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Verb morphology of Cashibo

Olive A. Shell

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Autor(es) o recopilador(es):   Olive A. Shell

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Escrito a máquina y pocos apuntes a mano en inglés.

Cinco borradores con el mismo título.

PROLOGO

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dando el reconocimiento debido al recopilador.

VERB MORPHOLOGY OF CASHIBO

0 Cashibo verb forms consist of single words or verb phrases.
The single verb words are first described as to nucleus and

inflectional non-nuclei. The two types of verb phrases are next

described: (1) verb nucleus plus clitic plus inflectional layer,

1 Morphophonemics

and (2) combination of two single-word verbs. The morphology proper
is preceded by a summary of morphophonemic changes, which will be
recognized in the Cashibo material of the paper.

1, Morphophon: There are several occurrences of phonologically definable

assimilation. s + š > s: 'is- + -'šǫ > i'sǫ looking; a- + 'ɔ
or 'ɔ > 'ɔ or ɔ'ɔ or ɔ'ɔ and 'ɔ or 'ɔ + a- > 'ɔɔ or 'ɔɔ : a'bar + ɔ'ɔɔ >
a'bɔ'ɔɔ (I, you) ran yesterday, cɔ'ɔ- + -a > cɔ'ɔɔ (I, you)
sat just now; 'i + ʌ > 'ii: ni- + ʌ'šaa > 'niišaa walked
some days ago; kʷ + ɔ > kɔ: 'kʷa- + -'ɔɔ > kɔ'ɔɔ > kɔ'ɔɔ (I,
you) heard yesterday; V̨ + stop > V̨ʌV̨ + nasal (homorganic
with stop) + stop; Word final V̨ > V̨ʌVn: bo'a carry away,
bo'ampooni (I, you) carried away this morning, bo'anti to
carry away, bo'ankʌ [bo'aŋkʌ] carried away, bo'aʌbo'an
carry away! V̨ + mʌn > (V̨ʌV̨) (mʌn): i'sǫ + -ma i'soma ʌ
i'sǫma not seeing; 'V̨ + V > 'V̨V̨: 'kʷa- + -aší > 'kʷaaší (66)
went; V + ?V > VV: 'tʌ- + ?i'ko- > 'tʌiko- hug around the neck.
The following process occurs with verbs only: V̨ + (bʌr) æ >
VbʌVr: 'kʷa- + -ro- > 'kʷaro- go up (stream), 'kʷa- + bo- >
'kʷa'bo- go down (stream).

2 Single-word verb forms are composed of a nucleus which may
contain of one of two roots, and the non-nucleus which contains
of inflection suffixes.

2.1 Nuclei containing one verb root are of three classes:
transitive, intransitive, and transitive-or-intransitive.

The transitive roots are monosyllabic of types V, VC, CV: ɔ- make, 'is- see, ko- eat fruit; disyllabic with the first syllable stressed, of types 'V.CV, 'VC.CV, 'CV.V, 'CV.CV, 'CV.CVC, 'CVC.CV: 'i.na- row (boat), 'an.kʌ- finish, 'ma.ʌ- sweep, 'ʔa.ro- cook, 'mas.ko- cut (hair) short; disyllabic with the second syllable stressed, of types V!CV, CV.'V, CV.'VC, CV.'CV, CV.'CVC: ʌ.'ci- jerk out, cʌ.'ʌ- mash, ka.'is- choose, bo.'kʌ- tie, bʌ.'tas- cover a hole. Basically disyllabic roots with stress on the second syllable have alternant forms in which the stress is shifted to the first syllable: ~~A~~ ~~~~ ʌ.'ci- ∞ 'ʌci- jerk out , cʌ.'ʌ- ∞ 'cʌʌ- mash , etc.

The intransitive ~~stems~~ roots correspond in form to the transitive roots: monosyllabics of types V, CV, CVC: i̧- cry, kʷa̧- go, niš- be angry; disyllabic with the first syllable stressed, of types 'CV.CV: 'naši- bathe
disyllabic with the second syllable stressed (with allomorphs in which the stress occurs on the first syllable) of types V.'V, V.'CV, CV.'V, CVC!CV: o'i̧- breathe, a'ba- run, cɔ'ɔ- sit, pʌs.'ko- get well.

The transitive-or-intransitive roots are of five groups, determined as follows:(1) by position of stress: transitive 'S.S > intransitive S.'S, as in 'ino- pass (something) i'ho- pass, 'mano- forget (something) ma'no- forget, 'onʌ- hide something) > o'nʌ- hide (oneself), (2) by position of stress and by nasalization: intransitive 'S.S > transitive S.'S₅ as in

'boko- <u>pile</u> <u>up</u> > bo'ko̞- <u>pile</u> <u>up</u>(something), 'šoa- <u>scratch</u> >
s̬o'a̰- <u>scratch</u> (<u>someone</u> <u>else</u>), (3) by nasalization:
intransitive S.'S > transitive S.'S̬, as in ci'ki- <u>go</u> <u>out</u>
> ci'kḭ- <u>set</u> <u>free</u>, na'nʌ- <u>dive</u>, <u>sink</u> > na'nʌ̰ <u>sink</u> (<u>something</u>)
ra'ka- <u>lie</u> <u>down</u> > ra'ka̰ <u>lay</u> (<u>something</u>) <u>down</u> (4) by nasalization
and suffix -a-: intransitive S.'S > transitive S.'S̬ + a-, as in
sa'no- <u>be</u> <u>dry</u> (<u>of</u> <u>natural</u> <u>juice</u> <u>or</u> <u>sap</u>) sa'no̰a̰- <u>dry</u> (<u>leaves</u>,
<u>etc</u>.), to'to- <u>be</u> <u>dry</u> (<u>after</u> <u>becoming</u> <u>wet</u>) to'to̰a- <u>dry</u> (<u>soil</u>,
<u>etc</u>.), (5) by stem formatives suffixed to neutral roots, -ki-
intransitive and -ka- transitive: 'kʌki- <u>call</u> <u>loudly</u> > 'kʌka-
<u>call</u> (<u>someone</u>) <u>loudly</u>, mʌ'biski- <u>cut</u> <u>one's</u> <u>hand</u> > tʌ'biska-
<u>behead</u> (<u>someone</u>).

Nuclei containing two roots are formed from a verb root
to which is prefixed the first syllable of a noun or
attributive: ma- (from mas'ka <u>head</u>) + 'nʌa- <u>tie</u> > 'manʌa-
<u>tie</u> <u>one's</u> <u>head</u>, ~~ba- (from 'baboso elbow) ~ 'taskʌ hi~~
š̬ʌ- (from 'š̬ʌki <u>corn</u>) + 'mʌʌ- <u>touch</u> > 'š̬ʌmʌʌ- <u>shell</u> <u>corn</u>,
ma- (from ma'ẖami <u>high</u>) + 'ni- <u>stand</u> 'mani- <u>stand</u> <u>on</u> <u>top</u>.

A few verb nuclei of three or more syllables have
been observed which cannot yet be broken down into constituents.
From the patterns revealed by this analysis these must be
combinations of roots rather than single-root nuclei:
bʌ'ka'šaro- <u>tie</u> <u>in</u> <u>knots</u>, ʔa'tišanki- <u>sneeze</u>.

2.2 The non-nuclei consist of suffixes. Two internal distribution classes are formed by suffixation: independent verb forms and dependent verb forms.

2.2.1 Independent verb forms contain three orders of suffixes. Suffixes of order 1 are stem formatives (-t-~n-), -k-. (-t-~-n-) occurs with alternant forms of disyllabic stems in which stress is shifted from the second to the first syllable (section 2.1), and with certain monosyllabic stems. -t- follows all purely oral stem vowels of the disyllabic stems and a few monosyllabic stems, as in a'ba- > 'aba- + -t- > 'abat- run, 'ko- + -t- > 'kot- eat fruit; -n- follows all nasalized vowels of the di-syllabic stems and of monosyllabic roots: o'i̧- > 'oin- breathe, kʷa̧- > kʷan- go; -k- occurs with basic roots to form the remote continuative stem: a'ba > a'bak- run

Suffixes of order 2 denote tense of the verb.

-i̧ and -í present tense, -i̧ with 1st and 2nd persons, -í with 3rd person, follow present tense stem formative -t-~-n- ~ 0: where present, and otherwise they follow the root immediately: 'isi̧ (I, you) see, 'isí (he) sees, 'inai̧ (I, you) row, 'naní (he) places. Suffixes -i̧ and -í also follow stem formative -k- of the remote continuative: kʷʌ'ʌnki̧ (I, you) used to like, a'baki̧ (he) used to run.

-ia present progressive, used in 3rd person only, is suffixed to present tense stems: 'kotia (he) is eating fruit,

'k^{w}abotia (he) is going down (stream).

-a immediate past, with 1st, 2nd and 3rd persons,
suffixed to basic root forms: 'isa (I, you) saw, 'isaší
(he) saw, ʔo'naa (I,you) learned, ʔo'naaší (he) learned.

-'ɔ̧ɔ̧ past-of-yesterday, with 1st, 2nd and 3rd persons,
suffixed to basic root forms: pi'ɔ̧ɔ̧ (I,you) ate yesterday,
pi'ɔ̧ɔ̧ší (he) ate yesterday.

-ʌ'šaa time between yesterday and long ago, with 1st,
2nd and 3rd persons: *suffixed to basic root forms* 'isʌšaa (I, you) saw some days ago,
'isʌ'šaaší (he) saw some days ago.

-akʌ remote past, with 1st, 2nd and 3rd persons,
suffixed to basic root forms: o'boakʌ (I, you) came down
long ago, 'bʌakʌší (he) brought long ago.
-t ~ 0 imperative (-t follows all roots ending with purely oral vowels,
0 with all other roots): 'ʔat dʌʔit)! 'k^{w}a go!   *x suffixed to basic root forms*
Suffixes of order 3 denoting person of the subject, are
-0, -ší and -ša. They follow suffixes -a, -'ɔ̧ɔ̧, -ʌ'šaa and
-akʌ of order 2.

-0 denotes 1st and 2nd persons: a'baa (I, you) ran,
'bʌakʌ (I, you) brought long ago.

-ší denotes 3rd person: 'ʔaakʌší (he) did long ago

-ša Its special significance is not clear. It is used with the 3rd person only, replacing suffix -ší: a'baʌ'šaaša (he) was running some days ago, ko'ɔɔša (he) was eating fruit yesterday.

~~2.2.2 Dependent verb forms contain two orders of suffixes. Suffixes of order 1 are -ti infinitive formative, suffixed to basic stems buʌʌ-ti to hurry, 'ʔaroti to cook, and the time element morphemes -a, -', -y, 'saa, -ak of section 2.2.1.~~

2.2.2' Dependent verb forms contain Three ~~two~~ orders of suffixes. Suffixes of order 1 are 0 (zero) and the time element morphemes $_\wedge$ of section 2.2.1: -a, -'ɔɔ, ʌ'šaa, -akʌ bʌ'nʌO- hurry, bi'ɔɔ-- got yesterday, 'piakʌ- ate long ago.

Suffixes of order 2 are -ti, -kʌ, ~~-s or -so~~. -ti is the infinitive formative, and follows 0 of order 1: bʌ'nʌti to hurry, 'ʔaroti to cook.

-kʌ completive, may follow 0, 'ɔɔ, ʌ'šaa,*-ak : 'kikʌ said, told, bi'ɔɔnkʌ obtained yesterday, 'kʷaʌšaankʌ gone some days ago

Suffix of order 3 is -š ∞ -šɔ,

~~-s or -so~~ incompletive. -š is used when the principal verb is intransitive, -šɔ when the principal verb is transitive, time morpheme -a always appears with allomorph -š if no other

time morpheme is present: pi'aš or pi'šo eating, on eating, 'piišaaš eating some days ago, 'piakʌš eating long ago. 'pinušo will have eaten *have eaten*

3 Verb phrases are of two types: (1) those which are composed of a verb root or roots, followed by one or more clitic, to the last of which are suffixed the inflectional elements, (2) those which are composed of two inflected verb words.

3.1 Verb phrases of type 1 include one or more clitics. Clitics which occur only with verbs are:

-ka- reflexive: 'mʌniə-ka- arrange oneself, 'mʌʌa-ka- hit oneself;

-ro- 'up': 'kʷa-ro- go up (stream), 'bi-ro- pick up;

-'bo-∞-pa- down (-'bo- with transitive roots, -pa- with intransitive roots): kʷa!bo- go down (stream), bo'ampa- carry away down;

-mi- causative: ?ʍ'na-mi- teach (cause to learn), 'is-mi- show (cause to see)

-'kasma-∞-kas'ma- non-ability: 'kʷa-ro-'kasma- not able to go up (stream), 'kʷa-kas'ma- not able to hear;

-šo- benefactive: '?a-šo- do for (someone),

bo'a̧-ṣ̌ǫ- <u>carry</u> <u>away</u> <u>for</u> (<u>someone</u>):

-tʌ'kʌ- repetitive: 'is-tʌ'kʌ- <u>see</u> <u>again</u>, '?a-š̌on-tʌ'kʌ-
<u>do</u> <u>again</u> <u>for</u>;

-a'na̧- reciprocal: 'mʌʌ-a'na̧- <u>hit</u> <u>each</u> <u>other</u>,
'noi-a'na̧- <u>be</u> <u>friends</u>;

-ki'a̧- ∞ -bi'a̧- <u>while</u> <u>going</u> (-ki'a̧- with intransitive
roots,-bi'a̧- with transitive roots): a'ba-ki'a- <u>go</u> <u>running</u>,
'? -bi'a- <u>leave</u> <u>behind</u> (<u>go</u> <u>leaving</u>);

-k^Wa'ci̧- ∞ -bʌ'ci̧- <u>while</u> <u>coming</u>, <u>come</u> <u>from</u> (-k^Wa'ci̧-
with intransitive roots, -bʌ'ci̧- with transitive roots):
'k^Wai-k^Wa'ci̧- <u>come</u> <u>from</u> <u>playing</u>, 'pi-bʌ'ci̧- <u>come</u> <u>from</u>
<u>eating</u>;

- ba'i- continuative <u>a</u> <u>long</u> <u>time</u> <u>during</u> <u>the</u> <u>day</u>
a'ba-ba'i- <u>run</u> <u>much</u>, 'ka-ba'i- <u>say</u> <u>much</u>;

-po'ǫ- ∼ -pǫ- <u>this</u> <u>morning</u> (-po'ǫ- with stems of more *than*
than one syllable, -pǫ- with stems of one syllable, *the vowel of which is*
lengthened):
a'ba-ki'am-po'ǫ- <u>went</u> <u>running</u> <u>this</u> <u>morning</u>, k^Wa'am-pǫ-
<u>go</u> <u>this</u> <u>morning</u>

-ka̧- subjective, <u>the</u> <u>others</u> (<u>of</u> <u>a</u> <u>specified</u> <u>group</u>)
a'ba-▮ki'am-po'ǫ-ka̧- <u>the</u> <u>others</u> <u>to</u> <u>have</u> <u>gone</u> <u>running</u> <u>this</u>

morning, 'čoka-ka- the others to be washing;

-ki'i̧- ~ -ki̧- help (-ki'i̧- with stems of more than one
syllable, -ki̧- with stems of one syllable): 'čoka-ki'i̧- help
to wash, 'ni-ki̧- help to walk;

pa'm-

-'nʌ- at night, during the night: '?a-nʌ- do at night,
bʌ'sʌna-nʌ- smoke (meat) during the night;

(-'nǫ̧- word final, -no- with suffixation)

-'nǫ ~ -no- future, going to: cɵ'ɔ-'nǫ (I, you, he)
am, are, is going to sit, bʌ'tas-no-ṣǫ covering afterwards;

-'ta̧- significance undetermined (used in imperative
verb forms, and before suffixes -kʌš ~ -kʌṣǫ in dependent
verb forms): kʷan-'ta̧ go!, pi̧-tankʌṣǫ having eaten

Clitics which occur with verbs and with other major
distribution classes are:

-i'ši- just, only: co'o-i'ši- be just sitting
'?ee-i'ši- devour (just swallowing);

-'ira- much, very well : ?o'na̧-ira- know very well,
a'ba-ira- run well; pi̧-ira- eat well

-ra'co- diminutive : 'maʌ-ra'co- sweep a little,
a'ba-ra-'co- run a little;

-'ci- potential, also can (used only with suffix -a):

a'ba-'ci- also can run, ?a-'ci- also can do;

-pa'i̧-   -pa̧- first (-pa'i̧- with stems of more than
one syllable, -pa̧- chiefly, but not exclusively, with
stems of one syllable): cɔ'ɔ-pa'i̧- sit first, 'pi-pa̧- ea
eat first. *Verb phrases of type 1 may result in independent or dependent verb forms, according to inflectional suffixation.*

3.2 Verb phrases of type 2 contain two inflected verb
words, *or the first verb word may be substituted by a Type 1 phrase.* the first naming the action and the second denoting
word or Type 1 phrase names
the person. The first verb word may have present tense,
infinitive, completive or incompletive inflectional *'n?*
suffixation (with possible clitics -ma or -bi) *or clitic*. The second
verb word is some form of the verb '?a- do or '?i- be.
There are two forms of the verb to be in the present tense,
'?a- and '?i-, probably indicating state and location
respectively; the 3rd person formed from the stem '?a- is
'?ikʌ rather than *'?ai̧.

Verb phrases with present tense forms are as follows:
Present tense verb + be (?i- form) indicates progressive
action; the time element is denoted in the verb be: 'parani
'?ii̧ (I, you) am, are fooling (someone), 'abati ?i'ɔɔ ʃi̧ (he)
was running yesterday

(?i-be)

Negative present tense verb + be indicates negative
past tense in the active voice; the time element is denoted

in the verb be: 'abati-ma ?ia (I, you) did not run just
now, 'abati-ma '?iišaa (I, you) did not run some days ago,
'abati-ma '?iakʌší (he) did not run long ago.

Present tense verb followed by clitic -bi + be (?i-
form) indicates a state of readiness to do something. The
time element is denoted in the form of the verb be 'abati-bi
'kana ?ii (I, you) am, are ready to run, 'abati-bi ka
?i'ɔɔší (he) was ready to run yesterday.

Verb phrases with infinitive forms are as follows:
Infinitive + be indicates either potentiality or future
time. The time element is denoted in the verb be. Negative
potentiality is indicated in the infinitive. ra'ankati ?ai
(I, you) can launch, 'piti ?i'ɔɔší (he) could eat yesterday,
'kati ?ai (I, you) shall, will say, 'kʷanti ?ikʌ (he) will
go.

Infinitive followed by clitic -bi + verb be (?i- form)
indicates obligation, necessity, or wish; the time element is
denoted in the verb be: pʌs'ko'ti-bi ka '?ií may he be
better soon, 'kʷanti-'bi kana '?iakʌ (I should have gone
long ago.

Verb phrases with completive forms are as follows:
Completive form + be forms passive verb phrases. The
present and immediate past elements are indicated in the

verb <u>be</u>. The time elements of yesterday, some days ago,
and remote past are indicated in the completive form.
ʔo'naʍʍkʌʔai̧ (<u>I</u>, <u>you</u>) <u>am</u>, <u>are</u> <u>taught</u>, mapokʌ 'ʔiaší (<u>it</u>)
<u>was</u> <u>just</u> <u>covered</u>, bi'ɔɔnkʌ ʔikʌ (<u>it</u>) <u>was</u> <u>obtained</u> <u>yesterday</u>.

Negativized completive + present tense of <u>be</u> forms the
negative past tense in the active voice; the time element is
denoted in the completive form: 'ankʌkʌ-ma ʔai̧ (<u>I</u>, <u>you</u>)
<u>did</u> <u>not</u> <u>finish</u>, a'bɔɔnkʌ-ma ʔikʌ (<u>he</u>) <u>did</u> <u>not</u> <u>run</u> <u>yester</u>-
<u>day</u>.

Verb phrases with incompletive forms are as follows:
Negativized incompletive forms + imperative forms of <u>be</u> and <u>or</u>
<u>do</u> result in negative imperative verb phrases: -š + <u>be</u> forms
the intransitive phrase, -šo + <u>do</u> forms the transitive phrase.
'naši'aš-ma ka 'ʔit <u>do</u> <u>not</u> <u>bathe</u>, 'ʔaro'šo-ma ka 'ʔat <u>do</u> <u>not</u>
<u>cook</u>.

Verb phrases with -no form are as follows: -no + imperative
of <u>do</u> forms Ist person plural imperative: 'barinoⁿka 'ʔat <u>let</u>
<u>let</u> <u>us</u> <u>look</u> <u>for</u>, 'nasi+noⁿka 'ʔat <u>let</u> <u>us</u> <u>bathe</u>.

Negativized -no + 3rd person present tense of <u>be</u> results
in a deferential command: 'baka-'no-ma ka 'ʔií <u>please</u> <u>open</u>,
ʔi'na-no-ma ka 'ʔií <u>please</u> <u>give</u>.

VERB MORPHOLOGY OF CASHIBO

~~(tentative description)~~

Olive A. Shell

Summer Institute of Linguistics

VERB MORPHOLOGY OF CASHIBO
Olive A. Shell
Summer Institute of Linguistics

1. Morphophonemics
2. Criteria of verb form class
3. Stem formation
4. Inflectional or outer layer suffixes
5. Inflected forms in verb phrases

1. Morphophonemics.

1.1. Universal morphophonemics.

$$s + \check{s} > s$$
'is- + -'šǫ > i'sǫ <u>looking</u>

$$t + t > t$$
'kot- + -ti > 'koti <u>to eat fruit</u>

$$n + n > n$$
'bokon- + -nat- > 'bokonat- <u>pile at one side</u>

$$a + ('ɔ \sim '\varrho) > '(ɔ \sim \varrho); \ '(ɔ \sim \varrho) + a > '(ɔ \sim \varrho)$$
a'ba- + -'ǫǫ > a'bɔ'ǫǫ (I, <u>you</u>) ran yesterday
cɔ'ɔ- + -a >cɔ'ɔɔ (<u>I</u>, <u>you</u>) <u>sat just now</u>

$$'i + \wedge > 'ii$$
ni- + -ʌ'šaą > 'niišaą <u>walked some days ago</u>

$$\underset{\cdot}{V} + \text{stop} > V \sim \underset{\cdot}{V} + \text{nasal (homorganic with stop)}$$
+ stop. Word final $\underset{\cdot}{V} > \underset{\cdot}{V} \sim Vn.$

'boan- (stem proper) > bo'a̧- (stem alternant)

                      carry away

bo'a̧a̧ší (he) carried away   bo'ampooni̧ (I, you) carried
                            away this morning

bo'anti to carry away   bo'ankʌ [bo'aŋkʌ] carried away

bo'a̧ ~ bo'an carry away!

$$\underset{\centerdot}{V} + m \sim n > (V \sim \underset{\centerdot}{V})(m \sim n)$$

i'so̧ + -ma > i'soma ~ i'so̧ma not seeing

$$'\underset{\centerdot}{V} + V > '\underset{\centerdot}{V}V$$

'kʷa̧- + -aší > 'kʷa̧aší (he) went

$$k^W + ɔ > kɔ$$

'kʷa̧- + -'ɔ̧ʔ > *kʷɔ'ɔ̧ʔ > kɔ'ɔ̧ʔ (I, you) heard
                              yesterday

1.2. Restricted morphophonemics

Verb suffix -i̧ ~ -i̧ may be lost or fade into silence in quick or careless speech.

'kʷa̧aší (he) went may become 'kʷa̧aš

'kaina 'kʷati̧ do you hear may become 'kaina 'kʷat

V + ʔV > VV in verb forms only

'tʌ- + ʔi'koti > 'tʌi'koti to hug around the neck

$\underset{\centerdot}{V}$ + (b ~ r) of derivational suffixes > Vb ~ Vr

'kʷa̧- + -ro- > 'kʷaro- go up (stream)

'kʷa̧- + -bot- > 'kʷabot- go down (stream)

~~2. Criteria of verb form class~~

2.

Verb~~s~~ *are defined as* ~~the words are~~ words which occur with inflectional suffixes to indicate tense-aspect, and person of the subject.

3. Stem formation.

Verb stems ~~will be described~~ *are* ~~derived~~ as simple and derived.

~~3. Simple stems~~

3.1. Simple stems may be of one or two syllables. The patterns of simple stems may be arranged in three groups; monosyllabic stems, disyllabic stems ending with an open syllable, ~~and~~ disyllabic stems ending with a closed syllable. The stress always occurs on the first syllable.

