

The syllable finals of Tibetan loan words
in Lepcha orthography

R.K. Sprigg

I. Reading and writing

Though Lepcha has probably been written at least since the reign of Chador Namgyal, the third Maharajah of Sikkim (1700-1717), the number of Lepchas with the skill to read and write the Lepcha script must always have been very small: a first estimate of the Lepcha population of Sikkim, in 1840, put it at only three thousand; in the Sikkim census of 1891 a total of 5,762 was recorded, to which should be added the Lepcha population of the Darjeeling District of Bengal, numbering 3,952 according to the 1872 census.¹ It seems a fair assumption that only about a quarter of those 19th-century totals could have been adult males, and, therefore potentially literate in Lepcha. Moreover, the Lepcha population was scattered over a wide area; and the tree population was sufficiently numerous at that time to make communications difficult: The gazetteer of Sikkim records that nowhere in Sikkim was there a settlement large enough even to be termed a village.² In the 18th century, therefore, reading and writing were probably confined to a few handfuls of Lepcha monks, perhaps less than a hundred, rendering Tibetan Buddhist texts into Lepcha;³ in the following century, in 1845, Stark and Niebel, Christian missionaries in Darjeeling, began extending Lepcha literature somewhat by translating The Bible. The year 1849 saw the beginning of printing in Lepcha, with Genesis and part of Exodus being printed at the Baptist Mission Press, Calcutta. Printing must have brought with it a greater consistency in letter shapes.

II. Vowel symbols

A. Tibetan

As far as vowel symbols are concerned, the Tibetan script has five, as I see it, three of which are superscript, i, e, and o, the fourth, u, is subscript, and the fifth, a, is symbolized syllabically or semi-syllabically, sharing a symbol with one of the thirty gsal-byed sum-cu, or radicals:

ཀྱ --- ཀྱ (ka --- a, [ka] --- [ʔa]),

but alphabetically, by the postscript symbol a chung,

-ཀྱ (-'), e.g. དཀྱ (dga'),

when it is necessary to avoid confusion between a syllable containing a member of the (five) sngon-'jug, or prefix, series, prescript g, d, b, m, and ', and a syllable containing a member of the gsal-byed sum-cu in initial position, e.g.

ཀྱ (dag).⁴

B. Lepcha

In order to symbolize the Tibetan vowel sounds the Lepcha script deploys a set of eight vowel symbols in open syllables, and a slightly different set, of nine, in closed syllables, with average phonetic values as follows:

open:	{	<u>-a</u>	<u>-á</u>	<u>-i</u>	<u>-u</u>	<u>-ú</u>	<u>-e</u>	<u>-o</u>	<u>-ó</u>	
	{	[-ə:]	-a:	-i:	-u:	-u:	-e:	-ε:	-o:	-ɔ:
	{	[-ə:-	-a-	-i/i-	-y-	-u/ɔ-	-e-	-ε-	-o-	-ɔ-
closed:	{	<u>-á</u>	<u>-á</u>	<u>-í</u>	<u>-u</u>	<u>-ú</u>	<u>-e</u>	<u>-ya</u>	<u>-o</u>	<u>-ó</u> :
e.g.										
open:		-	-c	ɿ-	-)	-)	ɿ	ɿ	ɿ-	ɿ~
closed:		~	"	ɿ~	"	"	"	-v	"	"

It will be seen from the above series that two vowel symbols, i and o, are prescript, three, á, u, and ú, are postscript, as also is ya, one (e) is subscript, one (á) is superscript, and two (í and ó) are at once prescript and superscript, while for a the same principle as for Tibetan, sharing a symbol with an initial consonant, has been followed.⁵

Some writers, however, use á instead of a, e.g.

ᱠᱟᱨ 'á-ka for ᱠᱟᱨ 'á-ka [akə:] 'hand',

thus making the representation of the vowels entirely alphabetic, with one symbol to each vowel.

To add to the confusion, a, which I have shown above only in the open-syllable series, is used by some writers in the closed-syllable series where others use á, e.g.

ᱥᱤ sam for ᱥᱤ sám [sam] 'three',

even by the same writer; this becomes possible because of the difference that I have shown above in the number of vowel symbols as between open syllables and closed syllables (and between nasal-initial and non-nasal-initial syllables).⁶

The relationship of the vowel symbols to the initial-consonant symbols suggests that the general principle has been followed of turning the model script, possibly a cursive Tibetan hand of the 'khyug-yig type, counter-clockwise through ninety degrees, with the result that the Lepcha symbols corresponding to the Tibetan superscript vowel symbols i and o are prescript, and the Lepcha u and ú are not subscript but postscript (e, however, is, irregularly, not prescript but subscript).⁷ Such a process would be familiar to Tibetan monks (and, perhaps, to Chador Namgyal himself during his years of exile in Lhasa) through the practice of using the symbols t-, th-, d-, n-, and sh- reversed for the

Sanskrit retroflex series ṭ-, ṭh-, ḍ-, ṇ-, and ṣ-, none of which had been introduced into the Tibetan script in its original form.³ Accordingly, all the symbols corresponding to the rjes-'jug of the Tibetan script except two, -g, -d, -n, -b, -m, -r, and -l, appear in Lepcha not as postscript but as superscript; only -ng and its complementarily distributed anusvara-like symbol nyin-dō (Tib. nyi-zla 'sun-moon') -ang [-vŋ] differ, being prescript, with -ng preceding the prescript vowel symbols ī, o, and ō; e.g.

