A Short Description of Ambai Grammar

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List of abbreviations

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1, 2, 3, 4	1st, 2nd, 3rd, 4th person	3.1
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COMPL	Completed action	3.2.1
DEF	Definite article	4.2.2
DIR	Directional particle	4.6
DL	Dual	3.1
FUT	Future tense	3.2.1
IND	Indefinite article – inanimate	4.2.2
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NOM	Nominalizer	4.2.2
-O	/-o/ suffix	3.2.2
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SG	Singular	3.1
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1. Introduction

Ambai is a language spoken by the people of Japen Island (a small island south to Serui Island) in Cenderawasih Bay, Indonesia, by approximately 10,000 people[1]. However, according to our consultant, Sarah, the younger generation uses mainly Serui Malay for their everyday communication, and (Standard) Indonesian is used for official or educational purposes. This could explain the numerous hesitations about forms expressed by the consultant and the use of many loan words.

Phonemic transcriptions are given between slashes, according to the system outlined below in section 2. Phonetic transcriptions, when appropriate, are given between square brackets in IPA.

2. Phonological Structure

2.1. Consonantal Inventory

The following table summarizes the consonantal inventory of Ambai. Each phoneme is represented by the IPA symbol closest to its regular pronunciation. Variations in pronunciation are listed in parentheses. The [ŋ] can be regarded as an allophone of [n] as explained below.

	Labials	Alveolar	Palatals	Velars	Laryngeals
Plosive	p b	t d		k (g)	
Nasal	m	n		(ŋ)	
Trill		r			
Fricative	ɸ (f)	s	ç (tʃ) ʝ (dʒ)		h (ɦ)

[1] According to Ethnologue: http://www.ethnologue.com/show_language.asp?code=amk

Approximant	w		j		

2.1.1. Variations and Orthographic conventions

The orthographic system which will be used in this paper is largely phonemic, based on the above table. However, in order to facilitate the script, some conventions will be adopted:

- The labial fricative will be denoted as /f/, although the standard pronunciation is [ɸ].
- The laryngeal fricative is sometimes pronounced as [ħ], as in /mehikai/ ('good') , while in while in others other words it is pronounced as [h], as in /kehe/ ('green'). There may be an allophonic conditioning between these two variants, however it was not further analyzed. Conventionally, it will always be denotes as /h/.
- The fricative palatals can also be regarded as post-alveolar fricatives. Moreover, they may be analyzed, under certain circumstances, as palatalized versions of /t/ and /d/, in presence of a deleted vowel /i/ (i.e. [ç]=/ti/, [j]=/di/). However, as this does not correspond to the actual phonetic reality, in this paper they will be denotes as /c/ and /j/. Moreover, in loanwords from Bahasia-Indonesia, these consonants may occur without such an underlying structure (as in /meja/ 'table').
- The fricative approximant [j] will be denoted as /i/ when it is (probably) derived from a vowel and as /y/ when such a derivation cannot be motivated. See also the section on vowels.
- Although voicing is phonemic in the cases of the labial and alveolar plosives, there is no such contrast in case of the velar plosive. However, [g] appears as an allophone after a nasal consonant. Moreover, in loanwords it may appear as a separate phoneme (as /gambar/ 'picture' from Bahasa-Indonesian). Therefore, it will be denoted as /g/ through out the paper, every time it occurs.
- /n/ has three possible allophones: [n] by default, [m] before a labial plosive and [ŋ] in word ends or before a velar plosive. However, /m/ can appear also as an independent

phoneme (as shown below by the minimal pair between /m/ and /n/). To clearly reflect the phonetic situation, an /m/ will be used for [m], /n/ for [n] and /ng/ for [ŋ].

- The /r/ is usually pronounced as a trill, although some alternations may be possible. In all cases, the /r/ sign will be used.

2.1.2. Minimal pairs

The following lists minimal or near-minimal pairs:

- Contrasting alveolars /t/ - /r/ - /s/: /turu/ (4DL) - /ruru/ ('lake') - /suru/ (3DL.OBJ)
- Contrasting plosives /b/ - /t/: /boru/ ('one') - /toru/ ('three). These are also contrasted with /coru/ (3TR)[2].
- Contrasting plosives /b/ - /d/: /borong/ ('mouth') - /dereng/ ('tooth')
- Voicing contrast /b/ - /p/: /ambai/ (name of the language) - /ampa/ ('already')
- /h/ - /m/ - /ng/: /wonohu/ ('my name') - /wonomu/ - ('your name') - /wonong/ ('his name')[3].
- /b/ - /r/: /ubong/ ('nose') - /borong/ ('mouth')
- /m/ - /n/ - /f/: /mini/ ('3SG-kill') - /nini/ ('this') - /fino/ (meaning unclear)
- /w/ - /j/: /wau/ (2SG) - /jau/ (1SG)

The following consonants are attested without a minimal pair:

- /k/ - /mahikai/ ('hello')
- /y/ - /niyabu/ ('split')

[2] As explained above, the /c/ may be seen as a palatalized /ti/ combination, which yields in this case the form */tioru/, which can be seen as the 3rd person /-i-/ infix combined with the trial morpheme /toru/.

[3] Recall that /ng/ is actually an allophone of /n/ appearing in end of words.

2.2. Vowel Inventory

The following table lists the 5 vowels used in Ambai. Each vowel is denoted by the IPA symbol which represents its most regular pronunciation. The center vowel [ə] is a possible variant, as explained below.

	front	center	back
high	i		u
mid	ɛ	(ə)	ɔ
low		a	

There was no evidence showing vocalic length to be phonemic. As will be explained below, in the stress section, length can be predicted as part of the stress pattern.

2.2.1. Variation and orthographic conventions

The exact pronunciation of the vowels may vary. Especially, the mid-low vowels [ɛ] and [ɔ] may be pronounced as mid-high vowels [e] and [o]. To ease the orthography, the signs /e/ and /o/ will be used as the phonemic representations of these vowels. As explained below in the Stress section, unstressed /i/ and /u/ may be pronounced as the approximants /y/ and /w/. However, in such cases the transcription will use the vocalic signs.