3.1.1. Monosyllabic stems are of these patterns: V, CV, VC, CVC.

'ɔ-	make	'ki-	say
'is-	see	'ʔoṣ-	sleep
'kot-	eat fruit	'kʷan-	go

In ~~this pattern~~ *group* each stem ending with t or n has a stem alternate: stem-final t is dropped and stem-final n appears as nasalization of the preceding vowel. The stem proper is used in all present tense forms; ~~and~~ the stem alternate, with one exception, 4/ *is used* in all other cases; ~~it is used~~ 1) as the root of derived stems, 2) in forming compounds, ~~and~~

3) as simple stem for all inflectional suffixation except present tense suffixes. The stem alternates for 'kot- and 'kʷan- above are 'ko- and 'kʷa- respectively.

3.1.2. Disyllabic stems ending with an open syllable are of these patterns: V.CV, VC.CV, CV.V, CV.CV, CVC.CV.

'ina- row (boat)   'ankʌ- finish
'maʌ- sweep   'ʔaro- cook
'maško- cut (hair) short .

3.1.3. Disyllabic stems ending with a closed syllable are of these patterns: V.VC, V.CVC, CV.VC, CV.CVC, CVC.CVC.

'oin- breathe   'ʌčit- jerk out
'kais- choose   'bʌtas- cover a hole
'pʌškot- get well .

In this group each stem has a stem alternant as in 3.1.1. However, in addition to the changes in 3.1.1, stress is shifted from the first to the second syllable. The stem alternants for the above examples are:

o'i-   ʌ'či-
ka'is-   bʌ'tas-
pʌš'ko-

3.2. Derived stems.

These include transitive and intransitive contrasting stems, simple stems with general affixation, and

compound stems.

3.2.1. Transitive and intransitive contrasting stems.

The types of simple stems of section 3.1 apply
equally to transitive and intransitive verbs. However, when
verbs may be semantically both transitive and intransitive,
the transitive and intransitive forms are differentiated
in the following five ways:

1) by suffixes -ki- (intransitivizing) and -ka- (tran-
sitivizing)

'kʌki- <u>call loudly</u> : 'kʌka- <u>call (someone)
loudly</u>

to'kanki- <u>(water) to be
in waves</u> : to'kanka- <u>make waves in
water</u>;

mʌ'biski- <u>cut one's hand</u> : tʌ'biska- <u>behead (someone)</u>.

2) by dropping final t from intransitive stems
to form transitive stems

'inot- <u>pass</u> : ⟶ 'ino- <u>pass (something)</u>;

'manot- <u>forget</u> : ⟶ 'mano- <u>forget (something)</u>;

'onʌt- <u>hide oneself</u> : ⟶ 'onʌ- <u>hide (something)</u>.

3) by the addition of -n to intransitive stems to
form transitive stems

'boko- <u>pile up</u> : ⟶ 'bokon- <u>pile up (something)</u>;

'šoa- <u>scratch</u> : ⟶ 'šoan- <u>scratch (someone else)</u>.

4) by replacing final t of intransitive stems by n to
form transitive stems

*(This is a combination
2 + 3 above)*

'čikit- go out : ———>'čikin- set free;

———>'nanʌt- dive, sink : ———>'nanʌn- sink (something);

———>'rakat- lie down : ———>'rakan- lay (something) down.

5) by ~~the addition of vowel~~ infixing -a- after the final vowel of intransitive stems to form transitive stems

'šanon- be dry (of natural juice or sap); >ša'noan- dry (leaves, etc.);

———>toton- be dry (after becoming wet); ,to'toan- dry (soil, etc.).

3.2.2. Stems derived by affixation. Stems may be derived by both prefixes and suffixes.

~~3.2.2. prefixion~~

Some of the prefixes are obtained from the names of the parts of the body, others from positional attributives, and still others are general.

'nʌa- tie	'manʌa- tie one's head	(maš'ka head)
'?ikot- hug	'tʌikot- hug around neck	(tʌ'ša neck)
'taška- hit	ban'taška- hit one's elbow	(babošǫ elbow)
'taran- roll	kʷʌ'taran- hem	(kʷʌ'bi edge)
'ni- stand	'mani- stand on top	(ma'nami high)
'mʌʌ- touch	'šʌmʌʌ- shell corn	('šʌki corn)

¶ There is a great variety of derivational suffixes.

-ki- verbalizer, used with nouns and attributives. This has the same form as -ki- of section 3.2.1 but different usage. Here it is used with free noun or attributive stems to form verb stems. In section 3.2.1 it is used with verb roots.

o'pi <u>pretty</u> : ————→ o'piki- <u>be pretty</u>;

ʔakʌsa <u>done in like</u> ʔakʌsaki- <u>be done in like</u> <u>manner</u> : ———— <u>manner</u>.

-kat- has reflexive significance.

'mʌniɔ- <u>arrange</u> : ——→ 'mʌniɔkat- <u>arrange oneself</u>;

'mʌʌ- <u>touch, hit</u> : ——→ 'mʌʌakat- <u>hit oneself</u>.

-a- verbalizer, used with noun stems

'sipo <u>jail</u> : ————→ 'sipoa- <u>put in jail</u>;

'bari <u>sun</u> : ————→ 'baria- <u>place in the sun</u>.

-kʌt- gives a passive voice concept to an active voice stem.

'nipat- <u>drop</u> : ————→ 'nipakʌt- <u>fall</u>;

'tʌntonat- <u>bend</u> 'tʌnto'nakʌt- <u>be bent, bend</u>
(something) : <u>oneself</u>;

'cɔɔt- <u>sit</u> : ————→ cɔ'ɔkʌt- <u>be seated, live</u>.

-ro- <u>up</u>.

'kʷan- <u>go</u> : ————————→ 'kʷaro- <u>go up (stream)</u>;

'ni- <u>stand</u> : ————→ 'niro- <u>stand up</u>;

'bi- <u>grasp, get</u> : ——→ 'biro- <u>pick up</u>.

-bot- ~ -pat- <u>down</u> (-bot- with intransitive verbs,
-pat- with transitive verbs).

'kʷan- <u>go</u> : ————————→ 'kʷabot- <u>go down (stream)</u>;

'bana- <u>talk</u> : ————→ 'banabot- <u>go down talking</u>;

'boan- <u>carry away</u> : ——→ bo'ampat- <u>carry away down</u>;

'toka- <u>break, cut</u> : ———'tokapat- <u>break or cut, letting</u>
<u>the pieces fall down</u>.

-nat⁴ at one side or going around.

'bokon- pile up : ————> 'bokonat- pile at one side;

'boin- carry by : ————> 'boinat- carry around;

'sinan- think : ————> 'sinanat- repent.

-mi- causative.

'?onan- learn, know : ——>?o'nami- teach;

'is- see : ————> 'ismi- make one see, show;

'boan- carry away : ——> bo'ami- send.

-'išit- just, only.

'cɔɔt- sit : ————> cɔ'ɔišit- be just sitting;

'?ee- swallow : ——> '?eeišit- devour.

-'ira- much, very well.

'?onan- learn, know : ——>?o'naira- know very well;

'abat- run : ————> a'baira- run well;

'pi- eat : ————> 'piira- eat well.

-'kasma- ∼ -'kasmat- non-ability, cannot
(-'kasma- with intransitive verbs, -'kasmat- with
transitive verbs).

'kʷaro- go up (stream) : 'kʷaro'kasma- cannot go up
(stream);

'kʷat- hear, under- kʷa'kasmat- cannot hear,
stand : cannot understand;

'bi- grasp, get : ————> bi'kasmat- cannot grasp,
cannot get.

-šon- benefactive.

'abat- <u>run</u> : ⟶ a'bašon- <u>run for (someone)</u>

'boan- <u>carry away</u> : ⟶ bo'ašon- <u>carry away for (someone)</u>;

'ʔa- <u>do, make</u> : ⟶ 'ʔašon- <u>do for (someone)</u>.

-'tʌkʌn- <u>repetitive</u>,

'is- <u>see</u> : ⟶ 'istʌkʌn- <u>see again</u>;

'ʔašon- <u>do for</u> : ⟶ ʔa'šontʌkʌn- <u>do again for</u>.

-'anan- <u>reciprocal</u>,

'mʌʌ- <u>touch, hit</u> : 'mʌʌanan- <u>hit each other</u>;

'noi- <u>follow, love</u> : 'noi'anan- <u>be friends</u>.

-'kian- ∾ -'bian- <u>ambulatory, while going</u>
(-'kian- with intransitive verbs, -'bian- with transitive verbs),

'abat- <u>run</u> : ⟶ a'ba'kian- <u>go running</u>;

'inot- <u>pass</u> : ⟶ i'no'kian- <u>go passing by</u>;

'ʔʌn- <u>leave</u> : ⟶ 'ʔʌ'bian- <u>leave behind</u>;

'ino- <u>pass (something)</u> 'ino'bian- <u>go passing by (something)</u>.

-nʌt- <u>at night, during the night</u>,

'ʔa- <u>do, make</u> : ⟶ 'ʔanʌt- <u>do at night</u>;

bʌ'sʌnan- <u>smoke (meat)</u> : ⟶ bʌ'sʌnanʌt- <u>smoke during the night</u>.

-'kʷacin- ∾ -'bʌcin- <u>ambulatory, come from</u>
(-'kʷacin- with intransitive verbs, -'bʌcin- with transitive verbs),

'kʷai- <u>play, laugh</u> : → 'kʷai'kʷacin- <u>come from</u>
<u>playing</u> ;

'ʔoš- <u>sleep</u> : ——→ 'ʔošk^wacin- <u>come from sleeping</u> ;

'pi- <u>eat</u> : ——→ 'pibʌcin- <u>come from eating</u> ;

'ʔašan- <u>fish with</u> ʔa'ša'bʌcin- <u>come from fishing</u>
<u>poison</u> : ——→ <u>with poison</u>.

-'bait- continuative, <u>a long time during the day</u>,

'abat- <u>run</u> : ——→ a'ba'bait- <u>run much</u> ;

'ni- <u>walk</u> : ——→ 'ni'bait- <u>walk much</u> ;

'ka- <u>say</u> : ——→ 'ka'bait- <u>say much</u>.

-'poon- ∼ -pon- time element, <u>this morning</u>,
(-'poon- with stems of more than one syllable, -pon-
with stems of one syllable)

a'ba'kian- <u>go</u>
<u>running</u> : a'baki'ampoon- <u>went running</u>
<u>this morning</u> ;

kʷan- <u>go</u> : ——→ kʷa'ampon- <u>go this morning</u>.

-kan- subjective, <u>the others</u> (of a specified group).

a'baki'ampoon- <u>go</u> : —→ a'baki'ampo'onkan- <u>the others</u> ;
<u>running this morning</u> : →<u>to have gone running this</u>
<u>morning</u> ;

'ʔi- <u>be here, be there</u> : 'ʔikan- <u>the others to be here,</u>
<u>there</u> ;

čoka- <u>wash</u> : ——→ 'čoka'kan- <u>the others to be</u>
<u>washing</u>.

-'kiin- ∼ -kin- <u>help</u> (-'kiin- with stems of more
than one syllable, -kin- with stems of one syllable).

'čoka- <u>wash</u> ;   ⟶ 'čoka'kiin- <u>help to wash</u> ;

'abat- <u>run</u> ;   ⟶ a'ba'kiin- <u>help to run</u> ;

'ni- <u>walk</u> ;   ⟶ 'nikin- <u>help to walk</u>.

-'racot- diminutivizer, <u>a little</u>.

'maʌ- <u>sweep</u> ;   ⟶ 'maʌ'racot- <u>sweep a little</u> ;

'abat- <u>run</u> ;   ⟶ a'ba'racot- <u>run a little</u>.

-'ci- potential, <u>also can</u> (used in the immediate past).

'abat- <u>run</u> ;   ⟶ a'ba'ci- <u>also can run</u> ;

'ʔi- <u>be here, there</u> ; ʔi'ci- <u>also can be here, there</u> ;

'ʔa- <u>do, make</u> ;   ⟶ ʔa'ci- <u>also can do, make</u>.

-'pain- ∼ -pan- <u>first</u> (-'pain- with stems of more than one syllable, -pan- chiefly, but not exclusively, with stems of one syllable).

'cɔɔt- <u>sit</u> ;   ⟶ cɔ'ɔ'pain- <u>sit first</u> ;

'šoi- <u>roast</u> ;   ⟶ 'šoi'pain- <u>roast first</u> ;

'pi- <u>eat</u> ;   ⟶ 'pipan- <u>eat first</u>.

-tan- significance undetermined (used in imperative verb forms, and before suffix -kʌš ∼ -kʌšǫ in subordinate verb constructions).

'bi- <u>grasp, get</u> ; bi'tạ <u>grasp, get(it)</u>! ;

'kʷan- <u>go</u> ;   ⟶ kʷan'tạ <u>go</u>! ;

'pi- <u>eat</u> ; pi'tankʌšǫ <u>having eaten</u>.

3.2.3. Compounds.

———— Compounds are of two groups according to (the) form-
class of ~~the entire~~ constituents.

3.2.3.1. attributive or noun (simple or complex stem
forms) + verb

'šoa- itching + 'mʌʌ- touch > 'šoa'mʌʌ- scratch ;

'kata layer + 'ni- stand, > 'katani- tie, place
          throw   in layers ;

'katarabʌ two + 'ɔ- make > 'katarabʌɔ- make in
    layers >   two layers, or twist
                              into rope ,

3.2.3.2. verb + verb

'kʷai- play + 'ni- walk > 'kʷaini- go playing ;

'ʔikot- hug + 'boin- carry > ʔi'koboin- carry by
          by >   hugging ;

'sinan- think (redupl.) si'nasinan- be thinking and thinking .

3.2.4. Stems of more than three syllables,

A few verbs other than those types indicated under
derived forms may be of three or more syllables. From the
general pattern it appears that these ~~seem to~~ are derived
rather than simple stems.
bʌ'ka'šaro- tie in knots ;
ʔa'tišanki- sneeze .

4. Inflectional or outer layer suffixes.

There are four layers (or (relative positions) ~~orders~~ of inflectional
suffixes in Cashibo. One layer of suffixes or more may
be added to the initial inflectional suffixes.

4.1. First layer suffixes

This layer of suffixes is presented in two groups. Group one suffixes are added to all stem norms, group two suffixes are added to stem norms of section 3.1.2 and to stem alternates of sections 3.1.1 and 3.1.3.

4.1.1. Group one suffixes.

-i̧ ~ -i̧ present tense (-i̧ occurs with the first and second persons, -i̧ with the third person).

'is- _see_ : ⟶ 'isi̧ (I, _you_) _see_ ;
'nan- _place_ : ⟶ 'nani̧ (I, _you_) _place_;
'ina- _row_ : ⟶ 'inai̧ (I, _you_) _row_;
'naʌ- _cultivate_ : ⟶ 'naʌi̧ (I, _you_) _cultivate_;
'ʔiat- _carry over one's shoulder_ : ⟶ 'ʔiati̧ (I, _you_) _carry over shoulder_;
'naiš- _scrape out_ : ⟶ 'naiši̧ (I, _you_) _scrape out_.
The corresponding third person forms are:
'isi̧ (_he_) _sees_, 'nani̧ (_he_) _places_, etc.

-ia present progressive time-aspect, used in the third person only.

'kot- _eat fruit_ : ⟶ 'kotia (_he_) _is eating fruit_ ;
'kʷabot- _go down (stream)_ : ⟶ 'kʷabotia (_he_) _is going down (stream)_.

4.1.2. Group two suffixes.

-a immediate past.

'is- _see_ : ⟶ 'isa (I, _you_) _saw_;

'ʔonan- <u>learn, know</u> ⟶ ʔoʼnaa̧ (<u>I</u>, <u>you</u>) <u>learned,</u>
<u>knew</u>.

-'ǫʔ <u>past-of-yesterday</u>.
'pi- <u>eat</u> : ⟶ piʼǫʔ (<u>I</u>, <u>you</u>) <u>ate yesterday</u>,
'abat- <u>run</u> : ⟶ aʼbɔʼǫʔ (<u>I</u>, <u>you</u>) <u>ran yesterday</u>.

-ʌ'šaa̧ <u>time between yesterday and long ago</u>.
'is- <u>see</u> : ⟶ 'isʌšaa̧ (<u>I</u>, <u>you</u>) <u>saw some days</u>
<u>ago</u>;

'abat- <u>run</u> : ⟶ aʼbaʌ'šaa̧ (<u>I</u>, <u>you</u>) <u>ran some</u>
<u>days ago</u>;

čoka- <u>wash</u> : ⟶ 'čokaʌ'šaa̧ (<u>I</u>, <u>you</u>) <u>washed</u>
<u>some days ago</u>.

-akʌ <u>remote past</u>.
'obot- <u>come down</u> : ⟶ oʼboakʌ (<u>I</u>, <u>you</u>) <u>came down</u>
<u>long ago</u>;

ʔ'bʌ- <u>bring</u> : ⟶ 'bʌakʌ (<u>I</u>, <u>you</u>) <u>brought long</u>
<u>ago</u>.

-ki̧ ～ -kí̧ <u>remote continuative</u> (-ki̧ with first and
second persons, -kí̧ with the third person).
'kʷʌʌn- <u>like</u> : ⟶ kʷʌ'ʌnki̧ (<u>I</u>, <u>you</u>) <u>used to like</u>;
'abat- <u>run</u> : ⟶ a'bakí̧ (<u>he</u>) <u>used to run</u>.

-'nǫ ～ -no- <u>future</u>, <u>going to</u> (-'nǫ in principal
verb, phrase finally, -no- when further suffix is added).
'cɔɔt- <u>sit</u> : ⟶ cɔ'ɔ'nǫ (<u>I</u>, <u>you</u>, <u>he</u>) <u>am</u>, <u>are</u>
<u>is going to sit</u>;

'bari- <u>look for</u> : ⟶ 'bari'nǫ (<u>I</u>, <u>you</u>, <u>he</u>) <u>am</u>, <u>are</u>, <u>is going to look for</u>.

'bʌtas- <u>covering</u> (<u>hole</u>) : ⟶ bʌ'tasnoşǫ <u>covering afterwards</u>.

-t ∼ -# second person imperative (-t with stems not ending with a consonant or nasalized vowel; to those ending in consonant or nasalized vowel no segmental phoneme is added. Final syllables, whether stressed or unstressed, are high in tone.)

'ʔa- <u>do</u> : ⟶ 'ʔat <u>do</u> (<u>it</u>)! ;

'kʷaro- <u>go up</u> (<u>stream</u>) : 'kʷarót <u>go up</u>! ;

'is- <u>see</u> : ⟶ 'is <u>see</u>! ;

'abat- <u>run</u> : ⟶ a'bat <u>run</u>! .

-ti infinitive indicator.

'bʌnʌt- <u>hurry</u> : ⟶ bʌ'nʌti <u>to hurry</u> ;

bokon- <u>pile up</u> : ⟶ bo'konti <u>to pile up</u> ;

'ʔaro- <u>cook</u> : ⟶ ʔaroti <u>to cook</u>.

4.2. Second layer suffixes.

-şí third person suffix; follows time suffixes -a, -'ʔʔ, -ʌ'şaa and -akʌ of the previous section.

'ʔonan- <u>know</u>, <u>learn</u> : ⟶ ʔo'naaşí (<u>he</u>) <u>learned just now</u> ;

'pi- <u>eat</u> : ⟶ pi'ʔʔşí (<u>he</u>) <u>ate yesterday</u> ;

'is- <u>see</u> : ⟶ 'isʌ'şaaşí (<u>he</u>) <u>saw some days ago</u> ;

'ʔa- <u>do</u> : ⟶ 'ʔaakʌşí (<u>he</u>) <u>did long ago</u>.

-kʌ completive

'ki-   <u>say</u>, <u>tell</u> : ⟶ 'kikʌ <u>said</u>, <u>told</u>;

'bi-   <u>grasp</u>, <u>get</u> : ⟶ bi'ɔɔnkʌ <u>got yesterday</u>;

'kʷan- <u>go</u> : ⟶ 'kʷaʌšaankʌ <u>gone some days</u>

<u>ago</u>.

4.3. Third layer suffixes.

-ṣ̌ ～ -ṣ̌ǫ continuative (-ṣ̌ is used when the
principal verb is intransitive, -ṣ̌ǫ when the principal
verb is transitive. Time morpheme -a always appears with
suffix -ṣ̌ if no other _⁀Time morpheme is present.).

'pi- <u>eat</u> : ⟶ pi'aṣ̌ <u>eating</u>, <u>on eating</u>,

pi'ɔɔṣ̌ <u>on</u>, <u>while eating</u>

<u>yesterday</u>,

piišąaṣ̌ <u>eating some days ago</u>,

'piakʌṣ̌ <u>eating long ago</u>;

'cɔɔt- <u>sit</u> : ⟶ cɔ'ɔṣ̌ǫ <u>on</u>, <u>while sitting</u>;

'kʷan- <u>go</u> : ⟶ 'kʷanoṣ̌ǫ <u>going afterwards</u>;

'rʌt- <u>cut down</u> : ⟶ rʌ'tankʌṣ̌ǫ <u>having cut down</u>.

-ṣ̌a Its significance is not clear, but it probably
indicates action or state continued for some time. In
principal verbs it is used with the third person only,
replacing suffix -ṣ̌į̇.

'abat- <u>run</u> : ⟶ a'baʌšąąša (<u>he</u>) <u>ran</u>, <u>was</u>

<u>running some days ago</u>;

kot- <u>eat fruit</u> : ⟶ ko'ɔɔša (<u>he</u>) <u>ate</u>, <u>was eating</u>

<u>fruit yesterday</u>;

'bari- <u>look for</u> : ⟶ 'barikʌša <u>one time when looking</u>

<u>for</u>.

-a <u>that</u> <u>which</u> (used with suffix -kʌ)

'pi- <u>eat</u> : ⟶ 'pikʌa <u>that</u> <u>which</u> <u>was</u> <u>eaten</u>,

'ʔʌn- <u>leave</u> : ⟶ 'ʔʌnkʌa <u>that</u> <u>which</u> <u>was</u> <u>left</u>,

'ʔaro- <u>cook</u> : ⟶ 'ʔarokʌa <u>that</u> <u>which</u> <u>was</u> <u>cooked</u>.

4.4. Fourth layer suffixes.

-ma ~ -mį̃ negative suffix (-ma follows suffixes -i̧, -no-, -ti, -kʌ, -š̩ ~ -š̩ǫ; -mį̃ follows suffixes -i̧[12], -ki̧ ~ -ki̧).

'kʷan- <u>go</u> : ⟶ 'kʷanima (<u>I</u>, <u>you</u>) <u>do</u> <u>not</u> <u>go</u> ;

'abat- <u>run</u> : ⟶ 'abatima (<u>I</u>, <u>you</u>) <u>do</u> <u>not</u> <u>run</u>;

'ʔinan- <u>give</u> : ⟶ ʔi'nanoma meaning obscure, probably, <u>not</u> <u>going</u> <u>to</u> <u>give</u>;

'kʷan- <u>go</u> : ⟶ 'kʷantima <u>not</u> <u>to</u> <u>go</u> ;

'paʌn- <u>be</u> <u>drunk</u> : ⟶ pa'ʌnkʌma <u>not</u> <u>drunk</u>;

'kʷaro- <u>go</u> <u>up</u> (<u>stream</u>): 'kʷaro'aš̩ma <u>not</u> <u>going</u> <u>up</u> ;

'kʷan- <u>go</u> : ⟶ 'kʷanimį̃ (<u>he</u>) <u>does</u> <u>not</u> <u>go</u> ;

'abat- <u>run</u> : ⟶ 'abatimį̃ (<u>he</u>) <u>does</u> <u>not</u> <u>run</u>;

'kʷʌʌn- <u>like</u> : ⟶ kʷʌ'ʌnkimį̃ (<u>I</u>, <u>you</u>, <u>he</u>) <u>did</u> <u>not</u> <u>like</u> ,

-bi[13] <u>ready</u> <u>to</u>, <u>ought</u> <u>to</u>, <u>right</u> <u>now</u>.

'pi- <u>eat</u> : ⟶ 'piibi <u>ready</u> <u>to</u> <u>eat</u>,
pitibi <u>must</u> <u>eat</u>,
pi'aš̩bi <u>upon</u> <u>eating</u>;

'kʷan- <u>go</u> : kʷa'nibi <u>ready</u> <u>to</u> <u>go</u>,
'kʷantibi <u>have</u> <u>to</u> <u>go</u>,
kʷa'š̩ǫbi <u>going</u> <u>right</u> <u>now</u>.

