The Orthographic Standardization of Burmese: Linguistic and Sociolinguistic Speculations**

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0. INTRODUCTION

From one of the royal orders '{amin³-to¹ pran-tam²} issued by Bodawphaya {Bui²-to¹-phurä²} (1781-1819) in 1783AD (1145s) of the Konbaung {Kun²-bhoi} Dynasty (1752-1885)¹), we learn how much importance Burmese (now, officially, Myanmar {Mranma}) kings of successive dynasties attached to the distinction of letters {Pali Akkharapabheda} and the correct spelling of words, and it seems that they used to admonish their subjects to consult authentic books of orthography, and follow the decision or writings of learned monks and high officials if particular words were not entered there. From as early as the flourishing period of Pagan (now, officially, Bagan {Pugarim}) kings, this concern of Burmese kings in the matter of orthography continued to the end of the Konbaung dynasty. It was indeed in 1878, during the reign of the last Burmese king Thibaw {Sipo} (1878-1885), that a conference of twenty-eight royal councilors was convened at the Assembly Hall in the South Royal Garden in order to deliberate on the matter of orthographic standards. On their report the king issued an order in the same year by which eighteen texts of various kinds concerning Burmese orthography ({sat-purm (ca-kuiw), sat-fiwan², sat-'an²}, and the like) were officially declared to be observed as standard references²). Strictly speaking, the main concern of the king and his councilors was the correct spelling of devoweled letters and rhymes {'asat kā-ran} and the medials -y- and -r- {'apan³ 'arac}. Why such subjects were of concern to them, and, for that matter, to that of the Burmese today, is easily understood by whoever knows a little about the history of Burmese phonology. Among the books recommended, the oldest one seems to be Wun nabodana Thatin {Vannabodhana sat-'an²}³), compiled by (Rev.) Shin Otkanthamala {Rhaŋ 'Ukkamsamāḷa}, who was the presiding monk of a monastery

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キーワード：ビルマ語，標準化，縦字法，碑文，声調
in Ava/Awa ('Awa) (now, officially, Inwa ('An²-wa)) during the reign of King Taninganwe (Tanaankanwe) (1714–1735) of the Toungoo (Toñ-nü) Dynasty (1486–1752 with an interregnum 1599–1605).

As mentioned above, though tradition had it that kings of earlier Burmese dynasties, such as Pagan (1044–1287) and Pinya (Pañ²-ya) (1312–1364), observed the distinction of letters and the correct spelling of rhymes (‘sat-pum’), we know nothing about the nature of orthographic standards in the successive periods of earlier dynasties up until around the end of Toungoo. Thus, the only way to guess at the orthographic standard of these periods in Burmese history is to reconstruct them on the basis of the contemporaneous written materials. As is generally known, the only reliable materials of those periods are stone inscriptions, inscriptions on terracotta votive tablets and ink writings originally placed or written in and around pagodas and monasteries. There are a fairly large number of stone inscriptions, (hereafter, simply inscriptions), enough to guess about the development of the Burmese writing system from Pagan through Pinya and Sagain (Cac-kuin²/Cakuin²) (1315–64) to Ava.

It is the aim of this paper, first, to briefly trace the development of the Burmese writing system attested in the earlier inscriptions of Pagan times, speculating on what the orthographic standardization of earlier times might have been like, and to assume which systems of writing could be most likely to be Standard Old Written Burmese, and, secondly, to consider whether earlier attempts towards orthographic standardization throw light on some aspects of the phonology of Old Burmese. However, since the consideration of the Burmese writing system as a whole is too large a subject to deal with in a limited space, I will here take up only the Burmese writing systems of rhymes, with initials only referred to when necessary.

1. STANDARDIZATION AND PERIODS OF ‘WB’

As a background to the development of the writing system of a language before the birth of modern nations or states, it is conceivable that there existed a more or less centralized polity in a majority of cases, if not all. For the effective administration of its territory, a prestigious language or a variety of a language, with or without a period of competition with other languages or varieties, was eventually established de jure or de facto as the official language and graphized on the basis of its spoken form. It may be that the writing system, as well as the grammar, of the selected variety, was then codified, made multifunctional and officially promulgated. This process may be called the standardization of the language or the variety, which, as Haugen [1966] has suggested, must follow the steps of selection, codification, elaboration and acceptance.

