Chapter Two

Mechanisms of sound and writing systems

2. Phonology

Phonology or phonemics is concerned with semantically relevant speech sounds 'phoneme', and their pertinent characteristics, relations, and systems viewed synchronically and diachronically (Bussmann 1996: 363) of a particular language.

2.1 A preliminary outline

This chapter is divided into two main parts, dealing firstly with 'phonemic analysis' or 'taxonomic phonology' (Lass 1984) of Kirāntī-Kōīts, which essentially is 'an inventory, together with realization rules for its members, and statements of distribution, that characterizes exhaustively the substantial structure of its morphemes'. According to Lass (ibid), 'phonemic analysis' is of three major types. They are: (i) phonemic inventory (ii) allophonic rules/variations and (iii) phonotactics. Accordingly, we shall examine these three major types of 'phonemic analysis' of the language under description.

Then, secondly we shall discuss some historical dimensions of the graphology of the language generally known as Kirāntī-Kōīts (K-K) Bres:se /bres(e)/ ‘script’ (specifically named as Je’ticha Bres:se (K-K) /dze’ticā bres(e)/; See § 2.5.2) and its orthography in a comparative perspective with Shrestha (1980: 63-69), Je’ticha-Sunuwar (1982/3: 39-41), Rai (1982/3: 39-41), Dahal (1995), Sunuwar (1998: 20-32, 1999: 365-376), Mukhia (1998: 113-131), Pradhan (1999) and Schulze's (1971-1990s) rigorous study for the applicability of the Devanagari alphabets/letters (See § 2.5.3, Table 2.8) for writing the language. A transliterated version of the aforesaid letters/alphabets will also be provided for showing its practical writing system; now available in computerized fonts for facilitating documentation of the language in its own indigenous script, for instance in Sikkim (See Appendix D for two Sikkim Official Documents) since its recognition in 1996 as one of the State Languages.
2.1.1 Segmental phonemic inventory

This phonemic inventory (as summarized in Tables 2.1 and 2.2; based mainly on the classical phonemic approach i.e. minimal/contrastive pairs (cf. Lass 1984)) is primarily based on my own Katunje dialect/variety (See Map 6: xxx) of Okhaldhunga district, traditionally a part of Wallo (N) ‘near/hither’ Kirāt, east Nepal (See Maps 1: xxv and 2: xxvi), where other Kirānti languages (See Map 3: xxvii and Figures 1:xxiii and 2: 3-4) like Häyu, Bā?yung [(N) exoglotonym Bāhing], Wāmbule [autonym RwāDhu], Jerung and Tilung are also spoken (also cf. van Driem 2001, Opgenort 2002).

However, I have taken other dialects or even idiolects of my senior and contemporary ‘consultants’ (in the sense of Munro (2001)) into account along with the previous studies by the SIL linguists Bieri and Schulze (1970 and 1971b), who for the first time had described the sound system of Kirānti-Kōits under its exoglotonym ‘Sunwar’ [derived from the Indo-Aryan hydronym; [cf. Ch. 1, § 1.1.1.3 also] in most of their works (See Ch 1, § 1.3 and § 1.5 also), Schulze (1987: 83), Genetti (1992: 326ff), Schulze (1995) Rapacha (1996, 1997b [VS 2054/5], 1999) comparatively, wherever its changes have taken place since the language is still in its spoken form lacking sufficient written documents or records or standardization. In general, regarding the number of Tibeto-Burman vowels and consonants, Zograph (1982: 188) notes,

"The inventory of vowels varies from one member language to another, while the consonants fall basically into the same localization series as we find in Indo-Aryan. Aspirates are present. The high frequency of the velar nasal is particularly striking."

Obviously, there may occur variations in the number of segmental phonemes (cf. Bieri and Schulze (1971: 2 and 14) 26 consonants and 10 vowels, Schulze (1987: 81) 28 consonants and 13 vowels including diphthongs, Genetti (1992: 326) 37 consonants and 12 vowels, Rapacha (1997b: 111) 24 consonants and 8 vowels) that have been described in the past literature so far.
2.1.1.1 Vowel phonemes

In this section, we will describe the Kiranti-Köits vowel phonemes, their distribution and variants. Table 2.1 below summarizes the number of vowels available in the language after a rigorous analysis of the data (also cf. Bieri and Schulze (1970), (1971b), Schulze (1987), Genetti (1992), and Michailovsky (1975 mainly based on Bieri and Schulze’s data)). Six basic oral vowels have been discovered and five out of six are contrastive in their nasal pairs according to their distribution and minimal/near-minimal pairs.

Table 2.1: Oral/nasal vowel phonemes

<table>
<thead>
<tr>
<th></th>
<th>front</th>
<th>central</th>
<th>back</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>-round +round</td>
<td>-round +round</td>
<td></td>
</tr>
<tr>
<td>high</td>
<td>i (:)/i</td>
<td></td>
<td>u (:)/û</td>
</tr>
<tr>
<td>mid</td>
<td>e/ê/ê</td>
<td>a(/)</td>
<td>o (:)/ô</td>
</tr>
<tr>
<td>low</td>
<td></td>
<td>a(û)/â</td>
<td></td>
</tr>
</tbody>
</table>

* (:) The colon in small brackets implies that lengthening is optional either resulting from tonoloss or glottal stop or at its best it represents a level tone (û) since some dialects of Kiranti-Köits are tone-prone/tonal (cf. § 2.4.1 below). Therefore, length contrasts are rare in the dialect area of this description or it can be a level tone. (û) means nasality and is contrastive in Kiranti-Köits unlike in some other Kiranti languages (cf. Ebert 1994, also cf. Abbi 2001: 96 for other common vowel sounds in Indian languages).

2.1.1.1.1 Classification/distribution of vowels

We shall below consider some examples of these vowel phonemes listed in Table 2.1 earlier (whose classificatory features are provided immediately after each individual vowel phoneme) in terms of their distribution in word initial, medial and final positions first and minimal pairs in § 2.1.1.4 later.

/i(:)/ = high, front -round

(1) a. ir

\[
\begin{align*}
    /i/ & \rightarrow /ir/ \\
    \text{maits} & \rightarrow /iri/ \\
    /iri/ & \\
\end{align*}
\]
('above'  NEG-come-INF  above-INT  
'not to come'  'far above'

b. ila  ripiki  painiki
/ila-/)  /ripiki/  /painiki/
come-3SG  louse-PL  do-1:NPIST-PL
'may it come down'  'lice'  'we do'

(vertial)

c. iptsA  itsitsi  m'i
/ipcā/  /icici/  /mi'/
sleep-INF  'a little'  'fire'
'to sleep'

/e/ = mid-low, front -round
(2) a. er  ker  koNaite
/er/  /ker/  /kōite/
'far away'  'black'  'ankle'

(horizental)

b. etsphu  meke  tetere
/ecphw/  /mek~mek/  /Terere/
'rose'  'there'  'camel'

c. enkere  kekh  tsule
/kekh/  /cule/
'here'  'raw'  'nettle, girardinia heterophylla'

/a(:)/ = low, central -round
(3) a. Al  gar  kalA
/āl/  /gär/  /kəlā/
'child'  'wound'  'ethnonym' (Manger tribe)

b. ATar  mangang  kA
/ātār/  /māŋāŋ/  /kā/
'on, above'  NEG-weep-3SG:IMP  'one'
'do not weep'
(4) a. onmu /omu/ /grolcā/ /blošo/
‘mushroom’ lie-INF ‘to lie’ ‘tasty’

b. obis /obis/ /prolca/ /rimšo/
‘cucumber’ break-INF ‘good, fine, beautiful’ ‘to break’

c. onso /oso/ /moso/ /kumso/
‘this much’ ‘that much’ ‘song’

(5) a. uttha /uttā/ /cumlu/ /su/
‘thither’ ‘mortar’ ‘who’

b. usher /usēr/ /c’ubu/ /pulu/
‘butterfly’ ‘Gurkha knife’ ‘ash’

c. ugent /ugen/ /tulcā/ /cuplu/
‘germination’ pluck-INF ‘fireplace’ ‘to pluck out, uproot’

(6) a. atingal /ətiŋal/ /gər/ /lātə/
‘joint’ (of bones) ‘soil-pot’ go-PST:3SG ‘went’
2.1.1.1.2 Vowel clusters

There are maximum ten oral plus oral vowel combinations (7-16) a-c meaningfully contrastive in the language. Combinations of nasal or nasalized plus oral or oral plus nasal are illustrated in (17) a-b and (18) a-c.

**Table 2.2: Vowel clusters and their distribution**

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>aoi</td>
<td>aoi</td>
<td>aoi</td>
</tr>
<tr>
<td>aoi</td>
<td>aoi</td>
<td>aoi</td>
</tr>
<tr>
<td>ei</td>
<td>ei</td>
<td>ei</td>
</tr>
<tr>
<td>eu</td>
<td>eu</td>
<td>eu</td>
</tr>
<tr>
<td>au</td>
<td>au</td>
<td>au</td>
</tr>
<tr>
<td>aau</td>
<td>aau</td>
<td>aau</td>
</tr>
<tr>
<td>iu</td>
<td>iu</td>
<td>iu</td>
</tr>
</tbody>
</table>

Consider the following data:

**Oral + oral**

/oi/ = back + front, high

(7) a. aoi /soitsta/ /roi/
   *let us enter* /soicc/ /roi/
   ‘to send’ /soitsta/ /roi/

b. aoi /hoitsta/ /joi/
   *Mongoloid tribe/race* /hoicc/ /dzo/ /joi/
   ‘tiger’ /hoitsta/ /joi/

c. --- /roitsta/ /goi/
   ‘to heat’ /roicc/ /goi/
   ‘you’ /roitsta/ /goi/
\[
\text{\textit{\textit{lui}} = \text{\textit{back + front, high}}} \\
\text{\textit{\textit{ui}}} = \text{\textit{\textit{back + front, high}}} \\
\]

| (8) | a. \textit{ui} | \textit{huiststa} | \textit{gui} \\
|     | \textit{\textit{lui}} | \textit{\textit{huicca}} | \textit{\textit{gui}} |
|     | \textit{\textit{far below}} | \textit{scold-INF} | \textit{\textit{hand}} |
| b.  | \textit{---} | \textit{tuiststa} | \textit{\textit{khuai}} \\
|     | \textit{\textit{below}} | \textit{\textit{know-INF}} | \textit{\textit{thief}} |
|     | \textit{\textit{to know}} | \textit{\textit{khui}} | \textit{\textit{kui}} |
| c.  | \textit{---} | \textit{kuiststa} | \textit{\textit{sui}} \\
|     | \textit{\textit{hand}} | \textit{\textit{hide-INF}} | \textit{\textit{no one}} |
|     | \textit{\textit{to hide}} | \textit{\textit{it}} | \textit{\textit{before}} |

\[
\text{\textit{\textit{\textit{ai}}} = \text{\textit{central + front, high}}} \\
\]

| (9) | a. \textit{aidi} | \textit{mait} | \textit{pai} \\
|     | \textit{\textit{ai}} | \textit{\textit{maiat}} | \textit{\textit{pai}} |
|     | \textit{\textit{below}} | \textit{\textit{before}} | \textit{\textit{do:1PL:INCl}} |
|     | \textit{\textit{let us do}} | \textit{\textit{let us eat}} |
| b.  | \textit{ainthe} | \textit{---} | \textit{\textit{sai}} \\
|     | \textit{\textit{alpine tree}} | \textit{\textit{in the past}} |
|     | \textit{\textit{will you eat?}} | \textit{\textit{will you eat?}} |
| c.  | \textit{---} | \textit{\textit{jai}} | \textit{\textit{eat:1PL:INCl}} |
|     | \textit{\textit{let us eat}} | \textit{\textit{let us eat}} |

\[
\text{\textit{\textit{\textit{ae}}} = \text{\textit{central + front, mid-low}}} \\
\]

| (10) | a. \textit{---} | \textit{\textit{jAiaynaye}} | \textit{\textit{dzainoe}} \\
|     | \textit{\textit{---}} | \textit{\textit{eat:NPST:3SG}} | \textit{\textit{will you eat?}} |
| b.  | \textit{---} | \textit{\textit{\textit{Laiaynaye}} | \textit{\textit{\textit{laione}}}} |
/āi/ = low, central + front

(11) a. AitthA  
/saitsA/  
khaï

‘up’  
kill-INF  
‘to kill’

b. Aitstsi  
/khâitsA/  
gâi

‘across’  
ache-INF  
‘to ache’

c. Aits  
/thâitsA/  
phâï

‘young’ (+human)  
beat-INF  
‘to beat’

/go:NPST:3SG
‘do you go?’

/soinâye/  
send:NPST:3SG  
‘do you send?’

/ei/ = mid-low, front + high

(12) a. ei  
/teitei/  
mei

‘hello’  
‘everywhere’  
(discourse filler at the end of a sentence as in tek meï? 19)

b. ---  
/hei/  
(ph word for chasing a buffalo)

c. ---  
/tekei/  
‘no where’

/seu/ = mid-low, front + back

(13) a. eu  
---  
seu

19 ‘where?’ is normally used with slow and lengthy voice when the speaker is feeling tedious.
(/œu/) --- /sœu/
‘discourse starter’

b. --- --- /reu/
‘rain’

c. --- --- /geu/
give:NPST:3SG:IMP
‘give’

/œu/ = mid, central + back
(14) a. audi --- gau

/œudi/
‘too much’

b. --- --- sau

/c. --- --- tau

/iu/ = front, high + back
(16) a. iu --- siu

/œu/ = mid, central + back
(14) a. audi --- gau

/œudi/
‘too much’

b. --- --- sau

/c. --- --- tau

/iu/ = front, high + back
(16) a. iu --- siu
2.1.1.1.3 Nasality contrast/nasal assimilation

Nasality is a typical feature to Kiranti-Köits from a broader Kiranti phonological perspective. Historically, the contrast between oral and nasality between /a/ vs. /a/ seems to have been developed through phonologization from other Kiranti bilabial-nasal /m/ given in (19 a-f) for instance,
Interestingly, there is one reverse process in this phonological process, e.g. āb => ām in (53) b § 2.1.4 and kʰi + ɣa ‘house’ + ‘inside’ => kʰíɣa ‘inside the house’ assimilating nasality (/articles into velaric nasal /ʃ/ in compounded fast speech. Five nasal vowels e.g., ā, ə, ì, û as in (20) a-e below are contrastive in meaning exhibiting grammatical difference unlike English (cf. Durand 1990: 40) between oral and nasal vowels. Consider the following examples of minimal/near-minimal pairs.

