</b>	‘know’
<b>Class C</b> (see below)	<b>ju</b>	‘go’
<b>Class D</b>	<b>bo</b>	‘get’
	<b>so</b>	‘drink’
	<b>to</b>	‘eat’
	<b>tlo</b>	‘stand up’

In Bade, and in West Chadic in general, we can reconstruct Class B as being restricted to mono-moraic roots. I have found only two exceptions to this generalization in Western Bade, viz. **kəlo** ‘have a meal’ and **kəmo** ‘be one’s concern’, both of which appear to be borrowings, probably from Kanuri. Bade has only one Class C verb, the defective verb **ju** ‘go’. The Bade-Ngizim group has shifted all other original Class C verbs into Class D.

Compare ‘eat’ and ‘drink’ above to Ngamo **tu** ‘eat’, **sa** ‘drink’, Hausa **ci** ‘eat’, **shā** ‘drink’.

**4.2. Tense, Aspect, Mood (TAM).** As in all Chadic languages, tense, aspect, and mood are not independently variable parameters of the verbal system. Chadic linguistics has thus established a tradition of referring to this area of the verbal system as the T(ense) A(spect) M(ood) = TAM system. Bade has six distinct TAM’s. The primary TAM indicators are distinctions in tone and final vowel, but accompanying these distinctions in verb form are distinctions in preverbal subject agreement clitics.

**4.2.1. Completive.** The completive expresses anteriority with active verbs but existing state with stative verbs. When the temporal context is the present, English translations will be past or present perfect with active verbs and simple present tense with statives, e.g. active **nə mākə gī** ‘I looked for you, I have looked for you’, stative **nə-zgo** ‘I know’. However, Bade TAM’s are unspecified for tense, so in a past context active verbs will be translated as English pluperfect (‘I had looked for you’) and statives as past (‘I knew’), and in a future context, active verbs will be translated as English future perfect (‘I will have looked for you’).

The primary indicator of completive is a (L...)HL tone pattern (H tone on the last syllable with all preceding tones L) and a completive vowel suffix **-u** for verbs of classes A1, A2, C and **-o** for classes B, D (§4.1). In addition, the completive uses the preverbal subject marking clitics (ABSENCE of any clitics in 3<sup>rd</sup> persons) in the table below, illustrated with the class A1 verb **gàyu** ‘climb’. The table in §4.1 illustrates verbs in the completive form in all verb classes.

1 sg.	<b>nə</b> <b>gàyu</b>	1 pl. exclusive	<b>jə</b> <b>gàyu</b>
		1 pl. inclusive	<b>wə</b> <b>gàyu</b>
2 sg.	<b>gə</b> <b>gàyu</b>	2 pl.	<b>awùn/nə</b> <b>gàyu</b>
3 m. sg.	( <b>aci</b> ) <b>gàyu</b>	3 pl.	( <b>akci</b> ) <b>gàyu</b>
3 f. sg.	( <b>atu</b> ) <b>gàyu</b>		

Third person completive has no subject clitics. To differentiate gender or number, the parenthesized pronouns can be used, and in simple declarative sentences they usually are in Western Bade.<sup>23</sup> These pronouns clearly have a different status from the first and second person clitics, however. Unlike first and second person clitics, the presence of the pronouns is not grammatically obligatory, and in a series of clauses where the same subject is maintained, it is typical to use the bare verb, which is not possible in first and second persons. Moreover, an overt noun subject cannot appear together with a pronoun, e.g. **Sākù bənè kajlùwān** ‘Saku cooked food’, not \***Sākù atu...**□

The completive terminations **-u** and **-o** are prepausal forms. When anything follows the verb, regardless of its grammatical relationship to the verb, these terminations become **-ə** and **-a** respectively:

<b>aci</b> <b>gàfo</b>	‘he caught’	BUT	<b>aci</b> <b>gàfa dùwun</b>	‘he caught a horse’
<b>aci</b> <b>əbdu</b> [ <b>acəbdu</b> ]	‘he asked’	BUT	<b>acəbdə mānyəmən</b>	‘he asked a boy’

<sup>23</sup> It is a common feature of the completive in West Chadic languages for the bare verb without a subject clitic to express third person. Among West Chadic A and B languages that I have studied, including closely related Ngizim, Western Bade is unusual in preferring to use an overt pronoun in simple declarative sentences with third person subjects.

The completive terminations derive historically from **-ə+w** and **-a+w** respectively, where the **-w** comes from an even earlier completive suffix **\*-ku**, still seen in West Chadic-A languages. The automatic, PHONETICALLY conditioned alternation in the examples reflects what must have been an earlier suppression of the completive suffix in certain GRAMMATICAL contexts.<sup>24</sup>

The (L...)H completive tone pattern is sometimes obscured by productive phonetically conditioned tone spreading processes (§2.4). The H of the subject clitic spreads to L syllables that do not begin in a voiced obstruent, e.g. /nə məskàtu/ → [nə məskatú] ‘I turned around’, and a L spreads to H syllables that begin in any consonant other than a voiceless obstruent in the environment L\_\_H, e.g. /nə bènə kajlùwān/ → [nə bènə kajlùwān]. The 2<sup>nd</sup> singular clitic **gə** undergoes an apparent alternation. It normally bears H tone, e.g. **gə dèpsu** ‘you hid’, /gə tàksu/ → [gə taksú] ‘you tied’, /gə əbdu/ → [gəbdu] ‘you asked’, **gə dǒ** ‘you removed’. However, in cases where a verb stem ends up phonetically with a single syllable bearing a H, the 2<sup>nd</sup> person clitic is L, e.g. **gə pɔ** ‘you poured’, /gə ùktu/ → [gùktu] ‘you took’. My interpretation is that, insofar as possible, there is a desire to have a L...H pattern on the verb. Where the verb would end up bearing only H, the pronoun clitic is incorporated into the L...H pattern. This does not take place with the first person singular clitic **nə**, however. The fact that the 2<sup>nd</sup> person clitic begins in a voiced obstruent apparently facilitates its lowering in this context.

**4.2.2. Negative (“Unrealized”) completive.** Negated clauses with a completive verbal TAM require a negative completive verb form rather than the general completive described in §4.2.1. The negative completive uses the same set of subject clitics as the completive, but instead of the terminations **-u** or **-o** marking verb class, verbs of all classes add a termination **-àCa**, where **C** = a copy of the final stem consonant.. The most frequent mark of negation in Western Bade is **‘m** added to the end of the clause.

	AFFIRMATIVE	NEGATIVE	
Class A1	sə́ɗu	sə́ɗàɗa-m	‘didn’t wash’
	ùktu	ùktàta-m	‘didn’t take’
Class A2	ɗùru	ɗùràra-m	‘didn’t choose’
	də́psu	də́psàsa-m	‘didn’t hide’
	mə́skətu	mə́skə̀tə̀ta-m	‘didn’t turn around’
	ə̀stəkɥu	ə̀stəkɥàkɥa-m	‘didn’t untie’
Class B	ə̀zgo	ə̀zgàga-m	‘don’t know’
	gàfo	gàfàfa-m	‘didn’t catch’
Class C	ju	jàja-m	‘didn’t go’
Class D	bo	bàba-m	‘didn’t get’
	so	sàsa-m	‘didn’t drink’

Some speakers also use this form in counterfactual contexts, even where the clause itself is not negated, e.g. **nə-zgàga nà, nə dāngānàtu** ‘if I had known (< ə̀zgo), I would have been patient’. This usage suggests that “unrealized” completive might be a better term than “negative” completive. However, aside from overtly negative contexts, speakers more commonly use the general completive in counter-to-fact propositions.

<sup>24</sup> Gimba (2000:Chapter 7) describes such a phenomenon the West Chadic-A language, Bole.

**4.2.3. Subjunctive.** The subjunctive serves a range of semantic and discourse functions whose full description goes beyond the scope of this paper. Some of the main functions are expression of wishes or requests (*sàna nā bì kabón* ‘tomorrow, may I get a penny’); complements to the verb *ñcu* ‘want’ (*nə ncə aci dà masì gaskamən* ‘I want him to buy a rooster’); complements to expressions of necessity, propriety, and the like (*kə̀dfo wà-tkèrì wana mcó* ‘it is best that we finish this work’); ‘before’ clauses (*kà̀bdèrò ga jlàwì à kāsò, nâ-sfe-gì* ‘before you sit in the room, I will sweep it for you’); purpose clauses (*à bàriy-ā lābārú nā sagì* ‘give me the news that I might know’); expression of an event that takes place in direct sequence following another event, regardless of TAM of the preceding event (completive + subjunctive *āmən jà̀wo m̀dan da-zgè̀mì* ‘rain came and the people planted’, incomplete + subjunctive *nā nà̀yì nâ vadi* ‘I will come and lie down’).<sup>25</sup>

The primary invariant mark of the subjunctive is the vocalic termination *-i* for all verb classes. The subjunctive has a set of characteristic tone patterns that depend on the subject clitic and the initial consonant of the verb. With singular subjects and all third person subjects, the verb bears all L tones if it begins in a voiced obstruent, HL... tones elsewhere. The clitic vowel is short *-a* with tone polar to the verb tone. With first and second person plural subjects, both the clitic and the verb have all L tone, and the clitic vowel is long *-à*.

	HL verb <i>tà̀d̥u</i> ‘release’	L verb <i>gà̀fo</i> ‘catch’
1 sg.	<b>nà tad̥i</b>	<b>na gafi</b>
2 sg.	<b>gà tad̥i</b>	<b>ga gafi</b>
3 (he/she/they)	<b>(aci/atu/aksi) dà tad̥i</b>	<b>(aci/atu/aksi) da gafi</b>
1 pl. exclusive	<b>jà̀ tad̥i</b>	<b>jà̀ gafi</b>
1 pl. inclusive	<b>wà̀ tad̥i</b>	<b>wà̀ gafi</b>
2 pl.	<b>awùnà̀/nâ tad̥i</b>	<b>awùnà̀/nâ gafi</b>

The third person subjunctive clitic, *da*, is not a pronoun. As the examples in the table and some examples in the first paragraph in this section show, it appears even when an overt noun or pronoun subject is present.

Following are examples of each verb class with first person singular and first person plural exclusive subjects. The subjunctive neutralizes class distinctions.

	1 <sup>st</sup> singular	1 <sup>st</sup> pl. excl.	
<b>Class A1</b>	<b>nà-kfi</b>	<b>jà̀-<i>kfi</i></b>	‘enter’
	<b>na-bdì</b>	<b>jà̀-<i>bdi</i></b>	‘ask’
<b>Class A2</b>	<b>nà d̥ə̀bdì</b>	<b>jà̀ d̥ə̀bdì</b>	‘sell’
	<b>na d̥ə̀psì</b>	<b>jà̀ d̥ə̀psì</b>	‘hide’
<b>Class B</b>	<b>nà katì</b>	<b>jà̀ katì</b>	‘become’
	<b>na gafi</b>	<b>jà̀ gafi</b>	‘catch’
<b>Class C<sup>26</sup></b>	<b>nà ni</b>	<b>jà̀ ni</b>	‘go’
<b>Class D</b>	<b>nà pi</b>	<b>jà̀ pi</b>	‘pour’

<sup>25</sup> This constellation of functions, which, from the point of view of English translation, looks quite diverse, is shared by many Chadic languages, and probably by many African languages outside Chadic. In Schuh (2003:20) I suggest that the subjunctive “signals an event which will have its inception subsequent to the moment of speaking and/or to an event in a superordinate clause.”

<sup>26</sup> The one class C verb in Bade, *ju* ‘go’, has suppletive forms according to TAM.

**nā dī**<sup>27</sup>                      **jā dī**                      ‘remove’

First and second person singular and all third person subjects also have a set of subjunctive clitics with a long vowel (**nā**, **gā**, **dā**). These clitics are used with Class D verbs that begin in a voiced sound (obstruent or sonorant) and with four Class A1 verbs: **dùkwu** ‘hear’, **làgu** ‘stop, stand’, **vàdu** ‘lie down’, and **wàyu** ‘be sated’. All four of these verbs always have all L tone in the subjunctive. Examples with the long clitics are **nā ni** ‘that I count’ (cf. the Class C **nā ni** ‘that I go’ above), **nā dī** ‘that I remove’, /**nā làgì**/ → [**nā lagì**] ‘that I stop’, with tone of the verb raised by H SPREADING (§2.4).

**4.2.4. Second Subjunctive.** The second subjunctive has two functions: (1) It replaces the imperative and the subjunctive in negated clauses,<sup>28</sup> e.g. **gè gàfa-m** ‘don’t catch (it)!’ —cf. imperative **à-gàfī** ‘catch (it)!’, **nə dəpsə tagdānā gādā akcì dè-gna-m** ‘I hid my money in order that they not take (it)’. (2) The second subjunctive serves as a hortative for third person referents, for first singular, and for first plural exclusive, e.g. **agùre yàye dè jlàwa dūwùṅāné** ‘as for the hare, let it become my horse’, **nə kùgùz(a) egì ɓa** ‘let me teach (it) to you’. For commands involving second person, including first plural inclusive, the imperative (§4.2.5) is used.

The indicators of second subjunctive are a vowel termination **-a**, ...LH tone on the verb, and subject clitics of the form **Cə**. The paradigm below illustrates second subjunctive with the verb **gàyu** ‘climb’ as a negative imperative/hortative. The negative marker is **-m**.

1 sg.	<b>nə gày-a-m</b>	1 pl. exclusive	<b>jè gày-a-m</b>
		1 pl. inclusive	<b>wè gày-a-m</b>
2 sg.	<b>gè gày-a-m</b>	2 pl.	<b>awùn/nè gày-a-m</b>
3 m. sg.	( <b>aci</b> ) <b>dè gày-a-m</b>	3 pl.	( <b>akci</b> ) <b>dè gày-a-m</b>
3 f. sg.	( <b>atu</b> ) <b>dè gày-a-m</b>		

The verb class distinction is neutralized in the second subjunctive. Examples have the third person clitic **dè**.

<b>Class A1</b>	<b>dè-bda</b>	‘let him/her/them ask’
<b>Class A2</b>	<b>dè dèbda</b>	‘let him/her/them sell’
<b>Class B</b>	<b>dè gàfa</b>	‘let him/her/them catch’
<b>Class C</b>	<b>dè ja</b>	‘let him/her/them go’
<b>Class D</b>	<b>dè da</b>	‘let him/her/them remove’

**4.2.5. Imperative.** The imperative expresses commands involving a second person addressee, including first plural inclusive. Imperative verbs have the following morphological features: a prefix **à-** or **ã-** (with length conditioned by the same factors as for subjunctive singular subject clitics—see §4.2.2), L...H tone pattern, vowel termination /-i/ for singular subject and **-a** for plural subject, and pronominal suffixes that copy person and number features of the subject. The fact that the singular imperative vowel termination

<sup>27</sup> See below for length on the singular clitic pronoun.

