

A Comparison of Three Bassa Orthographies

Jana S. Bertkau

February 1976

## 0. Introduction

The Bassa language has been reduced to written form by the means of an indigenous alphabetic writing system called the Vah Script and by means of several Roman alphabetic writing systems. The indigenous Vah script was introduced in about 1910 by Dr. Lewis who conducted a Bassa literacy campaign and translated Biblical passages into Bassa using the Vah script.<sup>1</sup> Dr. Lewis printed these passages by means of a German made printing press. Samples of the script produced by the press are now difficult to find, particularly since the press was destroyed in 1967. Younger generations of Bassa people have not expressed much interest in learning the script; however, the older generations commonly use it for letter communications.

Also in the early part of this century, a missionary, Rev. Percy E. Clubine, reduced the language to a Roman alphabet and attempted to make some translations. I've found a grammar which I believe Rev. Clubine wrote in the 1930's (no author, no date). I have also been told by Mr. Joseph M.N. Gbadyu, Superintendent of Schools, Grand Bassa County, that he has a copy of some old Testament translations that Rev. Clubine produced. These are the only two samples of the Clubine orthography that have come to my attention

In the 1960's another missionary, Miss June Hobley, studied the Bassa language and translated the New Testament (Hobley 1964, 1965, 19 ). Hobley used a modified version of the Clubine Roman alphabet. Numerous

---

<sup>1</sup>Historical information pertaining to the Vah script has been received from Rev. Abba Karnga, Mr. Joseph M.N. Gbadyu and Mr. James W. Morgan of Buchanan, Grand Bassa County.

samples of Christian literature have been produced using the Hobley orthography, and there is a core of Bassa Christians who are literate in the Hobley orthography.

In 1975, another variation of the Roman script was devised for use in a school language program that was developed under the auspices of the Liberian Ministry of Education, Department of Research and Planning (Bertkau and Morgan 1975, Bertkau and Thayer 1975, and Bertkau 1975). In the academic year 1976, this orthography will be used in a pilot Bassa literacy program in several selected schools in Grand Bassa County.

The purpose of this paper is to outline the orthographical systems of the Vah script, Hobley's Roman script, and Bertkau and Morgan's Roman script. Not enough is known about the early Clubine orthography to include it in the main framework of this paper. However, appropriate comparative comments are included in some sections for which enough data are available.

This paper is not an exhaustive treatment of the Bassa orthographies. It is merely an attempt to describe some of the problems that are inherent in trying to reduce the Bassa language to writing and to summarize how different people have tried to solve these problems. I have tried my best to consult the available authorities and references in order to adequately describe each system. Unfortunately, I have not always been able to find a consensus of opinion or sufficient descriptive material. In the case of the Vah orthography, there is no one authority to which one can refer, and there is some variation in spelling styles among present Vah script writers. In the case of Hobley's orthography, there is no description of the orthography available. Consequently, my interpretation of some of her orthographic principles is based on my own understanding of the phonology of the Bassa language. Needless to say, I am best

prepared to describe the Bertkau and Morgan orthography, and I am also the first to recognize the need for closely monitored testing of some of the orthographic decisions made by the authors. I am solely responsible for any misinterpretations or errors that may be found.

### 1. Consonants

The Vah orthography has twenty-three consonant graphemes; Hobley's orthography has twenty-five; Bertkau and Morgan's orthography has 24 (see Table 1.). There is not a one-to-one correspondence of graphemes in four instances, and these instances may be discussed under two topics - the status of [r̥] and the nasal consonants.

The Vah has a symbol <ℓ> which is equivalent to [r̥] and which is not represented as a separate symbol in either the Hobley or the Bertkau and Morgan Roman orthographies. Clubine wrote the [r̥] as <r>. I have been told by Mr. James W. Morgan, whose father was a student of Dr.

Lewis, that although Dr. Lewis introduced the <ℓ> symbol, he himself did not always use it. [r̥] is a phonetic variant of /d/ and appears following /t/ or /d/: /td̄/ [t̄r̄ō] 'mountain'. Words such as /td̄/ have been written either with the phonetic [r̥] or with the phonemic /d/ by writers of the Vah script.