(20) a. <ā> vs. <ã>  

A  /-ā/ or /ã-/ ‘his, theirs’  
AN /ã-/ ‘my, mine’  
meko /meko-ā/ ‘his/her’  
AN den sho lo: /ã ə́ə lo:/ ‘my advice’  
Am /ã-m/ ‘own, mother’  
Ankali /ã-kəli/ ‘to/for me’  
Ia /-lā/ ‘from’, la /lā/ ‘only’ [cf. Kiránti-Lim (Yakthungba) -lam (Ebert 1994: 81)]  
lan /lā/ ‘path, road’ [lam in some other Kiránti languages and l’əm in Meithei (Chelliah 1997: 204)]  
wA /wā/ ‘cloth’  
wAN /wã/ ‘bear’ [in Kiránti-Warn wAm (Opgenort 2002: 13)]  
-CA /-cā/ ‘INF marker’  
cAN /cā/ ‘hair’ [in other Kiránti languages cAm also PT-B]  
-shā→shyA /-ʃā→ʃyā/ ‘converb’  
sAN /sā/ ‘three’ [sAm in K-Ba (Konow (in Grierson (ed.) 1990/94: 329)]  
-shyA→shA /-ʃyā>ʃā/ ‘converb’
shyAN /ʃˈaː/ ‘INTJ par’
ra- /rɑ-/ ‘rot’
ran /rɑ/ ‘body’
watser /wɑːtər/ ‘seed’
wantser /wɑntsər/ ‘poison’
b. <i> vs. <i>
ike /iˈke/ ‘thy’
inke /iˈkeː/ ‘ours’
c. <o> vs. <o>
hoitsta /hoiˈtsta/ ‘to boil up’
hointsta /hoiˈntsta/ ‘to climb up’
d. <ɛ> vs. <ɛ>
le /le/ ‘four’
leN /le/ ‘tongue’ [Kiranti-Wam lyam (Opgenort 2002: 88)]
re-le /reˈle/ ‘from’
ren /re/ ‘spider’
shyetsa /ʃˈyeːtsə/ ‘to clean’
shyentsa /ʃˈyeːntsə/ ‘to teach’
proitsa /prˈoːtsə/ ‘to cut’
prenta /prˈentə/ ‘to forget’
e. <u> vs. <i>
-thu /-ˈθu/ ‘purposive’
thuN /ˈθuː/ ‘heart/mind, (fig.) wisdom’

Nasality may occur phonetically as a result of nasal assimilation as in kōits [kōits] ‘one of the Kiranti tribes’ (auto)ethnonym, wāis [wāis] ‘husband’ kōite [kōite] ‘ankle’, aīt'e [aɪt'e] ‘alpine tree’ etc <ɔ> ‘yes’ is inherently nasal but it lacks its minimal or near-minimal pairs whereas /ɛ/ remains neutralized before voiced nasal /n/ as in de'nāde'n [Text source: 1.127] ‘saying’ morphologically inflected from deˈcā ‘to say’.
2.1.1.4 Minimal/near-minimal pairs

This § 2.1.1.4 mainly observes the available minimal or near-minimal pairs of vowels in Kirānit-Kōits, e.g. from (21) a-l to (26) a-b.

/ə/ vs. /ä/ (21) a. gar /gər/ ‘soil-pot’
   b. gAR /gär/ ‘wound’
   c. gas(u) /gəsu/ ‘fog’
   d. gas /ɡəs/ ‘let us walk’
   e. khal /kʰal/ ‘guard’
   f. kHALd/- /kʰald/- ‘mix’
   g. tAṣA /täcä/ ‘to get, see’
   h. TAISA /täcä/ ‘to take’
   i. tasla /täslä/ ‘utensil made up of bronze or alloy’
   j. TAṣA /täslä/ ‘moon’
   k. dzAṣA /dzəcä/ ‘to eat’
   l. dzAṣA /dzəcä/ ‘to arrive’

/ä/ vs. /ë/ (22) a. gA /ɡə/ ‘inside’
   b. ge /ɡe, -ge/ ‘thou, towards’
   c. tA /tä/ ‘on’
   d. te /të/ ‘where’

/u/ vs. /ë/ (23) a. su /su/ ‘who’
   b. -se /-se/ ‘-2DU’

/i/ vs. /ë/ (24) a. ir /ɪr/ ‘up’
   b. er /ɛr/ ‘far (horizontal)’
   c. g’iṣA /g’icä/ ‘to give birth (of animal)’
   d. getA /gecä/ ‘to give’

/o/ vs. /u/ (25) a. kotsA /kocä/ ‘to look’
   b. kutsA /kucä/ ‘to come up (three other different verbs)’

/i/ vs. /ë/ (26) a. himtsA /himcä/ ‘to shake, (fig.) challenge/threat’
   b. hemtsA /hemcä/ ‘to thrash’
2.1.1.5 Deletion of final vowels

The deletion of final vowels ‘apocope’ (almost all six i, u, ø, o, e, å) in grammatical suffixes as well as in free lexemes optionally (in fast vs. relaxed speech) can take place in Kiranti-Köits, for instance, -tike > tek /tike > tek/ ‘nominalizer suffix’ as in:

(27) a. pa-tike > pa-tik /patike > patik/ ‘doer’ [also cf. <-b>]
   b. kyort-tike > kyort-tik /kyorttike > kyorttik/ ‘cutter’ [also cf. <-b>]
   c. kurt-tike /kurttike > kurttik/ ‘porter’ [also cf. <-b>]
   d. -kali > kal /kcoli > kol/ ‘for, to’ [also cf. Ch 3 § 3.1.2.5.1]
   e. -mi > m /mi > m/ ‘at or in, with, by’ [cf. 3.1.2.5.1]
   f. -puki > puk /puki > puk/ ‘pl’ [also cf. Appendix B]
   g. -piki > pik /piki > pik/ ‘pl’ [also cf. Appendix B]
   h. mina(u) > min /minä(u) > min/ ‘then’
   i. munu > mun /munu > mun/ ‘then’
   j. shyANbu > shyANb /syâbu > syâb/ ‘millet beer (K-K Cul)’
   k. ts ’ubu > ts ’ub /c ’ubu>c’ub/ ‘Gurkha-knife’
   l. tami > tam /tomi > tom/ ‘daughter’
   m. gyAmi > gyAm /gyämi > gyäm/ ‘female shaman (K-K Cul)’
   n. kyor-ba > kyor-b /kyorba > kyorba/ ‘cuts, one who cuts’
   o. pAi-ba > pAi-b /päiba > päib/ ‘does, one who does’
   p. omo > om /omo > om/ ‘adjQ (of size)’ [cf. Ch 3 § 3.1.3.1.4]
   q. doro > dor /doro>dor/ ‘run’
   r. rApatsA > rApats /râpocä > râpoc/ ‘catalyst’ [also cf. Ch 1 § 1.1.2 and 1.1.3]

This phonological process takes place not only in vowels but also in consonants or even the whole syllable can be dropped out (also cf. § 2.1.7).

2.1.1.2 Consonant phonemes

Kiranti-Köits has 30 phonemes in total, out of which 6 (except for five nasal vowels e.g. ä, ø, ð, i, u (see § 2.1.1.3 above) and ten oral diphthongs/v-clusters, e.g., oi,
ui, oi, æ, æi, ei, εu, œu, äu, iu (see § 2.1.1.2 (7-16) a-c and (17) a-b nasal + oral
diphthongs, e.g., öi, äi, æi or oral + nasal diphthongs, e.g., æi and ui (18) a-c) are vowels
and 24 are consonants (also cf. Bieri and Schulze (1970), (1971b), Schulze (1987: 83),
Genetti (1992: 326ff), Rapacha (2002)); of the latter, 17 are obstruents (stops, and
fricatives), and 7 are sonorants or non-obstruents (nasals, liquids, glides, and vowels; cf.
Chomsky and Halle 1968 and Lass 1984). We shall in § 2.1.2.1 below, describe these
phonemes in terms of their classification, distribution and minimal or near-minimal pairs.

**Table 2.3: Consonant phonemes**

<table>
<thead>
<tr>
<th>Type</th>
<th>Manner of Articulation</th>
<th>Points of Articulation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Bl</td>
<td>Dl</td>
</tr>
<tr>
<td>stops, -voice</td>
<td>p</td>
<td>t</td>
</tr>
<tr>
<td>+asp</td>
<td>pʰ</td>
<td>th</td>
</tr>
<tr>
<td>+voice</td>
<td>b</td>
<td>d</td>
</tr>
<tr>
<td></td>
<td>s</td>
<td></td>
</tr>
<tr>
<td>fricatives</td>
<td>mn</td>
<td></td>
</tr>
<tr>
<td>nasals</td>
<td>m</td>
<td>n</td>
</tr>
<tr>
<td>liquids</td>
<td>r</td>
<td>l</td>
</tr>
<tr>
<td>glides/semi-vowel</td>
<td>w</td>
<td></td>
</tr>
</tbody>
</table>

**Abbreviations:**

Bl = bilabial, Dl = dental, Al = Alveolar, Rx = retroflex, Pl = palatal, Vr = velar, Gl = glottal (cf.
Abbi 2001: 97 for other common consonant sounds in Indian languages)

* Phonemes like /c/ vs. /ch/ or [tsʰ], /b/ vs. /bʰ/, /d/ vs. /dʰ/, /g/ vs. /gʰ/, and /dz/ vs. /dzʰ/ lack
minimal pairs and may occur only in loan words from I-A (Indic) Khas-Nepali. These
phonemes occurring in any three positions of a word can be written in their nativized version
(See Rapacha 2002 and 2003) without any difficulty. Native speakers like Uttam Katicha and
some of his followers claim (and also have used in orthography but one is hardly convinced to
agree with them) that the palato-nasal /fi/ (ㄨ) is a phoneme of Kiranti-Köits but in the data of
Katunje dialect (See Map 6: xxx) and daily speech it does not occur at all. Historically, one implosive or preglottalised bilabial stop /ɓ/ has been traced (cf. Rapacha 2002, Opgeenort 2004: 3-8, Opgeenort 2004: 1-27) as in Kirānti-Wambule (cf. Toba 1995: 7-9, Opgeenort 2002 Ch 2, 2004: 3-8, Pokharel 2004: 524, also cf. Henderson (1965: 431) for 'preglottalized' consonants in South East Asian languages). Only a few examples include: bwArde /bɑrdɛ/ 'hawk', bwA /bɑ/ 'rooster' and bward-(o) /bɑrdɔ/ 'throw away'. Letters in brackets outside the phonemic slashes on the right hand side imply optional orthography and inside the phonemic slashes imply IPA symbol but later in examples we have used only /y/ to mean /j/.

Following the above twenty-four consonant inventory in Kirānti-Kōits, their classification in terms of manner and place of articulation, distribution in terms of position and minimal or near-minimal pairs in terms of meaningful contrast have been presented below.

2.1.1.2.1 Classification/distribution of consonants

In the following from § 2.1.2.1.1 to § 2.1.2.1.15, we shall observe the classification, distribution and minimal near-minimal pairs possibly available in the language under description.

2.1.1.2.1.1 Bilabial stops

Consider the following data occurring word initially, medially and word finally in all instances. All three bilabial stop /p/, /ɓ/ /b/ phonemes occur in all three positions productively.

<table>
<thead>
<tr>
<th>Sound</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>/p/</td>
<td>/perA/</td>
<td>/tsapo/</td>
</tr>
<tr>
<td></td>
<td>'right'</td>
<td>'piglet'</td>
</tr>
<tr>
<td></td>
<td>/paIrum/</td>
<td>/phairAgi/</td>
</tr>
<tr>
<td></td>
<td>'spinning wheel'</td>
<td>'desert'</td>
</tr>
<tr>
<td>/b/</td>
<td>/bo/</td>
<td>/prupse/</td>
</tr>
</tbody>
</table>

24 He claims that he has himself heard the ingressive (implosive or preglottalised) sound in Kirānti-Kōits (Sun(u)war), however no instances have been provided.
2.1.1.2.1.2 Dental stops

Consider the following data occurring word initially, medially and word finally in all instances. All three dental stop /t/, /θ/, /d/ phonemes occur in all three positions productively.
<table>
<thead>
<tr>
<th>/tü/ (31) a.</th>
<th>/tikkus/</th>
<th>/mate?tsA</th>
<th>/shyet/</th>
</tr>
</thead>
<tbody>
<tr>
<td>'rabbit, hare'</td>
<td>NEG-barricade-INF</td>
<td>'difficulty'</td>
<td>'to barricade'</td>
</tr>
<tr>
<td>/tablA/</td>
<td>/so:tang/</td>
<td>/lat/</td>
<td></td>
</tr>
<tr>
<td>b. /täblä/</td>
<td>/so:tän/</td>
<td>/lat/</td>
<td></td>
</tr>
<tr>
<td>'palm'</td>
<td>cross-PST-1SG</td>
<td>'I crossed...'</td>
<td>'s/he went'</td>
</tr>
<tr>
<td>/lamrA/</td>
<td>/kretete (TRM)/</td>
<td>/glut/</td>
<td></td>
</tr>
<tr>
<td>c. /tämrä/</td>
<td>/kretete/</td>
<td>/glut/</td>
<td></td>
</tr>
<tr>
<td>'beaten rice'</td>
<td>'yogurt'</td>
<td>appear-PST:3SG</td>
<td>'s/he, it appeared'</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>/th/ (32) a.</th>
<th>/thögä/</th>
<th>/mathät psA</th>
<th>/getth/</th>
</tr>
</thead>
<tbody>
<tr>
<td>'net' (for fishing)</td>
<td>NEG-pay-INF</td>
<td>'up, above'</td>
<td>'not to pay'</td>
</tr>
<tr>
<td>/thöplA/</td>
<td>/ne:thä/</td>
<td>/shyeth/</td>
<td></td>
</tr>
<tr>
<td>b. /thöplä/</td>
<td>/ne:thä/</td>
<td>/shyeth/</td>
<td></td>
</tr>
<tr>
<td>'wave'</td>
<td>'near'</td>
<td>'empty'</td>
<td></td>
</tr>
<tr>
<td>/thätlä/</td>
<td>/su:thi/</td>
<td>/käth/</td>
<td></td>
</tr>
<tr>
<td>c. /thätlä/</td>
<td>/su:thi/</td>
<td>/käth/</td>
<td></td>
</tr>
<tr>
<td>'bat/racket'</td>
<td>'marigold'</td>
<td>'along'</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>/d/ (33) a.</th>
<th>/durdä/</th>
<th>/madorccä/</th>
<th>/käd/</th>
</tr>
</thead>
<tbody>
<tr>
<td>'word'</td>
<td>NEG-run-INF</td>
<td>'crow'</td>
<td>'to not run'</td>
</tr>
<tr>
<td>/dailu/</td>
<td>/doleb/</td>
<td>/kad/</td>
<td></td>
</tr>
<tr>
<td>b. /däilu/</td>
<td>/doleb/</td>
<td>/kad/</td>
<td></td>
</tr>
</tbody>
</table>

---

21 It is used as in “koŋ kod; be'ŋe” when the interlocutor is furious, “kod kod; go e'k bā?nuŋ” where the interlocutor wants his/her addressee to vacate the seat for sitting and “Sunuwar de'shā māde'cā hai bābu, tupther de'nim kod” [from a satirical cartoon caption published in a monthly four-page magazine]
2.1.1.2.1.3 Alveolar stops

Consider the following data occurring word initially, medially and word finally in all instances. Both alveolar stop /ts/, /dz/ phonemes occur in all three positions productively.