However, it should be kept in mind that there may have been much
difference in the degrees of codification and elaboration, as well as acceptance
and spread, of the selected language or variety from state to state especially in
pre-modern times. So far as the writing system is concerned, standardization
often simply means the process of codification of the written form of the variety
in modern nations, where the tradition of writing has already been established.
Thus, the standardization of their writing system was simply the reform of
some orthographic rules and/or spellings of individual words. Such was the
case in Japan after World War II, and, as a special feature of Japanese, the
number of Chinese characters and their forms as well as their readings have
been regulated, at least in official and public writings. In such a case it would
not be proper to speak of its writing system as if it were a single long-standing
system. The cases in point here are the so-called Written Tibetan (=WT) and
Written Burmese (=WB).

As for its writing system, we may probably assume that Tibetan has ex-
perienced the institutionalization (W bkas-bcad) of its writing system at
least three times. In my opinion, the writing system of what we usually call
‘WT’ is nothing but the second standard writing system based on the reform by
the second official institutionalization (W bkas-bcad gnis-pa), for which see, for instance, Nishida [1970, 1987], Miller [1976], Hu [1991] and
Beyer [1992]. Although we do not know much about the first standardization
of orthography (W bkas-bcad dang-pa), what is usually assumed as the phonological system of ‘WT’ reconstructed through its orthography should be regarded basically as representing that of the first WT, and it is indeed this WT that may be considered to closely reflect the spoken form of a particular variety of the time, for which especially see [NISHIDA 1987:
119–122]. We may distinguish these two different WT’s on the basis of
different orthographic standards as Standard Old Written Tibetan (=OWT)
and Classical Written Tibetan (=CWT).

Similarly, ‘WB’ is often used to cover all the Burmese writing systems from
Pagan times to the present though it is indeed widely known that before the pres-
ent-day standard orthography, as exemplified in {Mranmā ‘Abhidhān} [Burmese Dictionary] [1991] and its English version Myanmar-English Dic-
tionary {Mranmā-‘Angalip ‘Abhidhān} [1993], there have been several reforms
of Burmese orthography. Thus, we may distinguish a series of orthographic standardizations of ‘WB’, relying on changes of rules of spelling and regular
use of particular letters and vocalic symbols and/or tone marks. It should be
noted, however, that once a writing system is established, the later history of its
development is only a continuum of reforms, and thus we may argue against
the division of its history into distinct periods as an arbitrary matter. However, I will not deliberate on such an argument here.

Roughly speaking, the first standardization is supposed to have taken place
sometime after the enthronement of Narapatisithu {Narapasi-cańsū} (Sithu
{OWB Cahnû} II in inscriptions) (1174–1211) in AD 1174, and this orthographic standardization may be called Standard Old Written Burmese (=OWB). However, a tradition says that the first Burmese spelling book (Thinbongyi {San-pun^2-kri^2}), Pothagantha {Pubbagantha} was compiled by U Kyi Pwe {'U Kyañ Pwe} on the request of King Kyaswa {Kya-cwâ} (= {OWB kla-cwâ}) (1234–1249), who later had the title Dithapamaukkha {Disâpâmokkha} conferred on by the king. Later, he also wrote the commentary {tika} {{Pubbaganthañikâ}} [THAUNG LWIN 1972: 76–83]. Thus, the first standardization may never have been committed to codification as in Tibetan though it may be generally agreed that there had been something like an OB standard orthography before that.

