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Old Burmese : Toward the History of Burmese

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Old Burmese: Toward the History of Burmese**

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古 ビ ル マ 語

——ビルマ語史へ向けて——

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This paper aims to examine the various interpretations of the phonological system of Old Burmese (of Burma, now Myanmar) so far made and propose a conceivable framework of the history of Burmese in the light of our recent knowledge of Burmish languages and the regional dialects of Burmese, as well as orthographic variations in, and orthographic changes since, Old Burmese, from the standpoint that Present-day Standard Burmese is a later changed form of Old Burmese.

本論文は、現在の標準ビルマ語（ミャンマー語）が主として碑文に記録された古ビルマ語の後代の形式であるとする立場に立ち、古ビルマ語における綴字の変異及びそれ以降の綴字の変遷に加え、ビルマ語系諸言語と現代ビルマ語諸方言に関する最近の知見に照らして、古ビルマ語の音韻体系に関するこれまでの諸説を検討するとともに、考えられるビルマ語史の枠組みについて考察したものである。

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** The present paper was originally written as a chapter of my lectures on Burmese and Proto-Burmish, delivered at the Central University for Nationalities, Beijing, China, from April to July, 1998. As I did not have all my data and OB materials at hand, what is written here is based on (Luce 1981) and my papers (1974; 1975b; 1976). Since no inscriptional data were available, I used MTA forms for MWB. The glosses attached to examples above are mostly taken from (Luce 1981).

Key Words: Burmese (Myanmar), phonological history, Old Burmese, Written Burmese

キーワード: ビルマ語 (ミャンマー語), 音韻史, 古ビルマ語, ビルマ文語

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In (Nishi 1997), I showed that there have been several reforms in the writing system of Burmese since its first standardization, which is generally assumed to have taken place sometime after the enthronement of Narapatisithu in AD 1174. The attempt of the Burmans to *graphize* their language seems to have already started probably a century earlier. The earliest dated Burmese inscription is the Myazedi {Myacedi} inscription. It is so called because it was first discovered in the precincts of the Myazedi pagoda, but, as a matter of fact it was a misnomer. It came to be known later that the inscription was first placed in a small pagoda, called **Gupyaukkya** {Gū-pyok-kri²} pagoda, next to the Myazedi pagoda. This small pagoda was founded by Prince **Yazakuma** {Rājakumār}, a son of King Kyanzittha, in AD 1112, and completed just before the death of his father. This inscription is best known among all Burmese inscriptions, not only because it is the earliest dated inscription, but also because it is a **quadrilingual** inscription. On each of its four faces is written the same inscription in one of the four different languages, **Burmese**, **Pali**, **Mon** {Mwan} (=Talaing) and **Pyu** {Pyū}, and it was the discovery of this inscription which gave C.O. Blagden the opportunity to decipher the language of the lost people Pyu. The language of the Pyu is considered to be a Tibeto-Burman language though its linguistic position among Tibeto-Burman (TB) languages is still open to question. (Another stone pillar which has the same inscriptions on its four faces only with slight differences in spellings was found later. Thus, these two pillars are distinguished as Pillars A and B. Since Pillar B is considerably damaged, we usually use the Burmese inscription on Pillar A as the text.) The number of Burmese inscriptions before the reign of Narapatisithu discovered so far is very small, probably less than twenty.

The orthographic correspondences between Standard Modern Written

Burmese (**Mod. WB**) and Standard Old Written Burmese (**OWB**) is still quite regular.

1 THE WRITING SYSTEM OF STANDARD OLD WRITTEN BURMESE¹⁾

1.1 Written Syllable Cannon

(**C**=consonant letter or symbol, **V**=vowel letter or symbol, **T**=tone mark)

C¹(**C**²(**C**³(**C**⁴)))**V**¹(**V**²)(**C**⁵)(**T**)

1.2 Initial Consonant Letters (**C**¹)

The Burmese letters are classified and arranged in the traditional order which is indeed the order of Indic scripts. So, the letters in the first to fifth rows from the first to fourth columns are stops/affricates while those in the fifth column are nasals. They are grouped according to their **original** place of articulation: 1) for velars, 2) for palatals, 3) for retroflexes, 4) for dentals, and 5) bilabials. The rest (6/7) are those of different manners of articulation: liquids (**r/l**), semi-vowels (**y/w**) and fricatives (**s/h**). All these letters have been and are still used to write **Pāli** words, but only those of the first, second and fourth columns in the first, second, fourth and fifth rows, and the letters **y**, **w**, **r**, **l**, **s** and **h** from the sixth and seventh rows are in principle used in writing native Burmese words. However, some native Burmese words are customarily spelled with letters of the third and fourth columns, but the letters in the third row are never used for native Burmese words.

k	kh	g	gh	ṅ
c	ch	j	jh	n
ṭ	ṭh	ḍ	ḍh	ṇ
t	th	d	dh	n
p	ph	b	bh	m
y	r	l	w	
s	h	ḷ	'	

1.3 Initial Consonant Clusters

The consonant symbol **-h** is used only with sonorants [nasals (**m/n/ṅ/ṇ**), liquids(**r/l**) and semivowels(**y/w**)], and shows that they are voiceless. **-h** with **C-** below is considered to represent a unit phoneme, either a voiceless or an aspirated sonorant as in Standard Burmese (**SB**), and not a cluster, while all others, **-r**, **-l**, **-y**, **-w** and their combinations with **C-** are real clusters, and we call the latter four medials.

(1) **Cy:** ky khy py phy my ry ly sy

- (2) Cr: kr khr pr phr ṇr mr hr
 (3) Cl: kl khl pl phl ml
 (4) Cw: kw khw cw chw tw thw nw pw phw mw rw lw sw
 (5) Ch: ṇh ṇh nh mh rh lh wh
 (6) Cyw: kyw khyw
 (7) Cry: kry pry mry
 (8) Crw: krw khrw
 (9) Cly: kly khly ?ply ?mly
 (10) Clw: klw khlw mlw
 (11) Chy: mhy rhy lhy
 (12) Chr: ṇhr mhr
 (13) Chl: mhl
 (14) Chw: rhw lhw
 (15) Chrw: mhrw

1.4 Final Consonant Letters (C⁵)

-h/-ḥ, later disused in **OWB**, and -' do not represent segmental elements, but tonal features. The anusvara -ṁ is counted as a vowel letter in the traditional Burmese spelling books, but it has been used only as a variant form of -m since the Old Burmese (**OB**) period. The finals -m and -ṁ were interchangeable in **OB** and Middle Burmese (**MB**) inscriptions, but in **Mod.WB** their usage came to be fixed, and thus some words are always spelled with -m, while others with -ṁ.

-k	-ṇ
-c	-ṇ
-t	-n
-p	-m/-ṁ
-y	-w
(-h/-ḥ)	-'

1.5 Vowel Letters and Symbols

It should be noted that -a is the inherent vowel in each letter. Graphically ai and au are not digraphs, but o may be considered as another (discontinuous) digraph (e_ā).

Letters:	'a	'i	'ī	'u	'ū	'e	'o
Symbols:	-ā	-i	-ī	-u	-ū	(-e)	-ai -o -au -ui(digraph)

1.6 Written Rhymes (Finals)

The rhymes enclosed in () are rare in use or restricted to a small number of morphemes. X (~Y) or X/Y shows that X and Y are used interchangeably.

	Ø	y	w	k	c	t	p	ṇ	ṇ̃	n	m/m̃
-a	-a	-ay	-aw	-ak	-ac	-at	-ap	-aṇ	-aṇ̃	-an	-am/-am̃
-i	-i	-iy				-it	-ip			-in	-im/-im̃
(-e)	(-e)	(~ -aṇ̃)									
-o	(-o)			-ok				-oṇ			
-ui			-uiw	-uik				-uiṇ			
-ai	-ai	(~ -ay)									
-au	(-au)	(~ -aw)									

1.7 Marking of Suprasegmental Features

There have been some attempts to represent tonal features in **OB** inscriptions, for which see (Nishi 1997). However, we are not yet sure what exactly the nature of the features is, except for the fact that tone 4 /ʔ/ in **SB** corresponds to the written stop finals, **-p**, **-t**, **-c**, and **-k** in **OB**. The tones of **SB** indeed consist of not only pitch registers or contours but also various other features like length, intensity, voice register (/quality), and the glottal stop. Not all such features were represented in the Standard **OB** writing system. We find attempts to *graphize* suprasegmental features, such as the sporadic use of **-h** and **-ḥ** mostly for the words with tone 2 in **SB**, in the early **OB** inscriptions, especially in the non-mainstream writing system of the {**Ajāwlat**} inscription, which were later disused in **OWB**, but the latter, the visarga, later revived in Late Standard Middle Written Burmese (**MWB**) (16C), and is now called /šéka pauʔ/ {rhe³-ka pok} or /wiʔsá [hnəlòun] pauʔ/ (vacca [nhac-lum²] pok).

The use of the devoveled letter ' (a) was more consistent throughout **OB** times, the tradition of which has been retained even in Standard Modern Written Burmese though its shape was changed three times, and finally became a small lowered dot (or circle) called /auʔmyiʔ/ {'ok-mrac} in Late **MWB** (16C). It is interesting to speculate about the nature of **OB** tones in the context of the Burmish languages as a whole, for which see (Nishi 1997: 993–994, note 15), and more will be written on this topic in 4.3.

SB OWB

/Ø/	-ā, -ī, -ū; -ay, -iy, -uy, -uiw, -aw, -VN
/ ' /	(as above)
/ ' /	-a, -i, -u; -ay', -iy', -uy', -ui(w)', -aw', -VN'
/ʔ/	-VS(S=stop)

As **-h/-ḥ** was no longer used in the assumed **OWB**, and thus the rhymes with the tones corresponding to tones 1 and 2 in **SB** were no longer graphically distinguished and dealt with as if they had the same tone, thus the open rhymes with tones 1 and 2 are indicated by long vowel symbols, **-ā**, **-ī**, and **-ū**.

However, the rhymes with tone 3 were still represented either by the use of short vowel symbols (-a [inherent], -i and -u) or letters, or by adding the devoweled letter ' (a) under the last letter of the non-open rhymes, -ay, -iy, -uy, -uiw, -aw and -VN (N=nasal). Thus, in **OWB** tones are represented as shown in the above table.

2 ORTHOGRAPHIC CHANGES FROM STANDARD OLD TO MODERN WRITTEN BURMESE

As I mentioned in (Nishi 1997), we may assume that there have been *official* orthographic reforms repeated several times since the first standardization of Written Burmese (**WB**). All the reforms are considered to reflect the changes which occurred earlier in the spoken form of Burmese. On the other hand, variations or interchanges of spellings for the same words or morphemes we find in **OB** and **MB** inscriptions as well as in the *Miandian yishu* (緬甸譯書) (**MTB**) can be regarded in many, but not all, cases as indicating that changes were ongoing.

2.1 Initials

2.1.1 Medials

The most conspicuous feature of **OWB** initials is that there was a medial letter **-l-** in addition to **-r-**, **-y-**, **-w-** of **MWB** to **Mod.WB**. It is generally observed that the medial **-l-** was replaced by **-y-** after **velar** letters and by **-r-** after **bilabial** letters later in **MWB**, though there are some exceptions when we compare the spellings of some **OB** forms with those of the corresponding **WB** forms registered in modern Burmese dictionaries. This is partly due to the fact that **-r-** and **-y-**, which represented distinct medials in **MB**, merged into **-y-** sometime in Standard Early Modern Written Burmese (**EMod.WB**). Therefore, some Modern Burmese dictionaries register alternative spellings for some words with **Cr~Cy-** clusters, for which see the examples given in (Nishi 1976). Another notable orthographic reform is that **k-** and **kh-** before **-i(C)** came to be spelled as **ky-** and **khy-** some time in **EMod.WB**. This suggests, I think, that **Ky-** as a whole changed to **Tš-** (alveolo-palatal affricate). All exceptions found in Modern dictionaries were probably re-introduced into Burmese after the vocalic change of **-i-** to **-e** or **-ei-**. We find a fair number of such examples in the *Myanmar-English dictionary* (1993), but they are all loans from Pāli or English but **WB kin²** (**SB /kein/**) 'v (of holy object) enshrine; (of holy person) live, dwell' (**OB kin** 'v rest, sleep'), which can alternate with the palatalized form **kyin²** (**SB /cein/**) 'v (of holy object) reside, lie; (of holy person) sleep'.

2.1.2 OB ry-

In **OB** we find a number of native Burmese words spelled with **ry-**. This cluster was lost in Standard Middle Written Burmese (**MWB**) and became a simple initial **r-**. However, as I mentioned in (Nishi 1976), of the two homonymous words **MWB** **rā** ‘hundred’ and **rā** ‘dryfield’, the latter came to be spelled as **yā** in the Konbaung period. The following list may not exhaust all the examples of native words with **ry-**. (**MTA**=the *Miandianguan zazi*)²⁾

OB	MTA	Mod.WB (SB)
1. ryā	rā	rā (/ya/) ‘hundred’
2. ryā	rā	yā (/ya/) ‘ploughland, dryfield’
3. ryak (ryāk/ryek/rek/rik/rak)	rak	rak (/yeʔ/) ‘day (24hours)’
4. ryap	rap	rap (/yaʔ/) ‘to stand up’

There occur several other words with this cluster in **OB** inscriptions, whose provenance is not clear. The following list is not exhaustive.

