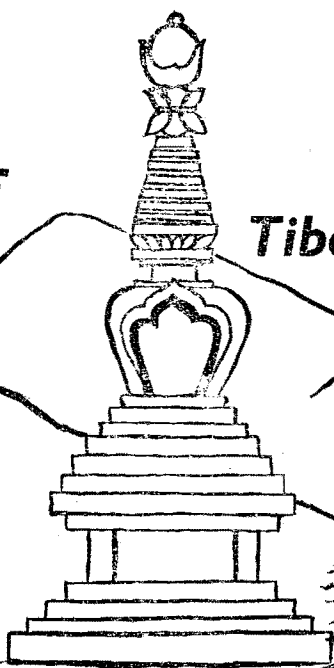


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—The Bulletin of Tibetology seeks to serve the specialist as well as the general reader with an interest in this field of study. The motif portraying the Stupa on the mountains suggests the dimensions of the field—

*EDITORS*

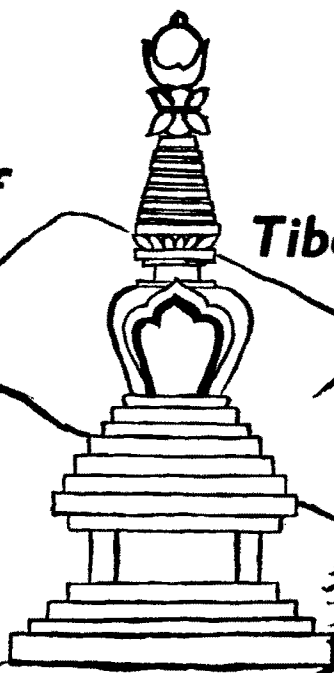
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# THE GLOTTAL STOP AND GLOTTAL CONSTRICTION IN LEPCHA, AND BORROWING FROM TIBETAN

—R. K. SPRIGG

The two phonetic features glottal closure and glottal constriction are of interest in their own right as part of the total phonological description of the Lepcha language, especially since there are few words in which Lepcha orthography symbolizes them;<sup>1</sup> and they are also of interest in relation to borrowing from Tibetan.

It is convenient to distinguish four main classes of word in which these features occur: (I) words in which glottal closure is initial in the word; (II) words in which glottal closure is medial; (III) words characterized by glottal constriction; and (IV) words characterized either by glottal constriction or by glottal closure for emphasis.

## I. Word-initial Glottal Closure

This class of word is further divided into (A) those in which a glottal stop is the only initial consonant, and therefore immediately precedes a vowel ([ʔV]), and (B) words in which a glottal stop is the first of two consonants ([ʔC—]).<sup>2</sup>

### A. [ʔV]

A number of Lepcha words can have a glottal stop, symbolized in this transliteration by the apostrophe ('), e.g. ṛ, 'warm', 'úng 'water', 'ul 'sell' ([ʔ-]), though glottal closure is not always present in fast-tempo utterances.<sup>3</sup> This type of word has been distinguished from that of section (B), in which glottal closure is not the only initial-consonant feature, because there does not seem to be any connection between the type in section (A) and borrowing from Tibetan.

### B. [ʔC—]

A connection with Tibetan can, however, be shown for some words in which the glottal stop is not the only initial consonant. In this type of word the glottal stop is the

first of two consonants; it can be followed by (a) a nasal ([ʔN-]), (b) a lateral ([ʔl-]), (c) a fricative ([ʔs-]), (d) a flap ([ʔr-]), or (e) a non-syllabic front spread vowel ([ʔj-]), but not by a plosive or affricate. There are three types of nasal consonant that can be preceded by the glottal stop: labial, dental, and palatal ([ʔm-, ʔn-, ʔnj-]). Examples of these five types of word follow, at (1):

1. [ʔC-]

a. nasal

labial [ʔm-]	<i>món</i>	medicine	<i>mâ</i>	pray
dental [ʔn-]	<i>nâk</i>	uncomfortable	<i>nen</i> <sup>4</sup>	press down on
palatal [ʔnj-]	<i>nyó</i>	borrow	<i>nyung</i>	ill;

b. lateral [ʔl-]

<i>lî</i>	apple	<i>lâm</i>	compensation;
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c. fricative [ʔs-]

<i>sâm</i>	clear away	<i>sât</i>	appease, cleanse;
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d. flap [ʔr-]

<i>ru</i>	cane	<i>rât</i>	gather;
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e. non-syllabic front spread vowel [ʔj-]

<i>yúk</i>	exchange	<i>yu</i>	turquoise.
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These four types of consonant and the non-syllabic vowel also occur initially in Lepcha words without any preceding glottal closure, as the only initial consonant of the word ([m-, n-, nj-, l-, s-, r-, j-]); e.g.

2. [C-]

a. nasal

labial [m-]	<i>món</i>	pig	<i>mâ</i>	call (dogs)
dental [n-]	<i>nen</i>	make sit	<i>nâk</i> <sup>5</sup>	look at
palatal [nj-]	<i>nyó</i>	stiff	<i>nyâng</i>	shaky;

b. lateral [l-]

<i>lâm</i>	fly	<i>lî</i>	house, seed, speak, ripe heavy;
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c. fricative [s-]

<i>sâm</i>	mind	<i>sót</i>	kill
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d. flap [r-]

<i>ru</i>	far away	<i>rât</i>	kind-hearted;
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e. non-syllabic front spread vowel [j-]

<i>yúk</i>	Tibetan	<i>yu</i>	come down.
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If the set of examples at (2), in which there is no initial glottal closure ([m- n- nj- l- s- r- j-]), is compared with the set at (1), in which there is ([ʔm- ʔn- ʔnj- ʔl- ʔs- ʔr- ʔj-]), it will be seen that it is only in the case of words in (1e) and (2e) that Lepcha orthography makes a distinction between the [ʔC-] and the [C-] type: [ʔj-] is symbolized by 'y, e.g. 'yŭk 'exchange', 'yu 'turquoise', and [j-] by y, e.g. yŭk 'Tibetan', yu 'come down'. In the remaining examples (a-d) both glottal-stop and non-glottal-stop initials are symbolized identically; and mŏn 'medicine', l̥ 'apple', and ru 'cane', for example, each of which does have initial glottal closure ([ʔm- ʔl- ʔr-]), is written identically with mŏn 'pig', l̥ 'house', 'seed', 'speak', 'ripe', 'heavy' and ru 'distant' respectively, which do not ([m- l- r-]).

That is the position in Lepcha orthography at present; but K. P. Tamsang, my Lepcha informant, made the interesting suggestion that the initial glottal closure should be systematically symbolized by the rân (transliterated in this article by circumflex accent). Some of the glottal-stop-initial words given above at (1), e.g. m̂a 'pray', n̂ak 'uncomfortable', l̂ 'apple' ([ʔm-, ʔn-, ʔl-]), already have the rân; they would remain as they are. To the remaining examples at (1) rân would have to be added; and nen 'press down on', for example, would be written as n̂en, nyung 'ill' as nŷung and ru 'cane' as r̂u. In the case of words of the type exemplified at (1e) not only would rân be added but the initial consonants of the orthography would be changed from the present 'y to y; and 'yok 'work' and 'yu 'turquoise', for example, would be written as ŷok and ŷu.

In the set of examples at (2), on the other hand, in which there is no initial glottal stop, there are a number of words that are currently spelt with the rân but do not, at least in Tamsang's pronunciation, have the initial glottal-closure feature, e. g. m̂a 'call (dogs)', n̂ak 'look at', l̂ 'speak', 'house', 'ripe', 'seed', 'heavy' ([m-, n-, l-]); the rân would then be unjustified in words of this type, and would be removed to give, for example, ma, nak, and li.<sup>6</sup>

As a result of this orthographic innovation mŏn 'medicine', for example, ru 'cane', m̂a 'pray', and l̂ 'apple', each of which has the initial glottal-closure feature ([ʔm-, ʔr-, ʔm-, ʔl-]), would become distinguishable, by the rân, from mŏn 'pig', ru 'distant', m̂a 'call (dogs)' and l̂ 'speak', 'house', 'ripe',

'seed', 'heavy' respectively, which do not have the initial glottal closure ([m-, r-, m-, l-]). 'yúk' 'exchange', *yu* 'turquoise', and other examples of [ʔj-], which are at present distinguished from *yúk* 'Tibetan' and *yu* 'descend', and other examples of [j-], by 'y- as against y-, would cease to be distinguished from them by this means, and would also become distinguishable from them by the *rân*.

Since the number of [ʔC-] words in Lepcha is small, and since they have not been published before, a list of all those in the available material is given here, classified by vowel (*ó, o, u, ú, â, î, e, á*); where a corresponding Tibetan word is known, it is given too.

