THE PROTO-LOLO-BURMESE AND OLD BURMESE SOURCES OF WRITTEN BURMESE -AC*

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Original English Abstract

It is a notable fact that some Written Burmese (WrB) morphemes in -ac are rather consistently spelt with -at when the initials are, or are interpretable as, with medial -y-. Thus WrB hrac ‘eight’ is written in some early Pagan inscriptions as hyat or het. Similarly, we find Old Burmese (OB) nhat for WrB hñac ‘to squeeze’, OB cat for WrB cac ‘to examine, investigate’, OB khya for WrB khñac ‘to love’ and OB mryat for WrB mrac ‘root’. On the other hand, the majority of the WrB morphemes in -ac are more consistently spelt with -ac or -ec. To give only a few examples, OB phlac, phlec for WrB phrac ‘to be become’, OB tac, tec or even tic for WrB tac or ta- (in composition with classifiers and in some other phrases) ‘one’, OB nhac or nhec for WrB hñac or hna- (in composition with classifiers) ‘two’, OB (ʔa-)nhac for WrB (ʔa-) hñac ‘year’, OB nhac for WrB hñac ‘heart’, OB ʔac- or ʔec- for WrB ʔac- (older sibling)’ in WrB ʔac-ʔaɪ ‘elder brother’ and ʔac-ʔaɪ ‘elder sister’. Side by side, with OB hyat or het and OB khya, however, we encounter variant spellings such as OB rhec and OB khñac. Likewise, phlet and ʔat- are variant forms of OB phlac ~ phlec and OB ʔac- ~ ʔec-. In spite of this, it is not inconceivable that WrB -ac would be the result of merger of two distinct OB finals.

However, OB evidence alone should not be considered sufficient to lead to any definitive conclusion on this matter. It is necessary that our assumption should be supported by the comparative studies of the modern Burmese dialects and the related (Lolo-Burmese) languages. Unfortunately, all the modern Burmese dialects, to my knowledge, seem to have lost the distinction if ever, between these finals, as WrB did. The only remaining way is then to have recourse to the related languages.

* As a scholar of the Tibeto-Burman language family, Professor Yoshio Nishi has made significant contributions to the study and understanding of numerous languages including Akha, Tibetan, Tamang, and a variety of languages spoken in the Himalayas. However, Burmese is the language that he particularly revisited in his career. At his retirement most of his research on Burmese was anthologized in Four Papers on Burmese (Tokyo, 1999), a book that remains the definitive handbook on questions of Burmese historical phonology. Nonetheless, two of his early papers, because they were written in Japanese, were excluded from that anthology. JEALS here partly rectifies this lacuna by providing an English translation of one of these articles, namely "ビルマ文語の-acについて Birumabungo no -ac ni tsuite" [On -ac in Burmese] 東洋学報 Tóyó gakuhō / The Journal of the Research Department of the Toyo Bunko 56.1 (1974): 01-43. Although JEALS prefers short footnotes, Nishi’s extensive and insightful endnotes are here retained. In addition, Nathan W. Hill (SOAS, University of London) has added editorial footnotes to provide references to relevant publications. The ignorance of this article among Anglophone experts in (Lolo)-Burmese historical phonology amply demonstrates the need for its translation. For example, Matisson reconstructs Proto-Lolo-Burmese *ʔ-riʔ ‘eighth’ (Handbook of Proto-Tibeto-Buman, Berkeley, 2003, p. 56) on the basis of Written Burmese rhec, showing no awareness of Old Burmese hyat and het nor of Nishi’s paper, let alone his argument for the reconstruction of the rime *-yat in this etymon. One can hope that the availability of the article in English will forestall such oversights in the future.

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In the present study, I have aimed to show primarily on a comparison of OB and WrB with Akha that *-(y)at* may be set up for Proto-Lolo-Burmese as the source of OB -*(y)at* and hence WrB -ac being derived from at least three distinct PLB finals: *-ik, *-it and *-(y)at*.

As a corollary of this, we have to assign a twofold value to OB c- and ch- as either an alveolar or an (alveo-) palatal affricate according to their original value in the earlier stage, which eventually merged into an (alveo-) palatal in WrB.

Although I have treated it subsidiarily in the present paper, there is further OB evidence that warrants the assumptions set forth therein. In parallel with the OB distinction between -ac ~ -ec and -*(y)at we also note that WrB -añ is written as -añ ~ -eñ, -e(h) ~ -añ, or -(y)an in OB. By and large, the OB distinction between the first two and the last seems to be still well preserved as oral: nasal final throughout the modern Burmese dialects. The WrB orthographic tradition had curiously failed to reveal it until quite recently a reform of the orthography introduced -añ’ (ñ-ngè) to represent the WrB forms whose corresponding OB forms had the nasal final /-in/. Accordingly, this distinction might be restored to OB (and PB) even on the basis of the modern Burmese dialects alone. In spite of the difficulties (which may be considered only accidental due to the paucity of data) to establish such sets of the LB cognate forms whose final corresponds to WRB -añ’, as ‘sour’ WRB kyáñ’ Ark. théñ RKS : Tav, cī PMT, chin -sin NT; Bis kyân’; Akh yɔ cɛv PL, jɔ-tshè NT; Lis chè3 JOF, kyj NT; Lah (-shi) tseh NT, I have tentatively set up PLB *-(y)an in parallel with *-(y)at in view of the resulting symmetry of the PLB phonological system.

Keywords: Old Burmese, historical phonology, Burmese epigraphy, Lolo-Burmese, Tibeto-Burman

ISO 639-3 codes: akh, atb, bur, bzi, lhu, lis, mhx, obr.

1 The philological evidence for distinguishing -yat

It is a conventionally recognized fact that certain morphemes with a final spelled as -ac in Written Burmese (WrB) are written as -at in Old Burmese (OB). In such cases, the OB -at initial either includes (or can be interpreted to include) the medial -y- from which it is presumed that the medial -y- is a condition for OB -at $>$ WrB -ac.

1. OB yət (LEM no. 41=pl. 134a/31), het (EM no. 3=pl. 364a/2, 3): WrB hrac ‘eight’
2. OB ḫat (hrac) (EM no. 41=pl. 134a/4): WrB hıac ‘to squeeze’
3. OB cat (hrac) (EM no. 31=pl. 78a/33): WrB cac ‘to examine, investigate’
4. OB khyat (EM no. 5=pl. 5/13-14 (personal name); EM no. 3=pl. 73/21): WrB khyac ‘to love’
5. OB mərt (GHL II, p. 34, Chittagôn Votive Tablets pl. 43; EM no. 5=pl. 5/9-10: (personal name):
   WrB mərat ‘root’

On the other hand, in WrB a majority of morphemes ending in -ac are written rather consistently in OB as -ac $>$ -ec.

1. OB phlac (EM no. 2=pl. 110/15; etc.) $>$ phlec (EM no. 1=pl. 303/1, 17, 18; etc.): WrB prac ‘to be, exist’
2. OB tac (EM no. 1=pl. 303/2, 4, 8-9, etc.; etc.) $>$ tec (EM no. 1=pl. 303/6, 8; etc.) $>$ tic (EM no. 4=pl. 111/6-7, 72, 83, etc.; etc.): WrB tac $>$ ta- (when coupled with a classifier) ‘one’
3. OB nhac (EM no. 3=pl. 364a/2, 13, etc.; etc.) $>$ nhec (EM no. 1=pl. 303/2, 6, 4; etc.): WrB hnac $>$ hna- (when coupled with a classifier) ‘two’
4. OB (ñ)nhac (EM no. 3=pl. 364a/1, 22, 132; etc.): WrB (ñ)nhac ‘year’
5. OB nhac (EM no. 3=pl. 364a/21; etc.): WrB hnac ‘heart’ (sometimes also written as hna- in compound words, as in hna-lâm ‘id.’)
6. OB ñac (EM no. 3=pl. 77/2; etc.) $>$ nec (EM no. 20=pl. 13/20; etc.): WrB ñac- ‘older sibling’ (appears in ñac-kii ‘elder brother’, ñac-mà ‘elder sister’).

From yet another angle, however, along with OB hyat $>$ het and khyat, one can also witness such instances as OB rḥac (EM no. 1 = pl. 303/3) and khyač (EM no. 14 = pl. 29/17 (personal name)) and contradictory variants can also be found in relation to OB phlac $>$ phlec, ñac $>$ nec, as in OB phlet (UM I, p. 46, Chittagôn Votive Tablets, pl. 55), ñat (EM no. 34 = pl. 138/11). Regardless of these mutually contradictory variants, the distinction in OB between -*(y)at and -ac is generally quite consistent; originally there existed two distinct
finals that corresponded to this written distinction, these finals later (probably in late OB) fully merged, a
fact that seems to be reflected in WrB -ac.  If it were possible to juxtapose a chronological array of all
variants of OB corresponding to the morpheme written as -ac in written language, only then might we be
able to draw a conclusion with a certain degree of confidence. However, at present, besides the fact that such
an exhaustive array of OB variants is practically impossible, more importantly, it is impossible to come to a
decisive conclusion regarding this problem solely depending on the spelling used for OB. Therefore, the
comparative study of dialects of contemporary Burmese and Proto-Lolo-Burmese (PLB) becomes necessary.
Unfortunately, even if the two finals were once phonologically distinguished, they have become fully
integrated in contemporary Burmese dialects, just as in written language, and the distinction appears to have
been completely lost. Accordingly, the only method left is to rely on a comparison between Burmese and the
relatively closely associated Lolo-Burmese (LB).

In what follows, focusing chiefly on a comparison between Akha and OB/WrB, I attempt to show that
OB -(y)at had its origins in PLB *[-(y)at and therefore WrB -ac derives from at least three different PLB
finals.

2 The comparative evidence for distinguishing -(y)at

In relation to WrB -ac, the following general correspondence rules may be posited for Akha finals:

(1) WrB -ac : Akh -ēʔ PL, -r NT
   1. ‘to twist, sprain’ WrB kyac ‘to twist, tight and, braid’: Akh gē^ ‘to sprain something’
   2. ‘to notch’ WrB thac ‘to notch’, ṭa-thac ‘a notch’; Akh ‘sɛ, tɛ, ’a notch’, sɛ,tɛ,tɛ. ‘to
      make notches’ PL
   3. ‘to cut’ WrB tac ‘to cut in pieces’, ṭa-tac ‘a piece, bit’; Akh dē^ ‘to cut in a hacking
      motion, usu. with a machete’ PL, ds tshe ‘to cut’ NT
   4. ‘to exist’ WrB phrac ‘to be, exist, become; to be prach-cable’, Akh pyė, ‘to be, exist’
      PL
   5. ‘to shoot’ WrB pac ‘to throw, cast, shoot’; Akh bē^ ‘to shoot’ PL, pς ‘id.’ NT
   6. ‘pheasant’ WrB rac-:, Akh gi^ NT
   7. ‘to twist, wind’ WrB rac ‘to wind around, encircle’; Akh yė, ‘to twist’, yɔyɛ, ‘to be twisted
      PL, jɛ ‘to twist’ NT

(2) WrB -ac : Akh -iiʔ PL, -uu NT
   1. ‘joint’ WrB ṭa-chac ‘a joint’, pu-chac ‘a knee’; Akh a’ τsiʰ ‘a joint in bamboo,
      sugarcane, etc.’, yɔ, τsi, ‘the joints (in a body)’, la, τsi, ‘the elbow’, a ki
      pɔ, τsi, ‘the knee’ PL, là tsu ‘elbow’, ṭa-khū po-tsu ‘knee’ NT
   2. ‘to be new’ WrB sac ‘to be new, not old’, ṭa-sac ‘new’; Akh yɔ ssi, ‘new’ PL, jo-ʃu ‘to
      be new’ NT
   3. ‘elder sibling’ WrB ṭa-ac (‘elder sibling’) ṭa-kúa ‘elder brother’, ṭa-mà ‘elder sister’; Akh
      a_yi, ‘elder brother, older sister’

(5) WrB -ac : Akh -iʔ PL, -i NT
   1. ‘one’ WrB tac; Akh ti, PL, tĩ NT
   2. ‘two’ WrB hna; Akh ni, PL, ni NT
   3. ‘seven’ WrB kha-hna ~ kha-nac; Akh ʃi, PL, ʃi NT

(8) WrB -ac : Akh -ēʔ PL, -e NT
   1. ‘to scratch’ WrB kyac ‘to scratch earth out of a hole in the ground, as an animal’; Akh jɛ,
      ‘to scrape, rake, shave away’ PL

99
2. ‘to examine, compare’ WrB cac ‘to examine, investigate, scrutinize’; Akh ʔa.ɛε ‘to compare the height of two people by having them stand together’, yuʔaeʔhɔ ‘to take and compare two things’ PL

3. ‘to squeeze, catch’ WrB hñaɛ ‘to squeeze, as if to extract something, to squeeze and express’; Akh nyeʔ ‘to catch with hands’, nyeʔ̱dɛ ‘to squeeze, into’, nyeʔ̱te ‘to hold on without letting go’ PL, ŋɛ ‘to catch’ NT

4. ‘to be drunk’ WrB yac ‘to be drunk, intoxicated’; Akh yeʔ ‘to be full of anything you drink’ PL, jɛ ‘to get drunk’ NT

5. ‘eight’ WrB hrac; Akh yeʔ PL, je NT

What we first notice here is that the OB forms for WrB cac ‘to examine,’ hñaɛ ‘to squeeze,’ and hrac ‘eight’ indicated in our WrB-Akha correspondence rule (8) are respectively cat, ŋhat, and yhat ~ het (~hrac), and when considered inclusively of the OB form, this general rule could be posited as OB -(y)at (WrB -ac) : Akh -ɛʔ PL, -e NT. This fact is further clarified by comparing with the following parallel general correspondence rule:

(7) WrB -at : Akh -ɛʔ PL, -e NT
1. ‘spirit’ WrB nat; Akh neʔ, ‘a spirit’ PL, ne ‘ogre, spirit’ NT
2. ‘solid substance’ WrB ʔa-phaʔ ‘what remains of a thing after the liquor or juice is extracted’; Akh dzav pe̥ ‘a solid food’ PL
3. ‘sambar deer’ WrB chat; Akh xaʔ, tseʔ PL, tse NT
4. ‘to break, be brittle’ WrB ‘to be brittle, easily broken’; Akh tseʔ ‘to break off/apart’ PL
5. ‘to kill’ WrB sat; Akh seʔ PL, sè NT

(9) WrB -wat : Akh -ɛʔ PL, -e NT
1. ‘to be hungry, thirsty’ WrB mwat; Akh meʔ, me PL, me NT
2. ‘leech’ WrB kwat; Akh a.yeʔ PL
3. ‘flower’ WrB wat-cham ‘the stamen, anther and pollen of a flower’; Akh a.yeʔ PL, ʔa.ɓo jɛ NT
4. ‘to pour’ WrB swat ‘to put into, generally implying a small opening’; Akh šeʔ aʔ ‘to pour into’, šeʔˈbyǎ ‘to fill up to the brim’ PL

For correspondence rule (7), the fact that we could set PLB*-at is somewhat certain even without referring to other LB languages. In line with this, we could also set PLB *-yat and *-wat for correspondence rules (8) and (9).

In correspondence rule (5), while the equivalent forms in Akha are respectively -iʔ PL and -i NT, there are also examples of these Akha finals that correspond to WrB -it; conversely, there are also examples in which WrB -it corresponds to Akha -iʔ PL and -u NT.

(3) WrB -it : Akh -iʔ PL, -i NT
1. ‘to close eyes’ WrB hmit ‘to shut (the eyes), wink with the eyes’; Akh mya̱niʔ.mi̱ ‘to close one’s eyes’ PL
2. ‘to extinguish’ ?WrB hmit ‘not to appear, as color’; Akh mi(ʔ)-i ‘for a fire to go out’, laʔni̱ mi̱ ‘to put out a fire’ PL ɗizà lá mi ‘to extinguish a fire’ NT
3. ‘goat’ WrB chit; Akh ci.meʔ, ~ ci.me PL

(4) WrB -it : Akh -iʔ PL, -u NT
1. ‘to pinch’ WrB chit; Akh tsiʔ PL, tsùu NT
2. ‘beard, moustache’ WrB mut-chit ~ mu-chit; Akh me,ciʔ PL (<*me,tṣiʔ), cf. Lis mû^{5}; tsiʔ JOF, mih-tsu NT
For correspondence rules (3) and (4), we could posit PLB* -it. In Akha, although this *-it is split into (3) -iʔ? PL, -i NT and (4) -u?-PL, -u NT, the conditions for this divergence are clear. Moreover, we may postulate that correspondence rule (5) has its origins in this PLB* -it. In that case, the split into -ac or -it depends on whether the initial consonant is an alveolar stop or an alveolar nasal. For the remaining correspondence rules (1) and (2), the PLB forms that we might respectively posit are not sufficiently clear just from a comparison between WrB and Akha. In addition, I will now expand the scope of our comparison a little in order to verify the PLB forms posited earlier.