5. Inflected forms in verb phrases.

Verb phrases are composed of two inflected verbs ██████, the first naming the action and the second denoting the person. The first verb ████ may have present tense inflection, or -ti, -kʌ, -š̌ ∼ -š̌o̯ suffixation (with possible further qualifying suffixes -ma, -bi etc.). The second verb ████ is some form of the verb 'ʔa- <u>do</u> or 'ʔi- <u>be</u>. There are two forms of the verb <u>to be</u> in the present tense, 'ʔa- and 'ʔi-, probably indicating state and location respectively; the third person form██ from the stem 'ʔa- is 'ʔikʌ rather than *'ʔai̯.

5.1. Verb phrases with present tense forms.

5.1.1. Present tense verb + <u>to be</u> (ʔi- form) indicates progressive action. The time element is denoted in the verb <u>to be</u>.

'paran- <u>to fool</u> (someone) → 'parani ʔii̯ (<u>I</u>, <u>you</u>) <u>am</u>, <u>are</u> <u>fooling</u> (<u>someone</u>)

'čoka- <u>wash</u> → 'čokai ʔia (<u>I</u>, <u>you</u>) <u>was</u>, <u>were</u> <u>washing</u> <u>just now</u>

'abat- <u>run</u> → 'abati ʔi'ọọš̌í (<u>he</u>) <u>was</u> <u>running yesterday</u>

'abati 'ʔii'š̌aaš̌í (<u>he</u>) <u>was</u> <u>running some days ago</u>

'abati 'ʔia'kʌš̌í (<u>he</u>) <u>was</u> <u>running long ago</u>.

5.1.2. Negative present tense verb + <u>to be</u> indicates

negative past tense in the active voice; the time element
is denoted in the verb <u>to</u> <u>be</u>. It appears that these forms
indicate progressive action, paralleling the affirmative
forms in the preceding section. Other negative past tense
forms will be noted in section 5.3.2.

'abat- <u>run</u> : ⟶ 'abatima ?ia (<u>I, you</u>) <u>did not</u>
<u>run just now</u>,

'abatima '?iišąą (<u>I, you</u>) <u>did</u>
<u>not run some days ago</u>,

'abatima '?iakʌ (<u>I, you</u>) <u>did</u>
<u>not run long ago</u>.

<u>5.1.3.</u> Present tense verb suffixed by -bi + <u>to</u> <u>be</u> (?i-
form) indicates a state of readiness to do something. The
time element is denoted in the form of the verb <u>to</u> <u>be</u>.

'abat- <u>run</u> : ⟶ 'abatibi 'kana¹⁴ ?iį (<u>I</u>) <u>am</u>
<u>ready to run</u>,

'abatibi ka '?iašį (<u>he</u>) <u>was</u>
<u>ready to run just now</u>,

'abatibi ka ?i'ɔɔšį (<u>he</u>) <u>was</u>
<u>ready to run yesterday</u>,

'abatibi ka '?iišaašį (<u>he</u>) <u>was</u>
<u>ready to run some time ago</u>,

'abatibi ka '?ia'kʌšį (<u>he</u>) <u>was</u>
<u>ready to run long ago</u>.

5.2. Verb phrases with -ti.

5.2.1. -ti form + verb <u>to</u> <u>be</u> indicates either potentiality or future time. The time element is denoted in the verb <u>to</u> <u>be</u>. Negative potentiality is also indicated in the -ti form.

ra'anka- <u>launch</u> :   ra'ankati ʔai̯ (<u>I</u>, <u>you</u>) <u>can</u> <u>launch</u>;

šʌ'iki- <u>whistle</u> ⟶ šʌ'ikiti ʔikʌ (<u>he</u>) <u>can whistle</u>;

'kʷan- <u>go</u> : ⟶ 'kʷanti ʔia (<u>I</u>, <u>you</u>) <u>could go</u>;

'pi- <u>eat</u> : ⟶ 'piti ʔi'ɔ̞ɔ̞ (<u>I</u>, <u>you</u>) <u>could eat</u> <u>yesterday</u>;

'ka- <u>say</u> : ⟶ 'kati ʔai̯ (<u>I</u>, <u>you</u>) <u>shall</u>, <u>will</u> <u>say</u>;

'kʷan- <u>go</u> : ⟶ 'kʷanti ʔikʌ (<u>he</u>) <u>will go</u>

'kʷantima ʔai̯ (<u>I</u>, <u>you</u>) <u>cannot go</u>;

'ʔa- <u>do</u> : ⟶ 'ʔatima ʔai̯ (<u>I</u>, <u>you</u>) <u>cannot</u> <u>do</u> (<u>it</u>).

5.2.2. -ti form suffixed by -bi + verb <u>to</u> <u>be</u> (ʔi- form) indicates obligation, necessity, or wish. The time element is denoted in the verb <u>to</u> <u>be</u>.

'ño'mʌʌ- <u>work</u> ⟶ 'ño'mʌʌ'tibi ka 'ʔi̯ (<u>he</u>) <u>ought</u> <u>to work</u>;

'pʌškot- <u>recuperate</u>:pʌš'ko'tibi 'kamina ʔii̯ <u>may you</u> <u>be better soon</u>;

'is- <u>see</u> : ⟶ 'isti'bi ka ⌐ʔiaši (<u>he</u>) <u>ought</u> <u>to have seen</u>;

'ʔoš- <u>sleep</u> : ⟶ 'ʔošti'bi kana ʔii̯ (<u>I</u>) <u>ought</u> <u>to sleep</u>;

'kʷan- <u>go</u> : ⟶ 'kʷanti'bi kana 'ʔiakʌ (<u>I</u>) <u>should have gone long ago</u>,

5.3. Verb phrases with -kʌ.

5.3.1. -kʌ form + verb <u>to be</u> forms passive verb phrases.
The present and immediate past elements are indicated in
the verb <u>to be</u>. The time elements of yesterday, some days
ago, and remote past are indicated in the -kʌ form.

  ʔoʼnami- <u>teach</u> ; ⟶ ʔoʼnamikʌ ʔai̧ (<u>I</u>, <u>you</u>) am,
           <u>are taught</u> ;

  ʼis- <u>see</u> ; ⟶ ʼiskʌ ʔikʌ (<u>he</u>) <u>is seen</u> ;

  ʼmapo- <u>cover</u> ; ⟶ ʼmapokʌ ʼʔiaší (<u>it</u>) <u>was</u>
          <u>just covered</u> ;

  ʼbi- <u>grasp, get</u> ; ⟶ biʼɔɔnkʌ ʔikʌ (<u>it</u>) <u>was</u>
          <u>got yesterday</u> ;

  ʼʔinan- <u>give</u> ; ⟶ ʔiʼnaʌʼšaankʌ ʔikʌ (<u>it</u>)
          <u>was given some days ago</u> ;

  ʼbi- <u>grasp, get</u> ; ⟶ ʼbia✓ ʔikʌ (<u>it</u>) <u>was got</u>
          <u>long ago</u> .

5.3.2. Negativized -kʌ + present tense of verb <u>to be</u>
forms the negative past tense in the active voice. The
time element is denoted in the -kʌ form.

  ʼankʌ- <u>finish</u> ; ⟶ ʼankʌkʌma ʔai̧ (<u>I</u>, <u>you</u>)
          <u>did not finish</u> ;

  ʼabat- <u>run</u> ; ⟶ aʼbakʌma ʔikʌ (<u>he</u>) <u>did</u>
          <u>not run</u> ;

        ⟶ aʼbɔʼɔɔnkʌma ʔikʌ (<u>he</u>)
          <u>did not run yesterday</u> ;

  ʼankʌ- <u>finish</u> ; ⟶ ʼankʌama✓ ʔikʌ (<u>he</u>) <u>did</u>
          <u>not finish long ago</u> .

FOOTNOTES

1/ Cashibo is classified as a member of the Panoan group of languages, of the jungle region of Peru. The Cashibo speakers live along or near the Aguaitía River and some of its tributaries. The data for this paper were obtained in the city of Lima from a Cashibo youth, Gregorio Estrella, and in two field trips to the tribe.

2/ The Cashibo phonemes are: stops p, t, k, k^W, ?; affricated stops c, č; fricatives b, s, š, ṣ; nasals m, n, ñ; vibrant r; vowels i, e, a, ɔ, o, ʌ and the nasalized counterparts i̧, ȩ, a̧, ɔ̧, o̧, ʌ̧ According to present analysis, stress and tone are both phonemic. Stress is indicated by a vertical stroke above the line, immediately preceding the stressed syllable. Tone is indicated by an acute accent over the vowel of high tone, the contrasting phonemic low tone being unmarked. Phonemic stress in syllables is accompanied by non-phonemic high tone, the final syllable in a stress contour being non-phonemically low in tone, unless phonemic high tone is indicated. V symbolizes any vowel, low dot syllable division, square brackets phonetic writing.

3/ There is no distinction in the verb forms to indicate number or gender. In the examples the English pronouns are placed in parenthesis to indicate the person of the verb.

4/ With derivational suffix -nat- of section 3.2.2.2 the stem proper is used, instead of the stem alternate.

'k^{W}aní (he) goes :———> 'k^{W}ani'ma (he) does not go

'abatí (he) runs :———> 'aba'tima (he) does not run.

13/ There are some other uses of this morpheme besides the ones given, but with meaning obscure.

14/ One of the forms 'kana (first person), 'kamina (second person), ka (third person), according to the person of the subject, appears in almost all sentence constructions. These forms are separate from the verb words, but are inserted in the examples where they regularly appear between the two words of a verb phrase.

15/ Theoretically, the form would be *'biakʌkʌ instead of 'bia.

16/ Theoretically, 'ankʌakʌma instead of 'ankʌama.

17/ Literally, "I am going to look for; do it!" etc.

¶ 5/ The first four suffixes given; ~~~~ -ki-, -kat-; -a- and -kʌt-, have been found only adjacent to the root. The other suffixes do not occur in any fixed order. Suffixial morphemes ending with a closed syllable have an alternate form as do the verb roots of sections 3.1.1 and 3.1.3.

¶ 6/ The significance of morpheme -a- preceding -kat- is undetermined.

¶ 7/ From suffix -kʌ; for a fuller description of this see section 4.2.

¶ 8/ The vowel of the one-syllable stem becomes a geminate cluster with stress on the second vowel when suffix -pon- is added.

¶ 9/ These suffix forms are unnasalized phrase-medially.

¶ 10/ Suffix -ki̧ has other significance in subordinate verb constructions, e.g.

'kʷai'samatan- not ──> 'kʷai'samatan'ki̧bi although
want to play : ──> (I) do not want to play ;
is- see , '?a- do : ──> is'kima ka '?at do it ──>
without looking .

¶ 11/ Word final t is unreleased.

¶ 12/ -ma may also follow suffix -i̧. -i̧ loses its high tone and there is a perturbing of the stress pattern of the word as a whole, causing the stress to fall on alternate syllables.

1.1.5 Before back rounded vowels, k^w ~~loses its labialization,~~ →K
e.g.

k^wa- go ~~plus~~ + -oo (yesterday time-ending) ~~becomes~~ → ko'o^{n}o^n *$k^wo'o^no^n$ →
went yesterday.

The a of the stem ~~obviously~~ is first assimilated to o, and then
influences the k^w, reducing it ^{to}simply k. (we have found no occurrence of k^w before vowels o or u)

1.1.6 Nasalization of ~~one~~ a stressed vowel ~~usually~~ seems to carries over to a fol-
lowing contiguous vowel, e.g.

'k^wa^n- go ~~plus~~ + -aší^n becomes '$k^wa^na^n$ší^n **he went.**

Special morphophonemics

1.2 ~~morphophonemics:~~ The following phonological proces es occur
only in some verb forms.

1.211 The final vowel may be dropped or made into silence
in the third person suffix of past tenses, e.g.

'$k^wa^na^n$ší^n **he went** may become '$k^wa^na^n$š.
Less frequently, other final vowels are dropped, in quick or careless speech.
'Kaina 'kwati' may become 'Kaina 'kwat do you hear

$V + ?V → VV$

1.2.2 ~~word medial glottal stops do not occur in complex v~~
~~verb forms. When~~ two or more stems are united ~~as in a~~
~~compound or a secondary~~ derivative, all but initial glot-
tal stops of the resultant complex form are dropped, e.g.

tI'ša ^{neck} ~~plus~~ + ?i'kuti $^{to hug}$ → 'tIi'kuti **to hug around the neck.**
~~final consonants drop and~~

1.2.3 Verb stems lose nasalization of the final vowel when secondary derivational
suffixes not beginning with a stop are added. Nasalization in the ~~form of a nasal~~
consonant ~~is retained before stops~~ E.g.

'k^wa^n - go +ru → k^waru (go up/stream) ~~bu'anti to carry away   ba'ampati to carry away down~~

2 Criteria of Verb Form Class

Verb-like words are ~~determined by the criteria of~~
~~form. They are~~ words which occur with inflectional suffix~~es~~
~~tion~~ to indicate tense-aspect, and person of the subject.

1.2.4 When stressed one-syllable derivational or inflectional suffixes are added to
simple verb stems of one syllable, stress is retained on the suffix and dropped from the
stem in the resultant compound, e.g.
                                                              On suf stem
-'bu -suffix indicating down
'K^wanti to go k^wa'buti to go down

3 Stem Formation

~~3.1~~ The stem of the verb is ~~obtained from the infinitive~~ ~~ending~~ form; ~~the infinitive~~ ending -ti is dropped, and the remaining stem is the verb stem. ~~Phonological~~ process 1.1.4 has applied in those infinitives in which the -ti ending is preceded by n. It is understood that the underlying stem contains a nasal vowel, whose nasalization appears here as n before the -ti ending. Verb stems may ~~di~~ also be obtained by dropping the -kš ending from the perfect participle form.[7] In most examples of this p per the infinitive forms are given first.

Verb stems are of two classes, simple and ~~complex~~ _derived_.
Simple stems are those which are composed of one morpheme; complex stems contain more than one morpheme.

Simple stems

3.1 Simple stems may be of one syllable, of two syllables with stress on the second syllable, or of two syllables with stress on the first syllable.

3.1.1 Stems of one-syllable morphemes may follow any one of these patterns: V, CV, VC, CVC, e.g.

'u-~~ti~~ to come[3]   'šī-~~ti~~ to smell
'is-~~ti~~ to see   ~~'niš-ti to be disturbed~~
       'ʔuš-ti to sleep

3.1.2 Stems of two-syllable morphemes with stress on the second syllable, are of these patterns: V'CV, V'CVC, V'VC, CV'V, CV'VC, CV'CV, CV'CVC, CVC'CV, CVC'CVC, e.g.

I'či-ti to jerk out   I'rīn-ti to light (something)
u'in-ti to breathe   'čī'ī-ti to mash
ka'is-ti to choose   bu'kī-ti to tie
bī'tas-ti to cover a hole   pīš'ku-ti to get well
bīn'žan-ti to hang (something)

V 'V C   CV . V

u'ia-ti̬ to breathe   čɪ'ɪ-ti̬ to mash

CV . VC
ka'is-ti̬ to choose   bu'kɪ-ti̬ to tie   CVCV

CV'CVC
bɪ'tas-ti̬ to cover a hole pɪš'ku-ti̬ to get well   CVC 'CV

CVC.CVC
bɪn'taň-ti̬ to hang (something)

It will be noted that some of these patterns , viz.,
those of stems ending with consonants, are found only be-
cause of the appearance of a nasal consonant before the
stop of the infinitive ending, in place of a nasalized stem
vowel, according to section 1.1.4.

3.1.3 Stems of two-syllable morphemes, with stress on the
first syllable, are of these patterns: 'V.CV,   'VC.CV,
'CV.V,   'CV.CV,   'CVC.CV,   e.g.

'i.na-ti to row (a boat)   'an.kɪ-ti to finish
'ma.ɪ-ti to sweep   '?a.ru-ti to cook
'maš.ku-ti to cut short(hair)

3.1.4 A few verb stems are ~~simply~~ the same as noun~~s~~ or attributive
stems with verb ~~derivational or~~ inflectional endings added.
These then become ~~simple~~ verb stems, and follow the patterns
of stems as in sections 3.1.2 or 3.1.3 above. None have been
found of pattern 3.1.1. e.g.

i'mɪ night   i'mɪ-ti̬ night to be falling
'?uku cough   '?uku-ti̬ to cough

The inflected form of the noun may also be used, e.g.
'taši salt   ta'šiⁿ with, by means of, salt
                             ta'šiⁿ-ti̬ to salt (fish, etc.)
'rika net (fish) ri'kaⁿ with, by means of, the net
                             ri'kaň-ti̬ to cast the net

A negative infinitive has also been found as a verb stem,

'?atima not to do   '?atima-ti to be untidy

Trans. & Intrans. Categories

3.2 Complex stems

Complex stems ~~appear to be of three classes~~: primary derivatives, ~~secondary derivatives and compounds~~. In addition, are some stems whose derivation is obscure.

verb maybe derivatived from the ~~verb~~ root by affixation or may be compounds of two or more verb stems

to types given here

3.2.1 Primary derived stems are composed of a one-morpheme stem, of one of the three types as in section 3.1, plus the bound morphemes -ka or -ki. Thus far in our investigation, the stems to which these suffixes are added appear to be bound. -ka is used in transitive verb forms, and -ki in intransitive forms. ~~Often~~ *In some verbs* both morphemes may be used with the same stem, e.g.

'kĭki-ti to call loudly   'kĭka-ti to call (someone) loudly

tu'kanki-ti (water) to be in waves   tu'kanka-ti to make waves in water

mĭ'biski-ti to cut one's hand

                    tĭ'biska-ti to behead(someone)

3.2.2 ~~Secondary derived stems~~ may be formed by the prefixation, or by the suffixation, of bound forms to the ~~"free"~~ *verb* stem.

3.2.1 *Stems derived by affixation*

3.2.1.1 Prefixation

3.2.2.1.1 The initial syllable of name words for body parts

omit

Trans. & Intrans.

omit here (put in intro?)

compounds compounds or more verb stems

omit here

may be prefixed to verbs to convey the idea of the action
having been performed on that part of the body, e.g.

   maš'ka <u>head</u>   'nɪa-ti <u>to tie</u>   'manɪa-ti <u>to tie one's</u>
                                               <u>head</u>

   tɪ'ša <u>neck</u>   ?i'ku-ti <u>to hug</u> 'tɪi'ku-ti <u>to hug</u>
                                       <u>around the neck</u>

   'ba^{n}oušu <u>elbow</u> 'taśka-ti <u>to hit</u> ban'taśka-ti
                                       <u>to hit one's elbow</u>

3.2.2.1.2 The initial syllable of other noun-words and
of attributive words may be used as prefixes also, e.g.

   'šɪki <u>corn</u> 'mɪ-ti <u>to touch</u> 'šɪmɪ-ti <u>to shell corn</u>
   k^{w}ɪ'bi <u>edge, border</u> ta'ran-ti <u>to roll</u> (something)
   k^{w}ɪ'taran-ti <u>to hem</u> (roll the edge)

3.2.1.2 (3.2.2.2) Suffixation

or complex stem forms

3.2.2.2.1 Verbalizer -ki- with nouns or attributives, e.g.

   bɪš'ba <u>fine, smooth</u>   bɪš'baraki-ti <u>to be fine in</u>
                                            <u>texture</u>

   u'pi <u>pretty</u>   u'piki-ti <u>to be pretty</u>
  '?aki'sa *like done*.

    There may be more than one layer of immediate
constituents, e.g. '?a- ~~ha~~ <u>do</u>, -kɪ perfect participle
suffix, -sa suffix used elsewhere also to imply the idea
of <u>like</u> or <u>as</u>

   '?akɪsaki-ti <u>to be as it was done before, or to be</u>
                          <u>like done</u>

'bakami *under the river*
   'baka <u>river</u> -mi ~~locative suffix, in or under, towards,~~
    'bakami
      ɪ'ki-ti <u>to drown</u> to to be ~~that~~ under the river *not having interconnective value*

This suffix, though phonetically the same and forming is different in usage from the -kɪ- suffix of the foregoing section. Here it is used with free attributive stems to form verbs; in the preceding section it is used with bound verb roots, with the...

3.2.2.2.2 Verbalizer -a- with noun stems, e.g.

'sipu <u>jail</u> 'sipu'a-ti <u>to put in jail</u>

'bari <u>sun</u> 'bari'a-ti <u>to place in the sun</u>

3.2.2.2.3 —'kï-, *possibly the perfect participle suffix, may help form new stems.* (*omit?*) (*a change of stress will be noted in the first two examples, probably indicative of transitive and intransitive qualities*)

3.2.2 (3.2.3) Compounds

E.g. mi'pa-ti *to drop*

'mipa'kï-ti *to fall*

Compounds are of two groups according to form-class of immediate constituents.

'tïntu'ma-ti *to bend something*

'tïntuma'kï-ti *to be bent to bend oneself.*

simple or complex

3.2.3.1 Compounds formed by ∧ attributive or noun ∧ plus verb, e.g.

co'o-ti, *to sit*

'šua <u>itching</u> 'mï-ti <u>to touch</u> 'šua'mï-ti <u>to scratch</u>

co'o kï-ti, *to be seated, to live.*

'kata <u>layer</u> 'ni-ti <u>to stand</u>, <u>to throw</u>

    'kata[?]ni-ti <u>to tie</u>, <u>place in layers</u>

u'pi <u>pretty</u> 'o-ti <u>to make</u>, ~~do'katarabḯ~~

    u'pio-ti ~~to make pretty~~ to make pretty

'kata ra b; *two layers*

~~There may be more than one layer of immediate constituents, e.g.~~

~~'kata layer ra b two~~ 'katarabïo-ti <u>to make in two</u> <u>layers</u>, <u>or to twist into rope</u>

3.2.3.2 Compounds formed by combining verb stems

3.2.3.2.1 Two or more free stems may be combined to form a compound stem, e.g.

'kʷai-ti <u>to play</u> ni-ti <u>to walk</u>, <u>throw</u> 'kʷaini-ti to go playing

?i'ku-ti <u>to hug</u> bu'in-ti <u>to carry</u> ?i'kubu'in-ti to carry hugging

a simple verb stem may be reduplicated to form a compound stem

3.2.3.2.2 ~~Compound stems are also formed by the redu-plication of a simple verb stem.~~ They express action

continued a long time, or done over and over again. E.g.

kĭš'kan-kĭš'kan-ti to wabble (such as a weak table)

si'naⁿ-si'nan-ti to be thinking and thinking

3.2.4 Stems of more than three syllables

Some verbs, comparatively few,[5] may be of three or more syllables, other than those types indicated under the derived and compound forms. Further investigation may enable us to classify them under types already given, or to form new sections for the derived forms. From the general pattern it would seem that these must be derived *complex* rather than simple ~~(simple)~~ stems. *E.g. 'ri či o - to tie together, join*

Pa'tišanki- sneeze

3.3 Transitive and Intransitive categories

All the foregoing ~~methods~~ *types* of stem formation apply equally to transitive and intransitive verbs. Transitive verbs in Cashibo are these ~~in~~ which the ~~action is carried~~ *may have* ~~across to~~ an object. ~~The object may be stated or implied~~ *in the sentence.* ~~That is, the quality of the verb is potentially transitive.~~ Intransitive verbs are those not able to take an object. There are few differences in the formation of transitive and intransitive verbs ~~in their~~ stems, ~~and derivational~~ *or and* ~~∧~~ *suffixes.* ~~and and inflectional layers.~~ *contrasting suffix* The forms of section 3.2.1 ~~∧~~ will have been noted; see ~~also~~ sections ~~4.2, 11, 13 and~~ *inflectional* ~~5.1.1.9(+kasma- suffix), and~~ derivational differences, *see* ~~and~~ section 6.4 for inflectional differences.

5.1.1.7(- 'Kasma- suffix) and section 6.4

However, when a verb ~~concept~~ may be ~~potentially~~ *semantically* ~~both transitive and intransitive, a difference of stress~~

both transitive and intransitive, contrasting patterns in
the verb stems have been noted. These are of ~~four~~ five types.
1.

3.2.1 The stress feature occurs on the second syllable in
intransitive stems, and on the first syllable in transitive
stems, e.g.

Intransitive: Transitive:

   i'nu-ti <u>to pass</u>   'inu-ti <u>to pass</u> (something)

   ma'nu-ti <u>to forget</u>   'manu-ti <u>to forget</u>(something)

   u'nī-ti <u>to hide oneself</u>   'unī-ti <u>to hide</u>(something)

About eleven of these contrasting ~~patterns~~ verbs have been found.