<table>
<thead>
<tr>
<th>tsAN</th>
<th>gyAitstsA</th>
<th>ruwats</th>
</tr>
</thead>
<tbody>
<tr>
<td>/c/ (ts) (34) a.</td>
<td>/cä/</td>
<td>/gyäiccä/</td>
</tr>
<tr>
<td></td>
<td>‘hair’</td>
<td>catch-INF</td>
</tr>
<tr>
<td></td>
<td>‘to catch, hold’</td>
<td></td>
</tr>
<tr>
<td>tsotso</td>
<td>ro?tsA</td>
<td>rApatS</td>
</tr>
<tr>
<td>b.</td>
<td>/coco/</td>
<td>/ro?cä/</td>
</tr>
<tr>
<td></td>
<td>‘cheek’</td>
<td>open-INF</td>
</tr>
<tr>
<td></td>
<td>‘to open’</td>
<td></td>
</tr>
<tr>
<td>tsaimi</td>
<td>huitstsA</td>
<td>thuNguts</td>
</tr>
<tr>
<td>c.</td>
<td>/caim(i)/</td>
<td>/huiccä/</td>
</tr>
<tr>
<td></td>
<td>‘daughter-in-law’</td>
<td>scold-INF</td>
</tr>
<tr>
<td>jil</td>
<td>Sanjil</td>
<td>sANjil</td>
</tr>
<tr>
<td>/dz/ (35) a.</td>
<td>/dzil/</td>
<td>/sādzil/</td>
</tr>
<tr>
<td></td>
<td>‘oil, ghee’</td>
<td>‘auto-rickshaw’</td>
</tr>
<tr>
<td>jimnats</td>
<td>gujil</td>
<td>kerj</td>
</tr>
<tr>
<td>b.</td>
<td>/dzimnāc/</td>
<td>/gudzil/</td>
</tr>
<tr>
<td></td>
<td>‘May’</td>
<td>‘bicycle’</td>
</tr>
<tr>
<td>jatek</td>
<td>mojil</td>
<td>koj</td>
</tr>
<tr>
<td>c.</td>
<td>/dztek/</td>
<td>/modzil/</td>
</tr>
<tr>
<td></td>
<td>eat-NOML</td>
<td>‘motorbike’</td>
</tr>
</tbody>
</table>
2.1.1.2.1.4 Retroflex Stops

Consider the following data occurring word initially, medially and word finally in all instances. Both retroflex stop /T/, /Tʰ/ phonemes occur in all three positions productively whereas /Tʰ/ in the medial position seems rare except for negative prefix.

<table>
<thead>
<tr>
<th>TeTeTe</th>
<th>maTitsA</th>
<th>kyeT</th>
</tr>
</thead>
<tbody>
<tr>
<td>/T/</td>
<td>/Te.Te.re/</td>
<td>/məTicə/</td>
</tr>
<tr>
<td>‘camel’</td>
<td>NEG-obey-INF</td>
<td>‘money’</td>
</tr>
<tr>
<td>‘not to obey’</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Temu</td>
<td>/laTu</td>
<td>phoT</td>
</tr>
<tr>
<td>b.</td>
<td>/Te.mu/</td>
<td>/ləTu/</td>
</tr>
<tr>
<td>‘elbow’</td>
<td>‘firefly’</td>
<td>‘testicle’</td>
</tr>
<tr>
<td>Tigeng</td>
<td>aTingal</td>
<td></td>
</tr>
<tr>
<td>c.</td>
<td>/Tigen/</td>
<td>/əTingə/</td>
</tr>
<tr>
<td>‘colour’ ‘joint’ (of bones)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ThiNber</td>
<td>maTʰo’ASA</td>
<td>koiTʰ</td>
</tr>
<tr>
<td>/Tʰ/</td>
<td>/Tʰiber/</td>
<td>/məTʰo’icə/</td>
</tr>
<tr>
<td>‘donkey’ NEG-hit-INF ‘store house’</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Th’otsi</td>
<td>səNTʰ</td>
<td></td>
</tr>
<tr>
<td>b.</td>
<td>/Tʰ’oci/</td>
<td>---</td>
</tr>
<tr>
<td>‘hammer’</td>
<td></td>
<td>‘shirt’</td>
</tr>
<tr>
<td>rʰeb</td>
<td>dalonTʰ</td>
<td></td>
</tr>
<tr>
<td>c.</td>
<td>/rʰeb/</td>
<td>---</td>
</tr>
<tr>
<td>‘big’ (-/+human)</td>
<td></td>
<td>‘camel’</td>
</tr>
</tbody>
</table>

2.1.1.2.1.5 Velar stops

Consider the following data occurring word initially, medially and word finally in all instances. All three velar stop /k/, /kʰ/, /ɡ/ phonemes occur in all three positions
productively whereas /g/ in the final position seems not so common except for the final vowel is deleted optionally (also cf. 2.1.1.5 above).

<table>
<thead>
<tr>
<th>/k/</th>
<th>(38) a.</th>
<th>/kɛcə/</th>
<th>/məkɛcə/</th>
<th>/mek/</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>cook-INF</td>
<td>NEG-cook-INF</td>
<td>‘there’</td>
<td></td>
</tr>
<tr>
<td></td>
<td>‘to cook’</td>
<td>‘not to cook’</td>
<td></td>
<td></td>
</tr>
<tr>
<td>kutsu</td>
<td>kaiNTsikA</td>
<td>tek</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

b. /kucu/ /koicamente/ /tek/ |
‘chest’ ‘alone’ ‘where’
kutsum koike nak |

c. /kucum/ /koike/ /nek/ |
‘dog’ ‘stick’ ‘new’
khetA makhetA nekh |

<table>
<thead>
<tr>
<th>/kʰ/</th>
<th>(39) a.</th>
<th>/kʰɛcə/</th>
<th>/məkʰɛcə/</th>
<th>/nekʰ/</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>peel off-INF</td>
<td>NEG-peel off-INF</td>
<td>‘mucus’</td>
<td></td>
</tr>
<tr>
<td></td>
<td>‘to peel off’</td>
<td>‘not to peel off’</td>
<td></td>
<td></td>
</tr>
<tr>
<td>khoili</td>
<td>kurmidokʰA</td>
<td>kekh</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

b. /kʰοiili/ /kurmidokʰä/ /kekʰ/ |
‘leg’ ‘present, gift’ ‘raw’
khruui makhetA dokh |

c. /kʰ(t/l)ui/ /məkʰɛrccə/ /dokʰ/ |
‘tooth’ NEG-chase-INF ‘food poisoning’ ‘not to chase’
gupsu rAgïi mug(i) |

<table>
<thead>
<tr>
<th>/g/</th>
<th>(40) a.</th>
<th>/gupsu/</th>
<th>/rāgïi/</th>
<th>/mu:gïi/</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>‘lion’</td>
<td>‘country’</td>
<td>‘banana’</td>
<td></td>
</tr>
</tbody>
</table>
guye kolgi gig(i) |

b. /guye/ /kolgi/ /gig/ |
‘sickle’ ‘soybean’ ‘green’
gumlik phalgi |

c. /gumlik/ /pʰɔlgi/ ---
‘bangle’ ‘food variety’ (maize)

2.1.1.2.1.6 Glottal Stop

Consider the following data occurring word initially, medially and word finally in all instances. The only glottal stop /ʔ/ phoneme occurs mainly productively in medial position whereas in its initial and final positions, it may loose ground because of geolectal variations of the language.

\[
\begin{array}{llll}
\text{ʔ} & \text{wA} & \text{ʔ} & \text{me}?
\end{array}
\]

(41) a. /ʔpʰuː22/ /wəʔcə/ /meʔ/ ‘egg’ ‘to speak’ ‘that, s/he’

(42) a. /səbər/ /pəsi/ /bu:s/ ‘the day before’ ‘exercise’ ‘snake’

b. /sə/ /dzəspuʔə/ /su:s/ ‘three’ ‘clan name (in K-K)’ ‘many’

c. /ʔku/ /ʔkə?i/ ‘water’ ‘to escape, get away’

2.1.1.2.1.7 Dental fricative

Consider the following data occurring word initially, medially and word finally in all instances. The dental fricative /s/ phoneme occurs productively in all three positions.

\[
\begin{array}{llll}
\text{sa} & \text{bər} & \text{pa} & \text{s}i
\end{array}
\]

(42) a. /səbər/ /pəsi/ /bu:s/ ‘the day before’ ‘exercise’ ‘snake’

b. /sə/ /dzəspuʔə/ /su:s/ ‘three’ ‘clan name (in K-K)’ ‘many’

c. /ʔwkye-wəki/ /hoʔə/ ‘jungle’ ‘to bark’

---

22 It rarely occurs in the initial position but it is heard only in some idiolects instead of implosive. See also in the lexicon for its variation.

23 The same case is applicable here as in (40a) in the initial position. See also in the lexicon for its variation.
2.1.1.2.1.8 Palatal fricative

Consider the following data occurring word initially, medially and word finally in all instances. The palatal fricative /s/ phoneme occurs productively in all three positions.

\[
\begin{array}{ccc}
\text{shyo} & \text{shyArthAs} & \text{bush} \\
\text{shyANbu} & \text{ushyer} & \text{hush} \\
\text{shyANkA} & \text{masyACA} & \text{rush} \\
\end{array}
\]

(43) a. 
\[
\begin{array}{ccc}
/\text{syo}/ & /\text{syArthAs}/ & /\text{bus}/ \\
/\text{syAbu}/ & /\text{uSyet}/ & /\text{huSh}/ \\
/\text{syAkA}/ & /\text{mSyAcA}/ & /\text{ruSh}/ \\
\end{array}
\]

b. 
\[
\begin{array}{ccc}
/\text{mSyol}/ & /\text{shyArthAs}/ & /\text{bus}/ \\
/\text{uSyet}/ & /\text{huSh}/ & /\text{hush}/ \\
/\text{mSyAcA}/ & /\text{rhoSh}/ & /\text{rSh}/ \\
\end{array}
\]

c. 
\[
\begin{array}{ccc}
/\text{mSyol}/ & /\text{shyArthAs}/ & /\text{bus}/ \\
/\text{uSyet}/ & /\text{huSh}/ & /\text{hush}/ \\
/\text{mSyAcA}/ & /\text{rhoSh}/ & /\text{rSh}/ \\
\end{array}
\]

2.1.1.2.1.9 Glottal fricative

Consider the following data occurring word initially, medially and word finally in all instances. The glottal fricative /h/ phoneme does not occur in the final position exceptionally.

\[
\begin{array}{ccc}
/\text{hemAtsir}/ & /\text{hirhir}/ & /---/ \\
/\text{mahimtsir}/ & /---/ & /---/ \\
/\text{haudzidz}/ & /---/ & /---/ \\
\end{array}
\]

(44) a. 
\[
\begin{array}{ccc}
/\text{hemAcir}/ & /\text{hirhir}/ & /---/ \\
/\text{mahimcA}/ & /---/ & /---/ \\
/\text{haudzidz}/ & /---/ & /---/ \\
\end{array}
\]

c. 
\[
\begin{array}{ccc}
/\text{hAsot}/ & /\text{dizihots}/ & /---/ \\
/\text{hAsoc}/ & /\text{dizihoc}/ & /---/ \\
\end{array}
\]

'leopard' NEG-tease-INF 'bone'
2.1.1.2.1.10 Velar nasal

Consider the following data occurring word initially, medially and word finally in all instances. The velar nasal /ŋ/ phoneme productively occurs in all three positions, which is true as observes Zograph (1982: 188) in the beginning of this chapter.

<table>
<thead>
<tr>
<th>/ŋ/</th>
<th>/ŋoro/</th>
<th>/njänjän/</th>
<th>/monkiŋ/</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>‘dumb’</td>
<td>‘weep:PROG’</td>
<td>‘telephone’</td>
</tr>
<tr>
<td></td>
<td></td>
<td>‘weeping’</td>
<td></td>
</tr>
<tr>
<td></td>
<td>/ŋAtSA</td>
<td>konglots</td>
<td>onung</td>
</tr>
<tr>
<td>b.</td>
<td>/ŋä:cä/</td>
<td>/konloc/</td>
<td>/onüŋ/</td>
</tr>
<tr>
<td></td>
<td>weep-INF</td>
<td>‘gizzard’</td>
<td>enter-NPST:1SG</td>
</tr>
<tr>
<td></td>
<td>‘to weep’</td>
<td>‘I enter’</td>
<td></td>
</tr>
<tr>
<td></td>
<td>/ngo/</td>
<td>kongo</td>
<td>pänunung</td>
</tr>
<tr>
<td>c.</td>
<td>/ŋö/²⁴</td>
<td>/kono/</td>
<td>/pänunŋ/</td>
</tr>
<tr>
<td></td>
<td>‘fish’</td>
<td>look-NPST:3SG:IMP</td>
<td>do-NPST:1SG</td>
</tr>
<tr>
<td></td>
<td></td>
<td>‘you look’</td>
<td>‘I do’/c/ [ts]</td>
</tr>
</tbody>
</table>

2.1.1.2.1.11 Alveolar nasal

Consider the following data occurring word initially, medially and word finally in all instances. The alveolar nasal /n/ phoneme productively occurs in all three positions.

<table>
<thead>
<tr>
<th>/n/</th>
<th>/n’irA/</th>
<th>nene</th>
<th>kun</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>‘stink, smell’</td>
<td>‘pus’</td>
<td>‘smoke’</td>
</tr>
<tr>
<td></td>
<td>nákñAt</td>
<td>monkıŋ</td>
<td>dutskun</td>
</tr>
<tr>
<td>b.</td>
<td>/nákñät/</td>
<td>/monkiŋ/</td>
<td>/duckun/</td>
</tr>
<tr>
<td></td>
<td>‘Monday’</td>
<td>‘telephone’</td>
<td>‘swallow’</td>
</tr>
<tr>
<td></td>
<td>nA</td>
<td>monın</td>
<td>sin</td>
</tr>
<tr>
<td>c.</td>
<td>/nä/</td>
<td>/monın/</td>
<td>/sin/</td>
</tr>
<tr>
<td></td>
<td>‘sun’</td>
<td>far-EMP</td>
<td>‘month’</td>
</tr>
<tr>
<td></td>
<td></td>
<td>‘very far’</td>
<td></td>
</tr>
</tbody>
</table>

²⁴ Historically, the lexeme ngo /ŋo/ might have changed into the lexeme [go and go or gu in Kirānti-Bāỷyung] ‘1’ in Kirānti-Köits or it can be due to semantic change.
2.1.1.2.1.12 Bilabial nasal

Consider the following data occurring word initially, medially and word finally in all instances. The bilabial nasal /m/ phoneme productively occurs in all three positions.