The second standardization seems to have been completed around the end of the fourteenth century, when OWB -i- were replaced by -r- and -y- according to the types of initial consonant letters, and OWB digraphic vocalic rhymes -iy and -uy were regularly replaced by -e and -we, respectively. The only exception seems to be the connective suffix -ruy'~ruy (pronounced in CB as /ywé/). This is probably due to the fact that the suffix was already considered graphically as a unit, since it was occasionally spelled as a logograph as early as 1474 AD (836s) and perhaps even before that date. These are probably the basic differences from OWB that are characteristic of the orthography of the time. There are some other features, such as the rarer use of the voiced series of letters for voiceless initials of the native stock of words. In the above mentioned Royal Order of King Thibaw there is one standard reference of orthography referred to, entitled Thatbinnyanan-khyi Thatpon {Sabbannanam-khyi Sapum}, which seems to have been compiled in the early fifteenth century in the first half of the Ava Dynasty, the authority of which later Ava kings had to accept. Thus, the above mentioned orthographic changes could have been established before its compilation, but took nearly two-thirds of a century more to pervade among the literate class. This standardized Written Burmese may be called Standard Middle Written Burmese (MWB).

It is not yet clear to me when the third standardization was established, but its writing system may be referred to as Standard Early Modern Written Burmese (=EMod.WB). However, since Wunnabodana Thatin was compiled in the era of King Taninganwe (1714–1735), the orthographic reform may have already been made sometime in his reign or even before. The most crucial orthographic reform in EMod.WB is the insertion of the medial -y- between the written velar initial k- or kh- and the written rhyme -i (C) or -i, which reflects a phonemic change that took place sometime between MWB and EMod.WB periods. The other main changes are the regular use of tone marks for tones 2 and 3, and the strict differentiation of vowel symbols, such as long and short vowels, so that the distinctive tones of all the rhymes except for the atonic ones can be regularly represented in combination with the tone marks.
I have so far called all the distinctive systems of orthography from OWB to EMod.WB Standard Written Burmese as if they were standardized in the same degree of strictness as in modern times. However, what I have referred to here as standardization up until Mod.WB differs in two crucial points from the modern sense of the term. First, standardization in MWB and EMod.WB seems to have tolerated various degrees of spelling variations, which would not usually be allowed in modern standardization. This can easily be seen by comparing the above mentioned standard references which King Thibaw listed in his order. To give just two examples of such variations of EMod.WB:

1. The distinction between ‘big’ ñ (CB/ñaći/ {ña-kri²}) and ‘small’ ñ (CB/ñaakalë/ {ña-kale²}), the latter of which is where is transcribed as ñ, I think, seems to have been puzzling to most Tibeto-Burman scholars perhaps until the early 1970s. In my paper [Nishi 1974], I concluded: ’OB (= Old Burmese) -ac^--ec reflects at least two contrasting PLB (=Proto-Lolo-Burmese) rhymes (*-ik, *-it), and OB -(y) at reflects PLB *-(y) at. These two contrasting rhymes of WB [here meaning Middle Burmese (=MB)] (in reality, perhaps in Late OB) merged.’ (013), and it is pointed out in note (3) (026) that in parallel with the phonological merger of OB -(y) at and OB -ac--ec, OB -(y) an and OB -aₙ-more-eₙ and OB -e(h) more-aₙ-more-(eₙ) also orthographically merged into WB -aₙ. Thus, this OB -(y) an is the source of the Mod.WB rhymes spelled with ‘small’ ñ as -aₙ(CB/-in/)⁶. The history of the use of this ‘small’ ñ is now clearly explained in Paragraph 32 of the introduction (A History of the Myanmar Alphabet) of the Myanmar-English Dictionary motioned above.

