Yáo'ān Central Yi Phonology

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Contents

ABSTRACT

This study launches a phonological analysis of the Yáo'ān Central Yi language as spoken by the Yi people who live in and around the area of Mayou 马游村 west of the city of Yáo'ān 姚安市, in the *Chuxiong Autonomous Prefecture* 楚雄彝族自治州, of Yunnan 云南省, China 中国. The speakers of the language refer to their speech as Loxrlavu (loʔ²¹la³³vʊ³³) or Loxrlovu (loʔ²¹lo³³vʊ³³). Yáo'ān Central Yi is a member of the Sino-Tibetan language family, placed under the Tibeto-Burman group and further classified under the Loloish Branch.

The purpose of the study is to identify the phones of the language and break them down into phonemes for the purpose of transcribing the language using Roman letters, which is generally referred to as a "pinyin" （拼音） of the language. The transcription is based, as closely as possible, on the Chinese language "pinyin" as well as on how a number of prominent Chinese linguists have described other minority languages of China.

ABREVIATIONS

A tilde (~) is used in graphic descriptions to separate reduplicated syllables. Symbols occurring between slashes /... / are phonemic, while symbols between brackets [...] are phonetic. In addition, angled brackets <...> are used to enclose orthographic representation.

ASP	Aspect
DET	Determiner
IMP	Imperative
C	Consonant
CLF	Classifier
CV	Consonant-Vowel
1SG	First person singular
2 SG	Second person singular
3 SG	Third person singular
1PL	First person plural
2 PL	Second person plural
3 PL	Third person plural
PFV	Perfective Aspect of the Verb
POSS	Possessive
REL	Relative marker
TOP	Topicalizer
v^{21}	Vowel marked by low tone
v^{33}	Vowel marked by mid tone
v^{44}	Mid tone vowel infuenced by tone sandhi and thus slightly raised
V^{55}	Vowel marked by high tone
V^{66}	High tone vowel influenced by tone sandhi and thus slightly raised

1. Introduction

This study launches a phonological analysis of the Yáo'ān Central Yi language as spoken by the Yi people who live in and around the area of Mayou 马游村 west of the city of Yáo'ān 姚安市, in the *Chuxiong Autonomous Prefecture* 楚雄彝族自治州, of Yunnan 云南省, China 中国. Locally, the speakers of this language—numbering more than 100,000 (Lewis 2009)—refer to their speech as Loxrlavu (loʔ²¹la³³vʊ³³) or Loxrlovu (loʔ²¹lo³³vʊ³³).

The Yáo'ān Central Yi language has been classified as one of a number of Sino-Tibetan languages placed under the Tibeto-Burman group and further classified under the Loloish Branch. Although linguists do not totally agree as to the exact classification of each Yi language within the Tibeto-Burman language family, it is not the purpose of this paper to focus on that issue, but rather to give the reader some perspective as to where Yáo'ān Central Yi fits in with other related languages. Please note the diagrams below.[1]

The Chinese linguist Su (1991) proposed the following taxonomy for the Yi languages. Note that the lower subgroups have not been detailed here. Note also that the Yi group and the Lolo group are split from each other. Yáo'ān Central Yi fits in the Lolo Group.
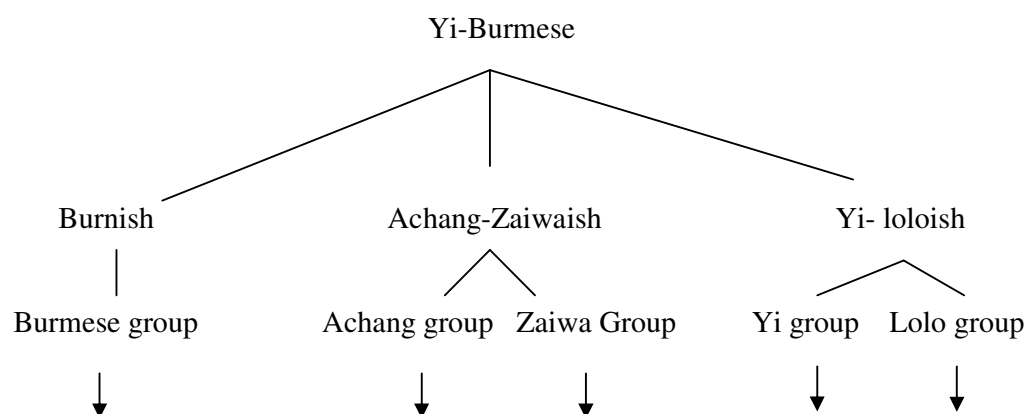
David Bradley (1979) split the Loloish languages into three principal groups and then additional subgroups, which are not detailed here. Yáo'ān Central Yi is part of the Central Loloish/Loloid group[2]:

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[1] Both charts are taken from Qiu, Fuyuan. (1998).
[2] It should be noted that both Bradley and Pelkey (personal correspondence) more recently have referred to the Loloish languages as the Ngwi languages.