A central vowel [ə] may occur in presence of the approximant /y/ (=IPA [j]). This may be regarded as an allophone (or variant) of /e/. Given below are the phonetic and phonemic transcriptions of several such cases:

- [domo:jə] = /domoye/ ‘right’
- [do:wəj] = /dowey/ ‘left’
- [wa:jə] = /waye/ ‘river’
- [adi:jə] = /adiye/ ‘fire’

It should be noted that in all these cases, the /y/ cannot be derived from the vowel /i/, as it does not count as vowel in the stress pattern (explained below).

2.2.2. Minimal pairs

- /o/ - /a/ - /u/: /so/ ('bark') - /sa/ (3PL.OBJ) - /su/ ('smoke' v.)
- /e/ - /a/: /mehikai/ 'good' - /mahikai/ 'hello'
- /i/ - /a/: /ninai/ ('this') - /nanai/ ('that'), /boi/ ('2SG-hit') - /boa/ ('stand', also 'four'[4])
- /u/ - /o/: /bua/ ('white') - /boa/ ('stand')
- /u/ - /e/: /utu/ ('louse') - /etu/ ('seven')
- /u/ - /a/: /suru/ (3DL) - /sura/ ('ten')
- /i/ - /u/: /mini/ ('3SG-kill') - /emuni/ ('3PL-kill')

2.3. Stress and Vowel Length

As a rule, the stress falls on the **penultimate vowel** of a word (presuming it is not monosyllabic). The stress is produced by a lengthening of the stressed vowel, and some change of pitch. As it is regular, the stress is not marked in the phonemic transcription used here.
Mono

Whenever the vowels /i/ and /u/ appear unstressed in a vowel-cluster, they are usually pronounced as the approximants (glides) /y/ and /w/ respectively. For instance, [a:i] is pronounced as [aj] and [a:u] is pronounced as [aw]. The two-vowel pronunciation becomes clearer in a slower speech. In the phonemic transcription used in this paper, these clusters are represented as /ai/ and /au/ respectively.

In general, the stress system (and lengthening of vowels thereof) seems to be systematic, and therefore not phonemic. There is one case where the stress pattern is unexpected: the word

[4] While one could think this pair could represent a minimal pair showing finer vocalic differences, the informant assured these two words are indeed homonyms.

'mother' [ai:] (stress on the ultimate vowel). However, this may be explained as a way to create contrast with the monosyllabic word /ay/ ('tree' or 'salt water')[5].

An /i/ at the end of word change the stress pattern, as in the word [deita:wani] ('know' – the accent specifies a minor stress) or [nju:nahi] ('smell' v.). However, other data seem to point that this final /i/ is a kind of enclitic suffix (as in the sentence /wonohu fino sara-i/ 'my name is Sarah'), so maybe it should not be considered part of the word, and thus the general stress rule is not affected.

In some cases, there is also a secondary stress (as in the word [taramíoa:i] 'hear'), but it is more difficult to establish a rule for it.

2.4. Syllable Structure

The syllables which presented themselves clearly in the material are: V (/i/ 3rd person singular), CV (/wiwing/ 'woman') and more rarely CVC (/bampi/ 'eat') and VC (/antoru/ 1TR, /andi/ verbal particle). The vowels followed with glides may be interpreted as VV syllables (/auru/ 1DL) or CVV syllables (/niumetang/ 'black').

Consonant clusters are not common. The most common clusters are with the semivowels [j] and [w] (either as second or first consonant), which can be regarded as part of a diphthong (as in /niumetang/ = [njumɛtang] or /auru/ = [awru] above).

Other attested combinations are:

- [mp] (/bampi/ 'eat');
- [mb] (/embai/ 'moon');
- [rh] (/romha/ 'come', but the [h] is not clear)

[5] The fact the underlying structure is /ay/ and not /ai/ is proved by compounds built with this word like [a:jboŋ] ("fruit'). It there would be a vocalic /i/ it would be the penultimate vowel and thus stressed.

- [th] (/memutha/ ‘vomit’).

As noted above [ŋg] occurs in the middle of words as a realization of [ŋ].

Vowel clusters exist, with the only restriction that the second vowel might not be a middle vowel (if we exclude the special case /taramioai/ ‘hear’):

	a	e	i	o	u
A	-		/aí/ 'mother'		/wau/ 2nd person sg.
E	/kameai/ 'morning'	-	/imei/ 'play' 2nd person		
I	/kamiai/ 'stone'		-	/taramioai/[6] 'hear'	/niumetang/[7] 'black'
O	/boa/ 'stand'		/kasoi/ 'burn'	-	
U	/bua/ 'white'		/huina/ 'year'		-

As noted above, if the second vowel is a non-stressed [i] or [u] it is pronounced usually as [j] or [w]. If these are not considered as vowel combinations, then the only clear combinations are those with [a] as second vowel.

3. Morphology

3.1. Pronominal System

Ambai presents a rich set of pronouns, differentiating 4 types of numbers, and 4 types of persons. The pronouns can appear free, or as verbal and nominal clitics.

The number category marks distinguishes the size of the referent group:

- Singular - one person (glossed SG);

[6] This might however be interpreted as [taramí oa:i], in view of the light stress on the first [i].

[7] The /i/ is pronounced here as [j], as explained above.

- Dual - two persons (glossed DL);
- Trial - 3 persons (glossed TR);
- Plural - more than 3 persons (glossed PL).

The person categories mark whether the speaker and/or the addressee are included in the group. All the 4 possible combinations are present:

- 1st person: [+ speaker, - addressee]
- 2nd person: [- speaker, + addressee]
- 3rd person: [- speaker, - addressee]
- 4th person: [+ speaker, + addressee][8]

As the 4th person refers always to at least 2 persons, it has no singular form. Examples of its usage are given in section 3.1.2.