(1) WrB -ac : Ats -ik : Mar -ak : Bis -r : Akh -čʔ? PL, -r NT : Lis -iʔ JOF : Lah -i JAM

1. ‘to twist, sprain’ WrB kyac; Akh ɟę^ PL
2. ‘to notch’ WrB thac; Akh tė PL
3. ‘to cut’ WrB tac; Akh dę^ PL, də NT
4. ‘to exist; to be able’ WrB phrac; Akh pyę PL, Lah pi ‘to be able, skilful at’ JAM
5. ‘to shoot’ WrB pac; Ats pik; Mar pǎk, Bis pr, Akh bę- PL, bə NT
6. ‘pleasant’ WrB rac; Akh gę- PL
7. ‘to twist, wind’ WrB rac; Akh yę- PL, jì NT; Lis shd JOF, Lah šī JAM

(2) WrB -ac : Ats -ik : Mar -ak : Bis -u : Akh -čʔ? PL, -u NT Lis -iʔ- -iʔ- i JOF, -u NT : Lah -iʔ- i JAM

1. ‘heart’ WrB hnač; [? Akh ni ma PL, nuu ma NT]; Lis nʔ- ma JOF, nʔ- ma NT; [? Lah ni-ma JAM]11
2. ‘joint’ WrB chac; Mar tšăk; Bis -ts斥ü; Akh -tsi PL, -tsu NT; Lis -tsi - -tsi JOF, -tsu NT; Lah ci NT
3. ‘tree, wood’ WrB sac; Ats sik; Mar săk; Lis -siʔ - siʔ- JOF, šiʔ NT; Lah šēʔ- JAM
4. ‘to be new’ WrB sac; Ats sik; Mar săk; Bis šù; Akh -ši PL, -ši NT; Lis šh6 JOF, -ši NT; Lah ši JAM14
5. ‘elder sibling’ WrB ŷac-; Akh -yę PL, Lis -yę JOF, Lah -yı JAM15


1. ‘to give, bestow’ Akh bi PL, bi NT; Lah peʔ(6)
2. ‘goat’ WrB chit; Akh ci PL Lis -chi6 JOF, -shi NT; Lah -chéʔ JAM17
3. ‘to move’ Akh ji PL; chī6 JOF; Lah ji? JAM18
4. ‘to extinguish’ [?WrB hmit]; Akh mi- PL, mi NT19
5. ‘to close eyes’ WrB hmit; Akh mi PL
6. ‘to reap, harvest’ WrB rit ‘to reap, mow, shave’; Lis rgh6 ‘to cut, reap, as paddy’ JOF; Lah yʔ - yęʔ ‘to cut, as with a sickle, harvest’ JAM20

(4) WrB -it: Akh -iʔ PL, -u NT; Lis -iʔ JOF, -u NT; Lah -iʔ JAM

1. ‘to pinch’ WrB chit; Akh tsɁ PL, tsu NT; Lis hts6 JOF; Lah chiʔ JAM21
2. ‘beard, moustache’ WrB -chit; Akh -čɁ PL (< *-tsɁ-); Lis -tsi6 JOF, -tsu NT; Lah -čiʔ JAM22


1. ‘one’ WrB tac; Akh ti PL, ti NT
2. ‘two’ WrB hnac; Akh nỹś. PL, ni NT\(^{23}\)
3. ‘seven’ WrB -hnac ~ -nac; Ats nỹyir; Mar nỹat; Akh šį. PL, šį NT\(^{23}\)
4. ‘to kick’ Lis hį^\(^2^\) JOF; Lab thẹ? JAM

1. ‘top, summit’ WrB thịp ‘a top, summit’; Akh (Verb) tu. ‘to the very top’ [m’tu ‘to have worked on a strip of field right to the top’] PL
2. ‘to lie down, sleep’ WrB ṭıp; Mar yàp; Akh yu. PL, ju NT; Lis ły^\(^{24}\) JOF, ỹi NT; Lah yỹ^\(^{24}\)
3. ‘to be thirsty’ WrB mwàt-sip ‘to be hungry or thirsty’; Akh mẹ.ẽ šuí-.ẽ ‘to suffer famine’ PL; Lis sỹ^\(^\) ‘to be thirsty’ JOF; Lah (i-kã?) ŋi ‘to be thirsty’ JAM\(^{25}\)

1. ‘spirit’ WrB nat; Phn dat (<*nat); Akh neο. PL, ne NT\(^{26}\)
2. ‘solid substance’ WrB phat; Akh -pe-. PL; ?Lah ỹ- phãʔ ‘second dish’ JAM\(^{27}\)
3. ‘to vomit’ Ats phat; Bis phẽ; Akh pe-. PL, phẽ NT; Lis hphẽ JOF, peʔ RB; Lah phẽʔ JAT\(^{28}\)
4. ‘to live, be alive’ Akh dẽ. ‘to live, have a life’ PL; Lah tẽ? JAM\(^{29}\)
5. ‘sambar deer’ WrB chât; Ats tshat; Mar tšheʔ?; Bis tšhe; Phn tchat; Akh xa, tse^\(^\) PL, tse NT; Lis htsye^\(^2^\) JOF\(^{30}\)
6. ‘to break, be brittle’ WrB chât; Akh tse^\(^\) PL; ?Lis hche^\(^6^\) ‘to break, as pitcher’ JOF; Lah chãʔ ‘to break into two’\(^{31}\)
7. ‘to bite, clump; bark’ ?Bis tšhe ‘to bite’; Akh tse^\(^\) ‘for an animal to carry some kind of food into mouth’, a,ki, tse^\(^\) for a dog to bark’ PL, ỹa-khũ tšhe ‘to bark’ NT; Lah chãʔ ‘to bite into’ JOF\(^{32}\)
8. ‘to kill’ WrB sat; Ats sat; Mar seʔ?; Bis seʔ; Phn sat; Akh seʔ PL, se NT; Lis sye^\(^6^\) JOF, se NT\(^{33}\)

(8) WrB -ac (OB -y(at)) : Ats -it : Mar -eʔ? : Akh -eʔ PL, -e NT : Lis -i/-ye JOF, -i/-eʔ RB, -e NT; Lah -il-i JAM
1. ‘love’ WrB kyāc (OB kyat); Ats -c̩i’t; Lah eį JAM\(^{34}\)
2. ‘to scratch’ WrB kyac; Akh jeο. PL
3. ‘to run’ Akh ce^\(^\) PL; Lis hchye^\(^2^\) JOF\(^{35}\)
4. ‘to examine, compare’ WrB cac (OB cat htsyat/); Akh ce^\(^\) PL
5. ‘to squeeze, catch’ WrB hńac (OB ṭhat /hnyat/); Akh nyę. PL, ŋe NT; Lis nỹy^\(^l^\) ‘to press’ JOF; Lah ni JAM\(^{36}\)
6. ‘root’ WrB mṛac (OB mṛyat); Ats ąmyit\(^{37}\)
7. ‘to be drunk’ WrB yac; Akh yeο. PL, je NT; Lis yỹ^\(^6^\) JOF\(^{38}\)
8. ‘eight’ WrB hrac (OB, yhat ~ hęt ~ rhac /hryat/); Ats šir; Mar šẽʔ?; Akh yeο. PL, je NT; Lis hỹ^\(^6^\) JOF, heʔ RB, he NT; Lah hỹ JAM\(^{39}\)

(9) WrB -wat : Mar -eʔ? : Bis -el-/et : Phn -at : Akh -eʔ PL, -e NT : Lis -él-ṛge JOF, -el-/u NT; Lah -eʔ/??
1. ‘to be hungry, thirsty’ WrB mwat; Bis bɔ; Phn bat; Akh me. PL, mè NT; Lis mr̥ge ‘to be hungry’ JOF, mü NT; Lah mə? JAM(49)

2. ‘leech’ WrB krawat; Mar wʔrʔ; [ʔPhn hǎt]; Akh a.ye. PL; Lis v̥e JOF, weʔ RB; Lah v̥eʔ JAM(41)

3. ‘flower’ WrB wát; Bis -we; Phn -v̥ou̥t; Akh -ye PL, -je NT; Lis -v̥e JOF, -w̥e RB; Lah -v̥eʔ(22)

4. ‘to pour’ WrB swat; Bis šə́t; Akh še. PL; Lah šēʔ(53)

In view of this (LB) correspondence rule ( WrB-Akha) correspondence rules, for correspondence rule (2), we could posit PLB*-ik. Similarly, in correspondence rule (6), although there are few examples, we can posit PLB*-ip. Accordingly, it becomes possible to integrate *i into all of PLB’s three stopped finals (*-k, *-t, and *-p). While it looks as though we can hypothesize *-ik in correspondence rule (1) as well, there are many problems inherent in doing so.

Matisoff reconstructs PLB’s stopped finals as presented in table 1:

**Table 1:** Matisoff’s reconstruction of PLB stopped finals.

<table>
<thead>
<tr>
<th>PLB</th>
<th>Akh-PL</th>
<th>Lis-JOF</th>
<th>Lah-JAM</th>
<th>Nyi</th>
<th>Ahi</th>
<th>WrB</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. *bek ‘give, bestow’ (no. 3)</td>
<td>bi^</td>
<td>pèʔ</td>
<td></td>
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<tr>
<td>2. *tek ‘kick v.’ (no. 14)</td>
<td>hti^</td>
<td>ð̥eʔ</td>
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<tr>
<td>3. *trek ~ *?trek ‘thunder, lightning’ (no. 67)</td>
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<tr>
<td>4. *?brek ~ *brek ~ *C-prek ‘be, exist; be able’ (no. 68)</td>
<td>pỹ̥</td>
<td>hpye^</td>
<td>ð̥eʔ/pi</td>
<td>di^22</td>
<td>di^2^2</td>
<td>phrac</td>
</tr>
<tr>
<td>5. *(s)-nek’wet’ (no. 150)</td>
<td>neʔ</td>
<td>na^4</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. *(r)-lek ‘testicle’ (no. 170)</td>
<td></td>
<td></td>
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</tbody>
</table>

Of these, on the basis of the reflexes in the Lahu(na) language, 1, 2, 3, and 5 do not seem especially difficult, except for the issue of whether we should distinguish between PLB *-uk and *-ok. (However, in some cases, I do not find that I necessarily agree with the reconstruction of individual rhymes or the identification of all cognates.) The problems associated with correspondence rule (1) concern the three finals consisting of *-ek and *-et in 4 and *-ok in 6. Therefore, let us examine these particular finals in more detail.

First, let us consider how Matisoff reconstructs PLB forms with these finals (JAM 1972):

**Table 2:** Matisoff’s PLB *-ek > Akh-PL -iʔl-ɛʔ : Lis-JOF -il-ye : Lah-JAM -ɛʔl-ɛʔl-ʔi : Nyi -t : Ahi -il-α : WrB -ac

<table>
<thead>
<tr>
<th>PLB</th>
<th>Akh-PL</th>
<th>Lis-JOF</th>
<th>Lah-JAM</th>
<th>Nyi</th>
<th>Ahi</th>
<th>WrB</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. *bek ‘give, bestow’ (no. 3)</td>
<td>bi^</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. *tek ‘kick v.’ (no. 14)</td>
<td>hti^</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. *trek ~ *?trek ‘thunder, lightning’ (no. 67)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. *?brek ~ *brek ~ *C-prek ‘be, exist; be able’ (no. 68)</td>
<td>pỹ̥</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. *(s)-nek’wet’ (no. 150)</td>
<td>neʔ</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. *(r)-lek ‘testicle’ (no. 170)</td>
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</tr>
</tbody>
</table>

**Table 3:** Matisoff’s PLB *-et > Akh-PL -ɛʔ : Lis-JOF -i : Lah-JAM -ɛʔ : Nyi -t : Ahi -il-α : Nasu -i : WrB -ac

<table>
<thead>
<tr>
<th>PLB</th>
<th>Akh-PL</th>
<th>Lis-JOF</th>
<th>Lah-JAM</th>
<th>Nyi</th>
<th>Ahi</th>
<th>Nasu</th>
<th>WrB</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. *b(y)et ‘vulva’ (no.5)</td>
<td>be.</td>
<td>bi^</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. *C-ket ‘break off a piece/chip off’ (no. 25)</td>
<td>x.</td>
<td>q̥eʔ</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. *kret ~ *Nkret ‘scratch/scrape/rasp’ (no. 97)</td>
<td>j̥.</td>
<td>g̥eʔ</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

103

<table>
<thead>
<tr>
<th>PLB</th>
<th>Bis</th>
<th>Akh-PL</th>
<th>Lis-JOF</th>
<th>Lah-JAM</th>
<th>Ahi</th>
<th>NHI</th>
<th>Nasu</th>
<th>Hani</th>
<th>WrB</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. ńpök ~ *ńpök/*ńbök ‘shoot’ (no. 108)</td>
<td>py</td>
<td>bę^</td>
<td>paw^</td>
<td>bą?</td>
<td>bą^</td>
<td>bą^</td>
<td>bą^</td>
<td>bą^</td>
<td>pok/phok</td>
</tr>
<tr>
<td>2. *sōk ‘scrape’ (no. 117)</td>
<td>sæ^</td>
<td>së^</td>
<td>së?</td>
<td>së?</td>
<td>së?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. *C-krök ‘stir/mix’ (no. 36)</td>
<td>kẹ.</td>
<td>chyά</td>
<td>khą?</td>
<td>khą?</td>
<td>khą?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. *ńtök ~ *ńtök ‘cut by a blow/hack away at’ (no. 101)</td>
<td>dé^</td>
<td>dą?/tą?</td>
<td>dą?</td>
<td>dą?</td>
<td>dą?</td>
<td></td>
<td></td>
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</tbody>
</table>

On the whole, the reconstruction of these finals relies on a correspondence between Akha and Lahu. Moreover, not only is it impossible to distinguish the finals of *-ek and *et solely on the basis of the corresponding forms of LB languages, but the type of vowel to postulate is also unclear. Matisoff proposes to resolve this lack of clarify by citing similar roots from other Tibeto-Burman (TB) languages in support of his argument as follows:

1. The example of *-ek
   1. PLB *bek ‘give/bestow’; Proto-Kukish *pe-k (Benedict’s reconstructed form)
   2. PLB *tek ‘kick’; Written Tibetan (=WrT) rdeg(s)-pa ‘to beat, strike, smite; to push, thrust, kick’; Garo (=Gar) ga-tek; Tang-khul Naga (TNag) kakkathak
   3. PLB *trek ~ *?trek ‘thunder, lightning’; Lushai (=Lus) trēek ‘lightning’
   4. PLB *(r)-lek ‘testicle’; WrT rlig-pa ‘testicle, stone’

2. The example of *-et
   3. PLB *kret ~ *nkret ‘scratch/scraper/scrap’; Kachin (=Kac) khrêt ‘to rasp, grate’, ᡶkhhrêt ‘to gnaw, as a mouse’, ᡶgrêrt ‘to scratch, as a thorn’; to graze, as a bullet’, makhrêt ‘to mark, as with a finger; to strike, as a match’

First, while PLB *bek ‘give/bestow’ is compared with Proto-Kukish *pe-k, judging from the correspondence rules for LB languages, it should rather be PLB *Pit (as in our correspondence rule (3)). This PLB form is compared with WrT sbyin-pa ‘to give, bestow’ (pf. and imp. byin); PTam*[^50], *pin-pa ‘to give,’ and so on (cf. PB 1972, (no. 427) TB *byi ‘give’). Similarly, according to correspondence rule (4), PLB *tek ‘kick’ should be PLB *Tit. Although *Tit may be considered here to have the same root form as WrT rdeg(s)-pa (pf. (b)rdegs, fut brdegs, imp. (b)rdegs) cited by Matisoff, the change **k > *-t could also be considered an assimilation of the suffix *-s (cf. WrB khvac (OB khvat) “to love” < PLB *Kyat < **Kyaks; WrT chags-pa ‘to love’).[^51] To reconstruct PLB *(r)-lek ‘testicle’ on the basis of Akh le- and WrT rlig-pa seems doubtful. If we were to insist on such a reconstruction, this would show a correspondence between PLB *-ek and WrB *-ig, which is unparalleled. In the case of ‘scratch/scraper/scrap’, apparently, the root that Matisoff posits should be divided into two: (1) WrB kyac, Akh je- and (2) WrB khvac, Lah gę?, with PLB initials *Ky- and PLB *Kr- respectively. Therefore, khrêt and similar terms in the Kachin language may be compared with group (2). Similarly, PLB *nkak ~ *?nkak ‘graze, as cattle,’ Akh ga‘; Lah qa‘ (JAM 1972, no. 105) is a case in which Matisoff seems to have neglected the medials. While Akh-PL g- derives from PLB *Kl/-*Kr-, Lah-JAM q- derives from PLB *K-, and it seems doubtful that both these forms share the same root. In comparison to Akh-PL ga‘, we may cite WrB kyak (OB klak) ‘to go out to feed, as cattle in a pasture,’ for which we can postulate PLB *Klak. In addition, since PLB *Pl- is available as a reconstruction for WrB Pr- : Akh-PL Py- : Lis-JOF P- : Lah-JAM P-, we should reconstruct PLB *Pl- for ‘be, exist; be able to,’ rather than *Pr-. When we begin investigating along these lines, the very possibility of creating a reconstruction that distinguishes *-et and *ek in PLB becomes doubtful. When we look at the remaining corresponding examples, we must first note that in the case of PLB*?brek ~ *brek ~ *C-prek ‘be, exist, be
able to’ (the medial, as discussed previously, should be *-I-, cf. OB *phlæc), this would be Akh-PL -ə? rather than -ɛ?. For the correspondence between Akh-PL pyɛ̆ and Lah-JAM phɛ? ‘be, be able,’ we have the following parallel examples:

**PLB *m-lyak ~ *ɛɁyak (causative) ‘lick, cause to lick’ (JAM 1972. no. 179), Akh myɛ̆, PL: Lah ìɛɁɪɛ (causative) JAM (; WrB Ɂyak; Ats yɔ, Mar yɔ, Bis bɛ, Aḥq mɛ̆ NT; Lis ɁrɛɁ JOF, lɛɁ NT; Nya: lɛɁ3), cf. also WrT Ɂjags ‘tongue;’ Lepcha Ɂyak ‘to taste, try;’ Gar Ɂrak ‘to lick;’ Lus liak; Mikir Ɂylek; TNgA khaməlek (cf. PKB 1972, (no. 211) TB *(m-lyak ~ *(s)-lyak ‘lick; tongue’)

While we have no objection to positing PLB *Ɂyak here, the change PLB *-ak > Akh -ɛ? PL, -ɛ NT is exceptional, the more typical correspondence is PLB *-ak > Akh -a? PL, -a NT.

1. ‘eye’ WrB myək; Ats myoʔ; Mar myoʔ; Bis mɛː; Akh myaʔ PL, mjə NT; Lis myɛ Ð JOF, mia NT; Lah mɛʔ JAM; Nya ne44; Aḥq mɛ 55; Nasu na 15 (JAM 1972, (no. 145) PLB *(s)-myək ‘eye’), cf. also WrT mig. PTam *mik, Chepang mik, Kac yəʔ?myɨʔ NT, myiʔ RB; Gar mik; Mikir mek; Lus mit; Nung mɛ ~ ne (cf. PKB 1972, (no. 402) TB *mik ~ *myək ‘eye’).