OB	Mod.WB (SB)
1. ryā	rā (/ya/) ‘fitting, proper, should, must’
2. si-ryak (/si-ryāk)	sa-ryak (/təyeʔ/) ‘mango’
3. 'o-ryat (/ʔu-ret/'ū-rec/'ū-ryac)	'u-shyac (/ouʔsiʔ/) ‘bael fruit’ ³⁾

2.1.3 OB rh-~h-~hy-~sy-

Some **OB** forms are spelled with **h-/yh-/sy-/shy-/rh-** before **OB -i(C)/-e(C)/-y**. However, the corresponding **Mod.WB** forms have **rh-** or rarely **shy-**.

OB	MTA	Mod.WB (SB)
1. hiy' (/hiy)~hi (/hi')	rhi	rhi (/śi/) ‘be, be alive, have’ ⁴⁾
2. ('a-)hin		('a-)rhin (/ə)śein/) ‘heat, luster, power’
3. yhan (/hyan)		rhañ ^{s3} (/śin/) ‘yoke (of cattle), yoked with’
4. ('a-)syañ~shyañ~rhañ	('a-)shyañ	('a-)rhañ (/ə)śin/) ‘lord, monk’
5. yhat (/het/yyat)~rhac~rhec	shyac	rhac (/śiʔ/) ‘eight’
6. syā		rha ² (/śā/) ‘scarce, few’
7. yhum		rhum ² (/śoun/) ‘to fail, lose’

2.1.4 OB ñ(h)-~ñ(h)-

We frequently find a similar alternation between **ñ(h)-** and **ñ(h)-** before **-i(C)/-e(C)/-y** in **OB** inscriptions, which corresponds to **Mod.WB ñ(h)-**.

OB	MTA	Mod.WB (SB)
1. $\tilde{n}\tilde{i}/\tilde{n}\tilde{i}$		$\tilde{n}\tilde{i}/(\tilde{n}\tilde{i}/)$ ‘to accord’
2. ($\tilde{a}c-$) $\tilde{n}\tilde{i}$ ($/\tilde{n}\tilde{i}/\tilde{n}\tilde{i}y/\tilde{n}\tilde{i}y$)	$\tilde{n}\tilde{i}$	$\tilde{n}\tilde{i}/(\tilde{n}\tilde{i}/)$ ‘younger brother’
3. $\tilde{n}\tilde{i}-ma$ ($/\tilde{n}\tilde{i}-ma$) $\sim \tilde{n}\tilde{i}-ma$ ($/\tilde{n}\tilde{i}m-ma$)		$\tilde{n}\tilde{i}-ma/(\tilde{n}\tilde{i}m\acute{a}/)$ ‘younger sister’
4. $\tilde{n}\tilde{h}\tilde{i}$		$\tilde{n}\tilde{h}\tilde{i}/(\tilde{h}\tilde{n}\tilde{i}/)$ ‘to kindle, ignite; to smooth’
5. $\tilde{n}\tilde{h}\tilde{a}\tilde{n}$ ($/\tilde{n}\tilde{h}\tilde{y}\tilde{a}\tilde{n}/$) $\sim \tilde{n}\tilde{h}\tilde{e}\tilde{n}$		$\tilde{n}\tilde{h}\tilde{a}\tilde{n}^2/(\tilde{h}\tilde{n}\tilde{i}\tilde{n}/)$ ‘reed, organ’
6. $\tilde{n}\tilde{h}\tilde{a}\tilde{n}-chay \sim \tilde{n}\tilde{h}\tilde{y}\tilde{a}\tilde{n}-chay$		$\tilde{n}\tilde{h}\tilde{a}\tilde{n}^2/(\tilde{h}\tilde{n}\tilde{i}\tilde{n}(z\acute{e})/)$ ‘to hurt, injure, oppress’

2.2 Rhymes

2.1.1 Open Rhymes

The most notable changes are **OWB** **-iy** and **-uy** to **MWB** **-e** and **-we**, which appear to have been completed toward the end of 15C. They apparently reflect sound changes that occurred in between **OB** and **MB**. All other orthographic changes of vocalic rhymes, which include those in **-y** and **-w**, were simply to eliminate variant spellings in **OWB** through **MWB** to **EMod.WB**, such as **-uiw** \sim **-ui** \gt **Mod.WB** **-ui** and **-o(w)** \sim **-aw** \sim **-au** \gt **Mod.WB** **-o**, but **-ay** \sim **-ai** interchange is retained to date, the use of the former being restricted to rhymes with tone 1, while the latter, to rhymes with either tone 2 or tone 3. It should be noted, however, that their distinct use was established only recently. The details of these orthographic changes are mentioned in (Nishi 1997). For the variant spellings of **OWB** **-iy**, see Luce’s comment in (Nishi 1997: 984). I remarked: ‘the varied spellings of the standard **-iy** regularly converged into **-e** in contrast to **-i**’ in (Nishi 1997: 990), but in **SB** and Arakanese there occurred sporadic and extensive mergers of **OB** **-iy** (**Mod.WB** **-e**) with **OB** /**Mod.WB** **-i** (Bradley 1985; Okell 1995). The same merger is also sporadically observed in other dialects. In the Tavoyan dialect **OB** **-uy** (\gt **-wiy**) generally changed to **-wi**. It is apparent that **OB** **-iy** has followed a different course of development in spoken Burmese.

Examples: 1. **OWB** **-iy**: **Mod.WB** **-e**,

2. **OWB** **-uy**: **Mod.WB** **-we**

1. OWB	Mod.WB	SB	
kiy	kye²	/cè/	‘parrot, paroquet’
kriy	kre²	/cè/	‘copper; bronze; brass’
khliy	khye²	/chì/	‘dung’
ciy’	ce³	/sé/	‘to cause, send, employ, May...’
niy’	ne³	/né/	‘day’
piy	pe²	/pè/	‘to give, hand over’
pliy	pre²	/pyè/	‘to ran away, flee’

mliy	mre	/mye/	‘ground, land, earth’
riy	re ²	/yè/	‘to draw, paint, write’
rhiy’	rhe ³	/šé/	‘before (in space), ahead’
liy	le	/le/	‘wind, air’
lhiy	lhe	/hle/	‘boat’
siy	se	/te/	‘to die’
2. OWB	Mod.WB	SB	
’uy	we	/we/	‘to distribute, share’
khuy	khwe ²	/khwè/	‘dog’
nuy	nwe	/ŋwe/	‘silver’
muy	mwe ²	/mwè/	‘to bear (child), feed, nourish’
mrui	mrwe	/mwe/	‘snake’
mhuy	mhwe ²	/hmwè/	‘fragrant’
ruy	rwe ²	/ywè/	‘to redeem, ransom’

2.2.2 OB -e~-añ/-eñ

The most puzzling vowel in **OB** is **-e**, which is attested in five native Burmese words: **-’e** (∼**-ye**’/y___) {**-’i**} (**SB** /-i/) ‘(**OB**) genitive noun suffix; verbal expletive’, **’e** (**-kham**) {’eñ³(-sañ)} (**SB** /é(ḍe)/) ‘stranger, guest’, **-te(h/h)** (∼**-tañ**) {**-tañ**²} [**SB** /-di/] ‘only (after numerals), no more than’, **-nhe(h)** {**-nañ**²} [**SB** /-ni/] ‘?, question mark final’, and **-le(h/h)** ∼ **-lañ** (∼**-leñ**) {**-lañ**²} (**SB** /-li/) ‘also (suffix)’. Though Duroiselle transliterates **’e** as {’i³} (ḍi), which is now generally followed, we should perhaps transliterate it as {’e³} (ḍe), as its logograph still clearly retains the shape of the vowel letter {’e} (e). Interestingly, an archaic spelling of the logograph is {’eñ³}, and hence all the four words have later **WB** forms in **-añ/-eñ**, and, as far as {**-tañ**²} and {**-lañ**²} are concerned, they were already spelled as **-tañ** and **-lañ** as well in **OB** though **-tañ** is not, and **-lañ** is rarely, found in the pre-Standard period. We should also note that the corresponding spoken forms in **SB** all seem to have /-e/, thus, {**-’e**³}: /-yè/ (∼/kè//ʔ___), {**-tañ**²}: /-thè/, {**-nañ**²}: ?/bè(h)ne/, and {**-lañ**²}: /-lè/. For the diglossic situation in **SB**, see (Nishi 1997: 981). The corresponding vowel symbol **-e** was also used as an alternative vowel of **-a-** or **-ya-** in native Burmese words as well as in Pāli and Sanskrit loans in **OB**.

Examples:

phlac∼phlec {phyac} ‘to become’	phyak∼phyek {phyak} ‘to destroy’
tac∼tec (∼tic) {tac-ta-} ‘one’	(’a)nhac∼(’a)nhec {(’a)nhac} ‘year’
khyat∼khet {khyac} ‘to love’	khyak∼khyek {khyak} ‘to cook’
rhec∼het∼yhet {rhac} ‘eight’	ñan∼ñen {ñañ ³ } ‘night’
kyañ∼kyeñ {kyan} ‘to practice’	khyañ∼khyeñ∼khen ‘companion’
lhyañ∼lhyeñ∼lhen ‘verily, indeed’	

Conversely, two commonly used words, now spelled in **-e** had the rhyme **-(w)añ** in **OB**: **klañ-jo** (∼**klañ-co**) {**kye²-jū²**} [**SB /cèzù/**] ‘grace; favour; gratitude’ and **kl(w)añ**. {**kywe²**} [**SB /cwè/**] ‘feed; serve guests; minister to’. Though we do not know the provenance of {**kye²-jū²**} yet, it is found in the Myazedi inscription. This change in spelling of the rhyme is yet inexplicable.

2.2.3 OB -yat, -yan

As I wrote in (Nishi 1997), the under-differentiated rhyme **-añ** was perplexing to most **TB** scholars until the early 1970’s. The distinctive use of **-ñ^s** (‘small’ **ñ**) for the nasal rhyme, which may be rarely found in **OB** inscriptions, would not have helped them to solve the problem, but seems to have brought about more confusion. While the purpose of my paper (1974) was to explain the Proto-Lolo (/Yi/Yipho)-Burmese (**PLB**) source of **OB** **-(y)at**, I also mentioned a parallel development of **PLB** ***(y)an**, which phonologically never merged with the vocalic finals represented by **-añ**. However, they orthographically merged toward the end of the **OB** period and remained so until recently, though the simultaneous use of a distinctive written rhyme **-añ^s** for this rhyme began probably as early as **Late OB**.

1. OB **-(y)at** (/ec/-ac): Mod.WB **-ac** (SB /iʔ/)

OB

1. **mryat** ∼ **mrac**
2. **cat**
3. **ñhat**
4. **tan-kyat** ∼ **tan-kyac**

Mod.WB (SB)

- (‘a-)**mrac** (/ə)myiʔ/ ‘root, origin’
cac (/siʔ/) ‘to sift; sieve’
ñhac (/hniʔ/) ‘to squeeze’
tan-kyac (/dəjiʔ/) ‘pattern (woven or painted)’
khyac (/chiʔ/) ‘to love’
rhac (/šiʔ/) ‘eight’

2. OB **-(y)an** (/en): Mod.WB **añ^s** (SB /-in/)

OB

1. **pyan** ∼ **pyān** ∼ **pyen**
2. (**kriy**) **phyan**
3. **myak-can**
4. **can**
5. ‘a-**can** (-can)
6. **ñan** ∼ **ñen**
7. **nhyan-chay** ∼ **nhyan-chay**
8. **kryān**
9. **khyan**
10. **yan**

Mod.WB (SB)

- pyañ^s** (/pyin/) ‘plank, slab, flat surface’
(kre²) phyañ^s (/cè) **phyin/** ‘large pot, caldron’
myak-cañ^{s2} (/myɛʔsin/) ‘eye-salve’
cañ^{s3} (/sin/) ‘glaze, glazed’
‘a-cañ^s (/əsin/) ‘in a row, in succession’
ñañ^{s3} (/ñin/) ‘night’
ñhañ^{s2}-chai (/hninʔzè/) ‘to hurt, injure, oppress’
krañ^s (/cin/) ‘to shun, avoid’
khyañ^s (/chin/) ‘sour’
yañ^s (/yin/) ‘tamed; tame’

11. **yhan**~**hyan****rhan**^{s2} (/šīn/) ‘yoke(of cattle); yoked with’

3 WRITTEN BURMESE

In (Nishi 1976) I concluded: ‘[W]e cannot but continue to use **WrB**[=**WB**] forms for our researches related to Burmese, as only a limited number of **OB** forms are and will be available. But one thing clear is that caution must be taken against our having easy recourse to modern dictionary forms as **WrB** forms’.