The following table shows the full set of free pronouns. The pronouns in parentheses are used exclusively as object pronouns (see section 3.1.1):

person	Singular	Dual	Trial	Plural
1st	jau	auru	antoru	amea
2nd	wau	muru	muntoru	mea
3rd	i	uru (suru)	coru	ea (sa)
4th	--	turu	totoru	tata

Examples of usage of the various pronouns will appear throughout this document. The free pronouns are glossed by the appropriate person category followed by the number category (e.g. 1SG for /jau/).

[8] The 4th person can also be called "inclusive first person' vs. "exclusive 1st person'. However, as the usage of 4th person to indicate this kind of person does occur in some linguistic publications, I prefer to use it as it is more succinct in the glossing.

3.1.1. Object Pronouns

In general, the pronouns are not marked for case, and serve for all grammatical environments (as subjects, objects or after prepositions). However, two pronouns (*suru* and *sa*) designate explicitly a direct object, and thus are specifically marked as accusatives (glossed ACC). This can be exemplified by the following sentences:

1. uru u-minohi
   3DL 3DL-sit
   'They sit.'
2. b-oti suru
   2SG-see 3DL.ACC
   'Look at them.'

But:

3. b-oti i
   2SG-see 3SG
   'Look at him.'

The usge of the object pronoun may not be obligatory, as the following variation shows:

4. j-eti suru/uru kaha
   1SG-see 3DL.ACC/3DL not
   'I didn't see them.'

A special object pronoun is the pronoun /si/. It seems to refer only to inanimate objects (similar to English 'it'), but can appear only after specific verbs. The distribution might be solely phonologically conditioned:

i-fafi warangguai. i-ruai si
1SG-wash plate. 1SG-wash 3SG.ACC
'I wash the plate. I wash it'

5. *b-oti si
   2SG-see 3SG.ACC
   'Look at it.' (not acceptable)

3.1.2. Usage of the 4th Person

As explained above, the 4st person includes both the addressee and the speaker in the group referred to (and therefore has no singular version), while the 1st person excludes the addressee from the group. This can be demonstrated by the following two sentences (the pronominal forms given are the bound forms, explained later):

6. tur-a tur-utang Sara-i
   4DL-go 4DL-ask Sarah-PND
   'Let's go (I and you) and ask Sarah.'
7. aur-ama aur-utang we-wau
   1DL-come 1DL-ask for-2SG
   'We (I and another person) came to ask you.'

However, in a narrative text the inclusive form was used, without an apparent reason:

8. Tat-ampi
   4PL-eat
   'We (I and my family) eat.'

3.1.3. Analysis of the pronominal system

For the most part, each pronoun be analyzed into two separate morphemes: a morpheme denoting the person category and a person denoting the number category.

The picture is complicated by the fact that the 1st and 2nd person marking morphemes have two allophones: one for singular usage and one for non-singular usage. The 3rd person morpheme is one, though it undergoes phonological changes. The 4th person morpheme has no

singular form. Moreover, some fusion between the two morphemes occurs, producing in some cases unexpected results. However, if we abstract away this fusion, we get the following paradigm: (N denotes a nasal element which can be realized as n, m or ø):

person	singular	non-sinuglar	number
1st	j-	aN-	-au (SG)
2nd	w-	m(un)-	-uru (DL)
3rd	-i-		-toru (TR)
4th	--	t(o)-	-ea (PL)

Most fusion occurs in the paradigm of the 3rd person. In analogy to the verbal paradigm (see section 3.2) we can assume that the 3rd person consists of an nfix morpheme *–i-*, and not a prefix. This may explain the great amount of fusion which occurs with it: it causes the deletion of the singular *–au*, and disappears in the presence of the dual *–uru* and plural *–ea*. In the case of the trial, it palatalizes the initial [t] of *–toru* yielding /coru/. Another case of fusion is the irregular merging of the 4th person *t-* with the plural *–ea* yielding /tata/.

The above analysis is especially appealing as some of the above morphemes appear in other portions of the morphosyntactic system. The person morphemes (and especially the singular allophones) appear in the verbal morphology (see below). The number morphemes appear in the numeral system (see below).

3.2. Verbal Morphology

The category of verb can be identified as words which are marked for person, thus forming a predicative unit. The verb is, in fact, a complex consisting of a bound pronoun (normally a prefix) and a verbal stem lexeme. In fact, the bound pronouns are mostly contracted counterparts of the free pronouns (discussed in section 3.1).Thus, the verbal complex already

contains a subject and can act as a minimal predicative unit (a sentence), without any need for a further independent pronoun. The verb is not marked for tense, aspect or mood.

While the pronominal morphemes for the non-singular persons are quite stable, the singular prefixes present a great deal of variation and fusion with the verbal stem. A complete analysis of the different verbal paradigms is presented in section 1. In this section the normal conjugation will be discussed briefly.

All pronouns have two allophones: one for vowel-initial verbal stems, and one for consonant-initial verbal stems. The following table shows both variants. In case of the singular pronouns the vowel-initial pronouns are given to the left followed by the consonant-initial pronouns. The non-singular pronouns merely add a consonant (given in parentheses) before a vowel-initial stem.

person	Singular	Dual	Trial	Plural
1st	j- / i-	au(r)-	anto(r)-	ame(t)-
2nd	b- / Ø-	mu(r)-	munto(r)-	me(t)-
3rd	d- / -i-	u(r)-	čo(r)-	e(t)-
4th	--	tu(r)-	to(r)-	ta(t)-

The 3rd person pronoun for consonant-initial verbs consists of an infix *–i-* which is added *after* the first verbal stem consonant, while the 1st person prefix *i-* is added before the verbal stem (not to be confused with the 3SG independent pronoun). For the 2nd person no prefix is added in these cases, but some vowel alterations may occur in the verbal stem itself (these will be discussed in section 5).

The singular variants share a certain similarity to the person marking morphemes, who were discussed in section 3.1.3 (both have *j-* for 1st person, and *–i-* for 3rd person, the 2nd person is *b-* or *w-*, which are phonetically related).

Below are some examples of the regular conjugation. The pronominal prefix is separated from the verbal stem with hyphens. For brevity, only some of the non-singular possibilities are given. The lexical meaning of the verb stem is given above each verbal paradigm.