In Myanmar writing, in addition to the 33 consonants ..., small ñ used in Pali literature was also employed. In Pali literature, the c group contains only c, ch, j, jh, and ñ, in the small form. Big ñ in Pali is small ñ conjuncted [= ñ]. In Myanmar writing from the Bagan [=Pagan] period, the c group c, ch, j, jh, ñ ‘Big’ ñ is represented as such in the transliteration of Burmese writing, while the same letter is transcribed as ñ in that of Pali and Sanskrit writing or Pali and Sanskrit loans has been formed with big ñ. In the lithic inscriptions of Bagan, Pinya and early Inwa [=Ava] periods, small ñ has rarely been used even in inscribing Pali verses. Only big ñ is used. Thus, big ñ has been regularly used in early Myanmar literature .... Small ñ came to be used only in about 800M.E. [=B.E.or -s] (1438 A.D.). Even then, in the writing of royal literature during the Konbaung period, small ñ was not used because it ‘lacked a head’. Only big ñ was used. When -n’ was to be used, it was differentiated from -n by means of a superscripted [superscribed] dot ñ. Thus in writing out the 33 consonants, big ñ has been used consistently from the Bagan period. If small ñ is to be included in the c group, then there would be six letters in this group as c, ch, j, jh, ñ, ñ which would not be consistent with the collection of 5 letters in each group. Thus, since big ñ has been placed in that group, ñ is not counted as a consonant.
I have not seen the use of ‘small’ န in the Burmese inscriptions of the Pagan period so far, but only in some Burmese inscriptions of the Ava period, and more examples are found toward the end of the fifteenth century. If I remember rightly, it was King Bodawphaya who considered ‘small’ န as inauspicious and ordered it not to be used, though perhaps only officially. However, it is interesting to note that even among the standard references recommended by King Thibaw, we find that some do not adopt ‘small’ န at all, some only sporadically, while some do use it consistently. This unprincipled practice or accepted variation of the use of either ‘big’ မ or ‘small’ န for the nasal (ized) rhymes, with the former perhaps preferred in more formal and official writings, apparently continued until after the Second World War. The present standard of orthography has clearly accepted the distinctive use of the two န letters.

(2) Another example is the rhyme -uiw, regularly found in OWB and MBWB, which is now spelled -ui (CB/o/). In Paragraph 57 of the same introduction, this is mentioned as follows:

‘Though -ui could be found without -w in a few Bagan period inscriptions it was not standard. -Uiw was used from the Bagan period to about 1150 M.E. (1783 A.D.) in the Konbaung period. -Ui without -w came to be seen in writing from about 1000 M.E. (1638 A.D.). From about 1150 M.E. -w was popularly [dis]used. It continued to be used in the palace. However, in the Mandalay Yadanabon period -uiw was rarely seen.’

The supposedly earliest standard reference recommended in the Royal Order of King Thibaw, Wunnabodana Thatin does not sanction -uiw, but only -ui. However, Yadanakyemon Thatpon {Ratnā-krē-mum Sat-pum}, which is included among the standard references and is known to have been compiled in 1820 AD (1182s) by (Rev.) Pin Hsayadaw {Pan Charāto}, regularly spells the rhyme as -uiw.

Secondly, both the codification and elaboration of standard orthography up until the British colonial period seems to have been made privately and in some cases on the request of kings, some kind of books of orthography having been written by monks and scholars of high learning, who were most likely versed in Pali and the traditional Indian type of phonology of both Pali and Burmese. Probably, only a few of them may have survived and have been popularly accepted as the standard references for orthography in the respective periods. However, it may have been kings, on the recommendation of royal councilors, who deliberated on the matter that finally selected and authorized one or more from them officially as the standard of the time, though some details of the standard may have been decided by both kings and councilors. Thus, the earlier Burmese orthographic standardization may be said to be
a mixture of the English and French types of standardization.

It may not be necessary to distinguish between EMod.WB and Standard Modern Written Burmese (= Mod.WB), by which I refer to present-day Burmese orthography, since practically all orthographic features are already found in EMod.WB. However, though I know nothing about orthographic regulation under the British administration, it is clear that there was an official standard of orthography, probably laid down by the then Textbook Committee, an authority which had some influence even after Burma had attained independence, for the prefaces of the Centenary Edition of Judson’s Burmese-English Dictionary [1953] and the ninth edition of Judson’s English-Burmese Dictionary [1956] both mention that the spelling of Burmese words in the respective dictionaries conforms to the government standard as approved by the prewar Textbook Committee. The function of this Textbook Committee now seems to have been taken over by the Myanmar Language Commission, which edited the latest official Burmese and Burmese-English dictionaries referred to above. However, there are perhaps no substantial differences in the orthographic standard set by the former and the latter except for the distinction of ‘big’ \( \text{ā} \) and ‘small’ \( \text{ā} \) in the latter’s standard. And the difference between the standardization before and after the Burmese dynastic age is perhaps that such variations in the orthographic standard of EMod.WB were no longer officially sanctioned. Thus, standardization came to conform more to the modern sense of the term, and the distinction between EMod.WB and Mod.WB may be justified by this fact.