- i. Lepcha *ó*; Tibetan *a*

<i>mon</i>	medicine	<i>sman</i>	<i>mó</i>	sore	<i>rma</i>
<i>móng</i>	crowd	<i>dmangs</i>	<i>nóng</i>	bless	<i>gnang</i>
<i>nyó</i>	borrow	<i>brnya</i>	<i>nyó</i>	hell	<i>dmyal</i>
<i>nyóm</i>	ulcer	[ʔ] <i>gnyan</i>	<i>glóng</i>	ox	<i>glang</i>
<i>'yók</i>	yak	<i>g.yag</i>	<i>lót</i>	fall, degenerate	<i>slad</i>
<i>lók</i>	spoil, spoiled	[ʔ] <i>slad</i>	<i>lóp</i>	shield	
<i>'yók</i>	rubber		<i>'yók</i>	(tie) behind	
<i>yót</i>	bend		<i>'yór</i>	scattered	
- ii. Lepcha *o*; Tibetan *o*

<i>mo</i>	plough	<i>rmo'</i>	<i>'yok</i>	work	<i>g.yog'</i>
<i>'yong</i>	stale				
- iii. Lepcha *u*; Tibetan *u*

<i>nyung</i>	ill	<i>snyung</i>	<i>lut</i>	manure	<i>lud</i>
<i>'yu</i>	turquoise	<i>g.yu</i>	<i>ru</i>	cane	
<i>sut</i>	exorcise		<i>'yum</i>	beauty	
- iv. Lepcha *ú*; Tibetan *u*

<i>lú</i>	naga	<i>klu</i>	<i>yúk</i>	exchange	
<i>yúr</i>	bake		<i>yúi</i>	pot-bellied	
- v. Lepcha *â*; Tibetan *o*

<i>mâ</i>	pray	<i>smon</i>	<i>mât</i>	pray	<i>dmod</i>
<i>nân</i>	suppress	<i>gnon</i>	<i>nâk</i>	uncomfortable	
<i>lâm</i>	recompense		<i>sâm</i>	clear away	
<i>rât</i>	gather up				
- vi. Lepcha *î*; Tibetan *i*

<i>î</i>	apple	<i>sli</i>			
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- vii. Lepcha *e*; Tibetan *e, o*

<i>lep</i>	flatten	<i>gleb</i>	<i>nen</i>	press down on	<i>gnon</i>
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- viii. Lepcha *á*

<i>'yák</i>	choked with.				
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Seventeen of these forty Lepcha glottal-stop-initial words appear to have no connection with Tibetan. They comprise: one of the fourteen words in [ʔN-], i.e. *nāk* 'Uncomfortable', two of the nine words in [ʔl-], all four of the words in [ʔs-] and [ʔr-], and ten of the thirteen words in [ʔj-]. This suggests that initial glottal closure was a feature of Lepcha, at least in association with a fricative or a flap type of articulation ([s-, r-]), and certainly in association with the non-syllabic vowel [j], for which there is provision in the orthography ('y'), quite independently of Tibetan; in consequence, it would not have been difficult to extend this feature to words borrowed from Tibetan.

The remaining twenty-three words, including a majority of the nasal-initial ([ʔN-]) and lateral-initial ([ʔl-]) words, each resemble a Tibetan word in pronunciation. All of the twenty-three Tibetan words except one (*lud* 'manure') have a high pitch in adjacent Tibetan dialects symbolized in the Tibetan orthography by one of the 'prefixes' in association with *m*, *n*, *ny*, *l*, and *y*.<sup>8</sup> The initial glottal stop in the corresponding Lepcha words is thought to be an attempt to render this high pitch, and preserve in the Lepcha words at least some indication of a distinction characteristic of the language from which they were borrowed.

In the Lhasa dialect the Tibetan words in (i), all nine of which are spelt with *a*, e.g. *sman*, *rma*, *dmangs*, are pronounced with non-rounded lips, the vowel being either an open vowel, in, for example, *rma* and *dmangs*, or a half-open front vowel, in, for example, *sman*; Lepcha has very similar vowel sounds, symbolized by *á* and *e*, but these Lepcha vowel sounds have not been used for the Tibetan loan-words in (i). On the contrary, these loan-words are pronounced in Lepcha with lip-rounding, and with a half-open back vowel symbolized orthographically by *ó*, e.g. *món*, *mó*, *móng*. This pronunciation suggests that the Tibetan dialect from which these words were borrowed was not the Lhasa but one in which words spelt with *a* are pronounced with lip-rounding. P. S. Ray records lip-rounding in the Kham dialect for a speaker from the Kanze area in the words *kham*s 'Kham', *gla-ba* 'mountain deer', *yar* 'up' (op. cit., p. 5); I have myself observed lip-rounding in *glang* 'ox', *nang* 'inside', *gtsang* 'Tsang' as pronounced by Tenzing Namdak, a Khampa of Khungpo Tengchen.

In the Lhasa dialect the Tibetan words in *u* at (iii) e.g. *snyung* 'ill', *lud* 'manure', and *g.yu* 'turquoise', are pronounced with lip rounding. Lepcha has a lip-rounded close back vowel ([u]), symbolized by *ú*, e.g. (iv) *lú*, 'yúk', 'yúr', that closely resembles the vowel of the Lhasa pronunciation of *snyung* and *g.yu*, but does not use it *nyung* and 'yu. On the contrary the types of vowel that Lepcha uses in the three loan-words of section (iii) are all spread; back close and half close spread vowels symbolized by *u*. This suggests that they were borrowed from a Tibetan dialect that used lip-spreading in at least some words spelt with *u*. P. S. Ray records a 'mid central unrounded' vowel, in *sbrul* 'snake' for the Kanze Kham dialect, (op. cit. p.5); Tenzing Namdak, referred to above, used no lip-rounding in, for example (*za-gi*) 'dug 'eats', (*ma*-) 'thung 'I do not drink', and *bu* (-*tsa*) 'son', and only slight lip-rounding in e.g. *sus* 'by whom', *bsus* (-*song*) 'welcomed'.

The three Lepcha loan words in *â* also give some slight support to the suggestion that the origin of these loan words is to be sought in an east-Tibetan dialect. The corresponding Tibetan words in *o*, *emon*, *dmod*, and *gnon* are all pronounced with lip-rounding in the Lhasa dialect, with a half-close front rounded vowel in fact; but the Lepcha loan words all have non rounding, the vowel being central. P. S. Ray observes that the vowel /u/and/o/ of his Kanze Khampa informant's pronunciation are 'all noticeably centralized even when stressed' (op. cit., p.5); my Khampa informant Tenzing Namdak, pronounced *bzos* (-*song*) 'made' with a non-rounded central vowel.

## II. Medial Glottal Closure ([-V?C-])

In the nineteen disyllabic words in which medial glottal closure has been observed, the closure is preceded by a vowel, always a (non-rounded) central or an open vowel (symbolized by *a* and *á* in Lepcha orthography), followed by a consonant; it is not indicated in the orthography except by 'y in *ta-yu* 'woman', *pa-yór* 'yellow'.

In some of these nineteen words the glottal closure is better treated as belonging to the preceding syllable. There are eight words in which the preceding syllable is *cá*, e.g. *cá-náp* ([-a?n-]) 'last night', *cá-lóng* [-a?l-] 'just now',

*cá-zóng* ([*-aʔz-*]) 'as before', *cá-bá* [*-aʔb-*] 'some time ago'; and glottal closure always accompanies this syllable, as the final feature. The same may be true of *ná*, in *ná-mún* ([*-aʔm-*]) 'evening' and *ná-hán* ([*-aʔh-*]) 'in front', and perhaps *ná-óng* ([*-aʔʔ-*]) 'fool'.

In the remaining words, however, there are no good grounds for treating the closure as belonging to one syllable rather than the other, unless the examples in *cá* and *ná* are treated as a model for all such disyllabic words, and the glottal closure assigned to the preceding syllable accordingly. These words are:

*sa-nyĩ(m)* day    *ta-lyáng* sky    *sa-ŋm* breeze  
*pa-nyóm* old man    *ta-'yu* woman    *pa-'yór* yellow.

### III. Constricted Voice Quality

Six words are regularly pronounced with the type of voice quality sometimes referred to as 'creaky', with glottal trill and associated muscular constriction, and with long duration, of vowel :

*klóng* groan    *ká* terrace    *kám* sieve  
*kán* hurry    *ták* pick    *fát* sacrifice

This voice-quality feature distinguishes them, respectively, from the following, which have 'normal' voice quality:

*klóng* send    *ká* cackle    *kám* stay  
*kán* smoke    *tak* keep quiet

Tamsang wished to add two more to the list of glottally constricted words: *pút* 'pick', *gân* 'stand on end'; but, although these two have the long vowel duration the constricted-voice quality was not always observable.

Tamsang also wished to extend the use of the *rân* to five of the six glottally constricted examples (*ták* already has it), to indicate, in their case, not the initial glottal closure for which it was proposed in (IB) above, but the glottal constriction and long vowel duration. Since, with the exception of *fát*, the glottally constricted words all have plosion as an initial feature, and the initial glottal-stop of the words at (IB) is associated with nasality, laterality, or some feature other than plosion, there would be little ambiguity in giving to the *rân* these two different but phonetically somewhat similar functions.