One of the questions I had about Burmese when I wrote that paper was: What do **WB** forms represent? [**Mod.**]**WB** forms registered in modern Burmese dictionaries, above all in *Judson’s Burmese-English dictionary*, or more precisely, their transliterated forms, had already been used for comparative studies with other **TB/ST** languages for years. In such studies, the transliterated forms are usually used as if they were phonemic transcriptions based on an earlier form of Burmese though some scholars arbitrarily added some modifications to Duroiselle’s transliterations. Thus, Wolfenden and Benedict transliterated **WB c, ch** as **ts, tsh**.

Scholars had already noticed for years, for instance, that some **OB** inscriptional forms had **l**’s where the corresponding **WB** forms had **r**’s or **y**’s. Many problems about the relationships between **OB** and **WB** forms, and the reconstruction of Proto-Burmese, were discussed by a number of scholars until the 1970’s. However, interest in Burmese and Proto-Burmese seems to have receded in the 1980’s. This may be due to the fact that the higher-level reconstructions of **PLB**, though based on limited data, were successfully done by such scholars as Matisoff (1970; 1972; 1991), Bradley (1979), and Thurgood (1977).

An attempt to reconstruct **PLB** had already been made by Burling (1967) before the 1970’s, based on the comparison of three Burmish and three Loloish languages. However, his **PLB** was severely criticized by others (esp. Miller and Matisoff), and was indeed a failure. The first and foremost reason for his failure was, as rightly pointed out by the reviewers, that he used modern Standard Burmese forms for comparison, dismissing **WB** or **OB** forms, insisting: ‘it has been assumed with little evidence that the orthography reflects earlier characteristics’ of Burmese. Miller’s comment (1970: 148) on this remark of Burling is certainly right, but perhaps a little too harsh as usual. Miller blamed him for dismissing inscriptional and documentary data for earlier Burmese forms and all the published works on them, which were available to him at the time. Indeed, evidence of all kinds, comparative, dialectal, documentary and inscriptional, had shown that the **OB** and **WB** forms, or rather those modern dictionary forms transliterated in the Roman alphabet in accordance with Duroiselle’s method, could generally be taken as the earlier forms of Burmese,

Table 1. Ideational Scheme of the Development of **WB** and **CB** (Nishi 1997; 1976)⁵⁾
 [In (Nishi 1976) **WB** is distinguished from **OB**. Now, the writing systems of all periods are called **WB**. **SWB**=Standard **WB**.]

	11C	12C	13C	14C	15C	16C	17C	18C	19C	20C
[Dynasties]		Pagan		Myin.* Pinya Sagain	Ava		Toungoo		Konbaung	(British)
[SWB]		OWB		MWB			EMod.WB		Mod.WB	
		written form (High Variety)								
				spoken form (Low Variety)						
[CB] Pre-OB		OB		MB			EMod.B		SB (CB)	
		stable	transitory	stable			transitory		stable	
[Branching of dialects]										
Taungyo		Tavoyan					Yaw Arakanese			
Intha							? Merguiese			
? Danu			(*Myin. for Myinsaing.)							

though it was not as solid as Miller claimed that it was. Much of the reliable evidence on **OB** and **WB** forms was in fact yet to be provided in and after the 1970's, through more careful analyses of **OB** inscriptional data and Chinese phonetic transliterations of **MTA** and **MTB**, and with more extensive dialectal data supplied, as well as by the reconstructions of **PLB** made by the aforementioned scholars, where **WB** forms, with occasional references to **OB** forms, were made proper use of to represent Burmese.

The above diagram shows my view on the development of Burmese and **WB** from **OB** to **Mod.B** times. In this tentative scheme the writing systems of all periods are called **WB**. The common usage of this term refers to modern dictionary forms. However, when speaking of the language of **WB**, or the phonemic system of **WB**, some scholars actually alludes to **OB**. For instance, see (Pulleyblank 1963). This usage is also acceptable. It is clear that the transliterated forms of modern dictionary forms, or what is usually referred to as **WB**, still retain many of the features of the phonemic system of **OB** in spite of such orthographic changes which actually reflect later phonemic changes, as **K**->**Ky**-(/-i(C)) [**EMod.WB**], **ry**->**r**-[**MWB**], **-l**->**-r**-/**-y**-[**MWB**], **-iy**->**-e**[**MWB**], **-uy**->**-we**[**MWB**], **-(y)at**->**-ac**[**MWB**], **-(y)an**->**-añ**^s[**MWB**]->**-añ**^s, though many phonemic changes are concealed in **WB** which took place after **MB** because of the nature of the alphabet and orthography of Burmese. The basic letters of this alphabet are syllabic, and the writing system of Burmese (orthography) is so contrived as to represent initials and rhymes as separate units. As long as correspondences between spellings and pronunciations somehow remain regular, the writing system as a whole is left untouched⁶⁾. The phonemic system which might have been closest to what **WB** (= **Mod.WB**)

represents would be that of **MB**, which can be inferred on the basis of **MWB** and Chinese phonetic transcriptions of **MTA**, though many ambiguities remain as to the rhymes of **MB**, but they are not the same. We should thus bear in mind when we cite modern dictionary forms as **WB** for comparative studies that what they represent is *the amalgamated system of those of different periods from OB through MB to EMod.B.*

4 OLD BURMESE

Evidence from all sources, inscriptional, documentary, dialectal and comparative, suggests that the consonantal system of **OB** is very close to what we can guess at through its Roman transliteration devised by Duroiselle on the basis of the Pāli system of writing, with those letters and combinations of letters associated with non-native Burmese forms excluded. So, for instance, the palatal series of letters, of which only **c**(ဝ), **ch**(ဆ) were generally used for native Burmese words in **OWB**, represented palatal, probably alveolo-palatal sounds. It can be inferred that Proto-Burmish (**PBsh**) *palatal and *alveolar affricates (***c**, ***?c**, ***j** and ***ts**, ***?ts**, ***dz**) merged into alveolo-palatal affricates (***j**/***dz** > **tʃ** and ***c**/***?c**/***ts**/***?ts** > **tʃh**, transliterated as **c** and **ch**) some time during the **OB** period, for which see (Nishi 1974: 015–016; 1997: 991–992, fn.6)⁷⁾. They seem to have remained as such probably until the middle of the eighteenth century, which is suggested by phonetic transliterations using Chinese characters in **MTA** and **MTB**. On the basis of some contemporaneous records by Europeans (documentary evidence), Bradley suggests that the changes **ts**, **tsh**, **dz** (Central Burmese=**CB**) and **tʃ**, **tʃh**, **dʒ** (Arakanese) to **s**, **sh**, **z** occurred in both Burmese, Arakanese, and other dialects after 1798, while **s** > **θ** took place in **CB** around 1780 and Arakanese after 1798 (Bradley 1985: 197–198). Indeed, Marma, a branch of Arakanese, still retains **tʃ**, **tʃh**, **dʒ**. Bradley contends that Burmese seemingly had alveolar, not alveolo-palatal affricates, but as I have just shown above, Burmese must have had alveolo-palatal affricates. Up to Middle Burmese, the Burmese consonantal system seems to have remained almost intact except for the change of **-l-** to **-r-** or **-y-**. The **Great Consonantal Shift** in Burmese, which eventually yields **SB**, through a series of consonantal changes took place probably between early or mid 18C and early 19C. It includes the changes, (1) **tʃ**, **tʃh** > **ts**, **tsh**, (2) **ts**, **tsh** > **s**, **sh**, (3) **s** > **θ**, (4) **Cr-** > **Cy-**, (5) **Ky-**, (which includes **K-**(/i(C)) > **Ky-**) > **Tʃ-**, (6) **r-** > **y-**. This series of consonantal changes resulted in the restructuring of the consonantal system of Middle Burmese. It is clear that some of these changes must have been ordered changes, thus, (3) must have been prior to (2), (1) to (5), and the like. Besides, it is probably during this period that the voiced series of obstruents and the first voicing rule (**voiceless unaspirates** > **voiced**/ **V-V**, for which see (Nishi 1998)), may have been introduced in **SB**. However, it

must also be borne in mind that the ongoing changes may not have been as neat as the above scheme shows. It is, for instance, seen in some dialects that changes seem to affect aspirates prior to non-aspirates. Thus, **tsh-** > **sh-** may have preceded **ts-** > **s-**, and the like. The medial **-r-** must have changed to **-y-** before the change of **r-** to **y-**. In the following, I will examine what has been known or maintained about the phonemic system of **OB** in some detail.

4.1 Initials

4.1.1 Voiced Stops and Affricates

In **OB** all the letters for voiced stops (and affricates) [hereafter voiced letters] were found to be adopted for spelling words of Sanskrit or Pāli origin, inclusive of their hybrid forms, whether they were loanwords or learned words. Some of the voiced letters, such as **g-**, **dh-**, **b-**, and **bh-**, were also used for writing native Burmese words throughout **OB** times though only sporadically. Thus, this, when combined with the fact that voiced stop (and affricate) initials of some native Burmese words in **SB** correspond to those in regional dialects like Arakanese and Tavoyan may lead us to suspect that voiced stops and affricates were contrastive in **OB**. However, this may not be the case, since the use of voiced letters for native Burmese words is never consistent in **OB**, except for the case which I mentioned in (1998: 1980, note 8) and decreases to almost zero in **MWB**. Above all, the fact that Intha, Major and Minor Taungyo have no voiced stops and affricates in their phoneme inventory definitely suggest that **OB** did not have voiced stops and affricates. Further, as is shown in the following table (Table 2), Burmese words, with voiced initials in **SB**, both native and old loan words, have the corresponding voiceless initials in Intha, Taungyo and Yaw, though Yaw seems to have replaced some of the original forms with their **SB** cognates with voiced initials. Here the evidence afforded by Yaw is more important, since it appears to have branched off later than **OB** times on linguistic evidence, while the other dialects may have separated from Burmese before **OB** times (= **Pre-OB** times).

4.1.2 Medials

The main aim of (Nishi 1976) was to show that we could establish regular correspondences between **OB**, **WB** and **CB** (= **SB**) medials. I maintained there that variations in **OB** spellings may be considered as subphonemic variations, reflecting sound changes, or as dialectal variations of the time, while variations in **WB** spellings found in **MTB** and modern dictionary forms could be scribes' errors, brought about by confusion due to the merger of the medials **-r-** and **-y-** in the [Early] Modern Burmese period. On the other hand, no such confusion is seen in **MTA**, which, I think, I rightly assumed to represent the Standard Written Burmese of the time, **MWB**. Indeed, it had already been known that Arakanese retains the earlier **r-** and **-r-**, while Tavoyan preserves the earlier **-l-**,

Table 2. Correspondences of SB Voiced Initials among Burmese Dialects
(Abbreviations: **ARA**=Arakanese, **TAV**=Tavoyan, **INT**=Intha, **TAU**=Taungyo)

	WB	SB	YAW	ARA	TAV	INT	TAU
head	khon ²	/gàun/	/khàun/	/gàun/	/khòn//	/khòn/	/ʔəkhòn/
stone	khai	/gè/				/khè/	
horn	khy/rui	/jo/	/chou/	/əgro/			/ʔəchv/
hook	khyit	/jeiʔ/				/chaiʔ/	
excrement	khye ²	/jì/				/khè/	/khè/
ginger	khyan ²	/jìn/			/jin/		/khlezin/
pot-hole	khyuin ³	/jain/				/chéin/	
peacock	don ²	/dàun/				/tòn/	
knife	dhā ²	/dà/	/thà/	/dà/	/thà/	/thà/	/thà/
wild plum	chi ² -si ²	/zidi/	/shi ² di/	/zəθi/	/shi ² θi/	/shishi/	
gourd	bū ² -si ²	/bu ² di ² /		/bəði/		/phù/	/phù ti/
belly	(wum ² -buik)	/baiʔ/			/wùnpheiʔ/	/phaiʔ/	/khlēphaʔ/
opium	bhin ²	/bèin/				/phèin/	/pùnpàin/
wheel	bhi ²	/bhèin/					/pun/
market	jhe ²	/zè/		/zi/	/shè/	/shè/	/shè/
what	bha	/ba/	/pha/	—	/phya/	—	
		</be-ha/			</phe/-/ha/		
which, where	bhay	/be/	/phe/~ /pha-/	—	/phe/	/phe/	
			/pa-/	/pa-/			
trousers	bon ² -bi	/bàunbi/			/pònphi/		/phònphi/
stick of wood	tut	/douʔ/	/douʔ/			/touʔ/	/twiʔ/
duck	bhai~wum ² -						
	pai	/(wù) bè/	/bè/			/ɔnpè/	
knee	dū ²	/dù/					/tù/~ /tùkhon/
this	[sañ]	/di/	/te~tə-/	/de/	/θe/	—	
between	krā ²	/jà/	/jà/	/jà/			/ʔəcà/

though data on these dialects were by no means sufficient at the time. We now have more data on these dialects, along with more reliable data on two other interesting dialects, Intha and Taungyo. It should be noted, however, that the ongoing changes in regional dialects are quite often disturbed by the interference of the dominant standard variety, yielding variant forms. Even changed forms are quite often replaced by the corresponding forms of the standard variety.