‘ ī o ō “ ī o ō ; but ‘- and ō-

-k -t -n -p -m -r -l; -ng -ang ([-vŋ]).

The ninth and tenth members of the rjes-'jug class, -' and -s, have no corresponding symbol in Lepcha, except for the possibility that -ā is derived from -'. If so, it is irregular, in being postscript rather than superscript (unless Haarh is correct in attributing its origin to the subscript a-chung used in Tibetan as equivalent to the ā of Sanskrit; 1959, 119).

The ya-btags and ra-btags symbols of Tibetan, which are subscript, appear regularly as postscript symbols in Lepcha; e.g.

य, र; kya, kra [kjə: krə:].

Something rather similar to the turning principle, the mirror image, has been applied within the Lepcha script itself, to devise ml- from m-; e.g.

ma ः; ः m̄la;

but the other members of the lateralized series do not follow this principle, and, moreover, have no model in Tibetan:

𑌵	𑌶	𑌷	𑌸	𑌹	×
<u>kla</u>	<u>gla</u>	<u>pla</u>	<u>fla</u>	<u>bla</u>	<u>hla</u>

(gla and fla seem to be modifications of ga and fa by adding a cross-bar or a loop).⁹

III. Khampa Tibetan into Lepcha orthography

Having outlined the orthographic resources available to Lepcha writers at least by the 1840s (when Hodgson made a first collection of Lepcha manuscript books), including alternative means of symbolizing [ə:] in open syllables as ā or as ā̂, and [a] as ā or as ā, I can now proceed to my main task of describing how Lepchas seem to have dealt with the problem of fitting Tibetan loan-words into a Lepcha mould, bearing in mind the important fact that the majority of the Tibetans with whom the Lepchas first came in contact were immigrants from Kham, in the east of the Tibetan-speaking area, via the Chumbi valley;¹⁰ their descendants claim Khampa ancestry to this day.¹¹

A. Tibetan -a, -ag(s), -ang(s), -ab(s), -am(s), -ar

With this Khampa origin in mind perhaps the most interesting relationship in Lepcha loan-word orthography is:

	i	ii	iii	iv	v	vi	
T.	<u>-a</u>	<u>-ag(s)</u>	<u>-ang(s)</u>	<u>-ab(s)</u>	<u>-am(s)</u>	<u>-ar</u>	
L.	<u>-ó</u>	<u>-ak/-ók</u>	<u>-ang/-óng</u>	<u>-óp</u>	<u>-óm</u>	<u>-ór/-ó</u>	/-ó/
	[-ɔ:ɪ]	-ɔk/-ɔ:	-ɔŋ	-ɔp	-ɔm	-ɔr/-ɔ:	

e.g.

- i. rma brnya gla ja 'dra-'dra dbu-skra
mó nyó ló có rán-ró ([d-]) 'ú-kró ([t-])
 sore borrow wages tea equal hair

rgya kha mkha' dbu-zhwa na-bza' slob-grwa
gyó/gyá khó/khá khó/khá 'ú-shó ná-zó lóp-kró ([t-])
 hundred mouth heavens hat clothes school

bya , snag-tsha khra nyi-zla
byó nók-tshó hró nyín-dó
 bird/fowl ink hawk sun-moon [symbol]

- ii. ldag g.yag (b) klags/klog phyag nag snag-tsha a-rag
lók 'yók hlók chók nók nók-tshó 'á-rók
 lick yak read hand black ink arrack

bshags bag-chags ljags don-dag khrag thag-ring
shók pak/pók-chó jó/ják tân-dók hrók thak/thák-ring
 repentance compassion tongue meaning blood long distance

lag

lók

hand

- iii. glang mang dmangs gnang dbang nang chang
lóng móng móng nóng bóng nóng chóng/cháng
 ox many crowd bless, grant power inside beer

-khang btang/gtong zangs a-zhang bang-chen rkang
-góng tóng/tong sóng 'á-jóng póng-cen kóng/káng
 house dispatch/give copper uncle messenger foot

- grwa-tshang bzang-po (rad-ma) yang-rtsi
kra-tshóng [t-] zóng (pem) yóng-tsu
hermitage good Pemionchi (lotus perfection)
- iv. zhabs chab tshab srab reyab
shóp chóp/cháp tshóp sóp gyóp/gyáp
foot water deputy bridle back
- v. lam zam-pa nyams nam lham
lóm sóm-pu nyóm nóm lhóm
road bridge decline smell boot
- vi. bcar mar dar thar dar
có mór dór thór tór/tár
enter presence of butter spread escape silk

The lip-rounding that has resulted in phonetic spellings in ó in the Lepcha words in (i) -- (vi) above is one of the features in the phonetic realization of the /á/ phoneme in one of the Kham dialects of Tibetan described in Ray 1965 for two speakers from Hor and Dzahuk, to the north west of Kanze, in north-eastern Kham; e.g.