<sup>28</sup> The second subjunctive replaces the subjunctive in negated clauses in all functions except the subjunctive as a marker of sequence. If a negative clause appears in a sequence with a completive sense, the negative completive is used. In other sequential contexts, the negative incompletive replaces subjunctive.

is underlying /-i/ can be determined only from comparison with other Bade dialects. In Amshi, this /-i/ will always be neutralized to -ə or elided by a following vowel. It can never appear phrase final. The table below illustrates the imperative for each verb class for each person that has an imperative form, plus the verb **làgu** ‘stop, stand’, which exceptionally requires a long prefix in the imperative and subjunctive.

	2 masc. sing.	2 fem. sing.	1 pl. incl.	2 plural	
<b>Class A1</b>	à vər-ī	à vərə-m	à vərə-wà	à vərə-wún	‘go out’
<b>Class A2</b>	à d̀əbd-ī	à d̀əbdə-m	à d̀əbda-wà	à d̀əbdà-wun	‘sell’
<b>Class B</b>	à g̀əf-ī	à g̀əfə-m	à g̀əfa-wà	à g̀əfa-wún	‘catch’
<b>Class C</b>	à j-ī	à jə-m	à ja-wà	à jà-wun	‘go’
<b>Class D</b>	à d-ī	à də-m	à da-wà	à da-wún	‘remove’
<b>irreg.</b>	à làg-ī	à làgə-m	à làga-wà	à làga-wún	‘stop’

Imperatives retain their person marking suffixes before noun direct objects, e.g. **à-kwt-ī karén** ‘take a load!’ (masc. sing.), **à-kwta-wà karén** ‘let’s take a load!’ With a pronominal direct object, first person plural inclusive retains its suffix, but other imperatives lose their suffixes, e.g. **à-kwta-wà-ci** ‘let’s take it!’ but **à-kwtə-ci** ‘take it!’ (masc. or fem. sing.) not \***à-kwt-ī-ci** or \***à-kwtə-m-ci**, **à-kwta-ci** ‘take it!’ (plural), not \***à-kwta-wun-ci**. Note that without the person marking suffix in first person plural inclusive, first plural inclusive and second plural would not be distinct.

**4.2.6. Person marking suffixes with subjunctive and second subjunctive.** The subjunctive and second subjunctive sometimes use person marking suffixes identical to those in the imperative, described immediately above. Verbs in the subjunctive and second subjunctive with third person referents can also take agreement suffixes.

Subjunctive with suffix:           **à yam g̀ə-kwtə-m** ‘come and take it! (2 fem. sing.)’

Second subjunctive with suffix:   **aci d̀ə g̀əfa-ci d̀əwun** ‘let him catch a horse!’

In contrast to the imperative, person marking suffixes are not obligatory with subjunctive and second subjunctive, and in fact those TAM’s in normal discourse appear without suffixes far more frequently than with. The functional value of attaching person marking suffixes in subjunctive and second subjunctive is unclear. Negative contexts do not allow use of the suffixes, e.g. **atu d̀ə-kfa-tu** ‘let her enter!’, **atu d̀ə-kfa-m** ‘may she not enter!’, but not \***atu d̀ə-kfa-tə-m** ‘may she not enter!’

**4.2.7. Incompletive.** The incompletive in main clauses expresses an event that is not complete at the time of reference. The English translation may be progressive or future. Thus, a question like **S̀aku ā b̀ənà k̀əm?** could mean, “What will Saku cook?” or “What is Saku cooking?” depending on context. Since Bade does not overtly mark tense as a distinct category, the question could also be translated as, “What was Saku cooking?” or “What was Saku going to cook?” if the time of reference were past. Unlike some Chadic languages, including closely related Ngizim, Western Bade incompletive does not express habitual meaning. The habitual extension (§4.5) takes on this function.

The indicators of the incompletive are a special set of subject clitics and the verbal noun, rather than a “finite” verb, as the morphological form of the verb. There are two reasons for considering the verb in the incompletive to be a verbal noun rather than a finite verb. First, incompletive verbs are identical to the corresponding verbal nouns minus nunation (see §4.3

for verbal nouns). Second, in the incomplete, verb-object has the form of a genitive construction rather than verb + object clitic or juxtaposed noun, as in other TAM's. For example, incomplete **nā-bdà-ri** 'I will ask him' uses the genitive pronoun **-ri** as object in contrast to completive **nə-bdà-ci** 'I asked him', with direct object clitic **-ci**.

The forms for verbal nouns in the incomplete are as follows:

- **Cà** for monoconsonantal roots with voiced consonant: **bà** 'receive', **nà** 'count'
- **Ca** for monoconsonantal roots with voiceless consonant: **ta** 'eat'
- \***CəCàCv̂** for verbs where the initial syllable derives historically from \***Cə** and where the final **v̂** = **-ù** for intransitive verbs with a middle meaning and **v̂** = **-à** for all other verbs: (intransitive) **əzɡàtù** 'be pierced', **dùwàtlù** 'be tired'; (others) **əkfà** 'enter', **əbdà** 'ask', **səđà** 'wash', **əzɡətà** 'pierce', **kərìntà** 'listen'
- **CəCi** for most Class A1 verbs and all Class B verbs of the form **CaCV**:<sup>29</sup> (Class A1) **bəki** 'burn', **təđi** 'release'; (Class B) **ɡəfi** 'catch'
- Elsewhere, **CV...aCù** for intransitive verbs with middle meaning, **CV...à** for all others: (intransitive) **tlərgàdù** 'collapse', **kəndəwù** 'be stuck, adhere'; (others) **tlərgədə** 'destroy', **ďarà** 'speak', **notà** 'pass', **kalaktà** 'go back', **ďāgùrà** 'call', **bərbərtà** 'roll in dust', **ɡurməďà** 'chew on'. For verbs of more than two syllables, medial syllables are L if they begin in a voiced obstruent, H otherwise.

The table below illustrates the incomplete subject clitics with verbs having initial H and initial L tones. First person singular always has H tone, others are polar to the verb tone. The clitic vowel is short before an initial H verb, long before initial L verb:

	'tie' (initial H)	'tumble' (initial L)
1 sg.	<b>na taksà</b>	<b>nā bərə̀bərə̀</b>
2 m.sg.	<b>yà taksà</b>	<b>yā bərə̀bərə̀</b>
2 f.sg.	<b>mà taksà</b>	<b>mā bərə̀bərə̀</b>
3 (m.sg./f.sg./pl.)	<b>(aci/atu/aksi) à taksà</b>	<b>(aci/atu/aksi) ā bərə̀bərə̀</b>
1 pl.excl.	<b>jà taksà</b>	<b>jā bərə̀bərə̀</b>
1 pl.incl.	<b>wà taksà</b>	<b>wā bərə̀bərə̀</b>
2 pl.	<b>awùnà/nà taksà</b>	<b>awùnā/nā bərə̀bərə̀</b>

The table below illustrates a verb from each of the bulleted types above with first singular subject and second masculine singular subject. See remarks on tone following the table.

<sup>29</sup> Of 35 **CaCu** Class A1 verbs, 26 have **CəCi** verbal nouns, 5 have **CaCà** verbal nouns, and 4 allow either type.

<b>Cà</b>	<b>nā bà</b>	<b>yā bà</b>	‘get’
<b>Ca</b>	<b>na ta</b>	<b>yà ta</b>	‘eat’
<b>*CəCəCù</b>	<b>nā ɗuwatlù</b>	<b>yā ɗuwatlù</b>	‘get tired’
<b>*CəC(ṽ...)à</b>	<b>nā səɗà</b>	<b>yā səɗà</b>	‘wash’
<b>CəCi</b>	<b>na təɗí</b>	<b>yà təɗí</b>	‘release’
	<b>na tləvi</b>	<b>yà tləvi</b>	‘pierce’
	<b>na gəfi</b>	<b>yà gəfi</b>	‘catch’
<b>CV...aCù</b>	<b>na bərtanù</b>	<b>yà bərtanù</b>	‘roll over’ (intr.)
<b>CV...à</b>	<b>na bərtənà</b>	<b>yà bərtənà</b>	‘roll over’ (tr.)

The underlying tones on ‘get tired’ and ‘wash’ are /nā ɗùwàtlù/ and /nā səɗà/ respectively, with all L tone on the verbs. The first syllable (and second syllable in ‘get tired’) are raised by the H SPREADING from the pronoun. CəCi type verbal nouns, such as for ‘release’, ‘pierce’, and ‘catch’, are cited with LH tones, but in incomplete constructions, they condition the L polar tone and short vowel characteristic of subject clitics used with initial H verbs. This is true even for verbs like ‘catch’, which begin in a voiced obstruent and are always pronounced with LH tones. Other verbs like, ‘release’, have H Downstep tones, or Falling H if the second consonant is a voiced obstruent.

**4.3. Verbal nouns.** Verbal nouns, like all common nouns in Western Bade, have grammatical gender (§3.1), have a citation form with nunation (§3.2), and have a definite form without nunation (§3.4). The most common function of the definite form of a verbal noun is as head of an incomplete verb phrase (§4.2.7), but this would also be the form for a previously mentioned activity. There are productive patterns of verbal noun formation associated with specific verb root shapes. Following a tradition of Hausa verbal noun terminology, I will refer to these productive patterns as PRIMARY VERBAL NOUNS. There are also some less productive patterns that I will refer to as SECONDARY VERBAL NOUNS. Nearly every verb that has an associated secondary verbal noun also has a primary verbal noun. Every primary verbal noun has predictable meaning related directly to the meaning of the verb, corresponding to the English gerund or infinitive. Many secondary verbal nouns have less predictable meanings, such as a resultative sense, e.g. **gàmsu** ‘laugh’, primary verbal noun **gàmsán** ‘laughing’, secondary verbal noun **gàmàsən** ‘laughter’. I will present the primary verbal nouns associated with various verb root shapes followed by secondary verbal nouns, categorized by verbal noun morphology.

**Can/à, Cān/a—monoconsonantal roots:** All monoconsonantal roots with a voiced consonant are feminine with a citation form **Can** and a definite form **Cà**. If the consonant is a voiced obstruent, the citation form usually has a rising tone, otherwise it is H. If the consonant is a voiceless sound, the verbal noun is masculine with a citation form **Cān** and a definite form **Ca** (with the exception of **han/ha** ‘carving’, which is feminine but which does have the predicted H definite form).

Citation	Definite		Citation	Definite	
<b>băn</b>	<b>bà</b>	‘get’	<b>tăn</b>	<b>ta</b>	‘eat’
<b>nan</b>	<b>nà</b>	‘count’	<b>tlăn</b>	<b>tla</b>	‘arise’
<b>wan</b>	<b>wà</b>	‘lack’	<b>han</b> (f)	<b>ha</b>	‘carve’

This regular pattern found in Amshi and a few other villages does not hold for all of Western Bade. Though the **Can** or **Cān** pattern is widespread for some monoconsonantal verbs, other verbs have verbal nouns of the forms **Cayin**, **Ciyin**, or **Cəɗyin**. The verbal

noun form and the specific roots with which it is used vary from village to village. I did a dialect survey, which included 13 Western Bade villages (as well as villages in other Bade dialect areas). One part of the survey data set elicited the verbal nouns for the verbs ‘get’, ‘eat’, and ‘count’. Some examples of variants that I found were the following: (Daciya Kura) **bìyin/tìyin/nan**, (Bizi, Dagona) **bə̀dyin/tə̀dyin/nan**, (Tagali, Dala, Tagama) **bàyin/tàyin/nàyin**, (Yin) **tān/bàyin/nàyin**. Comparative evidence indicates that each of the variants must have existed in proto-Bade/Ngizim, with different varieties of Bade extending one or another other of the variants to different monoconsonantal verbs.

**...Cān/à**—Class A1 verbs of the form \*CəC- and all Class A2 verbs: With one regular exception (see immediately below), verbal nouns for these classes of verbs are all feminine with a citation form ending in **-an** and definite forms ending in **-à**. If the initial syllable is \*Cə- (=CəC- or Cə-), the tones of the root are all L. Otherwise the initial tone is H, which spreads to following syllables unless they begin in a voiced obstruent. The table below does not give definite forms since they are predictable from the citation form.

L on root		Initial H on root	
<b>əkfan</b>	‘enter’	<b>ḏūrán</b>	‘choose’
<b>sə̀dan</b>	‘wash’	<b>ḏə̀bdan</b>	‘sell’
<b>ə̀ḏkùman</b>	‘find’	<b>kalaktán</b>	‘return, go back’
<b>fə̀rìfə̀ritán</b>	‘bore, drill’	<b>bə̀rbə̀rtan</b>	‘roll in dust’
<b>bə̀ràbə̀ran</b>	‘tumble down’	<b>tə̀nkwakudán</b>	‘rub to remove dirt’

**...Cān/ù**—Class A2 middle verbs of more than two syllables: A large number of Class A2 verbs with middle meaning (roughly, intransitive verbs indicating change of state of the subject) have masculine verbal nouns ending in **-ān** in citation form and **-ù** in the definite form. Tones are like those for Class A2 verbs with feminine **-an** verbal nouns (see preceding paragraph). A large proportion of these **-ān** masculine verbal nouns have a root shape **...CaC-** and are related to transitive verbs with root shape **...CəC-** (see §4.4). Comparative evidence suggests that the **-ān** verbal noun pattern for verbs with a middle meaning may have been extended from middle verbs with this particular morphological pattern. The Amshi dialect also allows the **-ān** verbal noun pattern with some middle **CVC-** and **CVCC-** Class A2 verbs. More research is needed to discover whether this pattern is general in Western Bade for such roots.