2. ‘day (24 hours); night; to spend overnight’ WrB *(ʔa)-rak ‘a complete day. of 24 hours’ (OB ryək) Akh ya. ‘to camp overnight’ PL; Lis hɛɁ ‘day’ JOF; Lah hə ‘to spend overnight’, hɛɁ ‘night;’ Aḥq xe26; Nya he26; Nasu xe26 (JAM 1972, (no. 174) PLB *(ʔa)rak ‘night/spend overnight’), cf. also WrT zəg ‘a day, the time from one sunrise to another’ Tamang ret < *ryak ‘day;’ Kac yəʔ ‘a natural day of 24 hours’ JAM; Lus rək ‘to spend overnight’ (cf. PKB 1972, (no. 203) TB *(ʔa)-ryak ‘day (24 hours)’ (In the PLB form, we should add the medial *-y-)

Furthermore, the -ye of Lis-JOF hpye6 ‘to become’ may be thought to derive from PLB *-yat/*-at (cf. PLB *-ak > Lis-JOF -a ~ -d). Accordingly, it seems that we can envisage three possibilities for the reconstruction of the PLB form of ‘be, exist; be able’:

1. We acknowledge this as a regular correspondence and assign its final.
2. We acknowledge an alternate form in the root word and consider it in a manner similar to PLB *Plik (> WrB phrc, Akh pyɛə PL, pɁ JAM) ~ *Plyak (> Lah phɛʔ) ~ *Plyat (> Lis hpye6).
3. We acknowledge either possible alternate forms as PLB form and regard any derivatives of the remaining alternate forms as conditional or exceptional changes.

Under these conditions, it seems that we cannot deny any of these possibilities. However, correspondence rule (1) has the lowest probability. Furthermore, there is a possibility of positing PLB *Nyak for Lah nɛʔ JAM: Nya na 44. Let us refer to ‘to lick’ above as well as the following example:

‘next’ Lah nɛʔ-qhəʔ ‘next year’; Nya na 44 ‘next’ (; Akh na ya xo. PL, na ja xo NT ‘next year’; Lus kəd-na ‘after’ JOF) (JAM 1972, (no. 151) PLB *-nyak)

However, there is also ‘sticky’ Lah nɛ: Nya nɛ 22 (JAM 1972, (no. 154) PLB *-nyak). In relation to this example, it follows that while we cannot deny the possibility of being able to posit a final such as PLB *-ek, there is a possible risk of postulating a PLB final solely on the basis of correspondent forms in Lah-JAM and Nya. For the PLB form of ‘vulva,’ there is the possibility of positing *Pyat (> Akh bɛ, PL, Lis bi 5 JOF) ~ *Pyak (> Lah pɛʔ JAM). Thus, there are very few reliable examples to underpin PLB *-ek or *e. Moreover, examples in which we can posit *-ɛ*/*-ɛ- for finals other than PLB stopped finals seem almost non-existent. Therefore, it will be necessary to further investigate the remaining examples.

Although Matisoff cites the examples WrB -ok as reflexes of PLB *-ək, rather than WrB pok ‘to go off accidentally, as a gun,’ phok ‘to fire, as to discharge a gun, in order to empty the barrel,’ and tok ‘to fill; to cut by a single light blow,’ as cognates to Akh bɛə PL (by NT); Bis pr ‘to shoot’ Akh dɛ, ‘to cut in a hacking motion,’ we could instead compare these with WrB pac and tac, as indicated in our correspondence rule (1). In particular, since we can cite the etyma given below for WrB pok and phok, it is clear that we cannot compare them with Akh bɛ, PL; furthermore, Lis paw ‘to shoot’ and paw ‘to explode’ may be considered the selsame morpheme.
to explode, pop’ WrB pok, phok ‘to cause to explode’ (pok-pok ‘pop-corn’), Akh bo^ ‘to pop, as rice’ PL; Lis paw’ ‘to explode, shoot’ JOF; Lah põò ‘to crack, snap, explode’ JAM (cf. JAM 1972, (no. 103) PLB *Npuk ~ *puk ‘explode/pop’)

Although Matisoff cites WrB prok-prok ~ byok-byok ‘crackingly’ and bok ‘a kind of plant... so called because its seed makes a cracking sound when pressed,’ the former, in particular, is suspect. Nonetheless, overall, the correspondence Akn -ê? PL : Lah -ô? JAM seems fairly certain, and I have no objection, for the moment, for positing a PLB final to explain this.

As shown above, if considered only on the basis of the corresponding examples found to date in relation to our correspondence rules (1) and (2), the fact that we can define the divergence conditions for Akha, even if only in the form of a list, means that we can posit *-ik. Nevertheless, there are problems attesting common roots in the corresponding examples in correspondence rule (1), and examples may be included that could possibly fall under other correspondence rules. On these points, further examination will be necessary. As additional cognates are assembled in the future, it may indeed become necessary to postulate separate finals for each of the respective correspondence rules.

Reflecting on the correspondence between OB/WRB and Akha, it seems possible to arrive at the following conclusion:46 OB -ac ~ -ec reflects at least two contrasting PLB finals (*-ik, *-it), whereas OB -(y)at reflects PLB *-(y)at. These two contrasting OB finals merge in WrB (in fact, probably in late OB) as -ac.

3 Resolving some remaining complications

According to aforementioned conclusion, the OB form for the WrB for the OB form itself cited in correspondence rule (8) could be interpreted as follows. 1. OB */kyat/ (WrB khyac) ‘to love’, 2. OB /khyat/ (OB khyat, WrB khyac) ‘to love’, 3. OB /hnyat/ or /hñat/ (OB hñat, WrB hñac) ‘to squeeze’, 4. OB /lyat/ (/lc=ts) or /çat/ (/ç=tc or tf) ‘to examine,’ 5. OB /mryat/ (OB mryat, WrB mrac) ‘root’, 6. OB */yat/ (WrB yac) ‘to be drunk,’ 7. OB */hryat/ (OB rhac ~ het ~ hyat, WrB hrac) ‘eight.’ With respect to OB /hny-t/ or /hñ-t, /cy-t/ or /ç-t/ and /hry-t/, I shall mention each of these in turn, but for now, advancing the discussion in line with our interpretation, when OB -at is preceded by -y or an (alveo-)palatal consonant, it will merge in WrB with OB -ac ~ -ec and receive expression as -ac. However, for example, in Judson’s Burmese-English Dictionary, we find the following examples listed, which, at a glance, might be thought to run contrary to our conclusion, if only slightly.47

1. kyat- (only in comp.), e.g. kyat-mré ‘blue, clay’, etc.
2. chat ‘a large species of deer, the sambur’
3. chat ‘to be brittle, easily broken’
4. chat ‘to be quick, sudden in motion; to be irritable, snappish, quick-tempered’
5. chart=chac ‘to hew (stone)’
6. chat ‘to peck (a flint); to pound rightly and gently in a mortar
7. chat-hyë=khyë chat ‘to squeeze’
8. chat-swa ‘the sail-leaf screw pine’
9. chat-chat ‘distinctly’
10. phyat ‘to be quick in speech, fluent’
11. phyat-phyt lû ‘to toss from side to side’

3.1 Some internal variation in WrB

If, according to the aforementioned conditions, OB -at > WrB -ac holds, then all these forms ought to have been spelled with -ac. Nonetheless, with regard to the WrB forms, in fact, we must take the following points into account.

(1) The OB medial -l- in late OB or WrB is split and integrated with medials -y-(OB Kl-/Kly-) or -r-(OB PL/-ML-). Furthermore, by the time we reach CB, WrB r will have been integrated with y. This results in confusion in the use of r and y in WrB spelling, which has continued to the present day. For example, Judson’s dictionary lists a considerable number of forms that recognize r ~ y variants.
pyac ~ prac ‘to weave (thatch)’, pyó ~ pró ‘to be quite ripe, very soft’, phyân ~ phrán ‘to sprinkle, scatter a liquid’, phyac ~ phrac ‘to sputter, crackle, snap, crepitate’, myú ~ mrú ‘a liquid measure of various capacity’, hmyóŋ ~ hmróŋ ‘to fasten on lengthwise’, hmyúk ~ hmrók ‘to singe, scorch, burn slightly’, yì ~ rì ‘to be rotten, as cloth’, etc.

Furthermore, when we compare with dictionaries other than Judson’s, not only does the certification of these variants differ but there are also cases where y is recognized even while r is recognized elsewhere. Here, comparing Judson’s dictionary with examples taken from Chen Ruxing’s 模範緬華大辞典 Mofan mian hua da cidian (Rangoon, 1962; reprinted at the Tôyô Bunko: Tokyo, 1970), we are presented with the following examples.

Examples:

1. Judson
   
   kyō ~ krô ‘the back’
   kyô ~ kró ‘to fry’
   khywê ~ khrwê ‘sweat’
   pyó ~ pró ‘to be quite ripe’
   phyân ~ phrán ‘to splinkle’
   phyâc ~ phrac ‘to sputter, crackle’
   hmyóŋ ~ hmróŋ ‘to fasten lengthwise’
   yì ~ rì ‘to be rotten’

   etc.
   
   2. phyân ‘to separate (enemies)’
   myok ‘monkey’
   mrok etc.

Note that with WrB verbs, in some cases, transitive and intransitive (causative) verbs are differentiated on whether their initial consonants are voiced or unvoiced or aspirated or non-aspirated, and although there are only a few examples, some transitive forms (aspirated/unvoiced) recognize r ~ y variants.

Examples:

   krok ‘to be afraid’: khrok ~ khyök ‘to make afraid, frighten’
   krwé ‘to fall off’: khrwê ~ khywê ‘to cause to fall’
   mruik ‘to be singed’: hmrúkuik ~ hmyúk ‘to singe’
   yut ‘to be inferior, mean’: hrut ‘to put down’ (~ hyut Chen)

   etc.

In such cases, we might consider several ways of ascertaining whether y or r is the correct form: 1. Refer to the OB form of the problematic WrB form. 2. Look for equivalent forms in Burmese dialects (e.g., Arakanese). 3. Reconstruction by comparison with equivalent forms in other LB languages. 4. Comparative study of WrB documents and texts similar to the orthographic dictionaries (sat-pùm kyâm).48

(2) Similar to the cases of -y- and -r-, the distinction between the WrB form of the final sounds -t and -p, which is caused by the phased merger of final stops in WrB, seems to have become obscured. Nonetheless, in the following examples, there are very few examples of confusion as compared with the cases of -y- and -r-.

Examples

1. kyap ‘a kind of spirit, an elf, a goblin’ (Judson) / kyat (Chen)
2. cok-pat ‘the labia pudenda’ (Judson) / cok-pap=ʔa-pap (Chen)49
   cf. also pap-‘to be a crevice, chap, crack open; to be chapped, as the face, lips, or hands’; ʔa-pap ‘a fold of certain trees, whether constituting the stalk, as in the plantain, or otherwise, as in the bamboo, the cane, etc.; the calyx of a flower’ (Judson)
3. cup-tát ‘a writing brush’ (MTA; cf. NT 1972, no. 601) / cut-tát (Judson, Chen)
4. ta-chip ‘one hao (unit of measurement)’ (MTA; cf. NT 1972, no. 651) / ?ta-chit, a pinch, a small quantity’ (Judson, Chen)
5. ṭa-chup ‘the lungs’ (MTA; cf. NT 1972, no.541) / ṭa-chat (Judson, Chen)
6. grwat ‘a kind of mineral’ (Tha Myat) / krwap (~ gywat) ‘bismuth’ (Judson, U Wun, Chen)50)

Accordingly, from these two perspectives, we first need to consider examples 1–11. Unfortunately, with the exception of examples 2 and 4, for which we can cite cognates in LB languages, we lack the required evidence. Nevertheless, we may conjecture that examples 1 and 10/11 could derive from *klat and *phrat, respectively.

3.2 An alveolar versus (alveo-)palatal distinction in OB initials

Examples 2–9 are further complicated by the issue of the phonetic values of c- and ch- in OB/WrB. For example, from the linguistic correspondence between Akha and Lisu, we can conjecture that c- and ch- in OB/WrB incorporate the integration of two (alveo-)palatal and alveolar series in PLB.51) However, in most dialects of contemporary Burmese including CB, these have respectively become s- and ʃ.52) (while Burling hardly offers any examples of forms in Atsi and Maru that derive from PLB *Tsy-, the two languages maintain the opposition of the two series.53) If we were to speculate on the phonetic value of OB/WrB c/ch from this fact alone, we should be able to interpret c- and ch- as having been either alveolar (ts-, tsh-) or (alveo-)palatal (tš-, tʃh-). However, this does not necessarily mean that there is absolutely no reason why we cannot claim that it is (alveo-)palatal in WrB. For example, while Nishida postulates tš- and tʃh- as possibilities according to the Chinese transcriptions in Mien-tien Language A (MTA), a 15th century Burmese dialect conjectured to have been closely related to WrB, he claims that there are no possibilities for ts and tsh.54) Except for the medials, we can consider this dialect and the one that enabled WrB to have had an extremely close relationship; therefore, there is likely a possibility of their having been (alveo-)palatal in WrB as well. Moreover, it seems possible that this can be supported by later transcriptions of Burmese by foreigners.55) By analogy, as in OB, it seems that we might be able to conclude that c-, ch- in PLB did not represent an opposition between (alveo-)palatal : alveolar but that they were both (alveo-)palatal. However, from the discussion in (I) above, depending on the initial y or (alveo-)palatality of the transition OB -at > WrB -ac, it seems highly likely that some conditions applied. If we can be certain of the correspondence in (II) OB cat : Akh ce⁶ PL, the corresponding form in PLB may be considered to have had a *{(alveo-)palatal affricate initial. From the above examples of chat in 2–4 and 6–9 (5 remains unclear), at least two examples (2) chat ‘sambar’ and (3) chat ‘to be brittle’ (some doubt remains regarding this example) correspond to Akh -tce⁶ PL, -tse NT, and Akh txe⁶ ‘to break off’, as demonstrated in correspondence rule (8), and the initials of their PLB forms will be postulated as *alveolar affricates. From these two points, I believe that it is possible to infer the following conclusion: in OB (probably early OB), both c- and ch- expressed two contrasting alveolar and (alveo-)palatal initials. After the finals -at and -ac ~ -ec merged, the alveolar initial merged into the (alveo-)palatal initial. This merger was probably complete by late OB.

This ostensibly contradictory conclusion drawn under the same conditions as OB -at > WrB -ac also explains the parallel presence of OB -an > WrB -aɲ > CB /in/ (see note 3), exemplified by WrB cân ‘to be stretched out straight’ > CB /sän/, WrB chàn ‘to stretch-out’ > CB /ʃsän/, etc. for OB ṭa-can-can ‘a succession of’ > WrB ṭa-can-ɲaɲ > CB /ʃsánzín/. Following this inference, we may now provisionally separate written c- and ch- in OB into (alveo-)palatal: /cy-/ or /ʃ- and /chy-/ or /ʃh-/ and alveolar: /c-/ and /ʃh/-.

3.3 The OB word for ‘eight’

In Nishida’s study of the Burmese portion of the so-called Myazedi inscription, he conjectures /çet/ as the the phonetic value of het ‘eight’, which he interprets as /ʃet/.56) Particles such as -teh ‘suffix to designate an

object’ and leh ‘nominative affix’ he considers [tefi] and [lefi] and interprets as /tawi/ and /lawi/ respectively. However, -they’ (l. 22), in comparison with WrB, hloŋ ‘to be numerous’ he interprets as -en’. R. Shafer (‘Further Analysis of the Pyu Inscriptions,’ *Harvard Journal of Asiatic Studies* 7.4 (1942/43), 313-367), in contrast, states that (1) from the fact that -wa- in Early Modern Burmese (=WrB) appears as -o- in this inscription, -ya- in contemporary Burmese can be expected to appear as -e- in this inscription, and (2) in the late 13th century Bhodh Gaya inscription ‘eight’ was hyat; therefore, a vocalic change or the period of the convention for inscribing this vowel phoneme can be fairly closely established. In addition, he claims that -they’, in parallel to hyat, he compares with -lhyan in contemporary Burmese (pp. 326-27, fn. 31). Although some problems remain with the comparative hypothesis, similar to the case for -they’, as pointed out by Prof. Luce, *henbuwit* (l. 31),¹⁰¹ one of the names for the three slave villages listed on the Myazedi inscription, can be compared with hyanbuw (pl. 111/24) in the Sangrib ñatilat ñan’ inscription (pl. 111, 112; 482s./1121 A.D.). Accordingly, (1) it is difficult to link OB -ey to WrB -oy as Nishida proposes, (2) Myazedi -e- seems to correspond to -ya- in other inscriptions, (3) particle usage in OB, including the use of lhyat, is not necessarily consistent with particle usage in WrB, (4) in light of the scattered variants of OB lhyat such as lhyan ‘(e.g. thuw-suww’ lyak-lhyan ‘even so’ (EM no. 31=pl. 78b/8),¹⁰² -they’ may be compared with WrB lhyan rather than WrB hloŋ, and I would like to think that the creaky tone in Myazedi -they’ (absent in WrB lhyan) represents a type of emphatic use. Thus, the phonetic value of -e- in this inscription based on the condition that all are [e] or [æ] could be interpreted as /e/ in the language (or dialect) of this inscription or as /yl/.