3.2.2 ~~when~~ the stress occurs on the initial syllable in
the intransitive form, _and shifts to the second syllable in_ ~~the transitive form is stressed on~~
~~the second syllable and the second-syllable~~ vowel _of the stressed syllable_ ~~becomes~~ becomes
nasalized ~~(or is followed by n before t)~~, e.g.

Intransitive: Transitive:

   'buku-ti <u>to pile up</u>   bu'kun-ti <u>to pile</u> up(something)

   'šua-ti <u>to scratch</u>   šu'an-ti <u>to scratch</u>(someone else)

Only a possible two other examples of this pattern have been
found.

3.2.3 Stress ~~may~~ occurs be on the second syllable in the intran-
sitive form, and remains on the second syllable in the
transitive form, with nasalization of the second-syllable
vowel. The three examples found are

Intransitive: Transitive:

   na'nī-ti <u>to dive, sink</u>   na'nīn-ti <u>to sink</u> (something
                                         else)

   či'ki-ti <u>to go out</u>   či'kin-ti <u>to set</u>(something)
                                        <u>free</u>

   ra'ka-ti <u>to lie down</u>   ra'kan-ti <u>to lay</u> (something)
                                        <u>down</u>

3.3.4   There is still another type of contrast, in which
Stress occurs on the second syllable in both the intransitive
and transitive forms, with the addition of segmental phoneme
a[n] in the transitive form, e.g.

Intransitive: Transitive:

   ša'nun-ti to be dry   ša'nuan-ti to dry(leaves, etc.)
      (of natural juice or sap)

   tu'tun-ti to be dry   tu'tuan-ti to dry(soil, etc.)
      (after becoming wet with water)

A possible four examples of this type of contrast have been
found.

        Although nasalization and stress occur predominantly
in the transitive forms in the above, one might be reminded

omit
that many intransitive verb stems are of these patterns, too,
The patterns in general, as given in sections 3.1.1 to 3.1.4
may be transitive or intransitive.

4 Semantic Classifications of Further Derivational Suffixes

§   While the stem formations described in section 3.2.2.
appear to be more or less
are basic, other layers of suffixation may be added to stems
before the final outside purely-inflectional layers are add-
ed. These medial suffixes will be listed according to seman-
tic value rather than in order of occurrence, since they do
not occur in any fixed order. They are listed in the order
heard most frequently. The suffixes are bound forms added to
free stems, with a very few possible exceptions.

4.1   -ru- indicates up, as in

   'k^Wan-ti to go   šk^Waru-ti to go upstream

'ni-ti to stand   'niru-ti to stand up
'bi-ti to grasp, take   'biru-ti to pick up (something)

4.2.1 -bu- indicates down, with intransitive verbs, e.g.
'k^wan-ti to go   k^wa'bu-ti to go down (stream)
'bana'ti to talk   'bana'bu-ti to go down while
                                           talking
?il-bi to be   ?i'bu-ti to be being down

4.2.2 -pa- indicates down with transitive verbs, e.g.
bu'an-ti to carry   bu'ampa-ti to carry down, also
          away   to eat, drink
'mapu-ti to cover   'mapu'pa-ti to carry on top
                             going down (as on the river)
'tuka-ti to break, cut   'tuka'pa-ti to break, cut, let-
                             ting the pieces fall down

4.2.3 -'na- indicates at one side, going around, e.g.
bu'kun-ti to pile up   'buku'na-ti to pile at one side
bu'in-ti to carry by   'bui'na-ti to carry around
si'nan-ti to think   'sina'na-ti to repent

4.2.4 -mi- causative, e.g.
?u'nan-ti to learn, know ?u'nami-ti to teach
'is-ti to see   'ismi-ti to make one see, to show
bu'an-ti to carry away   bu'ami-ti to send

4.5 -i'ši- expresses the idea of just or only, e.g.
co'o-ti to sit   co'oi'ši-ti to be just sitting
'?ee-ti to swallow   '?eei'ši-ti to devour

4.6 -'i·ra⁺ ~~expresses~~ much, very well, e.g.

?u'nan-ti 'to learn, know   ?u'nai'ra-ti to know very well

a'ba-ti to run   a'bai'ra-ti to run well

p i·-ti to eat   p i·'i·ra-ti to eat well

4.7 -'kasma- ~~indicates~~ non-ability, can not, e.g.

'kʷa-ti to hear   kʷa'kasma-ti not to be able to
                           hear

'bi-ti to grasp, take   bi'kasma-ti not to be able to
                           grasp (something)

'kʷaru-ti to go up(stream) 'kʷaru'kasma-ti not to be able
                           to go up(stream)

4.8 -'šuⁿ- altruitive, to do something for someone else.
The resultant form is transitive. E.g.

a'ba-ti to run   a'bašun-ti to run for (someone)

bu'an-ti to carry away   bu'aⁿšun-ti to carry for (some-
                          one)

'?a-ti to do, make   ?a'šun-ti to do (something) for
                          someone else)

4.9 -tI'kI- repetitive, e.g.

'u-ti to come   'utI'kIn-ti to come again

?a'šun-ti to do for   ?a'šuntI'kIn-ti or '?atIkI'šun-ti
(someone)   to do again for (someone)

                          ~~The resultant forms are intransiti~~

4.10 -a'naⁿ- reciprocal, each other, e.g.

'ꞮI-ti to touch   'mIa'nan-ti to touch each other

'hui-ti to follow, to   'nuia'nan-ti to be friends
love

4.11.1 -ki'aⁿ- ambulatory, while going, used with intransitive
verbs, e.g.

 a'ba-tí to run   a'baki'an-tí to go running

 ri'i-tí to walk with   ri'iki'an-tí to go walking with
   others   others

 i'nu-tí to pass   i'nuki'an-tí to go passing by

4.11.2 -bi'aⁿ- ambulatory, while going, used with transitive
verbs, e.g.

 '?ɪn-tí to leave   '?ɪbi'an-tí to leave behind

 ?i'ku-tí to hug   ?i'kubi'an-tí to go hugging,
          or, to carry in ones arms

 'inu-tí   'inubi'an-tí to go passing
          (something)

4.12 -nɪ- indicates at, during the night, e.g.

 '?a-tí to study, do,   '?anɪ-tiⁿ to study, do, at night
    make

 bɪ'sɪnan-tí to smoke   bɪ'sɪnanɪ-ti to smoke (meat)
    (meat)   during the night

4.13.1 -kʷaciⁿ- ambulatory, to come from while
(doing something else), with intransitive verbs, e.g.

 'kʷai-ti to play, laugh   'kʷai'kʷaciniⁿ... come from playing

 '?uš-ti to sleep   '?uš'kʷaciniⁿ... come from
          sleeping

4.13.2 -bɪ'ciⁿ- ambulatory, to come from (doing some-
thing else), with transitive verbs, e.g.

 'pi-ti to eat   'pibɪ'cin-ti to come from eating

 '?a-ti to do, make   '?abɪ'cin-ti to come from doing

4.14 -bai- continuative, a long time during the day, e.g.

'ka-ti to say   'kabai-ti to say much

'ni-ti to walk   'nibai-ti to walk a long time

a'ba-ti to run   a'babai-ti to run a long time

4.15 -pun- time element, this morning, e.g. *The form pun occurs with one-syllable stems, otherwise pu'u occurs*

a'bakilahati... to go running   a'baki'ampuni... went running this morning

'ka-ti to say   'kapuni ... said this morning

4.16 -'kan- gives a subject idea, the others, e.g.

a'ba-ti to run   a'baki'am'pun'ka'nim the others went running this morning

'?i-ti to be here, there   ?i'kan-ti the others to be there

'čuka-ti to wash   'čuka'kan-ti the others to be washing (something)

4.17 -ki'in- or -kin- expresses to help (do something). The forms appear to be mutually exclusive, the form -kin- occurs with one-syllable stems, ki'in with stems of more than one syllable being used with one-syllable stems. E.g. The resultant forms are trans.

'čuka-ti to wash (something)   'čukaki'in-ti to help to wash (something)

a'ba-ti to run   a'baki'in-ti to help to run

'?a-ti to do   '?akin-ti to help to do

4.18 -ra'cu- diminutivizer, to do (something) a little,

'maI-ti to sweep   'maI'racu-ti to sweep a little

a'ba-ti to run   a'ba'racu-ti to run a little

4.19 -'ci- potential, can, be able to also, used usually in the immediate past, e.g.

a'ba-ti to run   a'ba'cia ... also can run

'?i-ti to be here, there   ?i'cia ... also can be here,
                                                    there

'?a-ti to do, make   ?a'cia ... also can do, make

4.20 -pa'iⁿ- or -ı̣paⁿ- indicates first. -pa'iⁿ- ~~appears~~ _Investigation up to the present_
~~to be~~ used with stems of more than one syllable, the alternate
form being used chiefly, but not exclusively, with one-
syllable stems. E.g.

co'o-ti to sit   co'opa'in-ti to sit first
'šui-ti to roast   'šuipa'in-ti to roast first
'pi-ti to eat   pi'pan-ti to eat first
ʌni-ti to walk   ni'pan-ti to walk first

4.21. -taⁿ- appears to convey the idea of right now, and to
be used in imperative constructions only, e.g.

'bi-ti to get, grasp   bi'tan get (it) right now!
'kʷan-ti to go   kʷan'tan go right now!

5 Inflection in Single Verb Words

Inflection may be shown by suffixation and by supra-
segmental features. Tense-aspect and person of the subject
are thus indicated. There are simple forms, consisting of
only one word, and complex forms, in which the verb thought
is contained in a verb phrase consisting of two words. These
will be described respectively as verb words and verb
phrases. This section deals with inflectional forms in verb
words.

5.1 Inside layer of inflectional changes

'sina'na-ti <u>to repent</u>   'sina'nati^{n} (<u>I</u>,<u>you</u>) <u>repent</u>

?u'nami-ti <u>to teach</u>   ?u'namii^{n} (<u>I</u>,<u>you</u>) <u>teach</u>

co'oi'ši-ti <u>to be just</u>   co'o'išiti^{n} (<u>I</u>,<u>you</u>) <u>just sit</u>
     <u>sitting</u>

a'baira-ti <u>to run well</u>   a'bairai^{n} (<u>I</u>,<u>you</u>) <u>run well</u>

'k^{W}aru'kasma-ti <u>not to</u>   'k^{W}aru'kasmai^{n} (<u>I</u>,<u>you</u>) <u>can go</u>
  <u>be able to go</u> up(stream)   up(stream)

⁺k^{W}a'kasma-ti <u>not to be</u>   k^{W}a'kasmati^{n} (<u>I</u>,<u>you</u>) <u>can not</u>
   <u>able to hear</u>   <u>hear</u>

ra'k^{W}Išun-ti <u>to frighten</u>   ra'k^{W}Išuni^{n} (<u>I</u>,<u>you</u>) <u>frighten</u>

'?arutI'kIn-ti <u>to cook</u>   '?aru'tIkIni^{n} (<u>I</u>,<u>you</u>) <u>cook</u>
     <u>again</u>   <u>again</u>

mIa'nau-ti <u>to touch, hit,</u>   'mI'anani^{n} (<u>I</u>,<u>you</u>) <u>hit each</u>
   <u>each other</u>   <u>other</u>

a'baki'an-ti <u>to go run-</u>   a'ba'kiani^{n} (<u>I</u>,<u>you</u>) <u>go running</u>
     <u>ning</u>

'pibi'an-ti <u>to go eat-</u>   'pibiani^{n} (<u>I</u>,<u>you</u>) <u>go eating</u>
     <u>ing</u>

'pa'nI-ti <u>to do at night</u>   'pAnIti^{n} (<u>I</u>,<u>you</u>) <u>eat at night</u>

bI'nIk^{W}a'ɕin-ti <u>to come</u>   bI'nI'k^{W}aɕini^{n} (<u>I</u>,<u>you</u>) <u>come</u>
   <u>hurrying</u>   <u>hurrying</u>

'čukabIloin-ti <u>to come</u>   'čuka'bIcini^{n} (<u>I</u>,<u>you</u>) <u>come</u>
  <u>from washing</u>(something)   <u>from washing</u> (something)

a'ba'bai-ti <u>to run a</u>   a'ba'baiti^{n} (<u>I</u>,<u>you</u>) <u>run a</u>
     <u>long time</u>   <u>long time</u>

     a'bapuni^{n} (<u>I</u>,<u>you</u>) <u>ran this</u>
     <u>morning</u>

?i'kan-ti <u>the others to</u>   '?ikani^{n} you <u>others are here</u>
  <u>be here</u>

'?aruki'in-ti <u>to help</u> <u>cook</u>	'?arukiini^n(<u>I,you</u>)<u>help cook</u>
'nikin-ti <u>to help walk</u>	'nikini^n(<u>I,you</u>)<u>help walk</u>
'maɪˤraˈcu-ti <u>to sweep</u> <u>a little</u>	'maɪˤracuti^n(<u>I,you</u>) <u>sweep</u> <u>a little</u>
(~~naɪi-ti to bathe~~)	'naɪi'cia (<u>I,you</u>) ~~also can bathe~~
co'opa'in-ti <u>to sit</u> <u>first</u>	co'opaini^n(<u>I,you</u>) <u>sit first</u>
pi'pan-ti <u>to eat first</u>	'pipani^n(<u>I,you</u>) <u>eat first</u>

5.1.2 Suffix -i^n added to the present-tense stems as
given in sections 5.1.1, is used in the third person
of verbs, e.g.

'is-ti <u>to see</u>	'ieɪ^n(<u>he</u>) <u>sees</u>
a'ba-ti <u>to run</u>	'abatɪ^n(<u>he</u>) <u>runs</u>
'?aru-ti <u>to cook</u>	'?aruɪ^n(<u>he</u>) <u>cooks</u>

Exception:

The third person form of the verb <u>to be</u> is 'ikɪ,
which seems to have no appearance of regularity. It is
the only such irregularity found thus far in our study.

5.1.3 Suffix -ia is added to the present-tense stems
to indicate present-progressive time-aspect, in the
third person only, e.g.

'kaɪ-ti <u>to grow</u>	'kaɪnilia (<u>he</u>) <u>is growing</u>
k^{w}a'bu-ti <u>to go down</u> <u>(stream)</u>	'k^{w}abutia (<u>he</u>) <u>is going</u> <u>down(stream)</u>
'ku-ti <u>to eat fruit</u>	'kutia (<u>he</u>) <u>is eating fruit</u>

mïtsu	puchäkï	
mïtsų̈	puchäti	
mïtsuna	pukuru	χïikïma
mïtalų̈	pwiáki	
mïchïhïti	puräti	χïiti
mïñuti		
näti nampïcha	rabuuru ⟩ ratu	usuru
nashïti	rakuïti ⟩ ratutï	
nayaba	rüdbu... ⟩ roonti	
misñabu	rïaská	
nishkï		
noosi	säikï	
nüünti	sinänti	
nüánti	shiata	
nüithï	tapïti	
nüü	tashpá	
nüų̈	tatsïbu	
	tayaka	
nüüna	tayká	
	tïkati	
nüü4	tïati	
ñïrkï	tïrká tsasïti	
ñïrkï	tsiniki tsïkwïsti	
ñüüna nïu mïti	tsïpïmi	
ïrünti		
ï4ku	tsïmpïru	
parku	tsïninti	
pirikü		
piska ⟩ pikarsïi	tsaáti	
pïkarati		
pïkïkï	χaká χarïnti	
pïkïti	χïitaskï	
pïmpïru	χïitasti	
pütsüsti		
pïrti		

Column 1:
- √ tsimünti
- √ trikwïsti
- √ tsaüsti
- √ pütsüsti
- −óö
- −óöxí
- −ïxáa
- −ïxáaxí
- −aki
- −akixí
- −nuxu
- −tíkínti
- −tánkiix
- −tánkiixu
- −nux
- √ mïchukatü
- √ ratu
- √ chukatü
- −kïbï
- −kïbima
- √ birí
- √ biráma
- √ pikarati
- √ pikonaki

Column 2:
- ~~ashá~~
- ashaka
- bïïkuta
- √ kamunü
- √ tsoöti
- √ ñuumïïti
- abuñü
- apati
- aruti / atapa ashaka
- ibapa
- iïma
- irapa
- isku
- iskü
- iopá
- ïï
- ïïna
- ïü
- ïüx
- üñati
- uxü
- uxü

Column 3:
- aa
- aá
- abu
- abáti
- aí
- aina
- atü
- atü
- atüx
- atuna
- aubi
- babuxu
- bachi paráta / baita
- banati
- bïïbati bübü
- bichiki
- bïïkutä
- bimána
- biniti
- bïntanti
- biri biráma
- bïsua
- bïsuaxí
- bïsuti

Column 4:
- bütästi
- birbá
- birbü
- birkü
- büná
- buánti
- bunänti
- butuaxü
- butuaxí
- bututi
- chaama
- charkü
- charkü
- chinütí chukati / chukúma churkira
- churübí
- chusku
- ichibi
- ióma
- ispa
- kamuni

Column 5:
- kwa
- kwayü
- kwäünti
- kwïtatü
- kwïxpa
- maïnti mañuti / maribi
- mapara
- maxünpu
- maskwá
- maamä
- mïtästi
- matürba
- maxká
- mïï
- mïï
- mïïpa
- mïïx
- kaïna / kamabi / kamáxbi / kamuni kamina / kïribá
- kïrpá
- kïntü
- kïribi
- kïrpü

līttle   a līttle
'mai'racutï (I, you) sweep a   'mai'ratu-ti to sweep a
                                                         cook

'aruki'in-ti to help coo'karuktiini (I, you) help to ti-in cook

pusí

20

FOOTNOTES

1 Cashibe is classified as a member of the Panean group of languages, of the jungle region of Peru. The Cashibe speakers live along or near the Aguaitía River and some of its tributaries. The data for this paper were obtained in *the city of* Lima ~~city~~ from a Cashibe youth, Gregorie Estrella, and in two field trips to the tribe.

2 The Cashibe phonemes are: stops p, t, k, k^w, ?; affricated stops c, č; fricatives b, s, š, ž; nasals m, n, ñ; vibrant r: vowels i, e, a, ɔ, o, ɪ and the nasalized counterparts i^n, e^n, a^n, $ɔ^n$, o^n, $ɪ^n$. According to present analysis, stress and tone are both phonemic; stress is indicated by a vertical stroke above the line, immediately preceding the stressed syllable, *is indicated by* tone by an acute accent over the vowel of high tone, the contrasting phonemic low tone being unmarked. *V symbolizes any vowel, low dot syllable division, square brackets phonetic writing*

3 There is no distinction in the verb forms to indicate number or gender. In the examples the English pronouns are placed in parenthesis to indicate the person of the verb.

4 One of the forms kana (first person), kamina (second person, ka (third person), according to the person of the subject, appears in almost all sentence constructions. These forms are separate from the verb words, but are

inserted wh

(FOOTNOTES)

A The first four suffixes given, viz., -ki-, -kat-,
-a- and -kI-, have been found only adjacent to the root.
The other suffixes do not occur in any fixed order. Suffixial
morphemes ending in a closed syllable have an alternate
form as do the verb roots of sections ~~3.5.1~~ 3.1.1 and 3.1.3.

4 The significance of morpheme -a- preceding -kat- is undetermined.

5 from suffix -kI, for a fuller description of this ~~section~~ section 4.2.

6 The vowel of the one-syllable stem becomes a geminate
cluster with stress on the ~~second~~ vowel ~~part~~, when suffix -pon-
is added.

7 This suffix forms ~~appear~~ are unnasalized phrase ~~and~~ medially.

8 Suffix -kiⁿ has other significance in subordinate verb
constructions, e.g.

ma'ï'bian- be sweeping   ma'ï bi'an kiⁿ having been sweeping

'kʷai'samatan- not want   'kʷai'samatan'kiⁿbi although
to play   (I) do not want to play.

lawɔr i s'kima ka'pat did it without
looking

10 Word final t is unreleased.

There are some other uses of this morpheme, besides the ones given, with meaning obscure. but

VERB MORPHOLOGY OF CASHIBO
(Tentative description)

Olive Shell

SUMMER INSTITUTE OF LINGUISTICS

1 Phonomechanics and Morphophonemics ²

1.1 Phonomechanics: A few phonological phonomena are universal
in the language.

1.1.1 When s is followed by š there appears to be complete
progressive assimilation and then reduction to only one
phoneme, s, e.g.

    isᴸšu-ma ka '?at becomes i'suma ka '?at <u>Do not look</u>

1.1.2 When a is followed ∧ by ∧ o (or nasalized counterparts ∘ of either) there is ~~complete~~ ~~regressive~~ assimilation, a becoming o; ~~e.g.~~ nasalization seems not to be carried over. E.g.

    a'ba-run plus -oⁿ(yesterday time-ending) becomes

    a'boⁿran <u>yesterday</u>.

    co'o- it plus -a (immediate past time-ending) becomes co'oo sat just now

1.1.3 When ɪ is preceded by ∧ i there is complete progressive assimilation, ɪ becoming i, e.g.

    ni- <u>walk</u> plus -ɪša ~~becomes~~ (time-ending for a few days

    ago)becomes 'niiša <u>walked</u> <u>the</u> <u>other</u> <u>day</u>.

1.1.4 When nasalized vowels occur before ~~(voiceless)~~ stops
or affricates, and sometimes word-~~medial~~finally, the vowel loses
part or all of its nasalization and a nasal consonant appears,
m before p, n before alveolars t and ç, and phonetic /ŋ/
before k, e.g.

    'kʷanⁿšiɪ <u>he went</u>   'kʷam'puni <u>went</u> <u>this</u> <u>morning</u>

    'kʷan-ti <u>to go</u>   'kʷan'kɪma /kʷaŋ'kɪma/ <u>not gone</u>

    ka'kʷaⁿ so [kʷa n] go!

    Nasalized vowels appear to lose their nasalization
before nasal consonants, as in the example of 1.1.1,
    morphemes -šuⁿ plus-ma becomes-šuma-.

1.1.5 Before back rounded vowels, k^W loses its labialization, e.g.

k^Wa- go plus -$o'o^n$(yesterday time-ending) becomes ⇒$ko'o^n{}_{\supset}{}^m$
went yesterday.

The a of the stem obviously is first assimilated to o, and then influences the k^W, reducing it to simply k.

1.1.6 Nasalization of a stressed vowel ~~usually~~ seems to carries over to a following contiguous vowel, e.g.

'k^Wa^n- go plus -$a\check{s}i^n$ becomes '$k^Wa^na^n\check{s}i$ he went.

1.2 morphophonemics: The following phonological processes occur only in some verb forms.

1.211 The final vowel may be dropped or fade into silence in the third person suffix of past tenses, e.g.

$k^Wa^na^n\check{s}i^n$ he went may become '$k^Wa^na^n\check{s}$.
Less frequently, other final vowels are dropped, in quick or careless speech.

1.2.2 word medial glottal stops do not occur in complex ꙩ verb forms. When two or more stems are united to form a compound or a secondary derivative, all but initial glottal stops of the resultant complex form are dropped, e.g.

tĭ'$\check{s}$a plus ʔi'kuti gives 'tĭi'kuti to hug around the neck.

1.2.3 Verb stems lose nasalization of the final vowel when secondary derivational suffixes are added, e.g.

> 'k^Wa'ti +go   'k^Wa'ruti to go upstream

2 Criteria of Verb Form Class

Verb-like words are determined by the criteria of form. They are words which occur with inflectional suffixation to indicate tense-aspect, and person of the subject.

1.2.4 Stressed monosyllabic inflectional suffixes are added.

3 Stem Formation

The stem of the verb is obtained from the infinitive ~~ending~~ form; the infinitive ending -ti is dropped, and the remaining stem is the verb stem. Phonological process 1.1.4 has applied in those infinitives in which the -ti ending is preceded by n. It is understood that the underlying stem contains a nasal vowel, whose nasalization appears here as n before the -ti ending. Verb stems may also be obtained by dropping the -kŏ ending from the perfect participle form.[7] In most examples of this paper the infinitive forms are given first.

Verb stems are of two classes, simple and complex. Simple stems are those which are composed of one morpheme; complex stems contain more than one morpheme.

Simple stems

3.1 Simple stems may be of one syllable, of two syllables with stress on the second syllable, or of two syllables with stress on the first syllable.