Citation	Definite form	
<b>ə̀bdàzān</b>	<b>ə̀bdàzù</b>	‘disperse (intr.)’ (cf. tr. <b>ə̀bdə̀zan</b> )
<b>ḏùwàtlān</b>	<b>ḏùwàtlù</b>	‘be(come) tired’
<b>ə̀gbàmtān</b>	<b>ə̀gbàmtù</b>	‘swell up’
<b>tlakanān</b>	<b>tlakanù</b>	‘scatter (intr.)’ (cf. tr. <b>tlakə̀nán</b> )
<b>tlə̀rgàdān</b>	<b>tlə̀rgàdù</b>	‘collapse’ (cf. tr. <b>tlə̀rgə̀dan</b> ‘destroy’)
<b>gə̀ḏgə̀ḏtān</b>	<b>gə̀ḏgə̀ḏtù</b>	‘tremble’
<b>cəkpaḗpān</b>	<b>cəkpaḗpù</b>	‘squat’
<b>cīcītān</b>	<b>cīcītù</b>	‘be(come) permeated’ (cf. tr. <b>cīcītán</b> )
<b>kwāḏfān</b>	<b>kwāḏfù</b>	‘be(come) ruined’ (cf. tr. <b>kwāḏfán</b> )
<b>capḗtān</b>	<b>capḗtù</b>	‘gather (intr.)’ (cf. tr. <b>capḗtán</b> )

**CəCən/i**—Class A1 and Class B verbs with root shape **CaC-**: A large majority of verbs with root shape **CaC-**, both Class A1 and Class B, have verbal nouns with citation form **CəCən** and definite form **CəCi**.<sup>30</sup> A minority—all Class A1—have feminine verbal nouns with citation forms **CaCan** and definite forms **CaCà** like those used with \***CəC-** Class A1 and all Class A2 verbs discussed above. A few verbs allow either type.

	Completive form	VN Citation	VN Definite	
A1	<b>bàku</b>	<b>bəkən</b>	<b>bəki</b>	‘burn, roast’
A1	<b>bàru</b>	<b>bərən</b>	<b>bəri</b>	‘give’
A1	<b>màsu</b>	<b>məsən</b>	<b>məsi</b>	‘buy’
A1	<b>pàtu</b>	<b>pətən</b>	<b>pəti</b>	‘get lost’
B	<b>gàfo</b>	<b>gəfən</b>	<b>gəfi</b>	‘catch’
B	<b>kàto</b>	<b>kətən</b>	<b>kəti</b>	‘become, turn into’
A1	<b>bàru</b>	<b>barán</b>	<b>barà</b>	‘hunt’
A1	<b>ɗàru</b>	<b>ɗarán</b>	<b>ɗarà</b>	‘speak’
A1	<b>ràwu</b>	<b>rùwun = rawán</b>	<b>rùwi = rawà</b>	‘run’
A1	<b>ɗàyu</b>	<b>ɗiyin = ɗayán</b>	<b>ɗiyi = ɗayà</b>	‘prune tree’

The internal vowel **-ə-** in verbal nouns associated with **CaC-** roots results from assimilation of the root vowel to the original **-i** final vowel. This is a relatively recent innovation in Bade—Ngizim retains **-a-** in the cognate verbal noun type, e.g. Ngizim **bàru** ‘give’ with verbal noun **bari**. Tones are anomalous. These verbal nouns always have LH tones in citation, but they act as if they have H(L)H tones when used as the head of an incomplete verb phrase (see the end of §4.2.7).

The rather messy correlation of primary verbal noun type with verbs of root shape **CVC-** may be the result of two cross-cutting realignments affecting all Bade dialects as well as Ngizim. The first is realignment of verb class for verbs with the root shape **CaC-**. Most verbs of this root shape originally were Class B while most verbs of root shape **CəC-** were mostly Class A1, though a small number of verbs with each root shape belonged to the opposite classes. Some dialects are shifting **CVC-** roots such that Class B comprises almost exclusively **CaC-** roots. In my Gashua Bade data, 79% (26/33) of Class B verb have this root shape, while only 18.3% (30/164) of Class A1 verbs have this root shape. Other dialects are shifting all **CVC-** roots to Class A1, in effect eliminating Class B. In my Western Bade data (mostly from Amshi), there are only 11 Class B verbs (6 of which have the root shape **CaC-**). On the other hand, 28% (48/172) of Class A1 verbs have the root shape **CaC-**. The other realignment is in verbal nouns. While more extensive comparative evidence is needed to clarify the picture, it appears that **CVCi** verbal nouns may have been exclusively used with Class B verbs.<sup>31</sup> Since most Class B verbs had root shape **CaC-**, the **CVCi** verbal noun type has become associated with root shape rather than verb class. A remnant of the older association of verbal noun with verb class rather than root shape is the

<sup>30</sup> I seem not to have checked gender for these verbal nouns. They “should” be feminine. Masculine nouns ending in **-ən** come historically from consonant final nouns (see §3.2), and comparative evidence, as well as the definite forms of these verbal nouns show that they originally had a final vowel **-i**.

<sup>31</sup> In Bole, all Class B verbs have a primary verbal noun ending in **-e**, e.g. **kàrà-** ‘slaughter’ with verbal noun **kèrè**, whereas no other class has a primary verbal noun ending in a front vowel. See Gimba (2000:Chapter 5).

Class B verb **əzgo** ‘know’, with verbal noun **səgən** (definite form **səgi**). Ngizim has this type of verbal noun with other **CəC-** verbs as well.

**CV<sub>1</sub>CV<sub>1</sub>Cən/ɪ** secondary verbal nouns: In addition to regular primary verbal nouns, a substantial number of Class A2 verbs with root shape **CVCC-** (or **CVCəC-**) have a secondary verbal noun that inserts a copy of the root vowel between the second and third consonants. These verbal nouns are masculine, ending in **-ən** in citation form and **-ɪ** in the definite form.<sup>32</sup> Tones on these verbal nouns show no consistent pattern in my data from Amshi.

Completive	Primary verbal noun	CV1CV1C verbal noun	
<b>bàktu</b>	<b>baktán</b>	<b>bakatón</b>	‘winnow’
<b>kàrmu</b>	<b>karmán</b>	<b>karamón</b>	‘chop’
<b>gàmsu</b>	<b>gāmsán</b>	<b>gāmàsən</b>	‘laugh’
<b>vònu</b>	<b>vōnán</b>	<b>vawanón</b>	‘cut off grain heads’
<b>sàviyu</b>	<b>saviyan</b>	<b>sāven</b> < *savayn	‘clear bush’
<b>rùyu</b>	<b>rūyán</b>	<b>ərwen</b> < *ruwayn	‘cultivate’
<b>tàkpu</b>	<b>takpán</b>	<b>tapakən</b>	‘spit’
<b>tàgbu</b>	<b>tagbán</b>	<b>tabān</b> (cf. GB <b>tabák</b> )	V ‘bury’, VN ‘shroud’
<b>zəḏku</b>	<b>zəḏkán</b>	<b>zəḏən</b> (cf. GB <b>zəḏək</b> )	‘pound course flour’

In Western Bade, original diphthongs **au** and **ai** have become **o** and **e** respectively, but the offglide of the original diphthong emerges in **CVCVC-** verbal nouns—cf. **vònu**, **sàviyu**, **rùyu**.<sup>33</sup> Bade has quite regularly metathesized the internal sequence **\*labial+velar**. Such metathesis is evident in **tàkpu** < \***tàpku** ‘spit’, the original consonant order emerges in the **CVCVC-** verbal noun, in which the internal labial and velar consonants did not abut. The same metathesis occurred in **tàgbu** < \***tàgbu**, but in this case, Western Bade has gone a step further with the original **CVCVC-** verbal noun. Many nouns in Bade and Ngizim have final **-Vk** that originated in a determiner becoming frozen to the root, much like Western Bade nunation (§3.2). Western Bade has replaced this **-Vk** with nunation, e.g. GB **gōmāk** ‘ram’ (cf. Bole **gām**) but WB **gwàmān**. In some cases, Western Bade has made this replacement even where the final **-k** was part of the root. Such is the case for **tabān** ‘shroud’, which “should” be \***tabakən**, similar to the etymological “correct” **tapakən** ‘spitting’. The same substitution of nunation for final **-Vk** explains why the secondary verbal noun for **zəḏku** is **zəḏən** rather than \***zəḏəkən**.

**CVCān** masculine secondary verbal nouns: A small number (probably fewer than 20) of **CVC-** roots have masculine secondary verbal nouns with citation form ending in **-ān** and definite forms in **-a** or **-i** (I did not collect definite forms for all these). Some of these seem not to use a regular primary verbal noun, but this needs further checking. In the table below, I list the primary verbal noun and the definite form of the secondary verbal noun where I collected them. The notation “(no)” in the primary verbal noun column means that at least the speaker with whom I checked the form did not accept a primary verbal noun alongside the secondary verbal noun.

<sup>32</sup> The original form was **CVCVC**, still seen in Gashua Bade and Ngizim, e.g. GB **bàktu** ‘winnow’ with secondary verbal noun **bàkat**.

<sup>33</sup> The root for **rùyu** would be underlying /**rəwy-**/. In the secondary verbal noun, **-a-** rather than the expected **-ə-** is inserted between the second and third consonants.

Completive	Primary VN	Secondary VN	Definite form	
<b>sàtu</b>	<b>sātán</b>	<b>sātān</b>	<b>sātà</b>	‘cut, slit’ VN ‘tribal marks’
<b>sàvu</b>	<b>sāvan</b>	<b>sāvān</b>	?	‘wade’ VN ‘flood plain’
<b>zìyu</b>	<b>zìyan</b>	<b>zìyān</b>	<b>zìyi</b>	‘wage war’ VN ‘war’
<b>càku</b>	(no)	<b>cāká</b>	<b>cākà</b>	‘weave’
<b>dàwu</b>	(no)	<b>dàwān</b>	<b>dàwa</b>	‘tend animals’
<b>sìyu</b>	(no)	<b>siyān</b>	<b>siyí</b>	‘fish’

Two triconsonantal roots have **-ān** masculine secondary verbal nouns: **təmbùgwu** ‘thatch’, secondary verbal noun **təmbùgwān**, and **tləbərəu** ‘cut firewood’, secondary verbal noun **tləbərān** ‘firewood’. Though ‘thatch’ does seem to be a true triconsonantal example of this type of secondary verbal noun, that latter is not. In Gashua Bade, **tləbəlák** ‘firewood’ has the **-Vk** ending mentioned at the end of the preceding paragraph. The Western Bade **-ān** for this noun is thus substitution for the **-Vk**, not the **-ān** replacing a final vowel as for most verbal nouns.

**a-** prefixed secondary verbal nouns: A substantial number of verbs have related nominal forms with a prefix **a-**, e.g. **əlhu** ‘say’ (primary verbal noun **əlhan**) with related noun **alhān** ‘speech’, **mānu** ‘spend a year’ (primary verbal noun **mənən**) with related noun **əmānən** ‘year’. Most of these have a concrete or resultative meaning. I discuss them in more detail in §5.6.

Irregular verbal nouns: A small number of verbs have unpredictable verbal noun types. The following list is exhaustive for Western Bade data available to me.

Completive	Primary VN	Irregular VN	Definite form	
<b>əzgo</b>	(no)	<b>səgən</b>	<b>səgi</b> (cf. GB <b>səgi</b> )	‘know’
<b>ìko</b>	(no)	<b>aikón</b>	<b>aikò</b> (cf. GB <b>ìkwi</b> )	‘see’
<b>m̄tu</b>	(no)	<b>mətən</b>	<b>məti</b> (cf. GB <b>mətu</b> )	‘die’
<b>tlənu</b>	<b>tlənən</b>	<b>tlənən</b>	? (cf. GB <b>tlən</b> )	V ‘blow nose’ VN ‘mucous’
<b>ju</b>	(no)	<b>ìnān</b>	? (cf. GB <b>ina</b> )	‘go’

Above, I suggest that **əzgo** ‘know’ with verbal noun **səgi** displays a likely remnant of \***CVCi** verbal nouns as the regular pattern for all Class B verbs. If this is correct, it should not be listed as “irregular”, though it appears to be such in the context of modern Bade. The Gashua verbal noun for the Class B verb **ìko** ‘see’ is of the same type as ‘know’, but in Western Bade, this regular Class B verbal noun has been replaced by an **a-** prefixed irregular form (see preceding paragraph and §5.6). The verbal noun **mətən** ‘death’, though it looks like those for ‘know’ and ‘see’, is truly irregular. **M̄tu** ‘die’ is the only \***CəCu** Class A1 verb to have a verbal noun of this type. Moreover, as the Gashua Bade form shows, this verbal noun originally ended in **-u**, which addition of nunation in Western Bade neutralized with words ending in **-i**. This phonological neutralization resulted in morphological neutralization with the common **CəCən** primary verbal noun pattern with definite form **CəCi**, accounting for the Western Bade definite form **məti**.

**4.4. Transitive and intransitive.** Bade has two derivational processes related to transitivity, one transitizing intransitive verbs and one forming intransitive middle verbs from transitives.

**-dù** transitizing suffix (with remarks on formally identical but functionally different suffixes): Unaccusative and unergative verbs (verbs for which the grammatical subject is the agent and also patient of an event) can add a suffix **-dù** to make the verb into an accusative transitive verb with an agentive subject. Examples are in the complete:

Base verb		Transitized verb	
<b>ju</b>	‘go’	<b>jə-dù</b>	‘take, transport, carry’
<b>ùgzu</b>	‘go back, return’	<b>ùgzə-dù</b>	‘put back, replace’
<b>əkflu</b>	‘ford (a river)’	<b>əkflə-dù</b>	‘ferry across’
<b>làgu</b>	‘come to a stop’	<b>làgə-dù</b>	‘bring to a stop’
<b>əzdàvu</b>	‘lodge, stay at a place’	<b>əzdàvədù</b>	‘put s.o. up, lodge s.o.’
<b>səḏgwu</b>	‘move a bit, budge’	<b>səḏgwu-dù</b>	‘hitch up, adjust load’

Verbs with the **-du** suffix can appear in all TAM’s and with other extensions. Verbs with this suffix can be nominalized, e.g. **ùgzadən** ‘replacing’, **làgədən** ‘bringing to a stop’. Verb root plus ventive (§4.5) and/or habitual (§4.6) extensions form a stem to which **-du** is suffixed, e.g. ventive completive **n-ùgzā-dù** ‘I brought (it) back’, habitual **n-ugzàga-dù** ‘I take (it) back’. In the imperative (§4.2.5), which adds person agreement suffixes, the suffixes follow **-du**. In the Amshi variety of Bade, the imperative, and only the imperative, also adds a **-g-** of unclear origin and function before the **-du** suffix, e.g. **à-gwzə-g-d-ì** ‘put it back! (m.sg.)’, **à-gwzə-g-d-əm** (f.sg.), **à-gwza-g-dù-wùn** (2<sup>nd</sup> pl.), **à-gwza-g-dù-wà** ‘let’s (inclusive) put it back!’.