According to either interpretation, we can say that -et and -ac are distinct in this inscription. Conversely, ‘eight’ is rhec in the Pótómú bhurā inscription (EM no. l=pl. 303), and since we are able to interpret from the places where variants are recognized (tec ~ tae ‘one’, rhec ~ nhac ‘two’, phlac ~ phlac ‘to be, exist’) that all these forms in the language (or dialect) of this inscription contained /ecl/, we can infer that with regard to ‘eight,’ the merger of -ec ~ -ac had been already completed. Furthermore, besides the fact that ‘eight’ is hyat (l. 31) in the late OB Símtó bhurā inscription, (EM no. 4l=pl. 134; 601s./1239 A.D.,¹⁰³ there are examples of ēhat (l. 4) ‘to milk, squeeze’ and khyat (l. 10) (personal name). Since those examples are distinguished from -nhac ‘year’ and -phlac ‘to be, exist’, we may consider that the opposition -y(at (-yat/)) : -ac (/-acl/) was maintained. Both the aforementioned Myazedi and Pótómú bhurā inscriptions were discovered in the Pagan district, whereas the Símtó bhurā inscription was from the Kyaukse district. Hence, it is not impossible that these differences can be discounted as dialectical differences. However, no examples of variant forms with -et and -ec in OB, except for ‘eight’, have been found so far in usable OB documents. In addition, examples with comparatively high frequency such as khyat ‘to love’ (including personal names) take the khyat form through early and late OB (cf. the Māñ ḍañantasi inscription (EM no. 31=pl. 73/21; 585s./1223 A.D. (Pagan district)). Nonetheless, because -khyac (personal name) also appears in the Móñma cô kháŋ minjây inscription (EM no. 14=pl. 29/14; 568s./1206 A. D. (Pagan district)), it seems that there was no distinction between -y(at and -ac in the dialects of the Pagan district irrespective of the written characters used.

While the facts in connection with OB -y(at are not necessarily consistent, seen comprehensively, we may infer the following:

(1) For the OB form of ‘eight’, there is a problem of whether rhec or het can be regarded as representative.

(2) Furthermore, taking the example of ‘eight,’ it is difficult to argue that it is representative of all OB forms taking the final -y(at.

(3) It is possible to postulate PLB *-(y)at > OB -(y)at, including for ‘eight.’

(4) We could also regard the presence of variants in early OB such as het ~ rhec ‘eight’ and khyac ‘to love’ as evidence of the early, piecemeal merger with forms normally taking -ac. In OB, this could be interpreted to suggest the prior existence of dialectical differences; more specifically, at least two dialects—one from the Pagan district and the other (more archaic) from the Kyaukse district.

In addition, the fact that with OB -ac ~ -ec, the variant -ec is also found in rather early inscriptions leaves us with the question of phonological interpretation.

We could also make the same inference for the interpretation of initials for OB rhec ~ het ~ hyat. Notably, Nishida, on the basis of the correspondence among the Myazedi inscription het, MTA hysac [seʔ] (a transcription of the Chinese character sè  色), and CB [seʔ] [siʔ], states that “この碑文に代表される12世紀の言語では、無声硬口蓋摩擦音[q-]を定立するのが、もっとも妥当であると考えられる in the twelfth century languages represented in this inscription, it seems most reasonable to posit the voiceless palatal
fricative [ɻ-].” In addition to noting the possible preservation of hr- / h- in Burmese of the period spoken outside the Pagan district or among a different social class within the Pagan district, he compares het in the same inscription with hruy ‘gold’ and pulsra ‘Buddha’, discriminating between [ɻ-] and [h-] and stating that “[ɻ-]および[hr-]のちのビルマ語で、同じく hr-によって表記されるようになったのは、後のある時期に、両者[ɻ-]とhr-が同じ音素あるいは極めて近似した弁別的でない音に変わった ためであろうと考えられるのり the fact that both [ɻ-] and [hr-] came to be similarly expressed as hr- in the Burmese of a later period seems likely to have been due to the fact that in the later period both [ɻ-] and [hr-] changed to the same sound or to sounds so similar that they were not discriminated” (NT 1972, p. 246). In contrast to this view, without raising any particular objection,57 we could consider the variants rh- ~ h- ~ hy- , with the OB form of ‘eight’ seeming permissibly representative of /#hryat/ (see below). Note that Nishida himself posits *hryat for Proto-Burmese [=PBsh].

4 The interpretation of palatal initials as palatalized velars
It is a well-known fact that the OB form for WrB ɲi is ŋi ~ yi.

1. OB ɲi ~ ŋi : WrB ŋi (CB/ňi/) ‘younger brother’
2. OB ŋi-ma ~ ŋi-ma ~ ŋim-ma : WrB ŋi-mà (CB /ňimá/) ‘younger sister’
3. OB ŋi, ŋi-arnation : WrB ŋi, ɲi-arnation (CB /ňiňuñ/) ‘to accord’
4. OB ōmi : WrB hńi (CB /hńi/) ‘to kindle’

Moreover, with the exception of WrB ɲit ‘to nod’ and hńit ‘to cause to nod’ (for which the OB form is unknown), there are no examples of ŋi- appearing in front of -iC or -e < OB -iy.

Similarly, a few variants of ŋ(y) ~ ŋ- are also found before other OB finals.

1. OB ŋhyap : WrB hńa (CB /hńa/) ‘to pinch, compress between two’
2. OB ŋhan-chay (sic!) ~ hnhan-chay : WrB hńaŋ-cháy (CB/hńinho/) ‘to oppress’

At present, although it applies solely to the following one example, there is the corresponding OB ʒr-: WrB ʒr- (CB /ři/-), for which one may posit OB /ʒr- (OB ʒrǐm: WrB ʒrǐm (CB /ňiɛn/) ‘to extinguish; to be extinguished’).58

Conversely, while it is conceivable to posit OB/WrB alveolar stop + medial (TM) as a secondary/marginal system for borrowed language or a few forms of obscure derivation, from a monosystemic perspective, we may interpret these as rather /TaC-/.

Examples:

OB trya ~ rā ~ taryā : CB /tayā/ ‘law’
WrB ni tā tyā : CB /di tā ŋā/ ~ /ni tā tyā / ‘bright red’59
WrB tyak tāk mā : CB /tāk tāk mā/ ~ /tyak tāk mā/ ‘very hard’

In addition, OB/WrB sy- ~ sy- may be interpreted as /hr-/ in OB owing to the existence of the spelling variants rh- and yh-.

Examples:

OB (ʔa-)rhavan ~ (ʔa-)syavan ~ (ʔa-)syavan : WrB (ʔa-)hravan ~ (ʔa-)hsyavan : CB /(ʔa)sin/ ‘lord’
OB ʔo-ryat-si : WrB ʔap-rac-si ~ ʔa-hysac-si : CB /ʔaʔiʔiʔi ‘beal fruit’
OB rhac ~ het ~ hyat ~ shyaq (found in non-original inscriptions) : WrB rhac : CB /ʔiʔi/ ‘eight’

On the basis of the above facts and interpretations, OB ŋ~ ŋ(y) could be interpreted as /n-/ or /ny-.

Furthermore, it is highly likely that OB lacked the distinction Ki(-): Kyi(-). WrB Kyij(-) and Ky (OB - iy) may be thought to be either a secondary palatalization (although it is unclear whether it was distinctive) or to originate from the transition -l- > -y- in the medial.

Examples:

I. OB Ki(-) : WrB Kyi(-), Kyे

1. OB ki : WrB kyî (CB /ci/) ‘granary’
2. OB khi-pan : WrB khîi-pan (CB /chîin/) ‘to assist, exalt’
3. OB khîy : WrB khîyê (CB/chî ~ chëi/) ‘to borrow, lend’
4. OB khin : WrB khyin (CB /chéin/) ‘to weigh’
5. OB kip : WrB kyip (CB /ceiʔ/) ‘ten’

II. OB Kiʔ(-) : WrB Kyiʔ(-)
1. OB khli : WrB khyé (CB /chéin/) ‘excrement, fœces’
2. OB klit : WrB kyit (CB /ceiʔ/) ‘Job’s tears (Coix Lachrymae)’

Although I cannot offer OB forms for all words that take the shape Kyi(-) or Kye in WrB, it is almost certain that Kyi(-) itself does not occur in OB. While, doubts also remain regarding other initials and about forms such as chit ‘goat’ (< *Tsyit), which derives from PLB *(alveo-) palatal, and chit ‘to pinch’ (<*Tsit), which derives from the *alveolar, we can presume that there was typically no distinction between –i versus -yi.

Thus, if we interpret OB ñ ~ ŋ (y) as /ŋy-/ , it should follow that OB ŋi, ŋi and ŋi are /ŋi/ and /hŋi/, respectively.

For example, rather than theorizing a cyclic change such as PLB *Kyi(-) > OB Ki(-) > WrB Kyi(-), it is better to propose PLB *Ki(-) > OB Ki(-) > WrB Kyi(-). Accordingly, rather than positing PLB *Yip ‘to sleep, lie down’ (Mar yûp; Bis jû; Akh yû, PL, jû NT; Lis yî JOF; Lah yîʔ, etc.) > OB/WrB ṭip (CB /reil/), we may consider PLB *HIP⁶⁰⁰ > OB/WrB ṭi and regard y- in LB languages as an artifact of secondary palatalization. For Matisoff’s *yit ‘to be drunk’ and *kyit ‘to love’, the argument here for *Yat and *Kyat suggests the possibility of establishing new reconstructions for other examples alo (e.g., PLB *kyyik ~ *gyyik ~ *gyik ‘little bit’ (JAM 1672, no. 70); PLB *kyit ‘hot (enough) to burn’ (JAM 1972, no. 13), etc.) as well as other possibilities that may be attributed to errors in the establishment of etyma.

The foregoing discussion contains many points that still lack sufficient corroboration and includes many facts that are merely inferred. Moreover, while my argument was assembled by mostly referring to Burmese and Akha, further modification remains likely in the event of a successful development of the corpus of other LB languages in future, and I have consciously refrained from conclusive assertions. Given the countless ways in which the study of OB/WrB might be problematized in future, I believe that I have sufficiently accomplished my aim. (February 1974)

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Bibliographic Abbreviations
BH = B. Houghton 1897
DB = D. Bernot 1972
DWD = D. W. Dellinger 1968
EM = E Maung 1958
GHL = G. H. Luce 1969-1970
JAM = J. A. Matisoff 1967
JIF = Ruì yîfū 1948
JOF = J. O. Fraser 1922
LFT = L.F. Taylor 1922
LSI = Grierson 1928
NT = Nishida Tatsuo 1955/56
PKB = P. B. Benedict 1972
PL = P. Lewis 1968a
PMT = Pe Maung Tin 1933
RB = R. Burling 1967
RS = R. Shafer 1952
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By general convention, OB refers to the form of Burmese mainly recorded in inscriptions dating to the Pagan Dynasty (approximately late 11th–late 13th C). The OB period could be divided into early and late periods,
with a boundary sometime in the 12th or 13th century marked by phonological changes such as /iy/ > /ei/, /uy/ > /we/ ([?yi] > /wei/) that have been posited according to spelling variations. Nishida estimates the period of transition marked by /iy/ > /ei/, /uy/ > /we/ to have occurred in the late 13th century (NT 1972, p. 255, fn. 19). However, it may also be possible to move this date back by at least half a century. From the fact that -o- and -a- (e.g., pl. 303; pls. 364a, 364b; pls. 111, 112) were used for /wa-, /u- (e.g., pls. 4, 5; pl. 16; pl. 13, etc.) in early inscriptions in the early OB period, we should note that while it seems that OB itself could be further divided into two periods, I believe that there is still scope for a comparative study on whether these textual variations actually reflected contemporary phonological distinctions. Although Nishida has attempted a reconstruction of the OB phonological system in his study of the Myazedi inscription (NT 1955/56), he has introduced substantial changes in his more recent publications on the Burmese-Chinese vocabulary (Mien tien-kuau) and ancient Burmese (NT 1972). On the basis of Nishida’s study of the Myazedi inscription, R.A. Miller has added some phonological interpretations that differ in many respects with regard to the OB vowel system ('The Phonology of the Old Burmese Vowel System as Seen in the Myazedi Inscriptions,' The Transactions of the International Conference of Orientalists in Japan 2 (1957), 39-43). Note that Nishida’s reading of the Myazedi inscription contains a number of instances that are open to alternative readings in terms of spelling or comparison with WrB forms, and according to these alternative readings, there is no need to dwell substantially on the question of variations in tone between OB and WrB forms. OB orthography does not consistently discriminate between WrB and CB tone marks /`/ and `/`/ (although, as pointed out by Prof. Luce, both tones are differentiated in the Ajdwlat [=Dhammaramkrt] inscription [pls. 4, 5], such as with -i: WrB-i, -ih: WrB-ı; this is a unique example). Moreover, looking at OB overall, there seems no reason to deny the notation that the distinction between the two tones basically stemmed from pitch. For example, in the Myazedi inscription, WrB wänd “village” appears as rwoh, which therefore, rather than suggesting that -h (in even later periods, this was also represented with symbols such as the visarga) indicates phonological characteristics for /`/, indicates that we should consider this to represent the distinction in WrB and CB between glottalized /`/ and non-glottalized /`/ and `/`. Even if we consider that, including the light tone, the distinction among the five tones of OB had already been established in the OB period, I do not think that this really presents us with a problem. The interpretation of the OB corpus also includes problems that are antecedent to the application of linguistic theory. In addition, the appearance of the ‘register tone’ in LB languages (perhaps, for TB languages as a whole), unlike the case of ‘contour tone,’ may basically be thought to derive from differences in the initial consonant or consonant group, as Nishida and J.A. Matisoff have argued in numerous articles. Although an extremely interesting new theory regarding the appearance of tones in Burmese has been proposed by La Raw Maran (‘Burmese and Jingpo: A Study of Tonal Linguistic Process’ Occasional Papers of the Wolfenden Society on Tibeto-Burman Linguistics Vol. IV (Publication of the Center for Asian Studies, the University of Illinois) Urbana, 1971), the above perspective makes it difficult to accept it. E.G. Pullyblank (‘An Interpretation of the Vowel Systems of Old Chinese and Written Burmese,’ Asia Major (new series) 10 (1963) 200-221) has also proposed a system of finals for ‘Literary Burmese,’ which is based on the same Myazedi inscription used by Nishida and Miller and may, in fact, be regarded as a system of finals for Old Burmese (or what Nishida calls 中古 chiko or “Middle” Burmese).

The OB phonological systems of the above three scholars all contain important points, and while I do not think that they demonstrate any major differences when they are further considered in light of the OB corpus, from an empirical perspective, however, we might think that positing an early OB phonological system would require an examination of all types of inscriptions and votive tablets prior to the accession of Caṅsū II in 1174 AD (see GHL I, pp. 107–115) as well as all the major inscriptions up to at least 1200 AD.

Overall, OB spelling, aside from the loanwords and except for the earliest (cf. pl. 303) and non-original inscriptions, may be said to be rather uniform throughout the entire period. We may also regard the disambiguation of -`, -h, -i versus -y and spelling variants such as n ~ n-ly-, -at ~ -ac, and -e ~ -o- as rather exceptional. For example, even though variants such as -iy ~ -e (~ -ie) become apparent around 1200 AD, these were generally spelled -iy until the end of the OB period. To postulate phonological changes, the existence of variants is, needless to say, crucial, and there are some examples that enable us to infer the processes of phonological changes. For example, as indicated by C. D. Blagden, the variant klyā for OB klā can be interpreted in a form [kl-] that shows the process of change (kl- > /ky-) to WrB kāy ‘tiger’. (Still, /kl- and /kly/ are to be considered distinct in the early OB period. For example, the corresponding OB form of WrB kāyā “to-want” is /khlya/. However, at present, there are hardly any forms for which we can postulate OB /kly/).

However, as seen in the typical characteristics of languages transcribed into other script systems, it is often the case that phonological and phonetic changes do not find expression as spelling variants, at least until after a significant lapse of time. In this sense, the reconstruction from the 華夷訳語 Hua-yi yi-yü (细写体訳語 A= MTA), a dialect of 15th century Burmese that followed the OB period (posited by Nishida as the Awa dialect), is extremely important as it is based on Chinese transcription. Nishida’s study of MTA has also raised many issues that we have not yet been able to fully consider. Of particular importance are those related to the existence of dialects in OB and the validity of the conventional view (which remains to be proven) that considers WrB to be representing a language
midway between OB and CB. With regard to the former, looking only at the OB corpus, currently, we can reach no decisive conclusions, and in future, too, we will likely have to resort to relying, to some degree, on inferences from the studies of the Hua-yi yi-yü and modern dialects. As for the latter, we can only await the results of extensive documentary, dialectical, and other surveys staring from the OB period to the time of establishment of WrB. However, from the following perspective, in line with the conventional view, it does seem possible to move the discussion forward.

In other words, aside from the MTA language (or dialect), the spelling used (i.e., orthography) is somewhat close to the standard spelling used at the time (while OB/WrB spelling uses characters that express voiced sounds in borrowed terms as well as in the native stock of Burmese language, these are not used in MTA at all). Such points are considered to be different from the standard orthography of the time. This standard orthography, following the contemporary state of its base dialect, was obtained by slightly modifying OB orthography, and after being reformed several times, has led to the establishment of WrB orthography as it now stands. In addition, when representing Burmese forms using WrB, the WrB forms show the form of a dialect of the period that followed late OB (which may also have, in fact, lasted beyond the Pagan period), and not the form of a dialect of a period when this WrB orthography began to emerge, at roughly around the same time as the orthography of today (except for minor distinctions such as -n and -ñ and changing ʔto ʔ, and -uiw to –ui, which probably took place during the 17th and 18th centuries).

The most significant difference of the phonological system of dialects deduced only on the basis of spelling, i.e., the phonological systems of WrB and OB, is that the medial -l-, subject to certain general conditions, changed to -r- or -y-. The condition for this split resulted in -y- when the initial sound was velar (as described above, in fact, the presumed developmental process is OB -l- > -l- (palatal) > WrB -y-) and -r- when it was labial. However, while we cannot say that there are absolutely no exceptions, given examples such as OB ʔa-mluiv ~ ʔa-mluyiw (for which the WrB form does not take the predicted form of *ʔa-mruû but rather ʔa-myûi ‘race, lineage; kind’) and other examples that recognize both forms such as the WrB form of ‘sweat,’ which appears as khrwê ~ khwê in Judson’s Burmese-English Dictionary (for which PLB *Kruy is deduced on the basis of its OB form khrûy), we can regard the above correspondence rules as being regular to an extent.