3.1.1 Stems of one-syllable morphemes may follow any one of these patterns: V,   CV,   VC,   CVC,   e.g.

'u-ti to come [3]	'šī-ti to smell
'is-ti to see	~~'niš-ti to be disturbed~~
	'ʔuš-ti to sleep

3.1.2 Stems of two-syllable morphemes with stress on the second syllable, are of these patterns: V'CV, V'CVC, V'VC, CV'V, CV'VC, CV'CV, CV'CVC, CVC'CV, CVC'CVC, e.g.

ǐ'či-ti to jerk out	ǐ'rīn-ti to light (something)
u̧'in-ti to breathe	'čǐ'ǐ-ti to mash
ka'is-ti to choose	bu'kī-ti to tie
bǐ'tas-ti to cover a hole	pǐš'ku-ti to get well
bǐn'tan-ti to hang (something)	

u'in-ti to breathe   čɪ'ɪ-ti to mash
ka'is-ti to choose   bu'kɪ-ti to tie
bɪ'tas-ti to cover a hole   pɪš'ku-ti to get well
bɪn'tan-ti to hang (something)

It will be noted that some of these patterns , viz.,
those of stems ending with consonants, are found only be-
cause of the appearance of a nasal consonant before the
stop of the infinitive ending, in place of a nasalized stem
vowel, according to section 1.1.4.

3.1.3 Stems of two-syllable morphemes, with stress on the
first syllable, are of these patterns: 'V.CV,   'VC.CV,
'CV.V,   'CV.CV,   'CVC.CV,   e.g.

'i.na-ti to row (a boat)   'an.kɪ-ti to finish
'ma.ɪ-ti to sweep   '?a.ru-ti to cook
'maš.ku-ti to cut short (hair)

3.1.4 A few verb stems are simply nouns or attributive
stems with verb ~~derivational or~~ inflectional endings added.
These then become simple verb stems, and follow the patterns
of stems as in sections 3.1.2 or 3.1.3 above, None have been
found of pattern 3.1.1. E.g.

i'mɪ night   i'mɪ-ti night to be falling
'?uku cough   '?uku-ti to cough

The inflected form of the noun may also be used, e.g.
'taši salt   ta'šin with, by means of, salt
                         ta'šin-ti to salt (fish, etc.)
'rika net (fish) ri'kan with, by means of, the net
                         tɒ'kan-ti to cast the net

A negative infinitive has also been found as a verb stem,

'?atima <u>not to do</u>   '?atima-ti <u>to be untidy</u>

3.2 Complex stems

Complex stems appear to be of three classes: primary derivatives, secondary derivatives and compounds/. In addition, are some stems whose derivation is obscure.

3.2.1 Primary derived stems are composed of a one-morpheme stem, of one of the three types as in section 3.1, plus the bound morphemes -ka or -ki. Thus far in our investigation, the stems to which these suffixes are added appear to be bound. -ka is used in transitive verb forms, and -ki in intransitive forms. Often both morphemes may be used with the same stem, e.g.

'kĭki-ti <u>to call loudly</u> 'kĭka-ti <u>to call</u> (someone)
                                <u>loudly</u>
tu'kanki-ti (water) <u>to be in waves</u> tu'kanka-ti <u>to make</u>
                                          <u>waves in water</u>
mĭ'biski-ti <u>to cut one's hand</u>
                    tĭ'biska-ti <u>to behead</u>(someone)

3.2.2 Secondary derived stems may be formed by the prefixation, or by the suffixation, of bound forms to the "free" stem.

3.2.2.1 Prefixation

3.2.2.1.1 The initial syllable of name words for body parts

may be prefixed to verbs to convey the idea of the action
having been performed on that part of the body, e.g.

maš'ka head　'nīa-ti to tie　ʔmanīa-ti to tie one's
<div align="right">head</div>

tī'ša neck　ʔi'ku-ti to hug　'tīi'ku-ti to hug
<div align="right">around the neck</div>

'baⁿbušu elbow　'taška-ti to hit　ban'taška-ti
<div align="right">to hit one's elbow</div>

3.2.2.1.2 The initial syllable of other noun-words and
of attributive words may be used as prefixes also, e.g.

　'šīki corn　'mī-ti to touch　'šīmī-ti to shell corn
　kʷī'bi edge, border　ta'ran-ti to roll (something)
　kʷī'taran-ti to hem (roll the edge)

3.2.2.2 Suffixation

3.2.2.2.1 Verbalizer -ki- with nouns or attributives, e.g.
　bīš'ba fine, smooth　bīš'baraki-ti to be fine in
<div align="right">texture</div>

　u'pi pretty　u'piki-ti to be pretty

There may be more than one layer of immediate
constituents, e.g. '?a- ~~do~~ do, -kī perfect participle
suffix, -sa suffix used elsewhere also to imply the idea
of like or as

　'ʔakīsaki-ti to be as it was done before, or to be
<div align="right">like done</div>

'baka river -mi locative suffix, in or under, towards,

　'bakami-ki-ti to drown or to be in or under the river

3.2.2.2.4 Suffix -'ka (different from that of section 3.2.1) gives reflexive significance to the verb, and the resulting formd are intransitive. Four examples have been found. The stems may be free forms as in 'mĭnio'ka-ti to arrange oneself; the other stems have not been found as free forms. E.g.

The occurrences found are :

'mĭa'ka-ti to hit oneself

'mĭnio'ka-ti to arrange oneself

'rĭra'ka-ti to be fat

'ruča'ka-ti to be ill

3.2.2.2.2 Verbalizer -a- with noun stems, e.g.

'sipu <u>jail</u>　　　　'sipu'a-ti <u>to put in jail</u>

'bari <u>sun</u>　　　　　'bari'a-ti <u>to place in the sun</u>

3.2.2.3 -'kï- , possibly the perfect participle suffix, may help form new stems. (A change of stress will be noted in the first two examples, probably indicative of transitive and intransitive qualities) E.g. ni'pati to drop

3.2.3 Compounds

'mipakuti to fall

'tintu'mati to bend some'

'tïʃu na'kï-ti to be bent to bend oneself

Compounds are of two groups according to form-class of immediate constituents.

e-'iti to sit

co'o kï-ti to be seated to live.

3.2.3.1 Compounds formed by attributive or noun plus verb, e.g.

'ʃua <u>itching</u>　'mï-ti <u>to touch</u>　'ʃua'mï-ti <u>to scratch</u>

'kata <u>layer</u>　'ni-ti <u>to stand</u>, <u>to throw</u>

　　　　　　　'kata⁰ni-ti <u>to tie</u>, <u>place in layers</u>

u'pi <u>pretty</u>　'o-ti <u>to make</u>, ~~to~~ ~~'katarabio-ti~~

　　　　　　u'pio-ti　　~~upi-ti~~ to make pretty

There may be more than one layer of immediate constituents, e.g.

'kata <u>layer</u> ra'bï <u>two</u>　'katarabïo-ti <u>to make in two</u>

　　　　　　　　　<u>layers</u>, <u>or to twist into rope</u>

3.2.3.2 Compounds formed by combining verb stems

3.2.3.2.1 Two or more free stems may be combined to form a compound stem, e.g.

'kʷai-ti <u>to play</u> ni-ti <u>to walk</u>, <u>throw</u> 'kʷaini-ti

　　　　　　　　<u>to go playing</u>

?i'ku-ti <u>to hug</u> bu'in-ti <u>to carry</u> ?i'kubu'in-ti

　　　　　　　　<u>to carry hugging</u>

3.2.3.2.2 Compound stems are also formed by the reduplication of a simple verb stem. They express action

continued a long time, or done over and over again. E.g.

kĭš'kan-kĭš'kan-ti to wabble (such as a weak table)

si'na^n-si'nan-ti to be thinking and thinking

3.2.4 Stems of more than three syllables

Some verbs, comparatively few,[5] may be of three or more syllables, other than those types indicated under derived and compound forms ^(and in the following section.) Further investigation may enable us to classify them under types already given, or to form new sections for the derived forms. From the general pattern it would seem that these must be ~~derived~~ complex rather than simple forms stems.

3.3 Transitive and intransitive categories

All the foregoing ~~methods~~ types of stem formation apply equally to transitive and intransitive verbs. Transitive verbs in Cashibo are those in which the action is carried across to an object. The object may be stated or implied. That is, the quality of the verb is potentially transitive. Intransitive verbs are those not able to take an object. There are few differences in the formation of transitive and intransitive verbs in their stems, and derivational and inflectional layers. The forms of section 3.2.1 will have been noted; see also sections 4:2, 11, 13 and 5.1.1.6 (Akasha-suffix), for derivational differences, and section 6.4 for inflectional differences.

However, when a verb concept may be potentially both transitive and intransitive, a difference of stress

both transitive and intransitive, contrasting patterns in
the verb stems have been noted. These are of four types.

3.3.1 The stress feature occurs on the second syllable in
intransitive stems, and on the first syllable in transitive
stems, e.g.

Intransitive: Transitive:

   i'nu-ti <u>to pass</u>   'inu-ti <u>to pass</u> (something)

   ma'nu-ti <u>to forget</u>   'manu-ti <u>to forget</u>(something)

   u'nĭ-ti <u>to hide oneself</u>   'unĭ-ti <u>to hide</u>(something)

About eleven of these contrasting patterns have been found.

3.3.2 When the stress occurs on the initial syllable in
the intransitive form, the transitive form is stressed on
the second syllable and the second-syllable vowel becomes
nasalized (or is followed by n before t), e.g.

Intransitive: Transitive:

   'buku-ti <u>to pile up</u>   bu'kun-ti <u>to pile</u> up(something)

   'šua-ti <u>to scratch</u>   šu'an-ti <u>to scratch</u>(someone else)

Only a possible two other examples of this pattern have been
found.

3.3.3 Stress may be on the second syllable in the intran-
sitive form, and remains on the second syllable in the
transitive form, with nasalization of the second-syllable
vowel. The three examples found are

Intransitive: Transitive:

   na'nĭ-ti <u>to dive, sink</u>   na'nĭn-ti <u>to sink</u> (something
                                               else)

   či'ki-ti <u>to go out</u>   či'kin-ti <u>to set</u>(something)
                                               <u>free</u>

   ra'ka-ti <u>to lie down</u>   ra'kan-ti <u>to lay</u> (something)
                                               <u>down</u>

3.2.4 There is still another type of contrast, in which
stress occurs on the second syllable in both the intransitive
and transitive forms, with the addition of segmental phoneme
a in the transitive form, e.g.

Intransitive: Transitive:

  ša'nun-ti <u>to</u> <u>be</u> <u>dry</u>   ša'nuan-ti <u>to</u> <u>dry</u>(leaves, etc.)
    (of natural juice or sap)

  tu'tun-ti <u>to</u> <u>be</u> <u>dry</u>   tu'tuan-ti <u>to</u> <u>dry</u>(soil, etc.)
    (after becoming wet with water)

A possible four examples of this type of contrast have been
found.

    Although nasalization and stress occur predominantly
in the transitive forms in the above, one might be reminded
omit that many intransitive verb stems are of these patterns,too,
The patterns in general, as given in sections 3.1.1 to 3.1.4
may be transitive or intransitive.

4 Semantic Classification of Further Derivational Suffixes

    While the stem formations described in section 3.2.2.
appear to be more or less
are basic, other layers of suffixation may be added to stems
before the final outside purely-inflectional layers are add-
ed. These medial suffixes will be listed according to seman-
tic value rather than in order of occurrence, since they do
not occur in any fixed order. They are listed in the order
heard most frequently. The suffixes are bound forms added to
free stems, with a very few possible exceptions.

4.1 -ru- indicates <u>up</u>, as in

  'k^{W}an-ti <u>to</u> <u>go</u>   šk^{W}aru-ti <u>to</u> <u>go</u> <u>up</u>(stream)

'ni-ti <u>to stand</u> 'niru-ti <u>to stand up</u>

'bi-ti <u>to grasp, take</u> 'biru-ti <u>to pick up</u> (something)

4.2.1-ᴸbu- indicates <u>down</u>, with intransitive verbs, e.g.

 'kᵂan-ti <u>to go</u> kᵂa'bu-ti <u>to go down</u> (stream)

 'banaˣti <u>to talk</u> 'bana'bu-ti <u>to go down while</u>

           <u>talking</u>

 ʔiᴸbṁ to be   ʔi'bu-ti <u>to be being down</u>

4.2.2 ᴸpa- indicates <u>down</u>, with transitive verbs, e.g.

 bu'an-ti <u>to carry</u> bu'ampa-ti <u>to carry down</u>, also

   <u>away</u>   <u>to eat, drink</u>

 'mapu-ti <u>to cover</u> 'mapu'pa-ti <u>to carry on top</u>

         <u>going down</u> (as on the river)

 'tuka-ti <u>to break, cut</u> 'tuka'pa-ti <u>to break, cut, let-</u>

         <u>ting the pieces fall down</u>

4.2.3 -'na- indicates <u>at one side</u>, <u>going around</u>, e.g.

 bu'kun-ti <u>to pile up</u> 'bukuᴸna-ti <u>to pile at one side</u>

 bu'in-ti <u>to carry by</u> 'bui'na-ti <u>to carry around</u>

 si'nan-ti <u>to think</u> 'sina'na-ti <u>to repent</u>

4.2.4 -mi- causative, e.g. The resultant form is transitive, E.g.

 ʔu'nan-ti <u>to learn, know</u> ʔu'nami-ti <u>to teach</u>

 'is-ti <u>to see</u>   'ismi-ti <u>to make one see, to show</u>

 bu'an-ti <u>to carry away</u> bu'ami-ti <u>to send</u>

4.5 -i'ši- expresses the idea of <u>just</u> or <u>only</u>, e.g.

 co'o-ti <u>to sit</u> co'oi'ši-ti <u>to be just sitting</u>

 'ʔee-ti <u>to swallow</u> 'ʔeei'ši-ti <u>to devour</u>

4.6 _-i⁺ra̸_ expresses much, very well, e.g.

?u'nan-ti to learn, know   ?u'nai⁺ra-ti to know very well

a'ba-ti to run   a'bai⁺ra-ti to run well

pi̇-ti to eat   pi̇'ira-ti to eat well

4.7 -'kasma- indicates non-ability, can not, e.g.

'kʷa-ti to hear   kʷa'kasma-ti not to be able to hear

'bi-ti to grasp, take   bi'kasma-ti not to be able to grasp (something)

'kʷaru-ti to go up(stream)   'kʷaru'kasma-ti not to be able to go up(stream)

4.8 -šuⁿ- altruitive, to do something for someone else. The resultant form is transitive. E.g.

a'ba-ti to run   a'bašun-ti to run for (someone)

bu'an-ti to carry away   bu'aⁿšun-ti to carry for (someone)

'?a-ti to do, make   ?a'šun-ti to do (something) for someone else)

4.9 -tï'kï- repetitive, e.g.

√ 'u-ti to come   'utï⁺kïn-ti to come again

?a'šun-ti to do for something ?a'šuntï'kïn-ti or '?atïkï'šun-ti (someone)   to do again for (someone)

4.10∅ -a'naⁿ- reciprocal, ~~The resultant forms are intransiti~~ each other, e.g.

'mï-ti to touch   'mïa'nan-ti to touch each other

'nui-ti to follow, to love   'nuia'nan-ti to be friends

4.11.1 -ki'a^n- ambulatory, <u>while</u> <u>going</u>, with intransitive verbs, e.g.

a'ba-ti <u>to</u> <u>run</u>　　　　a'baki'an-ti <u>to</u> <u>go</u> <u>running</u>

ri'i-ti <u>to</u> <u>walk</u> <u>with</u>　　ri'iki'an-ti <u>to</u> <u>go</u> <u>walking</u> <u>with</u>
　　　　<u>others</u>　　　　　　　　　　　　<u>others</u>

i'nu-ti <u>to</u> <u>pass</u>　　　　i'nuki'an-ti <u>to</u> <u>go</u> <u>passing</u> <u>by</u>

4.11.2 -bi'a^n- ambulatory, <u>while</u> <u>going</u>, with transitive verbs, e.g.

'?ɪn-ti <u>to</u> <u>leave</u>　　　'?ɪbi'an-ti <u>to</u> <u>leave</u> <u>behind</u>

?i'ku-ti <u>to</u> <u>hug</u>　　　?i'kubi'an-ti <u>to</u> <u>go</u> <u>hugging</u>,
　　　　　　　　　　　　　　　or, <u>to</u> <u>carry</u> <u>in</u> <u>ones</u> <u>arms</u>

'inu-ti　　　　　　　'inubi'an-ti <u>to</u> <u>go</u> <u>passing</u>
　　　　　　　　　　　　　　　(something)

4.12 -nɪ- indicates <u>at</u>, <u>during</u> <u>the</u> <u>night</u>, e.g.

'?a-ti <u>to</u> <u>study</u>, <u>do</u>,　'?anɪ-ti^n <u>to</u> <u>study</u>, <u>do</u>, <u>at</u> <u>night</u>
　　　<u>make</u>

bɪ'sɪnan-ti <u>to</u> <u>smoke</u>　bɪ'sɪnanɪ-ti <u>to</u> <u>smoke</u> (meat)
　　　(meat)　　　　　　　　　　　<u>during</u> <u>the</u> <u>night</u>

4.13.1 -k^{w}aci^n- ambulatory, <u>to</u> <u>come</u> <u>from</u> ~~of/while~~ (doing something else), with intransitive verbs, e.g.

'k^{w}ai-ti <u>to</u> <u>play</u>, <u>laugh</u> 'k^{w}ai'k^{w}acini^n... <u>come</u> <u>from</u> <u>playing</u>

'?uʂ-ti <u>to</u> <u>sleep</u>　　　'?uʂ'k^{w}acini^n... <u>come</u> <u>from</u>
　　　　　　　　　　　　　　　<u>sleeping</u>

4.13.2 ꝉbɪ'ci^n- ambulatory, <u>to</u> <u>come</u> <u>from</u> (doing something else), with transitive verbs, e.g.

'pi-ti <u>to</u> <u>eat</u>　　　　'pibɪ'cin-ti <u>to</u> <u>come</u> <u>from</u> <u>eating</u>

'?a-ti <u>to</u> <u>do</u>, <u>make</u>　'?abɪ'cin-ti <u>to</u> <u>come</u> <u>from</u> <u>doing</u>

4.14 '-bai- continuative, <u>a long time during the day</u>, e.g.

   'ka-ti <u>to say</u>   'kabai-ti <u>to say</u> much

   'ni-ti <u>to walk</u>   'nibai-ti <u>to walk a long time</u>

   a'ba-ti <u>to run</u>   a'babai-ti <u>to run a long time</u>

pu'i^n or V see 4.17

4.15 '-pu^n- time element, <u>this morning</u>, e.g.

   a'baki'ah-ti <u>to go</u>   a'baki'ampuni^n ... <u>went running</u>

      <u>running</u>   <u>this morning</u>

   'ka-ti <u>to say</u>   'kapuni^n ... <u>said this morning</u>

4.16 -'ka^n- gives a subject idea, <u>the others</u>, e.g.

   a'ba-ti <u>to run</u>   a'baki'am'pun'ka ní^n <u>the others</u>

                  <u>went running this morning</u>

   '?i-ti <u>to be here, there</u> ?i'kan-ti <u>the others to be there</u>

   'čuka-ti <u>to wash</u>   'čuka'kan-ti <u>the others to be</u>

                  <u>washing</u> (something)

4.17 -ki'i^n- or -ki^n- expresses <u>to help</u> (do something). The forms appear to be mutually exclusive, the form -ki^n- being used with one-syllable stems. E.g. The resultant forms are trans.

   'čuka-ti <u>to wash</u>   'čukaki'in-ti <u>to help to wash</u>

      (something)   (something)

   a'ba-ti <u>to run</u>   a'baki'in-ti <u>to help to run</u>

   '?a-ti <u>to do</u>   '?akin-ti <u>to help to do</u>

4.18 -racu- diminutivizer, <u>to do</u> (something) <u>a little</u>,

   'mař-ti <u>to sweep</u>   'mař'racu-ti <u>to sweep a little</u>

   a'ba-ti <u>to run</u>   a'ba'racu-ti <u>to run a little</u>

4.19 -'ci- potential, <u>can, be able to also</u>, used usually in the immediate past, e.g.

   a'ba-ti <u>to run</u>   a'ba'cia ... <u>also can run</u>

'?i-ti <u>to</u> <u>be</u> <u>here</u>, <u>there</u> ?i'cia ... <u>also</u> <u>can</u> <u>be</u> <u>here</u>,
                                                    <u>there</u>

'?a-ti <u>to</u> <u>do</u>, <u>make</u>   ?a'cia ... <u>also</u> <u>can</u> <u>do</u>, <u>make</u>

4.20 -pa'i^n- or -ᴸpa^n- indicates <u>first</u>. -pa'i^n- ap ears
to be used with stems of more than one syllable, the alternate
form being used chiefly, but not exclusively, with one-
syllable stems, E.g.

co'o-ti <u>to</u> <u>sit</u>   co'opa'in-ti <u>to</u> <u>sit</u> <u>first</u>

'šai-ti <u>to</u> <u>roast</u>   'šuipa'in-ti <u>to</u> <u>roast</u> <u>first</u>

'pi-ti <u>to</u> <u>eat</u>   pi'pan-ti <u>to</u> <u>eat</u> <u>first</u>

ᴸni-ti <u>to</u> <u>walk</u>   ni'pan-ti <u>to</u> <u>walk</u> <u>first</u>

4.21. ᴸta^n- appears to convey the idea of <u>right</u> <u>now</u>, and to
be used in imperative constructions only, e.g.

'bi-ti <u>to</u> <u>get</u>, <u>grasp</u>   bi'tan <u>get</u> (it) <u>right</u> <u>now</u>!

'k^{W}an-ti <u>to</u> <u>go</u>   k^{W}an'tan <u>go</u> <u>right</u> <u>now</u>!

5 Inflection in Single Verb Words

Inflection may be shown by suffixation and by supra-
segmental features. Tense-aspect and person of the subject
are thus indicated. There are simple forms, consisting of
only one word, and complex forms, in which the verb thought
is contained in a verb phrase consisting of two words. These
will be described respectively as verb words and verb
phrases. This section deals with inflectional forms in verb
words.

5.1 Inside layer of inflectional changes

5.1.1 Suffix -i added to the present-tense verb stem indicates simple present tense in the first and second persons. The present-tense stems are formed in the following manners:

5.1.1.1 The present- tense stem used in one-syllable morpheme stems, as in section 3.1.1, is the regular stem obtained by dropping the infinitive ending -ti, e.g.

'is-ti to see   'isi[n] (I,you) see [1]

'nan-ti to place   'nani[n] (I,you) place

'mĭ-ti to touch   'mĭi[n] (I,you) touch

There are exceptions:

1) The t of the infinitive is retained in the present-tense stem of the following verbs:

'ku-ti to eat fruit   'kuti[n] (I,you) eat fruit

'k[W]a-ti to hear, understand 'k[W]ati[n] (I,you) hear, understand

'rĭ-ti to kill, knock   'rĭti[n] (I,you) kill, knock
    down   down

and also in

'kĭ-ti to wedge tightly 'šĭ-ti to smell

'pĭ-ti to take off   'šu-ti to order
    (clothing)

'pu-ti to throw out (garbage)

2) The t of the infinitive is retained but changes to an affricate c in the following:

'bi-ti to grasp, get   'bici[n] (I, you) grasp, get

'ni-ti to walk   'nici[n] (I, you) walk

3) The vowel changes from u to a to form the present-tense stem of

'u-ti to come   'ai[n] (I, you) come

5.1.1.2 The present-tense stem for ~~any~~ two-syllable morpheme stems, in which the stress is on the second syllable, as in section 3.1.2, involves a supra-segmental change in the ~~fe~~ regular verb stem, the stress being shifted from the second to the first syllable. If the stem ends in an unnasalized vowel, the t of the infinitive is retained for the present-tense stem, otherwise it is dropped. The n is retained when present in the infinitive stem. E.g.

a'ma-ti <u>to</u> <u>step</u> <u>on</u> (something)	'amati^n (<u>I,you</u>) <u>step</u> <u>on</u> (something)
?i'a-ti <u>to</u> <u>carry</u> <u>over</u> ones shoulder	'?iati^n (<u>I,you</u>) <u>carry</u> <u>over</u> shoulder
či'bi-ti <u>to</u> <u>steer</u> (canoe)	'čibiti^n (<u>I,you</u>) <u>steer</u>
na'iš-ti <u>to</u> <u>scrape</u> <u>off</u>	'naiši^n (<u>I,you</u>) <u>scrape</u> <u>off</u>
?i'nan-ti <u>to</u> <u>give</u>	'?inani^n (<u>I,you</u>) <u>give</u>
u'in-ti <u>to</u> <u>breathe</u>	'uini^n (<u>I,you</u>) <u>breathe</u>

5.1.1.3 The present-tense stem for two-syllable verb stems of one morpheme, in which the stress is on the first syllable, as in section 3.1.3, is the regular stem formed by dropping the infinitive ending -ti, e.g.