<u>Vah</u>	<u>Hobley</u>	<u>Bertkau and Morgan</u>	<u>Clubine</u>
ḡḶḶ or ḡḶḶḶ	toḑo	toḑo	tro

When the [r̥] allophone is written in either the Vah or the Clubine orthographies, the preceding vowel is omitted. More discussion about the representation of this short vowel is found in section 3.

Table 1.

Consonant Graphemes of the Vah Script, Hobley's Roman Script and Bertkau and Morgan's Roman Script

<u>Vah</u>	<u>Roman(Hobley)</u>	<u>Roman(Bertkau and Morgan)</u>
7	p	p
Z	b	b
9	6	6
(9)	m	m
4	w	w
7	f	f
L	v	v
9	t	t
7	d	d
4	d	d
3	n	n
Z	s	s
3	z	z
L	-	-

Table 1.  
(continued)

<u>Vah</u>	<u>Roman(Hobley)</u>	<u>Roman(Bertkau and Morgan)</u>
Z	c	c
7	j	j
o	dy	dy
(o)	ny	ny
^	k	k
S	g	g
z	kp	kp
o	gb	gb
(o)	gm	(gb)
o	xw	xw
v	hw	hw
F	h	h

There are differences in the representation of the nasal consonants. These differences are best discussed in terms of the bilabial, dental, palatal and labio-velar consonant pairs: /b-m/, /d-n/, /dy-ny/ and [gb - ŋm]. In word-initial position /b/ contrasts with /m/, /d/ with /n/, and /dy/ with /ny/ whereas [gb] does not contrast with [ŋm]. [gb] precedes oral vowels and [ŋm] precedes nasal vowels. Table 2. illustrates the environments for these consonants in word initial position.

Table 2.

b, m, d, n, dy, ny, gb, ŋm in Word-Initial Position

bV	dV	dyV	gbV
m <sup>~</sup> V	n <sup>~</sup> V	ny <sup>~</sup> V	ŋm <sup>~</sup> V
mV	nV	nyV	

The sequences mV, nV and nyV are rare, perhaps totalling no more than 30 words. Each of the three orthographies represents the eleven possible sequences in Table 2. in a different way.

The Vah orthography has one symbol for each of the consonant pairs: /b - m/ <9>; /dy - ny/ <0>; and [gb - ŋm] <2>. When a syllable final "n" <3> appears after any of these three graphemes or after <3>, the entire syllable is nasalized. For the few cases where /m/ or /ny/ is followed by an oral vowel there is no way to uniquely represent this CV sequence. Some writers of the Vah use a syllable final "n" <3> and others do not write it. In either case the phonetic realization of /mV/ or /dyV/ syllables must be determined by the context of the sentence.

Hobley's orthography has separate symbols for /b/, /m/, /d/,

/n/, /dy/, /ny/, /gb/ and [ŋm]. Nasalization is unmarked after nasal consonants. In the few cases where /m/, /n/ or /ny/ are followed by oral vowels, the phonetic realization of <mV>, <nV> and <nyV> as [mV], [nV], [nyV] or as [m̃V], [ñV], [nỹV] must be determined by the context of the sentence.

Bertkau and Morgan's orthography uses separate graphemes for /b/, /m/, /d/, /n/, /dy/, /ny/ and one symbol for <sup>b, rth</sup> /gb/ and [ŋm]. Nasalization is marked by a syllable final <n> only after nasalized vowels. Table 3. gives examples of words beginning with /b/, /m/, /d/, /n/, /dy/, /ny/, /gb/ and [ŋm] and shows how they are written in the three orthographies.

Nasal consonants in medial position are also represented differently in the three orthographic systems. The Vah orthography and Bertkau and Morgan's orthography write a double "n" <-33>, <-nn-> for medial /n/. Hobley's orthography has a single "n" for medial /n/. The Vah represents medial /m/ by <-39>. Table 4. illustrates how medial /m/ and /n/ are written in the three systems.