Further, *hypercorrection*⁸⁾ often makes the picture more complicated (Okell 1971; 1995).

This is what actually occurred or is occurring in all the regional dialects of Burmese. As a result, some correspondences among dialects may appear quite irregular. Besides, there are always some residues which cannot be easily explained⁹⁾.

Table 3. Correspondences of **OB** Velar and Bilabial Clusters with those of **WB**, **SB**, Arakanese, Tavoyan, Intha and Minor Taungyo
(**P** and **M** represent bilabial stops (**p/ph**) and nasals (**m/hm**), respectively.)

SB	OB	WB	ARA	TAV	INT*	TAU**
c-	kr-	kr-	kr-	c-	c-	c-~kl- (rare)
	ky-	ky-	c-			kl-~c- (rare)
	k-/i__ (C)					(no example)
	kl-			kl-~c-	kl-~c-	kl-~c- (rare)
ch-	khr-	khr-	khr-	ch-	š-~ch-	ch-~khl- (rare)
	khy	khy-	š-	š-~ch-		khl-***
	kh-/i__ (C)		ch-~š-	kh-~ch-		
	khl-			khl-~ch-	khl-~š-~ch-	
Py-/My-	Pr-/Mr-	Pr-/Mr-	Pr-/Mr-	Py-/My-~by-	Pl-/Mr~Py-/My-	Pl-/Ml-
	Pl-/Ml-	Pr-/Mr-	Pr-/Mr-	Pl-/Ml-~bl-		
	Py-/My-	Py-/My-	Py-/My-	Py-/My-	Py-/My-	Py-/My-

* Though the examples of /r-/ are rare, /r-/ and /l-/ are contrastive in Intha. However, /-l-/ and /-r-/ freely alternate, though Okell transcribes them with /-l-/.

** Similarly, /ml-/ has variants [ml-] and [mr-] in Taungyo.

*** There are one or two examples with ch-, alternating with khl-, in the Taungyo forms whose initial corresponds to either **OB** khy- or khl-.

4.1.3 OB ry-

There is no evidence left for the opposition between **OB Ry-**(=ry-/rhy-) and **R-**(=r-/rh-) in their reflexes among Burmese dialects, and the former seems to have merged with the latter. However, as I pointed out in (Nishi 1975b), the Loloish initials corresponding to the former show a very neat and 'unique' pattern, as mentioned by Thurgood (1977).

When we add the corresponding Burmish initials to them, it becomes clear

Table 4. Correspondences of **OB** ry- among some **LB** Languages
(**ACH**=Achang, **XIA**=Xiandao, **ZAI**=Zaiwa, **LEQ**=Leqi, **LAN**=Langsu, **BOL**=Bola)

	OB	ACH	XIA	ZAI	LEQ	LAN	BOL	HANI	LAHU	LISU	SANI
hundred	ryā	—	—	fo ⁵¹	-fo ³³	jo ³¹	ja ⁵⁵	ja ⁵⁵	xq ³³	hē ³³	hɔ ³
(paddy) fields	ryā	ʔo ⁵⁵	jo ⁵⁵	jo ⁵¹	jo ³¹	jo ³¹	ji ³¹ -(in comp.)	-ja ⁵⁵	xo ⁵⁵	hā ³³	—
day, night	ryak							ja ³¹	—	hē ³¹	he ²
to stand	ryap	ʔap ⁵⁵	jap ⁵⁵	jap ²¹	ja:p ³¹	je ²³¹	je ²⁵⁵	ɔo ³¹	xu ³⁵	hē ³¹	hɣ ²
eight	*rhyat	ɕet ⁵⁵	ɕet ⁵⁵	jit ⁵⁵	fet ⁵⁵	fe ²⁵⁵	fe ²⁵⁵	xi ⁵⁵	ɕe ³¹	hē ³¹	he ²
cf.											
get, gain	ra	ʔua ³⁵	ʔo ³⁵	vo ⁵⁵		—	ɣo ³¹	ya ³³	ɣa ⁵⁵	wa ³³	ɣp ³
search	rhā	—	—	xo ⁵¹	fɔ ²³³	xo ³¹	xa ⁵⁵	—	—	ʂp ³	xua ³³
right	yā	-ʔo ⁵⁵	-jo ⁵⁵	-jo ⁵¹	-jo ³¹	-jo ³¹	-ja ⁵⁵	ɕa ³³	-ʔe ³³	-ʔa ⁵	

that **Rh-** merged with **Y-** rather than **R-** in other Lolo-Burmese languages. On this evidence we may reconstruct **PBsh** ***ry-** and ***ṛy-**¹⁰⁾ as the sources of **OB** **ry-** and **rhy-**.

4.1.4 **OB** **rh-~h-~yh-~sy-**

From the orthographic interchanges of ‘eight’ we may infer an **OB** variable (**rh-**), probably with variants [ɹ]~[ç]~[c]. Since **PBsh** ***s-** and ***ṣ-** merged into ***s-** in **OB**, the only other possible source of [c] (orthographic **sy-** and **hy-**) in **OB** could be **PBsh** ***ṛy-**. However, I have not yet found any cognates whose initial derives from **PBsh** ***ṛy-**. So, there is no way to know whether the **WB** initials **rh-** in **WB** **rhañ** ‘yoke’ for **OB** **ghan** and **WB** **syā** ‘scarce, few’ for **OB** **syā** are not etymological, or ‘due to respelling of some words’ with the initial [c] in Burmese with **rh**, as suggested by Bradley (1985: 197) for ‘eight’. Similarly, in spite of **MTA** (**MB**) **rhi** and Benedict’s equation of it with **WT** **srid-**, we cannot ascertain the claim that **OB** **hiy** (/hiy)~**hi** (/hi) ‘be’ is the result of respelling, supposing that the Arakanese variant [ɹi] represents ‘a [non-etymological] spelling-influenced’ pronunciation (Bradely 1985: 186). The same holds true of **OB** (‘a-)**hin** ‘heat, power’. However, we should also note that both [c] and [ç] were included within the assumed range of the variable (**rh-**). I tentatively suggest to posit **OB** /hya²/ {**OWB** syā}, /hyag/ {**hyan**}, /hyum²/ {**yhum**}, /hi’/ {**hi**}~/**hiy**’/ {**hiy**} and / (ā)hin/ { (‘a)hin }.

4.1.5 **OB** **ñ-~ñh-**

The orthographic variations **ñ-~ñh-** and **ñh-~ñh-** indicate that there was no contrast between the velar and alveolo-palatal nasals in front of **-i** and **-y** in **OB**. All the examples given in 2.1.4 are spelled with the alveolo-palatal initials **ñ-** and **ñh-**. It is clear that /ɲ-/ or /ñ-/ are not contrastive before /i/ and /y/, which share palatality, and, generally, /i/ and /yi/ are not contrastive in **OB** as well as in **PBsh**. Therefore, we may posit either /ɲ-/ (/i) and /ɲy-/ (otherwise) or /ñ-/ for all the examples given there. It appears that /i/ and /yi/ remained non-contrastive in **MB**, hence **MTA** **nin-ma** ‘wife of father’s younger brother’ (**MTA** 213) (cf. **OB** **ñi-ma**~**ñi-ma**~**ñim-ma**: **WB** **ñi-ma**: **CB** /ñimá/ ‘a woman’s younger sister’) and **MTA** **ñi** ‘younger brother’ (**MTA** 204) (cf. **OB** **ñi**~**ñi**: **WB** **ñi**: **CB** /ñi/ ‘a man’s younger brother’). For **-n** in **nin(-ma)**, cf. **-n** in **WB** **min²(-ma)** (: **OB** **mī-ma**~**mim(-ma)**: **CB** /mèin(má)/ ‘woman’ < **PBsh** ***mifi** ‘female’).

4.2 Rhymes

OB rhymes have been inferred or reconstructed by several **ST/TB** scholars up to the 1970’s mostly on graphic, distributional and comparative evidence. Though Jones attributes to **Pre-OB** times the system of vowels and final consonants (=rhymes) he inferred, it is actually based on the data provided by the

Lokahteikpan ink writings, and thus belongs to what I call Early **OB** or the pre-Standard **OB**, while the system of rhymes reconstructed by Nishida (1972) is that of the Myazedi inscription. Both Pulleyblank and Gong take into account the Myazedi inscription, but generally base their inference on **OWB**.

They all rely more on the correspondences between **OB** and **SB(CB)** rhymes, noting the parallel developments observed between **OB** **-iy** (: **WB** **-e:** **SB** **/-e/**) and **-uy** (: **WB** **-we:** **SB** **/-we/**), **-iy** and **-uiw** (: **WB** **-ui:** **SB** **/-o/**), and **-ay~ai** (: **WB** **-ay~ai:** **SB** **/-ε/**) and **-aw~au~o** (: **WB** **-o:** **SB** **/ɔ/**), and give consideration to correspondences between **OB** and Written Tibetan rhymes, and Pulleyblank, between **OB** and Chinese (Middle Chinese) as well. All of them but Nishida are concerned with setting up the phonemic system of **OB** rhymes. Nishida¹²⁾ neither distinguished segmental from suprasegmental (here tonal) elements, length marking (**-ā**, **-ī** and **-ū**), and **-'**, of letters, nor paid any attention to the fact that some variant spellings are graphically in complementary distribution. Thus, he inferred slightly different values for each of the sets of variant spellings (hereafter, a *set of variant spellings* being referred to as a [graphic] *variable*), **-iw~eiw~uiw** (**=-u**), **-i'~ei'** (**=-u**), and **-ei'~ui'** (**=-u**). However, it is clear that the first variable occurs with tone 1 (and tone 2), while the second and third variables, sharing the same graphic variant **-i'**, as a whole occur with tone 3 (**=-'**), that is, the former variable is in complementary distribution with the latter, and hence his **u**, **u** and **u** must be interpreted to be allophones of the same phoneme **/u/**. Similarly, his **[e]** (**=-e'**) and **[äfi]** (**=-eh**) are graphically complementarily distributed, and hence allophones of the same phoneme **/ä/**. Another feature of his method of inference, which is distinct from the others, is that he took into consideration the languages of **MTA** and **MTB**, representing the intermediate stages of the development of Burmese, **MB** and **EMod.B**. However, I think that his interpretation of the Chinese phonetic transcriptions of **MTA** and **MTB** as a whole needs careful reexamination.

Jones, disregarding previous studies done by others, esp. Shafer and Benedict, made a serious mistake by interpreting **-uiŋ** and **-uik** as **/-iŋ/** and **/-ik/** to fill distributional gaps in the system of **OB** rhymes. As rightly inferred by the other scholars, these gaps resulted from the changes ***-in**, ***-iŋ > OB -aŋ** and ***-ik > OB -ac**. As I explained in (Nishi 1997:983-984), the **TB** provenance of the written rhymes, **-uiŋ** and **-uik** has long been suspected to occur only in loans, and, for this reason, Gong preferred to leave them out of consideration. Indeed, one of the most disputed problems of **OB** is the interpretation of **OB** **-ui-**, which is found with many variant spellings in the pre-Standard period.