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>muru</td>
<td>himikem</td>
<td>wamgyam</td>
</tr>
<tr>
<td>/m/</td>
<td>(47) a.</td>
<td></td>
</tr>
<tr>
<td>/mur(u)/</td>
<td>/himäkem/</td>
<td>/wämgyäm/</td>
</tr>
<tr>
<td>‘man’</td>
<td>‘wailing’</td>
<td>‘confusion’</td>
</tr>
<tr>
<td>mek</td>
<td>mama</td>
<td>rapam</td>
</tr>
<tr>
<td>b. /mek/</td>
<td>/mämä/</td>
<td>/räpmä/</td>
</tr>
<tr>
<td>‘there’</td>
<td>‘mother’</td>
<td>‘a lady married to a Rapacha clan in K-K’</td>
</tr>
<tr>
<td>/mär/</td>
<td>himitsa</td>
<td>mulkem</td>
</tr>
<tr>
<td>c. /mä(o)r/</td>
<td>/himä/</td>
<td>/mükem/</td>
</tr>
<tr>
<td>‘what’</td>
<td>shake-INF</td>
<td>‘culture’</td>
</tr>
<tr>
<td></td>
<td>‘to shake’</td>
<td></td>
</tr>
</tbody>
</table>

2.1.1.2.1.13 Alveolar liquids

Consider the following data occurring word initially, medially and word finally in all instances. Both these alveolar liquids /r, I/ phonemes productively occurs in all three positions. The phonemes /r/ and /l/ sometimes occur in free (See § 2.1.1.4) variation and /r/ also has /l/ as its allophonic variation (e.g. (48) b mid position, See § 2.1.1.6).

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>ronpe-rab</td>
<td>kereng</td>
<td>ker</td>
</tr>
<tr>
<td>/r/ (48) a.</td>
<td>/rōpe-r̥ab/</td>
<td>/kè ren/</td>
</tr>
<tr>
<td>‘sheep’</td>
<td>‘frying pan’</td>
<td>‘black’</td>
</tr>
<tr>
<td>roi</td>
<td>kinra</td>
<td>kyonkur</td>
</tr>
<tr>
<td>b. /roi/</td>
<td>/kǐ n(ŋa)/</td>
<td>/kyōkur/</td>
</tr>
<tr>
<td>‘sick, ill’</td>
<td>‘bamboo’(small one)</td>
<td>‘cub’</td>
</tr>
<tr>
<td>rawa</td>
<td>tserbi</td>
<td>khyur</td>
</tr>
<tr>
<td>c. /rawä/</td>
<td>/cerbi/</td>
<td>/kʰyur/</td>
</tr>
<tr>
<td>‘tree’</td>
<td>‘wheat’</td>
<td>‘diarrhoea, dehydration’</td>
</tr>
<tr>
<td>lispu</td>
<td>waplemb</td>
<td>lal</td>
</tr>
<tr>
<td>/l/ (49) a.</td>
<td>/lispu/</td>
<td>/wāplemb-cipsi/</td>
</tr>
<tr>
<td></td>
<td>/ləl/</td>
<td></td>
</tr>
</tbody>
</table>
"toponym" (in K-K) 'iron n.' 'red, may s/he go'

Aptso killo tserelil

b. /lēpco/ /killo/ /cērelil/ 'door' 'black bird' 'thanks'

lo: milu klil

c. /lo:/ /milu/ /klil/ 'speech, language' 'tail' 'mustard'

2.1.1.2.1.14 Palatal glide

Consider the following data occurring word initially, medially and word finally in all instances. The palatal glide /y/ phoneme does not occur in the final position exceptionally.

yAN shyer

/y/ (50) a. /yā/ /ṣyār/ ---

'nine' 'rice' (uncooked one)

yoili shyArA

b. /yoili/ /ṣyār(ā)/ ---

'chin' 'horse'

yo shyAṣA

c. /yo/ /ṣyācā/ ---

'also' tease-INF 'to tease'

2.1.1.2.1.15 Bilabial glide

Consider the following data occurring word initially, medially and word finally in all instances. The bilabial glide /y/ phoneme rarely occurs in the final position.

wartstsA mawAṭṣA ngAw(a)

/w/ (51) a. /wārccā/ /māwācā/ /nāw(ā)/

'friend' NEG-plough-INF 'elder brother'

'not to plough'

wan mawoltsA
b. /wā/ /mōwolecā/ ---
   ‘bear’ NEG-stir-INF
   ‘not to stir’ (N maskAunumadArunu)

   wANis
   /mōwāitstst/ ---

   c. /wāis/ /mōwāiccā/ ---
   ‘husband’ NEG-keep-INF
   ‘not to keep’

2.1.1.3 Aspiration contrast

Aspiration is contrastive in Kiranti-Kōits phonology as presented in (52) a-
below:

(52) a. /k/ vs. /kʰ/ ketsA /kzcā/ ‘to cook’
    khetsA /kʰzcā/ ‘to peel off’
   b. /p/ vs. /pʰ/ paitsstA /pāiccā/ ‘to tie (e.g., cattle)’
    phaitsstA /pʰāiccā/ ‘to exchange’
   c. /t/ vs. /tʰ/ taitstA /tāiccā/ ‘to throw’
    thaitsstA /tʰāiccā/ ‘to beat (gen)’
   d. /T/ vs. /Tʰ/ TītsA /Ticā/ ‘to obey’
    /Tʰicā/ ‘to fall down’

There are distinctive phonological asymmetries between /c/ vs. /ch/ or [tsʰ], /b/ vs
/bʰ/, /d/ vs. /dʰ/, /g/ vs. /gʰ/, and /dz/ vs. /dzʰ/ unlike in some other Kiranti languages (als
if. the earlier note in Table 2.3).

2.1.1.4 Free variation

Apart from aspiration, the following free variation in (53) a-g, in the initia
position and (54) a-e, mid and final position or as dialectal variation has been observed:

(53) a. d–g dis–gis /d(g)is/ ‘how much’
   b. g–l gr(l)utsA /gr(l)ucat/ ‘to appear, rise (of sun, moon)’
       [also cf. Bieri and Schulze 1970:337]
   c. h–ŋ hanAīyo–nganAīyo /h(ŋ)anāīyo/ ‘although/however’
   d. k–ts(c) kyortststA–tsortststA /kyc(ơ)cā/ ‘to cut’
We have also discovered some breathy voiced sounds without phonemically distinctive pairs in some spoken ideolects of our consultants like Uttam Katicha, Atit KyuinTicha-Mukhia and Lokpriya Mulicha-Sunuwar but not frequently in writing, which obviously may have arisen from language contact or this feature has been lost in the language historically.

(55) a. l-lh  
   \[l\text{aissho} /l\text{aiss\text{\text{\textipa}}}\]  
   \[l\text{haissho} /l\text{hais\text{\textipa}}}\]  ‘tall’

b. r-rh  
   \[r\text{ais} /r\text{a c\text{\textipa}}}\]
c. \( n\sim nh \) 
\[ \begin{align*} 
na\text{?so} & /\text{nā?so}/ \\
\text{nhA}\text{?so} & /\text{nā?so}/ \text{‘tribal priest (K-K Cul)} \\
nA & /\text{nā}/ \\
nhA & /\text{nā}/ \text{‘sun} \\
nhAt & /\text{nāt}/ \\
nhAt & /\text{nāt}/ \text{‘day} 
\end{align*} \]

In other Kirānti languages like Rod(o)ung [Camling] (see Ebert 1994, 1997) exceptionally, has this breathy voiced feature as minimal pair. Other TGMT (Mazaudon 1978) languages closely related to Tibetan, also have this feature in common. This feature, for example \( nha\)sa [Kirānti-Köits \( nop\text{"ā} \)] ‘ear’ (Tamot 2002: 18) has also been traced in Early Classical Newari, another member of the Greater-Kirānti group.

2.1.1.6 Allophonic variation and sound change

In this § 2.1.6, we shall observe some allophonic variation and sound change in the language such as the phoneme \( \alpha / \) is phonetically realized as \( /\upsilon / \) idio-geolctally (e.g (53) f and elsewhere in this chapter).

2.1.1.6.1 Dark \( /\upsilon / \)

Like in English, \( /\upsilon / \) is phonetically realized as dark \( /\upsilon / \) in geminate mid position preceding the syllable final \( /\upsilon / \) as in;

(56) a. \( dello \) \( /\text{dello}/ [\text{dəl.lə}] \) ‘buttock’
   b. \( hillo \) \( /\text{hillo}/ [\text{hi.llo}] \) ‘question’ [Text source:1.19, 89]
   c. \( killo \) \( /\text{killo}/ [\text{kil.lə}] \) ‘a species of black bird’ (See § 2.2.1.3.1 for more examples)

2.1.1.6.2 Epenthesis
'Epenthesis' also known prothesis, anaptyxis or svarabhakti is the 'insertion of a vowel between two consonants' (Bussmann 1996: 23). The following (57) a-b example has been discovered in Kirânti-Kôits (See Genetti 1988: 76 for vowel harmony):

(57) a. tekme /tekme/ → tekem /tekem/ ‘where’
   b. márme /márme/ → maram /maram/ ‘what’

2.1.1.7 Consonant and syllable drop

Earlier in § 2.1.1.5, we observed the environment of the final vowels deletion and here in this § 2.1.1.7, we shall provide examples, where consonant loss ‘apocope’ or even the whole syllable gets dropped out as Matisoff suggested the possible mechanism of “syllable reduction through human laziness” (quoted in Watters (1985: 37). The first person pronominal singular /-ŋ/²⁵ gets dropped out optionally at the final position of a given verb in non-past (also in some classes of the verb in the past form cf. Ch 3 § 3.2.2.1 and § 3.2.2.2) form both in positive and negative forms as illustrated in (58) a-c and even the syllable itself as in (58) d-g (See Genetti 1988: 76 for syncope).

(58) a. jai-nu-ng /dzainuy/ ‘I eat’
   b. pai-nu-ng /pâinuy/ ‘I do’
   c. thai-nu-ng /thâinuy/ ‘I beat’
   d. nelle > nel /nelle > nel/ ‘all’
   e. meko > me? /meko > meʔ/ ‘s/he, that’
   f. enko > eN /e’ko > eʔ/ ‘this’
   g. tekere > te /tekere > te/ ‘where’ [two steps in between are: > teker > tek /tekер > tek/]

2.2 Phonotactics

This § 2.2 observes phonotactics ‘a syntax of phonology’ (Lockwood 2002: 1 and 358), or ‘study of the sound and phoneme combinations allowed in a given language’ (Bussmann 1996: 364) of Kirânti-Kôits (also cf. § 2.1.1.1-2, § 2.1.2.1) vis-à-vis its characteristic meaningful arrangements of basic units or phonemes.

---

²⁵ This optional drooping of the consonant phoneme /-ŋ/ at the final position has tricked Hodgson and Konow to conclude that the Kirânti-Kôits as one of the non-pronominalized Himalayan languages (also cf. Ch 1 § 1.3) for a simple pronominalized one. The consonant phoneme /-ŋ/ is not present on the surface structure in none of their data.
2.2.1 Consonant clusters

This § 2.2.1, in its first part deals with the pattern and sequence of consonant clusters and syllabic structures in the second part. Abbi and Mishra (1984) observing Greenberg’s universals conclude that his universals refer only to initial and final clusters; whereas in Meithei (a T-B language spoken in Manipur, north-east India; See also Chelliah (1997) and Thoudam (1980)) permits consonant clusters in its medial position also. Interestingly, Kiranti-Koits, the language under description tolerates consonant clusters word initially, medially and finally. A maximum number of two consonant is allowed in all three positions.

2.2.1.1 Initial cc- clusters

Like in Meithei, Kiranti-Koits clusters also do not allow more than two consonants word initially. The Kiranti-Koits combination of the second member cluster (Table 2.4) is coincidently exactly alike (except glide/semi-vowel /w/ [cf. Bieri and Schulze 1970: 337(6)]) with that of Meithei. Its first members, clustering in the initial position are: /b, g, k, kh, dz, p, ph, s/. Also consider Bieri and Schulze’s (1970: 337) data (1-18), where (6) bwa: ‘rooster’ is purely phonetic realization (historically bilabial preglottalized/implosive /b/ [cf. Table 2.3’s explanatory note above, Opgenort 2004, Rapacha 2003, Michailovsky 1988]), (14) kwotsa ‘to look’ is also purely phonetic realization rather than clusters, (8) is doubtful, (10) is without glide and (15) and (17) are in free variation in their examples not clusters.

<table>
<thead>
<tr>
<th>First Members</th>
<th>Second Members</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>l</td>
</tr>
<tr>
<td>b</td>
<td>+</td>
</tr>
<tr>
<td>g</td>
<td>+</td>
</tr>
<tr>
<td>k</td>
<td>+</td>
</tr>
<tr>
<td>kʰ</td>
<td>+</td>
</tr>
<tr>
<td>dz</td>
<td></td>
</tr>
<tr>
<td>p</td>
<td>+</td>
</tr>
</tbody>
</table>

Table 2.4: Initial two consonant clusters
There is no any trace of borrowed vocabulary in the occurrence as the first member. Consider the following instances in (59) and (60):

Stop + liquid or semi-vowel/glide:

(59) a. bl(r)-
   \[ \text{bl}(r)eptso /\text{bl}(r)epco/ \text{‘finger’} \]
   \[ \text{bla} /\text{bla}/ \text{‘arrow’} \text{[‘bla T-B (Tamot 2002: 18)]} \]
   
   b. br(t/-l)-
   \[ \text{br}olt\text{sa} /\text{br}(t/-l)\text{ocâ}/ \text{‘to break itself’} \]
   \[ \text{bratsa} /\text{br}(t/-l)\text{acâ}/ \text{‘to lay e.g. a mat’[\text{N bicchaunu}]} \]
   
   c. by-
   \[ \text{byaphpo} /\text{byāp}(\text{po})/ \text{‘ox’} \]
   
   d. gy-
   \[ \text{gyap\text{sa}} /\text{gyāpcâ}/ \text{‘to buy’} \]
   \[ \text{gyait\text{sa}} /\text{gyāiccâ}/ \text{‘to catch, (fig.) rape’} \]
   \[ \text{gyol} /\text{gyol}/ \text{‘winnowing tray’} \]
   \[ \text{gyosh\text{ho}} /\text{gyošo}/ \text{‘long’ [cf. Bieri and Schulze 1970: 337]} \]
   
   e. gl-
   \[ \text{glak\text{dingsa}} /\text{glakdicingâ}/ \text{‘to block’} \]
   \[ \text{glaktingdumtsa} /\text{glaktindumca}/ \text{‘to get frightened’} \]
   \[ \text{gl\text{a\text{tsa}}} /\text{glā?câ}/ \text{‘to win’} \]
   \[ \text{glum\text{ats}} /\text{glumac}/ \text{‘family’ [Text source: 1.17]} \]
   \[ \text{glush\text{o}} /\text{glušo}/ \text{‘appeared’ [Text source: 1.62]} \]
   
   f. gr-
   \[ \text{g\text{ro\text{n}}} /\text{grō}/ \text{‘horn’} \]
   \[ \text{grol\text{tsa}} /\text{gr}(t/-l)\text{ocâ}/ \text{‘to lay’} \]
   
   g. kl-
   \[ \text{kl\text{il}} /\text{klil}/ \text{‘mustard’} \]
   \[ \text{kl\text{elts}} /\text{klelc}/ \text{‘younger’ [Text source: 1.82, 4.7]} \]
   \[ \text{kl\text{on\text{a}}} /\text{klonâ}/ \text{‘room’} \]
   \[ \text{kl\text{atori}} /\text{klātori}/ \text{‘waist-band/belt’(K-K Cul)} \]
   
   h. ky-
   \[ \text{ky\text{o\text{nkur}}} /\text{kyō.kur}/ \text{‘cub’} \]
   \[ \text{ky\text{a\text{tsa}}} /\text{kyā?câ}/ \text{‘to carry’} \]
   \[ \text{ky\text{’ata}} /\text{kyātā}/ \text{‘lotus, did s/he carry?’} \]
   
   i. kr(t/-l)-
   \[ \text{kr\text{omtsa}} /\text{kr}(t/-l)\text{omcâ}/ \text{‘to hit’} \]
khreptsA /kʰrɛpt/ep.cā ‘to clip’
khraitsA /kʰrɛts/ep.cā ‘to stir whey’
khroltsA /kʰrolt/ep.cā ‘to fell’
j. kʰl-
khlanie /kʰlɛnt/ ‘troublesome’
khletstsa /kʰlɛnts/ep.cā ‘to move e.g. a plate of rice’
k. dzy-
dzyau /dzyæw/ ‘manner of laughing’
dzyetstsa /dzyɛnts/ep.cā ‘to light up e.g., a cigar’
dzy’etstsa /dzy’ɛnts/ep.cā ‘to get worn out’
l. pl-
pl(r)upse /pl(r)upse/ ‘comb’
m. pr-
pr(D)εNk /pr(ɛ)ɛk/ ‘tear’
n. pʰl-
phlatstsa /pʰlɛnts/ep.cā ‘to separate’
o. pr(r)-
roltsA /pr(r)ɛlts/ ‘to break’
p. pʰy-
phyanarelpA /phyænærɛlp/ ‘net-kerchief’ (K-K Cul)