Bade has at least one, and perhaps two other **-du** verbal extensions that are identical in form to the transitizer. One of those is as a marker of an omitted oblique argument. This is most commonly an instrument, in which case **-du** can be translated “with it”, e.g. **sana nà nā bì kabón nà, nà kīḏə-du wainán** ‘tomorrow may I get a penny and eat a fried cake with it’. This function has counterparts in other West Chadic languages and probably was originally morphologically distinct from the transitizing suffix. The second use of **-du**, if in fact it is a second use, is more obscure. There are several verbs with which the **-du** suffix may be present or absent with no apparent meaning difference, e.g. **ḏàgu = ḏàgə-dù** ‘prevent, intercept’, **əbzu = əbzə-dù** ‘leave’. A couple of verbs have no counterpart without the suffix, e.g. **ngə-dù** ‘imitate’ but no verb \***ngū**. Neither the transitizing function nor the oblique object function explain the use of **-du** with these verbs. A possibility is that **-du** is a remnant of the *totality* extension, found in a number of Chadic languages, that indicates an action done to completion. Bade does not have a productive extension with this function, whereas in Ngizim, which does have a totality extension, one of the allomorphs of that extension is **-du**.

**Infixal -a- deriving middle verbs:** A feature common to many Chadic languages is the possibility of using one and the same verb, with no special morphological marking, as either a transitive verb with an agentive subject or as an intransitive middle verb, most commonly designating change of state of the subject. This possibility exists in Bade, e.g. **aci ḏàndàntə kunāri** ‘he puffed up his stomach’ vs. **kunāri ḏàndantú** ‘his stomach puffed up’, **nə kubə kāsón** ‘I closed the hut’ vs. **kāson kubú** ‘the hut is closed’, **gà kwāḏaṅ**

**āwún** ‘you’ll spoil the corn’ vs. **āwun a kwāḍù** ‘the corn will spoil’.<sup>34</sup> In addition to using many verb roots in a single form as transitive or intransitive middle, Bade has developed a productive process to overtly distinguish transitive and middle forms. These are verbs of the form ...**CVC-**, where **V = ə** in the transitive counterpart and **V = a** in the intransitive middle counterpart. Most such verb pairs have three or more root consonants, but a few biconsonantal roots also all this pattern.

Transitive		Intransitive middle	
<b>əgdu</b>	‘snap (thing) off’	<b>kàdu</b>	‘snap off’
<b>ùgbu</b>	‘moisten’	<b>gwàbu</b>	‘get wet’
<b>əgbu</b> <sup>35</sup>	‘split (thing) in two’	<b>pàgu</b>	‘split in two’
<b>əgriyu</b>	‘enlighten’	<b>əgràyu</b>	‘become enlightened’
<b>bàrtànu</b>	‘turn over, roll over’	<b>bàrtànu</b>	‘roll over, turn over’
<b>kàdèmu</b>	‘circumcise’	<b>kàdàmu</b>	‘be circumcised’
<b>ràpəḍu</b>	‘bring to a boil’	<b>ràpàḍu</b>	‘come to a boil’

In addition to these internal changes in roots of the requisite form, the transitive and intransitive counterparts have distinct verbal nouns, e.g. **əgrìyan** (definite form **əgrìyà**) ‘enlightening’ vs. **əgràyān** (definite form **əgràyù**) ‘becoming enlightened’. See §4.3, the second and third types of verbal nouns.

**4.5. Habitual.** The habitual marks an event as persisting or recurring. The mark of the habitual is a suffix **-ag-** to which TAM endings are added. The habitual has characteristics of both a TAM and a derivational extension. As a derivational extension, the habitual can combine with a TAM to add a habitual sense, e.g. simple imperative (f.sg.) **à ɗə̀bdə-m** ‘sell (it)!’ vs. habitual imperative **à ɗə̀bd-àgə-m** ‘keep selling (it)!’. However, a declarative statement or question with habitual meaning uses what is formally the COMPLETIVE form of the verb with the termination **-o** (→ **-a** if not phrase final). That is, the formal completive **atu ɗə̀bd-àgo** means ‘she sells (it)’, not ‘she used to sell it (but no longer does)’. Speakers do not accept the habitual in the incompletive. This may result from a semantic clash. Some Bade dialects and Ngizim do not have a special habitual form and extend the incompletive to this function. The table below uses the verb **ɗə̀bdu** ‘sell’ to illustrate the habitual in the TAM’s with which it compatible. Note that in contrast to the “neutral” completive, there is no special negative habitual form (§4.2.2). See §4.6 for the habitual combined with the ventive extension.

<sup>34</sup> In Hausa, the middle function, in contrast to most Chadic languages that I have worked on, uses a special derived form, viz. Grade 7. Newman (2000:665-670) argues Grade 7 verbs are “passive”. In my view, this is wrong, unless the claim is that a “passive” is any verb with a non-agentive grammatical subject that is affected by the action of the verb. I prefer to reserve the term “passive” for constructions with both agent and patient as underlying arguments. This is not the case for verbs with a middle meaning typical of Hausa Grade 7 or the Bade constructions at issue here. Contrary to an assertion by Newman (2000:666), in a Hausa phrase such as **tùlu yā fāsu** ‘the jug was shattered’, there is no “agent implied”. This is a statement about change of state of the jug, not about an action performed on the jug, and indeed, it would not be contradictory to continue by saying, “... but no one even touched it” (compare an infamous English agentless passive, “Mistakes were made,” which IS incompatible with a continuation “...but no one made them!”). Moreover, in incompletive TAM’s such as **irìn wannàn tùlu yanà fāsuwā**, the meaning is, “This type of jug is (easily) breakable,” not, “This type of jug is being broken (by someone).”

<sup>35</sup> Note metathesis of original **-bg-** in the transitive form, following the pattern mentioned in discussion above of **CVCVC** secondary verbal nouns.

	“Neutral”	Habitual	
Habitual (Completive)	<b>ɗəbɗu</b>	<b>ɗəbɗàgo</b>	‘sells’
Neg. Habitual (Comp.)	<b>ɗəbɗàda-m</b>	<b>ɗəbɗàga-m</b>	‘doesn’t sell’
Subjunctive	<b>dà ɗəbɗ</b>	<b>dà ɗəbɗàgì</b>	‘might always sell’
2 <sup>nd</sup> Subjunctive	<b>dè ɗəbɗa</b>	<b>dè ɗəbɗàga</b>	‘should always sell’
Imperative m.s.	<b>à ɗəbɗ-ī</b>	<b>à ɗəbɗàg-ī</b>	‘keep selling!’
f.s.	<b>à ɗəbɗə-m</b>	<b>à ɗəbɗàgə-m</b>	“
pl.			“
1 pl. incl.	<b>à ɗəbɗà-wun</b>	<b>à ɗəbɗàgà-wun</b>	‘let’s keep selling!’
	<b>à ɗəbɗa-wà</b>	<b>à ɗəbɗàga-wà</b>	

**4.6. Ventive.** The ventive verbal extension indicates that an event had its inception at a remote point but has effect on the point of reference (usually the place of speaking). For motion verbs, a common translation is “motion toward the speaker”, e.g. non-ventive **gə vərəu** ‘you went out’ (speaker is inside) vs. ventive **gə vərəwo** ‘you came out’ (speaker is outside), but with non-motion verbs other interpretations are possible, e.g. non-ventive **nə-bzu** ‘I left (it)’ vs. ventive **nə-bzəwo** ‘I left (it back there and came here)’. The ventive extension suffixes replace the final vowels of the “neutral” verb forms. There are two suppletive forms of the ventive, \***V+glide** and \***-ina**, with selection of allomorph dependent on TAM. The table below illustrates the ventive in each TAM using the verb **ɗəbɗu** ‘sell’ in the form that it would take with a third person subject (aside from imperative). The ventive would be translated ‘sell (with effect in this direction)’.

	“Neutral”	Ventive	
Completive	<b>ɗəbɗu</b>	<b>ɗəbɗàwo</b>	‘sold’
Neg. Completive	<b>ɗəbɗàda-m</b>	<b>ɗəbɗàdina-m</b>	‘didn’t sell’
Subjunctive	<b>dà ɗəbɗì</b>	<b>dà ɗəbɗè</b>	‘might sell’
2 <sup>nd</sup> Subjunctive	<b>dè ɗəbɗa</b>	<b>dè ɗəbɗina</b>	‘should sell’
Imperative m.s.	<b>à ɗəbɗi-ī</b>	<b>à ɗəbɗa-ī</b>	‘sell!’
f.s.	<b>à ɗəbɗə-m</b>	<b>à ɗəbɗe-m</b>	“
pl.			“
1 pl. incl.	<b>à ɗəbɗa-wún</b>	<b>à ɗəbɗina-wún</b>	‘let’s sell!’
	<b>à ɗəbɗa-wà</b>	<b>à ɗəbɗina-wà</b>	
Incompletive	<b>à ɗəbɗà</b>	<b>à ɗəbɗàyi</b>	‘will sell’
Verbal noun	<b>ɗəbɗan</b>	<b>ɗəbɗàyan</b>	‘selling’

Some ventive verbal nouns are masculine with a citation form ending in **-ān**, as in the case of **ɗəbɗàyan** (definite form **ɗəbɗàyi**) ‘selling’ in the table. Others have a citation form, also masculine, with citation form ending in **-in** and definite form in **-i**, e.g. **əkfàyin/əkfàyi** ‘coming in’. Verbs with a verbal noun of the form **CəCən**, e.g. **məsū** ‘buy’ with verbal noun **məsən**, have ventive verbal nouns with **-ə-** in the root syllable, e.g. **məsàyin** ‘buying and bringing’, meaning that the ventive verbal noun is derived directly from the verbal noun, not from the base form.

The ventive in combination with the habitual (§4.5) requires special comment. Following is a paradigm of the verb **ɗəbɗu** ‘sell’. Compare the forms here with those immediately above and those in the habitual alone (§4.5):

	Habitual + Ventive	
Habitual (Completive)	<b>dʔəbdɪ̀nàgo</b>	‘selling’
Subjunctive	<b>dàdʔəbdàgè</b>	‘might sell’
2 <sup>nd</sup> Subjunctive	<b>dè dʔəbdɪ̀nàga</b>	‘should sell’
Imperative m.s.	<b>à dʔəbdàga-ī</b>	‘sell!’
f.s.	<b>à dʔəbdàge-m</b>	“
pl.	<b>à dʔəbdɪ̀nàgà-wún</b>	“
1 pl. incl.	<b>à dʔəbdɪ̀nàga-wà</b>	‘let’s sell!’

The **-ina** ventive allomorph appears in the “unmarked” habitual, which is essentially the formal completive, though this is the ventive allomorph used only in NEGATIVE completive when the habitual is absent. Moreover, in the subjunctive and the singular imperative, with the ventive allomorph **-e** < \***-ai**, the morpheme order is Root + Habitual + Ventive, whereas in forms with the **-ina** ventive allomorph, the morpheme order is Root + Ventive + Habitual.

**4.7. Pluractionals.**<sup>36</sup> Pluractional verbs indicate repetitive action—one subject doing an action repeatedly, several subjects doing the same action iteratively, one or more subjects acting iteratively on one or more objects, etc. Bade has four pluractional patterns, differing according to the structure of the simple verb root.

Root type	Simple verb	Pluractional	
C-	<b>po</b>	<b>pəpo</b>	‘pour’
	<b>vʔ</b>	<b>vəvo</b>	‘shoot’
*CəC-	<b>nətu</b>	<b>məmtu</b>	‘die’
	<b>əfku</b>	<b>fəfku</b>	‘enter’
	<b>bəru</b>	<b>bəbəru</b>	‘peel’
	<b>vəru</b>	<b>fəvəru</b>	‘go out’
CəC-, CVC- <sup>37</sup>	<b>gəfu</b>	<b>gəfəfu</b>	‘catch’
	<b>məsu</b>	<b>məsəsu</b>	‘buy’
	<b>kəlo</b>	<b>kələlo</b>	‘have a meal’
	<b>mətu</b>	<b>mətətu</b>	‘glance’
CVC(V)C...	<b>zəmtu</b>	<b>zəməmtu</b>	‘wrench out’
	<b>kərmu</b>	<b>kərərmu</b>	‘chop’
	<b>nətu</b> < /nəwtu/	<b>nəwətu</b>	‘pass’
	<b>kəfu</b> < /kəyfu/	<b>kəyəfu</b>	‘eat (meat)’
	<b>tlərgədu</b>	<b>tlərgəgdu</b>	‘destroy’

Pluractional verbs in Bade always differ from the simple root by addition of a CV syllable. If the root is monoconsonantal, the pluractional verb has the form CəCV. If the

<sup>36</sup> I collected the data in this section in 1983 from Abubakar Hassan Fulata, who was a student at Ahmadu Bello University but who originated from the Bade-speaking town of Madamuwa. I did not systematically collect data on pluractionals in the Amshi dialect, but examples that came up in elicitation and texts suggest that pluractional morphology is fairly uniform across Bade dialects.

<sup>37</sup> The only long vowels relevant for this pattern are **-ā-** and **-ē-**. For pluractional formation, phonetic **-ō-** is treated as underlying /aw/, phonetic **-ī-** as /əy/, and phonetic **-ū-** as /əw/.

root is historically from \*CəC-, the pluractional doubles the first consonant, adding a syllable **Ca-** (see below for length of the vowel). If the root has two consonants with a root vowel other than -ə-, the pluractional doubles the SECOND consonant, adding a syllable -Cə-. For roots with three or more consonants, the pluractional inserts a syllable -Ca-, where the consonant is the penultimate consonant of the root. Note that this is actually the same pattern that \*CəC- roots use, i.e. in a two syllable verb the first consonant is also the penultimate consonant. There is, however, variation among \*CəC- roots. Most use the pattern in the table above, but some use the pattern for other two consonant roots, e.g. əskwàkwu ‘spend time’ < \*əskwu < \*səkwu, zìyàyu ‘wage war’ < zìyu.

Two consonants roots often have a long vowel in the reduplicated syllable where the root vowel is short, e.g. vərə ‘go out’ with pluractional fàvərə,<sup>38</sup> gəfu ‘catch’ with pluractional gəfəfu. I believe that this has a rhythmic explanation. Note that the nature of the pluractional formation processes usually results in a light penultimate syllable for two consonant verbs but a heavy penultimate syllable for three consonant or longer verbs. The antepenultimate syllable of the latter verbs is, more often than not, light, giving an alternating weight pattern light-heavy. The lengthening of the vowel in two consonant pluractionals may arise from the preference for an alternating weight pattern as well, in this case heavy-light.

## 5. Derivational Morphology

Sections 3-4 focus on inflectional morphology, i.e. changes in nominal and verbal forms that relate to syntactic conditioning and syntactic function. This section describes the main derivational affixes that Bade uses to create new lexical items or to shift grammatical category of a base.