- i. /jáwá/ rya- India, /ndá/ zla-ba moon
ii. /máqmi/ dmag-mi soldier, /táq/ stag tiger, /syáq/ bshags repent, /tendáq/ don-dag meaning, /trháq/ khraq blood, /tháq/ thag distance
iii. /tráqmo/ grang-mo cold
v. /lárgáo/ lam-ka road, /náqkhà/ nam-mkha' sky, /kháq/ kham Kham, /lháq/ lham shoes; cf. also /mombo/ mang-po many, /kong/ rkang foot
vi. /yá/ yar up.¹³

I have myself observed lip-rounding in the words glang 'ox', nanq 'inside', and gtsang 'Tsang' as pronounced by Tenzing Namdak, a Khampa of Khungpo Tengchen (the Denchin Gomba of Teichman 1922, 79, 231), fifty or sixty miles to the north west of Kanze.

Comparable lip-rounding has also been noted by Walsh (1905) in the Tromowa dialect, of the Chumbi valley (gro-mo), on the route by which the ancestors of leading present-day Sikkimese-Tibetan families entered Sikkim some four centuries ago; e.g.

- i. lo-o gla-ba hire, ro-jo rwa- horn, pho-di pha-gi yonder, yo-di ya-gi that up there, nam-zo na-bza' apparel
ii. toq-ko skrag-pa frighten

iii. mong-pu mang-po many, long-po lang-ba rise, se-byom sbrang-bu bee, long-sha glang-sha beef, phong-po bang-po bosom, byong brang breast, gyong-bo grang-mo, cold, tong-bo btang/gtong dispatch/give

v. pho phar yonder

There are, however, a considerable number of exceptions to the above relationship; e.g.

- | | | | | | | |
|----|-----------|-------------|--------------|------------|------------|-------------------|
| | i | ii | iii | iv | v | vi |
| T. | <u>-a</u> | <u>-ags</u> | <u>-angs</u> | <u>-ab</u> | <u>-am</u> | <u>-ar</u> |
| L. | <u>-á</u> | <u>-ák</u> | <u>-áng</u> | <u>-áp</u> | <u>-ám</u> | <u>-ár</u> ; e.g. |
- i. lha sha dga' grwa-tshang bya ka-ba na
lhá shá gá/gó krá-tshóng ([t -]) pyá/cá ká-wó ná
 god meat joy hermitage bird pillar illness
- la rta nya na-bza' bkra-shis ma-ni
lá tá nyá nám-zó krá-shi ([t -]) má-nyi
 pass horse fish clothes Tashi (Ding) mani
- ii. ljags dmag phag-ze chag sngags
ják mák phák-zu chák/chók ngá/ngó/ngók
 tongue army hog's bristle fodder magic
- iii. shangs chang grang-ba byang sprang-po
sháng sháng k(h)yáng cáng pyáng long-po
 nose beer cold north beggar
- iv. yab bslabs/slob gyab
yáp hláp gyáp/gyóp
 father learn/teach back
- v. khams khams gnam rnam-thar skam-po
khám khám nám nám-thár kám-phó
 Kham health sky legend dry
- vi. dmar bar dkar-phyogs
már pár/par kár-chó
 red middle white side
- These exceptions I take to have entered Lepcha from one of the Tibetan dialects in which vowel sounds corresponding to the a of examples such as these have non-rounding as their lip-action feature; e.g. (Lhasa)
- (i) [ˈla t̚əha t̚adz̥ː (ii) ˈdzaː ˈmaː (iii) ˈp̚ãː ˈt̚p̚ãː
lha bya grwa-tshang ljags dmag shangs chang
- (iv) ˈj̚p ˈl̚p (v) ˈkham ˈnam (vi) ˈphaː ˈmaː]
yab bslabs khams gnam phar mar

Some of these words have the spread-vowel phoneme /a/ in Ray's Kanze Khampa too, not his rounded-vowel phoneme /a̠/; e.g. /ka/ ka-ba pillar, /pa/ ba cow, /syà/ sha meat, /ga/ dga' be better, smile, /ca/ ja tea, /na/ na sick, /la/ la pass, /ta/ rta horse, /nya/ nya fish, /khálaq/ kha-lak food, /ja/ brgya hundred, /kabo/ dkar-po white, /mabò/ dmar-po red.

Similarly, the vocabulary of the Tromowa and Sikkimese dialects in Walsh 1905 contains: bya bya, kya skra hair, phag-ko phag-pa pig, pyang long sprang-po beggar, bip-kya-po si rgyab-pa whistle.

Exceptionally, -ag(s) corresponds to -ek in Lepcha in the case of khyag(s)-pa 'ice', for which the Sikkimese is khe(k) (Walsh 1905, 21).

B. Tibetan -o, -og, -ong(s), -ob, -om, -or

Since Tibetan words in -a, -ag(s), -ang(s), -ab(s), -am(s), and -ar, when taken into Lepcha, have been symbolized with lip-rounding, backness, and either openness or half-openness ([-p- -ɔ- -ɔ:]), it is reasonable to expect a closer degree of aperture for the contrasting Tibetan finals in o when borrowed into Lepcha; and this is regularly so. I know of the following relationships:

- | | | | | | | |
|----|----|-----|---------|-----|-----|-----|
| | i | ii | iii | iv | v | vi |
| T. | -o | -og | -ong(s) | -ob | -om | -or |
| L. | -o | -ok | -ong | -op | -om | -or |
- [-o -ok -oŋ -op -om -or/ɔr]; e.g.
- i. gro do(-) rdo-rje gling lo hlo rdo rmo
kyo to dor-ji, dúr-ji líng lo hlo do mo
wheat load Darjeeling year south stone plough
 - ii. g.yog chog sgrog gshog
'yok'¹⁴ chok rok ([r/d-l]) shok
work fit for read cut, cleave
 - iii. 'grong gdong dgongs tshong/btsongs stong
krong ([t-]) dong gong tshong/tsong'¹⁵ tong
die face meditate trade/sell, Limbu thousand
grong gong
kyong/krong ([t-]) gong
village price
 - iv. thon dnon-slob
thop'¹⁴ pán-lon/lok
get chief, Penlop (but slob-grwa 'school' is rendered

as lóp-kró rather than as lop-kró, perhaps through an association with bslabs).

v. sgom-chen khrom

gom-chen hrom ([t^h-])

hermit market

vi. 'khor-lo phyag-sor skor phor-pa nor

khor-lo chók-sor kor phor nor

wheel finger circle cup mistake, wealth; but

spor-mo kóm (rupee) coin.

The Lepcha hlók (Tib. klog) is irregular -- one would have expected hlók -- unless the Lepcha loan-word is based not on the present-tense form but on the past-tense form (b)k^lags.

For the Kham dialect of the Kanze area Ray 1965 ascribes lip-rounding to his /o/ phoneme, with a degree of aperture between /á/ and /u/; his examples include /syòg/ gshog carve, /lòc/ slob teach, /sò/ so tooth, /lhò/ lho south, /mbo/ 'bab fall, /ḡhoybo/ sngon-po blue, /nthoy/ 'thung drink (cf. Lepcha thang/thóng [t^hɔŋ], not thung or thung).

C. Tibetan -u, -uḡ(s), -ung(s), -ub(s), -um(s), -ur

The correspondences for the finals containing a and o, in sections (A) and (B) above, are pretty regular and almost free from exceptions; but this is not so for Lepcha correspondences to the above finals, containing u. Lepcha offers a choice between a rounded close or closish back vowel, symbolized by ú, and a spread close or half-close back vowel, symbolized by u; and both are to be met with, though the ú spellings are probably the commoner; so I give them first.

1. Lepcha -ú, -úk, -úng, -úp, -úm, -úr

i ii iii iv v vi

T. -u -uḡ(s) -ung -ub -ums -ur

L. -ú -ú/-úk -úng -úp -úm -úr/-ú

[-u: -u:/ɔk -ɔŋ -əp -əm -əɾ/u:]; e.g.

i. sku dbu zhu chu 'khu bcu-dpon

kú 'ú shú chú hrú-búm ([t^h-]) cú-pân

body head petition water wash/holy vessel leader of ten

- ii. bzhugs 'brug sku-rzugs thugs smyu(g)-gu mjug rmugs
jú prú kú-zú thú nyú-gú júk múk
 sit Bhutan body mind pen end mist
- 'ug-pa
wúk-po
 owl
- iii. chung 'khrung gsung rlung
chúng hrúng ([tʰ-]) súng lúng
 small be born speak wind
- iv. sgrub-bde grub-thob mub
rúp-di ([ɖ-]) rúp-thop ([ɖ-]) múp
 Dubde saint west
- v. shum 'bum yum
shúm búm yúm (also, irregularly, yám)
 weep one hundred thousand mother
- vi. spur gur 'gyur khur-ba phur-bu
púr kúr gyúr/gyú khú phúr-bo, phu-bo
 corpse tent change bread Jupiter, Thursday

Ray 1965 describes his Kham phoneme /u/ as being rounded and back; his examples include: /syuq/ 'ju/zhu melt, /luo/ klog read, /mhuc/ rmugs mist, /nyhuc/ smyu(g)-gu pen, /súr/ gsúm three, /lún/ rlung wind, and /cucic/ bcu-gcig eleven.

2. Lepcha -u, -uk, -ung, -up, -um

The other set of correspondences, of Tibetan -u, -ug(s), -ung, -ub, -um, and -ur with Lepcha -u, -uk, -ung, -up, and -um, is as follows:

	i	ii	iii	iv	v	vi
T.	-u	-ug(s)	-ung	-ub	-um	-ur
L.	-u	-u/-uk	-ung	-up	-um	-u
	[-u: -u:/*k -ɽŋ -ɽp -ɽm -u:]; e.g.					

- i. g.yu bsu 'bu 'ju/zhu bu-tsha
'yu su bu ju/shu nu-tsho
turquoise accompany worm melt clan, generation
- ii. dbyug lug phyugs phyug-po rgyug -gzugs
'yuk luk phyuk phyuk-bo gyuk mu/ma-zu
throw sheep herd rich run body
- iii. snyung thung gsung
nyung thung sung/sung
ill short/scarce chronicle
- iv. sgrub
rup ([d-])
get
- v. snum zlum-po
num dum-po/pu
oil pillar
- vi. phur-pa phur-bu
phu-bo phu-bo, phur-bo
peg Jupiter, Thursday

Ray's Kham-dialect phoneme /ɿ/, 'mid central unrounded' (1965, 5), has among its examples /mbɿ/ 'bu worm, /cɿ/ bcu ten, /gɿ/ dgu nine, /sɿ/ su who, /chɿ/ chu water, /ndzɿgɿ/ mdzug-gu finger, toe.