	Vowel-initial stems			Consonant-initial stems	
Person	'sleep'	'eat rice'	'stand'	'hit'	'hold'
1st singular	j-ena	j-ampa	j-oa	i-boi	i-faung
2nd singular	b-ena	b-ampa	b-oa	boi	faung
3rd singular	d-ena	d-ampa	d-oa	b-i-oi	f-i-aung
3rd dual	ur-ena	ur-ampa	ur-oa	u-boi	u-faung
3rd trial	cor-ena	cor-ampa	cor-oa	cu-boi	cu-faung
3rd plural	et-ena	et-ampa	et-oa	e-boi	e-faung

3.2.1. Tense, Aspect and Mood

The verb is not conjugated for TAM categories. The tense can be expressed using time adverbials:

8. Ramdena fa, b-oa
   Yesterday DEF 2SG-stand
   'Yesterday you woke up.'

   Moreover, there are some particles which follow the verb which mark Tense/Aspect. The following table is tentative:

form	gloss	function
/ampa/, /-a/	PAST	perfect, past ('already')

/ki/	FUT	future
/andi/ ... /ne/	PROG	progressive, present (see below)
/kiai/	COMPL	completed action

It should be noted that the /andi/ ... /ne/ construction is peculiar: the form /andi/ is not post-verbal but rather pre-verbal and it couples with the post-verbal paricle /ne/ (which may or may not be related to the possessive particle, see section 3.3.2). Moreover, it appears to have other functions that marking present tense, and the /andi/ may actually be a pronominal element, according to the informant. Nonetheless, it does serve in some contexts as expressing present tense or progressive aspect.

Examples:

9. Ne-mu nehi niumetangandi minohi na ninai ne
   POS-2SG cat black PROG 3SG:sit LOC here PROG
   'Your black cat is (sitting) here.'
10. j-ampi ampa
    1SG:eatPAST
    'I ate.'
11. ai foi kasoi ampa
    tree DET 3SG:burn PAST
    'The tree already burned.'
12. ai foi andi kasoi ne
    tree DET PROG 3sg:burn PROG
    'The tree is burning (right now).'
13. i-we guru ki
    1SG-become teacher FUT
    'I will become a teacher.'

14. i-rang diang. feaifa i-ran-ai kiai.
    1SG-cook fish. also 1SG-cook-3SG COMPL.
    "I cook a fish, (till) I finish cooking."

The imperative is not marked in any special way, but rather appears as a 2SG form. Nonetheless, notice the following example[9]:

14. b-ampa ne
    2SG-eat DEF
    'Eat your rice!'

3.2.2. The –o suffix

In some cases, an –o suffix (glossed –O) appears in the verb, without any apparent semantic or syntactic reason.[10] Most probably, this suffix is either conditioned phonologically or has a discourse function. Further research is needed in order to uncover the exact conditioning. As an example, here is a phrase from the frog in which it appears:

8. Arikang mang nei d-eti-o weo ne-o kidowa kontai ria sa fe
   Child boy this 3SG-see-O for POSS-3SG frog also with 3PL.OBJ perhaps
   'The boy watched, perhaps his frog was there.'

3.2.3. Object incorporation

Some verbal complements may be suffixed to the verb, forming one phonological word (i.e. changing the stress pattern, and possibly changing a final /ng/ into an /n/). The following cases were recognized:

[9] This example is cited from Dorina Velhuis' morphosyntactic sketch.

[10] Again, I'm indebted to Dorina Veldhuis' morphosyntactic sketch for illuminating this point for me. She called this phenomenon a "linking o'.

- The 3SG pronoun /i/, serving as an object. For instance, /i-rang/ = 'I cook', but /i-ran-ai/ = 'I cook it'. In this case an [a] is inserted as part of the phonological change and the /i/ is pronounced as a glide, yielding [ira:naj].
- The directional particle /to/ is often integrated into the verb /ra/ ('go'). For instance, /i-ra-to Amsterdam/ = 'I go to Amsterdam', the stress being on the [ra] syllable.
- An peculiar case is the verb stem /-ang/ ('eat') which has incorporated the lexeme /pa/ ('rice' into it), yielding the stem /-ampa/ with meaning 'eat rice'. However, the stem /-ampi/ also exists to denote 'eating'. So /j-ampa/ = 'I eat rice', while /j-ang/ or /j-ampi/ = 'I eat'. Morevor, the form /ampi/ exists also as a nominal form, as in the phrase /mehikai ampi/ = 'Good eating!'

Whether these phonological changes are regular and occur also with other verbal complements is yet to be determined.

3.2.4. Reflexive Verbs

The verb 'to stand' (/-oa/) can appear in a reflexive paradigm (with the independent pronoun serving as an object), with the meaning 'to wake up'. In these cases a particle /bari/ is inserted between the verb and the object. This may be a reflexive particle.

13. j-oa bari jau
    1SG-stand REFL 1SG
    'I wake up.'

Sometimes, a 3rd person object /i/ may sound as if being suffixed to the verb, possibly changing the stress pattern, and the allophonic structure of the verb. For instance, /i-rang/ = 'I

cook' may change to /i-ran-ai/ = 'I cook it'. As can be seen, the allophone /ng/ changes to /n/ as it is not considered any more

3.3. Nominal Morphology

Nouns may only be marked morphologically for possession. Any other category, such as number, gender or case is not marked. For expression of quantity, see section 4.2.1.

The nouns are divided into two groups: 'inalienable nouns' (mostly body parts) vs. 'alienable nouns'. The formers obligatory express a possessor by means of morphological declination, while the later do not decline, and may express possession by a periphrastic expression.