Loloish

Southern Loloish   Central Loloish   Northern Loloish

↓   ↓

Wonoid   Lisoid   Loloid   Lahoid

↓
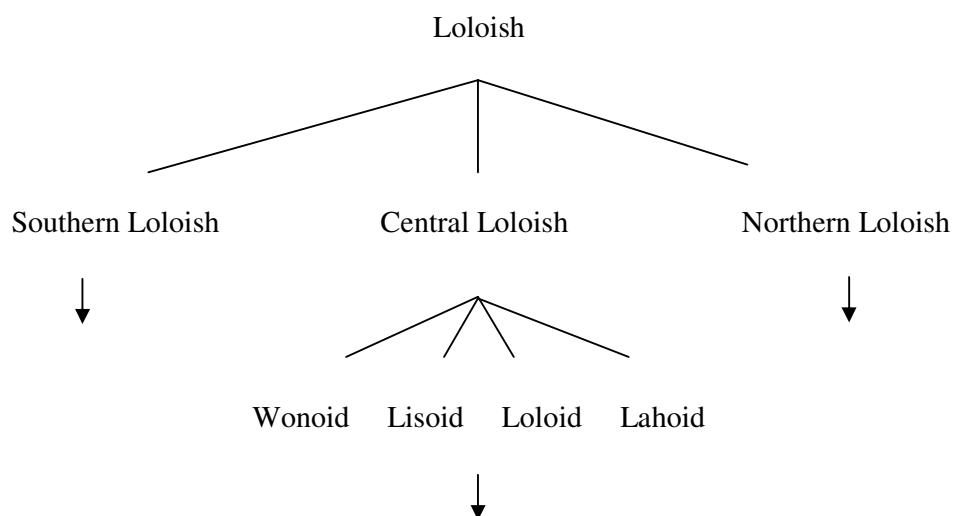
2. Tones

2.1. Phonemic Tones

Yáo'ān Central Yi has three phonemic tones that occur in single, isolated syllables and contrast in identical environments: low tone; mid tone; and high tone as in:

1.   li²¹ 'heavy'

2.   li³³ 'want'

3.   li⁵⁵ 'rice seedling'

And, as is often the case, low tone has a falling pitch.

2.2. Tone Sandhi

When modifiers in Yáo'ān Central Yi are reduplicated, it results in tone sandhi. The tone sandhi varies depending on the tone of the morpheme, as illustrated below. [3]

Yáo'ān Central Yi also forms questions by reduplicating the verb. However, this is a syntactic process and tone sandhi does not apply.

/³³//³³/ tones are realized as:
   a)   [⁵⁵] [³³] reduplicated syllables to form nominal constructions
   b)   [³³] [³³] reduplicated syllables to form questions

When modifiers with mid-tone /³³/ are reduplicated to nominal constructions, the reduplicated syllable is the first syllable, which then occurs with high [⁵⁵] tone. Words that express a particular color follow the same pattern.

4.   bi³³ →   bi⁵⁵~bi³³
       full   full~full

5.   tʰʊ³³ →   tʰʊ⁵⁵~tʰʊ³³
       thick   thick~thick

---

[3] It should be noted that tone sandhi, as it relates particularly to tense syllables, warrants additional research.

6.   ni^{33} →   ni^{55}~ni^{33}

        red   red~red

When modifiers reduplicate to form questions, no tone sandhi occurs; both syllables retain [^{33}] mid tone.

7.   Pa̱^{44}la̱ʔ^{21} xa^{55} de^{33} bi^{33} bi^{33}? 'Is that bowl full?'
        bowl that CLF full full

8.   Ni^{33} de^{33} sʏ^{55} muɯ^{55} tʰʊ^{33} tʰʊ^{33}? 'Is your book thick?'
        2SG POSS book TOP thick thick

9.   Ni^{33} de^{33} pʲa^{33} ni^{33} ni^{33}? 'Are your clothes red?'
        2SG POSS clothes red red

When modifiers with the /^{21}/ low tone are reduplicated to form nominal constructions, some morphemes are reduplicated with no tone sandhi, while with others the tone of the first reduplicated syllable changes to the [^{55}] high tone.

In the case where the first tone is not replaced with high tone, one possible conclusion is that low tone is the default tone and the language has a constraint against deleting low tones. This constraint blocks the reduplication process high tone from replacing the morpheme's intrinsically low tone.

When modifiers with low tone /^{21}/ are reduplicated for any reason, there is no tone sandhi.

10.   li^{21} →   li^{21}~li^{21}
        heavy   heavy~heavy

11.   væ^{21} →   væ^{21}~væ^{21}
        big   big~big

12.   vi^{55}mi^{21} →   vi^{55}mi^{21}~mi^{21}

                                         far~far (reduplicated second syllable)

13.   ni^{33} li^{55}pa^{33} de^{33} li^{21} li^{21}? 'Is your bag heavy?'
        2SG bag CLF heavy heavy

14.   ja^{21} de^{33} ʔa^{33}no^{55} væ^{21} væ^{21}? 'Is his/her dog big?'
        3SG POSS dog big big

15.   ja^{21} zɻ^{33} vi^{33}mi^{21}~mi^{21}? 'Did s/he go far?'
        3SG go far~far

In the case where the first tone is replaced with a high tone, those morphemes are intrinsically toneless. Here, the constraint against deleting low tones does not apply, so the reduplication process's high tone is allowed to appear—which is the normal reduplication tone sandhi process. In addition, since low tone is the default tone in this language, any morpheme that lacks a tone of its own receives a low tone before it is pronounced. Thus, when the first reduplicated syllable receives the [^{55}] tone, the second morpheme receives the [^{21}] tone before being pronounced.[4]

/ // / tones are realized as:
       a)   [^{55}] [^{21}] when the toneless syllable is reduplicated to form   nominal constructions
       b)   [^{21}] [^{21}] when syllables are reduplicated to form questions.

When intrinsically toneless modifiers are reduplicated to form nominal constructions, the preceding reduplicated syllable receives the high [^{55}] tone, while the original syllable is assigned the [^{21}] tone before being pronounced.

16.   næ →   næ^{55}~næ^{21}
        near   near~near

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[4] Colleague Jeff Green suggested this solution for which I am grateful.

17. se →   se^{55}~se^{21}
     good   good~good

18. və →   və^{55}~və^{21}
     firm   firm~firm

When intrinsically toneless modifiers are reduplicated to form questions, there is no tone sandhi and both syllables are assigned the default [^{21}] tone before being pronounced.