D. Tibetan -ud, -un, -ul, -us

My Lepcha correspondences with Tibetan -ud, -un, -ul, and -us are few in number; as regards vowel quality they correspond to the minority type given above, at (C2), for correspondences with Tibetan -u, -ug(s), -ung, -ub, -um, and -ur:

- | | | | | |
|----|------------|------------|------------|--------------|
| | i | ii | iii | iv |
| T. | <u>-ud</u> | <u>-un</u> | <u>-ul</u> | <u>-us</u> |
| L. | <u>-ut</u> | <u>-un</u> | <u>-u</u> | <u>-u/-ú</u> |
- [-ɾt -ɾn -u: -uɛ/u:]; e.g.

- i. phud 'tshud methud boud yud
phut tshut thut dut yut
first-fruits enter join together devil moment

- ii. sku-mdun bdun-ohrag btsun-po thun dgun(-ka)
kum-dun dun=hrók tsun-mo thun gun
 presence week revered space of time winter
- iii. 'bul/phul sul sbrul 'phrul 'dul (exceptionally dn̄gul-chu)
phu su bu hryu tyu ngúl-chu
 offer trench snake magic tame mercury
- iv. nus; but lus dus rgyus
nu; lyú tyú, tú' gyú
 dare; body time intelligence.

Exceptionally, the Lepcha correspondence with 'khrud 'wash' is not khyut but khyu (cf. Sikkimese and Tromowa 'khyu-u'; Walsh 1905, 33).

Corresponding to sbrul 'snake' Sandberg 1895 gives 'beu (byu)' (26) for Sikkimese, Walsh 1905 gives 'bi-u' for Sikkimese, 'bi-u' for Lower Tromowa, and 'du; bu' for Upper Tromowa (30), and Byrne 1909 gives 'bū' for Bhutanese.

Ray's phoneme /ɛ/ occurs in /dr̄i/ sbrul snake and in /ḡayh̄a/ dgun-ka winter; for 'seven' bdun he gives /der/, containing the front-spread-vowel phoneme /e/ (1965).

E. Tibetan -od, -on, -ol, -os

For these four Tibetan syllable finals the corresponding Lepcha finals are:

	i	ii	iii	iv
T.	-od	-on	-ol	-os
L.	-â ^h t	-ân ^h	-â ^h /-a	-o/-â ^h

[-ə:t -ə:n -ə: -o:/ə:]; e.g.

- i. gcod bod bya-rgod 'dod mchod yod mdzod
cât pât gât dât/da chât yât zât
 cut Tibet vulture desire sacrifice have treasury

'od dus-tshod
wât tú-tshât
 light season

- ii. tshon 'byon dkon don mgon dgon-pa
tshân cân kân tân grân/rân ([q-]) gân-pc/-pú/-bo
 vaint go scarce meaning invitation monastery

yon-tan bcu-dnon duon-slob
yân-tan cu-pân nân-lop/k
 excellence leader of ten teacher/Penlow

(smon, however, also corresponds to mun in Lepcha when unstressed, as in mun-lom [mʰn-] 'prayer'; dpon, similarly, also corresponds to pun in pun-di 'queen', and to pa-n in pa-no 'king', Tib. dpon-po 'lord', a title and term of address in Kham).

iii. gsol 'bol skol 'dzol
 sâ bâ kâ zâ
 offer/serve carpet boil mistake

iv. chos gos tshos thos⁶ dos
 cho (earlier sho) ko tsho thyo do/to
 religion/book clothing colour hear load
 (for chos in the sense of 'book' cf. also 'cho' in Sikkimese; Sandberg 1895, 43).

spos 'os ngos
 pâ wâ/wa ngâ
 incense suitable reality

For -od in mchod the corresponding Lepcha finals are: -ât, -et, -e, and -o; e.g. chât phu 'offer a sacrifice' (mchod phul), chet mat tho 'make an offering', che-bo chet, chât-ten, cho-ten 'chorten' [stupa], presumably four different phonetic spellings for the same Tibetan lexical item varying with the dialect of origin from a central to a front vowel quality. It is interesting to note that the vowel sound that Ray heard for northern Khampa in bdum was more than centralized, so that he was obliged to assign it to his /e/ phoneme (front spread), as in /deɣ/ (1965, 9); it is not surprising, therefore, that he should also have assigned the vowel in bod 'Tibet', yod 'is', and dgon-pa 'monastery' and ga-tshod 'how much' to /e/, as in /peɣ/, /yeɣ/, /gɛmba/, and /katsheɣ/.

From my Khampa informant, Tenzing Nemdak, I heard bzos in bzos-song 'made' pronounced with a central spread vowel.