3.3.1. Inalienable Nouns Declination

The inalienable nouns decline by means of suffixes. However, these are used only for singular possessors. Whenever a non-singular possessor is expressed, a periphrastic expression is used (see below), and the noun is declined with the 3SG suffix. This suffix also serves as the 'default' suffix when no specific possession is indicated. Therefore, one can see the 3SG form as the unmarked form. The following table lists the 3 suffixes:

1st SG	2nd SG	3rd SG / No Possession
-hu	-mu	-ng

Examples:

- wonu-hu, wono-mu, wono-ng = my name, your name, his name/a name
- dere-hu, dere-mu, dere-ng = my tooth, your tooth, his tooth/a tooth
- ure-hu , ure-mu, ure-ng = my eye, your eye, his eye/an eye
- nu-hu = my head
- tara-hu = my ear

3.3.2. Possessive Expressions

A periphrastic possessive expression is used in one of three cases:

- Expressing possession for inalienable nouns.
- Expressing non-singular possession for alienable nouns.
- Expressing possession for inalienable nouns followed by an adjective.

In these cases the nouns are preceded by the possessive particle /ne/ (glossed POS), which is declined according to the possessor in the following way:

person	Singular	Dual	Trial	Plural
1st	ne-hu	au-ne	anto-ne	ame-ne
2nd	ne-mu	mu-ne	munto-ne	me-ne
3rd	ne(o)	u-ne	co-ne	e-ne
4th	--	tu-ne	to-ne	ta-ne

For 1SG and 2SG possessors /ne/ is declined by means of the possessive suffixes of the inalienable nouns (see above). In general, there is no suffix for a 3SG person, though an *–o* suffix may appear (see section 3.2.2). In the non-singular cases, a bound pronominal prefix, identical to the verbal prefixes, is attached to /ne/.

Some examples:

14. i-boi ne-hu fiavera
    1SG-hit POS-1SG dog
    'I hit my dog.'

15. u-boi u-nefiavera
    3PL-hit 3PL-POS dog
    'They hit their dog.'

For examples illustrating the usage of the possessor with adjectives, see section 4.2 below.

Just as the non-singular pronoun prefixes precede the /ne/ particle, a noun or a nominal phrase acting as a possessor may precede it. Phonologically the /ne/ particle is attached to the possessed noun.

16. nehi ne-tarang daung
    cat POS-ear leaf
    'The cat's ear.'
17. ne-hu roromang kemanana kaisung katui foi ne-bari
    POS-1SG brother 3SG-steal man small DEF POS-ball
    'My brother steals the child's ball.'

One possible analysis for this examples is to regard the /ne/ particle as being anaphoric to the possessor, and therefore in the 3SG person (so example 16 should be understood literally 'the cat – it's ear').

4. Syntax

4.1. Sentence Structure

Ambai has both verbal and nominal clauses. The verbal clause has normally an SVO order. As was explained in section 3.2, the subject is normally incorporated into a verbal complex. There are no case markings on nouns, but pronouns seems to exhibit a Nominative-Accusative system.

4.2. Nominal Phrases

A noun may be preceded by a possessive expression, as explained above, and followed by an adjective (possibly more than one). A nominal phrase is sometimes terminated by a determiner, whose function is not yet clear. So the general form of a nominal phrase is as following:

NP: Possessor + Noun + Adjective + Determiner

As explained above, if an inalienable noun is followed by an adjective, it can/must be preceded by a separate possessive expression. Some examples shall clarify the different formation. As some of these are isolated nominal phrases no determiner appears:

18. nehi fuba
    cat big
    'a big cat.'
19. ne-hu nehi niumetang
    POSS-1SG cat black
    'My black cat.'
20. tara-hu
    ear-1SG
    'My ear.'
21. ne-hu tara-hu boru
    POSS-1SG ear-1SG two
    'My two ears.'

22. tawai fuba niumetang bei
    snake big black IND
    'A big black snake.'

4.2.1. Expressions of quantity

There is no number marking on the nouns. Quantity may be expressed by another word:

23. ure-hu nei boru
    eye-1SG DEF two
    'My two eyes.'
24. dere-mu wai fihabai
    tooth-2SG DEF many
    'Your teeth.'

4.2.2. Determiners

In context, some determiners may appear after the noun. These may have to do with the topicality/definiteness of the noun, but their exact function is not clear yet. A tentative distribution is given bellow:

function	gloss	transcription and comments
demonstrative	this	/nini/
definite article 1	DEF	/poi/~/fo(i)/ - allomorphs, the former appearing after nouns ending with /ng/, and the second after vowels
definite article 2	DEF	/ne(i)/ - maybe this is actually the possessive particle
indefinite article – animate	INDA	/manei/ = 'one/a'

indefinite article – inanimate	IND	/bei/ = 'one/a'
nominalizer/topicalizer	NOM	/mani/ (see explanation below)
proper names determiner	PND	/-i/

The articles are exemplified below:

25. j-utang-o ne-hu rorowing katui nei
    1SG-ask POSS-1SG sister small DEF
    'I ask my small sister.'
26. Ne-hu fiavera foi d-eti jau
    POS-1SG dog DEF 3SG:see 1SG
    'My dog saw me.'
27. j-eti ne ureng poi na gambar foi
    1SG:see POS-3SG face DEF LOC picture DEF
    'I see his face in the picture.'
28. j-eti ireu bei na meja foi
    1SG-see cloth IND LOC table DEF
    'I see a cloth on the table.'
29. j-eti fiawera manei minohi rurang munu fo
    1SG-see dog INDA 3SG:sit near house DEF
    'I see a dog, (who) sits near the house.'

The word /diang/ ('fish') may receive both the determiner /manei/ and the determiner /bei/. This may suggest that the animacy distinction proposed above is not a sharp one.

A special determiner is /mani/, which appears after a proper names, pronouns, kinship terms, temporal adjectives and verbal clauses . It function is not entirely clear: it seems as if it marks a certain component as being a nominal phrase, and therefore it was dubbed above 'nominalizer'.