19. ni^{33} de^{33} ʔa^{33}kɯ^{33} næʔ^{21} næʔ^{21} 'Is your home near?'
    2SG POSS home near near

20. ja^{21} pe^{33} tɛ^{33} mɯ^{55} se^{21} se^{21}? 'Did s/he do well?'
    3SG do ASP REL good good

21. pʰʲa^{33} ka^{55} la^{33}po$\underline{}^{44}$ ʔe^{55} de^{33} və^{21} və^{21}? 'Is this thing used for hanging clothes steady?'
    clothes hang thing this CLF steady steady
    (i.e., Is it going to stay in place and not fall down?)

When morphemes with high tone /^{55}/ are reduplicated for any reason, there is no tone sandhi.

22. ne^{55} ne^{55}~ne^{55}
     deep   deep~deep

23. nʲo^{55} nʲo^{55}~nʲo^{55}
     short   short~short

24. tsʰo^{55} tsʰo^{55}~tsʰo^{55}
     arrogant   arrogant~arrogant

25. ʔa^{33}dʒi^{33} bɯ^{33}dɣ^{21} xa^{55} de^{33} ne^{55} ne^{55}? 'Is that pond deep?'
    water pond DET CLF deep deep

26. dza^{21}gɯ^{21} xa^{55} tsʰ$\underline{æ}^{44}$ nʲo^{55} nʲo^{55}? 'Is that stick short?'
    stick DET CLF short short

27. tsʰa^{33} xa^{55} de^{33} tsʰo^{55} tsʰo^{55}? 'Is that person arrogant?'
    person DET CLF arrogant arrogant

Tone sandhi occurs when identical syllables are repeated three times with the syllable in the middle being pronounced high [^{55}] tone.

28. bo^{33}~bo^{55}~bo^{33} 'bright; shiny'

29. nʲaʔ^{21}~nʲa^{55}~nʲaʔ^{21} 'sticky'

30. kʷa^{21}~kʷa^{55}~kʷa^{21} (the sound of flowing water)

Mid-tone /^{33}/ classifiers; that is, those words that enumerate or otherwise specify subsequent nouns, change to low tone /^{21}/ when following a syllable with low tone such as /ʔa^{21}/ 'a' (indefinite article) or /tsʰ^{21}/ 'one'.

The word /de^{33}/ is a classifier used for people and it is a general classifier for things.

31. ʔe^{55} de^{33} 'this CLF'   ʔa^{21} de^{21} 'a (indefinite article) CLF'

32. xa^{55} de^{33} 'that CLF'   tsʰ^{21} de^{21} 'one CLF'

33. tsʰ^{21} de^{21} tsʰ^{21} de^{21} 'one by one'

The word /do^{33}/ is a classifier for young children and babies.

34. ʔe^{55} do^{33} 'this CLF'   ʔa^{21} do^{21} 'a (indefinite article) CLF'

35. xa^{55}do^{33} 'that CLF'   tsʰ^{21} do^{21} 'one CLF'

The word /tʰə^{33}/ is a classifier that has negative connotations for people (or bad creatures).

36. ʔe^{55} tʰə^{33} 'this CLF'   ʔa^{21} tʰə^{21} 'a (indefinite article) CLF'

37. xa^{55} tʰə^{33} 'that CLF'   tsʰ^{21} tʰə^{21} 'one CLF'

The word /bæ³³/ is a classifier for a piece of land.

38. ʔe⁵⁵ bæ³³ 'this piece'   ʔa²¹ bæ²¹ 'a (indefinite article) piece'

39. xa⁵⁵ bæ³³ 'that piece'   tsʰɿ²¹ bæ²¹ 'one piece'

The word /ɟo³³/ is a classifier that is glossed as 'kind' or 'type.'

40. ʔe⁵⁵ ɟo³³ 'this kind'   ʔa²¹ ɟo²¹ 'a kind'

41. xa⁵⁵ɟo³³ 'that kind'   tsʰɿ²¹ ɟo²¹ 'one kind'

The number 'four' is the mid-tone word /li³³/.

42. ʔa⁵⁵dɣ̩²¹ li³³ pʰe⁵⁵ 'four doors'
     door four CLF **i**

43. ʔa³³tsʰɿ⁵⁵ li³³ tsʰɿ²¹ 'four flocks of goats'
     goat four CLF

44. tsʰe³³-li³³ 'fourteen'
     ten-four

45. li³³-tsʰe³³ 'forty'
     four-ten

46. li³³-ʃʲo³³ 'four-hundred'
     four-hundred

However, this mid-tone rises to high tone before the CLF /lə²¹/.

47. tsʰa³³ li⁵⁵ lə²¹ 'four people'

3. Syllable Structure

Onset	Peak
C	V

The unambiguous syllable structure for Yáo'ān Central Yi is a CV pattern, as illustrated in the examples below:

48. tsʰa³³ 'person'

49. ʔa⁵⁵tʰo²¹ 'knife'

50. ɟi̠⁴⁴ 'chicken'

51. ŋo³³ 1SG

52. ʔa⁵⁵mo³³ta⁵⁵ 'paternal aunt'

As in many languages, the affricates and aspirated consonants function as a single consonant, and will be considered as such in this paper.

53. tsa³³ 'circle; go-around'   <za>

54. tsʰa³³ 'person'   <ca>

55. kʰɯ³³ 'harm'   <ke>

Palatalization and labialization are analyzed as diphthongs in the section on vowels below.

4. Syllable Stress

Stress is not contrastive for Yáo'ān Central Yi. The tone (pitch level) of the syllable and syllable stress are related in that, when there is a two-syllable utterance, the syllable with the higher tone carries slightly greater stress. If the tones are the same, syllable stress is the same for both syllables. In this context the term "stress" implies loudness. It has also been noted that no significant lengthening of the vowel has been observed occurring with increased syllable stress.