Fricative + semi-vowel/glide:
(60) a. ʂy-
shyobtsA /ʂyobt/ep.cā ‘to filter out the millet beer (K-K Cul)’
shyatsA /ʂyæts/ ‘to tease’
shyanarelu /ʂyænærlu/ ‘creator/destroyer’
shyar(t)aru /ʂyær(t)ar/ ‘object made up of bamboo for storing salt’

2.2.1.2 Medial -cc- clusters

The medial two consonant clusters are more productive than the initial and the final ones. Table 2.5 is the summary of such possible consonant combinations in the languages.

Table 2.5: Medial two consonant clusters

<table>
<thead>
<tr>
<th>First Members</th>
<th>Second Members</th>
<th>b</th>
<th>ts</th>
<th>d</th>
<th>g</th>
<th>k</th>
<th>kʰ</th>
<th>l</th>
<th>m</th>
<th>n</th>
<th>p</th>
<th>pʰ</th>
<th>r</th>
<th>s</th>
<th>ʂ</th>
<th>th</th>
<th>y</th>
<th>dz</th>
</tr>
</thead>
<tbody>
<tr>
<td>b</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ts(c)</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>k</td>
<td>+</td>
<td>+</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ɳ</td>
<td>+</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
2.2.1.2.1 Voiceless stop + consonant/glide

(61) a. -ck-  
dutskun /duckun/ ‘swallow’

b. -ckh-  
klutskhai /kluckhâi/ ‘broccoli’

c. -kkh-  
mâkkho /mâkkhô/ ‘garlic, allium sativum’

preNkhAI /prêNkkhôi/ ‘onion’

d. -kl-  
sekle /sekle/ ‘25 paisa/cent coin’

e. -kn-  
naknAI /nâknâi/ ‘Monday’

f. -ky-  
kyÂtsÂ /kyâcÂ/ ‘to carry’

kyÂtÂ /kyâtâ/ ‘lotus’

kyArsh /kyârsh/ ‘goat’

g. -pc-  
khreptsÂ /khrêpceÂ/ ‘to clip’

khÂptSA /khâpcÂ/ ‘to pile up one by one’

SApTSÂ /säpcÂ/ ‘to cover up’

thÂptSa /thâpcÂ/ ‘to pay back’

hupTSÂ /hupcÂ/ ‘to be hot’

SuPTSÂ /supcÂ/ ‘to drink’

gupTSÂ /guPCÂ/ ‘to pick up’

rupTSÂ /rupcÂ/ ‘to understand’

rupฮTSÂ /ruphceÂ/ ‘to collect dried clothes etc.’

tuPTSÂ / tupcÂ/ ‘to beat’

lÂPTso /lâpco/ ‘door’ [Text source: 1.16, 17, 18]

lupTSÂ /lupcÂ/ ‘to smear’
h. -pt-

\textit{wapelmb} /\textit{wapelmb}/ ‘iron’

\textit{plapsal} /\textit{plapsal}/ ‘helpless’

\textit{plankatuli} /\textit{plankatuli}/ ‘umbrella’

\textit{tsahipla} /\textit{tsahipla}/ ‘camera’ [See Appendix B]

\textit{sisplapa} /\textit{sisplapa}/ ‘ruin’ [Text source: 1.66]

\textit{tsuplu} /\textit{cuplu}/ ‘fireplace’

i. -ps-

\textit{plapsal} /\textit{plapsal}/ ‘helpless’

\textit{gupsu} /\textit{gupsu}/ ‘lion’

j. -ps-

\textit{prupse} /\textit{prupse}/ ‘comb’

\textit{lupsho} /\textit{lup sho}/ ‘smear-PP, adj’

\textit{tsupsho} /\textit{cupsho}/ ‘over-flown’

\textit{dupsho} /\textit{dupsho}/ ‘burnt’

k. -tl-

\textit{thaila} /\textit{thaila}/ ‘bat/racket’

l. -thr-

\textit{tsuthri} /\textit{cuthri}/ ‘husk:NML’

\textit{kothri} /\textit{kothri}/ ‘see:NML’

\textit{bethri} /\textit{bethri}/ ‘die:NML’

m. -?th-

\textit{ne?tha} /\textit{ne?thä}/ ‘near’

n. -?c-

\textit{tsu?sa} /\textit{cu?cä}/ ‘to lift up’

\textit{na?sa} /\textit{nä?cä}/ ‘to weight’

\textit{da?sa} /\textit{dä?cä}/ ‘to light up’

\textbf{2.2.1.2.2 Voiced + consonant/trill}

(62) a. -bl-

\textit{tabl} /\textit{täb(plä}/ ‘palm’

\textit{wabletssta} /\textit{wälëcä}/ ‘to shout’

\textit{sibla} /\textit{siblät}/ ‘serpent’

\textit{kable} /\textit{käble}/ ‘villager’ [2.21, 2.25, 2.29, 2.34, 2.38]

b. -bn-

\textit{tsibna} /\textit{cibnä}/ ‘drop’

c. -br-

\textit{phebre} /\textit{pëbref}/ ‘50c coin’

d. -lb-

\textit{tulba} /\textit{tulb(øy}/ ‘uproots’

\textit{thulba} /\textit{thulb(øy}/ ‘serves’
<table>
<thead>
<tr>
<th>N</th>
<th>Meaning</th>
<th>Pronunciation</th>
</tr>
</thead>
<tbody>
<tr>
<td>e.</td>
<td>-lk-</td>
<td>/k^hulb(ɔ)/ ‘one who escorts animal’</td>
</tr>
<tr>
<td>f.</td>
<td>-lk^h-</td>
<td>/ki^lk^h/ ‘tomato’</td>
</tr>
<tr>
<td>g.</td>
<td>-lg-</td>
<td>/kolgi/ ‘soybean’</td>
</tr>
<tr>
<td>h.</td>
<td>-lp-</td>
<td>/kalpi/ ‘ancestor’</td>
</tr>
<tr>
<td>khalpi</td>
<td>/k^halpi/ ‘old woman’</td>
<td></td>
</tr>
<tr>
<td>helpo</td>
<td>/h^elpo/ ‘bride/groom’s father’(N samdhi)</td>
<td></td>
</tr>
<tr>
<td>helpom</td>
<td>/h^elpom/ ‘bride/groom’s mother’(N samdhini)</td>
<td></td>
</tr>
<tr>
<td>i.</td>
<td>-lp^h-</td>
<td>/gyulp^h/ ‘liar’</td>
</tr>
<tr>
<td>j.</td>
<td>-lc-</td>
<td>/gr(ɔ)lo/ ‘to lie’</td>
</tr>
<tr>
<td>reltsi</td>
<td>/reltsi/ ‘garland’</td>
<td></td>
</tr>
<tr>
<td>kolsi</td>
<td>/koltsi/ ‘soybean’</td>
<td></td>
</tr>
<tr>
<td>k.</td>
<td>-gy-</td>
<td>/gyapts/ ‘to buy’</td>
</tr>
<tr>
<td>gyarttsa</td>
<td>/gyarcc/ ‘to play’</td>
<td></td>
</tr>
<tr>
<td>gyaittsa</td>
<td>/gyaiic/ ‘to catch, hold, (fig.) rape’</td>
<td></td>
</tr>
</tbody>
</table>

2.2.1.2.3 Nasal + consonant/trill

(63) a. -ŋ-           | kinglo       | /kiŋlo/ ‘radio’ |
| konglots                  | /koŋlo/ ‘gizzard’ |
| b. -ŋr-                     | kongrets     | /koŋre/ ‘maize’ |
| c. -ŋš-                     | porongshu     | /poroŋʃo/ ‘nomadic’ |
| d. -md-                      | himd         | /himd(ɔ)/ ‘shake’ (also cf. Winter 2004) |
| rimd                        | /rimd(ɔ)/ ‘wait’ (also cf. Winter 2004) |
| hamd                        | /häm(ɔ)/ ‘dry’ (also cf. Winter 2004) |
| samd                        | /säm(ɔ)/ ‘place’ (also cf. Winter 2004) |
| kromd                       | /kromd(ɔ)/ ‘hit’ (also cf. Winter 2004) |
| e. -mdz-                    | plumdzA       | /plumdzA/ ‘fist’ |
| f. -ml-                      | dimla         | /dimla/ ‘foot’ |
| tsumlu                      | /cumlu/ ‘mortar’ |
g. -mth- 
\textit{gathuN} /\textipa{g\textasciitilde m\textasciitilde \textasciitilde N}/ 'inner-feeling'
\textit{themli} /\textipa{th\textasciitilde m\textasciitilde li}/ 'hillock'

h. -mn- 
\textit{dzimmAIs} /\textipa{dzim\textasciitilde n\textasciitilde \textasciitilde A}/ 'May'
\textit{sAmnung} /\textipa{s\textasciitilde m\textasciitilde n\textasciitilde n\textasciitilde ng}/ 'lose: NPST:1sg'
\textit{h\textasciitilde mnung} /\textipa{h\textasciitilde m\textasciitilde n\textasciitilde ng}/ 'dry: NPST:1sg'
\textit{th\textasciitilde mnung} /\textipa{th\textasciitilde m\textasciitilde n\textasciitilde ng}/ 'taste: NPST:1sg'
\textit{kromnung} /\textipa{k\textasciitilde r\textasciitilde m\textasciitilde n\textasciitilde ng}/ 'hit: NPST:1sg'
\textit{k\textasciitilde r\textasciitilde umnung} /\textipa{k\textasciitilde r\textasciitilde u\textasciitilde m\textasciitilde n\textasciitilde ng}/ 'plant: NPST:1sg'
\textit{himnung} /\textipa{h\textasciitilde m\textasciitilde n\textasciitilde ng}/ 'shake: NPST:1sg'

i. -mp- 
\textit{thampA} /\textipa{th\textasciitilde m\textasciitilde p\textasciitilde A}/ 'in a true manner'
\textit{rimpA} /\textipa{r\textasciitilde m\textasciitilde p\textasciitilde A}/ 'in a beautiful manner'

j. -mr- 
\textit{themru} /\textipa{th\textasciitilde m\textasciitilde ru}/ 'hill'

k. -mc- 
\textit{th\textasciitilde mtsA} /\textipa{th\textasciitilde m\textasciitilde tsA}/ 'to taste'
\textit{sumtsA} /\textipa{s\textasciitilde m\textasciitilde tsA}/ 'to cover'
\textit{thumtsA} /\textipa{th\textasciitilde m\textasciitilde tsA}/ 'to finish'
\textit{khrumtsA} /\textipa{k\textasciitilde hr\textasciitilde um\textasciitilde tsA}/ 'to plant'
\textit{pumtsA} /\textipa{p\textasciitilde m\textasciitilde tsA}/ 'to put soil around the plants'
\textit{homtsA} /\textipa{h\textasciitilde o\textasciitilde m\textasciitilde tsA}/ 'to swell'

l. -ms- 
\textit{thumsitsA} /\textipa{th\textasciitilde m\textasciitilde tsicA}/ 'to be over'
\textit{n\textasciitilde msits} /\textipa{n\textasciitilde m\textasciitilde sic}/ 'time'
\textit{brukumsalA} /\textipa{bru\textasciitilde k\textasciitilde um\textasciitilde sA\textasciitilde lA}/ 'delight'

m. -nk- 
\textit{monking} /\textipa{m\textasciitilde o\textasciitilde n\textasciitilde k\textasciitilde n\textasciitilde g}/ 'telephone'

2.2.1.2.4 Continuant + consonant

(64) a. -rb- \textit{pherba} /\textipa{p\textasciitilde \textasciitilde r\textasciitilde b\textasciitilde (\textasciitilde o)/} 'tailor'

b. -rd- \textit{durdA} /\textipa{d\textasciitilde r\textasciitilde d\textasciitilde A}/ 'word'

b. -rm- \textit{kurmidokhA} /\textipa{k\textasciitilde r\textasciitilde m\textasciitilde d\textasciitilde o\textasciitilde k\textasciitilde h\textasciitilde A}/ 'gift, present'

c. -rc- \textit{hirtstsA} /\textipa{h\textasciitilde r\textasciitilde t\textasciitilde st\textasciitilde sA}/ 'to turn around, visit'
\textit{wArts} /\textipa{w\textasciitilde r\textasciitilde c\textasciitilde s}/ 'friend/supporter/companion'

d. -rš- \textit{gyursho} /\textipa{g\textasciitilde y\textasciitilde r\textasciitilde sh\textasciitilde o}/ 'sour'
\textit{shyersho} /\textipa{\textasciitilde s\textasciitilde y\textasciitilde r\textasciitilde \textasciitilde s\textasciitilde o}/ 'wine'
The medial clusters seem to be very productive in the language and no linguists have described them before.