Table 4.

## Medial /m/ and /n/ in the Three Orthographies

	Vah	Hobley	Bertkau and Morgan
-m- /nmá/ to be sharp	3n39n3	námá	námán
-n- /vně/ to be big	τ<33<3	veně	vennèn

A double "n" is written in the Vah and in the Bertkau orthographies because a consonantal "n" needs to be distinguished from the nasalization marker which is also "n" (see section 3.).



Table 3.

Word Initial Nasal Consonants Written in the Three Orthographies

	<u>Vah</u>	<u>Hobley</u>	<u>Bertkau and Morgan</u>
bv /báá/ 'to ask for'	ḡḡ	báá	báá
mṽ /máá/ 'guinea fowl'	ḡḡ <sup>3</sup>	máá	maan
mV /maa/ 'to make a mistake'	ḡḡ <sup>3</sup> ḡḡ or ḡḡ <sup>3</sup>	maa	maa
/múé/ 'friend'	ḡḡḡḡ or ḡḡ <sup>3</sup> ḡḡ	múé	múé
dyV /dya/ 'to bring'	ḡḡḡ	dya	dya
nyṽ /nyá/ 'anteater'	ḡḡḡ <sup>3</sup>	nya	nyan
∞ nyV /pō nyáá/ 'to plant in rich soil'	ḡḡ <sup>3</sup> ḡḡḡḡ <sup>3</sup> or ḡḡḡ <sup>3</sup> ḡḡḡḡ <sup>3</sup>	po nyaa	po nyaa
gbv /gba/ 'to lock'	ḡḡḡḡ	gba	gba
nmṽ /gmá/[rma] 'law'	ḡḡḡḡ <sup>3</sup>	gma	gban
qV /qá/ 'to fry'	ḡḡḡ	qa	qa
nṽ /náá/ 'bird'	ḡḡḡ <sup>3</sup> ḡḡḡ <sup>3</sup>	naa	naan
nV /náa/ 'country devil'	ḡḡḡḡḡḡ	naa	naa

## 2. Vowels

Each of the three orthographies has seven vowel symbols (see Table 5.).

Table 5.  
Vowel Graphemes in the Three Orthographies

<u>Vah</u>	<u>Hobley</u>	<u>Bertkau and Morgan</u>
ɲ	a	a
ɔ	o	o
o	o	o
ɹ	u	u
ɛ	e	e
ɛ	ɛ	ɛ
ɟ	i	i

Long vowels are written by doubling each vowel grapheme in all three orthographies, with one exception. The Vah orthography does not double the grapheme when the long vowel consists of a high tone followed by a low tone. Instead of doubling the grapheme a "double" tone mark is written inside the vowel (see section 3.).

Nasal vowels are written differently in each system. This area of the Bassa phonology is perhaps the most complex in terms of finding an adequate orthographic representation. A brief summary of nasalization is appropriate here. Within stem morphemes, Bassa has  $\tilde{C}\tilde{V}$ ,  $\tilde{C}\tilde{V}\tilde{V}$  and rarely

CVV nasal syllables. Suffixes are very common and occur as verbal endings, specific markers, pronouns or contractions. These suffixes usually take the form of a vowel which may be inherently oral (specific markers, pronouns) or inherently nasal (verbal endings). An oral suffix becomes nasalized if it follows a nasal stem. A nasal suffix usually takes the form of [-ĩ] after front vowels and [-ũ] after non-front vowels. A prevalent exception to this generalization is the suffix for the present tense which is [-eĩ] after -i, -e, -e, -u, and -o stems, [-oũ] after -o stems, and [-aũ] after -a stems.

Each orthographic system uses a distinctive method of marking nasalization. Table 6. presents examples of different combinations of nasal and oral stems with nasal and oral suffixes and illustrates how these combinations are written in each system.