However, it may also be understood as a marker of topicality (and see especially example 33 below). When appearing after proper names of persons, it can be exchanged with the suffix /-i/. Here are some examples:

28. i mani denteng.
    3SG NOM beutfiful
    'she is beutiful.'
29. dai mani we guru
    father NOM 3SG:become teacher
    'My father is a teacher.'
30. jau mani niumetang
    1SG NOM black
    'I am black.'
31. David -i/mani niumetang
    David PND/NOM black
    'David is black.'
32. David-i niumetang
    David-PND black
33. komanana mani kerira
    2SG:steal NOM bad
    'Stealing is bad.'
34. b-ampi pa fiabai mani, muraba-ki
    2SG-eat rice much NOM 2SG-be.heavy-FUT
    'If you eat a lot of rice, you will become heavy.'

4.2.3. Nominal Clauses

A nominal clause can be produced by juxtaposing a noun and an adjective (and possibly other predicates).

30. Ne-mu nehi nei niumetang.
    POSS-2SG cat DEF black
    'Your cat is black.'

Also possessive phrases are expressed as nominal phrases with the possessive particle /ne/. Compare the following example to example 16:

29. nehi nei ne-tarang duang.
    cat DEF POS-ear leaf
    'The cat has an ear.'

The position of the determiner seems to discern this from a nominal phrase, but this still needs further investigation.

4.3. Negation

Negation is expressed using the negation particle /kaha/. It appears after the predicate (the verb with its direct complements), usally at the end of the sentence, though its exact position may vary:

31. co-wati tawai fuba niumetang bei kaha na kahofa fo.
    3TR-see snake big black IND not LOC earth DEF.
    'They didn't see a big black snake on the earth.'
32. Aha mani d-urung mereha kaha.
    tomorrow NOM 3SG-drink water not
    'Tomorrow, he will not drink water.'

See also example 4 above.

Negation of imperative sentences is expressed by the negation word /fanai/:

30. roban ay fanai.
    2SG:cut tree not
    'Don't cut the tree!'

A negation of a nominal phrase may be expressed by the word /bereri/, even when a verb is implied. It may be seen as a focal negator:

31. Robert d-uruŋ mereha mae Nadia-i bereri
    Robert 3SG-drink water but Nadia-PND not
    'Robert drinks water, but Nadia – not.'
32. kaisung nini d-eti to ne-o sepatu rorong po, wape kidowa bereri
    boy this 3SG-see DIR POS-3SG shoes inside DEF but frog not
    'This boy looked into his shoes, but the frog wasn't there.'

4.4. Questions

Questions are formed by the question particle /e/ (in one case it was alternating with /wa/), glossed as QUESTION. Below are some examples (notice that the English translation is not a literal one, as there is no wh-movement in the Ambai sentences):

33. B-oti suru e
    2SG-see 3DL.ACC QUESTION
    'Did you see them?' (compare to example 2)
34. Andana fa, boi-sarai we-jau e weo Fani
    Before DEF, 2SG-tell for-1SG QUESTION about Fannie.
    'Did you tell me about Fannie?'
35. b-oti mantei e/wa
    2SG-see who QUESTION
    'Who did you see?'

4.5. Relative Clauses and Verbal Concatenation

There seems to be no special marking of relative clauses:

36. j-eti wo poi d-awtai rurang na uai foi
    1SG-see sun DEF 3SG-rise near LOC mountain DEF
    'I see the sun rising/which rises near the mountain.'

Indeed, one may analyze the above construction not as a relative clause but rather as verbal concatenation or serial verbs. In general, it seems verbs can follow each other without any special marking, especially when one of the verb involved is a speech or motion verb:

37. j-eo tu-wo to romi fo
    1SG-tell 4DL-row DIR farm IND
    'I told (her) that we row to the farm.'

In this context, see also examples 6 and 7 above.

4.6. Locative expressions

The particle /na/ (glossed LOC) serves as a general locative morpheme, preceding a noun denoting a location. To further specify the spatial relations a more specific postposition may be used:

38. j-eti nehi manei minohi na meja arawawi
    1SG-see cat INDA 3SG-sit LOC table under
    'I see a cat sitting under the table.'

See also example 37 above, where /rurang/ does not appear after the noun but rather before /na/.

The preposition /to/ (glossed DIR) denotes a directional locative (similar to English ‘to’). When combined with the verb ‘to go’ (/ra/) it forms one stress unit. It can also combine with a postposition specifying more exact spatial relationships:

39. i-ra-to Amsterdam
    1SG-go-DIR Amsterdam.
    ‘I went to Amsterdam.’
40. fiawera suba nu-ng poi to botori rorong
    dog 3SG:enter head-3SG DEF DIR bottle inside
    ‘The dog enters his head to the bottle.’

5. Appendix A: Ambai Verbal Morphology in Detail

Section 3.2 above presents the following table of the pronominal morphemes of the Ambai verb:

person	Singular	Dual	Trial	Plural
1st	j- / i-	au(r)-	anto(r)-	ame(t)-
2nd	b- / Ø-	mu(r)-	munto(r)-	me(t)-
3rd	d- / -i-	u(r)-	čo(r)-	e(t)-
4th	--	tu(r)-	to(r)-	ta(t)-

The non-singular bound pronouns are quite regular, while the singular bound pronouns present a great deal of variation. Moreover, these pronouns are not only prefixed (or infixed, in the case of the 3rd person), but may also affect the first vowel of the stem. In the following sections, the different verbal paradigms and phenomena are presented. The presentation will concentrate on the singular conjugations, and non-singular conjugation will mostly be given for comparison.

5.1. Vowel-Initial verbs

Verb stems that begin with a vowel have two possible conjugations:

Person	"travel"	"teach"
1st singular	j-ontai	jeu-naung
2nd singular	b-ontai	boi-naung
3rd singular	d-ontai	deu-naung
3rd dual	ur-ontai	ur-anaung
3rd trial	cor-ontai	cor-anaung

3rd plural	et-ontai	et-anaung

The first paradigm is the most usual one: it consists of prefixing a consonantal pronominal morpheme to the vowel-initial stem. In case of the non-singular pronouns, a linking consonant is added between the pronoun and the stem (an /r/ for the dual and trial, a /t/ for the plural).