#### IV. Emphatic Glottal Constriction and Closure

##### A. Glottal Constriction

Glottal constriction is always a feature of the words listed in section (III); but there are also words for which glottal constriction, with the associated long vowel duration, is an occasional feature, designed to give emphasis to the word. These words are all disyllabic, and it is the first syllable of the word that is characterized by these features. This syllable is also commonly, but by no means always, characterized by a fall in pitch, and is always more prominent than the other syllable (otherwise, in most words, it is the second syllable that is the more prominent). The glottal constriction is often strong enough to give the impression of two vowels, separated by glottal closure. These emphatic features are not indicated in the Lepcha script; in the following examples, however, they have been indicated by brackets:

- (<sup>ˈ</sup>á-re) pa-no-sá gri this is the king's fort,  
cf. á-re pa-no-sá gri this is the king's fort;  
(na-vár) dâ-ká fá-bám the boat is floating on the lake  
cf. á-re na-vár-ká hrón climb up onto this boat;  
(hu-yú) shi-bi nóng where did they go?  
cf. hu-yú bâm-nyi they are at home.

##### B. Glottal Closure [-V?] [ʔC-]

The glottal constriction described in section (A) is a device for emphasizing disyllables; monosyllables are brought into prominence through final glottal closure if they end in a vowel [-V?], together with short duration of vowel and fall in pitch; e.g. (brackets are again used in the Lepcha text to indicate these features):

- (pe) bu-di bring that  
cf. pe bu-di bring that  
(hu) shi-bi nóng where did he go  
cf. hu shi-bi nóng where did he go.

Only one example has been observed in which the emphasized word ends in a consonant. Here, too, the word is also characterized by fall in pitch and by glottal closure; but in this case the glottal closure is word-initial; e.g.

- (món) [ʔm-] kát bu-di bring me a pig  
cf. mon [m-] kát bu-di bring me a pig.

Thus, when emphasized, but only when emphasized, *món* 'pig' is identical in its initial features ([<sup>?</sup>m-]) with *món* ([<sup>?</sup>m-]) 'medicine' (cf. I B); but no doubt situational features are usually sufficient to dispose of any possibility of misunderstanding.

## CONCLUSION

Lepcha makes considerable use of both glottal closure and glottal constriction. Both features may be used stylistically, to bring a word into prominence within the sentence (IV); and for such words these features are alternative features only. This alternation of glottal closure and glottal constriction with the absence of these features is purely Lepcha, and has nothing to do with Tibetan.

Both features also have a lexical function: they are fixed features of certain Lepcha words, and serve to distinguish them, or help to distinguish them, from words having contrasting features. In this lexical function one of the two features, glottal constriction, has no connection with Tibetan (III). On the contrary the glottally constricted type of voice quality, though a prominent characteristic of Burmese, the other principal member of the Tibeto-Burman group of languages, seems to be quite foreign to Tibetan, and was heard with amusement by those Tibetans to whom I demonstrated it. It is, however, a noteworthy feature of the language of the Limbus, with whom the Lepchas have had close relations for upwards of a hundred years.<sup>9</sup>

It is the other feature, glottal closure, that has some connection with Tibetan, but only when it is both initial in the word and followed by a consonant (I B; [<sup>?</sup>C-]). A majority of Lepcha words of this type seem to have an origin in Tibetan.

## NOTES

1. Unless otherwise specified examples in this article are based on the Tamsangmu dialect of Lepcha as spoken by K.P. Tamsang, formerly Secretary of the Darjeeling Lepcha Association, of Bong Bustee, Kalimpong, West Bengal. The material was collected in London, where Mr. Tamsang was a Research Assistant at the School of Oriental and African Studies, University of London, in 1952, and revised during a visit to Kalimpong in 1965, though not, unfortunately, with Tamsang himself or with speakers of the same dialect.

Forms from other dialects I owe to Pastor Targain, of Kalimpong, and to Mr. Joseph Rongong, currently Secretary of the Darjeeling Lepcha Association, of Tirpai Dangra. Targain is from a Renjongmu-speaking family, and Rongong from an Ilamu-speaking family; but both have lived in Kalimpong for many years.

2. Phonetic symbols are indicated by square brackets. They have the values given to them by the International Phonetic Association except that [V] has been used to summarize all appropriate syllabic vowels, [C] to summarize all appropriate consonants, together with the non-syllabic vowel [j], [N] to summarize the three nasal consonants [m], [n], and [ŋ], and [nj] for palatal nasal.
3. The transliteration follows Colonel G.B. Mainwaring, *A Grammar of the Rong (Lepcha) Language*, Calcutta, 1876, except that (i) his Lepcha symbol *rañ* (op. cit., p. 5) has been rendered by the circumflex, e.g. *â*, *ñ* (ii) 'y has been used for his *ay*, and (iii) an apostrophe (') has been used where he uses one of the vowel letters as first letter of the syllable, e.g. *my* 'ñ and *'ung* for his *ñ* and *ung*.
4. This is Tamsang's spelling. Mainwaring gives *nān*; cf *Dictionary of the Lepcha-Language*, compiled by the late General G.B. Mainwaring, revised and completed by Albert Grunwedel, Berlin, 1898.
5. This spelling is Tamsang's; and the pronunciation with dental-nasal initial is Tamsangmu dialect (cf note 1). Targain and Rongong pronounce this word with a velar-nasal initial, and spell it *ngān*.
6. On the function of the *rañ* cf Mainwaring, *Grammar*, p. 5, and also p. 6: 'when superscribed by *rañ* it [i.e. *a*] acquires a prolonged and guttural sound'.
7. Tamsang agrees with Targain and Rongong in pronouncing *mo* and *'yok* with a close back vowel ([ʔmu, ʔjuk]), as though spelt *mú* and *'yúk*, though the pronunciation [ʔjok] is usual in reading.
8. For the high pitch in Kham Tibetan see Punya Sloka Ray, 'Kham Phonology', p. 3, to be published in the *Journal of the American Oriental Society*; cf also R. K. Sprigg, 'Verbal Phrases in Lhasa Tibetan I', *Bulletin of the School of Oriental and African Studies (BSOAS)* 1954, xvi, 1, pp. 150-6, and 'The Tonal System of Tibetan (Lhasa Dialect) and the Nominal Phrase', *BSOAS*, 1955, XVII, 1, pp. 146-53.

The term *prefix* is used here for: (i) the *sngon-'jug* *g*, *d*, and *b*, (ii) *ra-mgo* and *sa-mgo*, and (iii) the *gsal-byed* *k* and *g* when combined with *la-btags*, e.g. *klu* 'naga', *glang* 'ox'.

9. cf R. K. Sprigg, 'Short Syllables in Limbu', to appear in *In Memory of J.R. Firth*, to be published in February, 1966.



## TAX MEASUREMENT AND LAG 'DON TAX

—WANGCHEN SURKHANG

Since in any discussion of taxes (in Tibetan: *khral*) an understanding of the units involved is a prerequisite, I shall describe these before dealing with the actual taxes.

The basic unit of land measurement in Central Tibet is called *rkang*. It is used to calculate the amount of land on all *gzhung gzhis* (government estates).<sup>1</sup> On the other two types of estates, *chos gzhis* (religious estates) and *sger gzhis* (aristocratic estates), a unit consisting of two *rkang*, called 'don is the unit. All Tibetan units of weight and measurement can be divided into fractions (*cha phran*) consisting of 120 parts. Thus, one *rkang* and  $\frac{5}{12}$ ths of a *rkang* would be one *rkang* and 50 *cha phran*. In the government registers this fraction is only used for fractions other than  $\frac{1}{2}$ ,  $\frac{1}{4}$ , and  $\frac{3}{4}$ .

It is most probable that measurement of land by *rkang* had been the custom before 1740, but it is only from that year that I can substantiate its use. In that year (the *lcags spre*-iron monkey year of the twelfth cycle) a *zhib gzhung* was made. Literally this term is an abbreviation of *zhib dpyad gzhung khra* (basic list which has been examined carefully), but I feel that since the term 'land settlement' has had such a widespread use in India for revisions of land holdings in relation to taxes it would be an efficacious equivalent.

In this paper I shall limit the discussion to what I call Central Tibet. This term I use to include: *dbus*, *gtsang*, *kong po*, *dwags po*, and a few *rdzong*,<sup>2</sup> (administrative districts) in *la stod*. In my book I shall separately discuss the customs in the other areas of Tibet.

The land settlement of 1740, known to Tibetans as the *lcags spre zhib gzhung* (the iron monkey year *zhib gzhung*) established formally the tax ratio from arable fields (*zhin gkha*) in the above-mentioned area. I have not seen this 1740 settlement directly but have read about it, and the history of these settlements in general, in the introduction

to the 1830 land settlement. This introduction existed in only one handwritten manuscript which was kept in the Finance Office (*rtsis khang*) in Lhasa. To the best of my knowledge it was not taken out of Tibet after the revolt of 1959.

According to this introduction, the 1740 land settlement became inadequate mainly due to the rapid increase in new farm land which was put under cultivation. Since taxes had been fixed according to the amount of land, i.e. *rkang* or *'don* a family worked in 1740, the government was losing a tremendous amount of income. Along with this serious inadequacy, there were numerous disputes and litigations which arose due to changed environmental conditions, i.e. formerly productive fields had been destroyed by floods, etc. Since most of these disputes passed through the hands of the Council of Ministers (*bka' shag*), it finally came to the decision that it would be advantageous to all if a new land settlement were made. This took place in about 1827 during the time of the Tenth Dalai Lama *Tshul khrims rgya mtsho* (1816-1837) and the regency of the incarnation of *Mtsho smon gling* (regency 1819-1844).