In fact, the biggest difference between the phonological system for MTA reconstructed by Nishida and the phonological system that has been inferred from WrB spelling also lies with this medial. Unlike WrB, in MTA -l- corresponds to -l- and -y- in OB. Notable, however, is that MTA orthography, as described earlier, inherits the tradition of OB orthography, and we can think of it as being based on the orthography of the period, and that therefore the aforementioned rules of correspondence can be applied between OB medials and the orthographic medials (the following two examples, however, represent exceptions — MTA hây-mruûw : WrB háy-myûi ‘the different kinds of fish and flesh eaten in curries’ [cf. NT 1972, p.131, no. 457] and MTA sî-khyâng sî : WrB sî-khyâng sî ‘to sing a song’ [cf. NT 1972, p.141, no. 618]. In addition the -mruûw of MTA háy mruûw is a morpheme that corresponds to -mluiv ~ -mluyu in OB ʔa-mluiv ~ ʔa-mluyiw, and it is noteworthy that this -r- occurs regularly for OB mluiv). Nishida’s reconstruction uses -l- rather than the MTA -r- because when transcribing into Chinese characters, the 音母 initial is used for -r-, whereas the 色母 initial is used for medial -r-. If we can posit that this distinction in the Chinese character transcription was intended to represent a phonetic distinction between, e.g., r- = /[l]/[z] and -r- = [r], then it is also possible to interpret both the characters r- and -r- in MTA as /l/. This problem with this account is MTA khri : WrB khârî ~ khî ‘road’ (cf. NT 1972, p. 88, no. 56; p. 90, no. 90; p. 124, no. 404: /khlî/, MTA khraî sî : WrB kharîm-sî ‘eggplant’ (cf. NT 1972, p. 97, no.147: /khlân si/), MTA trâ-cvâ : WrB tarâ-cwâ ~ trâ-cvâ ‘equitable’ (cf. NT 1972, p. 114, no. 345; p. 114, no. 347: /tlaa tswâa/), where we have CM- (M = medial) rather than CM- in CB, as seen in the pronunciations /khâyi/, /khâyânî/, and /tâyâ/, respectively; this phenomenon deserves to be described in detail. If the interpretation of -r- and -r- spelling in MTA as /l/ is permissible, then the MTA language in effect may be regarded as a sub-dialect of the language of WrB.

While a majority of the OB forms cited here are taken from inscriptions in EM 1958, other forms have been cited from research by Prof. G.H. Luce and Pe Maung Tin. The early OB inscriptions included in EM 1958 are as follows: 1) pl. 303 (undated), 2) pls. 364a, 364b (A.D. 1113) (the so-called Myazedi inscription), 3) pls. 111, 112 (A.D. 1121), and 4) pls. 4, 5 (Ajawlat inscription) (A.D. 1165-6). While Prof. E. Maung also considers pl. 110 (B.E. 1625/443s [A.D. 1081-82]) to be original (even leaving aside the style of the characters), its orthography dates from a rather later period. Although no date is given, we cannot deny the possibility that pl. 303 is even later than pl. 364. Although a widely recognized fact, it is a complete mystery to me why this has not been the subject of a more systematic study, together with the case of OB -y(an > WrB -âh mentioned in Note 3. First, this could be attributed to the fact that it is customary among many Tibeto-Burman comparativists to cite the WrB forms of Burmese rather than the OB forms. Of course, I expect this is because, given the nature of the inscriptions, there are many cases in which we have no choice but to use WrB forms owing to the extremely limited number of OB forms; moreover, because of the many mutually contradictory variants in OB spelling, there are those who would try to risk ignoring it in the belief that it lacks reliability (cf. Paul K. Benedict’s view of the medial -l- [PKB 1972, p. 41, fn. 134].
Ironically, Benedict infers TB *mlyaw on the basis of the most doubtful OB mlui 'to swallow' [WrB myū]. This inscribed form is cited directly from PMT 1933. Nonetheless, there also an OB variant myuiw, and from the fact that the WrB form is myū, a literal interpretation on the basis of its spelling is doubtful. Despite the fact that J.A. Matsoff also, for the most part, ignores *-l- in his reconstruction of PLB, he surprisingly argues for the possibility of *-l- for 'to swallow', thus perpetuating Benedict’s mistake [JAM 1972, no. 137]). However, subject to the attestability of a form in OB, surely we should consult OB as much as possible.

Paralleling the phonological integration of OB -y(y)an and OB -ac ~ -ec in WrB -ac, OB -y(y)an, OB -aani ~ e(n), and OB -eth) ~ -a(n) are also integrated orthographically in WrB -a(n).

Examples:
1. OB ʔa-can-can : WrB ʔa-cán-cáñ = ʔa-cán'cáñ : CB /ʔasínzin/ 'a succession of'
OB pyã : WrB pyáñ = pyáñ : CB /pyín/ 'a plank, board'
OB nán' : WrB náñ = náñ : CB /nín/ 'might'
OB nhan-chay ~ nhan-chay : WrB háñ-cháñ = háñ-cháñ : CB /háñ-shé/ 'to oppress'
OB ʔa-yáñ : WrB ʔa-yañ = ʔa- yáñ : CB /tayín/ 'tame'
2. OB práñ : WrB prään : CB /pyí ~ pyéi/ 'country, capital'
OB plán' ~ plên : WrB pláñ : CB /pléi ~ pyí/ 'to be full'
OB mañ : WrB máñ : CB /myí/ 'to be named'
OB rhañ ~ rheñ : WrB hráñ : CB /séi ~ pyí/ 'to be long'
OB chañ : WrB chañ : CB /šé/ 'irrigation dam'
3. OB teh ~ te ~ tañ : WrB táñ : [CB /tí/ (Reading Pronunciation)] (particle)
OB nhe : WrB náñ : [CB /nú/ (Reading Pronunciation)] (particle)
OB leh ~ le ~ lañ : WrB läñ : [CB lú/ (Reading Pronunciation)] (particle)

(Note that there are also a few examples where OB -a(n) ~ -e(n) corresponds to WrB -e.

OB klañ-já ~ klañ-cáñ : WrB kyé-já : CB /cěizú/ 'favor'
OB kl(w)añ ~ kl(w)eñ : WrB kywé : CB /cwéí/ 'to feed, nourish' The reason -w- is frequently dropped from kl(w)añ ~ kl(w)eñ is owing to space constraints and has no phonological significance whatsoever.

Generally, the distinction between OB -y(y)an and two other finals, even in modern Burmese dialects, is well preserved as a nasal or oral distinction (cf. the CB forms in the examples above), and leaving spelling aside, are phonologically distinct. In WrB as well, the customary written distinction of the WrB form -a(n) as -a(n) corresponding to CB /-in/ has been established only recently (while it is not known exactly when, it seems most likely that it was at the beginning of the 20th century). Owing to a lack of source materials a LB etymon corresponding to a WrB form with the final -a(n) is found only in the following examples: 'to be sour' WrB khyán (CB /khu/ : Ark -tehá JKLS; Tav /chin/ ~ /Síñ/ NT, ci PMT); Bis khyén NT; Akh yóce PL, jo-tíšé NT; Lis ché JOF, kjh NT; Lah (-shi tseh NT. (PLB *Kyan).

From husked rice; paddy' WrB chán; Bis tšen; Akh ca (PLB *Tsyan) and 'kite, hawk, eagle' WrB cwán; Akh xa dze PL, xa dzé NT; Lis dzyé LJOH; Lah á-cé JAM (PLB *Tsyan).

Despite there being only one example, it seems permissible to posit *-(y)an in parallel with PLB *-(y)an and consider that OB -(y)an is derived from *(y)an. In addition, I will offer another example in which, since the OB form is unclear, it is difficult to establish the shape of the original etymon.

OB miy-ma ~ mi-ma ~ mim-ma: WrB mín-ma (CB /mēinmú/: Ark mámá LSI: Tav mi-ma LSI) 'woman'; Ats myivé 'woman' RB; Mar myiyé 'id.' RB;

This set of OB variants shows that the WrB form mín-má derives from miy-ma. Nasalization does not occur in either Arakanese or Tavoyan. Additionally, in MTA:

(no. 300) mín-má 敏馬 'gossipy women'
(no. 317) mín-má lyúu 美馬量 'eunch' (unuch)

Although Nishida infers *mi’ ma for the former and [mei] ma for the latter, and states that the transcription of the latter “実際の形‘mei-ma’をより明瞭に表記しようとしたものである was an attempt to more clearly represent the actual form [mei-ma]” (NT 1972, p. 361), but we cannot deny the possible existence of alternate forms míma ~ meima (incidentally, this would be OB miy > WrB me > CB /mei/). This OB variant, as well, would not need to be thought of as miy-ma ~ mim-ma (the fact that these are spelled with -n in both WrB and MTA means the loss of the distinction between -m and -n was already complete in WrB; we can assume that some forms that were originally spelled -m came to be spelled with -n. Note that forms that end in -n in WrB have fewer constraints on distribution when compared to those that end in -m; even when the -l- and -r of -al and -ar are nasalized in terms borrowed from languages like Pali and rewritten as Burmese expressions (mrin-má hmiá), there is a convention to use -ar rather than -m; we could also consider the existence of the alternate form miy-ma ~ mim-ma. The following examples will also serve as reference.

For OB *miy- : Ats *myi-, we can posit PLB *Miy ‘woman, wife’. In addition, while we could interpret the first morpheme of ‘wife’ OB *miʔ-yâ ~ *miʔ-yâ ~ *myâ : WRb maʔ-yâ (CB,mayâ) as having derived from PLB *Miy, in this case, I will reserve judgment, since it is possible that the -y-glide was produced by the effect of the initial consonant y- of the next syllable. Burling compares the Atsi and Maru forms above with examples such as Akh zaʔ-mî, zaʔ ’woman, wife’ [zaʔ-mî ’woman’, zaʔ ’woman’ NT]; Lis mârâm ‘woman’ RB [raʔ-’mî ’wife’, raʔ-’mî ’woman’ JOF]; and Lah yâmî ’woman’ RB [yâ-’mî ’girl’, yâ-’mî-وها ’woman’ JAM] and suggests PLB *miy, positing PLB *mi ’wife’ for Ats *myi ’wife’ Mar mî ’id.’ However, in the latter case, while Atsi *myi conceivably belongs to the same formal system as the miʔ- of myîɣê, Mar mî ’wife’ likely has the same root as miʔ ~ mi : mi of OB sa-mî ~ smî ~ smî : WRb sa-mî (CB/œmî/) ’daughter’ and should rather be compared with examples such as Akh -mi, PL, -mi NT; Lis - mà RB, -mg.]4 JOF; Lah -mi RB, -mi JAM as well as -bi < *mi in Bis já-bi ’young woman’. While the -mi of Lah ɔ̀-mî-ma ’wife’ could derive from either PLB *Miy or PLB *Mi, the resemblance of the formative structure to WRB mî-mà < OB miy-ma suggests that we could also consider it to derive from *Miy.

As an aside, when we re-examine Atsi and Maru in Burling’s sources in this manner, we arrive at the following conclusion: the ablaut was palatalized before *-iy and *-i in Atsi and only before *-iy in Muru, or to put it differently, under these conditions, the medial -y- developed after the ablaut. As in the following example: PLB *Piy ’(great-) grandfather/mother’ [cf. PBsh *phyei ’grandmother’ RB], WRb ʔa-bhê-mà ~ bê-mà ’great-grandmother’ (OB ʔa-phiy); Atsi a phiy ’grandmother’ RB; Maru phiyt ’id.’ RB; Bis ʔa-ph ’id.’; Akh a_pi ’id.’ PL, ʔa-phi ’id.’ NT; Lis a̱-hpi ’great-grandfather’, a̱-hpi-mà ’great-grandfather’ JOF; Lah (-shi) aʔ-ph NT. (The palatalization of initial consonants in Atsi and Maru could be handled more generally by a rule of thumb. Cf. PLB *Ki ’granary’ (OB ki > WRb kyi) > *Kyi > Ats cʔi, Mar cʔi [PBsh *cʔi RB]; PLB *Kiy ’to borrow, lend’ (OB khye > WRb khyê) > *Kyi > Ats cʔi [PBsh *cʔi RB]; PLB *Nyi ’penis’ > *Nyi > Ats miʔ-yi, Mar nʔyi [PBsh *nʔyi RB]; etc.) (See Note 52).


Looking principally at the various languages cited below, it does not seem that there is any argument whatsoever about the grouping of Burmese, Atsi (Zaiwa), Maru (Lawang), and Lashi (Letsi) as a linguistic sub-group or sub-family. Shafer further divides this linguistic sub-group—the Burma Branch of the Burmish Section of the Burmic Division—into the Southern Unit (the so-called Burmese dialects) and the Northern Unit (Atsi, Maru, Lashi, etc.). Burling and Matisoff refer to this linguistic subgroup as Burmish (sub-family), and I use this name here as well. Nishida refers to these as “Burmish-based languages” (ビルマ語系諸語 Biruma-go-kei shogo) and, like Shafer, divides them further into a Burmese dialect group and another group that contains Atsi, Maru, and Lashi.

Apart from Nishida, scholars consider languages such as Lisu, Lahu, Nyi (Sani), Ahi, Hani, and others including Akha and Bisu as Loloish rather than Burmish languages. In other words, Shafer considers these as the Lolo Branch of the Burmish Section and further subclassifies these into the Southern, Central, Northern, and Tonkin Units or into other Unclassified Units such as Menyak and Moso. Burling, in a parallel manner, considers Lahu, Akha, Lisu, and Lahu as Loloish (Sub-family). Matisoff discusses Akha, Lisu, Nyi (Sani), Ahi, Hani, Bisu, Woni, Nasu, Lomalom (Lâquăn dialect), Qiang, and Moso (Naxi) as Loloish (Loloish languages and dialects) in JAM 1971. These and other languages are broadly divided into Loloish and Mosoid (Qiang and Moso) according to whether the syllables in each language presumed to derive from stopped syllables in PLB and have distinct tones due to differences in PLB’s syllabic initials ([p], [t], [k], etc. + initial consonant). Languages belonging to the former category are divided into (1) languages where high tones correspond to high tones in most languages and whose low tones similarly correspond to low tones (Lahoid) and (2) languages that show the reverse correspondence (Nasoid: Nasu, Lomaloom). Lahoid languages, according to how the initial consonants posited for PLB (e.g., labial stops: *[p], *[b], *[p], *[b], *[n], *[m]) have transitioned in each language, are further divided into Bisu-Lahoid and Lisu-Lolo, with the former being subdivided into Bisoid (Bisu, Phunoi, Pyen), Wonoid (Woni, Hani), Black Lahoish (Lahu, Red Lahu, Lauh-shelb), and Lahushi, and the latter subdivided into Lisoid (Akha, Lisu, Sani) and Ahi.

Nishida’s classification scheme differs from those of other scholars in that he regards Akha, Bisu, Phunoi, and Pyen as Akha-based languages, which he considers to have branched directly from PLB along with Lolo- and Burmese-based languages. (Shafer includes Akha, Phunoi, and similar languages in the Southern Unit of his Lolo Branch along with languages such as Lahu [Lahuma, Lahushi, Kui] and Woni). On the basis of this classification, Nishida proposes a procedure for the reconstruction of PLB as follows:

**Step 1:** Comparison of Burmese, Atsi, Lashi, and Maru (Burmese-based languages) [Reconstruction of Proto-Burmese]

**Step 2:** Comparison of Burmese, Akha, and Bisu (Akha-based languages) [Reconstruction of Proto-Bisu-Akha]

**Step 3:** Comparison of Burmese, Lahu, and Lisu (Lolo-based languages) [Reconstruction of Proto-Lisu-Lahu]

**Step 4:** Comparison of (Burmese, Lolo (Nyi, Ahi, Sani), and Hani (Lolo-based languages) [Reconstruction of Proto-Lolo]
Step 5: Reconstruction of PLB-1

By analyzing the results of Steps 1 through 4, [which theoretically means the reconstructing a higher-order Proto-Lolo-2 after Step 4 through comparison between Proto-Lolo-1 and Proto-Lisu-Lahu, and then comparing Proto-Lolo-2 with the proto-languages in Step 1 and Step 2], collating these with Minor Languages, modifying them, and further comparison with other languages such as Moso, Mi, and Mi-nyak, we are able to reach Step 5. At each stage, Burmese is used as an indicator.

While the details may differ for each researcher owing to their differing opinions about subclassification, the necessity of such a procedure is clear. However, in view of the sources available at present, it seems to me that they are insufficient for attempting a reconstruction following such a procedure. The one reason that I have been forced to rely largely for a comparison between Burmese and Akha is the lack of materials in other languages. Fortunately, both these languages are essential for the reconstruction of PLB finals and stopped finals in particular. Even though I have omitted the above process in connection with the themes elaborated in this paper, I do not consider this to be overly problematic.

Lewis indicates laryngealized vowels in Akha as V? (e.g., iʔ, uʔ, etc.). Next, I note the tone correspondences among the various languages cited herein. Regular correspondences in the tones of WrB/CB, Bisu, Akha, Lisu, and Lahu are as follows (cf. RB 1966, pp. 56–65, p. 69; JAM 1970, p. 15; JAM 1971, p 26, p. 30).

Non-laryngealized vowels (oral vowels) for Akh-PL

<table>
<thead>
<tr>
<th>WrB/CB</th>
<th>Bisu</th>
<th>Akha</th>
<th>Lisu</th>
<th>Lahu</th>
</tr>
</thead>
<tbody>
<tr>
<td>*/ʔ/</td>
<td>high</td>
<td>high PL, high NT</td>
<td>{3}_{JOF} { mid (non-laryngealized) NT }</td>
<td>{ */ʔ/ }_{JAM}</td>
</tr>
<tr>
<td>*/ʔ/</td>
<td>mid</td>
<td>mid PL, mid NT</td>
<td>{3}_{JOF} { mid (laryngealized) NT }</td>
<td>{ */ʔ/ }_{JAM}</td>
</tr>
<tr>
<td>*/ʔ/</td>
<td>low</td>
<td>low PL, low NT</td>
<td>{5}_{JOF} { low (non-laryngealized) NT }</td>
<td>{ */ʔ/ }_{JAM}</td>
</tr>
</tbody>
</table>

Laryngealized vowels (laryngealized/faucalized/glottalized vowels) for Akh-PL

<table>
<thead>
<tr>
<th>WrB/CB</th>
<th>Bisu</th>
<th>Akha</th>
<th>Lisu</th>
<th>Lahu</th>
</tr>
</thead>
<tbody>
<tr>
<td>stopped final */ʔ/</td>
<td>mid</td>
<td>mid PL, mid NT</td>
<td>{3}_{JOF} { mid (laryngealized) NT }</td>
<td>{ */ʔ/ }_{JAM}</td>
</tr>
<tr>
<td>stopped final */ʔ/</td>
<td>low</td>
<td>low PL, low NT</td>
<td>{6}_{JOF} { low (laryngealized) NT }</td>
<td>{ */ʔ/ }_{JAM}</td>
</tr>
</tbody>
</table>

It is accepted that a distinction between laryngealized and oral (which I will refer to here as non-laryngealized) exists for most vowels in Akh-PL. In Akh-NT, laryngeality is a phonetic characteristic of the mid tone, and no distinction due to laryngeality is recognized among vowels. Three tones with phonological distinctions among high, mid, and low are recognized in both languages.