In addition, greater stress on a syllable can raise the tone. For example, there is a set of time-related phrases in Yáo'ān Central Yi that are glossed as: 'then; later; next; at that time', and in all such cases the final syllable is stressed. This final syllable carries a slightly higher pitch than normal.[5]

56.	$næ^{55}$ po^{55} $næ^{55}$ 'but at that time'	is pronounced	$næ^{55}$ po^{55} $næ^{66}$
57.	$næ^{55}$ $gʲɛ^{33}dɛ^{33}$ $næ^{55}$ 'then next'	is pronounced	$næ^{55}$ $gʲɛ^{33}dɛ^{33}$ $næ^{66}$
58.	$næ^{55}$ po^{55} jo^{55} 'but then' is pronounced		$næ^{55}$ po^{55} jo^{66}
59.	$jɛ^{55}$ po^{55} $næ^{55}$ 'then at that time'	is pronounced	$jɛ^{55}$ $po^{55}næ^{66}$
60.	$jɛ^{55}$ po^{55} jo^{55} 'then at that time'	is pronounced	$jɛ^{55}$ po^{55} jo^{66}

5. Vowels

5.1. Vowel Phoneme Inventory

Phonemically, there are seven vowels in Yáo'ān Central Yi and each of these vowels has a tense equivalent. There are an additional seven diphthongs, which make a total of twenty-one vowels.

In regard to the tense vowels, this particular investigation did not include the use of acoustic equipment, thus more research may be warranted. However, in non-technical terms the tense vowels of Yáo'ān Central Yi could be described as contrasting with the lax vowels in that they are pronounced with more tension or tightness in the throat, or with a harsher sound quality. It has also been noted that for tense vowels in the /33/ and /55/ tone range, along with the harsher sound quality, the increase of tension results in a raised tone—perhaps approximating [44] and [66] respectively. For tense vowels in the /21/ tone range, along with the harsher sound quality, there may be some laryngealization, and there is often a more pronounced syllable-final glottal glottal stop.

In the chart below the tense vowels are underlined:

	Front	Back	
	Unrounded	Unrounded	Rounded
Close	i, i̲	ɯ, ɯ̲	
Near-close		ʊ,[6] ʊ̲	
Mid	e, e̲		o, o̲
Near-open	æ, æ̲		
Open	a, a̲		
Diphthongs	ʲɛ, ʲæ, ʲæ̲, ʲa, ʲa̲		ʲo, ʲo̲

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[5] Both /næ⁵⁵/ 'then' and /jo⁵⁵/ 'again' have been observed to occur in isolation with the /⁵⁵/ tone.
[6] In this analysis the symbol /ʊ/ represents an unrounded sound, which is pronounced with friction. When it is manifested as the syllabic consonant [ɣ], the fricative quality increases.

61. ni³³ 'day'   ni̱⁴⁴ 'heart'

62. buɯ³³ 'pen; stall; sty'   bu̱ɯ⁴⁴ 'idol'

63. gʊ³³ 'beat'   gʊ̱⁴⁴ 'gather'

64. me³³ 'smear; plaster'   me̱⁴⁴ 'eye'

65. lo²¹ 'tea'   lo̱ʔ²¹ 'enough'

66. væ²¹ 'big'   væ̱ʔ²¹ 'write'

67. ʔa³³ne³³ 'grandmother'   ʔa̱⁴⁴ne̱⁴⁴ 'crow'

68. kʲɛ⁵⁵ 'sweat'   kʲæ̱⁴⁴ (classifier for house)

69. tsʰæ³³ 'lard'   tsʰa³³ 'person'

The diphthongs /ʲo/, /ʲo̱/, /ʲa/, /ʲa̱/, /ʲɛ/ and /ʲæ/ are preceded by bilabial plosives, bilabial and alveolar nasals /m/ and /n/, or post-alveolar sibilants. Velar sounds only precede /ʲɛ/ and /ʲæ/.

70. ʃʲɛ³³ 'house'   ʃʲa³³ 'wait'   ʃʲo³³ 'give birth'

71. pʲæ̱⁴⁴ 'ask'   pʲa²¹ 'speak'

72. mʲa³³ 'see'   nʲo⁵⁵ 1PL.INCL

73. kʲæ̱⁶⁶ 'bury; dig' gʲæ̱⁴⁴ ' mix together'   gʲɛ³³ 'place'

74. ʔa55nʲa̱ʔ 'buffalo'   tʃʲo̱²¹ 'clever'

In addition, certain words are borrowed from Mandarin Chinese that include a /ʷa/ diphthong, some of which are:

75. ga³³ 'pull'   gʷa²¹ 'quack' (duck sound)

76. ka̱⁴⁴ 'play'   kʷa³³ 'hoe' (verb)

77. kʰa̱⁴⁴ 'village'   kʰʷa³³ 'wide'

78. xa³³ 'move'   xʷa³³ to̱⁴⁴ (name of a dance)

79. la³³ 'light-weight; few'   lʷa⁵⁵ 'chaotic'

Labialization occurring in words that are not borrowed from Mandarin Chinese is simply the result of a consonant plus /o/ combination, where the influence from the /o/ vowel—which is pronounced with rounded lips—causes the labialization. This word-medial diphthong /ʷo/ is in free variation with the /o/; there is no contrast.