Because of the general importance of this proposal for the whole of Central Tibet, a Large National Assembly (*tshogs 'du rgyas 'dzoms*)<sup>3</sup> was summoned to discuss it. This group agreed that a new *zhib gzhung* would be generally advantageous and sent its opinion in the form of a petition to the Regent, who set the plan into motion. About ten high government officials were appointed to administer this new land settlement, the chief among whom were the Council Minister (*zhabs pad*) *Bshad sgra*, two high monk-officials (one *mkhan che* and one *drung yig chen mo*), and one Ministry of Finance official (*rtsis dpon*). They formed into an *ad hoc* office and located themselves in the summer house which later was to gain fame as the residency of the British and Indian Consular Officials in Lhasa (*bde skyid gling ka'i spro khang*).

Tibet is divided into districts of varying size called *rdzong*. The head of a district is always one or more District Commissioners (*rdzong dpon*) sent there from Lhasa for a limited term of office. These districts were used as the largest units relative to the land settlement. It was the responsibility of this District Commissioner, along with several underlings on his staff, actually to carry out the examina-

tion of the fields in his district. A brief word about the two basic figures under the Commissioner relevant to the settlement will help to illuminate the mode of the land settlement.

First, there is the *gtso drag*. These officials hereditarily hold their position generally due to their having large land-holdings. In districts where there are either aristocratic or religious estates, the *gtso drag* will be chosen from these estate-holders. There are a few cases where there were no estate-holders such as above and in these instances, large land-holding government *miser*<sup>4</sup> families were selected. In large districts there may be as many as four *gtso drag*, and in small ones, as few as two. These *gtso drag*<sup>5</sup> were appointed at various times by the Council of Ministers on the advice of the District Commissioner.

Second, there is the *rgan po*. He is the Headman of a small unit of *miser* of one type of estate. Absolute proximity of the households and fields of *miser* is not, as is generally thought,<sup>6</sup> the dependent variable. Thus, the government *miser* in one area (called *gzhung rgyugs pa*) have a Headman who is a government *miser*, and likewise with the other *miser*. This Headman is usually hereditary on all estates, but this need not be the case, and sometimes either villagers choose a Headman or the *miser* take turns. Whatever the mode, if they are aristocrat's or monastery's *miser* then the Headman has to be approved by the lord (i.e. the aristocratic family, the monastery, or *Bla brang*).<sup>7</sup> If they are government *miser* then they have to have the approval of the District Commissioner. The Headman is generally in charge of the lowest level of judicial and tax affairs. There are several other persons who have a part in the collection of taxes, but since they played no part in the making of the land settlement, I shall discuss them when I discuss tax collection.

The land settlement examined the field (*zhing kha*) which a given *miser* or estate-holder held and used for agriculture. It did not include in the total any land which was used for the houses, vegetable gardens, etc. The function of the examination was in reality to assess the productive capacity of the various fields, and then the total productive capacity for the *miser* or estate-holder. In general, villages (*Grong-seb*) and groups of a few villages (*yul tsho*) were examined at one time by the officials, but as we indicated in discussing

the selection and jurisdiction of the Headman earlier, the three types of *miser* (government, aristocratic and religious) are treated as separate and never mixed, regardless of geographic proximity.

The officials who would come to a village were the District Commissioner and the *gtso drag*. These, in conjunction with the local Headman, selected nine *miser* who were both very familiar with the particular area in question and who were also considered to be trustworthy and honest. These nine *miser* executed the first part of the examination. This consisted of carefully examining the various fields<sup>8</sup> of each family to establish the seed capacity (i.e. the amount of seeds which could be sown). Since the unit of measurement used with items such as seeds is of great importance to the study of taxes, I shall interrupt the narrative to explain it.

For measuring grain products, salt, etc. the unit is called *khal*. One *khal* is equal to 20 *bre*, and one *bre* is equal to six *phul*. One *khal* is that amount of grain, etc. which fits into a standardized box called 'bo or *mkhar ru*. As seen in the attached diagram,<sup>9</sup> there is a container in the *mkhar ru* which when filled equals one *bre*. This *bre* container is further compartmentalized into three sections each consisting of 2 *phul*. All official *mkhar ru* must be examined and approved by the Finance Office of the government. These approved boxes have the seal of the government affixed to them. I estimate that one *khal* equals about 27 pounds (3 *khal*=one Indian maund; one maund=82 plus lbs.). There are other size units which have local application, such as *slug gu* and *gdong* in *Gtsang*, but as far as government taxes are concerned, these local measures are ignored and *khal* is used.

The nine *miser* chosen to make judgements on the *khal* sowing capacity for each field did so in an interesting manner. In order to prevent recriminations on the part of their fellow villagers later, these nine persons made their estimate secretly. Each was given pebbles which, on the basis of color, had some value. Thus, white stones might be equal to one *khal* and black pebbles to one *bre*. If he thought that the field in question had a capacity of 5 *khal* and 3 *bre* he would secretly put into a box five white stones and three black ones. To ascertain the total seed capacity of a field, an average was taken of the estimates of the nine persons. This

measurement was called *son 'gro rdog bskor* (amount of seed seen first hand). I have used the term field repeatedly, and although in a projected book this will be discussed in detail under the earlier chapter on Land Tenure, I have appended a diagram of a typical cross-section of an estate. (See note 8).

The second stage in the examination required the categorizing of each field of a family in question on a tripartite scale: good, medium, poor. The basic criterion for this categorization is the quality of the soil: is it sandy, are there many rocks, etc. This step attempts to equalize size with productivity. Thus, for fields judged medium, one fourth of the estimated seed capacity is subtracted, and for fields judged poor, one third of the estimated seed capacity is subtracted (i. e. if in step one a field was estimated to have a seed capacity of 6 *khal*, if the field was judged good, the figure stayed the same; if it was judged medium, one fourth was subtracted and the seed capacity was changed to 4-1/2 *khal*; likewise if the field was poor, one third was subtracted and the revised seed capacity was 4 *khal*).

The third stage consisted of the District Officials making out a detailed report on the situation in the village or village group under examination. This report, called a *sa tho* (earth list) included such diverse things as: name of family, number of members, age and sex of members, etc. Also in this report was a detailed evaluation of the geographic and climatic conditions for the area under examination as a whole (i. e. amount of rainfall, irrigation facilities, etc.). This report was sent to the *ad hoc* Land Settlement office in Lhasa for their final decision.

These officials in Lhasa then proceeded to check the old records of both the 1740 settlement and the various *sgo khra* (census and land data collected and assembled by district for each government *miser* family) and *'byed khra* (the equivalent of *sgo khra* except for aristocratic estates and religious estates). From these they would be able to ascertain the number of *rkang* or *'don* each family had in the past, as well as the number of *khal* which was considered to equal one *rkang* in that area. Combining this data and the new report, the officials recalculated the number of *khal* which in that area would be considered as one *rkang*. In general, one can say that one *rkang* usually equalled about 80 *khal*, but it could vary from 60 to as high as 120 *khal*.

The decisions were entered into the new settlement only in relation to the number of *rkang* (or 'don) a family held. A typical entry would be something like this: "The government miser *Khang pa gsal*, who is under the *Gong dkar* district and the *skyid gzhung* estate, possessed three and one fourth *rkang*". Thus, although two families may have the same total amount of *rkang*, depending on the area and quality of land, the seed capacity may be different. Thus, if a *rkang* in my area equal 100 *khal*, and in another area 50 *khal* for every 100 *khal* of seed we both plant, he pays twice as much tax as I do. Therefore there was some equalization between areas and land productivity.

The totality of such reports and decisions such as the one described above comprised the new land settlement. In 1830 this was completed, and since that year was the iron tiger year (*lcags stag*) the new settlement is known as the *lcags stag zhib gzhung*. The original copy of this, without any subsequent changes or additions, was kept in the Monk Secretariat (*yig tshang*). The Finance Office had a copy with the later additions and each district had that portion of the whole settlement which was relevant to it. Anyone can go to the Finance Office or the District Commissioners' office and have a copy of the section relevant to him made.

At the time of the compilation of the 1830 land settlement, some special kinds of deductions were awarded. One of these, called *ngo chag* (face deduction) was a deduction of one 'don from the total calculated to those families who hereditarily serve as government officials. Another of the deductions was the *dmag chag* (military deduction). For every soldier that a family provided to the government, one *rkang* was deducted from the total amount.

In the year 1831, one year after the *lcags stag zhib gzhung* had been completed, the government distributed copies of that settlement in all places of Central Tibet, and requested miser and lords to come forth and reveal discrepancies and errors in that settlement. The procedure for doing so was simply to go to the District Commissioner's residence and inform him of a claim. He would then re-examine the settlement with the help of the *gtso drag* and *rgan po* (as discussed before), and on his report, the 1830 settlement was either amended or not. The total of these awards was called

the *lcags yos zhib mchan* (*lcags yos zhib gzhung gi mchan*—the footnote settlement of the year 1831---iron hare). Rather than bind in a new book, these corrections were written in on the 1830 version and then affixed with the seal of Council of Ministers.

This revised land settlement is the basis of taxation in Central Tibet. Except for a few taxes which are not based on the amount of land held by a family, and the exceptions in three districts, all taxes are calculated from the determination made then. The three districts which I just mentioned work under a slightly different system.