The second paradigm is much rarer: in this case the first vowel of the stem (/a/) is altered in the singular paradigm: it is fronted in the presence of the 1SG or 3SG prefixes and backed in the case of the 2SG prefix. Moreover, an extra glide is inserted between the prefix and the verbal stem. The /a/ is conserved, however, in the non-singular forms. We should note that the presence of an /a/ itself is not enough to trigger this conjugation paradigm, as the verb /ampa/ shows (see section 3.2).

5.2. Consonant-initial verbs

Verb stems which begin with a consonant present a myriad of different conjugations. In general two processes may occur:

- Adding an /i/ as a prefix (for 1SG) or as an infix (for 3SG).
- Changing the first vowel of the verbal stem.

Different verbs combine these two morphological devices in different ways, yielding sometimes unexpected results. Moreover, certain consonants of the verbal (/s/, /r/ and /k/) stem can undergo independent phonological changes, thus complicating the picture: /k/ is regularly changed into /h/ in the non-singular persons, as will be demonstrated below. /r/ and /s/ have more complicated behavior, which will be explained separately.

The different possibilities are listed below:

5.2.1. Consonantal stems which do not undergo vowel change

In the simplest cases, only the /i/ element is added and the verb does not undergo any vowel change. Below are some examples with different initial verb stem consonants. The verb /ka/ ("take") demonstrates the shift /k/->/h/ in non-singular forms:

Person	"hit"	"wash"	"lay"	"take"	"stay"
1st singular	i-boi	i-fafi	i-watai	i-ka	i-naiai
2nd singular	boi	fafi	watai	ka	naiai
3rd singular	b-i-oi	f-i-afi	w-i-atai	k-i-a	n-i-aiai
3rd dual	u-boi	u-fafi	u-watai	u-ha	u-naiai
3rd trial	co-boi	co-fafi	co-watai	co-ha	co-naiai
3rd plural	e-boi	e-fafi	e-watai	e-ha	e-naiai

Interestingly, in these cases the 2nd person is the morphologically unmarked form, contrary to the cross-linguistic tendency of the 3rd person being unmarked[11]. It should be noted that the /-i-/ infix of the 3SG form is pronounced as a glide [j].

5.2.2. Consonantal stems which undergo vowel change

A vowel change may occur in the 2SG or 3SG forms. It occurs most frequently when the original vowel is /a/ (though this is not a sufficient condition). In the 2SG form, it becomes a /u/ or an /o/. In the 3SG form, it becomes an /i/ or an /e/. The two changes are independent from each other. Here are some examples:

Person	"kill"	"sit/be at"	"be heavy"	"throw"	"be cold"	"become"

[11] See, for instance: Benveniste, Émile, Problèmes de linguistique générale, Vol. 1, Gallimard, Paris 1966, ch. 18, pg. 230-232.

1st singular	i-muni	i-minohi	i-maraba	i-kabi	i-kararutu	i-we
2nd singular	muni	m-u-nohi	m-u-raba	k-o-bi	k-u-rarutu	wo
3rd singular	m-i-ni / m-i-uni	minohi	m-i-raba	k-e-bi	k-i-rarutu	we
3rd dual	u-muni	u-minohi	u-maraba	u-ha	u-hararutu	u-we
3rd trial	co-muni	co-minohi	co-maraba	co-ha	co-hararutu	co-we
3rd plural	e-muni	e-minohi	e-maraba	e-ha	e-hararutu	e-we

In the case of the verb /muni/ ("kill") there are two possibilities for the 3SG form.

5.2.3. /s/ initial stems

/s/ initial stems present additional complications. The /s/ is not stable through out the paradigm and can be replaced by other consonants (notably /w/ or /t/). It seems the 2SG form is especially complicated, as the consultant was unsure of it in several cases.

Here are some verbs of this kind:

Person	"call"	"cry"	"fall"	"be fast"
1st singular	i-sahu	i-sai	i-tawai	i-sahera
2nd singular	wahu	?	tawai	u-kera
3rd singular	sahu	sai	sawai	s-i-kera
3rd plural	e-sahu	e-sai	e-sawai / e-tawai	e-sahera

Notice the alternation between /t/ and /s/ in the verb "fall" (this alternation occurs throughout the non-singular paradigm). The verb "be fast" is especially irregular: it has both

vowel in the 2SG and 3SG forms, and an alternation between /k/ and /h/. Moreover, in the 2SG form the /s/ is deleted completely.

5.2.4. /r/ initial stems

/r/ initial stems present three kinds of complications:

- The /r/ may be palatalized to a /j/ in the 1SG or 3SG forms.
- The /r/ may be dropped in some singular forms, leading to a vowel-initial conjugation[12].
- The first vowel of the verbal stem may change.

Here are some examples of these phenomena:

Person	"cook"	"sing"	"ask"	"go"	"come"	"sharpen"
1st singular	i-rang	i-rohi	i-rutang / i-utang	i-ra	i-rama	i-reisa
2nd singular	rang	rohi	b-utang	ro	roma	b-oisa
3rd singular	j-ang	j-ohi	d-utang	d-a	d-ama	d-eisa
3rd dual	u-rang	u-rohi	u-rutang	u-ra	u-rama	u-reisa
3rd trial	co-rang	co-rohi	co-rutang	co-ra	co-rama	co-reisa
3rd plural	e-rang	e-rohi	e-rutnag	e-ra	e-rama	e-reisa

5.2.5. The verb "to see"

The verb "to see" presents an irregular form of conjugation. The verb stem may be /uati/, but the initial /u/ transforms to a glide [w] when preceded by a vowel (as in all plural forms):

Person	"see"

[12] Diachronically, the /r/ might have been analyzed as part of the non-singular pronominal prefixes, which end with an /r/ before a vowel-initial stem, thus leading to a partial change of the paradigm to a vowel-initial conjugation.

1st singular	j-eti / i-wati
2nd singular	b-oti
3rd singular	d-eti
3rd dual	u-wati
3rd trial	co-wati
3rd plural	e-wati

In the 1st person two forms are possible, though the more regular form is /jeti/.