In the Vah system, nasalization is marked by writing the symbol <3> "n" following every vowel which is nasal on the surface level. There is no distinction made between inherent/surface nasalization or between stem/suffix nasalization. (Table 6: 1-8).

In the Hobley system, nasalization is marked one way for stems and another way for suffixes. Within a stem morpheme a tilde is written over a nasalized vowel or over the first of a sequence of nasalized vowels (Table 6:1 and 3). This method of marking nasalization implies that the nasalization carries throughout the stem. It also implies that nasalization is carried on to inherently oral vowel suffixes (Table 6:2,4). When the suffix is inherently nasal, Hobley uses a final <n> to mark the nasalized suffix which is not conditioned by a nasal stem (Table 6: 5, 6, 7, 8). This does not mean that the final <n> nasalizes a preceding vowel as is the case in the Vah system. Rather it means that

Table 6.

Nasal Vowels Written in the Three Orthographies

	<u>Vah</u>	<u>Hobley</u>	<u>Bertkau and Morgan</u>
1. /cē/ 'to talk to'	z < 3	cē	cen
2. /cē/ + /ɛ/ → [cēē] to talk obj. talk to him pro.	z < 3 < 3	cēe	cene
3. /kūā/ 'work'	^ ɱ 3 ɱ 3	kūa	kuan
4. /kūā/ + /-o/ → [kūās] work specific the work marker	^ ɱ 3 ɱ 3 ɛ 3	kūao	kuanao
5. /gīē/ + /mú/ → [gēiēi] farm in in the farm (contraction)	5 ɛ ɪ ɛ ɪ ɪ 3	gedēen	gedēin
6. /cēē/ + /-i/ → [cēēi] write future will write suffix	z > ɛ ɪ ɛ ɪ ɪ 3	cēen	cēein
7. /pō/ + eɪ → [pōēi] to throw present throwing suffix	7 0 < ɪ 3	poen	poein
8. /kpō/ + ou → [kpōōu] to catch present catching suffix	7 ɛ ɔ ɔ ɛ ɔ ɱ 3 7 ɛ ɔ ɔ ɛ ɔ ɱ 3	kpōon	kpōoun

the final <n> itself represents a nasal vowel (either an [-ĩ] after front vowels or an [-ũ] after non-front vowels. In some cases an additional vowel is added before the final <n> and in other cases an additional vowel is not added.

The rule for marking nasalized suffixes in the Hopley system appears to be the following: When a nasalized suffix is added to a stem morpheme, double the final stem vowel and add <n> (Table 6:5). If the suffix consists of an oral vowel preceding the final nasal suffix, write the oral vowel and add <n> (Table 6:7,8). If the final stem vowel is already double, just add <n> (Table 6:6).

The problem of marking nasalization is a rather complex one. It is in this area that much attention and testing of readability is needed.

A prominent feature of Bassa, as well as of other KRU languages, is the occurrence of a short transitional vowel between an initial syllabic consonant and a medial /q/, /n/, /b/ or /m/. In Bassa this transitional vowel is entirely predictable and is a shortened form of the full vowel following the medial consonant.

Whether or not one should write this transitional vowel is a much discussed issue among students of KRU languages. In the case of the three Bassa orthographies, there is almost complete concurrence of opinion (see Table 7.). All three orthographies write the transitional vowel when the initial syllabic consonant is not /t/ or /d/. However, words which have an initial /t/ or /d/ and a medial /q/ are written in one of two ways in the Vah orthography. Either the transitional vowel is written between the initial /t/ or /d/ and

the medial /d̥/, or the vowel is not written and the initial /t/ or /d/ is followed by the symbol ⟨L⟩ [ř]. Whether one should or should not use the ⟨L⟩ symbol is a matter of personal preference among Vah script writers. In the Clubine orthography /d̥V/ words are written without a transitional vowel and with an ⟨r⟩ symbol.

Table 7.