'ina-ti <u>to</u> <u>row</u>	'inai^n (<u>I,you</u>) <u>row</u>
'naï-ti <u>to</u> <u>cultivate</u>	'naïi^n (<u>I,you</u>) <u>cultivate</u>
'bana-ti <u>to</u> <u>talk</u>	'banai^n (<u>I?you</u>) <u>talk</u>

5.1.1.4 The present-tense stem for primary-derived verb stems, as in section 3.2.1, is formed by dropping the infinitive ending -ti, e.g.

bu'aka-ti <u>to</u> <u>fill</u>	bu'akai^n (<u>I,you</u>) <u>fill</u>
pïaski-ti <u>to</u> <u>appear</u>	pï'askii^n (<u>I,you</u>) <u>appear</u>

5.1.1.5 The present-tense stem forms for secondary-derived verbs of section 3.2.2 are as follows:

In those stems formed by prefixation, ~~as in section 3.2.2.1~~, the present-tense form of the main part of the verb is retained, e.g.

'šImI-ti to shell corn   'šImIi^n (I,you) shell corn

mI'biski-ti to cut oneself mI'biskii^n (I,you) cut...

In suffixation, [unstressed] forms -ki- and -a- drop the t from the infinitive, and [stressed forms] -kI- [and] -ka- ~~forms~~ retain it, e.g.

u'piki-ti to be pretty   u'pikii^n (I,you) am,are pretty

'sipu'a-ti to put in jail 'sipu'ai^n (I,you) put in jail

'nipakI-ti to fall   'nipakIti^n (I,you) fall

'mimi'ka-ti to arrange   'mimi'ka ti (I,you) arrange my (your)self oneself, to get ready

5.1.1.6 Compound verb forms seem to follow the pattern of the final verb constituent, for the present tense stem, e.g.

ʔi'abu'in-ti to carry   ʔi'a'buini^n (I,you) carry ~~etc~~

along over one's shoulder   over shoulder

u'pio-ti to make pretty   u'pioi^n (I,you) make pretty

5.1.1.7 In the derived forms of section 4, the t of the infinitive is retained in the present-tense stem when the suffixes are of one stressed syllable, and also with suffixes -i'ši-, -'kasma used transitively, -'bai- and -'ratu-. The others drop the t of the infinitive ending. E.g.

bu'aru-ti to lift up   bu'arui^n (I,you) lift up

bI'ubu-ti to be in tears bI'uhuti^n (I,you) am, are in tears

bu'ampa-ti to carry down bu'ampati^n (I,you) carry down

'sina'na-ti <u>to</u> <u>repent</u>   'sina'nati^n(<u>I</u>,<u>you</u>) <u>repent</u>

?u'nami-ti <u>to</u> <u>teach</u>   ?u'namii^n(<u>I</u>,<u>you</u>) <u>teach</u>

co'oi'ši-ti <u>to</u> <u>be</u> <u>just</u>   co'o'išiti^n(<u>I</u>,<u>you</u>)<u>just</u> <u>sit</u>
    <u>sitting</u>

a'baira-ti <u>to</u> <u>run</u> <u>well</u>   a'bairai^n(<u>I</u>,<u>you</u>)<u>run</u> <u>well</u>

'k^{W}aru'kasma-ti <u>not</u> <u>to</u>   'k^{W}aru'kasmai^n(<u>I</u>,<u>you</u>)<u>can</u> <u>go</u>
 <u>be</u> <u>able</u> <u>to</u> <u>go</u> up(stream)   <u>up</u>(stream)

⁎k^{W}a'kasma-ti <u>not</u> <u>to</u> <u>be</u>   k^{W}a'kasmati^n(<u>I</u>,<u>you</u>) <u>can</u> <u>not</u>
  <u>able</u> <u>to</u> <u>hear</u>   <u>hear</u>

ra'k^{W}ĭšun-ti <u>to</u> <u>frighten</u>   ra'k^{W}ĭšuni^n(<u>I</u>,<u>you</u>) <u>frighten</u>

'?arutĭ'kĭn-ti <u>to</u> <u>cook</u>   '?aru'tĭkĭni^n(<u>I</u>,<u>you</u>) <u>cook</u>
   <u>again</u>   <u>again</u>

mĭa'nan-ti <u>to</u> <u>touch</u>, <u>hit</u>, 'mĭ'anani^n(<u>I</u>,<u>you</u>,<u>hit</u> <u>each</u>
  <u>each</u> <u>other</u>   <u>other</u>

a'baki'an-ti <u>to</u> <u>go</u> <u>run</u>-   a'ba'kiani^n(<u>I</u>,<u>you</u>)<u>go</u> <u>running</u>
   <u>ning</u>

'pibi'an-ti <u>to</u> <u>go</u> <u>eat</u>-   'pibiani^n(<u>I</u>,<u>you</u>)<u>go</u> <u>eating</u>
   <u>ing</u>

?ä'nĭ-ti <u>to</u> <u>do</u> <u>at</u> <u>night</u> '?änĭti^n(<u>I</u>,<u>you</u>)<u>eat</u> <u>at</u> <u>night</u>

bĭ∧nĭk^{W}a'čin-ti <u>to</u> <u>come</u>   bĭ'nĭ'k^{W}ačini^n(<u>I</u>,<u>you</u>)<u>come</u>
  <u>hurrying</u>   <u>hurrying</u>

'čukäbĭicihi-ti <u>to</u> <u>come</u>   'čuka'bĭcini^n(<u>I</u>,<u>you</u>) <u>come</u>
 <u>from</u> washing(something)   <u>from</u> <u>washing</u> (something)

a'ba'bai-ti <u>to</u> <u>run</u> <u>a</u>   a'ba'baiti^n(<u>I</u>,<u>you</u>) <u>run</u> <u>a</u>
  <u>long</u> <u>time</u>   <u>long</u> <u>time</u>

                                         a'bapuni^n(<u>I</u>,<u>you</u>) <u>ran</u> <u>this</u>
                                           <u>morning</u>

?i'kan-ti <u>the</u> <u>others</u> <u>to</u>   '?ikani^n<u>the</u> <u>others</u> <u>are</u> <u>here</u>
  <u>be</u> <u>here</u>

'?aruki'in-ti <u>to help</u> <u>cook</u>	'?arukiini^n (<u>I,you</u>)<u>help</u> <u>cook</u>
'nikin-ti <u>to help</u> <u>walk</u>	'nikini^n (<u>I,you</u>)<u>help</u> <u>walk</u>
'maï'racu-ti <u>to sweep</u> <u>a little</u>	'maï'racuti^n (<u>I,you</u>) <u>sweep</u> <u>a little</u>
(~~'naši-ti to bathe~~)	'naši'cia (<u>I,you</u>) ~~also~~ can <u>bathe</u>
co'opa'in-ti <u>to sit</u> <u>first</u>	co'o'paini^n (<u>I,you</u>) <u>sit</u> <u>first</u>
pi'pan-ti <u>to eat</u> <u>first</u>	'pipani^n (<u>I,you</u>) <u>eat</u> <u>first</u>

5.1.2 Suffix -í,^{n} added to the present-tense stems as given in sections 5.1.1, is used in the third person of verbs, e.g.

'is-ti <u>to see</u>	'isí^n (<u>he</u>) <u>sees</u>
a'ba-ti <u>to run</u>	'abatí^n (<u>he</u>) <u>runs</u>
'?aru-ti <u>to cook</u>	'?aruí^n (<u>he</u>) <u>cooks</u>

Exception:

The third person form of the verb <u>to be</u> is 'ikï, which seems to have no appearance of regularity. It is the only such irregularity found thus far in our study.

5.1.3 Suffix ´ia is added to the present-tense stems to indicate present-progressive time-aspect, in the third person only, and is usually used in subordinate clauses e.g.

'kani-ti <u>to grow</u>	'kanï'ia (<u>he</u>) <u>is</u> <u>growing</u>
k^{w}a'bu-ti <u>to go down</u> (stream)	'k^{w}abútia (<u>he</u>) <u>is going</u> <u>down</u>(stream)
''ku-ti <u>to eat fruit</u>	'kutia (<u>he</u>) <u>is eating</u> fruit

5.1.4 Suffix -a is added to the regular verb stem (formed by dropping the -ti ending from the infinitive) to indicate immediate past, in the first and second persons, e.g.

?u'nan-ti to learn, know ?u'naan (I,you) learned, knew

'is-ti to see 'isa (I,you) saw

5.1.5 Suffix -loⁿ is added to the regular verb stem to indicate past-of-yesterday, in the first and second persons, e.g.

a'ba-ti to run a'bo'oⁿoⁿ

'pi-ti to eat pi'oⁿoⁿ

5.1.6 Suffix -išá is added to the regular verb stem to indicate time-between yesterday and a long time ago, in the first and second persons, e.g.

'is-ti to see 'isIšáⁿ (I,you) saw

a'ba-ti to run a'baI'šáⁿ (I,you) ran

'čuka-ti to wash 'čukaI'šáⁿ (I,you) washed

5.1.7 Suffix -akI is added to the regular verb stem to indicate time long past, in the first and second persons, e.g.

u'bu-ti to come down u'buakI (I,you) came down (river) a long time ago

'u-ti to come 'ɥakI (I,you) came a long time ago

'bI-ti to bring 'bIakI (I,you) brought a long time ago

5.1.8 Suffix -kiⁿ added to the regular verb stem seems to indicate time-long-past, extending over a period of time, in the first and second persons, e.g.

$k^W\text{ĭ}'\text{ĭn-ti}$ to like $k^W\text{ĭ}'\text{ĭnki}$ (I,you) used to like

5.1.9 Suffix -ki^n is used in the foregoing tense in the third preson, e.g.

a'ba-ti to run   a'baki^n (he) used to run

5.1.10 Suffix -nu^n is added to the regular stem to indicate to be going to, in the first, second and third persons, e.g.

co'o-ti to sit   co'o'nu^n (I,you,he) am, are, is
                       going to sit

'bari-ti to look for   'bari'nu^n (I?you,he) am,are,is
                       going to look for

'ka-ti to speak, say   ka'nu^n (I,you,he) am,are, is
                       going to speak

5.1.11 Final consonant, with stress on the final syllable of the verb, indicates imperative mood in the second person. In verbs whose stems end with a vowel, the t of the infinitive is retained, but unreleased. In verbs whose stems ends with a consonant there is no further ending for the imperative form. E.g.

'ra-ti tó do   '?at ḍo(it)!
'is-ti to see   'is Ṣee!

5.2 Outside or second layer of inflectional forms

5.2.1 Suffix -ṣi^n follows suffixes -a, -'o^n, -ĭ'ṣa^n and -akĭ of sections 5.1.4 to 5.1.7, to indicate the third person in the respective tenses, e.g.

?u'nan-ti to know, learn   ?u'naaṣi^n (he) learned just now
a'ba-ti to run   a'bo'oṣi^n (he) ran yesterday
'is-ti to see   'isĭ'ṣa^{n}ṣi^n (he) saw the other
                           day

'?a-ti to do, make   '?aakīšín (he) did (it) a long
                                    time ago

though not as commonly used. Its significance is not clear, it

5.2.2 Suffix -ša may replace the foregoing suffix, ∧and
could possibly indicate action or state continued for
some time. E.g.

a'ba-ti to run   a'baí'šanša (he) ran, was run-
                                    ning the other day

'ku-ti to eat fruit   ku'onša (he) ate, was eating
                                    fruit ~~the other day~~
                                    yesterday

5.2.3 Suffix -ma follows suffix -i of section 5.1.1 to
indicate the negative of the present tense in the first
and second persons, e.g.

'k^{W}an-ti to go   'k^{W}anima (I,you) do not go
a'ba-ti to run   'abatima (I,you) do not run
?u'nan-ti to know   '?unanima (I,you) do not know

     Suffix -ma may also follow suffix -í of section
5.1.2 to indicate the negative of the present tense in the
third person, However, here the suffix seems to cause a
perturbing of the stress pattern in the word as a whole,
causing the stress to fall on alternate syllables. E.g.

                    'k^{W}ani'ma (he) does not go
                    'aba'tima (he) does not run
                    '?una'nima (he) does not know

5.2.4 Suffix -mín follows suffix -ín of section 5.1.2 to
indicate the negative of the present tense in the third per-
son. This form is used much more frequently than the -ma
form of the previous section. E.g.

'k^Wanimí^n (he) <u>does</u> <u>not</u> <u>go</u>

'abatimí (he) <u>does</u> <u>not</u> <u>run</u>

'?unanimí^n (he) <u>does</u> <u>not</u> <u>know</u>

Suffix -mi^m also follows suffixes -ki^n and -ki^n of sections 5.1.8 and 5.1.9, to indicate the negative for this tense in all three persons. The form appears to be the same for all three persons, the non-high tone of the -ki suffix for first and second persons becoming assimilated to high tone. E.g.

k^Wɪ'ɪn-ti <u>to</u> <u>like</u>　　　k^Wɪ'ɪnkɪmí^n (I,you,he) <u>do,does</u>

<u>not</u> <u>like</u>

6　Inflection in Verb Phrases

Verb phrases are composed of some form of the main verb plus some form of the verb <u>to</u> <u>be</u> or of the verb <u>to</u> <u>do</u>.

The verb <u>to</u> <u>be</u> appears to have two forms '?i-ti [in 1st and second persons] of the present tense, '?ai indicating state and '?ii indicating location, position. ?a-ti

6.1　Verb phrases formed with the perfect participle of the main verb

6.1.1　Perfect participle plus <u>to</u> <u>be</u>

6.1.1.1　The simple perfect participle plus the present tense form of <u>to</u> <u>be</u> forms the present passive verb phrase, e.g.

?u'nami-ti to teach　　　?u'namikɪ /?ai^n (<u>I</u>,<u>you</u>) <u>am</u>,

<u>are</u> <u>taught</u>

'is-ti <u>to</u> <u>see</u>　　　'iskɪ ?ikɪ (he) <u>is</u> <u>seen</u>

6.1.1.2　The simple perfect participle plus the immediate past tense form of the verb <u>to</u> <u>be</u> forms the immediate-past passive verb phrase, e.g.

'mapu-ti <u>to</u> <u>cover</u>　　　'mapukɪ '?iašɪ^n (<u>it</u>) <u>was</u>

<u>just</u> <u>covered</u>

'kĭñu-ti <u>to</u> <u>finish</u>   'kĭñukĭ '?iaš̌íⁿ(<u>it</u>) <u>was</u> <u>just</u>
                                              <u>finished</u>

6.1.1.3 The past-of-yesterday participle plus the present-
tense form of <u>to</u> <u>be</u> forms the past-of-yesterday passive verb
phrase, e.g.

'bi-ti <u>to</u> <u>grasp</u>, <u>get</u>   bi'onkĭ ?ikĭ (<u>it</u>) <u>was</u> <u>gotten</u>
                                              <u>yesterday</u>

6.1.1.4 The perfect participle of time between yesterday
and t̸i̸m̸e̸ long past, plus the present tense form of <u>to</u> <u>be</u>
forms the time-between-yesterday-and-long-past passive verb
phrase, e.g.

?i'bin-ti <u>to</u> <u>frighten</u>   ?i'bĭĭⁿ'šankĭ ?ikĭ (<u>he</u>) <u>was</u> *Shep.*
       <u>away</u>   <u>frightened</u> <u>away</u> <u>the</u> <u>other</u> <u>day</u>

6.1.1.5 The time-long-past passive verb phrase might be f
fitted in here better than elsewhere, although on a theore-
tical basis. The stem of the main verb is suffixed by -a,
which could be a shortened form of a theoretical participle
suffix, -akĭkĭ. E.g.

'bi-ti <u>to</u> <u>grasp</u>, <u>get</u>   'bia ?ikĭ (<u>it</u>) <u>was</u> <u>gotten</u> <u>a</u>
                                              <u>long</u> <u>time</u> <u>ago</u>

6.1.2 Negative perfect participle plus <u>to</u> <u>be</u>

The negative forms of the perfect participles followed
by the present tense of <u>to</u> <u>be</u> gives, in the active voice,
the negative past-tense forms. The particular past tense is
indicated by the form of the perfect participle.

Present perfect, negative,

'ankĭ-ti <u>to</u> <u>finish</u>   'ankĭkĭma ?ai^r (<u>I</u>,<u>you</u>) <u>have</u> <u>not</u>
                                              <u>finished</u>, <u>or</u> <u>did</u> <u>not</u> <u>finish</u>

a'ba-ti <u>to</u> <u>run</u>   a'bakɪma ?ikɪ (<u>he</u>) <u>has</u> <u>not</u> <u>run</u>, or, <u>did</u> <u>not</u> <u>run</u>

Past-of-yesterday, negative,

a'bo'oⁿkɪma ?ikɪ (<u>he</u>) <u>did</u> <u>not</u> <u>run</u> <u>yesterday</u>

Past of time-between-yesterday-and-long-past, negative,

a'baɪ'šankɪma ?ikɪ (<u>he</u>) <u>did</u> <u>not</u> <u>run</u> <u>the</u> <u>other</u> <u>day</u>

Time-long-past, negative, (irregular, as in section 6.1.1.5)

'ankɪama ?ikɪ (<u>he</u>) <u>did</u> <u>not</u> <u>finish</u> <u>a</u> <u>long</u> <u>time</u> <u>ago</u>

6.2 Verb phrases formed with the infinitive of the main verb

6.2.1 Infinitive plus <u>to</u> <u>be</u>

The infinitive followed by some tense of the verb <u>to</u> <u>be</u> indicates potentiality. The particular tense is indicated by the tense of <u>to</u> <u>be</u>. E.g.

ra'anka-ti <u>to</u> <u>launch</u> (boat)   ra'ankati ?aiⁿ (<u>I</u>,<u>you</u>) <u>can</u> <u>launch</u>

šɪ'iki-ti <u>to</u> <u>whistle</u>   šɪ'ikiti ?ikɪ (<u>he</u>) <u>can</u> <u>whistle</u>

kʷan-ti <u>to</u> <u>go</u>   'kʷanti ?ia (<u>I</u>,<u>you</u>) <u>was</u>, <u>were</u> <u>able</u> <u>to</u> <u>go</u>

'u-ti <u>to</u> <u>come</u>   'uti ?i'oⁿɔⁿ (<u>I</u>,<u>you</u>) <u>was</u>, <u>were</u> <u>able</u> <u>to</u> <u>come</u> <u>yesterday</u>

etc.

This form may also be interpreted as expressing future time, e.g.

'ka-ti <u>to</u> <u>say</u>   'kati ?ai^n(<u>I</u>,<u>you</u>) <u>shall</u> <u>say</u>

'k^{W}an-ti to go   'k^{W}anti ?ikĭ (<u>he</u>) <u>will</u> <u>say</u>

6.2.2 Negative infinitive plus <u>to</u> <u>be</u>

This combination indicates negative potentiality. The present tense is most common, but other tenses may be used, indicated by various tenses of <u>to</u> <u>be</u>. E.g.

'k^{W}an-ti <u>to</u> <u>go</u>   'k^{W}antima ?ai^n(<u>I</u>,<u>you</u>) <u>can-</u>
            <u>not go</u>

'?a-ti <u>to</u> <u>do</u>, <u>make</u> '?atima ?ai^n(<u>I</u>,<u>you</u>) <u>cannot</u>
             <u>do</u>(it)

An alternate form for negative potentiality will have been noted in section 4.6.

6.2.3 Infinitive suffixed by -bi plus <u>to</u> <u>be</u> ('?i-ti)
              (?,, form)

The infinitive suffixed by -bi followed by some tense of the verb '?i-ti <u>to be</u> indicates <u>must</u>, <u>ought</u>, <u>should</u>, or <u>wish</u> <u>that</u>...<u>might</u>. The particular tense is indicated by the tense of <u>to</u> <u>be</u>. E.g.

'ñu'mĭ'tibi (kaḱ# ?íĭ^n(<u>he</u>) <u>ought</u> <u>to</u> <u>or</u> <u>must</u> <u>work</u>

pĭş'ku'tibi (kamina) ?iĭ^m(<u>may</u>)(<u>you</u>) <u>be</u> <u>better</u>

'isti'bi (ka) '?iaşí^n(<u>he</u>) <u>ought</u> <u>to</u> <u>have</u> <u>seen</u>

'?uşti'bi (kana) ?iĭ^n(<u>I</u>) <u>ought</u> <u>to</u> <u>sleep</u>

'k^{W}anti'bi (kana) '?iakĭ (<u>I</u>) <u>should</u> <u>have</u> <u>gone</u> <u>long</u> <u>ago</u>

6.3 Verb phrases formed with the present tense of the ~~main~~ main verb

6.3.1 Present tense plus <u>to be</u> (~~?i-ti~~) (?ii form)

The present tense form of the main verb followed by some tense of the verb <u>to be</u> ~~?i-ti~~ indicates progressive action. The time of the whole verb phrase is indicated by the tense form of <u>to be</u>. The verb phrases are as follows:

Present progressive

pa'ran-ti <u>to fool</u>   'parani ?ii^n(<u>I</u>,<u>you</u>) <u>am</u>,<u>are</u>
  (someone)   <u>fooling</u> (someone)

Immediate-past progressive

'čuka-ti <u>to wash</u>   'čukai ?ia (<u>I</u>,<u>you</u>) <u>was</u>,
                 <u>were washing just now</u>

Past-of-yesterday ~~prog-ress-~~ 'abati ?i'oŋčí^n(<u>he</u>) <u>was</u>
  ressive   <u>running yesterday</u>
  a'ba-ti <u>to run</u>

Past-of-time-between-yes-   'abati^{ka}'?ii'sačí^m(<u>he</u>)<u>was</u>
terday-and-long-past-   <u>running</u> <u>the other day</u>
progressive

Time-long-past prog-   'abati '?ia'kïčí^m(<u>he</u>) <u>was</u>
  ressive   <u>running long ago</u>

6.3.2 Negative of present tense plus some form of the verb <u>to be</u> ~~?i-ti~~ (?i in form)

This combination is used to express, in the active

voice, the negative past tense forms. The particular past time is indicated by the form of the verb <u>to be</u>. E.g.

a'ba-ti <u>to run</u>   'abatima ?ia (<u>I</u>,<u>you</u>) <u>did</u> <u>not</u>
                                <u>run</u> <u>just</u> <u>now</u>

'bi-ti <u>to grasp, get</u>   'bicima ?i'o^{n}ò^n(<u>I,you</u>) <u>did</u> <u>not</u>
                                <u>get</u> <u>yesterday</u>
                              'abatima '?iiša^{n}a^a(<u>I,you</u>) <u>did</u>
                                <u>not</u> <u>run</u> <u>the</u> <u>other</u> <u>day</u>
                              'abatima '?iakĭ (<u>I,you</u>) <u>did</u>
                                <u>not</u> <u>run</u> <u>a</u> <u>long</u> <u>time</u> <u>ago</u>

In form, these phrases parallel those given in the preceding section, and it seems logical that they should contain the progressive idea, also. The negative past tense forms of section 6.1.2 will have been noted.

6.3.3 Present tense suffixed by -bi, plus some tense of ~~'?i-ti~~ <u>to be</u> (?i form)

    This combination indicates being ready to do something right now, or to be on the point of doing something. (Suffix -bi is used elsewhere also to indicate right away or right here.) The particular tense is indicated by the tense of <u>to be</u>.

a'ba-ti <u>to run</u>   'abatibi ?iⁿ(<u>I,you</u>) <u>am</u>,<u>are</u> <u>ready</u>
                                <u>to</u> <u>run</u>
                              'abatibi ?i'o^{n}ší^n(<u>he</u>) <u>was</u> <u>ready</u> <u>to</u>
                                <u>run</u> <u>yesterday</u>
                              'abatiba '?ia'kĭší^n(he) <u>was</u> <u>ready</u>
                                <u>to</u> <u>run</u> <u>a</u> <u>long</u> <u>time</u> <u>ago</u>

      'abatibi ka '?ii'šaa^n

     'abatibi ka 'ia ši

6.4   Verb phrases formed with the progressive participle
of the main verb#ɑ.

6.4.1   Negativized progressive participle of -šuⁿ form,
plus the imperative form of the verb to do

This type of phrase gives the negative imperative
form for transitive verbs, e.g.

pa'ran-ti to fool (some-   pa'raⁿšuma ka '?at Do
    one)   not fool (someone)
'?aru-ti to cook   '?arušuma ka '?at Do
                            not cook

6.4.2   Negativized progressive participle of -š form,
plus the imperative form of the merb '?i-ti to be

This gives the negative imperative form for in-
transitive verbs, e.g.