In the comparative table, I add what could be Benedict's interpretation of the system of **OB** rhymes. All but a few scattered remarks of Benedict on Burmese in **STC** refer to **WB**. Though I am not sure that he really understood the nature of **WB**, most of these remarks on phonemic interpretations of

Table 5. Comparative List of OB Rhymes inferred/reconstructed so far

OBW	-i	-iy	-im	-in		-ip	-it			
Nishida (1955–56)	-i	-iy	—	(-in)		(-ip)	—			
	-ī									
Pulleyblank (1963)	-i	-iy	-im	-in		-ip	-it			
Benedict (1972)	-i	-iy	-im	-in		-ip	-it			
Jones (1976)2)	-i	-iy	-im	-in		-ip	-it			
Gong (1978)	-i	-iy	-im	-in		-ip	-it			
OBW	-u	-uy	-um	-un		-up	-ut			
Nishida	-u	-uy	-um	*-un		*-up	*-ut			
	-ū	-uy	-um	-un		-up	-ut			
	- ³ u									
Pulleyblank ¹⁴⁾	-wi	-wiy	-wim	-win		-wip	-wit			
Benedict	-u	-wiy ¹⁵⁾	-um	-un		-up	-ut			
Jones	-u	-uy	-um	-un		-ip	-it			
Gong	-u	-uy	-um	-un		-up	-ut			
OBW	-a	-ay~ -ai	-am	-an	-añ	-an	-ap	-at	-ac	-ak
Nishida	-a	-ay	-am	-an	-añ	-an	-ap		-atš	-ak
Pulleyblank	-a	-ay	-am	-an	-añ	-aŋ	-ap	-at	-ac	-ak
Benedict	-a	-ay	-am	-an	-ain	-aŋ	-ap	-at	-ait	-ak
Jones	-a	-ay	-am	-an	—	-aŋ	-ap	-at-	-ac	-ak
Gong	-a	-ay	-am	-an	-añ	-ang	-ap	-at	-ac	-ak
OBW	-wa	-way	-wam	-wan		-wañ	-wap	-wat		-wak
Nishida	-w ³ ŋ	—	* ³ um	- ³ un		—	*- ³ up	- ³ ut		—
Pulleyblank	-wa	-way	-wam	-wan		-waŋ	-wap	-wat		-wak
Benedict	-wa	-way	-wam	-wan		-waŋ	-wap	-wat		-wak
Jones	—	—	—	—		—	—	—		—
Gong	—	—	—	—		—	—	—		—
OBW		-aw~ -au				-on				-ok
Nishida		(-ow)				- ³ uŋ				- ³ uk
Pulleyblank		-aw				-awŋ				-awk
Benedict		-aw				-auŋ				-auk
Jones		-aw				-uŋ				-uk
Gong		-aw				-ung				-uk
OBW		-uiw				-uin				-uik
Nishida		- ³ ui				-uiŋ				-uik
		-ui								-u’
		- ³ ui								
Pulleyblank		-iw				-iwŋ				-iwk
Benedict		-uw				-uŋ				-uk
Jones		-uw				-iŋ				-ik
Gong		-ui> -uw				—				—
OBW	-e	-o	-yan	-yañ	-yat					
Nishida	-e(’)	—	—	-eŋ	-ät					
	-äŋ	—	—							
Pulleyblank	-añ	—	—							
Benedict										
Jones	—	—	—							
Gong	—	—	—	—	—					

‘Burmese’ would apply, in my opinion, to **OB** rather than **WB**. Thus, we can guess the system of **OB** rhymes he might have had in mind on the basis of his particular remarks on inscriptional Burmese and Burmese¹³⁾ by placing **OB** in between his **PTB** and **WB**.

As I mentioned in (Nishi 1997), variations in spelling **OB** rhymes we encounter, such as **-i**~**-iy**, **-uo**~**-o**~**-u**, **-i(C)**~**-u(C)**~**-ei(C)**~**-ui(C)**, **-(y)eC**~**-yaC**, and **-(w)o(C)**~**-wa(C)**, are gradually unified into **OWB** **-iy**, **-u**, **-ui(C)**, **-ya(C)** and **-wa(C)**. It may be significant to note that apart from the Lokahteikpan ink writings and Maung Khyitsa votive tablets (plaques), whose dates are not known, such variations are rather consistently and sometimes quite regularly found only in the Myazedi, Thetso Taung (undated, but presumed to be the earliest on some grounds) and Ngatilattin (dated 1120 AD) inscriptions, and are sporadically and less frequently found in later inscriptions even before 1174 AD when Narapatisithu was enthroned. It seems to me that before **OWB** was established, most of these variations may be considered to have reflected overdifferentiation, or underdifferentiation of phonemes. Therefore, *the orthographic standardization of OB may probably be regarded as an attempt at the overall ‘phonemicization’ of the writing system of the time through the reanalysis of such variations.*

Apart from that inferred by Nishida, the systems of **OB** rhymes postited by the others share much in common. The latter all place more emphasis on distributional symmetry or pattern congruity of their system. Benedict seems to have assumed **-wiy** for **OB** **-uy**. This interpretation results in asymmetry in the distribution of **u**, which can be solved by analysing it as **wi** as is done by Pulleyblank. In this connection, it is interesting to note that a number of examples is found where **-uy** is spelled as **-wiy** or **-uiy** in some inscriptions of the transitory period from **OB** to **MB**. Thus, if **OB** alone is considered, without regard to its relationships with Written Tibetan or the higher-level proto-languages, we may assume a series of changes **OB** **-uy** > **-wiy** > **MB** **-we**. This interpretation conforms better to my assumption of **OWB** as the overall ‘phonemicization’ of the writing system of the time. If we accept Benedict’s reconstruction of **PTB** ***-wiy** (= ***-wəy**), this would be an unlikely change. Or could we reconstruct **PTB** ***-uy** for Benedict’s ***-wiy**? As for Pulleyblank’s analysis of **OB** **u** as a whole as **wi**, it does not seem to have any merit except for reducing the number of phonemes. This kind of analysis was once in vogue in the prime of structural linguistics. As an afterthought, however, whether we interpret **u** as such or as **wi** is only a difference in the level of analysis and economy. It is usually the case that economy in inventory brings about less economy in other parts of the system. Anyway, I do not think that the latter analysis would yield more explanatory power for the later history of Burmese.

As for **-ui** in **OWB**, the simplest interpretation from the point of view of the symmetry of the system is that of Benedict, which regards it as representing

a conditioned variant of **-u** ('mid unrounded'). Gong suggests the earlier value of this digraph in the Myazedi inscription as **/-ui/** (>**/*-uw/**), considering its correspondences with Old Chinese **-ug** and WT **-u** as well as its parallel development to **SB /o/** with **OB /-iy/** > **SB /e/**. Referring to the same parallelism, Pulleyblank proposes to interpret this **ui** as **/iw/**, but he concedes that its development to **[aiʔ]** and **[aiŋ]** requires some separate explanation. Indeed, as Duroiselle himself admits, the digraph can be transliterated as either **ui** or **iu**. Bradley, based on its 'universal realization of [o] in all Burmese dialects and the early Chinese representations with 'u' and 'ou', he suggests that the likely value of this digraph **ui** in early Burmese was something like [o], which was exactly parallel to **WB e**. To support this, he further refers to the parallel reconstructions of **PTB *uw** (= ***əw**) and ***iy** (= ***əy**) by Benedict as well as Proto-Loloish ***o** and ***e** by himself (1985: 189). He even claims: 'The *uik* and *uiñ* rhymes are pronounced in nearly all dialects of Burmese as [aiʔ] and [aiŋ]; Arakanese is no exception. It is probably a mistake to connect *ui*, formerly written *uiw*, to these rhymes; the similarity may be simply an orthographic convention'. (1985: 193) It is now found that **ui** is not universally realized as [o] in all Burmese dialects. Taungyo is an exception, which has **/ɤ/** for **WB ui**, though this would not afford any hindrance to his claim. We can now add the corresponding reflexes of other Burmish languages as further data to be taken into consideration here.

Table 6. Correspondences of **OB -uiw** among Burmish Languages¹⁶⁾

OB	Achang	Xiandao	Zaiwa	Leqi	Langsu	Bola
-uiw	-au	-au	-ui(/j, *r_)~au	-ou(nouns)~a:u /au(verbs, adjectives)	-uk ~au	u(/j, *r_)~au
cf.						
-iy	-i	-ai(/l, l, n_)~i	-ai(/l, n_)~i	-i(?)~ai(?)~ək(/*ʔr_) ~ei/-ei	-a(/l, n_)~ak /ək(*r_)~ik	-ai/-i/-ui(m, l, *r/*ʔr_)
(Conditions of splits of some variants are not very clear yet.)						

Such a parallel development as we note in that of **OB -uiw** and **-iy** to **SB /-o/** and **/-e/** is also found in most of these languages. Unfortunately, however, I have not found any sure cognate set for **OB** forms in **-uik** and **-uiñ** yet¹⁷⁾. All in all, though the question remains why- **ui-**(**w/k/n**) was retained even after the first standardization, it appears to me that the best interpretation is Benedict's.

In 2.2.2, I noted five instances of **OB -e**, which later orthographically merged with **-añ**~**-eñ**. Unfortunately, only Nishida and Jones seem to have paid serious attention to the use of this vowel in Early **OB**. In **OWB**, at least two of the examples, **-te(h)** and **-le(h)** were already spelled with **-añ**. Of the rest, **'e'** and **-nhe** seem to have been spelled as such throughout **OB** times, and since the occurrence of **'e'**(-kham) is rare, we cannot say anything definite

about this morpheme. Though it may be thus precarious to set up a hypothesis on such meager evidence, I would suggest that this graphic **e** in fact represented a mid front vowel /e/([ɛ]) in Early **OB**, but was later orthographically integrated into **-añ**, which had already become /e/ at the time of the first orthographic standardization. In parallel with **-añ**, **-ac** also already became /-et/, but its spelling was untouched in the standardization. On the other hand, **-e**-([ɛ]) ~ **-ya**- interchange may be interpreted to reflect the range of variation at the time, but the standardization preferred spelling this variable as **-ya**. If we can accept this interpretation, we may further infer that **OB** had /-o/ ([ɔ]) (, spelled as **-o** ~ **-ow** ~ **-aw**) from the earliest stage. But, for some unknown reasons, **OWB** preferred using **-aw** (~ **-au**). Later **-o** came to be restored in the second standardization in **MB**, but two grammatical morphemes, **-lo** (**WB** {-lo}) ‘interrogative suffix’ and **-so** (~ **-sū** ~ **-su**) (**WB** {-so}) ‘suffix (adjectival, participial, numeral)’, which, as with several other grammatical morphemes, seem to have retained their archaic spellings throughout the **OB** period. By setting up such hypotheses, we can explain some of the interchanges of written rhymes in **OB** as well as the merger of **-e** and **-añ**, but the system of **OB** rhymes becomes less symmetric than those proposed by Pulleyblank, Benedict and Gong.

4.3 Tones

In (Nishi 1997: 986–989 and 993, n. 15), I argued about **OB** tone marks and the possible interpretation of the use of the finals **-h** and **-ḥ**, and **-ʼ** in **OB**. I tentatively proposed the following hypotheses. First, **-h** and **-ḥ** represented the phonation type of the preceding vowel, not the segmental **-h**. Second, the contrast between tones 1 and 2 must have been phonatory at the stage of **Pre-OB**, which was later transphonologized to pitch contrast in **OB**, but with some time lag between open and other non-stop rhymes. Since breathy voice in principle lowers the pitch of the vowel, the pitch of this tone was lower than tone 1 with clear or normal voice when the distinction of tones 1 and 2 shifted to pitch contrast in **OB**. Then, as a corollary to the second hypothesis, I suggested that there occurred a tonal flip-flop in the later history of Burmese.

As for **-ʼ** or short (written) vowels represented the glottal stop in **OB**, which was later weakened to the creaky phonation of the preceding vowel. Further evidence for this interpretation has been offered by Pulleyblank from its Mon usage. Thus, he says:

‘One can possibly explain the spelling convention in terms of Mon usage, in which the short vowels were always accompanied by a final glottal stop when not followed by any other final consonant and the final long vowel signs were used only for open syllables in foreign loan words. In Old Burmese a small *α* was used as a marker for final glottal stop (=creaky tone).’ (1963: 215)

Table 7. Tonal Correspondences of Non-stop Rhymes of the Burmish Languages
(All data on the Burmish languages other than Burmese are taken from ZYC.)

PBsh	BUR	ACH	XIA	ZAI	LEQ	LAN	BOL
*-ø>	1=	55=	55=	51=	33=	31=	55
					*vd>31		
*-fi>	2=	31=	31=	21=	55=	35=	35
					*vd>33	55/_k	*vd>31
*-ʔ>	3=	35=	35=	55=	53=	55=	35
		31/_ʔ	55/_ʔ		*vd>55		55/_ʔ
vd=voiced							

On the basis of the tonal or phonatory system thus inferred for **pre-OB** and, possibly for Early **OB** as well, I tentatively reconstruct the same phonatory features: modal voice, breathy voice and the glottal stop at the **PBsh** stage, as there are phonetically plausible correlations between them and Burmish tones.

From the above correspondences we can conclude that the voicing of initials had only secondary effects on the emergence of Burmish tones, and this is also true of stop rhymes.

Table 8. Tonal Correspondences of Stop Rhymes of the Burmish Languages
(All data on the Burmish languages other than Burmese are taken from ZYC.)

PBsh	BUR	ACH	XIA	ZAI	LEQ	LAN	BOL
*voiceless	>[55]	[55]=	[55]=	55=	55=	55=	55
*voiced	>[55]	[55]=	[55]=	21=	31=	31=	31

All stop rhymes in Burmese, Achang (Long-chuan dialect), and Xiandao have one and the same tone, while those in the rest split into high tone (55) if their initials were **PBsh** *voiceless or *voiceless preglottalized, and low tone (21/31) if otherwise. Therefore, the stop rhymes had no distinctive tones at the stage of **PBsh**. However, we should also note that there are yet some residues in each Burmish language. Some of them may be misprints, while others may require further consideration.