5.3. Diachronic explanation of the verbal paradigm

The above data gives rise to some diachronic speculations: it seems that originally the 1st and 3rd pronouns were expressed by a fronted vowel (maybe [i] – as is still the case of the 3rd person independent pronoun) and the 2nd person was expressed by a back vowel (maybe [u]). These vowels induced in some case vowel harmony leading to fronting or backing of verbal stem vowels. The 1st person vowel became a /j/ near vocalic environments (as in the vowel-initial verb paradigm or the independent pronoun /jau/) while the 2nd person became /w/ in vocalic environments (as the independent pronoun /wau/), which later on transformed to /b/.

6. Appendix B: text samples

6.1. Text 1 – My studies

1. i-minohi na Ambai j-enaung na Ambai.
   1SG-stayLOC Ambai 1SG-studyLOC Ambai
   "I stayed in Ambai (and) I studied in Ambai."
2. j-ontai-to Urui.
   1SG-travel-DIR Serui.
   "I went to Serui."
3. j-enaung kontai na Urui.
   1SG-study also LOC Serui.
   "I also studied in Serui."
4. j-eunaung kiai j-ontai-to Jaya-Pura.
   1SG-study COMPL 1SG-travel-DIR Jaya-Pura
   "I finished my studying and traveled to Jaya-Pura."
5. i-minohi na Jaya-Pura j-eunaung kontai.
   1SG-sit LOC Jaya-Pura 1SG-study also.
   "I stayed in Jaya-Pura and studied also there."
6. ainana-ya j-eunaung kiai j-ontai-to Mano-Kwari.
   then 1SG-study COMPL 1SG-travel-DIR Mano-Kwari
   "Then I finished my studying and went to Mano-Kwari."
7. i-minohi na Mano-Kwari.
   1SG-sit LOC Mano-Kwari
   "I stayed in Mano-Kwari."

8. j-eunau na Mano-Kwari kontai na universitas Negri-Papua.
   1SG-worked LOC Mano-Kwari also LOC university Negri-Papua.
   ”I teached also in Mano-Kwari at the University of Negri-Papua.”
9. i-minohi ya j-enatu-o kaiwo bei to Jakarta.
   1SG-sit then 1SG-send-O letter IND DIR Jakarta
   “I stayed there and then I sent a letter to Jakarta.”
10. ainana-ya, mano Indonesia nesa e-teio dento.
    then NOM Indonesia they 3PL-say yes
    “Then (the government of) Indonesia said yes.”
    Note: the word /mano/ is a kind of nominalizer similar to /mani/ or a relativizer. However, here it seems to function as a nominal head of a genitive expression, similar to demonstrative in “those of Indonesia”.
11. anto-hari ne-mu kaiwo b-onatu fefe.
    1TR-take POSS-2SG letter 2SG-give IND
    ”We received a letter you sent.”
12. anto-re yo b-ontai to Waranda b-oinaung na
    1TR-say yes 2SG-travel DIR Holland 2SG-study LOC
    Waranda kontai.
    Holland too
    ”We say yes, you will travel to Holland and you will study in Holland too.”
13. ainana-ya defuina bo-nini j-ontai.
    then year this 1SG-travel
    ”Then this year I traveled.”
14. j-ontai na Jakarta to Waranda.
    1SG-travel LOC Jakarta DIR Holland
    ”I traveled from Jakarta to Holland.”
15. j-eunau na-o universitas Leiden.

1SG-study LOC-o university Leiden

"I study at the Leiden university."

16. j-ontai ma i-minohi na Waranda mani e-teio <Oestgeest>.

1SG-travel here 1SG-stay LOC Holland this 3PL-say Oestgeest

"I traveled here and I stay in Holland, (in a place) they call Oestgeest."

17. i-minohi na nanaifa ambori rahidane mani i-ra to katai aunaung.

1SG-stay LOC there so-that everyday this 1SG-go DIR place study

"I stay there and everyday I go to the campus."

6.2. Text 2 – A typical morning in Ambai

1. ahabua kamihai j-oa bari jau

Tomorrow morning 1SG-stand REFL 1SG

"Tomorrow morning I will get up."

2. i-fatan-o ne-hu rorong poi. i-fatang kiai.

1SG-make-O POS-1SG bedroom DEF 1SG-make COMPL

"I organize my bedroom, (till) I finish"

3. i-ra-to refui fo. i-rawa i-nari adia.

1SG-go-DIR kitchen DEF 1SG-go 1SG-make fire

"I go to the kitchen. I go and make a fire."

Note: the word /refui/ which is glossed here as "kitchen" means literally "behind", as the kitchen is behind the house.

4. i-fafi warangguai. i-ruai si.

1SG-wash plate. 1SG-wash 3SG.ACC

"I wash a plate. I wash it."

5. ainanaya i-rang-o romang. i-nari anang.
   then 1SG-cook-O boiling-water 1SG-make sago-pudding
   "Then I boil water. I make a sago pudding."
6. i-rang diang. feaifa i-ran-ai kiai.
   1SG-cook fish. also 1SG-cook-3SG COMPL.
   "I cook a fish, (till) I finish cooking."
7. i-sahu ne-hu dai, ne-hu aí
   1SG-call POS-1SG father POS-1SG mother
   ne-hu roromang tuti ne-hu rorowing.
   POS-1SG brother with POS-1SG sister.
   "I call my father, my mother, my brother and my sister."
8. i-sahu we coru kiai. co-roma.
   1SG-call for 3TR COMPL 3TR-come.
   "I call to them all, and they come."
   Note: We would expect here the usage of /ea/ (3PL) instead of /coru/ (3TR).
9. tat-ampi, ta-tampi kiai.
   4PL-eat, 4PL-eat COMPL.
   "We eat, (till) we finish eating."
   Note: surprisingly the 4th person is used, instead of the 1st person, thus implying the inclusion of the addressee. This might be a narrative technique.
10. j-utang-o ne-hu rorowing katui nei. j-eo tu-wo to romi fo.
    1SG-ask-O POS-1SG sister small DEF. 1SG-tell 4DL-row DIR field DEF.
    "I ask my small sister, that we row to the field."