About thirty years after the 1830 settlement, the Council of Ministers again felt that there was a dire need for a new settlement. Due to changed conditions, the taxes levied (in particular those levied on government *miser*) had become overbearing and widespread desertion had and was occurring by government *miser*. To devise a scheme to rectify, or at least prevent this, the Council of Ministers, after discussing it with the Regent and summoning a Full Assembly (*Tshogs 'du rgyas 'dzoms*), arrived at a new scheme which they wanted to first test in three districts whose size and composition would be representative of the rest of the country. From among the larger districts *Rgyal rtse* (Gyantse) district was chosen. From among the medium sized districts *Rnam* district was chosen, and from the smaller districts *Dbang ldan* district was selected. Of the officials appointed to form another *ad hoc* office, the ranking ones were one Finance Minister and one high Monk-Official (*mkhan che*).

In actual examination of the fields, etc. everything was done the same way as had been done for the 1830 settlement. However, as has been stated in connection with the standardization of the seed capacity for one *rkang*, the usual area was a village, or at most a few small villages. In this experiment, a considerable number of villages of government *miser* were administratively grouped into rather large units. Then the Council of Ministers appointed the lord of either an aristocratic estate or a religious estate which was located close to this government *miser* unit to be responsible for the government *miser*. This device was known as *glang ske be'u 'dogs*, the meaning of which is illustrative of the burdens involved. The calf (*be'u*-government *miser*) is fastened (*'dogs*) to the neck (*ske*) of the bull (*glang*). In other words, it was the responsibility

of the aristocrat or lord of the religious estate chosen to see to it that the government *miser* did not desert and that they paid their taxes. The means they had to use to do this were up to them but such things as making loans to the government *miser* in bad times was one of the common modes. If a government *miser* fled his land and responsibilities, these fell literally by default to the lord in question. He would then have to supply the labor from his own *miser* to supply the corvee labor and pay the taxes in kind himself. To perform this overseeing function, the lords selected one of their *miser* to act as their representative. He is called *sde pa glangs*. Although this placed a tremendous burden upon the monasteries and aristocrats chosen, it should be said that in general the government chose only those lords who were very wealthy and who had very large land holdings.

This settlement was completed in 1864 in the *shing byi* (wood mouse) year and is therefore known as the *shing byi zhib gzhung*. As this settlement was rather successful, plans were considered to expand this to the rest of the area taken in by the 1830 settlement, but due to internal problems such as the revolt in *Nyag rong* and the military engagements of the government with Ganden monastery over the machinations of the Abbot *Dpal ldan don grub*, it never materialized. Therefore, up until the present time, all but these three districts in Central Tibet paid taxes according to the 1830 revised estimate.

There are several ways in which a family can have the land settlement revised without necessitating a whole new settlement. One of these ways, called *rkang gzhung*, consists of a re-apportionment of the *rkang* in a limited area by the *miser* themselves. As we shall see later, the main tax levied is levied on a village area within which the *miser* have collective responsibility to pay. Due to changes in the relative wealth of one family, if it is not equalized with changes in his tax payments it could cause tremendous hardship. This *rkang gzhung* was the means by which they could continually keep the apportionment of taxes up to date. However, as far as the government was concerned, this was invalid and not taken into account by the government officials.



Another way to change the settlement is by *bkrus chag* (cleansing deduction). This way is more important than the *rkang gzhung* mainly because it is officially recognized by the government. Like the above device, this can be made at any time. It is generally done when a *miser* or lord has lost some of his fields due to damage by floods, land slides, etc. If such occurs, the *miser* has to solicit the support of the other *miser* in his village. They then draw up a petition explaining the situation and all affix seals to it. This is sent to the Council of Ministers, who then order the District Commissioner of that area to investigate the claim. The District Commissioner then, with the aid of the *gtso drag* and Headman will examine the *miser's* fields in the standard manner and send their report back to the Council of Ministers. They, in turn, will forward the report to the Finance Office, who, if the claim was thought to be valid, have the job of determining the amount of the re-evaluation of *rkang*. The Finance Office, when it has reached a decision, then sends everything back to the Council of Ministers, who, if they agree, send it to the Dalai Lama or Regent for his seal. After that, the proper correction is made in the copy of the 1830 settlement kept in the Finance Office with the seal of the Council of Ministers affixed. The district will of course also be notified.

For those nomads who live in Central Tibet, their taxes are based on *rkang*, the same as agricultural tax payers, but the basis of the *rkang* is the amount of pasturage a group (*shogka* or *'tsho shog*) holds. Unfortunately, I do not know the size of these *rkang*. In the 1830 settlement no mention is made of how much each nomad family owns—only the general size of the pasturage fields.

I shall try to present a brief summary of the categories of taxes relevant to Central Tibet. First, we can divide them into two segments: those based on land holdings and those not so based. By far the more important are the former. We can further sub-divide the former into *rkang 'gro* and *lag 'don*. In general, we may consider *rkang 'gro* as a kind of corvee tax and *lag 'don* as a tax in kind or money.

I mentioned earlier that there are three types of estates: government, aristocratic and religious. It is best to consider them separately. Of the first type, government estates, the land-holding families, all of whom are *miser*, pay both of

the above types of tax directly to the government. Of the other two types of estates, the lord pays both of these taxes to the government, but in return he arranges for the *miser* of his estates to pay these two types of tax to him. While there are variations of this between aristocratic and monastic estates, they are basically very similar.

The order of the actual discussion of taxes will be as follows: first the *lag 'don* and second the *rkang 'gro* on each of the types of estates.

On government estates all the *miser* (who have lands) have to pay the following four *lag 'don* taxes: *rgyal po lo khral*, *smoṇ brngod*, *rgya bsos* and *shing brngod*.

1. *Rgyal po lo khral*—this is the largest of the four *lag 'don* taxes. It is traditionally calculated to be paid in grain (*'bru*). For every *khal* of seed (from the average worked out at the time of the *zhīb gzhung*) the *miser* family must pay one *khal* of grain. Of this grain, about 1/4 had to be paid in barley flour (*rtsam pa*). The equivalence is that for each *khal* of grain the *miser* family has to pay 1-1/2 *khal* of flour (*rtsam pa*). This flour is called *smoṇ brngod* since it is used to pay the monks in Lhasa during *smoṇ lam* festival. Thus, if I plant 4 *khal* of seed my *rgyal po lo khral* tax is 4 *khal* of grain. Of this I have to pay 1/4 in flour, or in this case, one *khal*. Since for every *khal* of grain I must give 1-1/2 *khal* of flour, my total *smoṇ brngod* tax would be 1-1/2 *khal* of flour.

All of the *miser* in *Gtsang*, and most in the other provinces who live far from Lhasa, pay this *smoṇ brngod* in money. I do not know for certain what the ratio of exchange for flour and money was, but I think it was about 2 *zho*<sup>10</sup> for every *khal* of flour. The flour and money is collected by the respective districts and turned over to either the *rtse gnyer tshang pa* or the *rtsam las khungs*. It has been fixed which area pays to which office, and in general, we can say that those nearer Lhasa pay to the former. Also, some districts on the border use these taxes to purchase foreign items such as tea.

Let us get back to the *rgyal po lo khral* tax again. There is no concordance between the various areas on what they pay. Within the general term grain (*'bru*) there are

three kinds: *nas* (barley grain), *sran ma* (lentil peas), *dro* (wheat). Also, various areas have special products" such as oil, paper, butter, etc. which can be interchanged with the formal grain tax. In effect, each district has what is called a '*bab gzhung*', document in which are recorded the amount and kind of produce or money paid as *lag 'don* taxes.

3. *rgya bsos* tax. This is more standardized than the above two. For each *rkang* a *miser* family holds, I think  $7\frac{1}{2}$  *skar* has to be paid. This is collected by the District Commissioner and turned over to whoever is *rgya bsos dbu re* of that year. This is not much money and most of it is used to pay the salaries of the sweepers in Lhasa, and part of the wages of those who turn giant prayer wheels in Central Tibet. Whatever is left over is stored in the *Rtse rnam sras gan mdzod*.

4. *shing dngul* tax. This, it seems, was formerly a tax paid with wood (*shing*) by the *miser* and later transformed into money. It is the same for Central Tibet. For every *rkang* of land, I believe the sum of 2 *zho* and 5 *skar* has to be paid. The District Commissioner collects this and sends it to the *Shing gnyer Las khung*.

There is another *lag 'don* which is really a livestock tax. For Government *miser* who have male yaks of four years or older, there is a tax of 5 *sho* and 5 *skar* called *rgyab dod*. For female yaks, the tax is two *nyag*<sup>12</sup> of butter. I do not know the exact amount of taxes for cows, bulls, goats and sheep. This tax is not continually re-appraised. Whatever it was when it was originally made, a very long time ago, has not been changed up to the present.