80. bo²¹ ~ bʷo²¹ 'father'

81. do³³ ~ dʷo³³ 'able'

82. lo³³ ~ lʷo³³ 'tongue'

83. go²¹ ~ gʷo²¹ 'buckwheat'

84. ŋo³³ ~ ŋʷo³³ 1SG

5.2. Complementary Distribution Rules for the Vowels

Yáo'ān Central Yi vowels are influenced by preceding consonants. In many of the following complementary distribution rules, the basic phonemes of the language occur after bilabial and velar consonants. In addition, the sounds identified as allophones occur after alveolar or post-alveolar consonants.

/ʊ/ is realized phonetically as: a. [ɣ] / /d/ _____ tone /²¹/
                                      b. [ʊ] / _____

When the near-close, back unrounded phoneme /ʊ/ occurs in a /²¹/ low tone syllable following the voiced alveolar plosive /d/, it is realized as the syllabic consonant [ɣ].[7]

85.   ʝa²¹dɣ²¹ 'hole'

86.   la³³ka⁵⁵dɣ²¹ 'cliff'

87.   ʔa⁵⁵dɣ²¹ 'door'

88.   mi³³dɣ²¹ 'ground; earth'

89.   lʊ²¹ta⁵⁵dɣ²¹ 'pants; trousers'

It is realized as the near-close, back unrounded phone /ʊ/ in other environments.

90.   fʊ³³ 'give in marriage'

91.   mʊ³³ 'do; be; work as'

92.   dʊ³³ (DUR aspect)

93.   gʊ⁵⁵sɿ⁵⁵ʃʲo³³ 'January'

94.   ʔa²¹kʲɛ⁵⁵gʊ²¹ 'a while'

| /i/, /ʊ/ are realized phonetically as: | a. [ɿ], [ɥ] /alveolar sibilants _____
 b. [i] and [ʊ] / _____ |

| /i̠/, /ʊ̠/ are realized phonetically as: | a. [ɿ], [ɥ] /alveolar sibilants _____
 b. [i̠] and [ʊ̠] / _____ |

The close, front unrounded phoneme /i/ and the near-close, back unrounded phoneme /ʊ/ move toward the center, when occurring after the alveolar sibilants /z, s, dz, ts and tsʰ/ and are realized as the apical phones [ɿ] and [ɥ] respectively. If the vowel is tense, then the allophone is tense and vice versa.

95.   zɥ³³ 'barley'

96.   sɥ³³ 'guard; watch over'

97.   dzɥ³³ 'wither'

98.   tsɿ³³ 'time (for something)'

99.   tsʰɿ³³ 'grieve'

100.   tsʰɥ̠³³ 'sit'

They are realized as the close, front unrounded phone [i] and the near-close, back unrounded phone [ʊ] in other environments. If the vowel is tense, then the allophone is tense and vice versa.

101.   ni 'you'

102.   ʔi̠⁴⁴ 'high proof'

103.   mʊ²¹ 'horse'

104.   fʊ²¹ 'deceive'

105.   tʊ̠⁴⁴ 'gather'

| /ɯ/ is realized phonetically as: | a. [ə] / alveolar consonants _____
 b. [ɯ] /_____ |

| /ɯ̠/ is realized phonetically as: | c. [ə̠] / alveolar consonants _____
 d. [ɯ̠] /_____ |

The close back unrounded phoneme /ɯ/ moves to the center, when following the alveolar consonants and is realized as the mid central phone [ə]. If the vowel is tense then the allophone is tense and vice versa.

106.   tsʰə²¹ 'able'

107.   tə³³ 'fall; drop'

108.   dzə³³ 'both; couple'

109.   də̠⁴⁴ 'support.a.family'

110.   tsʰə̠⁴⁴ 'peck'

It is realized as the close back unrounded phone [ɯ] in other environments. If the vowel is tense, then the allophone is tense and vice versa.

111.   mɯ⁵⁵ 'incubate'

112.   ɣɯ²¹ 'live'

113.   xɯ²¹ 'spray; water (verb)'

114.   bɯ̠⁴⁴ 'idol'

115.   kɯ̠⁶⁶ 'husk; peel'

/æ/ is realized phonetically as: a. [ɛ] / un-aspirated alveolar plosives, the   palatal /j/ and /ʲ/ _____

                                                    b. [æ] / _____

When the near-open front unrounded phoneme /æ/ occurs following an un-aspirated alveolar plosive, the palatal consonant /j/ or /ʲ/, it is realized as the open-mid front unrounded phone [ɛ].

116.   tsɛ³³ 'pretty'

117.   dzɛ³³ 'but'

118.   xʲɛ³³ 'house'

119.   jɛ⁵⁵ 'then; so; and'

120.   tʃʲɛ²¹ PFV

121.   tɛ³³ 'plant'

It is realized as the phone [æ] in other environments.

122.   tsʰæ³³ 'lard'

123.   pʰæ³³ 'gray; blue'

124.   xæ²¹ 'take'

125.   læ⁵⁵ 'exchange'

126.   væ³³ 'laugh'

The allophone [ɛ] does not have a tense equivalent. The tense vowel /æ̠/ contrasts with the lax vowel /æ/ and its allophone [ɛ].

127.	tsɛ³³ 'pretty'	tsæ̠⁴⁴ 'narrow'
128.	tɛ³³ 'plant'	tæ̠⁶⁶læ̠ʔ²¹ 'woodpecker'
129.	kʲɛ⁵⁵ 'sweat' (verb)	kʲæ̠⁶⁶ 'bury; dig'
130.	næ²¹ 'near'	næ̠ʔ²¹ 'sew'
131.	ʔæ³³ 'call'	ʔæ̠⁴⁴ 'preserve with salt'
132.	bæ³³ 'serve'	bæ̠⁴⁴ CLF (sharp items)

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The diphthong /ⁱɛ/ is always preceded by a bilabial, post-alveolar or velar (never an alveolar) sound. These sounds can be plosives, fricatives or nasals. It is interesting to note that, while it occurs after the voiceless post-alveolar fricative and affricates /ʃ, tʃ, tʃʰ/ the voiced equivalent /dʒ/ does not occur before the /ⁱɛ³³/ but rather occurs before the vowel /i/. Similarly, in this data, the voiceless fricative /x/ occurs before the diphthong /ⁱɛ/, while the voiced equivalent /ɣ/ occurs only before the vowel /ɯ/.