## The Transitional Vowel in the Three Orthographies

	<u>Vah</u>	<u>Hobley</u>	<u>Bertkau and Morgan</u>	<u>Clubine</u>
/d̥bá/ 'to kill'	47797	qábá	qábá	
/b̥qé/ 'to have'	9040	bédé	bédé	
/n̥má/ 'to be sharp'	373973	námá	námán	
/v̥nè/ 'big'	703303	vènè	vènnèn	
/t̥d̥o/ 'mountain'	9040 or 720	tođo	tođo	tro

## 3. Tone

All three orthographies mark tone (see Table 8.). The Roman orthographies mark the tone diacritics over the vowels while the Vah orthography marks the tone diacritics inside the vowels. There are two major areas of difference in the analysis and hence marking of tone in the three orthographies. These basic differences will be outlined in this paper; however, for a more detailed description of Bassa tone see Bertkau(1975) and Hobley(1964).

Table 8.

Tone Diacritics in the Three Orthographies  
(as written on the vowel /a/)

	<u>Vah</u>	<u>Hobley</u>	<u>Bertkau and Morgan</u>
high	Ḃ	á	á
low	ḃ	à	à
mid	Ḅ	a	a
low-mid rise	ḅ	(à)	ǎ
high-low	Ḇ	ā	â

The first area of difference in the marking of tone pertains to the low-mid rising tone. The Vah orthography and the Bertkau and Morgan orthography each have an individual rising tone mark whereas Hobley's orthography does not have a separate rising tone mark. Hobley's orthography marks rising tone and low tone with the same mark.

	<u>Vah</u>	<u>Hobley</u>	<u>Bertkau and Morgan</u>
/gba <sup>v</sup> / 'to lock'	GA	gbà	gbá <sup>v</sup>
/bui <sup>v</sup> / 'brother-in-law'	Z M F	bui	bui <sup>v</sup>

The second area of difference is the marking of high-low tones. In this area all three orthographies differ. It is my belief that although there are many instances of phonetically conditioned high-low tones, there are very few cases where a separate high-low tone mark is needed. These instances are limited to [CV̂] words which are in the final analysis most likely all contractions of [CV̂] + [V̂] words. These contracted forms have come to be popularly used expressions of Bassa and it would be stilted to insist on writing the full forms. e.g. [mō̂] 'I, emphasized' is a contraction of /m̂/ 'I' and /mō̂/ 'to be'. I know of three examples of such [CV̂] words and I suspect they are all contractions.

	<u>Vah</u>	<u>Hobley</u>	<u>Bertkau and Morgan</u>
[mō̂] 'I, emphasized'	GA3	mō̂	mō̂n
[nō̂] 'here'	3 B	nō̂	nō̂
[pū̂] 'just, only?'	7 M	pū̂	pū̂



Both the Vah orthography and the Hobley orthography mark high-low tone in other circumstances where the Bertkau and Morgan orthography does not mark high-low tone. Hobley's high-low tone mark is used on CVV words such as [hwiã] <hwiã> 'hungry time'. Hobley analyzes [hwiã] as being a sequence of a low tone and a high-low tone i.e. /hwiã/. The final high-low tone is lowered phonetically to a mid-low due to the preceding low tone. An exception to this analysis is the word [bèã] <sup>'we, inclusive you'</sup> which Hobley writes as a sequence of three vowels <bèãã>.

Bertkau and Morgan analyze such words as being a sequence of a low-mid tone and a low tone. The mid segment of the low-mid tone moves to the right and appears phonetically as a mid-low on the final low (Bertkau 1975:29). I have seen such words written in the Vah script either as a sequence of a low-mid rise and a low tone or as a sequence of a low + a mid + a low tone.