Notes

- 1) The method of transliteration adopted here (in Text) is practically identical to Duiroselle's. The only differences are the numbering of tone marks, the use of ' for vowel letters, the use of 'e³ for his 'i, and -ñ * < **OB** -(y)an and -ñ < **OB** -ñ for his -ñ. The order of tones follows that of Cornyn/McDavid. It is not necessary to mark the tone number for each rhyme since a par-

ticular tone is in many cases assigned to a particular written rhyme. Thus, short open rhymes are always with tone 3, and written stop rhymes always correspond to tone 4 (/ʔ/) in SB. The consonant phonemes of SB are transcribed as /p ph b t d t̃ th d̃ c ch j k kh g s sh z š h m hm n ñ hñ hm ŋ hɟ l hl (r) y w hw/ and the vowel phonemes as /i e ɛ a ə ɔ o u; ei ai ou au/, of which diphthongs occur either as nasalized vowels: /ein, ain, oun, aun/ or with the glottal stop or tone 4: /eiʔ, aiʔ, ouʔ, auʔ/. The vowel of atonic syllables is always /ə/. There are four distinctive tones. Tone 1 is unmarked, tones 2 and 3 being marked as /' / and /' /, all of which occur with both open and nasalized rhymes, while tone 4 is the abrupt tone, ending in /ʔ/.

- 2) There are two Sino-Burmese vocabularies. The earlier one, the *Mientienkuan tsatzu* (緬甸館雜字) [= *Miandianguan zazī*] is supposed to have been compiled sometime between the end of 15C and the beginning of 16C, while the latter one, the *Mientien ishu* (緬甸譯書) [= *Miandian yishu*], at mid 18C. A detailed study of these two vocabularies was made by Nishida (1972), who distinguished the respective language they represent as the **Mientien languages A (MTA)** and **B (MTB)**. Nishida reconstructed the phonemic forms of vocabulary entries of both on the basis of the Burmese orthographic forms and the attached Chinese phonetic transcriptions. **MTB** aside, what was disputable of the phonemic system of **MTA**, reconstructed by him, was that it could not be an earlier form of **SB**. It is now clear that we should rely more on Burmese orthographic evidence of **MTA** than he did. It should be reminded that the Burmese alphabet was originally more phonemic or phonetic, unlike Chinese characters, and remained so in many respects even though the consonantal and vocalic changes that took place in the course of time may often be concealed by the nature of it. (After all, it is not as phonetic as the Roman alphabet.)
- 3) Though 'u-shyac [s + h + y-] is registered in the *Myanmar-English dictionary* (1993), 'up-rhac is also found in **Mod.WB**. We would also expect *u-rhyat as the **OWB** form though it is not attested in **OB** inscriptions.
- 4) Along with **OB hiy'~hi** 'be, be alive, have' above, another word with a high frequency of occurrence in **OB** inscriptions that shows the alternation -iy~i is **OB 'iy'(/'iy)~'ī (/i)**: **WB 'ī** (**SB /i/**) 'this'. The variant of **hiy'** seems to occur in equal frequency, while that of the 'iy more frequently at least in earlier **OB** inscriptions. As for the former, all the dialectal forms show that their rhyme corresponds to **OB -i** though the Arakanese -i can be derived from either **OB -i** or **OB -iy**. However, the Tavoyan rural variant hé points to a variant with -iy. I give suspect reflexes or cognates of **OB 'iy** (?>Arakanese and Danu)~'ī (?>Intha) below. However, correspondences between the **OB** forms and them are irregular either as to their initial or tone or both.

OB	WB	Yaw	Arakanese	Tavoyan	Intha	Taungyo	Danu
'iy~'ī	'ī	—	?e~ye (/yə-)	—	?í	—	?hei
hiy'~hi	rhi	śí	hí~héin~śí (?=SB)	fí~hé (rural)	fí (=?SB)	shí	shí
cf. riy 'water'	re	yei	ri	ye		ye (=?SB)	
rhiy' 'front'	rhe'	śéi	hrí	fé (=?SB)	ché		shéi

(=?SB) indicates that the preceding form is suspected to be a loan from **SB**.)

I have not yet found any sure cognate to **OB 'iy'~'ī** among **TB** languages. Benedict compares **WB rhi** with **WT srid-pa** 'be, exits' < **PTB *s-ri** (**STC** 264). The reconstruction of the rhyme of this root is based on that of the **WB** cognate (**WT i**: **WB i**=**PTB *i**). If, however, the rhyme of the Burmese form were not -i but -iy, we would have to reconstruct *s-riy for this root (**WT i**: **OB iy**/**WB e**=**PTB *iy**). Thus, it is hard to draw any definite conclusion on the -iy~i alternation in **OB** from these two examples.

- 5) The ideational scheme also shows how regional dialects of Burmese have branched off from the main course of the development of **CB**. Each of the dialects must have been generally separated from **SB** and all other dialects for some time enough to develop their own features in their history, or retains a number of earlier features which all or some of the dialects have lost already. Further, some dialects are found to share innovative features, hence, constituting a

subgroup of dialects. Thus, Taungyo and Intha may turn out to be such dialects in the future. So, studying the dialects, we expect that features of **OB** or of the earliest form of Burmese, which was already lost in **OB**, may be still preserved in them. As **OB** is the language which is attested only in inscriptional writings, dialectal forms are expected to corroborate it. We also know the history of Burmese in general, not just that of **SB**, through dialect studies, and if not all of their features are derivable from **OB**, we will be able to reconstruct the earliest form of Burmese on the basis of comparison of all dialects, inclusive of **SB**, as well as **OB** with additional data supplied by **WB**.

In this scheme, both Taungyo and Intha are considered to have diverged before **OB** (**Pre-OB**) because it seems to me that the later development of their medials would be unexplicable if they had taken the same course of development as the others. See also (Nishi 1998) and 4.1.1 of the text for voicing among Burmese dialects. Yaw and Arakanese underwent parallel changes of their rhymes except for **WB(MB)** **-i**, **-e** (**/-we**), **-ac**, **-aĩ**^s, **-uik** and **-uiĩ**. In Arakanese, **WB(MB)** **-i** and **-e** merged into **/-i/** **~** **/-ein/** (generally after a nasal), and **WB -ac** and **-uik**, and **-aĩ**^s and **-uiĩ** changed parallelly into **/-aiʔ/** and **/-ain/** respectively, while in Yaw, **WB -i** and **-e** remain distinctive, and **WB -ac** and **-aĩ**, and **-uik** and **-uiĩ** separately developed into **/-in/** and **/-iʔ/**, and **/-ain/** and **/-aiʔ/**, as in **SB**.

(Sources: Yaw from (Yabu 1980); Arakanese from (Okell 1995))

Mod.WB<OWB	SB	Yaw	Arkanese
i/ĩ	i	i	i~ein
e<iy	e/i	ei	i~ein
we<uy	we	wei	wi~wein
ai/ay	ε	e	e
wai/way	wε	we	we
aĩ<aĩ/e	i~e~ε	e	e
a/ā	a	a	a
wa/wā	wa	wa	(w)ɔ~wa
o<aw~o	ɔ	o	ɔ
ui<uiw	o	ou	o
u/ũ	u	u	u~oun
in	ein	ein	ein
am/am	an	en	en
wam/wam	un/win	wen	wen
an	an	en	en
wan	un/win	wen	wen
aĩ ^s <(y)an	in	in	ain
aĩ	in	an	an
wan	win	wan	wɔn
um	oun	oun	oun
un	oun	oun	oun
uin	ain	ain	ain
on	aun	aun	aun
ip	eiʔ	eiʔ	ei'
it	eiʔ	eiʔ	ei'
ap	aʔ	eʔ	e'
wap	uʔ/wiʔ	[ʔweʔ]	[ʔwe']
at	aʔ	eʔ	e'
wat	uʔ/wiʔ	weʔ	we'
ac<ac/(y)at	iʔ	ʔ	ai'
ak	εʔ	aʔ	ɔ'
wak	wεʔ	waʔ	wɔ'
up	ouʔ	ouʔ	ou'
ut	ouʔ	ouʔ	ou'

uik	aiʔ	aiʔ	ai'
ok	auʔ	auʔ	au'

In spite of this we cannot consider them to form a subgroup, since Arakanese shares the voicing of initials with **SB**, while Yaw does not, for which see 4.1.1. Danu is problematical. Non-linguistic evidence generally suggests that it was separated from **CB** much earlier than most other dialects. However, except for the lack of voicing sandhi and the peculiar grammatical /functional morphemes, the general development of its phonology seems to parallel that of **CB**. For Merguiese, we need more data to say anything more about its position among the Burmese dialects.

- 6) As we have seen, both **OB** **-l-** and **-r-** eventually changed to **-y-**, palatalizing the preceding consonants, and velar initial clusters (**Ky-**) and finally yielding alveolo-palatals in **SB**. Velars before the high front vowel **-i-** follow the same change. This last change is reflected in the Burmese orthography. However, a secondary palatalization of bilabials, which occurred in parallel with this series of changes, is not registered in it. This palatalization may be stated in terms of the orthography as follows: Bilabials (stop/nasal) are palatalized before **-ac** (**SB** **/-iʔ/**) or **-añ*** (**SB** **/-in/**). Examples are, however, found mostly in Pāli loans. The following are all the examples found in the *Myanmar-English dictionary* (1993):

(Compounds are not listed here.)

WB	SB	Meaning
pac	/pyiʔ/	'to throw, shoot'
paccan	/pyiʔsin/	'firestep'
paccayā	/pyiʔsəya/	'(of pagoda) terrace' < Pāli paccayā
paccu	/pyiʔzu/	'royal white umbrella; white garment' < ?Hindi
paccekabuddhā	/pyiʔseká bouʔda/	'lesser Buddha' < P. paccakabuddhā
paccakkha	/pyiʔseʔkhá/	'the present' < P. paccakkha
paccañ²	/pyiʔsi/	'commodity, goods' < P. paccaya
paccuddhera	/pyiʔsouʔdeyá/	'act of discarding; untidily' < P. paccuddāra
paccantarac	/pyiʔsandəriʔ/	'outlying areas of a kingdom' < P. paccantarathā
paccuppan	/pyiʔsouʔpan/	'the present' < P. paccuppanna
pajjun	/pyiʔzoun/	'god of rain; rain' < P. pajjunna
pañ*ca	/pyinsá/	'five' < P. pañcama
pañ*cakāñi	/pyinsəkani/	'oak gall from the <i>Quercus infectoria</i> tree' < H. majakanee
pañ*cantūriyā	/pyinsin turiya/	'five classes of Burmese instruments' < P. pañcaṅga + turiya
pañ²	/pyi/	'(archaic) many; plenty'
majjihma	/pyiʔzímá/	'middle; moderate' < P. majjhima
mañ (1)	/myi/	'be named'
mañ (2)	/myi/	'who, which'
mañ (3)	/myi/ ~ /me/ (spoken)	'a clause-final particle'
mañ (4)	/myi/ ~ /me/ (spoken)	'a classifier'

There is a number of examples to which the rule does not apply. Among them are found **WB** **mañcañ**: **SB** /meʔ/ 'a kind of tree', **mañ²**: /mè/ 'black; dark', **mhañ³**: /hmé/ 'be ripe', and **mhañ³**: /hmé/ 'to name', which is the causative form of **mañ** 'be named' above. These residues clearly indicate that **WB** **-añ** had already split into two reflexes, **/-i/** and **/-e/**, when the palatalization rule was introduced. It should also be noted that though graphically differentiated, Pāli loans in **-et** probably merged with **-ac** in Late **OB**, and followed the same course of development with the latter, hence **SB** **/-iʔ/**. However, **khet** (< Pāli khetta) 'extent, age, period' did not palatalize its initial (hence **SB** **/khiʔ/**), while **mettā** (< Pāli mettā) 'love, friendship' did, (hence **SB** **/myiʔ/**). This suggests that the palatalization of velars probably occurred prior to that of bilabials as well as the change of **/-eʔ/** (**WB** **-et**) > **/-iʔ/**.

- 7) It is not possible with the available data on Burmish languages to describe the phonetic details of Proto-Burmish *c, *ʈc and *j. They may have been *alveolo-palatals as in Burmese, Achang and Xiandao (Burmish), or *palato-alveolars as in other Burmish languages (Maruic).
- 8) In Intha, there has been a change of the initial clusters corresponding to **WB** *kh-* and *khy-* from /ch-/ to /š-/ . However, this change is being disturbed by the influence of **SB**, and now is reversed to /ch-/ again. The liquid initials or initial clusters that correspond to **WB** *hy-*, *hr-* and *hly-* have undergone a change, merging into /š-/ . However, it is now found that the same reversal of change is ongoing for these initials which did not derive from original velar initials, e.g. (Those forms in bold are hypercorrect forms.) For the further detail, see (Okell 1995).

WB *hyañ*: **INT** /šin/ 'to compare'

OB *hriy'*: **WB** *hre*: **INT** /sé/

OB *syā*: **WB** *hrā²*: **INT** /šà/~/chà/ 'to be scarce'

WB *lhyo³*: **INT** /šó/~/chó/ 'to reduce'

WB *hra*: **INT** /chá/ 'to graze'

WB *lhyo*: **INT** /chò/ 'to slide'

Thus, Intha speakers have overdone or are overdoing the correction of their pronunciation to conform it to the prestigious variety, i.e. **SB**. This kind of overcorrection is called 'hypercorrection' in (socio) linguistics and quite commonly observed in many languages.