/ⁱɛ/ is realized phonetically as: a. [i] / [dʒ] _____
        [ɯ] / [ɣ] _____

        b. [ⁱɛ] / _____

When the diphthong /ⁱɛ/ follows /dʒ/, it is realized as the vowel [i]; when it follows /ɣ/, it is realized as the vowel [ɯ].

133.   dʒi³³ 'sago palm'

134.   ɣɯ³³ 'count'

It is realized as the diphthong [ⁱɛ] in other environments:

135.   bⁱɛ³³ 'bottle; jar'

136.   tʃⁱɛ³³ 'insert'

137.   pʰⁱɛ³³ 'slanted'

138.   xⁱɛ³³ 'quarrel'

139.   gⁱɛ³³ 'place'

6. Consonants

6.1. Consonant Phoneme Inventory

Phonemically Yáo'ān Central Yi has 30 consonants each of which are produced with egressive lung air:

	Bilabial	Labio-dental	Alveolar	Post-alveolar	Palatal	Velar	Glottal
Vd. Plosives (voiceless) (voiceless aspirated)	b p pʰ		d t tʰ			g k kʰ	ʔ
Vd. Nasals (syllabic)	m		n ṇ			ŋ	
Vd. Fricatives (voiceless)		v f	z s	ʃ	ɟ	ɣ x	
Vd. Affricates (voiceless) (voiceless aspirated)			dz ts tsʰ	dʒ tʃ tʃʰ			
Labial-velar Approximant	w						
Lateral Approximant			l ~ ɭ				

The plosives have a three-way contrast in voice onset timing with the addition of the feature aspiration. Many Yi languages have pre-nasalized voiced plosives. However, pre-nasalization on the voiced plosives for Yáo'ān Central Yi have, thus far, not been noted.

140. be̱^{44} 'say'   pe^{33} 'do'   pʰe^{33} 'half'

141. da^{33} 'drink'   ta^{33} 'with'   tʰa^{33} 'touch

142. ga^{33} 'drag'   ka^{33} ' closely related'   kʰa^{33} 'extort'

The nasals are distinguished from each other by place of articulation.

143. ma^{55} 'flood' (rice paddy)   na^{55} 'underlay' ŋa^{55} 'snap'

The fricatives have a two-way contrast in voice onset timing with voicing being the contrasting feature.

144. fʊ^{21} 'deceive'   vʊ^{21} 'sell'

145. xɯ^{21} 'water' (verb)   ɣɯ^{21} 'to be (in a place)'

The grooved or sibilant fricatives have a two-way contrast in voice onset timing with voicing being the contrasting feature, while the affricates have a three-way contrast with voicing and aspiration being the contrasting features.

146. dʒi^{33} 'sago-palm'   tʃʲɛ^{33} 'insert'   tʃʰʲɛ^{33} 'then'

147. dza^{33} 'have'   tsa^{33} 'one of several instances'   tsʰa^{33} 'person'

148. zɿ^{33} 'go'   sɿ^{33} 'long'

The Glottal stop is in contrast with the continuants /w/ and /j/.

149. ji̱^{33} IMP   ʔi^{33} 'look'

150. wo^{33} 'fierce'   ʔo^{33} 'winnow'

6.2. Complimentary Distribution Rules for Consonants

The inventory of nasals includes the syllabic nasal, which assimilates to the point of articulation of the following sound.

The syllabic /n̩/ is realized as: a. [m̩] / _____ bilabial consonants
                                           b. [m̩] / _____ labiodental consonants
                                           c. [ŋ̍] / _____ velar consonants
                                           d. [n̩] / _____ alveolar consonants

The syllabic nasal is pronounced as a bilabial [m̩] before bilabial consonants.

151. m̩^{21} bʲɛ^{33} 'two' (classifier for bottle)

152. m̩^{21} pɯ^{55} 'not dare'

It is pronounced as a labiodental [m̩] before labiodental consonants.

153. m̩^{21} vʊ^{21} 'not sell'

154. m̩^{21} vi^{55}gɯ^{21} 'two spoons'

It is pronounced as a velar [ŋ̍] before velar consonants.

155. ŋ̍^{21} xo^{33} 'not collect'

156. ŋ̍^{21} kʲæ̱^{44} 'two' CLF (house)

It is pronounced as an alveolar [n̩] before alveolar consonants.

157. n̩^{21} tʰə^{33} 'two' CLF (classifier for animals)

158. n̩^{21} za^{33} 'not necessary'

15

The fricative lateral /ɮ/ is most evident in the language of the older generation. For the younger generation the voiced lateral /l/ is in free variation with fricative lateral.

159.   ʔa²¹le̠ʔ²¹ ~ ʔa²¹ɮe̠ʔ²¹ 'a bit'

160.   lo²¹bɯ³³ma²¹ ~ ɮo²¹bɯ³³ma²¹ 'bull'

161.   le³³ ~ ɮe³³ 'come'

162.   la³³po̠⁴⁴ ~ ɮa³³po̠⁴⁴ 'thing'

163.   /lo̠ʔ²¹~ ɮo̠ʔ²¹/ 'enough'

The labiodental /v/ can be in free variation with the labial-velar /w/, when it occurs before the vowel /ʊ/. In any context the /w/ is pronounced with a significant degree of friction.