There is another type of *lag 'don* tax about which I am not completely conversant, but will discuss what I do know. This is in reference to the various groups (*tsho shog*) of nomads in Central Tibet. They are mainly found in the following districts: *sna rtse*, *gling*, *gri gu*, *gong dkar*, *'phyong rgyas* and *rgyal rtse*. These nomads are found near the lakes in these districts. In *gzhis rtse*, *gling dkar*, *rnam gling*, *lha bu*, *rgya mtsho* districts there are nomads, but they do not live near lakes. Most of these nomads have in the last 100 years acquired small agricultural fields which they hold under a lease-tenure. In the 1830 settlement the *rkang* was established only according to the amount of pasture

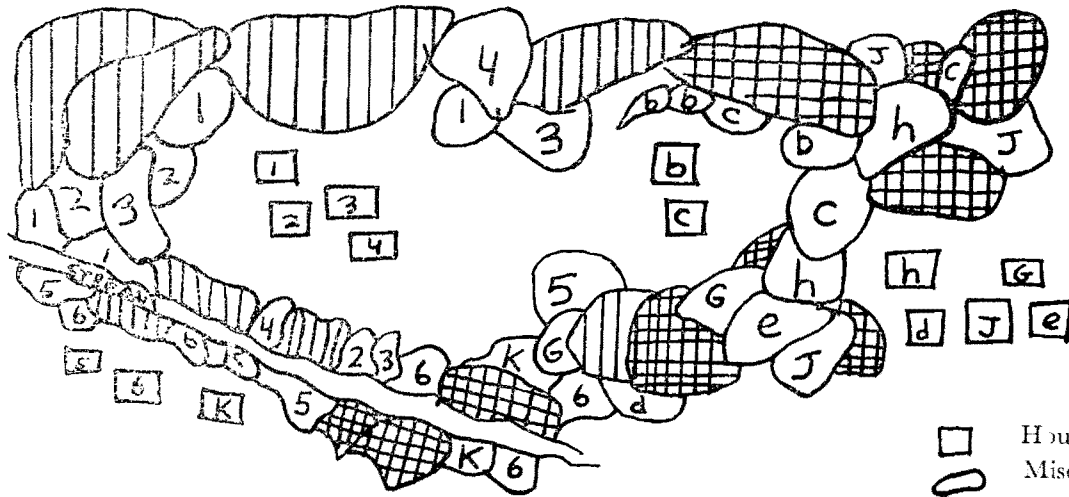
land. I do not know what the exact tax rates are, but for their *lag 'don* tax they pay basically in meat (yak meat-*sha nag*, sheep meat-*sha dkar*). These nomads, or at present semi-nomads, are organized into large groups '*tsho shog*' numbering about 40 families. Within each '*tsho shog*' there are smaller units of a few families which also have names. The government collects its taxes from the '*tsho shog*' as a whole and it is the problem of the '*tsho shog*' itself to determine the payments. Also, these semi-nomads pay the *shing dngul* and the *rgya bsos*.

All these taxes are paid every year, the deadline being the 25th day of the 10th Tibetan month, the date of the important holiday commemorating the death of the doctrinal founder of the *dge lugs pa* sect, *Tshong kha pa*.

#### NOTES

1. Although all of the government estate is measured in *rkang*, taxes are only collected from the actual fields of the government *miser* (see note 4).
2. These districts are: *gnya' nang*, *skyid grong*, *rong shar*, *rdzong dga'*, *shel dkar*, *gting skyes*.
3. The Full Assembly consists of: all the government officials except the Regent and the Ministers of State (*bka' blon*); all the acting and retired Abbots of Sera, Drepung and Ganden monasteries; the personal representative of Ganden *Khri Rin po che*; one official from Tashilunpo and Sakya; representatives from the larger *Bla brang* (see note 7): *kun bde gling*, *tshe smon gling*, *ra sgren*, *tshe mchog gling*; about ten representatives of the Lhasa '*tsho pa*' (those persons in charge of Lhasans who pay house tax).
4. *Miser*—this is a term for which there is no English equivalent. Basically, it refers to an individual who is bound to the land of a lord. In Tibet the lord can be monastery, aristocracy or government. These peasants cannot be deprived of their land, but also cannot leave the land without permission of their lord. A *miser* can flee, but if he is apprehended within three years, he will be punished and returned to his lord.
5. In the total picture, the most important function of the *gtso drag* is that he is responsible for maintaining the proper level of grain in the district's storage houses. Thus, when the District Commissioner changes every three or four years, the difference between the amount of grain in the record books and the actual amount, he has to replace.

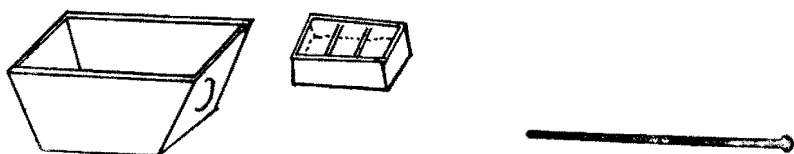




- House of Miser
- Miser's fields
- ▨ Government's fields
- ▩ Aristocrat's fields

Letter in house and field correlates home and field of aristocrat's Miser while number correlates those of government Miser.

6. It was generally thought that the Headman was the official of a village in the geographic sense, i.e. whoever lived in the geographically limited area fell under his jurisdiction.
7. *Bla brang*—refers to the residence of an incarnate lama. It often is a large land holding unit and in this sense is considered, along with monasteries, as a religious estate.
8. A typical situation of land holdings would be as on opposite page :
- 9.

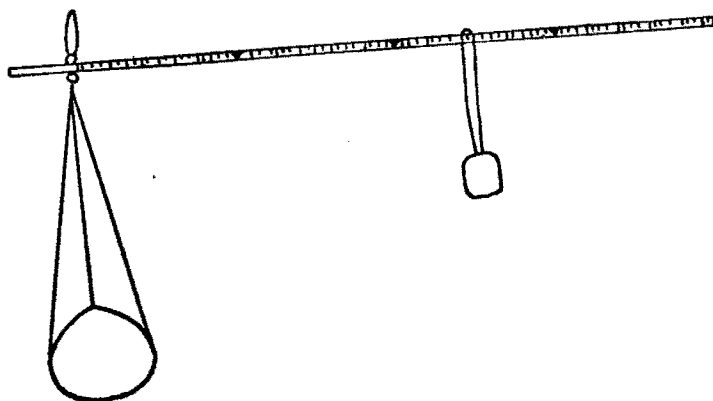


10. The breakdown of currency is as follows: the basic unit is *srang*. Formerly this was weighed by *rgya ma* (see note 12), a unit used in measuring silver or gold. *Bal tam* (or *bar snying*): Nepalese coins used in Tibet which originally equaled 1 *sho*, 5 *skar*, but later, according to government orders, were valued at 4 *srang*. *Tam dkar*: coins first minted in 1782 in Tibet. They originally had the same value as *bar snying*, but later were equal to 4 *srang*. There is also a coin worth 10 *srang* called *sgor mo srang*. These three coins are silver. There are also paper *srang*: 100 *srang*, 25 *srang*, 10 *srang*, 7 *srang*, 5 *zho*, 5 *srang*. There are three copper *zho* coins: five, three and one *zho* coins. There are three copper *skar* coins: 7-1/2, 5, 2-1/2 *skar* coins.

One *srang* equals ten *zho*, which equals ten *skar*. To give an idea of the value of money: in about 1860 in Lhasa, 1 *khal* of grain cost 3 *zho* (there is an office in Lhasa which still goes by the old rates), in 1950, 1 *khal*=about 20 *srang*, by 1958, 1 *khal* about 150 *srang*.

11. For example: from *sne gdong* district and *rin spungs* district some payments are in oil; from *mtsho san*, *rgyal rtse* and *gsang sngags chos* districts they are in paper.

12. *Rgya ma* is a measure for butter, wool, cheese, salt, yak tail, meat, etc. One *rgya ma* equals 20 *nyag*, one *nyag* equals 4 *spor*. By calculating it with Indian maunds, 1 *rgya ma* equals 6-1/2 lbs. Like the *srang*, inflation hit this unit. In about 1860 1-1/2 lbs. *khal* of butter was worth 1 *srang*. (1 *khal* of butter equals 20 *nyag*), in 1950 in Lhasa 1 *khal* of butter equaled 20 *srang*, and in 1958 1 *khal* of butter equaled about 300 *srang*.





## PRIMITIVE MAIZE WITH THE LEPCHAS

—J. K. THAPA

The determining factor regarding the maize plant being of the New World origin is that this plant was unknown in any part of the Old World before Columbus discovered America in 1492. Of course, there are other important factors to be also considered on the origin of maize plant.

Recently two Japanese scientists (Suto and Yoshida, 1956) referred to the statement recorded by the famous Chinese Naturalist, Li Shih-Chen that a pod like corn was introduced to China from India via Tibet in 1368. This date is questioned by other investigators who supposed that the time was about middle of the 16th century.

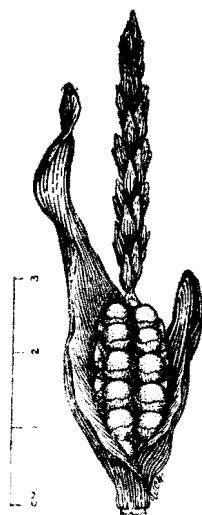
The date 1368 recorded by Li Shih-Chen cannot be ruled out. It is a fact that long before the discovery of the New World by Columbus, Buddhist Missionaries both Indians and Tibetans communicated between India and Tibet across the Himalayas, and commodities along with ideas travelled from India to Tibet. It is thus possible that the "pod like corn" was collected from one of the maize growing areas of the Himalayas rather than the plains in the South.