- 9) The following cognate sets include irregular correspondences (in bold) of initials that have not been explained yet.

	OWB	Mod.WB	SB	ARA	TAV	INT	TAU
big	kri	kri²	ci	kri	ki	ci	kwi
to look at, look for	krañ'	krañ³	ci	kré	ké	ci	ké
to grind	krit	krit	cei?		kli	cai'	
between; interval; pass	(ʼa)krā	(ʼa)krā	(ə)ca	krà	klà	klà	ʔacà
thread	khrañ	khrañ	chi	khre	khe	chi	che
foot	khriy	khre	che~chi	khri	khe	khe	khe
sweat	khruy	khywe²	chwè	khwi	khwi	chwè	šwi~chwì
buffalo	klway	kywai	cwè		kwè	kwè	klwæ
to be saved	klwat	kywat	cu?	cwe'	klu'	kwu'	
take off	khlwat	khywat	chu?	chwe'	khlu'	khwu'	khilai?

- 10) In Proto-Burmish, the voiceless, voiceless preglottalized and voiced stops and affricates, and the voiced preglottalized and voiced sonorants, can be reconstructed. They developed in the following ways among the Burmish languages.

1. stops/affricates

PBsh		Burmish	Maruic
*voiced	>	voiceless unaspirated	voiceless unaspirated
*voiceless	>	voiceless aspirated	voiceless aspirated
*voiceless	>	voiceless aspirated	voiceless unaspirated
preglottalized			with laryngealized vowels

2. sonorants

PBsh		Burmish	Maruic
*voiced	>	voiced	voiced
*voiced	>	voiceless	voiced with laryngealized vowels
preglottalized			

Examples: (Sources: **ZYC**; Dai and Cui 1985; Dai *et al.* 1991; Xu and Xu 1984)

Those forms whose initial, rhyme, or tone is irregular in correspondence are printed in bold.

1. stops/affricates:

1. **PBsh** *voiced >

Meaning	WB	Achang	Xiandao	Zaiwa	Leqi	Langsu	Bola
insect, worm	pui ²	pau ³¹	pau ³¹	pau ²¹	pou ³³	puk ⁵⁵	pau ³¹
climb (up)	tak	təʔ ⁵⁵	təʔ ⁵⁵	toʔ ²¹	təʔ ³¹	təʔ ³¹	taʔ ³¹
nine	kui ²	kau ³¹	kau ³¹	kau ²¹	kou ³³	kuk ³¹	kau ³¹
pair	-cum	tɕəm ³¹	cum ³¹	tsum ⁵⁵	tɕəm ⁵⁵	tsam ⁵⁵	tsam ⁵⁵
eat	cā ²	tɕə ³¹	cə ³¹	tso ²¹	tɕə ³³	tsə ³⁵	ta ³¹
chop, hew (bones)	—	tɕen ³¹	ten ³¹	tsan ⁵¹	tsan ³³	tsəŋ ³⁵	tɕə ³¹
drum	cañ	tɕeŋ ⁵⁵	—	tsiŋ ⁵¹	tsəŋ ³¹	tsaŋ ³¹	taŋ ⁵⁵
ride	cī ²	tsi ³¹	tsi ³¹	tʃi ²¹	tʃy ³³	tʃui ³⁵	tʃui ³¹
sow	—	-tseŋ ³⁵	tʃuŋ ⁵⁵	-tsiŋ ⁵¹	-tsəŋ ³¹	-tsaŋ ³¹	-taŋ ⁵⁵
government officials	cui ²	tʃau ³¹	tʃu ³¹	tsau ²¹	tʃhou ³⁵	tsuk ⁵⁵	tau ³¹
female genital	cok	tʃuʔ ³¹	cuk ⁵⁵	tʃoʔ ²¹	tʃuk ³¹	tʃauk ³¹	tʃauʔ ³¹
rinse (mouth)	—	tʃui ³¹	tʃui ³¹	tʃui ²¹	tʃy ³³	tʃui ³⁵	tʃui ³¹
pit, stone	-ce ³	-tsi ³¹	-tsi ³¹	-tʃi ⁵⁵	-tʃei ⁵⁵	tʃik ⁵⁵	-tʃi ³¹

2. PBsh *voiceless >

open (gate)	phwan ³	phəŋ ³⁵	phəŋ ³⁵	phəŋ ⁵⁵	pha:ŋ ⁵³	phun ⁵⁵	phun ³⁵
firewood	than ²	thuan ³¹	thəŋ ³¹	than ²¹	than ⁵⁵	thə ³⁵	thə ³⁵
bitter, salty	khā ²	xə ³¹	xə ³¹	kho ²¹	khə ⁵⁵	khə ³⁵	kha ³⁵
elephant	chan	tʃəŋ ⁵⁵	chan ⁵⁵	—	tʃəŋ ³³	tʃhə ³¹	tʃhə ⁵⁵
fat (of pigs)	chū	tʃho ⁵⁵	—	tʃhu ⁵¹	tʃhu ³³	tʃhau ³¹	tʃhu ⁵⁵
ten	chay	tʃhe ⁵⁵	-tʃhi ⁵⁵	tʃhe ⁵¹	-tʃhe ³³	tʃhe ³¹	-thai ⁵⁵
mortar	chum	tʃham ³¹	-thum ⁵¹	tʃhum ⁵¹	tʃhəm ³³	tʃhum ³⁵	-tʃham ⁵⁵
sambur deer	chat	tʃhet ⁵⁵	tʃet ⁵⁵	tʃhat ⁵⁵	tʃhat ⁵⁵	tʃhet ³¹	tʃhet ³¹
to dye	chui ²	tʃhau ³¹	tʃhau ³¹	tʃhau ²¹	tʃhau ⁵⁵	tʃhuk ⁵⁵	tʃhau ³⁵
rice	chan	tʃhen ⁵⁵	tʃhen ⁵⁵	tʃhin ⁵¹	tʃhen ³³	tʃhin ³¹	tʃhən ⁵⁵
follow	—	tʃhəŋ ³⁵	tʃhəŋ ³⁵	tʃhəŋ ⁵⁵	tʃhə:ŋ ⁵³	tʃhə ⁵⁵	tʃhə ⁵⁵

3. PBsh *voiceless preglottalized >

porcupine	phrū	phzə ⁵⁵	phzu ⁵⁵	pju ⁵¹	-pju ³³	pju ³¹	pju ⁵⁵
paste, stick	thap	thap ³⁵	thap ⁵⁵	tap ⁵⁵	tap ⁵⁵	tɕə ⁵⁵	tɕə ⁵⁵
to fill; put in	khat	xat ⁵⁵	xat ⁵⁵	kət ⁵⁵	kət ⁵⁵	kɕə ⁵⁵	kɕə ⁵⁵
lungs	-chut	-tʃhot ⁵⁵	-chut ⁵⁵	tsut ⁵⁵	tsɕt ⁵⁵	tsət ⁵⁵	tsɕt ⁵⁵
to cough	chui ²	tʃhau ³¹	tʃhau ³¹	tsau ²¹	tsəu ⁵⁵	tsuk ⁵⁵	tau ³¹
bell	khyū-	tʃhu ⁵⁵	—	tʃy ⁵¹	tʃy ³³	tʃy ³¹	tʃy ⁵⁵
wet	ewat	—	coʔ ⁵⁵	—	tʃy ⁵⁵	tʃyuk ⁵⁵	tʃɕə ⁵⁵
to catch, hold	chup	tʃhəp ⁵⁵	tʃhup ⁵⁵	tʃup ⁵⁵	tʃup ⁵⁵	tʃap ⁵⁵	tʃap ⁵⁵

2. Sonorants:

1. PBsh *voiced >

sky, rain	mui ²	mau ³¹	mau ³¹	mau ²¹	mou ³³	muk ⁵⁵	mau ³¹
to be ill	nā	no ⁵⁵	no ⁵⁵	no ⁵¹	no ³¹	no ³¹	na ⁵⁵
green, brown, blue	ñui	ñau ⁵⁵	ñau ⁵⁵	ñju ⁵¹	ñja:u ³¹	ñjuk ³¹	ñjuŋ ⁵⁵
I (1sg. nom.)	nā	ŋə ⁵⁵	ŋə ⁵⁵	ŋə ⁵¹	ŋə ³¹	ŋə ³¹	ŋə ⁵⁵
weave, knit	rak	zua ⁵⁵	zə ⁵⁵	voʔ ²¹	joʔ ³¹	yoʔ ³¹	yaʔ ³¹
hand	lak	loʔ ⁵⁵	loʔ ⁵⁵	loʔ ²¹	loʔ ³¹	loʔ ³¹	laʔ ³¹
bamboo	wā ²	o ³¹	o ³¹	va ²¹	wo ³³	vo ³⁵	va ³¹
right	yā	-zo ⁵⁵	-jo ⁵⁵	-jo ⁵¹	-jo ³¹	-jo ³¹	-ja ⁵⁵

2. PBsh *voiced preglottalized >

bury	mhrup	mpzəp ⁵⁵	mpzəp ⁵⁵	mju ⁵⁵	ñju:p ⁵⁵	ñjap ⁵⁵	ñjap ⁵⁵
ear, spike	-nham	-ŋam ⁵⁵	-ŋam ⁵⁵	-ŋam ⁵¹	-ŋam ³³	nɕ ³¹	nɕ ⁵⁵
mouth, snout	nhut	ñot ⁵⁵	ñut ⁵⁵	ñut ⁵⁵	nuat ⁵⁵	ñat ⁵⁵	nɕt ⁵⁵
to wither	ñhui ²	ñau ³¹	ñau ³¹	ñju ²¹	ñja:u ⁵⁵	—	ñju ³⁵

finger (with *lak-)	-ñhui ²	-ñau ³¹	-ñau ³¹	-ñju ²¹	-ñju ⁵⁵	-ñju ⁵⁵	-ñju ⁵⁵
to borrow (tools)	ñhā ²	ñā ³¹	ñā ³¹	ñā ²¹	ñā ⁵⁵	ñā ³⁵	ñā ³⁵
dew; frost	nhan ²	ñan ⁵⁵	ñan ⁵⁵	ñan ⁵¹	ñan ³³	ñan ³¹	ñā ⁵⁵
flea	lhe ²	li ³¹	-lai ³¹	-lai ²¹	-lei ⁵⁵	-la ³⁵	-lu ³⁵
pants, trousers	—	lō ³¹	lō ³¹	lō ²¹	lō ⁵⁵	lō ³⁵	la ³⁵
eight	rhac	çet ⁵⁵	çet ⁵⁵	fit ⁵⁵	fet ⁵⁵	fet ⁵⁵	fet ⁵⁵
hatch, incubate	wap	xup ⁵⁵	xup ⁵⁵	xup ⁵⁵	wu:p ⁵⁵	ap ⁵⁵	ap ⁵⁵

As mentioned above, I have not found any set of correspondences which can be regarded as reflecting **PBsh** *ʔy-, which is expected on the basis of the symmetry of the system of **PBsh** initials.

In the above list, we will note that the Achang and Xiandao reflexes complicate the correspondences of Burmish affricates. Many of the correspondence sets for affricates are defective and attested by only one or two cognate sets. Thus, though some of them may be found to be in complementary distribution, it will be yet hard to afford phonetically plausible explanations for their variations. Therefore, I give the examples of varied correspondences of affricates as they are. Nor the Achang (reflexes for **PBsh** *ʔñ- (ñ- and ɲ-)) is inexplicable yet, but its reflex in the Lianghe dialect is always ɲ- (Dai and Cai 1985). Similarly, the palatalization of the Achang (Longchuan) reflex for **PBsh** *ʔn- cannot be explained, but here too, the Lianghe dialect shows the regular reflex ɲ-. (Note that another dialect of Achang, Luxi has merged voiced and voiceless sonorants.) Anyway, Achang, especially, the Longchuan dialect, offers many problems, but we should not consider each of its varied reflexes to have derived from a distinct **PBsh** initial. The initial of Xiandao -lai³¹ probably became voiced due to its medial position. The full form for 'flea' is fu³¹lai³¹, whose first morpheme is apparently the weakened form of fui³¹ 'dog' < **PBsh** *kuyfi. For all other irregular forms, several of which could be misprints, we have to assume distinct but related **PBsh** initials or rhymes. Although I cannot explain the reason yet, the originally laryngealized vowels with primary (**PBsh**) and secondary (derived) voiceless fricatives generally seem to have lost its laryngealization except in Leqi. However, there are a number of exceptions, and the stop rhymes with **PBsh** *ʔs appear to retain laryngealization better.

Primarily on the basis of the distinct development of the preglottalized initials, I classify the Burmish languages into two subgroups. The Burmic subgroup consists of Burmese, Achang and Xiandao, while the Maruic includes Zaiwa, Leqi, Langsu and Bola. Hpon and Nusu are not taken into account here.