In Akh-PL, the distinction between laryngealized and non-laryngealized is written together with the tone distinction.

Akh-PL (non-laryngealized vowels)

| tone 1 | high tone */ʔ/ | */ʔ/ | 55 |
| tone 2 | mid-rising */ʔ/ | */ʔ/ | 35 |
| tone 3 | mid (laryngealized) (unmarked) */ʔ/ (glottalized) | */ʔ/ | 33 |
| tone 4 | mid (non-laryngealized) (unmarked) */ʔ/ | */ʔ/ | 12, 33 |
| tone 5 | low (non-laryngealized) */ʔ/ | */ʔ/ | 11 |
In Bisu, in most cases, *stopped finals are transitioning to open finals. Consequently, laryngealized vowels in Akh-PL that derive from *stopped finals normally correspond to open finals in Bisu. However, stopped finals also exist in Bisu, and there are few examples where these correspond to laryngealized vowels in Akh-PL (while several distinctions are made among the three high, mid, and low tones for open/nasal finals, only one distinction between high and low tones is recognized for stopped finals).

Examples:
‘below’ Bis ʔan →ʔnk NT; Akh la ʔo PL, dā-ʔo NT; cf. ‘to wear on the head’ Bis khɔ : Akh xo PL, xo NT
‘to pour’ Bis ʔå; Akh ʔc PL; cf. ‘to kill’ Bis ʔc; Akh ʔc, PL
‘to tear’ Bis ʔšt; Akh ʔc ‘to pluck’ PL.
(I regard this third as cognate with WrB ʔut ‘to tear’, cut ‘to be torn’; Lis ʔr ‘to tear’ JOF; Lah ʔi ‘to pluck, pick’ JAM. For the reflexes of PLB *-ut, let us compare the following examples: ‘to wipe’ WrB ʔutt; Akh ʔi PL; Lis ʔi JOF; Lah ʔi? JAM, ‘lungs’ WrB ʔut; Lah ʔ-ʔi. Note that I differ from Matisoff with respect to the certification of the common root form for ‘to tear’. Matisoff considers the situation as follows:
PLB *ʔcwut ‘pluck’, WrB ʔchat ‘to pluck, gather, as flowers or fruit’; Akh ʔi ‘to pluck’ PL; Lah ʔi? (JAM 1972, no. 57)

PLB *ʔszt ~ *ʔšt ‘split’, WrB ʔit ‘to split into two’; Akh ʔc ‘to split’ PL; Lah ʔi? ‘to split longitudinally’ (JAM 1972, no. 88)

PLB *ʔjut ~ *ʔjut ‘bear/rip’, WrB ʔut ‘to tear’, cut ‘to be torn’; Akh ʔi ‘to tear something’ PL; Lis ʔi ‘to tear’ (JAM 1972, no. 110)

Hence, there is still much that remains unclear regarding the etymological identifications.

On the whole, stopped finals are found in many loanwords from other languages such as Thai (Nishida regards ʔšt ‘to tear’ as another loan word from Thai). However, when loanwords have stopped finals, the fact that they are extensively borrowed can be interpreted to mean that the Bisu phonological system allows stopped finals. Thus, even though there are few examples, Bisu stopped finals may be considered to derive from *stopped finals. Besides these, and despite its many still puzzling points, Bisu in conjunction with Phunoi could play a large role in the reconstruction of PLB. More studies in future are desirable in this regard.

Next, I would like to briefly discuss some other issues, including tonal sandhi and alternants with differing tones that are found in these languages.

In Akh-PL, there is held to be no restriction on the combination of tones in polysyllabic words (as with Akh-NT, one- and two-syllable words form the foundation of the vocabulary, whereas the majority of words with three, four, or more syllables are either products of partial or total reduplication or the affixation of qualifying morphemes) and phonological tonal sandhi (and phonetic variation) is acknowledged only for some three- and four-syllable words. However, in practice, it is reasonable to say that tonal sandhi is barely acknowledged at all. Moreover, according to Lewis, [even between dialects] “there does not appear to be as much free variation or drift in tone as there is in the consonants and vowels.” Setting aside the phenomenon of tonal sandhi, variants with different tones and free alternants are recognized to some degree (e.g., ‘easy’ /-ʔa/-/ʔa/-[ʔa]-/ʔa- ‘easy’ [cf. ʔo-fû ‘to be easy’ NT], /ʔa-ʔa/-/ʔa-/ ‘easily [without any trouble]’); /ʔaʔp’uʔu/ ~ /ʔaʔp’uʔu/ ~ /gə p’uʔu/ ‘a wall’ [cf. kà-phjó ‘wall’ NT]). However, compared with Akh-NT, the situation becomes quite different. Nishida discusses tonal sandhi with particular reference to two-syllable words in Akh-NT. For example, he remarks that for Type A two-syllable words composed of words other than verbs, tonal sandhi is limited to the combinations low-high, low-mid, mid-mid, mid-low, and high-low. This is interpreted as a transitional process from “high-accented syllables” to “high-accented words” (NT 1966, pp. 7–9; p. 37 [supplementary note]). Regarding a similar phenomenon found in Lahushi, Nishida argues that this represents a transition from a “high-toned syllabic” system to a “high-toned word” system (NT 1969b, p. 9). Provisionally, I will call the former a tonal system and the latter an accent system. As examples of the latter, we could cite the Lhasa dialect of modern Tibetan and Gurung. However, in these languages, the accented area does not stop with words but extends to phrases containing postpositional particles. In the case of Akh-NT, e.g., /shè/ → /sè/ of /shè-mo/ ‘louse’ (sè NT-PL) and khûw /shè/ ‘flea’ (k̀i̯ sè PL) are interpreted as a case where two syllables that originally had the same tone came to have different tones depending on their respective positions in these words, with /shè/ in the phonetically non-stressed position being considered as having the same tone. However, the rules governing the shift from basic tones to tonal sandhi are not very strictly established. As a result, e.g., in the case of forms such as /ʔì-ʔì/ that appear as tonal sandhi forms, even when applied only to the basic form -/ʔì-ʔì/ ‘wave’, this results in the derivation of two forms: /ʔì-ʔì/ and /ʔì-ʔì/. In addition, as examples of the straight adoption of the same morphemic alternants, we have /nà/me ‘nose’ (cf. /nà/me/ PL, /nà/me ‘nose’ and /nà-ma ‘to dream’ (cf. /mà-ma/ PL) [overlapping]. If we were to cite only the basic forms, it would be necessary to formulate stricter rules governing the shift from basic tones to tonal sandhi, and in case this is impossible owing to lack of sources, I think it would be alright to simply show the tonal sandhi forms as they are. Furthermore, I think there are other problems with the certification of these basic tones from a diachronic perspective. Generally, rules of
thump similar to those I described earlier are established between (basic) tones in Akh-NT and Akh-PL. However, in a case such as /šè/ ~ /šè/ “louse, flea” (cited earlier), if we were to choose the basic form /šè/, the tone correspondence would be irregular (there are other examples including Akh-NT /šè bò/ ‘garlic’ : Akh-PL, /šè bò/ ‘onion’ Akh-NT/laŋ ‘/ Akh-PL /dàŋ/ ‘door’). Hence, although we could see that the certification criteria for basic forms are erroneous, when we try broadening the comparative frame to other LB languages, the task does not seem to be quite so simple.

‘louse’ Akh šè-mó NT, šè’mò PL (‘flea’ khu šè NT, kì, šè PL); Bis šèn; Lah šè IAM; WrB sàn

In light of the aforementioned tonal correspondence rules, Akh-PL šè corresponds regularly to Bis šèn, Lah šè, whereas Akh-NT šè (basic form) corresponds regularly to WrB sàn (CB /tären/). Conversely, the tonal variant of Akh-NT šè (the šè of khu šè) corresponds regularly to its corresponding forms in Akh-PL, Bisu, and Lah-IAM with respect to tone. If we were to see the irregular correspondence of tones for WrB and other LB forms as reflective of alternate or variant forms in the proto-language, it would not be completely impossible to imagine the replacement of šè ~ šè in Akh-NT as reflective of this. In fact, it seems that some terms of a similar nature are included among those with alternate forms reconstructed by Matisoff. However, following a step-by-step reconstruction similar to the one proposed by Nishida, if we consider Proto-Bisu-Akh a from a comparison of Akha (actually, we could use Proto-Akha) and Bisu, the replacement in Akh-NT šè ~ šè, rather than as being reflective of the existence of alternate forms in the proto-language, would be considered a case where *syân (high tone)>Proto-Akha *šè (high-tone) had split by virtue of some condition into Akh-NT šè and šè, and in that case, it should probably be considered to have escaped the general splitting condition. For reasons such as this, positing alternating forms in the proto-language does not necessarily seem correct when attempting a reconstruction that ignores the step-by-step method and that relies solely on a single dialect of each language simply by virtue of irregularities between elements with corresponding forms. Thus, even more elaborately descriptive studies of each language and dialect are desirable in order to avoid such errors.

In Bisu, except for the enclitic syllable /-ŋ/ (which could also in fact be considered tonally neutral) and examples such as (55)+(55) → (44)+(55), (11)+(55) → (22)+(55), (11)+(11) → (22)+(21), which are considered phonetic tonal variations, we find phonological tonal sandhi such as mid (33)+low (21) → low (11)+mid (33) → (low (22)+mid (33) ~) low (22)+low (11). As with the case of Akh-NT, only the basic forms are shown, but there are also inconsistent examples.

/mèn hmu/ ‘beard’ vs. /ræŋ-hmu/ ‘feather’; /mè k̷jow hmu/ ‘eyelashes’
/kà-bà já/ ‘woman’ vs. /ræŋ-jà/ ‘son’ /kà-phà já/ ‘man’

/jfà-ba/ ‘id.’ vs. /jìa/ ‘bee’

In addition, the example of /tú/- from /tú-hla/ ‘one month’ vs. /tú/- from /tú-hmuŋ/ ‘one day’ seems to suggest the possibility the phenomenon of tonal sandhi on a broader level.

In Lis-NT too, there are alternants:


(While Nishida regards the /tśòh/ of /gua (33)-tśòh (11)/ ‘friend’ (cf. hchsaw₂-hpha₂ JOF; WrB rā-khyān) as having the same form as this /tśòh/ ~ /tśòh/ ‘man’, this is a homonym resulting from the integration of all /tś/ that have lost the distinction between *ts’h and *t’sh, and represents a separate morpheme from that of /tśòh/ ~ /tśòh/ ‘man’). Here, /tśòh/ is provisionally regarded as the basic form. Conversely, /gùå/ and the /guå/ of /mòh (11)-guå (33) guå/ ‘to sing’ (cf. mu‘-gwå ‘gwå’ JOF) are regarded as separate forms since they indicate a functional distinction. Aside from such individual tonal sandhi forms, as well, tonal sandhi is also found in those such as verbs that take the particle /tah/ (whose basic form links the negative prefix /måh/- with the completion particle /qo-). In fact, the phenomenon of tonal sandhi is probably found even more broadly. While the basic form of the aforementioned /tśòh/ ~ /tśòh/ is held to be /tśòh/, from a diachronic perspective, the original tone is rather represented by /tśòh/, in light of Lis-JOF htsaw and Lis-JIF ts‘o₁². As with the case of Akh-NT, where it is difficult to posit rules governing the shift from basic forms to tonal sandhi, it would be desirable simply to record tonal sandhi as it occurs.

In Lis-JOF, tone seems to generally be fixed for each morpheme, though this does not mean there are not any examples of morphemes with tonal alternants.

Examples:

hti5 one ~ ti1 (htsi₄-ti1 ‘eleven’; cf. thèh ~ tìh NT, ti¹¹ ~ ti¹³ JIF)
(rā-) mrgh₄-xwife ‘(cf. ra₁¹-muṅ₁¹ JIF) ~ (rā-) mrgh₄ (‘ra’) ‘woman’ (cf. ra₁¹-muṅ₁¹ JIF)
śi¹ (dži) ‘tree’ (cf. sū-duz NT, ci³₃-dzi³ JIF) ~ sī¹ (rē³) ‘flower’ (cf. sū-rê NT, ci³₃-re³ JIF)
myâ¹ (a’-mya) ‘many’ (cf. ah-mià NT, q’a-mia JIF)

The prefix a- has the forms a’, a², a³, while there is no need to regard them diachronically as having all derived from a single ancestral form, synchronically we can also think of them as alternants of the same morpheme. In Lis-NT, as well, the corresponding prefix /tah/ (basic form) has the alternants /tah/ and /təh/. This replacement can be roughly defined by the tone of the next morpheme. However, there is no such condition in Lis-JOF (cf. -a¹-
als alone, we find eolar, and labial stops, and do not distinguish other phonological ʹ-ʹ-
2b ʹ1-
se cf. especially NT 1969a and JAM 1971, mid) → /
/
/
/
in the stops/affricates series, as well, other than in the row for alveolar stops, there are no corresponding examples (no. 43) PLB *
which therefore brings us to the following:
NT; Lah (could cite: include extremely doubtful e
correspondence table on Nishida 1969a, p. 211 with reference to JAM 1971 and 1972. (However, since Matisoff re
reality there are also cases expressed as fricatives and affricates). This correspondence table is based on the
(H=high tone class, L=low tone class) (Note that this correspondence table is
example.
1972. Next, I will try presenting the reconstruction methods of both scholars, taking the series of velar stops as an
For a
case, excepting medials, with a ‘cover symbol’ (using capital letters). For instance, in examples such as *K
I hereinafter. When presenting the reconstructed forms of PLB, I have shown the core consonant
considered to reflect differences in initial vowels or vowel groups, or finals in the proto
tonal sandhi and alternants and free alternants with different tones. While it beho
considerations have become significantly limited. In other words, this is to say that the dialect is in the process of
transitioning from a tonal system to an accented system.
In this way, the situation for each dialect of each language varies considerably with regard to the phenomeno
of tonal sandhi and alternants and free alternants with different tones. While it beho
us to pay sufficient attention to tonal sandhi forms at each stage of the description of each dialect in the case of LB languages, for which tones are consi
lected differences in initial vowels or vowel groups, or finals in the proto-language, on such occasions it
will likely be necessary to set strict rules governing the shift from basic forms to tonal sandhi.
Other than touching somewhat on methods for reconstructing medials, I do not touch at all on the reconstruc
tion of initials, nor do I hereinafter. When presenting the reconstructed forms of PLB, I have shown the core consonant of initials, excepting medials, with a ‘cover symbol’ (using capital letters). For instance, in examples such as *K-, *T-, and *P. I respectively show velar, alveolar, and labial stops, and do not distinguish other phonological characteristics. I have also used cover symbols (where necessary) when discussing non-reconstructed forms as well. For a detailed discussion of this method for reconstructing initials, please cf. especially NT 1969a and JAM 1971, 1972. Next, I will try presenting the reconstruction methods of both scholars, taking the series of velar stops as an example.

<table>
<thead>
<tr>
<th>PLB</th>
<th>WrB Ats/Mas</th>
<th>Akh</th>
<th>Lis</th>
<th>Lah</th>
</tr>
</thead>
<tbody>
<tr>
<td>NT</td>
<td>JAM</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>S1</td>
<td>*kh</td>
<td>k</td>
<td>k</td>
<td>k</td>
</tr>
<tr>
<td>S2a</td>
<td>*K</td>
<td>k</td>
<td>k</td>
<td>k</td>
</tr>
<tr>
<td>S2b</td>
<td>*Kh2, *k On *Ck(h)₂</td>
<td>k</td>
<td>k</td>
<td>k</td>
</tr>
<tr>
<td>S3a</td>
<td>*g₁</td>
<td>k</td>
<td>k</td>
<td>k</td>
</tr>
<tr>
<td>S3b</td>
<td>*g₁, *g On *Cg₁</td>
<td>k</td>
<td>k</td>
<td>k</td>
</tr>
</tbody>
</table>

(H=high tone class, L=low tone class) (Note that this correspondence table is intended as a schematic only, and in reality there are also cases expressed as fricatives and affricates). This correspondence table is based on the correspondence table on Nishida 1969a, p. 211 with reference to JAM 1971 and 1972. (However, since Matisoff only discusses the initial vowel groups of syllables ending in stopped finals, there may actually be some problems with this manner of presentation). When we examine these sample correspondences individually, we find that they include extremely doubtful examples such as S2a. Taking the sample correspondences from the S2a line of velars, we could cite:

‘branch’ WrB ʔa-kānj ‘a large branch of a tree, bough of a tree, larger than ʔa-khak’; Mar -kāun NT; Lis -kāh NT; Lah (shī/na) -kā NT

Nonetheless, Lishu and Lahu forms both correspond to WrB ʔa-khak ‘a branch of a tree, smaller than ʔa-kānj’, which therefore brings us to the following:

‘branch1’ WrB ʔa-khak; Ats Đkophon? RB, Đkophon? RB; Lis -kān JOF, -kāh NT; Lah -qā JAM, -kā NT, cf. JAM 1972, (no. 43) PLB *gak ‘branch’

‘branch2’ WrB ʔa-kānj; Mar -kāun NT

As a result, we are able to regard “branch1” as an example that corresponds with S2b and “branch2” as an example corresponding with S3a. Moreover, the corresponding forms in Akha are unknown. Beyond the velar stops, in the stops/affricates series, as well, other than in the row for alveolar stops, there are no corresponding examples for S2b and what’s more, the only examples, currently, is the following (irregular correspondence).
‘to beat, pound’ WRB té ‘to beat, pound, otherwise than in mortar’; Akha te ‘to beat on something or someone with the side of one’s fist’ PL; Lisu tí ‘to pound (as paddy); to beat (with a stick) JOF; Lahu te ~ téʔ ‘to pound, crash’ JAM

Thus, this correspondence is not thought to be “regular.”