The Tibetan word Ma-rmos-pai-lo-tog (མར་མོས་པའི་ལོ་ཐོག) is invariably taken to mean maize particularly in Tibet, Bhutan and Sikkim. According to Sarat Chandra Das (*Tibetan-English Dictionary*, p.949) the word means: "wild crop, crop grown without being cultivated; also maize (Yig)". The Tibetan reference 'Yig' (rgya-bod yig-tshang) dates back to a period before the discovery of America.

Thus the inference from Chinese as well as Tibetan records is clear that maize was not unknown in the Old World during the pre-Columbian era. The question whether the maize was introduced from the Old World to the New World or from the New World to the Old World will have to wait till the recently discovered archaeological evidence of pre-historic and proto-historic contacts between the two Worlds is fully studied.

One of the most primitive maize races in the world was revealed to two foreign scientists (E.W. Sprague and N.L. Dhawan) in various parts of Sikkim in 1962 (Vide Fig 1 and Fig 2). This living (or surviving) specimen bears, in the opinion of the present writer, the closest resemblance to the wild maize of which an actual specimen in fossil was uncovered (1960) in the lower levels of San Marcos Cave in Mexico. The paper entitled 'Domestication of Corn' (by Paul C. Mangelsdorf, Richard S. Mac Neish, Walten C. Galinat, published in *Science*, February 7, 1964, Vol. 143. No.3606, pages 538-545) contains a reconstruction of the wild corn from the fossil fragments as reproduced herewith:

Artist's reconstruction of wild corn based on actual specimens of cobs, husks, a fragment bearing male spikelets and kernels discovered in San Marcos cave. The fossils date back to 4000 B. C. ( Courtesy : *Science* Washington, D. C.)



Also it is of interest to note that the edible coix is quite different from a number of hard-shelled coix collected in Sikkim. The Sikkimese name for maize and coix is the same (Kan-tsong=ཀཎ་སྟོང་) except that the latter possesses a prefix to indicate it as Devil's Maize.

Nearly all the plant hunters who explored these areas during the British regime were British and naturally noticed items of the local flora which had resemblance with their own; items like maize were not adequately studied. It is needless to say that the modern sophisticated discipline in which anthropology and economics are tools for palaeobotany and botany has not been tried in this part of the Old World and all the hilly areas of the South East Asia have not been surveyed by botanists interested in the origin of the maize.

## SIKKIM PRIMITIVE MAIZE

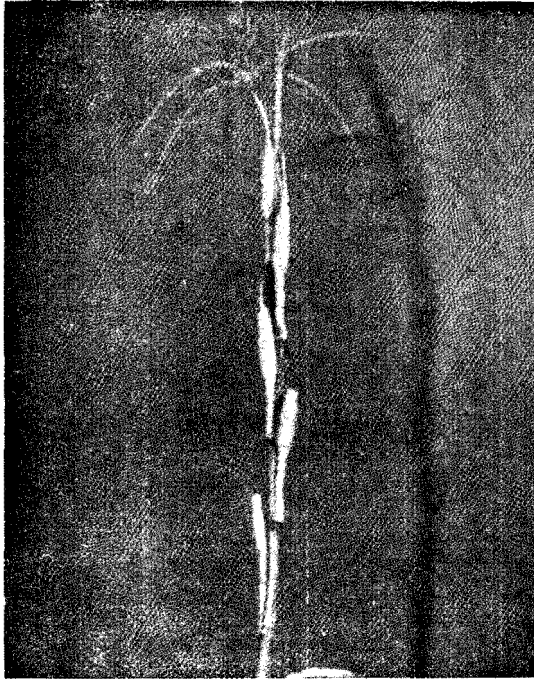


Fig. 1

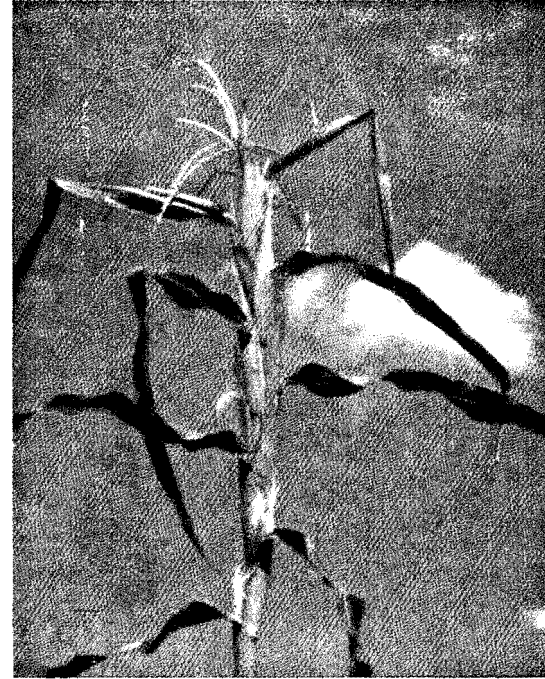


Fig. 2

Courtesy : ICAR Coordinated Maize Improvement Scheme



Exactly when and how maize was introduced to the hilly areas of the South East Asia, where people of the Tibeto-Burman stock are still practising 'Jhum' (Shifting) type of cultivation, is not known yet. It is a fact that in many of these areas, maize ears are offered to the deity before harvesting the crop. This offering of maize ears is indeed an ancient tribal custom, a kind of 'thanksgiving' offering, in the Eastern Himalayas. Thus, the Lepcha ritual of offering the ears of corn holds the key to this problem. It is no mere accident that though Sikkim is the Valley of Rice, Lepchas, Tsongs etc. place the highest premium on the ear of corn (maize) and not the ear of paddy (rice) in their tribal rituals inherited from prehistoric times.

On the basis of the above mentioned facts, there is more than an element of chance that adequate references to maize plant may be found in ancient Tibetan literature and archaeological remains in Himalayas and Trans-Himalayas.

Thus, one can look forward to discovery of the living specimen of the elusive 'Wild Corn' in some remote areas of the Eastern Himalayas in the near future.

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AN  
ART BOOK  
FROM  
NAMGYAL INSTITUTE OF TIBETOLOGY

**RGYAN-DRUG MCHOG-GNYIS** (Six Ornaments and Two Excellents) reproduces ancient scrolls (1670 A.C.) depicting Buddha, Nagarjuna, Aryadeva, Asanga, Vasubandhu, Dinnaga, Dharmakirti, Gunaprabha, and Sakyaprabha; reproductions are as per originals today after 300 years of display and worship with no attempt at restoration or retouching. The exposition in English presents the iconographical niceties and the theme of the paintings, namely, the Mahayana philosophy; the treatment is designed to meet also the needs of the general reader with an interest in Trans-Himalayan art or Mahayana. A glossary in Sanskrit-Tibetan, a key to place names and a note on source material are appended. Illustrated with five colour plates and thirteen monochromes. Price: Rupees Twenty Five (India, Pakistan, Ceylon, Nepal, Bhutan and Sikkim) or Fifty Shillings (other countries).

## WAS THE SIMLA CONVENTION NOT SIGNED ?

—NIRMAL C. SINHA

### I

Dr. Alastair Lamb, the brilliant young scholar, who has brought to light much about the conflict of three empires (Manchu, Romanov and British) in Asia, has raised an issue over the signature on the Simla Convention. In his Chatham House Essay entitled *The China-India Border* (Oxford University Press, 1964), Lamb says that the parties meeting at Simla did not sign the Convention, that the Convention was "initialed" (the spelling "initialed" is Lamb's and has a significance no doubt) and that the "initialed" document cannot have the legality of an accepted agreement. In the words of Lamb "Initialing can imply no more than that the delegates have accepted the initialed text as the valid text arising from the negotiations. To become binding the agreement would have to be signed and, probably, ratified" (p.51, fn.15).

This note will only present certain indisputable facts, facts which bear out whether the Convention was the finally agreed document or not. No attempt is made here to go beyond published state papers and such records.

### II

The Chinese Plenipotentiary eventually left the Conference and the Chinese Government did not accept the Convention. The Plenipotentiaries of Britain and Tibet signed a declaration to the effect that the Convention was to be binding on the Governments of Britain and Tibet and that in the absence of China's ratification China was not entitled to any privileges accruing from the Convention (Aitchison: *Treaties, Engagements*, Vol XIV, Calcutta 1929, pp. 21 & 38).

With the Anglo-Tibetan Declaration and its subsequent communication to Russia—the other party in the Great Game in Asia, the Simla Convention was a *fait accompli* between Britain and Tibet, whatever was the nature of the signature of either Plenipotentiary. In Lamb's finding, however, this

*initialed* text could not “become” a “binding agreement”. Lamb does not much notice the Anglo-Tibetan Declaration\* and focusses his microscope on the initials of Henry McMahon, the British Plenipotentiary. Indeed McMahon affixed his initials and, while Lonchen Shatra the Tibetan Plenipotentiary affixed his full name, the Tibetan signing\*\* was also described as initials, obviously to observe uniformity. In either case the initials were accompanied by the seal of the Plenipotentiary. Now initials with seal can be as good as signature with seal. The seal is the essence of such agreement. Thus the subtle distinction drawn between initials and signature is not of that consequence as Lamb holds. The words in the concluding article of the Simla Convention are relevant: “In token whereof the respective Plenipotentiaries have signed and sealed”. [Whatever the coinage “initialed” may mean, “to initial” means “to sign with initials” while “to sign” (a state paper) means “to put a seal upon” (it). Vide *Shorter Oxford English Dictionary on Historical Principles*, 1959 edn.]