- 11) We have to reconstruct a **PBsh** variant *ʔrya for 'hundred' to explain the reflexes of initials of the Zaiwa and Leqi forms. Leqi preserves vocalic laryngealization after *ʔr- and *ʔry-, while the rest of the **Maruic** languages lost it.
- 12) Nishida made several mistakes in equating **M** (yazedi) with **SB** forms.
 1. **M** 'a-thot 'head ornament (of pagodas)': **WB** thwat- 'to be tender' (Nishida) [: **WB** 'a-thwat 'summit, peak']
 2. **M** 'a-tui ~ 'a-ti 'we > I (honorific)': **WB** -to' 'honorific affix' [: **WB** 'a-tui³ 'I (arch.), cf. also -tui³ 'plural suffix' and tui³ ~ dui³ /dó/ (spoken) 'we; I']
 3. **M** 'a-phei' 'for': **WB** 'apho 'an associate' [: **WB** 'a-phui³ 'for']
 4. **M** thāpanā 'to enshrine': **WB** thā 'to put' [: **WB** thāpanā 'to enshrine Buddha's relics' < Pāli thapana]

There are also cases where his identification or gloss is doubtful, e.g.

1. **M** -lhen': **WB** lhuin 'to be numerous'. The problem is that though it is likely that this suffix corresponds to **WB** -lhyān 'if', and, as Shafer (1943) pointed out, **M** -e- corresponds to -ya- in the later **OB** inscriptions (= **OWB**), the **M** form differs from the **WB** form both in meaning and tone. However, since **OB** lhyān' is also found in a later inscription in the phrase, thuiw-suiw' lyak-lhyān' 'even so', it would be better to identify it with **WB** lhyān, and regard -' as its emphatic use (Nishi 1974: 017). As Henderson (Luce 1981: ii) mentions, Luce attributed -' of this suffix to its emotional use (Nishi 1997). However, it is clear that it cannot be related to **WB** lhuin.

2. **M ta-mū-leh**: ?**WB ta-mū-lañ** ‘nominative affix’. There is no such affix in **WB**, and this may be analyzed as **ta-mū** + **-leh**, as was done by Duroiselle (1919), with the former corresponding to **WB ta-mū** ‘one, a certain (archaic)’ and the latter, to **WB-lañ**² ‘also’.
3. **M nhap**: **WB nhap** ‘to bring to proper consistence’. Duroiselle (1919) assumed the meaning of this verb as ‘to approach’ by collating it with the corresponding part of the Pāli face of the Myazedi inscription. This interpretation is generally accepted.
4. Nishida interpreted four instances of **M -teh** out of five as a ‘suffix to designate an object’, but this interpretation seems to apply only one instance (1.9) of the four.

Besides, he left out two finals **-ip** (**M ’a-nhip ’a-chak**: **WB nhip-chak** ‘to oppress’) and **-in** (**M. min**: **WB min**³ ‘to declare, command’), and failed to identify **M su-rhow** ‘occasion, time when’ with **WB sa-ro**² ‘word indicating a time or period’, which is the only example with the rhyme corresponding to **WB -o**.

- 13) The following remarks of Benedict on Burmese pertinent here are found in **STC**.

‘TB medial ***w**, found only before **a** and **i**, is well preserved in Burmese and Lushei...’ (49)

‘Burmese appears to have diphthongized final ***o** to **-au** (Modern **-ɔ**), ...; also final ***e** to **-ai** (Modern **-ɛ**), though the evidence for the latter shift is less substantial (the retention of ***e** in Lushei) ...’ (59)

‘Most reconstruction in final ***o** or ***e** ... must be regarded as provisional.’ (59)

‘Burmese ... has both **-u** and **-ui** < ***uw**, **-i** and **-e** < ***iy**, all of which correspond to high vowels elsewhere. The earlier Burmese vowel system, as represented in the inscriptions, forms a symmetrical phonemic system of three vowels and the semi-vowels **w** and **y**:

-u	-a	-i
-uw (-ui)	-aw (-au)	—
—	-ay (-ai)	-iy

Both **-u** and **-i** are written with symbols for long vowels, while **-u** in **-uw** is written ‘**ui**’ to indicate the special phonetic value (probably mid-unrounded) of this phoneme before the labial (**-w**) as well as before velars (**-k**, **-ŋ**). (59–60)

‘Burmese appears to have merged ***oy** with ***wiy** in the final **-we** ...’ (67)

‘Burmese, which lacks both these medial vowels (**o**, **e**), has merged medial ***o** with short medial ***u** in medial **au** before velars (**-auk**, **-auŋ**) but with **a** before other finals (**-at**, **-an**; **-ap**, **-am**) ...’ (73)

‘TB medial ***e** before final velars and dentals has fallen together with ***i** in Burmese **-ats** and **-añ**, and before labials in Burmese **-ip** and **-im** ...’ (74)

‘Burmese maintains high vowels, long or short, before labials, and when long before velars (no examples of long ***i**: here) and dentals, but short ***u** before velars, and short ***i** before velars and dental nasal (but not stop) show the development of diphthongs:

TB ***uk**, ***uŋ** > B **-auk**, **-auŋ** but ***uk**, and ***uŋ** > B **-uik** /**-uk**/, **-uiŋ** /**-uŋ**/.

TB ***ik**, ***iŋ** > B **-ats** /**-ait**/, **-añ** /**-ain**/.

TB ***in** > B **-añ** /**-ain**/ (but ***it** > B **-it**).

As noted above, B **ui** here is simply a positional variant (allophone) of the phoneme **u** before **-k**, **-ŋ**, **-w**. TB long medial ***u**: has developed in the same manner as final ***u(w)**, while short medial ***u** has fallen together with medial ***o** in the diphthong **au** (see above).’ (75–76)

‘B-ats (<TB ***ik**) and -añ (<TB ***iŋ**) can phonemically written /**-ait**/ and /**-ain**/, thus paralleling B **-auk** < TB ***uk** and ***auŋ** < TB ***uŋ**.’ (78)

'Burmese retains final **-it*, final **-ip* and final **-im*. Final **-in*, however, is represented by **-añ*, as in B *āsàñ* 'liver' < TB **m-sin*; B *hmáñ* ~ *hmyáñ*, L *hmin* 'ripe' < TB **s-min*.' (79)

'TB long medial **i*: is rare, especially before final velars, but can be established for a few roots, including **(s)dik* 'scorpion' (above). Burmese, which has **-añ* for TB **-in* (see above), has *-in* for TB **-i:n*.' (79)

- 14) Pulleybank's interpretation of **OB u** as /wi/ is chiefly based on distribution and the parallel development of **OB ly** (> **WB e**) and **uy** (> **WB we**). Since **WB wi** is limited to Pāli loans and a few marginal words, it is therefore in complementary distribution to **wa**. Though the distribution of **u**, and, for that matter, **i** as well, are more limited than **wa** (only the latter occurring before velar and palatal finals). In addition, the vowel letter for 'ū and an alternative vowel letter for 'u are both surmounted by the vowel symbols, ī and i, which are not attested in Mon script.
- 15) Though Benedict does not mention anywhere that **WB -we** corresponds to **OB** (inscriptional Burmese) **-uy**, it is obvious that he knew it. It was probably because he did not think it necessary to mention it because it is clearly simpler to explain the development of **WB -we** directly from **PTB *-wiy** rather than by setting out **OB -uy** at an intermediate stage.
- 16) Leqi has two reflexes, **-au** and **-ou** where **WB** has **-ui**. They are not phonetically conditioned variants, as is seen in the examples below. (Sources: ZYC)

Meaning	WB	ACH	XIA	ZAI	LEQ	LAN	BOL
smoke	-khui ²	-xau ³¹	-xau ³¹	-khau ²¹	-khau ⁵⁵	-khuk ⁵⁵	—
to smoke, fumigate	—	—	xau ³¹	—	kha:u ⁵⁵	—	—
thief	-khui ²	-xau ³¹	—	khau ²¹	khau ⁵⁵	khuk ⁵⁵	khau ³¹
to steal	khui ²	xau ³¹	xau ³¹	khau ²¹	kha:u ⁵⁵	khuk ⁵⁵	khau ³¹
bone	-rui ²	-zau ³¹	-zau ³¹	-vui ²¹	-jou ³³	-yuk ⁵⁵	-u ³¹
difficult	—	—	—	vui ²¹	ja:u ³³	yuk ⁵⁵	yu ³¹

These examples show that they are grammatically conditioned variants, **-au** generally occurring only with verbs and adjectives, used predicatively, and **-ou** only with nouns, but after the negative prefix /a³¹-/ and in the first syllable of reduplicated adjectives only the latter rhyme appears. In (Dai *et al.* 1991) these are distinguished as the long and short (vowel) alternants of the same morpheme. This alternation seems to be paralleled in most, if not all, other rhymes, and it involves not only distinction in vocalic length, but also difference in vocalic quality. Thus, the corresponding alternation between **-u:m** for verbs and adjectives, and **-om** for nouns, shows **-u ~ -o** variation, as in the following pair of examples.

Meaning	WB	ACH	XIA	ZAI	LEQ	LAN	BOL
mountain	pum	pum ⁵⁵	pum ⁵⁵	pum ⁵¹	pom ³¹	pam ³¹	pam ⁵⁵
cf. WB pum 'v. 1. pile; pile up. 2. be numerous. n. pile; part, portion. CL for piles of material.'							
to heap, stack	pum	—	pum ⁵⁵	—	pu:m ³¹	pam ³¹	—

It is an irregularity that must be explained as an innovative feature in Leqi, since the short alternant seems to represent the base form from which the corresponding long alternant derives. We probably do not need to reconstruct distinct proto-rhymes for each member of the alternative pairs. These alternations are quite regular, but are not easily susceptible to the application of internal reconstruction, since they do not seem to be phonologically conditioned alternations.

- 17) However, Benedict gives cognate forms in these rhymes in other TB languages in **STC**: e.g.
1. **WB -uiin**
1. (**STC 359**) **PTB** **kuŋ* 'tree; branch; stem' > **B**(urmese) *ākhuŋ* 'stalk, branch' [**WB** 'akhuin], also *ākuiŋ* 'large branch, bough' [**WB** 'akuin], Lepcha *kuo* 'tree', *akuŋ* 'bush', **L**

ku:ŋ 'plant, tree, trunk of tree, stem of plant'.

2. (STC 361) PTB *tu:ŋ~du:ŋ 'sit' > B thuiñ, K (achin) duŋ, Namsang toŋ 'sit'.
3. (STC 362) PTB *mu:ŋ 'cloudy, dark; sullen' > B hmuñ 'dull, downcast' [WB hmuñ], hmuñ 'very dark' [WB hmuñ], Lepcha so muŋ (=so muk) 'cloudy weather', K muŋ 'cloudy, sullen, sulky'.

2. WB -uik

1. (STC 356) PTB *tu:k 'thick, deep' > B thui-k-thui-k 'thickly', T (ibetan) 'thug-pa~mthug-pa 'thick', stug(s)-pa 'thickness', L (ushei) thu:k 'deep'.
2. (STC 357) PTB *r-mu:k 'fog(gy); dark, dull' > B muik 'dark; ignorant', T rmugs-pa 'dense fog; inertness', smug-po 'dark red, purple-brown', L mu:k 'dull(color)', Lepcha muk 'foggy, misty', muk muk 'dullness, darkness'.
3. (STC 358) PTB *pu:k~*buk 'cave; belly' > B wàm-puik 'outside of belly' [cf. WB buik, SB /bai?/ 'belly'], T phug(s) 'innermost part', phug-pa 'cavern', L pu:k 'cave'.
4. (STC 360) PTB *dzu[:]k 'erect; plant' > B tsuik 'erect, set upright, plant' [WB cuik, SB /sai?/], T 'dzug-pa~zug-pa 'prick or stick into; plant; erect', L fuk 'to erect, be erect'.

Some of forms given in the above cognate sets cannot be regarded as sure cognates. We would expect more cognate sets for WB -uiñ., but since PTB *-u:ŋ shows a parallel development with PTB *-u:k in most languages as in Burmese (CB), the reconstruction of the former is supported by that of the latter.

In (Nishi 1975a), I suggested the following two as possible cognate sets in LB for WB forms in -uik.

1. 'to be scorched; to scorch' WB mruik < OB mluik, WB mhruik: Akha myo (Lewis) 'for a fire to scorch something'.
2. 'to bite' WB kuik: Akha kɔ (Lewis): Hani kɔ³¹ (Hu-Dai): Lisu hkaw⁶ (Fraser): Lahu khò? (Matisoff): Sani q'w²² (Ma): Ahi (Yuan) ts'o⁴⁴: Nasu ts'ɾ⁴⁴ (Gao).

However, as irregularities are observed in both sets of cognates, these cannot be sure cognate sets. It is yet notable that no Burmish cognates are found even in these sets.

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