F. Tibetan -ad, -an, -al, -as

The usual Lepcha correspondences with Tibetan -ad, -an, -al, and -as are:

	i	ii	iii	iv
T.	<u>-ad</u>	<u>-an</u>	<u>-al</u>	<u>-as</u>
L.	<u>-et</u>	<u>-an/-en</u>	<u>-e</u>	<u>-e</u>
	[<u>-et</u>	<u>-ɛn</u>	<u>-ɛ:/e:</u>	<u>-ɛ:</u>]; e.g.

i. gshad khyad ltad-mo lhad thams-cad; but pad-ma
 shet khyet tet-mo hlet thám-cet pe-ma
 tell difference spectacle alloy all lotus

- ii. spyan snyan nyan gdan gsan 'aran dran
can/cen nyan nyan dan/den sen gyan kren
 eye ear listen cushion hear compete with long for
- iii. khral gral zhal bal gsal rgyal
khe khe she/jál pe se gye/gyál
 revenue seat face wool clear win
- iv. sras gnas las dbu-rngas mkhas-pa sdong-ras
se ne le 'u-nge khe dong-re
 son cave action/fate pillow wise wick
 'bras-ljongs; but 'bras-khu
ren-jong [q/r-] byá-khú'
 Sikkim rice water

In kren above the Lepcha final is not [en] but [-en]; exceptionally, Tibetan -an corresponds to -on, e.g. sman món medicine (cf. Sprigg 1966, 8). Exceptionally, Tibetan -al corresponds to Lepcha -al in nál-lóm 'dream' (mnal-lam), nyál-hri 'couch' (nyal-khri), gyál/gye 'win' (rgyal), and jál/she 'mouth' (zhal).

Ray 1965 gives the following comparable forms in /e/ from the Kham dialect of Kanze: (i) /syèq/ bshad tell, /kèq/ skad language, /geqpo/ rgad-po old man, /còjeq/ bco-brgyad eighteen; (ii) /zyejba/ gzhan-pa other; (iv) /kandreq/ ga-'dras how.

G. Tibetan -e, -egs, -eng, -eb(s), -em(s), -er, -ed,
-en, -el, -es

The above Tibetan finals correspond with Lepcha as follows:

	i	ii	iii	iv	v
T. <u>-e</u>		<u>-eg(s)</u>	<u>-eng</u>	<u>-eb(s)</u>	<u>-em(s)</u>
L. <u>-e</u> (<u>-u</u> , <u>-i</u>)	<u>-e(k)</u>	<u>-eng</u> (<u>-ung</u>)	<u>-ep</u>	<u>-em</u> (<u>-ám</u>)	
	[<u>-e</u> : <u>-u</u> : <u>-i</u> : <u>-e</u> :/ek	<u>-ej</u>	<u>-ɛɲ</u>	<u>-ɛp</u>	<u>-em</u> <u>-ə:m</u>]; e.g.

- i. kh(y)e 'dre nye 'bre dge-ba bde-ba;
kh(y)e re, gre nye fri ge-wó de-wó;
 cheap devil near measure merit joy;
tshe rtse; rdo-rje sgrub-sde
tshu tsu; dor-je, dor/dúr-ji rúp-dí ([q-j])
 life weak; dorje, jewel Doobdi

ii. legs-rgya 'gegs 'thegs reg
le-gyó ge(k) the rek
 good deed obstruct depart touch

iii. 'nhreng-ba; but seng-ge
ph(y)eng-bo; sung-gi
 rosary lion

iv. 'thebs gleb
thep lep ([ʔ1-])⁸
 grasp press down

v. tshems ltem; but sems btsems
tshem tem; sám tsám
 tooth full; mind sew

vi vii viii ix x

T. -er -ed -en -el -es
 L. -er/-e -et -en -e -e (-a/â)
 [-er/e: -et -en/en -e: -e: -æ]; e.g.

vi. gter ner gser gyer-pa spyi-nyer sder-ma
ter nyer jer nyer-bo ci-nye la-/lá-de
 treasure wane gold housekeeper steward plate

vii. phyed skyed shed
phyet ([ph-]) k(y)et shet
 half interest strength

viii. mkhyen rten bden chen-po
khyen ten den ([-en]) chen-po/-bo
 know established belief large

ix. brél-ba drel sbrel; exceptionally shel
nye-wo kre bye; sher
 business mule fix together; glass

x. bzhes bzres-po nyes; but tshes nges
je ([ʒ-]) kre ([t-]) nye; tsha nga/â
 eat, drink old wrong; date truth

rjes
je
 after

Since [ts(h)-], [s-], and [ʏ-] are not, or formerly were not, phonetically possible in close and half-close front-vowel syllables in Lepcha, the back and central vowels [-u:], [-ɤ-], and [-ə:] (-u, -a/-ā) have been used in order to preserve the initial [ts-], [tsh-], [s-], or [ʏ-], hence the spellings tshu, tsu, sung-, tsha, and nga/ngā above (but, exceptionally, -es correspond to Lepcha -o in zō (mdzes-po) 'beautiful').

It is interesting to note that the Lencha orthographers who wrote -i for Tibetan -e in word-final position ([-ɪ]) chose to follow their ears rather than their eyes; e.g.

T. rdo-rje sgrub-sde seng-ge -e [-ɪ]
L. dor-/dur-ji rúp-di sung-gi -i [-ɪ].

H. Tibetan -i, -ig(s), -ing, -ib, -im(s), -ir, -id,
-in, -il, -is

With the above Tibetan syllable-finals the corresponding Lepcha finals are:

	i	ii	iii	iv	v
T.	<u>-i</u>	<u>-ig(s)</u>	<u>-ing</u>	<u>-ib</u>	<u>-im(s)</u>
L.	<u>-i</u>	<u>-ik/-i</u> (-uk/-u)	<u>-ing</u>	<u>-ip</u> (-up)	<u>-im</u> (-um)
	[<u>-i</u>]	<u>-uk/i:</u>	<u>-ɣk/w:</u>	<u>-ɣɣ</u>	<u>-ip</u> <u>-ɣp</u> <u>-im</u> <u>-ɣm</u> ; e.g.