Secondly, on the same date (3 July 1914) Britain and Tibet signed an agreement entitled Anglo-Tibet Trade Regulations. This agreement was a sequel to the Convention. Its preamble reads “Whereas by Article 7 of the Convention concluded between the Governments of Great Britain, China and Tibet on the third day of July 1914...” The word *concluded* is unambiguous and categorical while the mention of China was necessary under the declaration which kept the door open for China’s return. The Convention by Article 7 had cancelled the Tibet Trade Regulations of 1893 and 1908 and provided for a framing of fresh regulations between Britain and Tibet. Hence the Anglo-Tibet Trade Regulations of 1914. The basis of the 1914 Regulations is the Simla Convention (even date); in fact these Regulations were the corollary to the Convention. Now if, as Lamb’s novel finding indicates, the Simla Convention was not signed, these Trade Regulations had a defective preamble and had thus no valid basis. The evidence of all events between 1914 and 1947 (when independent India succeeded to Britain’s rights under the Simla Convention and the Trade Regulations), and more correctly till 1954 (when India made fresh agreement with China), militates against such novel finding about the Simla Convention.

Thirdly, Tibet all through considered the Convention as well as the Regulations as valid instruments of her foreign



policy. The Regulations stood testimony to Tibet's right to conclude a treaty without China's participation at any stage. This document carried besides the signature of Lonchen Shatra the seals of the three monasteries and the National Assembly; McMahon's full signature was accompanied by seal. In the opinion of Tibetan monk-officials the two documents, the Convention and the Regulations, were but two parts of one treaty and the signatures and seals appended to the Regulations covered fully both documents. The Tibetans, as much as the British, worked to enforce their rights under the two documents. The Dalai Lama corroborates the signing and conclusion of the Simla Convention thus: "the Chinese government refused to sign it; and so Tibet and Britain signed alone, with a separate declaration that China was debarred from any privileges under the agreements so long as she refused to sign it" (*My Land and My People*, Bombay 1962, p. 70).

Last, and certainly the most important, affirmation of signing comes from China and the People's Republic of China.

Lamb (p.51) "was surprised to find that no less than six publications, some of them the work of lawyers, state or imply that the Convention was signed on 3 July 1914 by the British and Tibetans". None of the authors of these books is a Chinese and Lamb seeks redress in a book "by two Chinese (but definitely non-Communist) writers", that is, Shen & Liu: *Tibet and Tibetans* (Stanford 1953). This book, as Lamb says, "does not mention that (i.e. the document) of July 3 at all". Indeed this book does not mention any uncomfortable fact like that of July 3. It is however not clear why Lamb does not notice in this connexion the book by another definitely non-Communist Chinese writer, that is, Li: *Tibet Today and Yesterday* (New York 1960). This book not only features in Select Bibliography of Lamb's Chatham House Essay but it also anticipates much of Lamb's arguments about the alleged imperfections of the Simla Convention. The author of this book (Li) "has faith in Asian nationalism but detests those who make all sorts of pretenses in the name of nationalism" and condemns all claims to Tibet's secession from "the multi-nationality country" (pp.xiii-xiv). Li speaks thus about the signing of the Simla Convention: "As the Chinese delegate had already made it clear that he was instructed

not to sign, the British and Tibetan delegates affixed their signatures on July 3, 1914" (pp.139-40).

Now from definitely non-Communist to definitely Communist sector of Chinese opinion. At the Sino-Indian boundary discussion the delegation of the People's Republic of China stated thus: "Premier Chou En-Lai and Chinese officials do not deny the fact that the then Tibet local representative signed the Simla Convention". (*Report of the Officials of the Governments of India and the People's Republic of China on the Boundary Question*, New Delhi 1961, p.CR-26, bottom para ).

[In the Chinese view, however, this signature is "illegal" because "Tibet had no right to conclude treaties separately". The issue under consideration here does not need any discussion of the Chinese view of Tibet's title to sign treaties in 1914. Here I seek to prove the signing of the Convention and propose to discuss separately the political and legal implications of the fact of signing.]

So there is agreement between Britain, Tibet and China re: the fact of signing the Simla Convention. Lamb's contention based on "the initialed text" loses all force in the face of Chinese affirmation. An *amicus curiae* who witnesses a dispute cannot himself initiate a dispute on a point on which the parties are in agreement.

#### NOTES

\*Text of the Anglo-Tibetan Declaration as recorded on page 140 of the Report of the International Commission of Jurists entitled *Tibet and the Chinese People's Republic* (Geneva 1960):

"We, the Plenipotentiaries of Great Britain and Thibet, hereby record the following declaration to the effect that we acknowledge the annexed convention as initialled to be binding on the Governments of Great Britain and Thibet, and we agree that so long as the Government of China withholds signature to the aforesaid convention she will be debarred from the enjoyment of all privileges accruing therefrom.

"In token whereof we have signed and sealed this declaration, two copies in English and two in Thibetan.

"Done at Simla this 3rd day of July, A. D. 1914, corresponding with the Thibetan date the 10th day of the 5th month of the Wood Tiger year.

A. Henry McMahon,  
British Plenipotentiary

(Seal of the British Plenipotentiary.)

(Seal of the Dalai Lama.)

(Seal of the Lonchen Shatra.)

(Seal of the Drepung Monastery.)

(Seal of the Sera Monastery.)

(Seal of the Gaden Monastery.)

(Seal of the National Assembly.)"

(Signature of the Lonchen Shatra)

**\*\*Tibetan signature:** It is appropriate to point out that the Tibetans do not and cannot initial. Both their custom and script rule out initialing as known in the West. The Tibetan signs or not; for a Tibetan there is no third category between the two.

In affixing signature to a treaty or such state paper a Tibetan dignitary has to prefix in his own hand his lineage (monastic or lay) and his rank (and/or designation). In keeping with this tradition the Tibetan Plenipotentiary at the Simla Conference prefixed his signature with such details as he suffixed it with the seal.

The two maps (27 April 1914 and 3 July 1914) illustrating the boundaries bear the full signature of the Tibetan Plenipotentiary; the first bears the full signature of the Chinese Plenipotentiary also; the second bears the full signatures along with seals of both Tibetan and British Plenipotentiaries. (V. Photographic reproductions of the two maps in *Atlas of the Northern Frontier of India*, New Delhi: Ministry of External Affairs 1960).

## Notes & Topics

### THE HIMALAYAS

The general reader with an interest in our field constitutes a considerable sector of circulation of the *Bulletin of Tibetology*. In response to queries of the general reader about the role of the Himalayas in the history of Chos (Dharma) as well as in secular history we have collected a number of articles. Some are exclusively for the general reader and some both for the general reader and the specialist. The next issue of the *Bulletin* will carry these articles.

Professor P. P. Karan writes on the regional geography of the Himalayas, Professor Nalinaksha Dutt on Buddhism in Nepal, Mr. B. D. Sanwal on Nepal and Mr. R. N. Haldipur on NEFA.

To these Professor Buddha Prakash may add an article on the Himalayas in Sanskrit literature, Professor Nirmal Kumar Bose on Himalayan anthropology, Mr. N. K. Rustomji on Bhutan and Gyalmo Hope Namgyal on Sikkim.

NCS

## OBITUARY: RELON ATHING SONAM DADUL

Born on 13 November 1885 Relon Athing Sonam Dadul passed away on 10 November 1965. Relon Athing was a Founder Member of the Namgyal Institute of Tibetology and was an active collaborator of the Gyalshe Rimpoche (now The Denjong Chogyal) in building up this Institute.

Relon Athing had a long record of public service under four Chogyals in various capacities as Commander of the Guards, Private Secretary, Judicial Secretary and General Secretary. His distinguished services covering half a century and more account for much of Sikkim's annals. Till a few years ago, when a motor-car accident severely injured him and affected his memory somewhat, he was the living archives of Sikkim and the neighbouring countries, and the most indispensable reference medium for a student of history. Many investigators of modern history of these regions laid under contribution experiences and recollections of Relon Athing.

The panorama of past in which—besides the Denjong Chogyals—the figures were Dalai Lama XIII, Francis Young-husband, Charles Bell, Raja Dorji, Williamson and Basil Gould, would open up before the inquisitive visitor and the episodes of history would reveal as if on a television screen. On this screen one leading role in the drama was however conspicuously absent and that was Relon Athing himself. Here was a narrator of history who would efface his own role as an actor. He was a maker of history who, in consonance with the highest teachings of The Buddha, had altogether liquidated the "I". To take only two of the many delicate tasks which Relon Athing had to discharge, the boundary dispute with Bhutan and the visit to Lhasa after the Expulsion of the Manchu, his reminiscences would be the envy of the highest standard of modern civil servant.

I write under a sense of personal loss and seek to record my humble tribute as a student of history to a great scholar who was even greater as a man.

NIRMAL C. SINHA



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