'naši-ti to bathe   'naši'ašma ka '?it
                               Do not bathe
a'ba-ti to run   a'baašma ka '?it Do
                            not run

6.5   Negativized -ki form of the main verb plus the im-
perative of to do. (This does not seem to be the -ki form
of time-long-past, as in section 5.1.8, but rather a -ki
form such as is used in dependent verb forms.)

This is another type of negative command, e.g.

'is-ti <u>to see</u>   is'kima ka '?at <u>Do it</u>

<u>without looking</u>

6.6 Verb phrases with -nu^n form of the main verb (as in section 5.1.[10], minus stress)

6.6.1 Stem plus ∤ -nu^n plus the imperative of <u>to do</u> conveys the idea of <u>let us</u> ..., e.g.

'bari-ti <u>to look for</u>   'barinunka '?at <u>Let us look</u>

<u>for</u>

'naši-ti <u>to bathe</u>   'našinunka '?at <u>let us</u>

<u>bathe</u>

(Literally, this could be, <u>I am going to look</u>; <u>do it!</u> and <u>I am going to bathe</u>; <u>do it!</u>)

6.6.2 Stem plus -nu^n plus -ma plus imperative of <u>to be</u> '<s>?i-ti</s>

     This seems to be a deferential way of giving a command, e.g.

'baka-ti <u>to open</u> (box, etc.) 'baka'numa ka '?i^n<u>Please</u>

<u>open</u> (the box)

?i'nan-ti <u>to give</u>   ?i'nanuma ka '?i^n<u>Please give</u>...

Here the usual unreleased t of imperative forms never seems to be present.

FOOTNOTES

2   The phonemes are: stops, p,t,k,k^W,?; affricateu stops, c,č;
fricatves, b, s š, ṣ; nasals, m,n,ñ; vibrant r; vowels, i,
e,a,ɪ,u, o and the nasalized counterparts, i^n, e^n , a^n, ɪ^n,
u^n, o^n/. The two latter vowels are mid rounded back vowels,
close and open respectively. Low dot indicates syllable division,
(') preceding syllable denotes stress (accompanied by high tone), ᷉ indicates

3   Since we wish to call attention to the stems, the infini-
tives ending -ti is separated from the stem by a hyphen. Verb ~~stems~~
stems alone do not occur as words.

4   Verb stems do not occur as word forms alone. However they
are termed "free" ~~in this paper~~ when inflectional forms may be
added to them without further change or additions.

5   Of these long-stem verbs a list is given here.
Transitive verbs:

'?ara'ka-ti <u>to possess</u> 'čikihaʔti <u>to testify, declare</u>

a'baba'ka-ti <u>to warble</u> 'čina'mɪ-ti <u>to wrinkle</u> (cloth)

'bɪa'ra-ti <u>to surround</u> 'mɪkama-ti <u>to steal</u>

bɪ'ka'ṣaru-ti <u>to tie in</u> 'nuiba-ti <u>to love, do good</u>
            <u>knots</u>

bɪ'sɪna-ti <u>to smoke</u> 'papa'kɪ-ti <u>to pierce hole</u>
            (meat)   <u>in ear</u>

'bɪcuku'ka-ti <u>to kiss</u> 'rɪčio-ti <u>to tie together,</u>
                                <u>join</u>

                       ta'aškɪ-ti <u>to wind</u>

                       'tañañun-ti <u>to tie with</u>
                                <u>ribbon</u>

Transitive verbs:
?a'tiṣanki-ti <u>to sneeze</u>   ?uṣ'kɪntɪn-ti <u>to keep watch</u>
                                     <u>at night</u>

'bĭna'mĭ-ti <u>to be cloudy</u>
'bĭñu'nan-ti <u>to be overripe</u>
'k^waina'kĭ-ti <u>to turn</u>
<u>around</u>
k^wĭ'iⁿsa-ti <u>to harm the body,</u>
<u>make oneself ill</u>
k^wĭ'manuku-ti <u>to make a</u>
<u>mistake</u>
'mapĭra'kĭ-ti <u>to ascend a hill</u>
pĭ'kara-ti <u>to rise</u> (the sun)
'papura-ti
'nirakĭ-ti <u>to arrive on foot</u>
'nanipa'kĭ-ti <u>to give birth</u>
'pĭñkĭ'rakĭ-ti <u>to turn over</u>
'mina'rĭrĭki-ti <u>to sift down</u>

'rantipu'run-ti <u>to kneel</u>
ra'rama-ti <u>to be careless</u>
'raruma-ti <u>to weep for</u>
<u>the dead</u>
'raṣuku-ti <u>flesh to spoil</u>
ra'ṣutu-ti <u>to be very cold</u>
'riu'ku-ti <u>to sift down</u> ?
'taramĭ'kĭbu-ti <u>to come down</u>
<u>a hill</u>
'tĭkĭrĭki-ti <u>to tie</u>
tu'bĭru-ti <u>to be covered with</u>
<u>vegetation</u>
cĭ'ciru-ti <u>to be muddy</u>
'uina'kĭ-ti <u>to rest</u>
'unu'mĭ-ti <u>to burn oneself</u>

6. There is no distinction in the verb forms to indicate number or gender. In the examples, the English pronouns are placed in parenthesis to indicate the person of the verb.

7 The simple perfect participle is formed from the regular verb stem plus the perfect participle ending -kĭ. The particular time element is introduced into perfect participle endings by placing before -kĭ the time-element morphemes, -'o$_{ơ}^{n}$, -ĭ'ṣa$_ơ^n$-akĭ, given in sections 5.1.5 to 5.1.7. Thus the following perfect participle forms appear:

'kĭ-ti <u>to say, tell</u>   'kikĭ <u>said, told</u>

'ʔaru-ti <u>to cook</u>   'ʔarukĭ <u>cooked</u>
ɬmaru-ti <u>to buy, sell</u>   'maru'onkĭ <u>bought, sold yes-</u>
<u>terday</u>

'is-ti <u>to see</u>   'isǐšankǐ <u>seen the other day</u>

Only one occurrences of the time-long-past participle has been found,

'kani-ti <u>to grow</u>   'kania'kǐkǐ <u>old</u>

The perfect participle suffixes may be negativized by adding the negative suffix -ma, e.g.

'ankǐ-ti <u>to finish</u>   'ankǐkǐma <u>not finished</u>

                        etc.

8   The forms kana (first person), kamina (second person), ka (third person) are indicative of the subject and the predicate, that is, they are dependent as to form upon both. Some one of the forms appears in almost all sentence constructions. They are separate from the verb words, but are inserted here because they regularly appear between the two verb words in constructions such as these. This is also the case in other parts of section 6 where they are inserted.

9 The simple progressive participle is formed from the regular verb stem to which is added suffix -š, or -šu^n. Suffix -š is used when the principal verb is intransitive in the sentence, and suffix -šu^n is used when the principal verb is transitive in the sentence. These suffixes, like the perfect participle suffixes, may be preceded by the time-element morphemes; the intransitive form is always preceded by the immediate-past morpheme -a- if no other time-morpheme is used. Only the simple forms are used in this paper, e.g.

sǐ'buaš <u>on, while closing the hand</u>

'bǐsušu^n <u>on, while waking</u>

co'ošu^n <u>on, while sitting</u>

In verb phrases the form -ŝuⁿ is used with auxiliary verb
to do, and -ŝ form is used with to be.

The progressive participles may be negativized by
adding the negative suffix -ma, e.g.

co'oŝuma or co'oaŝma   not sitting

INSTITUTO LINGUISTICO DE VERANO
Apdo. 2492, Lima, Perú

Olive Shell
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Verb Morphology of Cashibo
(tentative description)

VERB MORPHOLOGY OF CASHIBO
(tentative description)

1. Phonomechanics and Morphophonemics

1.1 Phonomechanics: A few phonological phonomena are universal in the language.

1.1.1 When /s/ is followed by /z/[10] there appears to be regressive assimilation and then reduction to only one phomeme /s/, e.g.

    is-zu[10]-ma-ka-?at   becomes   i'suma ka '?at[10]   "Do not look!"

1.1.2 When /a/ is followed by /ø/ or /o/[10] there is regressive assimilation, /a/ becoming /ø/, e.g.

    a'ba (stem for "run") plus   -o (yesterday time-ending) becomes a'boo "...ran yesterday"

Sometimes the resulting cluster is reduced to one vowel. This is true in derived verb stems formed with the suffix -'oti, e.g.

    cha'ba "wet" plus -'oti "to make"(bound form) becomes cha'boti "to make wet".

1.1.3 /ø/[10] preceded by /i/ becomes /i/, /ø/ followed by /o/ becomes /i/, e.g.

    ni- plus -øza   becomes 'niiza "...walked the other day"

    sø'rø plus -oti   becomes sø'rø'oti " to make crossed markings"

1.1.4. Word medial glottal stops do not occur. When two or more stems are united to form a compound or secondary derivative, all but initial glottal stops of the resultant complex form are dropped, e.g.

    tø'za   plus   ?i'kuti   gives   'tøi'kuti   "to hug around the neck"

1.1.5. When nasalized vowels occur before voiceless stops or affricates (or word finally) the vowel loses part or all of its nasalization and a nasal consonant appears- /m/ before bilabials, /n/ before alveolars and phometic /ŋ/ before velars, e.g.

    'kʷanti "to go"   'kʷam'puni "...went this morning"

    'kʷan'kø'mak (kʷaŋ'kø'mak)   "he didn't go"

    'kʷa'zi[10] "he went"   ka 'kʷan "go!"

Word finally the change is optional, but is usually made.

1.6 Before back rounded vowels, phoneme /k^w/ loses its labialization, e.g.

k^{w}a- (stem for "to go") plus -o (yesterday time-ending) becomes

'koo "...went yesterday"

The /a/ of the stem obviously is first assimilated to /o/, and then influences the /k^w/, reducing it to simply /k/.

We have found no occurrence in the language of /k^w/ immediately preceding vowel /u/.

1.1.7 Nasalization of one vowel usually carries over to contiguous vowels, though arbitrarily.

1.2 Morphophonemics: The following phonological processes occur only in some verb forms.

1.2.1 The final vowel may be dropped or may fade into silence in the third-person suffix of past tenses, /-zi/, e.g.

'k^{w}azi^{10} "he went" may become 'k^{w}az, with a possible lengthening of the vowel /a/.

2 Criteria of Verb Form Class:

Verb-like words are determined by the criteria of form. They are words which occur with inflectional suffixation endings to indicate tense-aspect, and person of the subject.

3 Stem Formation

3.1 The stem of the verb is obtained from the infinitive form; the infinitive ending, -ti, is dropped, and the remaining stem is the verb stem. Section 1.2.1 applies in those infinitives in which the -ti ending is preceded by /n/. It is understood that the underlying stem contains a nasal vowel, whose nasalizatio appears here as /n/ before the -ti ending. Verb stems may also be obtained by dropping the -kø ending from the perfect participleform. In most examples of this paper the infinitive forms are given first.

Verb stems are of two classes, simple and complex. Simple stems are those

which are composed of one morpheme; complex stems contain more than one morpheme.

3.1 Simple stems ~~are of one morpheme, and~~ may be of one syllable, of two syllables with stress on the second syllable, or of two syllables with stress on the first syllable.

3.1.1 Stems of one-syllable morphemes may follow be any one of these patterns:

V, CV, VC, CVC, e.g.

'u-ti' "to come"   'zø-ti "to smell"

'is-ti "to see"   'niz-ti "to be disturbed"

3.1.2 Stems of two-syllable morphemes, with stress on the second syllable, are of these patterns: V'CV, V'CVC, V'VC, CV'V, CV'VC, CV'CV? CV'CVC, CVC'CV, CVC'CVC, e.g.

ø'chi-ti   "to mash"   ø'røn-ti   "to light (something)"

u'in-ti   "to breathe"   chø'ø-ti   "to mash"

ka'is-ti   "to choose"   bu'kø-ti   "to tie"

chi'kiz-ti   "to be lazy"   bøz'ku-ti   "to get well"

køz'kan-ti   "to wabble"

It will be noted that some of these patterns are found only because of the appearance of a nasal consonant before a stop, in place of a nasalized stem-vowel, as explained in section 1.1.5.

3.1.3 Stems of two-syllable morphemes , with stress on the first syllable, are of these patterns: 'V.CV, 'VC.CV, 'CV,V, 'CV.CV, 'CV.CVC, 'CVC.CV, e.g.

'ina-ti   "to row (a boat)"   'an.kø-ti   "to finish"

'chi.a-ti   "to stretch out (something)"

'?a.ru-ti   "to cook"   'ni.kin-ti "to accompany"

'maz.ku-ti "to cut (hair)"

Section 1.1.5 applies here, too, as will have been noted.

3.1.4 A few simple verb stems are simply noun, adjective or adverb stems with verb derivational or inflectional endings added. These, then, become simple verb stems, and follow the patterns of stems as in sections 3.1.2 or 3.1.3 above. None have been found of pattern 3.1.1. E.g.

i'mø "night"   i'mø-ti "night to be falling"

'uku "cough"   'uku-ti "to cough"

.2   Complex stems

Complex stems appear to be of three classes: primary derivatives, secondary derivatives and compounds.

3.2.1   Primary derived stems are composed of a one-morpheme stem, of one of the three types as in section 3.1, plus the bound morphemes -ka, or -ki.   Thus far in our investigation, the stems to which these suffixes are added appear to be bound. -ka is used in transitive verb forms,[2] and -ki in intransitive forms Often both morphemes may be used with the same stem, e.g.

'kǿki-ti "to call loudly"   'kǿka-ti "to call (someone) loudly"
tu'kanki-ti "(water)to be in waves"

           tu'kanka-ti   "to ~~call (someone) loudly~~"
                    make waves in water"
   mǿ'biski-ti "to cut one's hand"

          tǿ'biska-ti "to behead (someone)"

3.2.2   Secondary derived stems may be formed by the prefixation, or by the suffixation, of bound forms to the "free"[3] stem.

3.2.2.1   Prefixation

3.2.2.1.1 The initial syllable of name words for body parts may be prefixed to verbs to convey the idea of the action having been performed on that part of the body, e.g.

maz8km "head"   'nǿa-ti "to tie"   'manǿa-ti "to tie one's head"
tǿ'za "neck"   ?i'ku-ti "to hug"   'tǿi'ku-ti "to hug around neck"
'babuzu "elbow"   'tazka-ti "to hit"   ban'tazka-ti "to hit one's
                                                elbow"

3.2.2.1.2 The initial syllable of other noun-words and of adverb words may be used as prefixes also, e.g.

'zǿki "corn"   'zǿmǿti "to shell corn"
ma'nami "high"   ma'ni-ti "to stand on top"
       'mǿ-ti "to touch"
       'ni-ti "to stand"

3.2.2.2   Suffixation

3.2.2.2.1 Verb-stem plus bound form -nø-

Suffix -nø- is added to verb stems to give the idea of "in the night", e.g.

'?a-ti "to study, to do"   '?anø-ti "to study at night"
ñu'no-ti "to smoke (meat)"   ñu'nonø-ti "to smoke(meat) all night"

3.2.2.2.2. ~~Adjective~~ Attributive or noun plus verbalizer -ru-
   kaz8ta "brownish yellow"   kaz'taru-ti "to become ripe, yellowish"
   'uzu "white"   'uzuru-ti "to become ripe, whitish"

3.2.2.2.3 ~~Attributive~~ Adjective or noun, plus verbalizer -ki-
   bøz8ba "fine, smooth"   bøz'baraki-ti "to be fine in texture"
   u'pi "pretty"   u'piki-ti "to be pretty"
   'pøiaua'puru "aeroplane"   'pøiaua'puruki-ti "to be an aeroplane"

   There may be more than one layer of immediate constituents, e.g.
   '?a-(stem for "to do"), -kø-(past participle suffix), -sa (postposition
   used as "like" or "as")
       '?akøsaki+ti "to be as it was done before" or "to be like done"
   'baka "river"   'bakami "in, under, the river"
   'bakami'ki-ti "to drown" or "to be in or under the river"

3.2.2.2.4 Noun or attributive stems verbalized by -o-ti, a bound form having
the significance of "to make", e.g.
   'zara "tar, pitch"   'zarao-ti "to burn to make tar or pitch"
   i'tsis "hot"   i'tsiso-ti "to make hot"
   u'pi "pretty"   u'pio-ti "to make pretty"

   There may be more than one layer of immediate constituents, e.g.
   'kata "layer",   ma'bø "two"   'katarabøo-ti "to make in two layers"
                                         or "to twist into rope"

3.2.2.2.5 -ka- and -kø- are used, though rarely, with free forms, e.g.
   ra'iz-ti "to scrape"   ra'izka-ti "to slide, to slip"
   ni'pa-ti "to drop, knock down"   'nipakø-ti "to fall"

3.2.3 Compounds are of four groups according to form-class of immediate
constituents.

3.2.3.1 Compounds formed by combining different verb stems: Two or more "free" stems may be combined to form a compound stem, e.g.

'tao-ti "to sit upright"   'na-ti "to place"   'tsona-ti "to set
perhaps not accurate   upright"

'kʷai-ti "to play"   'ni-ti "to walk"   'kʷaini-ti "to go playing"

3.2.3.2 Other compounds are formed by noun-plus-verb combinations, e.g.

ñu "things"   'bi-ti "to pick up"   'ñubi-ti ? to owe"

'zua "itching"   'mø-ti "to touch"   'zua'mø-ti "to scratch"

ñu "things"   'mø-ti "to touch"   'ñu'mø-ti "to work"

'kata "layer"   'ni-ti "to stand, throw"   'kata'ni-ti "to tie in layers"

3.2.3.3 Compound stems are also formed by reduplication of a simple verb stem. They express action continued a long time, or done over and over again. E.g.

køz'kan-køz'kan-ti "to ~~be thinking and thinking~~ wabble(like a weak

si'na-si'nan-ti "to be thinking and thinking"   table)"

~~'ʔibu-'ʔibu-ti "to be falling and falling (rain)"~~

3.3 Stems of more than three syllables:

3.3 Some verbs, comparatively few, may be of three or more syllables, other than those types indicated under derived and compound forms. Further investigation may enable us to classify them under types already given, or to form new sections for the derived forms. From the general pattern it would seem that these must be derived rather than simple stems.[4]

3.4 Transitive and Intransitive Categories

All the foregoing methods of stem formation apply equally to transitive and intransitive verbs. Transitive verbs in Cashibo are those in which the action is carried across to an object. The object may be stated or implied. That is, the quality of the verb is potentially transitive. Intransitive verbs are those not able to take an object. There are few differences in the formation of transitive and intransitive verbs in their stems, and derivational and inflectional layers. The forms of section 3.2.1 will have been noted; for ~~inflec~~ inflectional differences see sections 6.6.1 and 6.6.2.

However, when a verb concept may be potentially both transitive and intransitive, a difference of stress-pitch is ~~made~~ noted in the verb stem : the stress-pitch feature occurs on the second syllable in intransitive stems, and on the first syllable in transitive stems, e.g.

Intransitive:

 i'nu-ti "to pass"

 ma'nu-ti "to forget"

 u'nø-ti "to hide oneself"

Transitive:

 'inu-ti "to pass(something)"

 'manu-ti "to forget (something)"

 'unø-ti "to hide (something)"

About twelve examples hf these contrasting patterns have been found.

Though stress-pitch changes are regular in the above, it does not follow that these patterns are mutually exclusive for transitive and intransitive forms. The patterns in general, as given in sections 3.1.1, to 3.1.4 may be transitive or intransitive.

A few examples of another contrasting pattern have been observed, which may be typical of others. The intransitive form 'zua-ti "to scratch" becomes zu'an-ti "to scratch (someone else)" in the transitive form.

4 Secondary derived stems, continued -

Semantic categories of further derivational suffixation

While the stemformations as described in section 3 are basic, other layers of suffixation may be added to these before the final outside purely-inflectional layers are added. These medial suffixes will be listed in semantic categories rather than in order of occurrence , since they do not occur in any fixed order. They are listed in the order heard most frequently. The suffixes are bound forms added to "free" stems.

4.1 -ru- indicates "up", as in 'k^{w}aru-ti "to go upstream"

          'niru-ti "to stand up"

          'biru-ti "to pick up (something)"

4.2 -bu- indicates "down", as in 'k^{w}abu-ti "to go downstream"

          'banabu-ti "to be going down while talking

          ?i'bumi-ti "to put down"

4.3 -pa- seems to imply the intensifying of an action, or the addition of weight, e.g.

     na'nømpati "to embark (sinking the canoe in the water)"

    'biiska'pa-ti "to mangle, cut in pieces"

'tuka'pa-ti "to cut in small pieces"

4.4. -mi- causative,

?u'nan-ti "to learn"   ?u'nami-ti "to teach"

'is-ti "to see"   'ismi-ti "to make one see, to show"

bu'an-ti "to carry"   bu'ami-ti "to send"

4.5 -ishi- expresses the idea of "just" or "only",

'tso'o-ti "to sit"   tso'oi'shi-ti "to be just sitting"

'?e-ti "to swallow"   '?ei'shi-ti "to devour" or "to be just
swallowing"

4.6 -'kasma- non-ability, "can not"

'k^{W}a-ti "to hear"   k^{W}a'kasma-ti "not to be able to hear"

'bi-ti "to pick up"   bi'kasma-ti "not to be able to pick up(something)

'k^{W}aru-ti "to go upstream" 'k^{W}aru'kasma-ti "not to be able to go upstream

4.7 -zun- or -zu- altruitive, to do something for someone else,

a'ba-ti "to run"   a'bazun-ti "to run for someone else"

bu'an-ti "to carry"   bu'azun-ti "to carry for someone else"

?a'a-ti "to do, make" ?a'zun-ti "to do(something)for someone else"

4.8 -tøkø- repetitive

'u-ti "to come"   'utø'kø$_n$-ti "to come again"

?a'zun-ti "to do for someone"

?a'zuntø'køn-ti   or   '?atøkø'zun-ti

"to do (something) again for someone"

4.9 -a'nan- or -a'na- reciprocal "each other"

'mø-ti "to touch"   'møa'nan-ti "to touch each other"

'is-ti "to see"   i'sanan-ti "to see each other"

4.10 -bi'an- or -bi'a ambulatory,"while going", used with transitive
verbs

ra'izka-ti "to slide"   ra'iz'kabian-ti "to slide while going"

'?ø-ti "to leave"   '?øbian-ti "to leave behind while going"

?i'ku-ti "to hug"   ?i'kubi'an-ti "to hug while going" or
"to carry in arms"

4.11   -ki'an-   or   -ki'a   ambulatory "while going", used with intransitive
verbs

        a'ba-ti "to run"   a'baki'an-ti "to run,while going"
        ri'i-ti "to walk with others"

                              ri'iki'an-ti "to walk, going, with others"

4.12   -bøtsin-   or   -bøtsi ambulatory, to come while or after some other
action is in progression, used with transitive verbs,
    'pi-ti "to eat"   'pibø'tsin-ti "to come while or after eating"
    '?a-ti "to do,make"   '?abø'tsin-ti "to come while or after doing"

4.13   -kʷatsin-   or   -kʷatsi-   ambulatory, to come while or after some other
action is in progress, used with intransitive verbs,
    'kʷai-ti "to play, laugh"   kʷai'kʷatsini "...come playing"
    'uz-ti "to sleep"   'uz'kʷatsini "to. come after sleeping", or

4.14   -bai-   continuative, to-day "for some time to-day"[5]
    'ka-ti "to say"   'kabai-ti "to say much to-day"
    'ni-ti "to walk"   ni'bai-ti "to walk much,"
    a'ba-ti "to run"   a'babai-ti "to run much"

4.15   -'pun-   or   -pu   time element,"this morning"
    'kʷan-ti "to go"   'kʷampuni "...go this morning" or "...went
                             this morning"
    a'ba-ti "to run"   a'baki'ampuni "...went running this morning"
    'ka-ti "to say"   'kapuni "...said this morning"

4.16   -kan-   or   -ka   gives a subject idea, "the others"
    a'ba-ti "to run"   a'baki'am'pun'ka'ni "the others went running
                                this morning"
    '?i-ti "to be,here,or there"   ?i'kan-ti "the others to be here"
    'chuka-ti "to wash"   chuka'kan-ti "the others to be washing(something)"

4.17   -tan-   or   -ta-   time element, "right now"
    'bi-ti "to pick up"   bi'tan-ti "to pick up right now"
    'kʷan-ti "to go"   kʷan'tan-ti "to go right now"

4.18 -pan- or -pa̱ or -pa'i̱   time element, "first"

     'pi-ti "to eat"   pi'pan-ti "to eat first"

     'ni-ti "to walk"   ni'pan-ti "to walk first"

5 Inflectional Suffixation and Inflectional Supra-segmental Change in single-word verbs.

Inflectional changes indicate tense-aspect and person of the subject. There are simple forms, consisting of only one word, and complex forms, in which the verb thought is contained in a verb phrase consisting of two words. These will be described respectively as verb words and verb phrases. This section deals with inflectional forms in verb words.