i. sli bzhi mi khyi khri shi dri
li ji/shi mi khyi hri ([tʰ-]) shi ri ([d-])
apple four man dog seat die smell

ri spyi-gnyer 'bri/bris
ri ci-nye pi (cf. Sikk. pi; Sandberg 1888/95, 51)
mountain steward write

ii. mig rig rigs; but tshig rtsig-pa yig gzigs
mík rík/ri ri; tshuk tsuk-po yuk zu
eye knowledge race; word wall letter see

iii. shing zhing gling snying ring lding-dpon
shíng shíng líng nyíng ríng dín-gân
wood field region/slope heart far subaltern

iv. grib; but srib zhib bzhibs
krip ([t-]) sup shup zhíp/zup
stain darkness flour suck

v. gzim khyim khriṃs
zum/zim khyum hr(y)im/hryum ([th/tj̥-])
sleep house law

vi vii viii ix x

T. -ir -id -in -il -is

L. -ír (-er) -ít -ín (-un) -i (-u) -i (-u)

[-ír -er -it -un -rn -i: -u: -i: -u:]; e.g.

vi. btsir
tser
squeeze

vii. 'khrid gnyid brjid
hrít nyít jt
lead sleep splendour

viii. drin spyin rin-chen; but zin
krín ([t-]) pyín rín-chen; sun
kindness glue Rinchen (rin 'value'); seize

ix. dril-bu; but bsil
hri-bo ([th-]), kri-bo/po ([t-]); su
bell; wash

x. gnyis mkhris-pa phyag-bris; but rtsis-pa
nyi khi-bo chók-/chá-k-/chá-ri; tsu-bo
two gall letter; astronomer

In section (G) above I pointed out that Lepcha spellings in u and a/á corresponding to Tibetan e for syllables with initial [ts(h)], [s], and [ʃ] were due to the phonetic impossibility of combining those initials with a Lepcha half-close front spread vowel (e), hence either the syllable-initial consonants or the vowel ([e]) needed to be modified; in their case it was the vowel that was accommodated to those types of consonant. Comparable modifications have been applied to Lepcha syllables corresponding to Tibetan finals in -ig(s), -ib, -im, -in, -il, and -is where the Lepcha syllable has as its initial consonant [j], [ts(h)], [z], or [s]; in order to preserve the syllable-initial consonant there has been a change of vowel from i to u ([i, i(:)] to [y, u:]). Similarly, the Lepcha use of e in (vi) tser corresponding to the Tibetan btsir may be because [ts-] can combine with [-er] but not with [-ír].

Though the limited powers of combination of syllable-initial [j], [ts(h)], [z], and [s] can be invoked to explain

some instances of -uk, -up, -um, and -u ([-ʌk, -ʌp, -ʌm, -ʌn, -u:]) as the corresponding Lepcha syllable finals to -ig, -igs, -ib, -im, -in, -il, and -is, that explanation will not serve for the -yum of such lexical items as khyum and hryum ([tj-]) and the -up of shup (Tib. zhib). As far as khyum is concerned, Benedict wishes to treat the Lepcha -yum as a reflex of PST *-yum, with -im as the Tibetan reflex and -iõn as the Chinese (personal correspondence), the Lepcha being, therefore, the most conservative of the three. My main reason for resisting the significance that he gives to the Lepcha form here is that I believe khyum to be less than three of four hundred years old in the language. I take khyum to have been introduced into Lepcha to account for the substantial stone-built structures that the Lepchas found early Tibetan immigrants introducing into Sikkim, houses appropriate to the much higher altitudes of Tibet, with its much colder climate, from Yatung, for example, in the Chumbi valley, at 9,950 feet. Such houses are well suited to areas of Tibetan colonization in northern Sikkim, where Lachen and Lachung are both at 8,800 feet; but for the warmer climate of the lower southern valleys, ranging from Peshok (2,600), Rongli (2,700), Rhenock (3,200), and Kalimpong (4,100) to the three former capitals of Sikkim, Pemionchi (6,910), Tumlong (5,290), and Gangtok (5,800), it was the Lepcha li, which could be easily dismantled to meet the needs of a semi-nomadic population, that was the more suitable type of dwelling.

Tentatively, I would account for the the -yu- ([-jʌ-]) of khyum and hryum, and the -u- of shup, as a fairly creditable phonetic approximation to the somewhat centralized close to half-close front vowel ([i]) that I have noted for Sikkimese Tibetan in, for example, [chum], [thum], [zim], and [jum] (khyim, khriims, gzim, nyi-ma), as opposed to the close front vowel ([i]) that I have noted for original Lepcha lexical items spelt with -im and -ip ([-im, -ip]); e.g. 'a-pim skirt, h(y)ip shave.

For Khampa forms corresponding to Classical Tibetan forms spelt with -i(-) Ray 1965 gives:

- i. /syã/ shi die, /zyã/ bzhi four (Sikkimese zhi; Sandberg 1888/95, 59), /rã/ mountain ri, /chã/ khyi dog;
- ii. /syiq/ shig louse, /nyiq/ mig eyes;
- iii. /nyhng/ snying heart; vii. /nyiq/ gnyid sleep.