**5.1. Prefix *ma-*: Agentive, instrumental, locative; ordinal numbers** (Lukas §§44-45, 51-52; §49)). Bade has a fairly productive derivational process that forms agentive, instrumental, and locative nouns using a prefix **ma-**. One set of forms fulfills all three functions, and the same noun may have more than one of these interpretations if the meaning of the base allows for it, e.g. magàyan (m), magàyin (f) ‘one who climbs’ ~ ‘ladder (“thing for climbing/place for climbing”)', with all meanings in both genders < gəyu ‘climb’. There is, however, a correlation of gender with instrument vs. locative function (see below). Most commonly the base of the derived noun is a verb, but nouns can also serve as the base. The regular pattern for **ma-** nouns derived from verbs is as follows:

Masculine: **ma-** + BASE + -ān

Feminine: **ma-** + BASE + -ən (some agentives use the suffix -ako- (§5.4))

Definite form: **ma-** + BASE + -u<sup>39</sup>

The “BASE” is a stem minus final vowel and tone. The following rules supply tones.

<sup>38</sup> Bade has undergone a sound change that dissimilates a voiced obstruent to voiceless when the next syllable begins in a voiced obstruent, which accounts for fàvərə rather than expected \*vavərə.

<sup>39</sup> The only **ma-** derived noun for which I collected a definite form was mǎbu ‘anus’ < mǎbən. Lukas §45 lists several **ma-** agentives ending in -u, suggesting that they may be *bestimmte Formen*, by which she means forms marked by what I have called the PRM (§3.3). This cannot be the case, since masculine **ma-** nouns with the PRM would end in -āw. In Gashua Bade, regularly formed **ma-** agentives all end in H tone -u, e.g. madǎltu ‘dyer’ < dǎltu. The -u of Gashua Bade is clearly the etymon of the Western Bade definite forms for this derivational pattern.

- BASE Tone → L on a syllable beginning in a voiced obstruent, H otherwise
- Final syllable → H
- **ma-** prefix → tone opposite following syllable

/ma-rbəc-ən/	→ [marbəcən]	‘key’ (“open-er”)
/ma-sūy-ân/	→ [màsūyān]	‘fisherman’ (“fish-er”)
/ma-sabən-ān/	→ [màsabèn-ân]	‘swizzle stick’ (“whisk-er”)
/ma-tagb-ān/	→ [màtāgbān]	‘one who buries’ (“bury-er”)
/ma-ɖg-ān/	→ [máɖgān]	‘tracker’ (“follow-er”)

In the last two examples, the L tone associated with a voiced obstruent is conflated with a H tone to give a falling tone (in ‘one who buries’, the H is required by the suffix, in ‘tracker’, the H is on the prefix, which must bear H because of the L that is associated with the voiced obstruent **-g-**).

As noted above, the most common bases for **ma-** derived nouns are verbs. In the examples below, I cite the verb in its completive form, but the base for the **ma-** noun is a form that does not exist outside the derived pattern. For most agentives I give the masculine and feminine form. I have no explanation for why a few agentive feminines use the **-ako-** derivational suffix (§5.4). Most instruments are masculine, most locatives are feminine. Instrumental and locative nouns that are feminine never use the **-ako-** derivational suffix.

#### Agentive *ma-* nouns derived from verbs

mabənān, mabənən	< bənu	‘cook’
màcaptān, màcaptən	< càptu	‘one who collects’
màɖalmān, màɖalmən	< ɖàlmu	‘repairer’
màɖarān, màɖarən	< ɖàru	‘one who tells, one who talks a lot’
máɖgān, máɖgən	< əɖgu	‘tracker, follower’
màfatān, màfatən	< fātu	‘one who throws’
magàyān, magàyin	< gàyu	‘someone who climbs’
màkwāɖān, màkwāɖən	< kwāɖu ‘ruin’	‘extravagant person’
màlhān, màlhən	< əlhu	‘speaker’
màràkənān, màràkənən	< ràkənu	‘traveler’
màtāgbān, màtāgbən	< tàgbu	‘one who buries’
màtakəmān, màtakəmən	< tàkəmu	‘one who begins’
màcākān, màcākakón	< caku	‘weaver of cloth’
madàltān, madàltakon	< dàltu	‘dyer’
madàwān, madàwàkon	< dàwu	‘shepherd, herder’
mazəməān, mazməakon	< zəmu	‘blacksmith’
mabàrān (m)	< bàru	‘hunter’
màsūyān (m)	< sìyu	‘fisherman’
majàptən (f)	< jàptu	‘one who plaits hair’
màɖāgàdān, màɖāgàdən	< ɖāgədù	‘one who prevents’
màrbəɖān, màrbəɖən	< ərbədù	‘one who shakes something’

The bases in the last two examples above are verbs with the transitizing extension **-dù** (§4.4). The vowel preceding the extension is not consistent between the two. The **-a-** in the first looks like the verbal noun, but the **-ə-** in the second is an abstract base more like that of unextended verbs.

#### Instrumental *ma-* nouns derived from verbs

<b>mābān</b> (m)	< <b>bo</b> ‘get’	‘large calabash’
<b>mangāltān</b> (m)	< <b>ngāltu</b>	‘instrument for measuring’
<b>marvəḏfān</b> (m)	< cf. GB <b>ḏəvəḏlu</b>	‘forefinger’
<b>māsabəḏnān</b> (m)	< <b>səbəḏnu</b>	‘swizzle stick’
<b>mazvəḏvīyān</b> (m)	< <b>əzvəḏvīyu</b>	‘calabash for washing grain’
<b>magāyān</b> (m) = <b>magāyin</b> (f)	< <b>gāyu</b>	‘ladder’
<b>mākūḏvan</b> (f)	< <b>kūḏvu</b>	‘cloth to support baby on back’
<b>marbəcən</b> (f)	< <b>ərbəcū</b>	‘key’
<b>mazəḏfan</b> (f)	< <b>zəḏfu</b>	‘digger, digging stick’

#### Locative *ma-* nouns derived from verbs

<b>māgvən</b> (f)	< <b>əgvu</b>	“falling place”, e.g a watercourse (a place water descends to) (cf. <b>māgvān</b> below)
<b>māsīḏən</b> (f)	< <b>sīḏu</b>	‘abattoir’
<b>mātāgḏən</b> (f)	< <b>tāgḏu</b>	‘step’
<b>mavərən</b> (f)	< <b>vəru</b>	‘exit’
<b>mākfān</b> (m)	< <b>əkfu</b>	‘entrance’
<b>māgvān</b> (m)	< <b>əgvu</b>	‘door of a compound’ (cf. <b>māgvən</b> above)

Nouns may serve as the base of **ma-** derived nouns. Formally, the derived nouns below all fit the patterns described above. The two based on Kanuri loanwords are themselves agentives with a **-ma** suffix in Kanuri. The word for ‘male bullfrog’, literally meaning “fighter-of snakes”, is a compound, with the agentive in the genitive stem form (§3.5)

<b>magūrān, magūrən</b>	< <b>gūran</b> ‘jealousy’	‘jealous person’
<b>māpīcān, māpīcən</b>	< <b>pīcən</b> ‘a lie’	‘liar’
<b>mābən</b> (f)	< <b>ābān</b> ‘excrement’	‘anus’ (“place of excrement”)
<b>mabàrāmān</b> (m)	< Kanuri <b>bàrà-mà</b> ‘hunt-er’	‘hunter’
<b>magàrmān, magàrmən</b>	< Kanuri <b>kara-ma</b> “sorcer-er”	‘sorcerer, sorceress’
<b>majlār-kuwān</b> (m)	< <b>jlàran</b> ‘fighting’ + <b>kuwān</b> ‘snake’	‘male bullfrog’

A few **ma-** derived nouns in my data do not fit the patterns above in one way or another. I simply list them here without attempting to explain the forms. Some have a feminine form ending in **-an** rather than the expected **-ən** (1-2). Some have L tone on the prefix before L and/or have a long vowel in the prefix (3-6). Some have a base that is not related to an existing word in a straightforward way (7-11).

(1)	<b>magànan</b> (f)	< cf. Hausa <b>ganī</b> ‘see’	‘seer’
(2)	<b>màkùḍvan</b> (f)	< <b>kùḍvu</b> ‘carry on back’	‘person who carries a baby for someone’
(3)	<b>màskwàrān,</b> <b>màskwàrən = màskwàràkon</b>	< <b>àskwàrān</b> ‘playing’	‘one who plays’
(4)	<b>màwànan, màwànakon</b>	< <b>wànu</b> ‘send’	‘messenger’
(5)	<b>màḍḍbān</b>	< <b>dəbu</b> ‘1000’	‘wealthy person’
(6)	<b>màpìḍān</b> (m)	< <b>pìḍān</b> a game	‘the long straw drawn in the game <b>pìḍān</b> ’
(7)	<b>marwiyān, marwiyin</b>	< <b>rūyu</b> (VN <b>ərwen</b> ) ‘farm’	‘farmer’
(8)	<b>mazàmən</b> (m or f)	< cf. <b>zəmu</b> ‘forge’	‘blacksmith’
(9)	<b>masuwén</b> (m)	< cf. <b>sīyu</b> ‘fish’	type of fish trap
(10)	<b>matlkakarən</b> (f)	< <b>ətłkənən</b> ‘nose’ + ?	‘bridge of nose’
(11)	<b>mavəḍīwan</b> (f)	< <b>vəḍon</b> ‘urine’ + ?	‘gall bladder’ [sic]

Speakers with whom I worked were reluctant to give plurals for **ma-** derived nouns. Among those for which I did manage to collect a plural, the most common type is **-awatən-** but the **-ən-** type also is used with some nouns, e.g. **mabənān** (m), **mabənən** (f) ‘a cook’, plural **mabənàwàtən, màfatán** (m), **màfatən** (f) ‘thrower’, plural **màfatənən** (see §3.8 for description of nominal plurals).

Most ordinal numbers use a prefix **ma-**, which may have the same origin as the **ma-** agent/instrument/locative, prefix, but which has its own properties with respect to tone and number that it combines with. The ordinals, with the respective cardinals, are as follows. I list those that I collected from the Amshi variety of Western Bade, along with those in Lukas §49, which come from the Bizi variety.<sup>40</sup>

AMSHI	BIZI	Cardinals	
<b>kāskurú</b> <sup>41</sup>	<b>màgàḍeu</b>	A: <b>əskùru</b> ; B: <b>gàḍe</b>	‘first’
<b>màsərənú</b>	<b>màsərənu</b>	<b>sərən</b>	‘second’
<b>màkwənú</b>	<b>màkwənu</b>	<b>kwan</b>	‘third’
<b>màfəḍənú</b>	<b>màfəḍəu</b>	<b>fəḍu</b>	‘fourth’
<b>màvəḍənu</b>	<b>màvəḍəu</b>	<b>vəḍi</b>	‘fifth’
<b>kāzdu</b>	<b>màzdəu</b>	<b>əzdù</b>	‘sixth’
<b>màgàtkásanú</b>	<b>màgàtkasəu</b>	<b>gàtkasà</b>	‘seventh’
<b>màtlədàkwənu</b>	<b>màtlədàkwəu</b>	<b>tlədàkwà</b>	‘eighth’
<b>màwurayanú</b>	<b>màwurayəu</b>	<b>wurayà</b>	‘ninth’
<b>màgùmau</b>	<b>màguməu</b>	<b>gumà</b>	‘tenth’
<b>màmiyáu</b>	---	<b>miyà</b>	‘hundredth’

In the Amshi dialect, cardinals that begin in a consonant form their ordinals with a **mà-** prefix, those that begin in a vowel use a prefix **kā-**; the Bizi dialect uses **mà-** for all ordinals. The Amshi **ka-** is the independent genitive meaning “that of...”. I have no

<sup>40</sup> I have modified Lukas’s orthography so that it conforms to the practice of this paper.

<sup>41</sup> The ordinal number ‘one’ is **gàḍe** everywhere. The Amshi ordinal is based on an adverb that means ‘at first’.

explanation for why this, rather than **mà-** is used here. All ordinals in both dialects end in H tone syllable and a vocalic segment **-u**. This must be the Previous Reference Marker (PRM—§3.3), since the pragmatics of ordinals requires that their referents be known. In Amshi, this **-u** shows up as part of a syllable **-nu** in ‘fourth, fifth, seventh, eighth, ninth’. This is the result of a “misanalysis” of the final **...nu** of ‘second, third’ as a suffix rather than the final consonant of the cardinal plus the PRM, with subsequent extension of this “suffix” to other ordinals.

In Amshi, the numeral base of the ordinal bears L tone if it begins in a voiced obstruent, H tone otherwise, regardless of cardinal tones (tones of the numeral roots as Lukas has marked them for Bizi show no clear pattern). The tone or the **mà-** prefix in both dialects is always L, regardless of the following tone, in contrast to the **ma-** prefix of agent nouns, which is polar to the following tone.

**5.2. Prefix gV-: Participial adjectives, descriptive nouns; language names.**<sup>42</sup> A prefix that usually has the form **ga-** can derive participial adjectives from verbs and “descriptive nouns” from nouns. What may or may not be the same suffix can derive language names from ethnonyms.

The most productive use of this prefix is to derive participial adjectives from INTRANSITIVE verbs. Such derived forms are in near complementary distribution with a process that uses a prefix **də-** to derive resultative statives from TRANSITIVE verbs. (See §5.3 for more discussion of these prefixes with transitive and intransitive verbs.) The determinants of form are almost identical to those for derivations using the **ma-** prefix (§5.1).

- **ga-** + BASE + **-a**
- BASE Tone → L on a syllable beginning in a voiced obstruent, H otherwise
- Final **-a** → H
- **ga-** prefix → tone opposite following syllable

A couple of the examples below deviate in some respect from the predicted tone pattern and one has a long vowel in the prefix. These are marked “[sic]”. I suspect that they are transcription errors, given the regularity of the pattern across many examples. The falling tone on the first syllable of some examples results from conflation of the L tone required by a voiced obstruent of the base and the H tone on the prefix conditioned by the following L. Though this derivational process is productive, some frequently used items have undergone semantic shifts that are not fully predictable from the meaning of the base.