	<u>Vah</u>	<u>Hobley</u>	<u>Bertkau and Morgan</u>
[hwiã] 'hungry time'	Y ɛ̃ ɪ̃ ɪ̃ ɪ̃ ɪ̃	hwiã	hwiã
[gbàã] 'nanny goat'	ɔ̃ ɪ̃ ɪ̃ ɪ̃ ɪ̃ ɪ̃	gbàã	gbàã
[bèã] 'we, inclusive you'	ɔ̃ ɛ̃ ɪ̃ ɪ̃ ɪ̃ ɪ̃	bèãã	bèã

The Vah orthography also uses the high-low tone mark on the final high-low glide in [C<sup>h</sup>V<sup>h</sup>V] words. Both Bertkau and Morgan and Hobley analyze such words to be /C<sup>h</sup>V<sup>h</sup>V/ words, and they do not mark the phonetically conditioned fall.

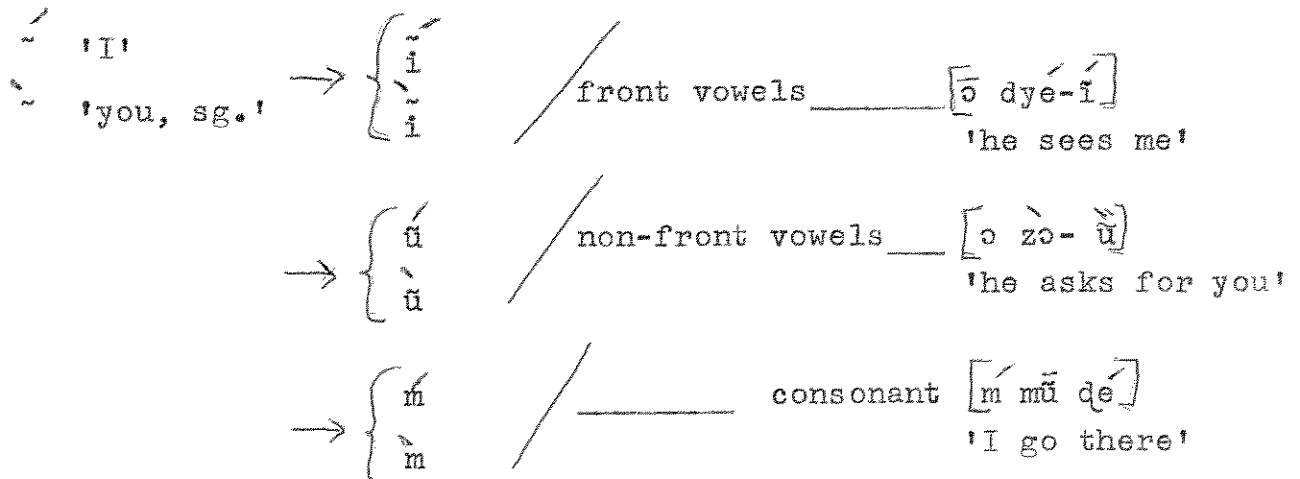
	<u>Vah</u>	<u>Hobley</u>	<u>Bertkau and Morgan</u>
[dyúá] 'seed'	o m ʔ a	dyúá	dyúá

When the vowels in such [CVV] words are identical the Vah orthography represents them as a single vowel with a "double" tone mark whereas Bertkau and Morgan and Hobley represent them as a sequence of two vowels.

	<u>Vah</u>	<u>Hobley</u>	<u>Bertkau and Morgan</u>
[déeé] 'to be sweet'	ʔ é	déeé	déeé

## 4. Personal Pronouns

The first and second singular personal pronouns have been written differently in the three systems. These pronouns have three phonetic forms: <sup>2</sup>



The Vah orthography represents these pronouns as ⟨m̃ɜ⟩ and ⟨m̂ɜ⟩ unless they appear after front vowels in which case they are written as ⟨-ɜ̃ɜ⟩ and ⟨-ɜ̂ɜ⟩.

The Hopley orthography represents these pronouns as ⟨m̃⟩ and ⟨m̂⟩ before consonants. I am not sure how they are written in the other two environments.

The Bertkau and Morgan orthography represents these pronouns as ⟨uñ⟩ and ⟨un̂⟩ except when they appear after front vowels in which case they are written as ⟨-iñ⟩ and ⟨-in̂⟩.