2.2.1.3 Final -cc clusters

Exceptionally, no final consonant clusters in Limbu (Michailovsky 1985: 363) another Kiranti language of the Pallo (N) ‘far’ Kirat, East Nepal is available but Kiranti Kōits has a considerable size of final -cc cluster as follows:

Table 2.6: Final two consonant clusters

<table>
<thead>
<tr>
<th>First Members</th>
<th>Second Members</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>c</td>
</tr>
<tr>
<td>n</td>
<td></td>
</tr>
<tr>
<td>l</td>
<td></td>
</tr>
<tr>
<td>m</td>
<td></td>
</tr>
<tr>
<td>p</td>
<td></td>
</tr>
<tr>
<td>r</td>
<td></td>
</tr>
</tbody>
</table>

2.2.1.3.1 Nasal + consonant
(65) a. -ng kongg(u) /kong(u)/‘hook’ (cf. Bieri and Schulze 1970: 338)
b. -ns Angs /āngs/‘parental property’ (cf. Bieri and Schulze 1970: 338)
c. -mb wāplemb /wāplemb/‘iron, n.’
dumb /dumb/ ‘becomes, okay’
khumb /kʰʌmb/‘one who plants, s/he plants’
grumb /ɡɾumb/ ‘one who meets, s/he meets’
tsemb /tsemb/ ‘one who earns, s/he earns’
d. -md rimd /rimd(o)/‘wait’
himd /himd(o)/‘shake’
temd /temd(o)/‘add’
e. -mdz samdz /səmdz/‘Sherpa tribe’
f. -mc hāmts /hāmc/‘yawn’ (cf. Bieri and Schulze 1970: 337)
g. -mt dumt /dumt/‘became:PST:3SG’
dzāmt /dzāmt/‘lose:PST:3SG’
homt /homt/‘swell:PST:3SG’

2.2.1.3.2 Voiceless + consonant

c. -pt nupt /nupt v/‘end:PST:3SG’ (cf. Bieri and Schulze 1970: 337)
dupt /dupt/‘burn:PST:3SG’
lupt /lupt(o)/‘smear:NPST:3SG’
kApt /kāpt(o)/‘extinguish:NPST:3SG’ (also cf. Winter 2004)

2.2.1.3.3 Continuant + consonant

(67) a. -lb relb /relb/‘one who hangs, hang:3SG’
helb /helb/‘one which becomes heavy’
thalb /ðalb/‘one who tames, host:3SG (fig)’
brolb /brɔlb/‘it breaks’(cf. Bieri and Schulze 1970: 338)
b. -lc klelt ls /klelt(s)/‘younger’
dults /dulc/ ‘vagabond’
groltsA /grolcA/ ‘to lie down’
c. -rb tserbi /cercy/ ‘wheat’ (also in Bieri and Schulze 1970: 338)
dorf /dorfi/ ‘run:NPST:3sg’
kurb /kurb/ ‘carry:NPST:3sg’
d. -rc wars /warc/ ‘friend’ (cf. 36a and Bieri and Schulze 1970: 338)
c. -rdz kerdz /kerdz/ ‘uncle’
f. -rg barg /barg/ ‘trap’
g. -rn kyornAkyorn /kyornakyorn/ ‘cut:PROG’ (possible cluster of -n/ with other different verb roots e.g. dzanAdzan /dzanadzsan/ ‘eat:PROG’ cf. also Bieri and Schulze 1970: 338)

The final clusters /-lc/, -md!, -mdzl, and /-rdz/ have not been noticed by them. Their one /-gy/ in gigy ‘green’ is doubtful in pronunciation and its phonetic transcription.

2.2.1.4 Geminates

Geminates in Kiranti-Köits, seem to be quite productive. Following is the example of geminates where -bb-, -cc-, -kk-, -ll-, -mm-, -nn-, -pp-, -ss-, and -tt- are very common.

(68) a. -bb-
sibba /sibba/ ‘bear fruit:NPST:3sg’
hubba /hubba/ ‘become hot:NPST:3sg’
tubba /tubba/ ‘beat:NPST:3sg’
rubba /rubba/ ‘to collect, e.g. dried grains in the sun:NPST:3sg’
r’ebba /r’ebba/ ‘read:NPST:3sg’
sebba /sebba/ ‘call:NPST:3sg’
bebba /bebba/ ‘call:NPST:3sg’
lubba /lubba/ ‘smear:NPST:3sg’
ibba /ibba/ ‘sleep:NPST:3sg’
gubba /gubba/ ‘pick up:NPST:3sg’
hubba /hubba/ ‘become hot:NPST:3sg’
tubba /tubba/ ‘beat:NPST:3sg’
rubba /rubba/ ‘understand:NPST:3sg’
rebba /rebba/ ‘scratch:NPST:3sg’

thabb /thabb/ ‘pay:NPST:3sg’
lubba /lubba/ ‘smear:NPST:3sg’

b. -cc-
tsuitsta /c(k)yuccā/ ‘to insert, decorate’
daitsta /dāiccā/ ‘to get sth with open hands (N thāpnu)’
detssta /deiccā/ ‘to paste, cover’
dortsta /dorccā/ ‘to run’
khaitsta /kāiccā/ ‘to ache’
khuitsta /kāiccā/ ‘to hide’
khertsta /kāercā/ ‘to chase’
khroitsta /kāroiccā/ ‘to cut into pieces’
gaitsta /gāiccā/ ‘to pass away’ (fig.)
gyartsta /gyārcā/ ‘to play’
gyatsta /gyāiccā/ ‘to catch, (fig.) rape’
ngaitsta /ŋāiccā/ ‘to defecate’
hoitsta /hōiccā/ ‘to climb up’
hoitsta /hōiccā/ ‘to boil up’
huitsta /huiccā/ ‘to scold’
hurtsta /hureccā/ ‘to drink e.g. semi-liquid’
khroitsta /khr(tll)oiccā/ ‘to chop into pieces’
laitsta /lāiccā/ ‘to take away’
leitsta /leiccā/ ‘to return’
maiitsta /moiccā/ ‘to tell’
murtsta /mureccā/ ‘to wash’
muitsta /muiccā/ ‘to blow up’
naitsta /nāiccā/ ‘to rest’
niitsta /niccā/ ‘to sit’
paitsta /pāiccā/ ‘to tie’ (e.g. cattle)
phaltsta /phāiccā/ ‘to exchange’
puitsta /puiccā/ ‘to unlock’
(i. -kk-)

r'etstsA /r'eccä/ 'to read'
roitstsA /roiccä/ 'to snatch'
sitstsA /siccä/ 'to bear fruit'
saitstsA /säiccä/ 'to kill'
saitstsA /seccä/ 'to call'
soitstsA /soiccä/ 'to send'
soitstsA /suiccä/ 'to start the fire burning (Njhosnu)'
thailstsA /thäiccä/ 'to beat'
thatstsA /thiccä/ 'to meet'
thatstsA /täiccä/ 'to fall down'
thatstsA /toiccä/ 'to take loan'
thatstsA /täiccä/ 'to throw away'
toitstsA /toiccä/ 'to make someone get off'
taitstsA /teccä/ 'to beat'
taitstsA /tuiccä/ 'to know'
waitstsA /wäiccä/ 'to keep'
waitstsA /wärccä/ 'friend/supporter/companion'

(c. -kk-)
tikkus /tikkus/ 'hare/rabbit'
kkun /kikkun/ 'bat, a bird-like mammal' (cf. Appendix B)
dakka /dak kä/ 'one thousand' [Rapacha, Kormocha and Katicha 2003:18]

(d. -ll-)
dello /dello/ 'buttock, anus'
hillo /hillo/ 'query, question' [Text source:1.19, 89]
killo /killo/ 'a species of black bird'
phullu /phullu/ 'stone' [Text source:1.69; cf. Lexicon]
nelle /nelle/ 'all' [Text source:1.16, 59, 82, 89; 2.11, 19, 34; 3.9, 19, 26, 35, 47; 4.8]

(ollí /ollí/ 'kind/type' [Text source: 1.140]

(e. -mm-)
rennummamA /rennummamä/ 'step-mother'
dumma /dumma/ 'did they become?'
summa /summä/ 'did they cover?'
2.2.1.5 Inverse geminates plus other processes

Some classes of verbs in NPST:3sg forms given in (68) a above get geminated as -bb- and the same geminate -bb- gets degeminated as -b in other classes of verb NPST:3sg forms as in (69) a. below:

(69) a.  
- `huiba` /huiba/ ‘scold:IMP:3sg’
- `reiba` /reiba/ ‘hang:IMP:3sg’
- `khuiba` /khuiba/ ‘hide:IMP:3sg’
- `suiba` /suiba/ ‘start the fire:IMP:3sg’
- `tuiba` /tuiba/ ‘know:IMP:3sg’
- `muiba` /muiba/ ‘blow:IMP:3sg’
- `tulba` /tulba/ ‘uproot:IMP:3sg’
- `khuiba` /khuiba/ ‘escort animal:IMP:3sg’
- `sulba` /sulba/ ‘carry:IMP:3sg’
- `thulba` /thulba/ ‘tame:IMP:3sg’
- `laiba` /laiba/ ‘go:IMP:3sg’
- `päiba` /päiba/ ‘do:IMP:3sg’
All -cc- [tsts] geminates change into -ss- [ss] geminates as in (70) a. below and all verbs given in (68) b. are liable to such change while deriving participial or adjective.

(70) a. huitstsA /huiccā/ 'to scold' → huissho /huissō/ 'scold:PP, adj' [also cf. (68) h. above]

All -cc- [tsts] geminates change into -tt- geminates as in (71) a. below and all verbs given in (68) b. are liable to such change while deriving imperative third person singular number.

(71) a. letstsA /leccā/ 'to return' → letto /lettō/ 'return:IMP:3sg' [also cf. (68) i. above]

All verb stems ending in /p/ such as tup- 'beat' change into the geminate -bb- as in (72) a. below while deriving assertive non-past third person singular number.

(72) a. tuptsA /tupcā/ 'to beat' → tubba /tubba/ 'beat:NPST:3sg'

2.3.1.2 Syllabic structures

A syllable is a sequence of phonemes (CVs) with one peak of sonority. It is first divided into two parts; viz., 'onset' (the opening/initial segment of a syllable) and rhyme (See Diagram 1). Rhyme is further divided into 'peak' (nucleus/center; the central or middle segment of the syllable) and 'coda' (the closing/final segment of the syllable); where the opening and closing segments of a syllable can be termed as margins. Kirānti-Kōits syllables at a time do not necessarily contain all three parts in them. They may consist of just the nucleus (as in -a 'his/her', just the onset and nucleus (as in mi 'fire') or all three (as in shyor 'star'). Thus, as we see in those examples, a Kirānti-Kōits syllable consists of a peak with or without an onset and with or without coda. The nucleus/peak/center is always a vowel. Like Meitei (Abbi and Mishra 1985; also cf. Chelliah 1997, Thoudam 1980) Kirānti-Kōits roots are normally monosyllabic. They are of the following
types (also cf. Bieri and Schulze 1970: 170ff and Ethnologue website 2004, see its syllable structure in Tree Diagram 1 below).

2.3.1.2.1 Monosyllabic structure

(73) a.  \( \varepsilon \)  
  \( \text{on} \quad \text{σ}/\text{yes}' \)
  \( \text{ANIN} \quad \text{in} \quad \text{ι}/\text{our}' \)
  \( \text{A} \quad \text{a}/\text{his/her}' \)

b.  \( \text{VC} \)
  \( \text{ir} \quad \text{i}/\text{up}' \)
  \( \text{ong} \quad \text{o}/\text{enter:NPST:3sg:IMP} \)
  \( \text{er} \quad \text{e}/\text{far-thither (horizontal)}' \)

c.  \( \text{CV} \)
  \( \text{ka} \quad \text{κ}/\text{one} \) [cf. kwong Kirânti-Ba; Konow (1909: 329)]
  \( \text{go} \quad \text{go}/\text{'I'} \) [cf. go Kirânti-Ba; Driem (1991: 337)]
  \( \text{lo:} \quad \text{l}/\text{'language, talk, speech} \) [cf. lo Kirânti-Ba, la Kirânti-
Rod and \( \text{ron} > \text{lon} \) Meithei; Chelliah (1999: 2)]

d.  \( \gamma V \)
  \( \text{wa} \quad \text{w}/\text{cloth} \) [γ stands for semi-vowel or glide /y/]
  \( \text{yan} \quad \text{y}/\text{'nine}' \)

e.  \( \text{CVC} \)
  \( \text{gal} \quad \text{g}/\text{‘sweat}' \)
  \( \text{bur} \quad \text{b}/\text{‘paddy (esp. un-husked; cf. Lexicon)}' \)
  \( \text{sang} \quad \text{s}/\text{‘consonant}' \)

r.  \( \text{CCV} \)
  \( \text{gron} \quad \text{g}/\text{‘horn} \)

g.  \( \text{CVV} \)
  \( \text{jo} \quad \text{j}/\text{‘tiger}' \)
  \( \text{roi} \quad \text{r}/\text{‘sick, disease}' \)
  \( \text{khai} \quad \text{k}/\text{‘curry}' \)
  \( \text{sau} \quad \text{s}/\text{‘red hornet}' \)

h.  \( \text{CyVC} \)
  \( \text{gyol} \quad \text{g}/\text{‘winnowing tray}' \)
  \( \text{gyosh} \quad \text{g}/\text{‘long}' \)
  \( \text{gyom} \quad \text{g}/\text{‘utensil}' \)

The above basic or monosyllabic structures are presented in the following Tree Diagram:
Diagram 2.1: The syllable structure in Kiranti-Koits

\[
\text{Onset} \quad \text{Rhyme} \\
\downarrow \quad \downarrow \\
\text{Nucleus/Peak/Center} \quad \text{Coda} \\
\text{(C)(G)} \quad \text{V} \quad \text{(X)} \\
/ k \quad y \quad \ddash \quad r \quad \ddash \quad /'goat'/
\]

As in Kham-Taka (Watters 2004: 4-5), Kiranti-Koits has (C) (G) V (X) as its basic syllable structure, where (G) is a glide and (X) is consonant or a vowel. Only the peak is obligatory as in (73) a. For its verb stems the canonical pattern is c(c) v (v) (c) (Genetti 1988: 64, 1992: 328).

In addition to the basic monosyllabic patterns (73) a-h above, other polysyllabic patterns also occur as shown below in (74) a-g, (75) a-d, (76) a-i, (77) a-b, (78) a-j and (79) a-b below.

2.3.1.2.2 Disyllabic structure

Here onwards semi-vowels/glides are written as C for convenience.