<b>gabdàmà</b> [sic]	<	<b>əbdàmu</b>	‘rebellious, mischievous’
<b>gàcəkpapa</b>	<	<b>cəkpàpu</b>	‘squatted’
<b>gàdba</b>	<	<b>ədbu</b> ‘set up, implant’	‘divorced, (woman) living on her own’
<b>gadwatla</b> [sic]	<	<b>ədùwàtlu</b> ‘be tired’	‘well-advanced (pregnancy)’
<b>gagàra</b>	<	<b>gàru</b>	‘old (person or thing)’
<b>gagbàmta</b>	<	<b>əgbàmtu</b>	‘swollen’
<b>gàgjla</b>	<	<b>əgjlu</b>	‘curved’
<b>gàgjlàjla</b>	<	<b>əgjlàjlu</b>	‘awake’
<b>gagwàba</b>	<	<b>gwàbu</b>	‘wet’

<sup>42</sup> R. Lukas (1967/68) does not discuss this derivational pattern. In §53, she mentions **gəmsən** ‘man, male’ and **gəman** ‘woman, female’ in the context of unrelated forms, and in §47 she mentions a couple of language names.

<b>gágwǎa</b>	< <b>gùǎ</b>	‘hasty’
<b>gajlgàma</b>	< <b>ǎjlgàmu</b>	‘dull, bent over (blade)’
<b>gàkura</b>	< <b>kùru</b> ‘refuse, dislike’	‘displeased (with situation)’
<b>gàkwǎa</b>	< <b>kwǎǎ</b>	‘ruined, spoiled’
<b>gàmta</b>	< <b>m̄tu</b>	‘dead’
<b>gànahwa</b>	< <b>nàhwu</b>	‘full’
<b>gànawa</b>	< <b>nàwo</b>	‘ripe, fully cooked’
<b>gàpaga</b>	< <b>pàgu</b>	‘broken, shattered’
<b>gàrapǎa</b>	< <b>ràpǎǎ</b>	‘boiled’
<b>gàstakwa</b>	< <b>ǎstàkwu</b>	‘untied’
<b>gàtlǎrgàda</b>	< <b>tlǎrgàdu</b>	‘collapsed’
<b>gǎvǎnda</b> [sic]	< pluractional of <b>ǎvdu</b>	‘lying down (in great numbers)’
<b>gavgǎa</b>	< <b>ǎvgǎǎ</b>	‘spoiled, rotten smelling’
<b>gazgàta</b>	< <b>ǎzgàtu</b>	‘pierced’

In their function as participial adjectives, **ga-** derived words do not vary for gender and number: **ǎfcān gagwǎa** ‘wet mat’ (masculine noun), **gudkwan gànahwa** ‘full pot’ (feminine noun), **ǎfcǎcǎnǎn gagwǎa** ‘wet mats’, **gǎdkānon gànahwa** ‘full pots’.

Participial **ga-** derived words can be used nominally by adding normal nominal suffixes, in particular nunation (§3.2) in the citation form. Nunation for the masculine takes the expected form **-ān**. Of nouns for which I have feminine forms, two mark gender with the **-ako-** derivational suffix (§5.4), one adds nunation directly to the participle.

<b>gagārān, gagàran</b>	< <b>gàru</b>	‘old person’
<b>gagbādān, gagbādàkon</b>	< <b>ǎgbàdu</b>	‘timid person, person easily frightened’
<b>gàsaktān</b>	< <b>sàktu</b>	‘miser, stingy person’
<b>gâtāvān</b>	< ?	‘sick person’
<b>gàtlǎkparān, gàtlǎkparakón</b>	< <b>tlǎkpàru</b>	‘mad person’

Like **ma-** agentives, it is possible to form **gV-** derived forms from nouns as well as verbs. Most of my examples come from texts, and I did not systematically check their full inflectional range. They apparently follow the same patterns as participial adjectives except that the prefix has a long vowel (**gā-**) as does the prefix in at least some **ma-** forms derived from nouns (§5.1). The one exception is **gǎ-** in **gǎmsǎn** ‘man, male’. A number of my examples are compounds. I list all examples that I have with comments.

<b>gàman</b>	< <b>aman</b> ‘wife’	‘woman, female’
<b>gǎmsǎn</b>	< <b>m̄sǎn</b> ‘husband’	‘man, male’
<b>gàmayān, gàmayán</b>	< <b>mayan</b> ‘hunger’	‘hungry person, greedy person’ (cf. the adjectival form <b>gàmaya</b> )
<b>gàpīcān,</b> <b>gàpīcǎn = gǎpīcakón</b>	< <b>pīcǎn</b> ‘a lie’	‘liar’ (cf. the agentive <b>màpīcān</b> of similar or identical meaning)
<b>gàsǎmadú</b>	< <b>sǎmadǎn</b> ‘craving’	‘greedy person’ (probably a definite form—§3.4)
<b>gàmakwasú</b>	< <b>màkwasǎn</b> ‘voicé greed’	‘having a loud voice; greedy’ (probably a definite form—§3.4)

<b>gàkazə-gâgwɔ̄n</b>	< <b>kazá</b> ‘heart’ + <b>gùɗu</b> ‘hurry’	‘impatient person (“one with hasty heart”)
<b>gàsə-vəɗón</b>	< <b>sən</b> ‘bottom’ + <b>vəɗon</b> ‘urine’	‘urinator’ (“one with urinating bottom”)
<b>gāurì-gàkwɪlamán</b>	< <b>ùrān</b> ‘neck’ + ?	‘short-necked one’

The words meaning ‘impatient person’ and ‘shortnecked one’ have a **ga-** adjectival form as the second component, with nunation added to the entire compound.

Language names are formed by prefixing **gà-** to a root specifying ethnicity. This is probably the same prefix as that used for participles and descriptive nouns, even though the classes of words are semantically distinct and language names have all L tones (with final H in some cases), in contrast to the pattern for other **ga-** derived words.<sup>43</sup> Language names can appear with nunation, but more often they end in a vowel, which is probably the definite form. This results from the fact that language names are inherently definite. The names without final vowel also have an adverbial sense “in X” (X being some language).

<b>gàbàdè; gàbàden</b>	< <b>Badén</b>	‘Bade, in Bade; Bade language’
<b>gàbòrè</b>	< ?	‘Fulfulde language, in Fulfulde’
<b>gàmàpənən<sup>44</sup></b>	< <b>Àpənnon</b>	‘Hausa language’
<b>gànàsàra</b>	< <b>Nàsàrān</b>	‘English language, in English’
<b>gàzàn</b>	< <b>Zànən</b>	‘Kanuri language, in Kanuri’

**5.3. Prefix *də-*: Statives.** A prefix **də-** can be added to verb roots to derive stative resultatives. With the exception of three verbs (see the last three examples in the table below), this formation is restricted to roots of transitive verbs. Statives have a formal pattern similar to that of **ma-** agentives (§5.1) and **ga-** participles (§5.2).

- **də-** + BASE + **-à**
- BASE Tone → L on a syllable beginning in a voiced obstruent, H otherwise
- Final **-à** → L (except three intransitive roots with final **-i**)
- **də-** prefix → tone opposite following syllable

<b>dəvà</b>	< <b>võ</b>	‘shot’
<b>dəgdà</b>	< <b>əgdu</b>	‘snapped off (branch, etc.)’
<b>dugwɔ̄bà</b>	< <b>ùgwɔ̄bu</b>	‘wet’
<b>dənhwà</b>	< <b>nhwu</b>	‘full’
<b>dəgàfà</b>	< <b>gàfo</b>	‘catch’
<b>dəzgətà</b>	< <b>əzgətu</b>	‘pierced’
<b>dədəpsà</b>	< <b>dəpsu</b>	‘hidden’
<b>dəɗəbdà</b>	< <b>ɗəbdu</b>	‘sold’
<b>dəstukwà</b>	< <b>əstùkwu</b>	‘untied’

<sup>43</sup> For a connection between language names and stative modifiers, compare what Newman (2000:550) calls “class 2 statives” in Hausa. These use a suffix **-ance** and mean “in the language of, in the manner of”, e.g. (**à**) **hàusànce** ‘in Hausa, in the manner of the Hausas’.

<sup>44</sup> The word for ‘Hausa, in Hausa’ is formed from a **ma-** agentive based on the ethnic designation, possibly because the root starts with a lexical vowel, which would be absorbed by the prefix.

<b>dətlərgədə</b>	<	<b>tlərgədu</b>	‘razed’
<b>dəjləwi</b>	<	<b>jləwu</b>	‘seated’
<b>dəvədi</b>	<	<b>vədu</b>	‘lying down’
<b>dəlagi</b>	<	<b>lagu</b>	‘stopped, stationary, at a standsill’

Statives with the **də-** prefixed can be derived from verb bases with the ventive extension (§4.6) and the transitizing suffix **-du** (§4.4).

<b>dəmasəyi</b>	<	ventive of <b>məsu</b>	‘bought and brought’
<b>dəngwəyi</b>	<	ventive of <b>ngwu</b>	‘dipped or scooped out here’
<b>dərbədù</b>	<	<b>ərbə-dù</b> ; <b>ərbu</b> ‘move’	‘shaken’
<b>dəlagədù</b>	<	<b>lagə-dù</b> ; <b>lagu</b> ‘stop’	‘brought to a stop’
<b>dəgwəzəyidù</b>	<	<b>əgwəzu</b> ‘go back’ + ventive and transitizer	‘brought back, returned’

As noted in §5.2, the bases for **ga-** participial adjectives and **də-** statives are in near complementary distribution, with **ga-** applied only to intransitive bases and **də-** only to transitive bases. Where a verb has only a transitive usage, only **də-** is possible (**dəmasə** ‘bought’, but no \***gəmasə**) and vice versa for verbs with only intransitive use (**gəpata** ‘lost’, but no \***dəpatà**). Where a single verb root has two stem forms, a transitive and an intransitive, the prefixes are in complementary distribution with respect to stem types (**gərbəca** ‘open’ < **ərbəcu** ‘be open’ but **dərbəcà** ‘open’ < **ərbəcu** ‘open (tr.)’). Many verbs in Bade may be used as transitives or as intransitive middles (affected object vs. affected subject—§4.4). Such verbs may take either derivational pattern (**dəkəuyà**, **gəkəuya** ‘fried’ < **kəuyu** ‘fry’, **dəbəkà**, **gəbəkà** ‘roasted’ < **bəku** ‘roast’, **dəkùbà** [tone?], **gəkùbà** ‘closed’ < **kùbu** ‘close’, **dəsəparātà**, **gəsəparāta** ‘ready’ < **səpārātu** ‘prepare’). The three **də-** statives from intransitive roots mentioned above also have parallel **ga-** forms: **gəjləwa** ‘seated’, **gəlagə** ‘stopped’, **gəvədə** ‘lying down’.<sup>45</sup>

While I have no evidence for differences in meaning in such pairs, my guess is that the **ga-** form refers to the state as a property (‘fried meat’ vs. ‘raw meat’) whereas the **də-** form has a resultative sense (‘the meat is (now) fried’, i.e. it is no longer raw). Syntactic differences between the two formations suggest that this is correct. Whereas the **ga-** form can serve as an attributive modifier (**gudkwan gənəhwa** ‘a full pot’), the **də-** form can only be used as a predicate, e.g. **gudkwan dənəhwà** can only mean ‘the pot is filled/full’, not ‘a full pot’. Also, the **ga-** form can be used nominally, e.g. **gəgərən** ‘old person’ < **gəru** ‘grow old’ to indicate an entity embodying the property in question. This is not possible with **də-** forms. Related to this is the fact that **ga-** can be used with nominal roots, whereas **də-** can only be used with verbs that lead to a resultant state.

**5.4. Suffix -əko-: Feminine/diminutive** (Lukas §§57-58). A suffix **-əko-** can be added to a noun stem to create a feminine or, in some cases, diminutive form. With **mədən**, **mədənəkən** ‘person’, the **-əko-** suffix is added to the masculine citation form. For all other

<sup>45</sup> The long vowel in the prefixes if **gəlagə** ‘stopped’ and **gəvədə** ‘lying down’ is lexically specific to these verbs. They are also among a handful of verbs that take a subjunctive-marking prefix with a long vowel (§4.2).

words, the feminine ending is added to the masculine base minus final vowel and nunation except for nouns where the final vowel is *-ī-* or *-ē-*, in which case the vowel is retained and *-y-* is inserted before the suffix.

This derivational process is most productive for nouns referring to humans. Some animals distinguish feminine from masculine using this suffix. All Kanuri loanwords with the Kanuri agentive suffix *-ma* use the Bade feminine *-ako-* to mark feminine. I list examples according to rough categories. Notably absent among human nouns are kin terms, which distinguish gender inflectionally (§3.7).

### General human nouns and nouns referring to social status

<b>m̀d̀ə̀n, m̀d̀ə̀nà̀k̀on</b>	‘person, someone, one who...’
<b>k̀ā̀ẁā̀nā̀n, k̀ā̀ẁā̀nà̀k̀on</b>	‘so-and-so’
<b>b̀ā̀z̀ə̀nā̀n, b̀ā̀z̀ə̀nà̀k̀on</b>	‘unmarried person’
<b>k̀ā̀r̄ā̀m̄ā̀n, k̀ā̀r̄ā̀m̄à̀k̀on</b>	‘sorcerer, sorceress’ (< Kanuri, w. <i>-ma</i> suffix)
<b>l̀ā̀k̀ẁā̀nā̀m̄ā̀n, l̀ā̀k̀ẁā̀nā̀m̄à̀k̀on</b>	‘moocher’ (< Kanuri, w. <i>-ma</i> suffix)
<b>m̀v̄ā̀n, m̀v̄à̀k̀on</b>	‘slave’
<b>ù̀g̀z̀ə̀f̄ə̀n, ù̀g̀z̀ə̀f̄à̀k̀on</b>	‘slave’
<b>ṅ̀g̀ə̀r̄ī̀p̄ā̀n, ṅ̀g̀ə̀r̄ī̀p̄à̀k̀on</b>	‘bastard’ (literal and as a term of abuse) (< Kanuri)
<b>p̀ù̀k̀ā̀r̄ā̀n, p̀ù̀k̀ā̀r̄à̀k̀on</b>	‘Koranic student’ (< Kanuri)
<b>tugwzàrān, tugwzàràkōn</b>	‘sorcerer, sorceress’

**Occupations** (all but the first are *ma-* agentives—§5.1; most *ma-* agentives differentiate gender by inflection—§3.7)

<b>c̀ā̀k̀ā̀m̄ā̀n, c̀ā̀k̀ā̀m̄à̀k̀on</b>	‘weaver of cloth’ (< Kanuri, w. <i>-ma</i> suffix)
<b>m̀ā̀c̀ā̀k̀ā̀n, m̀ā̀c̀ā̀k̀à̀k̀on</b>	‘weaver of cloth’
<b>madāltān, madāltàkōn</b>	‘dyer’
<b>madāwān, madāwàkōn</b>	‘shepherd, herder’
<b>m̀ā̀ẁā̀nā̀n, m̀ā̀ẁā̀nà̀k̀on</b>	‘messenger’
<b>mazəmən, mazməkōn</b>	‘blacksmith’
<b>m̀ā̀z̀g̀w̄ā̀n, m̀ā̀z̀g̀w̄à̀k̀on</b>	‘expert’