164.   vʊ²¹ji²¹ ~ wʊ²¹ji²¹ 'hate; irritate'

7. Phonemic Representation

7.1. Phonemic Representation of Vowels

The Yao'an Central Yi language can be represented using 35 symbols. The seven vowels that need to be represented with symbols are:

165.   /i/ <i>, /u/ <u>, /o/ <o>, /ɯ/ <e>, /e/ <ei>, /ae/ <ae>, /a/ <a>

166.   A tense vowel can be represented without adding any other symbols. Tense vowels are the regular vowels followed by an <x>.[8]
        /i̠/ <ix>, /u̠/ <ux>, /o̠/ <ox>, /ɯ̠/ <ex>, /e̠/ <eix>, /ae̠/ <aex>, /a̠/ <ax>

167.   The diphthongs can be represented without adding any other symbols as:
        /ʲɛ/ <ie>, /ʲæ/ <yae>[9], /ʲa/ <ia>, /ʲa̠/ <iax>, /ʲo/ <iu>[10], /ʲo̠/ <iux>

168.   High tone /⁵⁵/ can be represented with the <l>; the mid tone /³³/ can be left unmarked; low tone /²¹/ can be represented with the <r>.

7.2. Phonemic Representation of Consonants:

The 28 consonants that need to be represented with a symbol are:

169.   /b/ <bb> /p/ <b>, /pʰ/ <p>

170.   /d/ <dd>, /t/ <d>, /tʰ/ <t>

171.   /g/ <gg>, /k/ <g>, /kʰ/ <k>

172.   /m/ <m>, /n/ <n>, /ŋ/ <ng>

173.   /v/ <v>, /f/ <f>

174.   /z/ <ss>, /s/ <s>

175.   /ʃ/ <x>

176.   /j/ <y>

177.   /ɣ/ <hh>, /x/ <h>

178.   /dz/ <zz>, /ts/ <z>, /tsʰ/ <c>

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[8] The symbol <x> is also used to represent the sound /ʃ/ as it does in Mandarin pinyin. However, no ambiguity exists because, as a consonant, it is always syllable initial and, as a marker of tense, it is always syllable final.
[9] The lax equivalent /æ/ never occurs following the palatal /j/ and /ʲ/—i.e. the <y>—so the vowel /æ/ does not need to be marked as a stressed vowel with the <x>; it is always the stressed version in that context.
[10] The diphthong /ʲo/ is written as <iu> rather than as <io> to be consistent with the Mandarin Roman alphabet.

179. /dʒ/ <jj>, /tʃ/ <j>, /tʃʰ/ <q>

180. /w/ <w>

181. /l ~ ɭ/ <l>

The vowels and consonants written in context:

182.	ni³³ <ni> 'day'		ni̠⁴⁴ <nix> 'heart'	
183.	bɯ³³ <bbe> 'pen; stall; sty'		bɯ̠⁴⁴ <bbex> 'idol'	
184.	gʊ³³ <ggu> 'beat'		gʊ̠⁴⁴ <ggux> 'gather'	
185.	me³³ <mei> 'smear; plaster'		me̠⁴⁴ <meix> 'eye'	
186.	lo²¹ <lor> 'tea'		lo̠ʔ²¹ <loxr> 'enough'	
187.	væ²¹ <vaer> 'big'		væ̠ʔ²¹ <vaexr> 'write'	
188.	ʔa³³ne³³ <anei> 'grandma'		ʔa̠⁴⁴ne̠⁴⁴ <axneix> 'crow'	
189.	kʲɛ⁵⁵ <gie> 'sweat'		kʲæ̠⁴⁴ <gyae> (classifier for house)	
190.	tsʰæ³³ <cae> 'lard'		tsʰa³³ <ca> 'person'	
191.	be̠⁴⁴ <bbeix> 'say'	pe³³ <bei> 'do'	pʰe³³ <pei> 'half'	
192.	da³³ <dda> 'drink'	ta³³ <da> 'with'	tʰa³³ <ta> 'touch'	
193.	ga³³ <gga> 'drag'	ka³³ <ga> ' closely related'	kʰa³³ <ka> 'extort'	
194.	ma⁵⁵ <mal> 'flood' (paddy)	na⁵⁵ <nal> 'underlay'	ŋa⁵⁵ <ngal> 'snap'	
195.	vʊ²¹ <vur> 'sell'	fʊ²¹ <fur> 'deceive'		
196.	ɣɯ²¹ <hher> 'be (location)'	xɯ²¹ <her> 'water' (verb)		
197.	dʒi³³ <jji> 'sago-palm'	tʃʲɛ³³ <jie> 'insert'	tʃʰʲɛ³³ <qie> 'then'	
	ʃʲɛ³³ <xie> 'house'			
198.	dza³³ <zza> 'have'	tsa³³ <za> 'one of several times'		
	tsʰa³³ <ca> 'person'			
199.	zɿ³³ <ssi> 'go'	sɿ³³ <si> 'long'		
200.	ji³³ <yi> IMP	ʔi³³ <i> 'look'		
201.	wo³³ <wo> 'fierce'	ʔo³³ <o> 'winnow'		

8. Intonation and Breath Groups

Within the scope of a sentence, a speaker often strings together several verb phrases, and intonation and breathing patterns take shape along the boundaries of these verb phrases. In addition, these sentence-medial boundaries are frequently marked grammatically with the particles /ʔæ³³/ or /mɯ⁵⁵/.[11] Thus, within the sentence, as the boundary of each verb phrase is reached, intonation rises and the appropriate particle is pronounced. If a breath needs to be taken, it will be taken at this point. At the end of the sentence the intonation goes down and the final breath-group particle /ʔa³³/ is pronounced.[12] It should be noted that tone does rise and fall with the rise and fall of intonation, but the purpose of this section is to focus on the overall sentence—or phrase contour—without further reference to tone.