2.3.1.2.2.1 Open second syllable

(74) a. VCV  \hspace{1em} omu  \hspace{1em} /o.mu/ ‘mushroom’  
     \hspace{1em} uyu  \hspace{1em} /u.yu/ ‘far down’  
     \hspace{1em} iri  \hspace{1em} /i.r.i/ ‘far up’  
   
   b. CV.CV  \hspace{1em} muyu  \hspace{1em} /mu.yu/ ‘s/he (esp. down, lowLOC)’
2.3.1.2.2 Closed second syllable

(75)  a. CVC CVC  lunggir  /luŋ.gir/  ‘heart’
dutskun  /duc.kun/  ‘swallow’
b. CCVC CVC  glaktiŋ  /glək.tiŋ/  ‘manner of fear’
c. CVCVC  dānkin  /dā.kiŋ/  ‘heap, pile’
khīnreb  /kʰiŋreb/  ‘potato (esp. a domestic species)’
saring  /sə.riŋ/  ‘sky’
d. CCVCVC  kyoŋkur  /kyoŋ.kur/  ‘cub’
tholots  /tho.loc/  ‘settler’  [Text source: 1.112]

2.3.1.2.3 Trisyllabic structure

2.3.1.2.3.1 Third syllable is open

(76)  a. CVC CVV CV  tsarınlīlu  /cárl.nāl.lu/  ‘a place for rest in the hilly areas’
b. CV CVC CV  naremsi  /nā.remsi/  ‘umbrella’
c. CVC CV CV **gersili** /ger.si.li/ ‘happiness’ [Text source: 1.60]
d. CV CVV CV **nepaiNSI** /ne.päi.si/ ‘order’ [Text source: 1.55]
e. CVC CV CV **bissilo:** /bis.si.lo/ ‘agreement’ [Text source: 1.111, 112]
f. VC CV CV **oktoto** /ok.to.to/ ‘dumbstruck’ [Text source: 1.63]
g. CCV CV CV **kłAtori** /klà.to.ri/ ‘waist-band/belt’ (K-K Cul)
h. CVC CV CV **wasrelu** /wäs.re.lu/ ‘rainbow’
i. CVC CV CV **pirsuli** /pir.su.li/ ‘weevil’

2.3.1.2.3.2 Third syllable is closed

(77)  

a. CV CVC CVC **dzatekdzat** /dzə.tek.dzət/ ‘food’
b. CV CCV CVC **kikyakun** /ki.kyə.kun/ ‘swallow’

2.3.1.2.4 Tetrasyllabic structure

Fourth syllable is open:

(78)  

a. CV CV CV CV **tsasimasi** /co.si.mɔ.si/ ‘family’ [Text source: 1.138]
b. CVC CV CV CV **kurmidokha** /kur.mi.do.kʰa/ ‘gift, present’
c. CCV CV CV CV **plANKAtuli** /plä.kä.tu.li/ ‘umbrella’
d. CV CV CVC CV **gadzetsephTe** /ga.dze.cepʰ.te/ ‘a personal name’
e. CV CV CV CV **tsomolongmA** /co.mo.loŋ.mä/ ‘the highest peak, Mt. Everest’ [cf. Rapacha, Kormocha and Katicha 2003:7]
f. CCVC CVC CVC CV **glaktingdumtsA** /glak.ting.dum.ca/ ‘to get frightened’
g. CCV CVC CVC CV **phyANkArelphu** /pʰyän.k̡a.rel.pʰu/ ‘net-kerchief’ (K-K Cul)
h. CCV CV CV CV **syANkArelu** /syän.k̡a.re.lu/ ‘creator/destroyer’
i. CVC CVC CV CV **rennummamA** /ren.num.ma.mä ‘step-mother’
j. CCV CV CV CV **brukumsalA** /bru.kum.so.lä/ ‘delight’

2.3.1.2.4.1 Fourth syllable is closed

(79)  

a. CV CVC CV CVC **dzatektutek** /dzə.tek.tu.tek/ ‘food and drink’
b. CVC CVC CV CVC **damkimpatik** /dam.kim.pə.tik/ ‘competition’

[Text source: 1.105]
2.3.1.2.1 Syllable initials

All twenty-four consonant phonemes can begin a word-initial syllable and serve as margins.

/p/  pod  /pod/  ‘earthworm’
/t/  teitei  /tei.tei/  ‘everywhere’
/c/ (ts)  tsapo  /ca.po/  ‘piglet’
/T/  TitisA  /Ti.că/  ‘to obey’
/k/  kal  /kăl/  ‘porridge (esp. made up of millet-flour)’
/pʰ/  phare  /pʰo.re/  ‘thunder-bolt’
/th/  thiN  /thŭ/  ‘price’
/rʰ/  Theb  /Rʰăb/  ‘big’
/kʰ/  khop  /kʰop/  ‘space’
/b/  bulnu  /bul.nu/  ‘spirit’
/d/  dermA  /der.mă/  ‘utensil’ (also cf. gyom in the lexicon)
/dz/ (j)  jitsA  /dzi.că/  ‘to quarrel’
/g/  gis  /gis/  ‘how much’
/s/  seu  /sēu/  ‘greeting’
/ʃ/  shyer  /ʃer/  ‘rice (esp. uncooked one)’
/h/  hush  /huš/  ‘blood’
/m/  mesh  /meš/  ‘buffalo’
/n/  nam  /năm/  ‘love, aux’
/ng/  ngoro  /ŋo.ro/  ‘dumb’
/r/  reu  /reu/  ‘rain’
/A/  lA  /lă/  ‘from’
/w/  wA  /wă/  ‘cloth’
/y/  yAPʰ e  /yăpʰe/  ‘leach’

26 Other variations are: > bwapʰ u > bapʰ u, where bw- stands for /b/ also cf. the explanatory note in Table 2.3.
2.3.1.2.2 Syllable finals

Except /ts, h, y/ all other consonants like /b, d, g, k, kʰ, l, ŋ, th, m, n, p, pʰ, ?, r, t, T, tʰ, dz, s, w/ occur in syllable final position as margins.

<table>
<thead>
<tr>
<th>Word</th>
<th>Pronunciation</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>khad</td>
<td>/kʰad/</td>
<td>‘crow’</td>
</tr>
<tr>
<td>kekh</td>
<td>/kʰel/</td>
<td>‘raw’</td>
</tr>
<tr>
<td>jill</td>
<td>/dzil/</td>
<td>‘oil, ghee’</td>
</tr>
<tr>
<td>rush</td>
<td>/ruʃ/</td>
<td>‘bone’</td>
</tr>
<tr>
<td>rong</td>
<td>/ron/</td>
<td>‘cliff’</td>
</tr>
<tr>
<td>rey</td>
<td>/reb/</td>
<td>‘potato’</td>
</tr>
<tr>
<td>gig</td>
<td>/gig/</td>
<td>‘green’</td>
</tr>
<tr>
<td>shyeth</td>
<td>/šeth/</td>
<td>‘empty’</td>
</tr>
<tr>
<td>kun</td>
<td>/kun/</td>
<td>‘smoke’</td>
</tr>
<tr>
<td>gyom</td>
<td>/gyom/</td>
<td>‘utensil’</td>
</tr>
<tr>
<td>tikkus</td>
<td>/tik.kus/</td>
<td>‘rabbit, hare’</td>
</tr>
<tr>
<td>me?</td>
<td>/me?/</td>
<td>‘that, s/he’</td>
</tr>
<tr>
<td>sus</td>
<td>/sus/</td>
<td>‘many’</td>
</tr>
<tr>
<td>phor</td>
<td>/pʰōr/</td>
<td>‘testicle’</td>
</tr>
<tr>
<td>ngAw</td>
<td>/ŋāw/</td>
<td>‘elder-brother’</td>
</tr>
<tr>
<td>gyAp(o)</td>
<td>/gyap(o)/</td>
<td>‘buy’</td>
</tr>
<tr>
<td>kaphta</td>
<td>/kápʰ.cá/</td>
<td>‘to extinguish’</td>
</tr>
<tr>
<td>ker</td>
<td>/kɛɾ/</td>
<td>‘black’</td>
</tr>
<tr>
<td>shyet</td>
<td>/šet/</td>
<td>‘difficulty, trouble’</td>
</tr>
<tr>
<td>koj</td>
<td>/koj/</td>
<td>‘stomach’</td>
</tr>
<tr>
<td>koth</td>
<td>/koθh/</td>
<td>‘store house’</td>
</tr>
</tbody>
</table>

2.3.1.2.3 Syllable nuclei

Any of the six vocalic phonemes with their nasalized minimal pairs /i(:)y/, e/ɛ/, u/ʊ/ /ũ, ɔ/ɔ/, ă/y/ ā, o/ɔ/ can occur as nucleus of a syllable.
2.4 Supra-segmental feature

This § 2.4 discusses prosodic feature(s) in Kiranti-Koits, mainly pitch distinction between the two dialects as mentioned below.

2.4.1 Tone

On Tibeto-Burman tone, Zograph (1982: 188) in general observes,

“The most noteworthy phonological feature of the Tibeto-Burman languages in general is their use of tones to convey phonemic distinction. These tones are not observed with equal rigor in all the member languages; in many of the Himalayan languages they are in fact hardly noticeable, while so little is known about the phonetic properties of many other Tibeto-Burman languages that it is difficult to come to any hard and fast conclusions”.

Thus, tone as a phonological feature is common in Kiranti-Koits; particularly in the Sabra dialect of East No.2, Ramechhap district (Wallo ‘Near’ Kirat; See Maps 1: xxv and 2: xxvi), Nepal. Furthermore, it is also true in the Saraban dialect of East No.3, Okhaldhung district (Wallo ‘Near’ Kirat; See Maps 1 and 2), Nepal. As Driem (2001: 725) observes, “Sunwar is reported to be a tonal language, but analyses differ on whether there are two or four distinctive tones”. Schulze and Bieri (1970, 1971b) first, have described tone in the Sabra dialect of Kiranti-Koits and nearly a decade later Genneti (1988, 1992) described in the Saraban dialect (data collected in California from Tankaraj Susucha-Sunuwar); whereas in the further southeastern dialect of Katunje (on which this description is based on), Okhaldhunga (see Map 6: xxx), East No. 3, (Wallo ‘Near’ Kirat, See Map 1: xxv) Nepal, it is a matter of polysemy rather than tonemics or tonology.

On a broader perspective in other Tibeto-Burman languages of the Himalayas, it is relevant here to note Mazaudon’s (1978: 157) observation:

“Tone is often believed by non-specialists to be a fundamental feature of a language, almost a peculiar turn of mind of its speakers. It is assumed that a language either is tonal or is not, nothing in between, and that tonal languages have always be tonal. These are all
fallacious. The Tibeto-Burman languages of Nepal, which we will describe here, are what we could call semi-tonal or marginally tonal. They also exemplify how languages can become tonal from being non-tonal, or more precisely in this case, more tonal from being slightly tonal.”

Both of them (Gograph and Mazaudon) come to agree in one point, where the former observes that ‘tone’ is the most noteworthy phonological feature of the Tibeto-Burman languages in general is their use of tones to convey phonemic distinction. Whereas these tones are not observed with equal rigor in all the member languages; in fact in the Himalayan languages, it (tone) is hardly noticeable and the latter concludes this feature to be either ‘semi-tonal or marginally tonal.’

Thus, Mazaudon’s (1978) study of TGTM (Tamang, Gurung, Thakali and Managba or the Tamang sub-family (also cf. Thurgood 2003:10); spoken mainly in the mid and western Hills of Nepal) group reveals that these languages are marginally tonal distinguished by pitch and melodic features only. Compare also Watters (2004) for tone in Kham-Taka, one of the Tibeto-Burman languages classified under a Central Himalayish node (Proto-Kham-Magar-Chepang).

Amongst other more than two dozens of Kiränti languages spoken in the eastern hills (all three Kirät areas) of Nepal, tone has, until the recent studies, been reported and described only in Kiränti-Khaling by Toba (1984) besides Kiränti-Köits. Bieri and Schulze (1970: 108ff) reporting tone in Kiränti-Köits [in their use the exoglotonym/hydronym ‘Sunwar’; particularly Sabra dialect of East No. 2, Ramechhap district] observe,

“There is a clear contrast between contour tone and register tone. The contour tone occurs as high falling and low falling. The register tone contrasts as high and low...Tone does not influence or condition the contrasts of the phonemes...”

Following the year 1970, they confirm their claim thus, “In Sunwar there is a contrast between high tone words and low tone words. A word consists of one to four syllables. Each word is a pitch unit manifesting either a high or low pitch contour. The pitch level of the first syllable determines the shape of the pitch contour of the whole
unit. Contrast has been observed in disyllabic and polysyllabic words. In monosyllabic words the contrast is neutralized.” (1971: 5). Genetti (1988: 63) discovers has discovered the fact that Sunwar (see Ch 1 § 1.1.1; footnote 4 for its orthography) or Kiranti-Koits has four tones, which are divided by two independent binary parameters: a high/low contrast and level versus falling contour distinction. Her example includes:

(80)

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>a.1</td>
<td>daatsaHF (high tone with falling contour) ‘to like’</td>
</tr>
<tr>
<td>.2</td>
<td>daatsa LF (low falling) ‘to swallow’</td>
</tr>
<tr>
<td>.3</td>
<td>daatsa HL (high and level contour) ‘to wait for a chance to do sth’</td>
</tr>
<tr>
<td>.4</td>
<td>daatsa LL (low level) ‘to light a lamp or candle’</td>
</tr>
</tbody>
</table>

Genetti (1988: 63) further explains on her above example thus,

“The facts of tone are actually more complicated than this in Sunwar. For one thing, the above set is arguably not a true minimal set, since examples are taken from different inflectional verb classes. While the Sunward verbs for ‘to like’ and ‘to swallow’ are from the class of verbs with /k/ finals, the other two, ‘to wait for a chance’ and ‘to light a lamp or candle’ are members of the class of verbs with /ŋ/ finals consistently have level contour. However, as far as I follow inflectional patterns such that the final never surfaces in the inflectional paradigm. In such cases, it is morphophonemic behaviour, which allows us to establish the class of the verb. And in the majority of the forms, such as the infinitives above, tone contour is the most salient clue that differentiates the countless minimal pairs. Therefore, we have decided to consistently mark tone contour as well as the high/low distinction throughout this paper. There are apparently alternations in contour and, at a lesser extent, in pitch, throughout paradigms or certain verb classes. Full exposition of these changes must await further analysis”.

On the contrary, contrastive tone either in disyllabic or in polysyllabic lexemes of the study area of my own dialect is either neutralized or tonemes are realized as polysemy or say there is tonoloss (‘the death of tone’ coined in analogy with Yip’s ‘tonogenesis’) rather than tonogenesis ‘the birth of tone’ (also cf. Yip 2002: 35-38, Light 1978: 115-131). In most examples, especially verbs infinitive (disyllabic ones) cited elsewhere in this chapter, seem to preserve the level tone (−) only in the Katunj dialect (See Map 6: xxx) of this study. In the case of monosyllabic lexemes their observation has been
challenged by a lexeme like ne /ne/ given in (81) a.1-4. Whereas the disyllabic lexemes are concerned, they simply belong to the verb category having poly-semantic aspects (or are polysemy), which are context-sensitive rather than tone as distinctive feature. At least one of such pairs of verbs would have glottal stop or level tone. Consider the following monosyllabic example:

(81) a.1 ne /ne/ ‘uncertainty particle’ (wanting to make sure again)
   .2 ne /ne/ ‘mirativity (hearsay knowledge, with main verbs [cf. Ch 3 § 3.9.1]
   .3 ne /ne/ ‘nose’ (fig. prestige, reputation)
   .4 ne /ne/ ‘name’ (lit. sense)

(Source: Rapacha 2003)

Speakers hardly differentiate the examples (81) a.1-4 while in speech pragmatically at the phrase or syntactic level such as in (82) a-d (also cf. Abbi: 2001 94)

(82) a. meko mar pāib ne? /meko mār pāib ne/ ‘What does s/he do?’
   b. tam(i) ressikhin laib ne /tam ressi kī laib ne/ ‘The daughter goes to the school. it is said’.
   c. meko Alke ne laissho bā?la /meko ālkē ne laissło bā?la/ ‘The child has a tall nose’.
   d. goimi ne waitstsA mālnaye /goimi ne wāicca mālnaye/ ‘You have keep a good reputation’.