---

<sup>2</sup>from Linda Thayer, personal communication

## 5. Underlying Forms vs. Surface Forms

The authors of these orthographies have taken different approaches to reducing Bassa to a written form. I would like to make a few general remarks about the different orthographic philosophies that they have consciously or unconsciously followed.

One of the basic issues that must be resolved before constructing an orthography is whether to record the underlying or the surface structure of the language. Proponents of underlying structure stress the need to maintain a "constant visual image" so that the reader is encouraged to read for meaningful units rather than for syllable units. Regular phonetic variations of morphemes are not recorded in the orthography since these variations are automatically pronounced by the native speaker.

Proponents of the surface structure approach stress the recording of the language as it is spoken so that all surface variations of morphemes are written. The reader reads syllable by syllable. In the three orthographies discussed in this paper we find examples of both kinds of approaches.

The Vah orthography and Hopley's orthography are basically surface structure orthographies. Indeed, the entire teaching method of the Vah orthography stress the memorization of the alphabet and the practicing of CV syllables so that the student learns to spell out each syllable and subsequently each word.

Bertkau and Morgan's orthography is an attempt to write underlying forms rather than surface forms. That is - ideally, every morpheme is written in one way<sup>only</sup>. In practice, however, it was found that there was some native speaker resistance to writing underlying forms that

were radically different from the surface forms. Consequently, some flexibility in the application of the underlying form theory was required.

One example of writing underlying form in the Bertkau and Morgan system appears in the writing of tone on verb stems. Although the tone of a verb may change in a given tense, the verb's inherent tone is always written:

/cée/ <cée> 'to write': [ ̄o m̄i-ě cée-î ]  
 he will-it write-suffix  
 <̄o munc céein> 'he will write it'

An example of writing surface form in the Bertkau and Morgan system is found in the writing of the third person singular object pronoun. This pronoun appears after the verb and changes depending on the final vowel of the verb stem:

-ε → -a/-a \_\_\_\_\_  
 -o/-o \_\_\_\_\_

There are thus three different vowels for the third person singular pronoun in the orthography, and all three vowels are written in the orthography:

<̄o d̄ie maan> 'he ate it'  
 <̄o b̄ed̄eε> maan 'he had it in his possession'  
 <̄o t̄aa> maan 'he chewed it'  
 <̄o z̄ō> maan 'he asked for it'

At first a single form <̄ε> was written, but there was native speaker resistance to this attempt and so the surface forms <̄ε -a ̄o> are written. In addition, the surface tones of the object pronoun are written.

A third situation exists in the Bertkau and Morgan orthography where neither surface nor underlying form is written, but rather a "neutral form" is written. This neutral form is written for the tone of the specific marker and for the tone of the present tense verbal suffix. The tones of both these affixes vary with the tone of the preceding stem. In order to eliminate unnecessary diacritical marks, no tone marks are written over either of these affixes:

<gbóó>	[gbò-ò]	'the house'
<káó>	[ká-ó]	'the crab'
<dàbóó>	[dàbò-ò]	'the old lady'
<poéin>	[pò-éí]	'throwing'
<dèéin>	[dè-éí]	'setting down'
<báun>	[bá-áú]	'planting'

## Bibliography

- Bertkau, J. (1975). A phonology of Bassa. Unpublished manuscript. The U.S. Peace Corps and The Liberian Ministry of Education. Monrovia, Liberia.
- Bertkau, J. and Morgan, J.W. (1975). À zà bàsòò céédè wuduún (let's read Bassa). The Liberian Ministry of Education. Monrovia, Liberia.
- Bertkau, J. and Thayer L. (1975). À zà bàsòò céédè wuduún, teacher's guide. The Liberian Ministry of Education. Monrovia, Liberia.
- Hobley, J. (1964). A preliminary tonal analysis of the Bassa language. Journal of West African Languages 1.2. 51-55.
- Hobley, J. (1965). Bassa verbal formations. Journal of West African Languages 2.2. 39-50.
- Hobley, J. (19? ). Òe wudu òiè (The New Testament).