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[11] The /mɯ⁵⁵/ is a topic marker, but it also functions as a relativizer for a subordinate clause.

[12] The unambiguous syllable structure for Yáo'ān Central Yi is a CV pattern so that words without a consonant onset, pronounced in isolation, all have a glottal stop /ʔ/ onset. However, within the context of a long utterance of normal speech, there is no clear boundary between one syllable and the following syllable, and the glottal stop is absent. Consequently the particles /ʔa³³/ and /ʔæ³³/ are pronounced /a³³/ and /æ³³/ within the context of the sentence.

202. kʲɛ³³tɛ³³ tsʰŋ²¹ nə³³xɯ³³ mɯ⁵⁵,   kʲɛ⁵⁵læ²¹pʰʲɛ⁵⁵ de³³ mɯ⁵⁵,
      The next morning,   the demon.who.eats.people,

203. ja²¹ ni³³mo³³ le⁵⁵ tsŋ²¹ tsŋ⁵⁵ gɯ²¹ xo³³ a³³ mɯ⁵⁵,   lə³³bo²¹ ɣɯ²¹ tɛ³³ æ³³,
      after her sister had been tickled to death,   being upstairs,

204. dzo²¹ tɛ³³ a³³.   Vi⁵⁵gɯ²¹dze²¹ do³³ mɯ⁵⁵ be̲⁴⁴,   "ʔa³³ma³³
      (it) was eating.   Vilggerzzeir said,   "Mother,

205. ni³³ ʔa³³tso³³ dzo²¹ a³³, bæ̲⁶⁶?"   be̲⁴⁴.
      "what, exactly, are you doing?" (she)   said.

206. be̲⁴⁴, "sŋ²¹ʃʲo³³ tsʰe³³li³³ le⁵⁵ ŋo³³ nʲa³³ ne³³pʰo³³ ɣɯ²¹ ta³³ dʒi²¹ a³³.
      (It) said, "On July the fourteenth I returned from your grandmother's home.

207. no̲⁴⁴kɯ³³dɛ³³ a³³ ve³³ ʃi⁵⁵ le³³ æ³³,   no̲⁴⁴kɯ³³dɛ³³ dzo²¹,   ʔe³³nə³³   be̲⁴⁴."
      I'm eating the broad beans that I brought back." this way (it) said.

208. næ⁵⁵ be̲⁴⁴, "ʔa³³ma³³, ni³³ ŋo³³ le⁵⁵ a²¹ do²¹ pʰʲa²¹ tse³³ gɯ²¹ la³³," be̲⁴⁴.
      Then (Vilggerzzeir) said, "Mother, throw a little down for me," (she) said.

209. næ⁵⁵, pʰʲa²¹ tse³³ gɯ²¹ mɯ⁵⁵,   le̲ʔ²¹ni³³tsŋ⁵⁵ a²¹ tse⁵⁵ pʰʲa²¹ tse³³ gɯ²¹ le³³ a³³.
      Then (the demon.who.eats.people) dropped a finger knuckle down to (Vilggerzzeir).

210. jɛ⁵⁵,   vi⁵⁵gɯ²¹dze²¹ do³³ mɯ⁵⁵   də²¹ kɯ²¹ a³³.
      So Vilggerzzeir consequently became afraid.

211. kɯ²¹ æ³³ mɯ⁵⁵,   xa⁵⁵ tsʰŋ²¹ ni³³ tsʰŋ²¹ ni³³, ʔa²¹sɛ³³ sɛ⁵⁵ne³³ pʰa³³tʰo³³ do³³ æ³³,   ba⁵⁵fa²¹ ʃʲa²¹.
      Being afraid, all that day, (she) tried to think of how to escape.

9. Final Observations

When a pronoun is placed before a kinship term resulting in two contiguous /a/ vowels, one of the vowels is deleted or they are merged. However, no lengthening has been observed.

212.   ja²¹ + ʔa²¹bo²¹ →   ja²¹ bo²¹
        3SG + father   3SG father

213.   ja²¹ + ʔa³³ma³³ →   ja²¹ ma³³
        3SG + mother   3SG mother

214.   ja²¹ ʔa³³ne³³ →   ja²¹ ne³³
        3SG + father's mother   3SG father's mother

215.   ja²¹ ʔa²¹ po³³ →   ja²¹ po³³
        3SG + paternal grandfather   3SG paternal grandfather

216.   ja²¹ ʔa³³ne³³pʰo³³ →   ja²¹ ne³³pʰo³³
        3SG + maternal grandmother   3SG maternal grandmother

217.   ja²¹ ʔa²¹pʰo³³pʰo³³ →   ja²¹ pʰo³³pʰo³³
        3SG + maternal grandfather   3SG maternal grandfather

218.   ja²¹ ʔa³³ma³³tɛ⁵⁵læ⁵⁵ →   ja²¹ ma³³tɛ⁵⁵læ⁵⁵
        3SG + mother's youngest sister   3SG mother's youngest sister

219.   ja²¹ ʔa³³ma³³bæ³³ →   ja²¹ ma³³bæ³³
        3SG + mom's younger sister   3SG mother's third youngest sister

220.   ja²¹ ʔa³³ma³³tʃʰjɛ³³ →   ja²¹ ma³³tʃʰjɛ³³
        3SG + mom's younger sister   3SG mother's second younger sister

221.   ja²¹ ʔa³³ko³³ →   ja²¹ ko³³
        3SG + older brother   3SG older brother

The number 'ten' is /tsʰe³³/; however, it loses aspiration when combined with number two /n̩²¹/ to form the number twenty, [n̩²¹-tse³³] 'twenty'.

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