### Persons with afflictions or particular traits of character

<b>ə̀j̀l̀ḡī̀n, ə̀j̀l̀ḡà̀k̀on</b>	‘blind person’
<b>ə̀t̀l̀k̀ù̀m̄ā̀n, ə̀t̀l̀k̀ù̀m̄à̀k̀on</b>	‘fool, ignorant person’
<b>akuyān, akuyakōn</b>	‘deaf person’
<b>d̀ā̀b̀ā̀r̄ā̀m̄ā̀n, d̀ā̀b̀ā̀r̄ā̀m̄à̀k̀on</b>	‘resourceful person’ (< Kanuri, w. <i>-ma</i> suffix)
<b>d̀ù̀ng̀w̄ā̀n, d̀ù̀ng̀w̄à̀k̀on</b>	‘leper’
<b>g̀ā̀t̀l̀ə̀k̀p̄ā̀r̄ā̀n, g̀ā̀t̀l̀ə̀k̀p̄ā̀r̄à̀k̀on</b>	‘mad person’ (d.f. <i>t̀l̀ə̀k̀p̄ā̀r̄u</i> ‘go mad’)
<b>ḏ̀ū̀g̀d̄ā̀n, ḏ̀ū̀g̀d̄à̀k̀on</b>	‘lame person’
<b>g̀ā̀p̄ī̀c̄ā̀n; g̀ā̀p̄ī̀c̄ā̀k̀on (=g̀ā̀p̄ī̀c̄ṑn)</b>	‘liar’ (d.f. <i>p̄ī̀c̄ṑn</i> ‘a lie’)
<b>k̀ə̀n̄ā̀m̄ā̀n, k̀ə̀n̄ā̀m̄à̀k̀on</b>	‘hungry person’ (< Kanuri, w. <i>-ma</i> suffix)
<b>k̀ə̀nz̄ə̀n̄ā̀m̄ā̀n, k̀ə̀nz̄ə̀n̄ā̀m̄à̀k̀on</b>	‘fornicator’ (< Kanuri, w. <i>-ma</i> suffix)
<b>k̀ā̀k̄ā̀b̄ā̀n, k̀ā̀k̄ā̀b̄à̀k̀on</b>	‘fool’ (< Kanuri)

<b>kârwân, kârwàkon</b>	‘wily person’ (< Kanuri)
<b>kwalamán, kwalamakón</b>	‘profligate person’ (< Kanuri, w. <b>-ma</b> suffix)
<b>mànāfākān, mənāfākakón</b>	‘hypocrite’ (< Kanuri < Arabic)
<b>mànāmān, mənāmàkon</b>	‘chatterbox’ (< Kanuri, w. <b>-ma</b> suffix)
<b>ngúdíin, ngudiyàkon</b>	‘poor person’ (< Kanuri)
<b>təskənán, təskənàkon</b>	‘slacker, lazy person’

### Ethnic designations

<b>Àpənon, Àpənàkon</b>	‘Hausa person’ (< Kanuri)
<b>Badén, Badèyàkon</b>	‘Bade person’
<b>Màngān, Màngàkon</b>	‘Manga person’
<b>Pəlātān, Pəlātakón</b>	‘Fulani person’
<b>Yarabāwān, Yarabāwakón</b>	‘Yoruba person’

Most domestic animals use words with unrelated roots for masculine and feminine counterparts (**gwàmān** ‘ram’, **təmàkun** ‘ewe’), and most wild animals have a single word with fixed gender (**asakén** (m) ‘porcupine’, **āyín** (f) ‘gazelle’) or with variable gender but no change in form (**əbjlāmən** (m or f) ‘hyena’). A few animals distinguish gender with the **-ako-** suffix. (I include the word ‘water spirit’ here for lack of a better category.)

<b>jləgmon, jləgmàkon</b>	‘camel’
<b>kwistán, kwistakón</b>	‘foal, colt’
<b>ngìwànān, ngìwànàkon</b>	‘elephant’
<b>nsān, nsàkon</b>	‘hippopotamus’
<b>ngàcān, ngàcàkon</b>	‘toad’
<b>bàwān, bàwàkon</b>	‘water spirit’

A few nouns, mostly smallish animates, are lexicalized with the **-ako-** suffix.

<b>səsakon</b>	‘star’ (cf. Duwai <b>shīshī</b> )
<b>kāzəḏàkon</b>	‘chicken’ (cf. Gashua Bade <b>kazá</b> )
<b>tātərakón</b>	‘dove’ (cf. Gashua Bade <b>tātařú</b> )
<b>vənàkon</b>	‘fish’ (has suffix throughout the language group)
<b>gəjləgdàràkon</b>	‘black scorpion’ (cf. Gashua Bade <b>gəjləgərəm</b> )
<b>àfàkon</b>	‘female goat or sheep’
<b>kadfyakfyakón</b>	‘baby agama lizard’

Finally, a number of tree and plant names, or names of plant parts, have the **-ako-** suffix. In some cases, e.g. ‘thorn’, the force of the suffix may be diminutiveness.

<b>asakón</b>	‘cornstalk’ (cf. Ngizim <b>səsuwà</b> )
<b>əgvàràkon</b>	‘Egyptian mimosa <i>Acacia nilotica</i> ’ (cf. Ngizim <b>gùvàru</b> )
<b>əpcàràkon</b>	‘Sodom apple <i>Calotropis procera</i> ’ (suffix present in all languages)
<b>hàyàkon</b>	‘jujube tree <i>Zizyphus jujuba</i> ’ (cf. Ngizim <b>kwàyu</b> )
<b>məsākón</b>	‘tamarind <i>Tamarindicus indica</i> ’ (cf. Ngizim <b>məshənú</b> )

<b>jìjəmàkon</b>	‘thorn’ (cf. Gashua Bade <b>jəjəm</b> )
<b>jləgdàràkon</b>	‘calabash fragment’ (cf. Ngizim <b>jləgdàru</b> )

A small number of feminine nouns have a suffix **-ake-**, which appears to be a variant of the **-ako-** suffix: **bàcān** (m), **bàcàken** (f) (pl. **bàcənən**) ‘one who owns, one who does’, and **āḍyūwaken** (f) (pl. **āḍyənən**) ‘palm fronds’, **tūsākēn** ‘cornstalk’ (apparently a compound or a blend—cf. Gashua Bade **təsuwà = àsàkau** ‘cornstalk’).

The most common plurals for nouns with the **-ako-** suffix are with plural suffixes **-ən- -awatən-**. For paired masculine and feminine nouns where the feminine counterpart uses the **-ako-** suffix, the plural always uses the base with no suffix, i.e. the gender distinction is neutralized in the plural, e.g. **ngàcān, ngàcàkon** ‘toad’ with common plural **ngàcənən**, **əjlgīn, əjlgàkon** ‘blind person’ with common plural **əjlgìwàtənən**. For unpaired feminine nouns that are lexicalized with the **-ako-** suffix in the singular, the regular pattern is to add the plural to the base without the suffix, e.g. **vənàkon** ‘fish’, plural **vənən**, but some nouns, especially plant names, add the plural to the feminine base, e.g. **əgvàràkon** ‘*Acacia nilotica*’, plural **əgvàràkàwàtənən**. See discussion in §3.8, plural type (7).

**5.5. Suffix -akwe-: Abstract nouns** (Lukas §60). A suffix **-akwe-** forms abstract nouns from descriptive words. The bases for abstract nouns are most commonly adjectives but nouns that predicate some quality of their referent can also serve as a base. The vowel **-a-** of the suffix is sometimes long, sometimes short. This may reflect a tendency toward weight polarity to the preceding syllable, but sometimes the vowel is long even with a preceding heavy syllable. Neither Lukas (§60) nor I could work out clear tone patterns. Gender also varies. Following is a complete list from my data. See Lukas (§60) for additional examples.

<b>əbdàmākwen</b> (m)	< <b>əbdāmān</b> <sup>46</sup> ‘rebellious’	‘rebelliousness’
<b>būtākwén</b> (m)	< <b>būtù</b> ‘useless’	‘uselessness’
<b>dùksàkwén</b> (f)	< <b>dùksi</b> ‘heavy’	‘heaviness, weight’
<b>gàwàkwén</b> (m)	< <b>gàwa</b> ‘much, many’	‘abundance’
<b>kùlākwen</b> (f)	< <b>kùli</b> ‘pleasant, sweet’	‘pleasure, sweetness’
<b>mangìnakwen</b> (m)	< cf. Ngizim <b>mangìna</b> <sup>47</sup> ‘friendship’	‘friendship’
<b>mānyəmākwén</b> (m)	< <b>mānyəmən</b> ‘child’	‘childishness’
<b>rùtəmākwen</b> (?)	< ?	‘mischievousness’
<b>tətākwén</b> (?)	< <b>tətâ</b> ‘difficult’	‘difficulty’
<b>kazəhētayākwén</b> (?)	< <b>kazān</b> ‘heart’ + <b>hētà</b> ‘white’	‘happiness’

The last example derives the abstract from a compound “heart-white”. I did not collect this compound as a separate word.

**5.6. Prefix a-: Noun formative** (Lukas §56). A substantial number of nouns in Bade begin with the vowel **a-**. For many of these, the **a-** is now and always has been part of the

<sup>46</sup> This is the verbal noun of **əbdāmu** ‘rebel’. I am assuming that the base for the abstract would be the verbal noun rather than the verb. In Lukas’s and my data, the bases for all other abstracts are adjectives or nouns.

<sup>47</sup> One would have expected the base to be the simple noun **māngān** ‘friend’. The abstract in **-akwen** looks like it should mean “friendshipness”, though the base **mangìna** seems not to be used in Bade.

root, e.g. in loanwords such as **arzəkīn** ‘wealth’ or **àskən** ‘market’, both from Kanuri (ultimately from Arabic), and in some words where proto-(West)Chadic must have had an initial \***a-**, e.g. **akún** ‘goat’ (cf. Hausa **àkwiyà**), **àdàtən** ‘guts’ (cf. Hausa **hanjī**<sup>48</sup>), **āmən** ‘water’ (cf. Bole **amma**). For others, comparative evidence suggests that the word was originally consonant initial, with a prefix **a-** having been added in the Bade/Ngizim group, e.g. **àgwen** ‘egg’ (cf. Duwai **gwàyi**), **afan** ‘sun’ (cf. Bole **pòti**), **aisàn** ‘dirt, soil’ (cf. Hausa **yàshī** ‘sand’). To these one can add many others, such as **anəmən** ‘chewstick tree’, **aptán** ‘flour’, **azəmān** ‘*Acacia seyal*’, where comparative evidence is so far unavailable one way or the other but where the initial **a-** appears to have originally been prefixal.

A non-productive but quite common prefixed **a-** shows up as a formative on certain nouns derived from verbs and verb-like words. Lukas (§56) describes “das präfigierte Morphem ’**a-**”<sup>49</sup> in Verbindung mit dem postradicalen Stammvokal **o**” used to make verbal nouns, e.g. **’àncon** ‘love (n)’ from the verb root **nc-**. She then mentions an “ähnlicher Struktur” found with several nouns, e.g. **’à-bs-o-n** ‘bark (of tree)’. I would include the latter examples among those mentioned in the previous paragraph, i.e. there is no evidence that the initial **a-** is anything other than part of the root in Bade, and to single out those that have **-o-** as the root final vowel is to ignore dozens of nouns with initial **a-** but with final vowels other than **-o-**. The initial **a-** on the verb-derived examples is, however, a prefix even in Bade, though it is not restricted to words with final **-o-**.

I divide **a-** prefixed forms into the following groups. Related items in Gashua Bade (GB) are informative. I have included these where they were available.

#### Nouns derived from a consonant-final base

<b>àḏanən</b>	n.m.	<	<b>ḏànu</b>	(GB <b>àḏan</b> )	‘crying’	
<b>ajlærtən</b>	n.m.	<	<b>jlærtu</b> < <b>jləra</b>	‘bitter’	‘scolding, anger’	
<b>àmànən</b>	n.m.	<	<b>mànu</b>	‘spend a year’	(GB <b>àman</b> )	‘year’
<b>amfən</b>	n.?	<	<b>m̩fu</b>		(GB <b>àməf</b> )	‘groaning, grunting’
<b>antlən</b>	n.m.	<	<b>ntlu</b>		(cf. GB <b>ntli</b> )	‘happiness, joy’
<b>àpərtən</b>	n.f.	<	<b>pərtu</b>			‘galloping’
<b>arḃən</b>	n.f.	<	<b>ərbu</b>			‘motion, movement’
<b>àzən</b>	n.?	cf.	<b>àzu</b>	‘there is, it exists’	(cf. GB <b>zu</b> ‘have’)	‘possession’
<b>àtən</b>	n.m.	<	<b>ətku</b>			‘beating, killing’
<b>àgwdàfən</b>	n.m.	<	<b>kùḏvu</b>		(GB <b>àgwdəf</b> )	‘thing carried on back’
<b>arākanən</b>	n.m.	<	<b>rākənu</b>		(GB <b>alākán</b> )	‘traveling’
<b>azàpanən</b>	n.m.	<	<b>zàpənu</b>		(GB <b>azàban</b> )	‘dozing off’

The items of masculine gender must derive, historically, from prefixing **a-** and adding nunation directly to the consonant-final base (§3.2). Gashua Bade evidence supports this. The items of feminine gender could have either ended in short high vowel or a consonant. The word **àzən** ‘possession’ comes from a defective verb ‘have’, no longer used in Western Bade, but it does occur in Western Bade in the invariable expression **àzu** ‘it exists’. On the basis of the verb root of the word for ‘beating, killing’, one would expect

<sup>48</sup> See Newman (2000:228-229, 395) for the historical equivalence of **h** and **ʔ** in originally vowel initial words in Hausa.

<sup>49</sup> As mentioned in footnote 4, transcription of these words with initial glottal stop (ʔ) is incorrect. Though such words may be pronounced in isolation with a glottal onset, glottal stop never appears in a context of vowel hiatus in Bade.