In Burling’s Atsi and Maru, the distinctions aspired : unaspirated and glottalized : non-glottalized of initial consonants are acknowledged as phonological distinctions, whereas the distinction voiced : unvoiced is considered a phonetic characteristic. Nishida acknowledges the distinctions voiced : voiceless and aspirated : non-aspirated for initial consonants and assigns distinctions of glottalization to vowels. Denis Bernot’s Maru, although based on the same interpretation as Burling, also includes the following examples that are inconsistent with Burling’s Maru on the point of glottalization.

‘sec’ [‘dry’] kəyuʔ DB, kyaoʔ DB (WRB khrokh)
‘moustique’ [‘mosquito’] kəvə DB, kyoŋ DB (WRB khroyŋ)
‘sucer’ [‘suck’] cɨup DB, chap DB (WRB cut < *cup)
‘ignane’ [‘yam’] miyoik DB, myoık DB (WRB myok)

Burling’s method for reconstructing initial consonants is unique in his acceptance that the glottalized: non-glottalized distinction existed in the proto-language. His method was further developed by Matisoff, leading him to arrive at a reconstruction method like the one described above. However, according to Bernot, there is some possibility that the correspondence between glottalized initial consonants in Maru and initial consonants in WRB may not be as simple as indicated by Burling (Maru Cʔ?: WRB Cb).

(Bernot summarizes the correspondence as follows:

Maru Cʔ?: WRB Cb- (Unrelated to tone)
e.g., ‘chien’ [‘dog’] Maru laikə DB (lákha DB): WRB khwē
‘crapaud’ [‘toad’] pəʔa DB (pəʔa DB): phå
‘oiseau’ [‘bird’] nəʔə DB (ŋəʔə DB): hyak
‘bateau’ [‘boat’] ləʔa DB (ləʔa DB): hlé, etc.

Maru Cʔ?: WRB C- (In the case of /ʔ/ and /h/)
e.g., ‘tissage’ [‘weaving’] Maru kəunŋ- (~kin DB): WRB kāŋ
‘manger’ [‘eat’] səʔə (~tsə DB): cā
‘lune’ [‘moon’] ləʔ ə: là, etc.

Bernot’s materials are extremely meager, however, and there may be some problems in terms of their reliability). For Maru and Atsi, there is need for further investigation in future.

While Matisoff’s glottalized series for PLB originally found its basis in Burling’s glottalized series, Matisoff’s reasoning has more recently moved to correspondences with TB languages other than LB (especially WrT) and tonal correspondences between LB languages. This acceptance of the glottalized series is a key point of his “doubled glottalization” theory with regard to the production of the /ʔ/ (high-rising) in Lahu. While there are other conceivable correspondences aside from those listed in the table above, such as among stops and affricates, since establishing correspondences for S₂ could be difficult if only these correspondences are regarded as regular correspondences for the moment, Nishida’s reconstruction method does not accept *k, and is missing *unmarked’ stops and affricates in terms of the aspired : unaspirated and voiced : voiceless distinctions among its PLB stops and affricates. We could say that it is for this reason Matisoff accepts distinctions due to voice as phonological distinctions in PLB, and regards aspiration as the phonetic characteristic of the voiceless consonants. Further, positing a series of pre-nasalized consonants for Sb is based on the fact that the corresponding forms in Nasu and Lolomaa are respectively pre-nasalized (voiceless) aspirated and voiced aspirated, and the forms belonging to the corresponding series in other TB languages are frequently accompanied by a nasal prefix. Viewed overall, the reconstruction of initials not only in PLB but in PTB as well seems to involve even more problems.

Finally, I will discuss the identities of the various dialects of Akha, Lisu, and Lahu discussed here.

Akh-PL: A Puli (jë yō) dialect spoken in the central and central eastern portions of the Kengtung District of the Shan State in Burma. Generally regarded as standard Akha. However, a number of forms from other dialects are included among the Akha vocabulary in the dictionary compiled by Lewis. In addition, it seems that there are some examples in which differences due to “age” group have been recorded, such as the /dzuʔ/ and /juʔ/ of /dzuʔa/ ‘to crouch and hide’ and /juʔa/ ‘to go hide (usually when children are playing)’ (note that Dellinger, who includes several examples, offers an erroneous interpretation, cf. DWD 1968, p. 18)

Akh-N: A dialect recorded in the village of Ban Saen Chai in Chiang Rai Province in Thailand. The residents of this village are said to have moved here from Burma in the relatively recent past.

Lis-JOF: Based primarily on a dialect from Tengyue (now Tengchong) in China’s Yunnan Province. While Fraser states that “it must be borne in mind that much in this handbook is subject to differences of dialect,” an examination of the vocabulary reveals something close to homogeneity.

Lis-N: A Lisu dialect from around Nikhom in Tak Province, Thailand.
Lab-JAM: A Lahuna dialect from around Chiang Mai in Chiang Mai Province.
Lah-NT: Lahushi from around Nakhom, Mae Chan District, Chiang Rai Province, Thailand. Note that Lahuna sources surveyed by Nishida from Doi Mussuh in Tak Province, Thailand are also partly presented in NT 1968.

Here, I postulate PLB *(K)- based on the correspondence WrB Ky: - Ahk-PL K-.

While PL 1968a and DWD 1968 make minor mention of differences between Akha dialects, Lewis argues that the distinction between alveopalatal /c/, /j/, /š/, /ʒ/ and alveolar /ts/, /dz/, /s/, /z/, as well as between /h/ and /x/ have been lost in Akha dialects in the southern areas of Burma, where they have been respectively integrated as /c/, /j/, /š/, /ʒ/, and /h/. He notes above trend can also be seen in children’s speech in the central dialects. Conversely, in Lis-JOF, the alveolar series (ts /ts/, hts /ts'h/, dz /dz/) is distinguished from the alveopalatal (ch /c/, hch /hch/, j /j/), each being considered as separate phonemes, and this distinction, as in the case of Ahk-PL, is considered to be reflective of a distinction in PLB. Accordingly, since this case occurs as miǔ-tsì in Lis-JOF, it is expected to take a form like */ma'ʦi/* in Ahk-PL as well. We could consider the /ma'ʦi/* form recorded by Lewis to be a dialect in which the alveolar: alveopalatal distinction has been lost, a borrowed usage from such a dialect, or reflective of the fact that the trend toward the loss of this distinction was also becoming typical in Puli dialects. Note that the alveolar: alveopalatal distinction in Lis-NT, as noted earlier (in Note 5), has already been lost for affricates, and Fraser also states that affricates for the two series that precede a, o, and u in Lisu dialects in Burma have all become ts, hts, and dz. In Lah-JAM, as well, no alveolar: palatal distinction exists for either affricates or spirants. When establishing correspondence, it is also necessary to give sufficient consideration to the possible existence of varying phonological systems between dialects as well as within a single dialect. As similar cases we could cite examples such as Akh /a'ʣi/* /sap in a tree: PL: /ʔa'ʣi-yi/* /rubber NT, while ‘rubber’ in Akh-PL is /jə'jɪyɛ̆/, the Akh-NT form should be compared, rather, with *dзиĮ-yɛ̆/ and cf. Lah- /β-ći/ ([-tsǐ]) ‘juice’. Here we can set Akh *dzi.

Further, although not mentioned by either Lewis or Dellinger, comparison of Ahk-PL and Akh-NT reveals some examples where it seems that the alveolar: alveopalatal distinction has also been lost in front of /i/ for nasals as well.

‘few’ Akh -niy PL: -ni: NT (cf. Bis ni: *Lis niJOF)
‘two’ Akh nyî, ~ niy PL: ni NT (cf. Bis ni: *Lis niJOF)

Benedict compares WrB kyac with examples such as WrB hkkhyig-pa ‘to bind’, Proto-kukish ’d-khik (PKB 1972, [no. 484] TB *kik ‘bind, twist, tie’). While Matisoff states that WrB hkkhyig-pa, WrB kyac, Kac k(hiri)(), mok(hri)(), and others are related to the PLB form (no. 7) ‘to twist, wind’ from our correspondence rule (1) (in JAM 1970, [no. 61] PLB *-rik? ‘twist’), he does not refer to this at all in JAM 1972 (no. 130). If this WrB form is held to reflect the common root form, this would preclude comparison with Ahk-PL gö.

Cf. JAM 1972, (no. 130) PLB *-rik~ *-s-yik ‘twist’. Doubts remain regarding the reconstruction of this initial.

Cf. RS 1952, (11-3) PLB *hnik ‘ceur’; RB 1967, PLSH *ma’ ‘heart’ (an odd reconstructed form that mistakenly takes the suffix –ma as a stem); JAM 1972, (no. 146) PLB *-nik ~ *-nij ‘heart’ Matisoff posits PLB *-ik for WrB hhnc, Lis ni-’maJOF, Ahi ni-’ma’2, Nyi n’?, etc. and PLB -in for Bis nûng-ba, Akh ni ma PL, Lah ni-ma JAM, Hani ma. However, PLB -iŋ > Akh –á PL, –on NT is expected: (1) PLB *pîŋ ‘to be full’, WR Bah prâŋ (OB plâŋ ~ plɛŋ); Aty pîŋ; Mar pîŋ; Bis plûng; Lis bi JOF, bi RB, bih NT; Lah bi JAM (RS 1952, (19-4) PLB *pîŋ ‘replin, plein’; RB 1967, *pîŋ ‘full’), cf. also WR Bah plrûn/OB plrûn ‘to fill’; PTam *plîŋ ‘to fill’; Mikir plîŋ ‘full’, peplen ‘fill’ (cf. PKB 1972, (no. 142) TB *blîŋ ~ *blîŋ ‘full’ ‘fill’), (2) PLB *Kriŋ ‘thread’, WrB khräð (OB khräð); Bis khrî; Akh -kâ PL, -khôn NT; Lis hčhî JOF, tshuŋ- NT; Lah (shi)-khēh NT, (3) PLB *Min (~Myan ‘name, to (be) name(d), WrB à-mâñ ‘name’, mâñ (OB mañ ‘to be named’, hmâñ ‘to name’; A) myîŋ ‘name’, nîviŋ (v.); Mar mâñ ‘name; Bis ʔan-hmêŋ ‘name’, hmêŋ ‘to name’; Akh tsv’yà ‘myà ‘name to someone’, za myà ‘myà ‘to give a child a name’ PL, tšê mîn ‘name’ NT; Lis myê ‘name JOF, myo ‘id.’ RB, jîb-my ‘id.’ NT; Lah ʔà-m ‘name’, mo ‘to name’ JAM. While there are few parallel examples in the case of Lis-JOF, which remains quite unclear, it may be derived from *-ik for similar reasons. Although the conditions are unclear, when Bisu-Akha is posited, it is not impossible to speculate a transition such as **nuuk-ma > nuŋ?-ma

Bis nûng-ba

*Àkh nnu- ma ( = nîma ). We may also consider that Bis nûng-ba could also be derived from PLB *Nik.


Cf. RS 1952, (11-9) PLB *sik ‘tree, bois’; RB 1967, PBSH *sik ‘tree’, PLSH *suŋ2 ‘tree’; JAM 1972, (no. 118) PLB *sik = *sîŋ ‘tree’. PLB *sîŋ is based on Bis tsiuŋ-: Hani sz22; and Lolomaa se33. Here, we can further add Akh sà ( = sà nyo ‘the core of a tree or branch’ and â nyl ( ‘a tree stump’) PL.


Cf. JAM 1972, (no. 172) PLB *pôyîk ‘elder sibling’.

Cf. JAM 1972, (no. 3) *bek ‘give’. PLB *Pîj can be posited as an alternant of the open syllable: WrB pê (OB pîj); Aty pîj; Lah pî JAM. Both possibilities exist for Bis pî, cf. RS 1952, (3-23) PLB *bî ‘donner’; RB 1967, PLB *pi2 ‘give’. On the basis of Bisu-Akha we get *Pît > Bis pî.
While it is certain that *g-variants for the proto-PLB are still problems with the dialects of modern Burmese, nonetheless, I find that there is some doubt as to whether or not we can distinguish between *-it and *-it. A point to take note of in the reconstruction of PLB is that when restoring a given distinction to PLB that relies on correspondences with languages other than LB, it is first necessary to carefully examine whether or not this distinction is backed up by reflexes in LB languages. In the case that it cannot be backed up, it is better to consider that the distinction had already been lost at the stage of PLB. Although, we can also think of similar cases in which the OB form is unclear and thus it is impossible to restore the distinction between *-ac and *-y(at) in PB (Nishida’s Archaic Burmese) solely on the basis of the dialects of modern Burmese, nonetheless as a rule, we should probably attribute the distinction in question to a pre-LB stage. Cf. also PKB 1972, (no. 371) TB *ri-t ‘reap, cut, scrape’. 

While Matisoff posits ‘open syllable’ variants for each of these, we can show the correspondences on which these rely by contrasting them with stopped syllable variants as follows:

<table>
<thead>
<tr>
<th>WrB</th>
<th>Ats</th>
<th>Mar</th>
<th>Bis</th>
<th>Akh-PL</th>
<th>Lis-JOF</th>
<th>Lah</th>
</tr>
</thead>
<tbody>
<tr>
<td>‘one’</td>
<td>tac</td>
<td>[ *-VC tüi- tüi- ti-</td>
<td>*-V ti-</td>
<td>hti- ~ ti-</td>
<td>tê</td>
<td>(Hani, Woni)</td>
</tr>
<tr>
<td>‘two’</td>
<td>hnic</td>
<td>[ *-VC ni-</td>
<td>*-V nyi-</td>
<td>nyi- ~ nyi-</td>
<td>ni</td>
<td>(Ahi, Nyi, Hani)</td>
</tr>
<tr>
<td>‘seven’</td>
<td>khu-hnic n?yit n?at</td>
<td>[ *-VC si-</td>
<td>*-V shi-</td>
<td>shi-</td>
<td>(Hani, Lolomaa)</td>
<td></td>
</tr>
</tbody>
</table>

In fact, the Bis form is tüi- (~ ti-) (see Note 5). This alone does not allow us to assert a derivation from *-VC. If we think in parallel with Akha, tüi- ~ ti- is used only when integrated with a classifier (in isolation, niyet is used, a Thai loanword). Therefore, it may be thought to correspond to Akha ti-. With Akha, ti-, and in isolation, ti-, are used when integrated with classifiers. While they are ti ‘one’, ni ‘two’, si ‘seven’ in Akh-NT, when integrated with classifiers, they all take a low tone (11). In WrB, as with tac ~ ta-, hnic ~ hna-, and khu-(h)na- ~ khu-(h)na-, when integrated with a classifier, they may be thought of as having already taken a light tone (cf. NT 1972, p. 216). However, with OB, at least in early OB, there does not seem to have been a mechanism to confer a light tone. Such a fact, as we might expect, inspires doubt as to whether ti, ni, and ti, ni in Akh-PL should be conceived of as each being a separate root form. In other words, I find it reasonable to believe that this has resulted in forms derived from the PLB form with the original *-VC final in (Bisu-) Akha according to the conditions listed earlier to have alternants of *-V. We could also consider the fact that Bisu tüi- ~ ti ‘one’ and ni ‘two’ were not replaced by loanwords only in cases where they are integrated with classifiers, perhaps because they had already taken a different form when used in isolation. I do not think it impossible that the rhymes in Lisu (in which ti- is an alternant used only for hst’-ti ‘eleven’) and Lahu are also derived from the original *-VC. Positing alternates and variants for the proto-language is something that requires further investigation. Note that the TB finals that correspond to these three numbers are not necessarily clear. Cf. PKB 1972, (fn. 271) TB *(g)-jyik ‘one’; (no. 4) TB *(n)-ni-s ‘two’; (no. 5) TB *(n)-nis ‘seven’; cf. also PTam *(g)(r): ‘one’, *(n)hi: ‘two’, *(n)is ‘seven’ (PTam *i : <**-it). While it is certain that the LB forms cited for ‘seven’ share a common root, there are still problems with the reconstruction of their initials.
In JAM 1972, Matisoff posits PLB *Ɂán interpretation similar to that for sh *myit 'root'. This word likely has the same origin as Spoken Mon /rʒh/ (spelled: ruih) 'root'.

While the transcribed forms of Burmese -ip and -im date back to Middle Burmese [=OB] -ip and -im, there is no decisive criterion for positing their inherited shapes" (NT 1969a, p. 887). However, with ‘to lie down, sleep’, I think it best to propose *-ip (see Section 4, Note 60). Note that in both Akha and Bisu, *-ip and *-up and *-im and *-um are respectively merged as *-up and *-um, a point that I believe to be sufficient evidence for positing a Bisu-Akha subgroup.

Cf. RS 1952, (13-1) PLB [*ip] ‘se coucher, dormir’; RB 1967, PLB *yip1 ‘sleep’; JAM 1972, (no. 180) *yip ‘sleep’/*?yip ‘to put sleep’ (WrB sip ‘to put to sleep’; Lah / JAM: Nyi ši). Nishida holds that "ビルマ語の書形式-ip, -im は、中古ビルマ語 [= OB] -ip, -im に通るがこの共通形式の設定には、決定的基準はない。" while the transcribed forms of Burmese -ip and -im date back to Middle Burmese [=OB] -ip and -im, there is no decisive criterion for positing their inherited shapes” (NT 1969a, p. 887). However, with ‘to lie down, sleep’, I think it best to propose *-ip (see Section 4, Note 60). Note that in both Akha and Bisu, *-ip and *-up and *-im and *-um are respectively merged as *-up and *-um, a point that I believe to be sufficient evidence for positing a Bisu-Akha subgroup.