The degree to which the Lepcha language has admitted loan-words from Tibetan might appear from my lists of examples to be very great indeed; but it should be borne in mind that it varies with the spoken dialect and with the written style. The two dialects associated with Sikkim and with the court life of the Sikkim ruling family, the Ilammo and the Renjongmo dialects, contain loan-words, especially honorific words (cf. Mainwaring 1876, 133-5), that were unfamiliar to my informant K.P. Tamsang, a

Tamsangmo-speaker from Bong Bustee, near Kalimpong: the Kalimpong area was under Bhutanese administration from approximately 1707 to the end of the Anglo-Bhutan War, in 1865. Further, Mainwaring included in his Dictionary words from the Lepcha Buddhist text ta-she sung and from the Gospel translations that may well be confined to literary usage, especially where the translation is from a Tibetan original. The number of loan-words that I have cited in my examples is, therefore, likely to be misleadingly large.

NOTES

1. On the origin of the Lepcha script cf. Haarh 1959 (108), Chakraborty 1978 (xvii-xix), and Sprigg 1982, 20 and 29-30; and, for the Lepcha population, Sikhim 1894, 27, 259, and Darjeeling 1947, 77.
2. Sikhim 1894, 4.
3. From Sikhim 1894 (257-8) I calculate the total population of the five monasteries to which Lepchas could be admitted as 113; but probably a fair proportion of these monks would have been of Tibetan stock (Sikim Bhutiyas).
4. Cf. de Kőrös 1834, 1-2, 17; on the syllabic status of ཀ, ཁ, ག (ka, kha, ga), etc. in an otherwise alphabetic writing system see Sprigg 1978, 185.
5. Cf. Sprigg 1983, 316.
6. Cf. Sprigg 1983, 315-23, and Sprigg to appear.
7. This turned relationship was first brought to my notice by my former colleague Burton-Page, Lecturer in Hindi and Nepali, at the School of Oriental and African Studies; later I found the same relationship published in Haarh 1959. I cannot, however, follow Haarh in attributing this process to Chinese influence: 'the old Lepcha script was written in vertical columns, in Chinese style from the right to the left, while the single word was written in Indo-Tibeto-Burman style in the normal horizontal direction' (110); and 'the old Lepcha script was shaped at a time when the Lepchas were under Chinese influence' (113). There is no evidence that the Lepchas, in the impenetrable forests of Sikkim, south of the Himalayas, were ever in contact with Chinese, except very indirectly, from the 16th century onwards, through immigrants from eastern Tibet.
8. Cf. de Kőrös 1834, 21, and the log-yig drug (ṭa, ṭha, ḍa, ṇa, ṣa, and kṣa of Das 1902, xix; for an undated gloss on the royal-rabs gsal-ba'i me-long referring to na-log, cha-log, and tha-log see Miller 1976, 90, 92.
9. This device therefore follows the principle used in representing the assimilated initial clusters of Greek: ξ, ξ̄, ψ.
10. Hodgson's collection of Lepcha books as made in the

East India Company's newly established settlement of Darjeeling in the 40s of the last century, and was deposited in the India Office Library in 1864. The books, approximately 27 in number, have been bound in volumes 77, 79, 80, and 81 of the Collection. They are probably the oldest extant.

11. Cf. also Sprigg 1982, 19-20; the Sikkim royal family traced its origin to Minyak, Menyak, or Menya, the valley of the lower Nya, or Yalung, to the south west of Darchendo (Tachienlu), between Lithang and Derge (Sikkim 1894, 7, note; cf. also Teichman 1922, 4.
12. But [-5:] when the syllable-initial consonant has nasality, e.g. mo, nyo; cf. Sprigg to appear.
13. It is noteworthy that Ray 1965 does not report comparable lip-rounding for the Tibetan dialect of Bathang in southern Kham, though it is considerably nearer to Sikkim than Kanze is.
14. Commonly pronounced [ʔjək] and [tʰəp] in the Kalimpong area, whence the spellings 'yuk, thup; cf. Mainwaring 1876: 'The Lepchas are apt to pronounce this letter [o] as u, and hence when writing, to confound it with \mathcal{R} , this error should be avoided and corrected in the Lepchas' (9).
15. Cf. Sikkim 1894: 'The Lepchas and Bhuteas call them [the Limbus] Tshong (which in the vernacular means 'a merchant' and the Limbus were the chief cattle-merchants in Sikkim)' (37). This etymology, though doubtful, seems to me more likely than the alternative suggestion gtsang 'Tsang', because gtsang should have given a Lepcha spelling tsóng ([tsɔŋ]).
16. The final -yú of the Lepcha lyú and tyú may be an attempt at a phonetic spelling for the close front rounded vowel ([y]) of lus and dus as pronounced in the Lhasa dialect; cf. also thyo for thos (Lhasa [tʰɔ:]) at (E) below.
17. Cf. also Sikkimese [bjaʔ] 'paddy', from my own notes, and, from Walsh 1905, Sikkimese and Tromowa bya-su 'bras-sus 'grain (parched)' (19).
18. The Lepcha syllable-initial glottal-plosive clusters are not distinguished orthographically from simple initials apart from [ʔj-] versus [j-] ('y- v. y-); they comprise: [ʔm-, ʔp-, ʔj-, ʔl-, ʔs-, ʔr-] (Sprigg 1966, 6-8).

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