\***atkən**. Word final **-k** in the Bade/Ngizim group has an interesting history that goes beyond the scope of this paper. Suffice it to say that when words originally ended in **-k**, Western Bade has treated those **-k**'s as not being part of the root and has replaced them by nunation. The last three items prefix **a-** to a type of verbal noun, used with triconsonantal roots, that infixes a copy of the first root vowel between the second and third consonants (§4.3), e.g. **gâmsu** 'laugh', verbal noun **gâmasən**. Only a minority of such verbal nouns add the prefix **a-**.

**Nouns derived from a vowel-final base** (may also include some feminine nouns from the list above)

<b>ābān</b>	n.mass	< <b>bo</b> 'get' <sup>50</sup>	(GB <b>âbu</b> )	'excrement'
<b>alhān</b>	n.m.	< <b>əlhu</b>		'speaking, speech'
<b>akarān, akarakón</b>	n.m., n.f.	< <b>kəru</b>	GB <b>akalāk</b> )	'thief'
<b>adānón</b>	n.m.	< <b>d'ānu</b>		'crying'
<b>aikón</b>	n.m./n.f.	< <b>iko</b>	(cf. GB <b>ikwi</b> )	'seeing, looking at'
<b>āncon</b>	n.m./n.f.	< <b>ñcu</b>		'love'

The base for the first two would end in a short vowel with the nunation form (§3.2) **-ān** for masculine or mass nouns replacing it. This form of nunation also replaced original final **-ak** (see paragraph above and Schuh 1977:17), accounting for the third example. Lukas (§56) singles out the last three, correlating the **a-** prefix with stem vowel **-o-**. These come from a small class of verbal nouns with final **-o-** < \***-au**, seen in Ngizim without a prefix, e.g. Ngizim **d'ānu** 'cry', verbal noun **d'ānu**, **kəmau** 'hear', verbal noun **kəmāu**.

**Nouns derived from reduplicative ideophonic items**

<b>agədgədfən</b>	n.m.	cf. <b>gədgədfu</b> 'tremble'		'trembling, shivering'
<b>ajəgjəkən</b>	n.m.	cf. <b>jəgjəktu</b> 'tremble'	(GB <b>ajəgjək</b> )	'trembling, shivering'
<b>arəprəpən</b>	n.m.	cf. <b>rəprəptu</b> 'tremble'	GB <b>aṛəprap</b> )	'trembling, shivering'

These three items, all with the same meaning, have a reduplicated, ideophone-like base, though I do not have examples of the words used ideophonically. That the **a-** is a prefix is evident from the related verbs. Not all reduplicated ideophones with associated nouns add the **a-** prefix, e.g. **gədgədfən** 'noise of a crowd, of flock of birds' < **gədf-gədf-gədf**.

**5.7. Suffix -t-: Verb forming suffix.** Bade uses a suffix **-t-** to form verbs from bases of several types. If the base ends in a lexical vowel, it is long/lengthened before the suffix. Verbs formed with the **-t-** suffix fall into several groups as follows (verbs are cited in the complete form):

<sup>50</sup> The inherited Bade word for 'excrement' is **son** (GB **sau**). The expression for 'to defecate' is **ba son** 'get excrement'. The word **ābān** (GB **âbu**) is thus a nominalization of the verb 'get' with the original object dropped.

## Verbs derived from non-verbal roots

<b>ətlkwàmtu</b>	<	<b>ətlkùmən</b>	‘be stupid, be foolish’
<b>bərbərtu</b>	<	<b>bəbərən</b> ‘dust’	‘roll around (donkey in dust, etc.)’
<b>bìtlàtu</b>	<	<b>bìtla</b> ‘red’	‘redden, become red’
<b>dàmtòtu</b>	<	<b>dàmto</b> ‘near’	‘draw near’
<b>gàrgànàtu</b>	<	?gàru ‘grow’ + Kan. <b>gàna</b> ‘small’	‘grow up’
<b>gàwàtu</b>	<	<b>gàwa</b> ‘much, many’	‘be abundant’
<b>jàgètu</b>	<	<b>jàgén</b> ‘etching’	‘decorate by etching designs’
<b>jlərtu</b>	<	<b>jləra</b> ‘bitter’	‘scold, get angry at’
<b>nàbètu</b>	<	<b>nàbē</b> ‘there isn’t any’	‘die, pass away’
<b>nìkàtu</b>	<	<b>nìkan</b> ‘marriage ceremony’	‘marry’
<b>tlərəmàtu</b>	<	<b>tlərəmən</b> ‘harvest season’	‘harvest season arrives’

In my materials, these are not particularly common. The list above may be exhaustive for words where the non-verb is clearly primary. Future research will certainly reveal more, but this does not seem to be a generally productive process for forming “transformation” verbs from related nouns as it is in Hausa. Thus, for **əjlgìn** ‘blind person’, the corresponding verb is **əjlgàyu** ‘go blind’, without the **-t-** suffix.

Borrowed verbs (K = Kanuri, H = Hausa)<sup>51</sup>

<b>əlpàtu</b>	<	K <b>ləwa-</b> ‘plait hair’	‘weave from palm fronds’
<b>bərkùtu</b>	<	K <b>bùrwù-</b>	‘register complaint in court’
<b>dòndìtu</b>	<	K <b>dòndì-</b>	‘suffer illness; nurse sick person’
<b>gàltu</b>	<	K <b>gal-</b>	‘sharpen blade’
<b>gàptu</b>	<	K <b>gàf-</b>	‘remain, be left over’
<b>kərətu</b>	<	K <b>kəra-</b>	‘read’
<b>kərintu</b>	<	K <b>kərən-</b>	‘listen attentively’
<b>kàdùtu</b>	<	K <b>kadu-</b> ‘pursue’	‘go to (place or person)’
<b>kàlàktu</b>	<	K <b>kalak-</b>	‘return, go (directly) back’
<b>kàrtu</b>	<	K <b>kar-</b>	‘separate out from larger group’
<b>m̀pàtu</b>	<	K <b>àmba-</b>	‘feed, provide sustenance’
<b>pərətu</b>	<	K <b>fəra-</b> ‘sweep’	‘rake farm’
<b>ràktu</b>	<	K <b>rak-</b>	‘put up with, be long-suffering’
<b>ràktu</b>	<	K <b>rat-</b>	‘press down, compress’
<b>rètu</b>	<	K <b>re-</b>	‘separate in two’
<b>rìntu</b>	<	K <b>lin-</b> [ɽin-]	‘undress’

<sup>51</sup> The Kanuri citations are from Cyffer and Hutchison (1990), which documents the Yarwa dialect (the dialect spoken in Maiduguri, Nigeria). This is not the source dialect for Kanuri loans into Bade, accounting for some pronunciation differences between Bade and Kanuri in the data here, particularly of non-initial labials and velars. Kanuri does not have distinctive vowel length. Bade treats Kanuri **a**, **i**, **u** as the respectively long vowels of Bade. Kanuri /l/ has an allophone [ɽ] (retroflex lateral flap) before **i**. Bade treats this allophone as Bade /r/. A number of these are ultimately of Arabic origin, but the immediate source in Bade is Kanuri.

<b>rùtu</b>	< K <b>rù-</b>	‘despise, be insolent toward’
<b>sàrùtu</b>	< K <b>sàrù-</b>	‘borrow’
<b>tàwàtu</b>	< K <b>tàwà-</b>	‘get an early start’
<b>dàmèntu</b>	< cf. H <b>dāmā</b>	‘pester, annoy’
<b>fùtātu</b>	< H <b>hūtā</b>	‘rest’

By far the greatest source of recognizable loanwords in Bade is Kanuri, whose influence on Bade language and culture has been pervasive. The Kanuri citations in the table above are roots minus person/tense marking suffixes. All borrowed verbs, including those from Hausa, add the **-t-** suffix to the verb base. There is some question, however, as to whether the **-t-** on borrowed verbs is the native Bade suffix in the first table above. The productive Kanuri verbal noun formative is **-tV** (**-tə** in the Yarwa dialect, **-tu** in the Manga dialect, spoken contiguous to the Bade area), e.g. **dòndì-** ‘get sick’ with verbal noun **dòndìtə**, **gal-** ‘sharpen’ with verbal noun **galtə**. Kanuri verbs always have a tense/person-marking inflectional affix attached—the verb root cannot be cited in isolation. It seems unlikely that Bade speakers, when borrowing Kanuri verbs, extract an abstract root, then add a Bade formative to it. Kanuri loan verbs may thus, in origin, be Kanuri verbal nouns used verbally, with accidental homophony between the native Bade verb formative **-t-** and the Kanuri verbal noun suffix.<sup>52</sup> This path for Kanuri loan verbs having a **-t-** suffix cannot directly explain the presence of a similar (if the not same) suffix on Hausa loans such as **fùtātu** ‘rest’. If the **-t-** comes from the Kanuri suffix, it may be that so many borrowed verbs had this suffix that it has been reanalyzed as a suffix whose function is to adapt any foreign root to verbal function in Bade.

Verb formation from nouns and other non-verbs is 100% productive in Kanuri. Virtually any word can be used verbally simply by adding verbal suffixes to it, e.g. Kanuri **māi** ‘king’, **mai-ngîm** ‘I will become a king’. Bade has borrowed many nouns (and other non-verbs) from Kanuri but also has verbs using those nouns as a base. In such cases, it is not possible to tell whether Bade has borrowed both the noun and the verb from Kanuri, or whether Bade has borrowed the noun, then added the native **-t-** verb forming suffix to it. As in the list above, there are a few Hausa loanwords that behave like those from Kanuri.

### Borrowed verbs and associated non-verbs

<b>lâlètu</b>	‘welcome’	<b>lâlè</b>	‘hello!, welcome!’	K <b>lâlè</b>
<b>lòkòtu</b>	‘beg’	<b>lòkon</b>	‘begging’	cf. K verb <b>lòwo-</b>
<b>màitu</b>	‘become <i>Mai</i> ’	<b>māyān</b>	‘king, chief’	K <b>māi</b>
<b>m̀bànàtu</b>	‘help’	<b>m̀bānán</b>	‘help (N)’	K <b>bana</b>
<b>ngàtu</b>	‘get well; cure’	<b>ngā</b>	‘healthy, well’	K <b>ngā</b>
<b>pàidàwàtu</b>	‘be useful, benefit’	<b>paidán</b>	‘usefulness’	K <b>faidà</b>
<b>tùmàtu</b>	‘think, expect’	<b>tùman</b>	‘thought, expectation’	K <b>təmā</b>
<b>làfiyàtu</b>	‘greet’	<b>lāfiyán</b>	‘greeting’	H <b>lāfiyà</b>

<sup>52</sup> The homophony between the suffixes cannot be a result of shared inheritance, since Bade is Chadic (Afroasiatic) and Kanuri is Saharan (Nilo-Saharan). It is also unlikely to have been borrowed either direction. Chadic has a widespread **-t-** verbal formative, of which the Bade **-t-** must surely be a reflex (see Newman (2000:Chapter 79) for the cognate form in Hausa), and in any case, the suffixes in Chadic and Kanuri are functionally distinct.

Finally, a disproportionately large number of apparently NON-DERIVED NATIVE VERBS with more than three stem consonants have **-t-** as the last consonant. One special case involves reduplicated verbs of the form **CVC<sup>2</sup>-**, of which over a third have this suffix. The following figures emerge from my data:

- **50/242** (20.7%) of 3-consonant verbs have **-t-** as C3
- **16/43** (37.2%) of 4-consonant verbs have **-t-** as C4
- **13/34** (38.2%) of CVC<sup>2</sup>- verbs add **-t-**

Even cursory inspection shows that these figures for **-t-** far exceed those for any other consonant as the last consonant in multi-consonantal verbs. The table below presents some examples:

### Multiconsonant verbs with **-t-** as last consonant

(3 consonants)	<b>bàktu</b>	‘winnow using <i>faifai</i> ’
	<b>fitu</b>	‘start fire’
	<b>gəmtu</b>	‘bring together (in wrestling)’
	<b>jàptu</b>	‘dip out, take small quantity’
	<b>jləptu</b>	‘pay a fine’
	<b>kəntu</b>	‘strip off (bark from hemp plant, etc.)’
	<b>màrtu</b>	‘be patient and ..., please ...’
	<b>səftu</b>	‘clean dirt from grain with <i>faifai</i> ; blow with mouth’
	<b>səktu</b>	‘incite, foist off on, sic on’
	<b>sərtu</b>	‘roll or move down slope’
	<b>tləptu</b>	‘cut with sickle’
	<b>vòtu</b>	‘turn around, turn away’
	<b>wəltu</b>	‘shout’
	<b>wistu</b>	‘buck (donkey, etc.)’
	<b>zàmtu</b>	‘swoop down on, snatch up, grab up’
(4 consonants)	<b>mələktu</b>	‘flash (lightening)’
	<b>məpəktu</b>	‘deflate, subside (of swelling)’
	<b>səmàktu</b>	‘cheat, get the better of’
(tr/intr pairs)	<b>əzɡətə</b>	‘pierce’
	<b>əzɡətə</b>	‘be pierced’
	<b>pərtə</b>	‘unravel, undo woven thing; cancel plan, renege’
	<b>pəràtə</b>	‘escape, slip loose’
	<b>məskətə</b>	‘turn (thing), turn (thing) around/over’
	<b>məskətə</b>	‘turn, turn around/over’
	<b>tləmpətə</b>	‘rip, tear’ (tr.)
	<b>tləmpətə</b>	‘rip, tear’ (intr.)
CVC <sup>2</sup> -	<b>kwàrkwàrtu</b>	‘turn round and round’
	<b>làmlàmtu</b>	‘wash arms and legs’ (d.f. Kanuri <b>lam-</b> ‘wash face’)
	<b>sàksàktu</b>	‘carpenter, carve wood’
	<b>zàrzàrtu</b>	‘make stripes’

Some of these are related to words lacking the **-t-**, e.g. **fītu** ‘start a fire’ and **fīfiyu** ‘whistle’, and comparative evidence shows that **-t-** in others is not etymological, e.g. **gəmtu** ‘bring together’ vs. Hausa **gamà** ‘join’. However, none of these have a functionally transparent relationship to other words comparable to the examples presented above. The function of the final **-t-** in such words, if it ever had a specific function, is lost in modern Bade.<sup>53</sup>

Of particular interest in the data above are the transitive/intransitive pairs. In verbs with the derivational **-t-** suffix, a lexical vowel preceding the suffix is always long. In the examples, immediately above, however, the intransitive counterparts have a short **-a-**. This **-a-** is a fairly productive infix vowel that can derive unaccusative verbs from multiconsonantal transitive verbs, esp. those of the form **...CəC-#** (§4.4).

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<sup>53</sup> See Schuh (forthcoming) for an extended discussion of “remnant” verbal affixes in Bade and in West Chadic languages in general.

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