Cf. RS 1952, (10-7) PLB *nat ‘génie, esprit’; RB 1967, PLB *nat ‘spirit’; JAM 1972, (no. 136) PLB *nat=nan (Lis ni² JOF; Lah ne; Nyi ni²) ‘spirit/anistic deity’. While Matisoff proposes alternates for the nasal final, it is necessary to investigate whether or not *-an may be posited for Lis -i: Lah /-e : Nyi /-i.

WrB ‘a-phat’ (< phat ‘to be dry, free from liquid (obsolete) opposes ‘a-ráñ ‘liquid’, which conveys an opposition like that between ‘broth’ and ‘dumplings’ (the non-liquid part of a soup). As the WrB form of the next example, ‘vomit’, Matisoff cites phat. While he is probably thinking here of -phat from WrB ‘lain-phat’ ‘mattered ejected from the stomach’ (‘lain’ ‘to retch, vomit’), this -phat seems to be the -phat from ‘a-phat’, and therefore does not share a common root with ‘vomit’.


Cf. RS 1952, (10-4) PLB *tsat ~ *Ɂsat ‘break in two/cut through/conclude’. While other examples such as Bis jè ‘to cut’ are cited as ‘possibly related, etyma’, Bis jè is also compared with Akh ye ‘to cut, as to saw wood, harvest rice’ PL (cf. also ye ma ‘asaw’ PL: jè-ma ‘id.’ NT). Although there are many possibilities for this PLB form, it is not impossible to reconstruct this as *Ryan and regard it as an alternant for PLB *Rit ‘to reap, harvest,’ cited in correspondence rule (3).

Cf. RS 1952, (24) PLB *C-tsat ‘bite down on’.


Cf. RB 1967, PBsh *c’it ‘love’; JAM 1970, (no. 12) PLB *c’it ‘love’.

Cf. RS 1952, (no. 40) PLB *tsat ~ *C-tsat ‘break in two/cut through/conclude’. While other examples such as Bis jè ‘to cut’ are cited as ‘possibly related, etyma’, Bis jè is also compared with Akh ye ‘to cut, as to saw wood, harvest rice’ PL (cf. also ye ma ‘asaw’ PL: jè-ma ‘id.’ NT). Although there are many possibilities for this PLB form, it is not impossible to reconstruct this as *Ryan and regard it as an alternant for PLB *Rit ‘to reap, harvest,’ cited in correspondence rule (3).

Cf. RS 1952, (24) PLB *C-tsat ‘bite down on’.


Cf. RB 1967, PBsh *c’it ‘love’; JAM 1970, (no. 12) PLB *c’it ‘love’.

Cf. RS 1952, (18) PLB *kayt ‘run’. In JAM 1972, Matisoff posits PLB *yat on the basis of this example alone.

Cf. RS 1952, (159) PLB *nip: (>WrB, nip ‘to be kept down, oppressed) ~ *?nip (>WrB hnip ‘to crush, oppress’) ~ *?nyit (>Akh, Lis, Lah, Nyi ne² WrB). This cognate set is said to be ‘closely related’ to (no. 147) PLB *(s)-nyap (WrB hnap ‘to be pin-ched, squeezed between; hitap ‘to squeeze, press between two objects’; Lis hchi-ni ‘shoes’ JOF; Lah nôʔ ~ nûɁ ‘to pinch, squeeze, khi-nôʔ ‘shoes’, etc.) ‘shoes/pinch as in a vise’ (to the latter, we can add Akh ci nôɁ ‘metal tongs’). However, it is clear that his *nip ~ *?nip should be distinguished from *?nyit, and I cannot think that the latter is closely related to his *(s)-nyap.


Cf. RS 1952, (114) PLB *sat ‘pour’. This should be compared with WrB swat and a *-w- can be posited. In addition, Akh-NT sè ‘to pour’ compares with Akh-PL še, ‘to pour’, WrB swân ‘to pour upon, as from a small aperture and with care and ceremony’. These two cognate sets are closely related.

PTam = Proto-Tamang is a reconstruction based on Western Tamang (= Murmi), Gurung, and Thakali (= Thaksysa). These languages are classified by Shafer as the Gurung Branch of the Bodish Section of the Bodish Division. However, since Tamang is the most archaic in nature, and speakers of Tamang represent an overwhelming majority,
I call these the Tamang languages, and refer to the proto-language Proto-Tamang. Regarding its reconstruction, please refer to:


The reconstruction method later underwent several changes, and there are plans for future presentations as materials are assembled. [Editor’s note: For Nishi’s published work on Tamang see ‘Tamang 祖語の再構 to meぐるいくつかの問題について-I-[several issues surrounding the reconstruction of proto-Tamang!]鹿児島大学史学科報告 Kagoshima Daigaku Shigakuka hōkoku 26 (1977): 53-68 and ‘タマン語の声調について On the tones of Tamangic languages’アジア・アフリカ語の計数研究 *Computational analyses of Asian & African languages 8* (1978): 1-16]

Nishida holds the TB form of this to be *khyags (> OB khyac > MTA khy-e?) (NT 1972, p. 360). In addition, I believe WrT chu ‘water, river’ to most likely derive from *Kyu (cf. PTam *kyu ‘water; river’; Chepang kyù ‘river’ [Hodgson]). The change **ks > *t is not raised as anything more than a possibility. [Editor’s note: A further objection to Matsiss’s comparison of WrT rdegs(s) to WrB cac is that according to Dempsey’s law no Tibetan words with the rhyme -eg are inherited (cf. Hill, Nathan W., 2014, ‘Some Tibetan verb forms that violate Dempsey’s law.’ *Revue d’Etudes Tibétaines* 29, pp. 91-101)].

This conclusion is specified in more detail in the next section. Note that, as a possibility, we could consider positing (Burmish)-(Bisus-Akha) as a subgroup. If we consider this possibility, this conclusion would be supported, at least in so far as it concerns this language group. Although we do not sufficiently understand how broadly the range of LB languages extends, depending on the results, it may prove that *(y)at also represents the merger of several originally distinguished finals. However, even if this were the case, I am sure that the conclusion reached here is sufficiently applicable to a proto-language at a level perhaps lower than PLB. In particular, I believe it to be important that doing so will lead to the clarification of the conditioning of splits/mergers for multiple finals in a lower-level proto-language.

This excludes loanwords. Note that examples of WrB -(y)an include the following: 1. kyån ‘to remain, be left’; 2. kyān ‘to be well, healthy’; 3. kyān ‘to be turbulent, rebellious’; 4. khyān ‘to leave, let remain’; 5. cân ‘to be stretched out straight’; 6. chan (< PLB *Tsan) ‘husked rice’; 7. chán ‘to go up (a river), go against (the wind, tide); to contravene authority’; 8. chán (Chen) ‘similarity; resemblance (of outer surface, character, etc.);’ 9. chán ‘to stretch out straight from a bent or curved position’; 10. chán ‘to be contrary, opposite’; 11. chán (cf. Akh a,gi ‘tses, ‘for stars to shine’, ba la tse.. ‘for the moon to shine’) ‘to advance, wax, as the new moon’; 12. chán ‘to exceed others, be extraordinary’; 13. chán (verb suffix) ‘just that and no more’; 14. phyån ‘to separate (enemies)’ (Chen phrăn); 15. phyån ‘a kind of plant with a bulbous root, which is sometimes cooked for food’; 16. phyån ~ phrăn ‘to sprinkle, scatter a liquid’ (Chen phylvān); 17. phyån ~ phrăn ‘to flush through the body, as blood, air, ororrpilation’

These various examples also require scrutiny like that given in his paper for other examples. Nonetheless, I believe that we can establish -(y)an’ < OB- (y)an, which has a considerable number of examples, with as much examination as these other examples. The same change is accepted for the following examples:

1. OB pan-thyaŋ : WrB pan-taŋ (CB hbadin) ‘a brazier, coppersmith’

I shall offer some examples that can be affirmed or postulated with such methods:

1. WrB (khyâŋ ~ khrāŋ ‘thread, ray of light’ < OB khrâŋ, cf. also Akh sa,ka’ PL, sà khâŋ NT ‘cotton thread’
2. WrB khywē (~ khreː) ‘sweat’ < OB khray (Akh ku,puy PL, khî phjû NT; Lis chi’ JOF; Lah kî JAM; Hani kɔ’sú pu KHN; cf. also Arakanese taçi RKS, kwi ~ chwi LFT; Tavoyan kuēy ~ cuēy NT, khwi PMT, kwi LFT)
3. WrB mruŋ ‘to be singed’ < OB mluik (cf. also Akh myo- ‘for a fire to scorched someone or something’), *(hmuík ~ hmuŋ) ‘to singe’ < OB *hmluk
4. WrB myok (Judson) ~ mrok (Chen) ‘monkey’ (Arakanese mruak LFT; Tavoyan myo? NT, myo? PMT, myok LFT) < *PLB *Mluk (A$s myu?, Mar myôk; Akh myo– PL). At present, there is no language with direct evidence of -l for ‘monkey’; cf. Mr u ye (Löffler), PTam *ti-myuk/*ti-nyu, Nepal Kham yuch (Watters), Chepang yuk (Caughley); cf. also; PKB 1972, (no. 112) TB *mruk ‘monkey’

If, as Judson indicates, this is cok-pat, we could compare with Akh a,be, ‘the vulva’ PL. However, it seems more likely that it is -pap.


See Note 8. R. Shafer regards this as (tês-, tsh-). P.K. Benedict regards it as (ts-, tsh-). However, as described below, whereas whether the OB form is (alveo-)palatal or alveolar is unclear from the notation, since the WrB form seems
to be (alveo-)palatal, it seems best to use the conventional method of transcription, and use c-, ch- for both OB and WrB.

I here provide a simple summary of -y- in Burling’s Atsi and Maru and the derived palatals and affricates. Note that where I indicate using a ‘cover symbol’, examples are indicated with capital letters (e.g., Tsy-, Ny-, Sy-) even though phonologically, they represent a single phoneme. In the case of Atsi and Maru, these can be interpreted respectively as le-/ /cɁ-, /ch-/ /ny-/; and /s-/ /sy-. Though there are no actual examples, *Ni > Ats *Nyi, Mar *Ni, etc. is predicted. In addition, while Ats Pyik and Mar Pak are predicted for *Pik, in fact, PLB *Pik ‘to shoot’ > Ats pik. PLB *Mik ‘bamboo shoot’ (>Ats myik, Mar màk) becomes WrB hmyac (CB hmyi?), and in addition to Houghton recording the Arakanese ‘naik (ʔ=hmai?)’, there seem to be spellings that reflect palatalization in early modern Burmese such as OB pac > CB pyiʔ, OB mañ > CB myiʔ, etc. (there are also loanword examples). Moreover, while WrB pac (OB pac) ‘to shoot’ is sometimes spelled prac, this is thought to be a case where -r- is used in place of -y-, and which indicates the palatalization noted above. Though I will not list all of the correspondence examples for want of space, I encourage readers to refer to the cognate sets in RB 1967 and Note 3.

<table>
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<tr>
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</table>

52 Cf. NT 1972, p. 51.
55 Since I do not have a conversion table at hand, this date (1239 AD) and the date given to the Mañ ?anantasū inscription (1206 AD) were calculated without regard for the year cycle by adding 638 to the Sakkaraj with an error of +1.
Although the initials of the following two examples have been confused with hr- in WrB, it seems to me that they had /hr-/ in OB and would never have been spelled sy-~ shy- unlike cases of /hr-.

1. OB yhun : WrB hrâmr : CB /soûan/ ‘to fail, lose, be defeated’
2. OB yhan ~ hyan = yhyan : WrB hyañ ~ hrâñ : CB /šini/ ‘to put together side by side or laterally’.

This fact, as well as indicating the possibility that /hr-/ and /hr-| were distinguished in at least some dialects of OB, also shows that they merged in WrB with initials deriving from /hr-.

In fact, this is WrB hgrim ‘to extinguish’, grim ‘to be extinguished’ (Judson indicates only grim). The OB form for the former would have been *grîm (cf. U Wun, op. cit.). When we investigate the CB forms closely we find that the distinctions among /hm- : /m- : /h- : /|, etc. has become considerably confused. Here, even where distinguished in writing, word-medially such confusion is normal, for example, for WrB myak-hnâ ‘face’ becomes CB /myeʔnâ/, and may even be spelled myak-nâ by a writer not particularly conscious of orthographic rules. Conversely, when WrB iyak ‘to lick’ (CB /yɛʔ/) and ly ‘to decrease (vi)’ (CB /lyʔ/) are read as they are written, as far as I know, most people pronounce these with initial /hl-~hl-|/WrB hlây ‘fast’, though also used in spoken language to mean ‘clever’, will be CB /hlîyn/. Although exceptional, there are some who pronounce nê-lây cid ‘lunch’ as /nêlîlê sâ/. Even looking at OB and WrB, in the case of nasals and laterals, it is widely recognized that this voiced : voiceless (or unaspirated: aspirated) distinction is unclear. For example, while ‘arrow’ is OB /myeɁná/, and CB /hmyâ/, in the absence of sources such as Tavoyan hnyâ (NT), we would be unable to determine whether this would have been /ml-| or /hlml/ in OB (note that when writing the OB form, the consonant symbol -h is frequently dropped). Future research should pay close attention to this fact, including the details of the spoken language.

There are many ambiguities regarding the readings of WrB Ty- and Tr-. However, actually, with words used in spoken language (I do not think there is any example of Ty-), Tr- becomes /Təy-/ ~ /Təx/-, as in the examples WrB trîgán /tɔrjîgn/ ‘triangle’ and yâtrâ /yədəyâ/ ~ /yədəyâ/ ‘certain magical observances’. In the cases cited here of tyâ tyà and tyâk, while we did have them pronounced by a monk, whether to read /təx-| or /Təx/- did not seem to constitute much of a question. What is important is the fact that it is only ever pronounced /TəC-|. Although R. B. Jones and U Khim (1957, The Burmese Writing System. Washington) state that “the combinations ty- and tr- occur in a very few words pertaining to music or musical sounds. The pronunciation varies between ty-, t-, and tar.” (p. 24) it is doubtful whether there are any who pronounce this /ty/- yet even if there were someone who used such a pronunciation, this would be the same as a Japanese speaker who knew English pronouncing ‘street’ as [str-] without saying [sütô-].

I should note that I am not convinced such words can be used for comparison and then regarded as a rationale for positing *dy- (cf. JAM 1972, (no. 4) PLB *dyak ‘very/truly/intensive’).

H- is a cover symbol for laryngeals. One reason why I consider ‘to sleep, lie down’ as PLB *Hip/*Yip and not PLB *Hup/*Yup is that I am considering this possibility. In other words, when postulating H- for this PLB form, in addition to the fact that any explanation of the change *-up > -ip needs to depend solely on dissimilation, it is difficult to arrive at a phonetically plausible explanation for *H- > *y- (e.g., Bisu-Akha *yup > Bis jü; Akh yu. PL, jü NT). Also, even had I posited PLB *Y-. WrB has forms like yut, yûn, and yûm for *ip, and as long as these forms are not assumed to have been borrowed after the transition *Y-~*r-, it would become impossible to stipulate the conditions for a split. With regard to ‘house’ as well, although the initial of the PLB form cannot be posited with sufficient certainty, there is no problem proposing *H-/*y- for the PBsh form (OB/WrB ʔîm : Ats yîm : Mar yâm, cf. also Bis jüm; Akh yúm ~ nym PL, ûn NT; Lis hɪʔ JOF, hìh NT; Lah yé NT), and this could be considered in parallel with *Hip/*Yip.

Supplementary Note 1) Prof. Luce writes that “Somewhere near Rangoon must have been, I think, Yanpuwiw Sanaphawchhip [the Henbuiw of the Myazedi], the chief seaport of Burma during the Pagan Dynasty” (“Monks of the Pagan Dynasty,” Journal of the Burma Research Society 34 (1953), p. 8), and further cites the examples of place the same place names found in inscriptions (GHL-I 1969, p. 108, fn. 32).

Supplementary Note 2) Depending on the inscription, there are many examples where this symbol (-), which is considered to have indicated glottalization, are completely omitted or are sometimes used and sometimes omitted in the same inscription. In fact, we can presume that there were even more instances of the example of hlây’.

Supplementary Note 3) There does not seem to have been any distinction *i: *yi in Proto-Tamang either. However, while the distinction mið (-) : myi (-) seems to have existed in Old Tibetan, e.g., (cf. Róna-Tas 1966, Tibet-Mongolica. (Indo-Iranian Monographs II) The Hague, p. 124 text pp. 124–125, and fns 102–105), if we were to posit *ya- in Proto-Tibetan (=PT), we could consider the transition *ya- > OT yi- as

1. PT *myaŋ ‘name’ > OT myîng: WrT miyî: Lhasa miŋ Goldstein: Balti miŋ RKS: Golok miŋ RKS; cf. PLB *Mîŋ*Myaŋ; PTam *min; PKB 1972; (no. 83 and fn. 99) TB *r-min.
2. PT *Cmyaŋ ‘eye’ > OT dmyîng: WrT (d)mîng: Lhasa miî Goldstein: Balti mîk (Read): Golok γîukkan (Rerich); cf. PLB *Myak; PTam *mi: < *mîk; PKB 1972, (no. 402) TB *mîk ~ *myak.
That said, as there are also examples such as OT *myaŋ- < *myaŋ- (WrT myøŋ, pf. myañs ā myøŋ, fut. myañ) ‘taste’ cf. also PTam *mìnyañ-; Chepang yaŋ-; WrB mrāñ < *Mriñ? < **Mryaŋ?) and because it would be difficult to prove *-ya- > *-yi- at the current stage, it seems that we cannot deny the possibility of the secondary production of at least some instances of -yi. We should also give due consideration to the possibility that examples such as WrT *Kyi(-) could be derived from *Kì(-). With these kinds of problems, as long as the opposite possibility cannot be logically denied, it does not seem erroneous to indicate the TB form by *k(y)i(-).

[Editor’s note: Rónica-Tas somewhat overstates the certainty that OT distinguishes mi- and myi-. Potentially then, there is no need for Nishi’s proposal *-ya- > -yi- in Tibetan.]