5.1 Inside layer of inflectional changes

5.1.1 Suffix -i̱[6] with low pitch, added to the present-tense verb stem indicates simple present tense in first and second persons. The present-tense stems are formed in the following manners:

5.1.1.1 The present-tense stem used in one-syllable morpheme stems, as in section 3.1.1, is the regular stem obtained by dropping the infinitive ending -ti, e.g.

     'is-ti "to see"   'isi̱ "(I,you)[7] see"

     'nan-ti "to place"   'nani̱ "I,You) place"

     'mø-ti "to touch"   'møi̱ "(I,you) touch"

There are exceptions:

  1) The "t" of the infinitive is retained in the present-tense stem of the following verbs:

     'ku-ti "to eat fruit"   'kuti̱ "(I,you) eat fruit"

     'kʷa-ti "to hear, understand" 'kʷati̱ "(I,you) hear, understand"

     'rø-ti "to kill, knock down" 'røti̱ "(I,you) kill, knock down"

and also in

'zɸ-ti "to smell"   'pɸ-ti "to take off(clothing)"
'zu-ti "to order"   'tu-ti "to impregnate"

2] The "t" of the stem is retained but changes to an affricate "ts" in:

'bi-ti "to pick up".   'bitsi "(I,you) pick up"
'ni-ti "to walk"   'nitsi "(I,you) walk"

3) The vowel changes from "u" to "a" to form the present-tense stem of

'u-ti "to come"   'ai "(I,you) come"

5.1.1.2 The present-tense stem for all two-syllable morpheme stems, in which the stress is on the second syllable, as in section 3.1.2, involves a supra-segmental change in the regular verb stem, the stress being shifted from the second to the first syllable. If the stem ends in a vowel, the "t" of the infinitive is retained for the present-tense stem, e.g.

a'ma-ti "to step on (something)"

'amati "(I,you) step on (something)"

?i'a-ti "to carry over one's shoulder"

'?iati "(I,you) carry over shoulder"

chi'bi-ti "to steer(canoe)   'chibiti "(I,you)steer"

If the regular stem ends with a consonant, _other than "n"_ the "t" is not retained for the present-tense stem. The "n" is retained when present in the infinitive stem.

na'ish-ti "to scrape off"   'naishi "(I,you) scrape off"
?i'nan-ti "to give"   '?inani "(I,you) give"
u'in-ti "to breathe"   'uini "(I,you) breathe"

5.1.1.3 The present-tense stem for two-syllable verb stems of one morpheme, in which the stress is on the first syllable, as in section 3.1.3, is the regular stem formed by dropping the infinitive ending "-ti", e.g.

'?ina-ti "to row"   '?inai "(I,you) row"
'kɸku-ti "to weave(baskets)   'kɸkui "(I,you) weave"
'chia-ti "to stretch"   'chiai "(I,you) stretch"

Only one occurrence of a stem of this stress pattern ending with a consonant has been found, and this is the n-before-t type. Its present-tense stem is formed by dropping the infinitive ending "-ti". This verb is

'nikin-ti "to accompany"   'nikini "(I,you) accompany"

5.1.4 The present tense stem for primary-derived verb stems, as in section 3.2.1 _formed_ by dropping the infinitive ending "-ti", egg.

    bu'aka-ti "to fill "   bu'aka**i** "(I,you) fill"

    pø'aski-ti "to appear"   pø'aski**i** "(I,you) appear"

5.1.1.5 The present-tense stem forms for secondary-derived verbs of sections 3.2.2 ~~present little difficulty.~~
are as follows

    In those stems formed by prefixation as in section 3.2.2.1, the present-tense form of the main part of the verb is retained, e.g.

    'zømø-ti "to shell corn"   'zømø**i** "(I,you) shell corn"

    mø'biski-ti "to cut oneself" mø'biski**i** "(I,you) cut..."

    In suffixation, forms -nø- and -kø- seem to retain the "t" of the infinitive, while -ru-,-ki-, -ka- and -o- forms do not, e.g.

    'pinø-ti "to eat at night"   'pinøt**i** "(I,you) eat at night"

    ni'pakø-ti "to fall"   ni'pakøt**i** "(I,you) fall"

    'kaih'taru-ti "to ripen"   'kaih'tarut**i** "(it) ripens"

    u'piki-ti "to be pretty"   u'piki**i** "(it) is pretty"

    ra'izka-ti "to slip, skid"   ra'izka**i** "(I,you) slide"

    u'pio-ti "to make pretty"   u'pio**i** "(I,you) make pretty"

5.1.1.6 In the derived forms of section 4, bu-, pa-, 'shi-, kasma, ane bai- retain -t- in the present-tense stem, The others drop it. 5.1.1.7 Compound verb forms seem to follow the pattern of final constituent _verb_ for present stem

5.1.2 Suffix -i with high pitch (written -**í**) added to the present-tense stems as given in sections 5.1.1 is used in the third person of verbs, e.g.

    'is-ti "to see"   'is**í** "(he) sees"

    a'ba-ti "to run"   'abat**í** "(he) runs"

    '?aru-ti "to cook"   '?aru**í** "(he) cooks"

Exception:

    The third person form of the verb "to be" is 'ikø, which seems to have no appearance of regularity. It is the only such irregularity found thus far in our study.

5.1.3 Suffix -a or -**a**⁶ is added to the regular verb stem (formed by dropping the -ti ending from the infinitive) to indicate immediate past, in the first and second persons, e.g.

    ?u'nan-ti "to learn, know"   ?u'na**a** "(I,you) learned, knew"

    'is-ti "to see"   'is**a** "(I,you) saw"

5.1.1.6 (continued)

Examples of present tense forms:

bu'aru-ti "to lift up"   bu'arui "(I,you) lift up"

b∅'ubu-ti "to be in tears"   b∅'ubuti "(I,you)am, are, in tears"

'tuka'pa-ti "to break"   'tuka'pati "(I,you)break in pieces"

?u'nami-ti "to teach"   ?u'namii "(I,you)teach"

tso'o'ishi-ti "to just sit down" tso'o'ishiti "(I,you)just sit down"

k^{W}a'kasma-ti "to not be able   k^{W}a'kasmati "(I,you)can not go"
                to go"

ra'k^W∅zun-ti "to frighten"   ra'k^W∅zuni "(I,you)frighten"

'ut∅k∅n-ti "to come again"   'ut∅k∅ni "(I,you) come again"

'm∅a'nan-ti "to hit one another" 'm∅anani "(I,you)hit each other"

'pibi'an-ti "to go eating"   'pibiani "(I,you) go eating"

a'baki'an-ti "to go running"   a'bakiani "(I,you) go running"

'?ab∅'tsin-ti "to come while   '?ab∅tsini "(I,you)come while or after
        or after doing"   doing"

B∅'n∅k^{W}a'tsin-ti "to come   b∅'n∅'k^{W}atsini "(I,you)come hurrying"
        hurrying"

ni'bai-ti "to walk much"   'ni'baiti "(I,you) walk much"

                                 a'bapuni "(I,you) ran this morning"

?i'kan-ti "the others   '?ikani "(you) others are (here)"
        to be(here)"

-ta not used in present tense principal construction

'nipan-ti "to walk first"   'nipani "(I,you) walk first"

5.1.4 Suffix -o is added to the regular verb stem to indicate past-of-yesterday
in the first and second persons, e.g.

       a'ba-ti "to run"   a'boo "(I,you) ran yesterday"

       na'cha-ti "to mash(bananas)"   na'choo "(I,you) mashed yesterday"

5.1.5 Suffix -øza or -øza (the initial "ø "is sometimes slightly nasalized,
thus there is free variation between phonemes ø and ø̨, though the
unnasalized form is more frequent) is added to the regular verb stem to indicate
time-before yesterday, or "the other day", in the first and second persons, e.g.

       'is-ti "to see"   'isøza "(I,you) saw"

       a'ba-ti "to run"   a'baø'za "(I,you) ran"

5.1.6 Suffix -akø (or -akø -- again, there also seems to be free variation between
phonemes ø̨ and ø) is added to the regular verb stem to indicate time long
past, in the first and second persons, e.g.

      u'bu-ti "to come down (river)" u'buakø "(I,you) went down (river) a long time ago"

      'u-ti "to come"   'uakø "(I,you) came" a long time ago"

      'bø-ti "to bring"   'bøakø "(I,you) brought a long time ago"

5.1.7. Suffix -ki may be added to the stem, and seems to indicate a past in-
definite time. Perhaps the real significance of this suffix has not yet been
discovered. ~~Eventually it may be placed with the forms of section 4.~~ The tone
seems low except in the third person where it is high. E.g.

      a'ba-ti "to run"   a'bakí "(he) ran before"

5.1.8. Suffix -nu (unstressed with low tone in subordinate clause construction)
is stressed with high tone in principal verbs, is added to the regular stem to
convey the idea "to be going to", in the first, second and third persons.

      a'ba-ti "to run"   a'banu "(I, you are etc.)going to run"

      tso'o-ti "to sit down"   tso'onu "(I am, you are etc.)going to sit down"

      'bari-ti "to look for"   'barinu "(I am, you are etc.)going to look for"

    In regular stems of one syllable, the stress-high-pitch is taken from
the stem and appears only on the suffix, e.g.

      '?a-ti "to do"(something)" ?a'nu "(I am etc.)going to do(something)"

      'ka-ti "to speak, say"   ka'nu "(I am etc.)going to speak"

5.1.9 Final consonant, with high pitch on the final syllable, indicates imperative mood in the second person. In verbs whose stems end with a vowel, the "t" of the infinitive is retained, but unreleased. In verbs whose stems end with a consonant, there is no further ending for the imperative form. E.g.

'?a-ti "to do"   '?át "Do (it)!"

'is-ti "to see"   'is "See!"

5.2 Outside or Second Layer of inflectional Suffixes

5.2.1 Suffix -zí follwos -a, -o,-øza and -akø of sections 5.1.4 to 5.1.7, to indicate the third person in the respective tenses, which are described in the above sections, e.g.

?u'nan-ti "to know, learn"   ?u'nazí "(he) learned just now"

a'ba-ti "to run"   a'boozí "(he) ran yesterday"

'is-ti "to see"   'isø'zazí "(he) saw the other day"

'?a-ti "to do, make"   '?a'køzí "(he)did it a long time ago"

5.2.2 Suffix -ma (unstressed) may follow i of section 5.1.1, to indicate the negative of the present tense in the first and second persons. The form -i loses its nasal quality. E.g.

'kʷan-ti "to go"   'kʷanima "(I,you) do not go"

a'ba-ti "to run"   'abatima "(I, you) do not run"

?u'nan-ti "to know"   '?unanima "(I, you) do not know"

Suffix -ma may also follow -í of section 5.1.2. The form -í loses its nasal quality. The stress-tone feature of -ma seems to depend on the stress pattern of the whole word. This pattern changes from the present-tense pattern of section 5.1.2, into a form in which stress-tone is placed on alternate syllables, e.g.

'kʷani'ma "(he) does not go"

'aba'tima "(he) does not run"

'?una'nima "(he) does not know"

5.2.3 Suffix -mí is added to the third person present-tense suffix -í as in section 5.1.2, to negativize the verb. This form is used more often than the third person -ma-form of section 5.2.2. The suffix -í loses its nasalization.

'kʷanimí "(he) does not go"

'abatimí "(he) does not run"

'?unamimí "(he) does not know"

6 Inflectional Forms in Verb Phrases

Verb phrases are composed of some form of the main verb plus the ~~auxili~~ auxiliary verb "to be" or "to do".

6.1 Verb phrases formed with the perfect participle:
(see note 2 as to formation and forms of perfect participles)

6.1.1 Perfect participle plus "to be"

6.1.1.1The simple perfect participle plus the present tense form of "to be" forms the present passive verb phrase, e.g.

?u'nami-ti "to teach"   ?u'namikø ?ai "(I am, you are)taught"

'is-ti "to see"   'iskø '?ikø "(he) is seen"

perfect
6.1.1.2 The simple participle plus the immediate past of the verb "to be" forms the immediate-past passive, e.g.

'mapu-ti "to cover"   'mapukø '?iazí "(it)was just covered"

'køñu-ti "to finish"   'køñukø '?iazí "(it)was just finished"

6.1.1.3 The past-of -yesterday participle plus the present-tense form of "to be" forms the past-of-yesterday passive verb phrase, e.g.

'maru-ti "to buy, sell"   'maruonkø '?ikø "(it)was bought, sold,
                                                                    yesterday"

6.1.1.4 The perfect participle of time-between-yesterday-and-long-past, plus the present tense form of "to be" forms the time-between-yesterday-and -long-past passive verb phrase, e.g.

?i'bin-ti "to frighten away" ?i'bigzankø '?ikø "(he)was frightened
                                                                  away the other day"

6.1.1.5 The time-of-long-ago passive verb phrase might be fitted in here better than elsewhere, although on a theoretic basis. The stem of the main verb is suffixed by -a, which could be a shortened form of a theoretical participle suffix, -akøkø. E.g.

    'maru-ti "to buy, sell"   'marua '?ikø "(it) was bought a long time, or many years, ago"

6.1.2 Negative perfect participle plus "to be"

    The negative forms of the perfect participles followed by the present tense of "to be" gives, in the active voice, the negative past tense forms. The particular past tense is indicated by the form of the perfect participle.

Present perfect

    'køñu-ti   'køñukøma ?ai "(I,you)have not finished," or "did not finish"

    a'ba-ti "to run"   a'bakøma ?ikø "(He) did not run" or "has not run"

Past of yesterday

    a'bookøma ?ikø "(He) did not run yesterday"

Past-of between yesterday and time long ago

    a'bag'zankøma ?ikø "(He) did not run 'the other day'"

Time-long-past
("irregular",as in section 6.1.2)

    'køñuama ?ikø "(He) did not finish a long time ago"

6.2 Infinitive plus "to be"

    The infinitive followed by the present tense of "to be" indicates potentiality,in the present tense, e.g.

    ra'anka-ti "to launch(boat)"   ra'ankati ?ai "(I,you) can launch"
    shø'iki-ti "to whistle"   shø'ikiti ?ikø "(He) can whistle"

    This form may also be interpreted as expressing future time, e.g.

    'ka-ti "to say"   'kati ?ai "(I)shall say"
    'kʷan-ti "to go"   'kʷanti ?ikø "(He) will go"

6.3 Present tense plus "to be"

The present tense form of the main verb followed by some tense of the verb "to be" indicates progressive action. The time of the whole verb phrase is indicated by the tense form of "to be" The verb phrases are as follows:

Present progressive
    pa'ran-ti "to fool (someone)"   'parani ?i "(I,you)am,are fooling
                                    (someone) "

Immediate-past progressive
    'chuka-ti "to wash"   'chukai ?ia "(I,you)was,were washing
                                      just now"

Past-of-yesterday progressive
    a'ba-ti "to run"   'abati ?i'ozi "(He)was running yesterday"

Past-of-before-yesterday progressive
        'abati ?iizazi "(He)was running the
                            other day"(see section 1.1.5)

Time-long-past progressive
        'abati ?i'akøzi "(He)was running a
                            long time ago"

6.4 Negative of present tense plus some form of verb "to be"

This combination is used to express, in the active voice, the negative past tense forms. The particular past time is indicated by the form of "to be".

                        'abatima ?ia "(I,you)did not run just now"
    'maru-ti "to buy,sell" 'maruima ?i'oo "(I,you)did not buy,sell,yesterday"
                  'abatima '?iiza "(I,you)did not run the other day"
                  'abatima '?iakø "(I,you)did not run a long time
                                    ago"

In form, these phrases parallel those given in the preceding section, and it seems logical that they should contain the "progressive" idea, also.

6.5 -ki form of verb (as in section 5.1.7) plus "to be"

This seems to indicate a past-progressive tense. The form is not used
a great deal. E.g.

a'ba-ti "to run"   a'baki ?i'zumpuni "(I,you)was (were) running for
someone this morning"

6.6 Negativized stem plus imperative form of auxiliary verb "to be" or "to do"

This type of phrase gives the negative imperative form. There are two
types, those which are transitive and those which are intransitive.

6.6.1 To the transitive main verb is added suffix -zu and negative suffix
-ma; this is followed by the imperative form of the verb "to do", as in section
5.1.9 ,e.g.
pa'ran-ti "to fool(someone)" pa'razuma ka[9] aat "Do not fool(someone)"
ɉaru-ti "to cook"   ɉaruzuma ka ?at "Do not cook"

6.6.2 To the intransitive main verb stem is added suffix -az- and negative
suffix -ma; this is followed by the imperative form of the verb "to be"
a'baazma ka ?it "Do not run"

6.7 Negativized -ki form of verb plus imperative of "to do".

This is another type of negative command, e.g.
'is-ti "to see"   is'kima ka ?at "Do it without looking"

6.8 Stem plus -nu (as in section 5.1.8) plus imperative of "to do" conveys the
idea of "Let us..." , e.g.
'bari-ti "to look for"   'barinu ka '?at "Let us look for(something)"
'nashi-ti "to bathe"   'nashinu ka '?at "Let us bathe"
(Literally, this could be, "I am going to look; do it!" and "I am going to
bathe; do it/ ")

6.9 Stem plus -nu plus -ma plus imperative of "to be"

This seems to be a deferential way of giving a command, e.g.

'baka-ti "to open (box, etc.)" 'baka'numa ka '?ʌ̱ "Please open(the box)"

?i'nan-ti "to give" ?i'nanuma ka '?í "Please give ..."

Notes

1 In examples where we wish to call attention to the stem, the infinitive
ending -ti is separated from the stem by a hyphen. Verb stems alone do not
occur as words.

2 Three exceptions have been found, in which the verb of -ka form is
intransitive (as indicated by the subject forms, not given in this paper). The
exceptions are:

        'røra'ka-ti "to be fat"

        'møa'ka-ti "to hit oneself with the hand"

        'møchu'ka-ti "to wash one's hands"

3 Verb stems do not occur as word forms alone. However they are termed "free"
in this paper when inflectional forms may be added to them without further
change or additions.

4 Of these long-stem verbs a list is given here ~~for any who wish to investigate~~
~~them:~~

Transitive verbs:

a'babaka-ti "to warble"	'nui'ba-ti "to do good, to love"
bø'kazoru-ti "to tie in knots"	'rakana-ti "to clear the road or a path"
'bui'na-ti "to go around, look around"	'sipua-ti "to imprison"
'bøa'ra-ti "to surround"	'tuiu-ti "to rub together with hands"
bø'tønan-ti "to dazzle"	bø'ru'an-ti "to take care of"
'bøtsuku'ka-ti "to kiss"	kø'kapun-ti "to hem"
'chikina-ti "to testify, declare"	kø'taran-ti "to hem"
'kamani'o-ti "to domineer"	'møka'ma-ti "to rob, steal"
'møsi'u-ti "to make tamales"	'tañañun-ti "to tie with ribbon"
'ñukarata'bi'an-ti "to beg, entreat"	ta'azkø-ti "to wind"

Intransitive verbs:

?uz'køntøn-ti "to keep watch"	'ramøni'oka-ti "to become fat"
am'pø'karu-ti "to light up(something)	'rantipu'run-ti "to kneel"
a'tizanki-ti "to sneeze"	'raruma-ti "to weep for the dead"
'bøa'na-ti "to go ahead"	'razuku-ti "to have a chill"
'bøñu'nan-ti "to become overripe"	'riuku-ti "to sift down"
kø'isa-ti "to harm the body"	'taramø'købu-ti "to come down from a hill

'kømø'kanan-ti "to blaspheme"	tu'børu-ti "to be covered with vegetation"
'mapøra'kø-ti "to ascend a mountain"	tu'tuan-ti "to dry in the sun"
'nanipa'kø-ti "to give birth"	tsø'tsiru-ti "to be muddy"
'nirakø-ti "to arrive"	'uina'kø-ti "to rest"
'ñu'kanan-ti "to quarrel"	'unu'mø-ti "to burn oneself"
'pønkø'rakø-ti "to turn around"	'zoobu-ti "to run (water)"

5 The rules for the placement of stress-pitch are obscure in some places, as
in section 4.1.4 (page 9). However in general the patterns are regular and
may be seen from the examples given. Rules may eventually be discovered, which
will eliminate the necessity of writing this supra-segmental ƒøƒ feature with
every word.

6 There seems to be free variation between phoneme i and the unnasalized
counterpart i .The nasalized form,being more frequent, is adopted here for
writing, but the nasalization might well be omitted. This is also the case with
suffix a of section 5.1.3 and -øza of section 5.1.5 . Perhaps eventually
a rule may be postulated, that phrase-final vowels tend to become nasalized.
Note lack of nasalization in these endings phrase medially, in section 6.3.

7 There is no distinction in the verb forms to indicate number or gender. In
the examples, English pronouns are placed in parenthesis to indicate the
person of the verb.

8 The simple perfect participle is formed from the regular verb stem plus the
perfect participle ending -kø. The particular time element is introduced
into perfect participle endings by placing before -kø the time-element
morphemes, o, øza, akø, given in sections 5.1.5 to 5.1.7. Thus the following
perfect participle forms appear:

'ki-ti "to say, tell"	'kikø "said, told"
'?aru-ti "to cook"	'?arukø "cooked"
i'bin-ti "to frighten away"	i'bionkø "frightened away yesterday"
'is-ti "to see"	'isøzankø "seen the other day"

Only one occurrence of the time-long-past participle has been found -

'kani-ti "to grow"	'kania'køkø "old" øgƒ (grown a long
	time ago)

All of these perfect participles may be negativized by adding the negative suffix -ma, e.g.

'kǿñu-ti "to finish"   'Kǿñukǫma "not finished" etc.

etc.

9 The form ka used here is not part of the verb, but is a proclitic word, some form of which is used in nearly all sentence constructions. It is inserted here because it regularly appears between the two verb-words in ~~imper~~ imperative constructions such as this.

10 The irregular symbol ǿ represents a high back unrounded vowel; underlining of the vowel indicates nasalization; z represents a retroflexed alveopalatal sibilant; ' signifies stress accompanied by high tone; ʹ signifies high tone not stressed, ʺ . ʺ marks syllabic division.

3.2.1.1 ~~Most prefixes are obtained from body parts; a~~

    Some of the prefixes are obtained from names of parts of the body, others denote position apart from the body, and still others are general, e.g.

b'— ~~ma ra face, front~~ → bɯ—

'bïrü eyes → —ñu ~~čaki~~ 'bïñu— put on glasses

'maškʼa head → ma—   'mañu— put on hat

'baⁿbušu elbow → baⁿ—   'taškʼa-hit   baⁿ'taškʼa— hit one's elbow

tïša neck → tï—   ?ïku-heeg   'tïïku-heeg around neck

mïkïⁿ hand → mï—   'mïñu- put on ring

'rani -feathers, skin → ra—   ra'mïš- pluck feathers

'rapasu side → ra—

'taï foot → ta—   'tañu- put on shoes

rïkïⁿ nose → rï—   rïšinki- to have a cold

kʷïbi mouth → kʷï—   kʷï'taškʼa- hit . mouth
     also edge   kʷï'taraⁿ- hem (literally roll the edge)

pa'bi ear → pa—

... → ra—   ra'ïš- ~~scrape~~ sides

na'mï inside → na—   na'ïš- scrape inside

tsi'putu back, bottom → tsi— tsi'mï- stand behind, back

'kašu back → kʼa— 'kapiriki- agitate dorsal fins (fish)

'šikʼa chest → ši— 'šipïriki- agitate ventral and lateral fins (fish)

ma'nami high → ma—   ma'mï- stand on top, ~~lift~~

'šïkï corn → šï—   'šïmï- shell corn

'čupa clothes → pa—   'pañu- put on clothes