As in these (82) a-d sentences, the following pairs of lexems also get neutralized or no tone is prominent while in speech for speakers. They make sense without high or low tone at all.

(83) a. r'etstsA  /r'èccā/ ‘to read’
   retstsA  /reccā/ ‘to scratch’
   b. rimtsA  /rimcā/ ‘to be beautiful/handsome’
   r'imtsA  /r'ìmcā/ ‘to wait’
   c. ri  /r'i/ ‘louse’
   r'i-rhi  /r'i=rhi/ ‘shaman’s drum (K-K Cul)’ [elicited from Mokusu to
whom Senkantsi, a gyāmi 'K-K female shaman’ informed its own native vocabulary in place of Dhengro (N Dhengro)

d. **tutSA** /tučā/ ‘to drink’

t’utSA /t’ucā/ ‘to lick’ (also /tu?cā/ or /tučā/ is possible)

e. **mitsA** /mi:čā/ ‘to get cooked’ [loss of glottal stop; compensatory lengthening]

f. m’itsA /m’icā/ ‘to comb’

mui:tsA /muiccā/ ‘to blow’

g. **mui:tsA** /muiccā/ ‘to wear (differs with /pʰɛ?cā/)’

**putsA** /pucā/ ‘to measure’ (e.g. grains)

h. p’utsA /p’ucā/ ‘to blast’ (e.g. gun)

**putsA** /pucā/ ‘to weigh’

i. jitsA /dzicā/ ‘to fight’

dz’itsA /dz’icā/ ‘to break’ (also /dzi?.cā/ is possible)

j. **dotsA** /dočā/ ‘to dig’

d’otsA /d’ocā/ ‘to fall’ (also /d?cā/ is possible)

k. taitstsA /tāiccā/ ‘to throw’

t’AitstsA /t’āiccā/ ‘to kick’

Above all, Genetti’s (1988: 63) data elicited from Tankaraj Susucha-Sunuwar in California as in (80) a.3 is hardly convincing for a native speaker and the rest of the examples are neutralized or tone as such dies while in speech in the dialect area of the research.

All these analyses on tone in Kirānti-Kōits until today are impressionistic rather than instrumental. Even I, myself in this study have not included and used any SIL software or ‘Gold Wave’ as such mentioned in Abbi (2001: 104) but hopefully one can see spectrographic analysis of fundamental frequency (fo) for three sets of Kirānti-Kōits verbs27 in Rapacha (2002).

---

27 This analysis has been done in an MPhil term paper entitled ‘The sound systems of Kirānti-Kōits and English: A probe into learners’ problems at the phonological level’. It was carried out at the Language
2.5 Graphology or the writing system

In this § 2.5, we shall investigate the writing system of the language and discuss or compare some available scripts to opt for adopting in writing.

2.5.1 A brief survey

This § 2.5.1 mainly surveys the available writing system for the languages of Nepal and her neighboring state Sikkim, India. Toba, Toba and Rai (2002: 254) on the writing system of the languages of Nepal observe, "...the languages of Nepal’s indigenous peoples are for the most part unwritten ones". Only a few languages out of 93 (Census Report 2001) or 125 (Ethnologue 2004) have writing systems of their own. They mention the following scripts in general use for their (the languages') purpose of writing:

Devanagari lipi (Script): Most Indic languages like Nepali, Maithili, Awadhi, Bhojpuri [also Hindi; I added], Newari[also Ranjana script; extra information added are my own] have adopted the Devanagari script in writing. Some other Tibeto-Burman languages like Limbu (Yakthungba, Tsong), has been using the Kiranti Srijanga Script in Nepal as well as in Sikkim. The Lepcha language is written in the Rong Script. Similarly, the Tamang and Sherpa languages are written in the Tibetan script. A new script known as Akkha Script is in use for writing the Magar [used in Sikkim (and spelt as Manger) also; extra information added is my own] language.

What Toba, Toba and Rai (2002, 2005) yet have to notice is Gurung’s (autoglotonym Tamu) Khema lipi (script) in their discussion. Glover’s (2002) paper is a well-discussed debate whether to adopt the Devanagari, Roman, Tibetan script or Khema lipi for writing the language.

In my 2001 fieldtrip to Gangtok the capital of Sikkim, I discovered that another Tibeto-Burman Kiranti language known as Bantawa [antonym Kirawa] is using its own Rai Bhashako lipi (script) based on Tikaram Rai and Kripasalyan Rai. Then, B.B. Rai,
Tikpur, West Sikkim, has prepared some primary level textbooks also (See *Paruhang Sawanam* (Sakewa Angka) May-June 2003, Akhil Kirāt Rai Sangh, Sikkim for detail).

In the same fieldtrip, I was able to elicit the information [provided by K.D. Hangchen (Gangtok, East Sikkim)] on another script known as Satlotli Hang Chammar (Script). It is, firstly propounded by Dr Lal Rumdali-Rai (Topgachi, Sano Kerkha, Kerkha, Mechi, Nepal). No any other authentic written texts have been found yet. Sampang, another Tobeto-Burman Kirānti language recently has used Kiran *lipi* for documenting its dictionary (2004), which was confirmed in a daily newspaper28 published from Kathmandu.

The trios (2002: 254 and 256, 2005: 16-17) have hopefully confirmed the existence of a script for the Kirānti-Kōits language also known as Sunuwar/Je*ˈticha Breːse ‘script’* (cf. Rapacha, Ngawocha-Mukhia and Rujicha-Mukhia 2003). The script has been in use for producing *Sikkim Herald* (2001 onwards) in Sikkim and primary level textbooks are, also written in the same (Rapacha, Ngawocha-Mukhia and Rujicha-Mukhia 2003, 2004). In the following § 2.5.2, we shall briefly discuss its [Sunuwar/Je*ˈticha Breːse] historical aspects available in the past literature.

### 2.5.2 Origin of the Kirānti-Kōits script

In the preceding § 2.5.1, we surveyed the writing systems of the research area and its surroundings in general and here we shall discuss on the origin of the Kirānti-Kōits or Sunuwar/Je*ˈticha Breːse ‘script’* in particular. It was Shrestha (1980 [VS 2037]), who for the first time in its [Sunuwar/Je*ˈticha Breːse ‘script’] history opened up new avenues by writing on the ‘Koing [actually should be Kōits; *my note*] Bres (Sunuwar *lipi*)’ in a literary periodical29 of the Nepali language popularly or widely read. His main presentation is based on Karna Je*ˈticha-Sunuwar’s information on the script. A critical reading of his presentation can be found in Rapacha (2001, 2002). We shall presented our practical comment with comparison for exploring the possibilities of writing in § 2.5.3 later.

---

28 *Kantipur* daily, July 20, 2004, published from Kathmandu
29 *Madhupark* a literary publication of Gorkhapatra Sansthan, published from Kathmandu
Je’ticha-Sunuwar (1982/3 [vs 2039/40]) himself had provided his information regarding this (Je’ticha Bre:se) script to another editor of a periodical named Kongpi in which the ‘Sunuwar lipi’ was publicized widely. Thus, the editor [Rai (1982/3: 39-40)] of the periodical providing the introductory remarks writes:


Translation into English:

The Rais of the Mid Kirat definitely call them (Sunuwar) and most them call themselves Rai. They are, also identified as Rai in the Nepalko Aitihasik Ruprekha [Historical Outline of Nepal] by Balchandra Sharma. However, it is understood that the tradition of adopting ‘Sunuwar’, ‘Mukhia’, ‘Bahadur’ is excessive. The present script, according to...
the scriptologist Krishna [Karna (?)], the Sun(u)war or say Rai are using their own tribal script since time immemorial in their society, he claims...this material, which is one of the endangered or limited historical asset(s) has been presented here to the readers since Kongpi’s main objective is to preserve such disappearing assets from our access accordingly as its specimen provided by JeNtich Krishnabahadur [Karna-bahadur (?)] having named “Sunuwar lipi (script)”.

This publicity was, lately taken up by Dahal (1995), Sunuwar (1998: 20-32, 1999: 365-376), Mukhia (1998: 113-131) and Pradhan (1999). A complete historical survey and assessment of these writers concerning the topic can be found in Rapacha (2001, 2002). The recent paper entitled Kirānt-Kōits lipiko prayog ra vikas (किरांत-कोइच लिखिको प्रयोग र विकास) by Rapacha (2005) is a comprehensive overview on the prospects of this script. Whereas Sculze [elsewhere] is silent on the existence and use of Je’ticha Bre:se ‘script’ until recently.

2.5.3 Je’ticha script and orthography

We shall now present Rapacha’s (2001/2) revised and modified version of the Je’ticha Bre:se ‘script’ in the light of the earlier studies along with Schulze’s (1995: 2, 1997: 2) proposal chart from the Devanagari script.

Table 2.7: Je’ticha script specimen with transliteration: a modified and reformed version from Rapacha (2001/2)

<table>
<thead>
<tr>
<th>Consonants</th>
<th>Vowels</th>
</tr>
</thead>
<tbody>
<tr>
<td>![Image showing a table with consonants and vowels]</td>
<td></td>
</tr>
</tbody>
</table>

* means optional and /e, a, i, u/ are also subject to have such lengthening phonetically only
Table 2.8: *Schulze's (1995: 2, 1997: 2) Devanagari chart of consonants for Kiranti-Kōits orthography

<table>
<thead>
<tr>
<th>झ</th>
<th>ज</th>
<th>झ</th>
<th>झ</th>
</tr>
</thead>
<tbody>
<tr>
<td>च</td>
<td>ज</td>
<td>भ</td>
<td>ष</td>
</tr>
<tr>
<td>ट</td>
<td>ठ</td>
<td>ढ</td>
<td>ण</td>
</tr>
<tr>
<td>न</td>
<td>फ</td>
<td>ब</td>
<td>म</td>
</tr>
<tr>
<td>य</td>
<td>र</td>
<td>ल</td>
<td>व</td>
</tr>
<tr>
<td>श</td>
<td>स</td>
<td>ह</td>
<td></td>
</tr>
</tbody>
</table>

*Schulze (1995: 2) notes that “consonants in brackets are those found in loanwords from Indic Nepali” and she (1997: 2) further observes, ɣ or /s/ is not used in Kiranti-Kōits orthography.”

The vowel sounds and glottal stop are missing in her chart.

2.5.4 A comparison of scripts

As said earlier in § 2.5.2, we shall now here compare the Je’ticha Bre:se ‘script’ within its several versions and between the Je’ticha Bre:se ‘script’ and the Devanagari script as proposed in Table 2.8. In my observation, Schulze (1995: 2, 1997: 2) in both of her letters/alphabets’ charts, has neither mentioned glottal stop (ʔ) [written as /v/ in the Devanagari orthography; but she has hinted its omission for technical reason in her 1996 report on page 9] nor provided small brackets for ɣ (Roman-Gorkhali spelling/orthography chha (ɣ), /ch/ or [tʃ]). Here she has not also provided any data for the existence of the phoneme ɣ /ch/ in her discussion. It rarely has its minimal pair with /c/
at least in Kiranti-Koits (also cf. Table 2.2 and § 2.1.3) whereas in other Kiranti languages like Rodung [i.e. Camling; spoken in Mid (Majh N) Kirat] can be found such minimal pairs (See Ebert 1994, 1997, Rai 1999, Rai 2001, Rai 2003:16). Some salient differences between the two systems or within the system are noted as follows:

First, there is no differentiation between /t/ vs. /ʈ/ in [Je-ticha-Sunwar (1982/3 [VS 2039/40]), Shrestha (1980 [VS 2037])] whereas the revised and modified version has discovered near-minimal pairs between the two phonems and their separate script/letter has been made available, e.g. तासा /tāslā/ ‘moon’ vs. तेमु /Temu/ ‘elbow’.


Third, the number of letters/alphabets (also cf. Table 2.3 and 2.1.2.1) is inconsistent elsewhere in Sunuwar (1998: 32), in his first description, there are 56 combinations of letters whereas in the second (ibid: 1999: 371), there are 35 such combinations. The Kiranti-Koits phonemes such as /T(c), TH(O) and IJ(S)/ are missing in his chart.

Fourth, in the Congpi (Je-ticha-Sunuwar 1982/3 [VS 2039/40], Rai 1983/2: 39-40 [VS 2039/40]) version, a total number of 22 letters/alphabets has been mentioned and out of which 5 are vowels (/i, e, a, u, o/) and 17 (/d, t, r, k, m, p, g, h, c, n, b, dz, l, s, y, w, wh/ provided in his own order) are consonants. Technically, his version has missed out the /kʰ, η, ?, th, pʰ, T, tʰ, s/ phonemes for which we have minimal or near-minimal pairs present in the phonology of the language (also cf. Table 2.3 and 2.1.2.1) and there is an ambiguous combination of /w+h/ which lacks genuine data for its possibility.

Lastly, but most importantly Schulze’s (1995: 2, 1997: 2) proposal in Table 2.8, has not mentioned the vowel sounds of Kiranti-Koits for adopting the Devanagari orthography whereas Table 2.7 has precisely listed the required number of letters/alphabets including both vowels and consonants (based on the principle of
economy Rapacha 2002) after a rigorous minimal or near-minimal test of the sufficient phonological data (also cf. Table 2.3 and § 2.1.2.1) of the language providing all three alternative scripts at the hand of the Kirānti-Kōits speakers to opt for the purpose of writing their sacred and secret tongue.

2.6 Summing up

In this chapter, we dealt with two major themes i.e. phonology 'the sound system' and the writing system of the language chosen for investigation. In the first half of the first part, we described the inventory of phonemes in Kirānti-Kōits by looking at their distribution (i.e. word initial, medial and final), classification (place and manner of articulation, voicing, aspiration) and minimal/near-minimal pair test (based on contrastive meaning). We also examined some phonological rules also for instance, free variation, nasal assimilation, allophonic variation (cf. § 2.1.1.6), and consonant and vowel deletion. Then, in the second half, we discussed its phonotactics revealing consonant clusters in all three positions and very productive and interesting rules of geminates.

In the beginning of the second part of this chapter, we presented a general survey of the writing systems (scripts used for writing) in the neighbouring Kirānti and other languages, areas or state in general. Then, in the second half we discussed some historical aspects of the Jeṭicha Bre:sē used for writing the Kirānti-Kōits language. Additionally, we presented practical alphabets/letters from the Jeṭicha Bre:sē and the Devanagari script in a comparative perspective by evaluating their compatibility for its use in establishing the tradition of writing in the future.