In parallel with the division of the orthographic standardization of WB into periods, I will tentatively divide the phonological history of Burmese into four periods: Old Burmese (= OB), Middle Burmese (MB), Early Modern Burmese (EMod.B) and Modern Burmese (Mod.B). We may assume a straight line of derivation from OB to Mod.B9. I will refer to Mod.B as Central Burmese (= CB) here, to the exclusion of regional dialects.

However, the period of each Standard Written Burmese is not co-terminal with that of the phonological history. It should also be noted that the phonological systems of the latter division are not considered the same as those of the spoken language, since we should probably assume a diglossic situation in Ferguson’s ‘classical’ sense of the term [FERGUSON 1971: 1–26], with each Standard Written Burmese as the High Variety (= H), and the corresponding Spoken Burmese as the Low Variety (= L)10. As Ferguson points out, there may be differences in grammar, phonology and lexicon between H and L. As for phonology, Ferguson [1971: 15] may be right in maintaining: ‘the L phonology is the basic system and the divergent features of H phonology are either a subsystem or a parasystem.’ The difference between the reading form, and the spoken form, of the same lexical item, too, may be considered a feature of diglossia. It is probably this kind of difference between H from L that is still
reflected by the traditional ‘spelling style pronunciation of Written Tibetan’ [Sprigg 1993]. The assumption of the same diglossic situation, for example, at the time of the second institutionalization of WT, would offer an explanation for the divergence between the CWT forms and their pronunciation inferred from their Chinese transcription in the inscription of the Sino-Tibetan Treaty Pillar or the variation in spelling attested in the Central Asian manuscript materials, better than the hypothesis of the standard variety simply being ‘a social dialect that includes both the officials at Lhasa City and the administrators and scribes of their Central Asian garrisons’, as proposed by Beyer [1992: 35–36]. It is true that both H and L are social dialects, but the crucial point here is the difference in the nature of the two varieties of social dialects. H was, though prestigious, a variety known only to the ruling class, monks and scribes of the time, perhaps much less so than we would imagine. This may hold true of Burmese, and the earlier we trace back its history, the more it must have been so.

2. ASPECTS OF THE FIRST STANDARDIZATION IN THE OB PERIOD

As is well known, the correspondences between the written rhymes for non-loan words and CB rhymes are quite regular, except that - añ and -e represents CB/-i, -e, -e/ and /-i, -e/, respectively, and that CB atonic syllables correspond to various types of Mod.WB rhymes(1). In the following tables, Table 1 shows all the possible native rhymes of Mod.WB, and Table 2 how tone marks and rhymes are combined to represent CB tones exhaustively. In the Burmese writing system of rhymes there is no special vocalic symbol for -a graphically since it is the inherent vowel of each letter as in Indian scripts, its ultimate source. Thus, -a is indicated by -∅ here.

1. Rhymes in Mod.WB

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2. Correspondences between CB Tones and Mod.WB Rhymes

1. Mod.WB rhymes (in tones 1, 2 and 3) corresponding to CB open rhymes:
   
   CB: Mod.WB Rhymes
   /Ø/: -ā -i -ū -e -o -ui -ay -aṅ;
   /ŋ/: -ā² -i² -ū² -e² -o -uI² -ai -aṅ²;
   /ŋ²/: -a -i -u -e³ -o³ -ui³ -ai³ -aṅ³;

2. Mod.W rhymes (in tones 1, 2 and 3) corresponding to CB nasal rhymes:
   
   CB: Mod.WB Rhymes
   /Ø/: -an -ān² -an -in -un -am/ĩ -im -uṁ -oṁ -uṅ
   /ŋ/: -an² -ān⁴ -an² -in² -un² -am/ĩ² -im² -uṁ² -oṁ² -uṅ² -uṅ²
   /ŋ²/: -an³ -ān⁵ -an³ -in³ -un³ -am/ĩ³ -im³ -uṁ³ -oṁ³ -uṅ³

3. Mod.W rhymes corresponding to CB rhymes in /ʔ/ (= tone 4):
   
   CB: Mod.WB Rhymes
   /ʔ/: -ak -ok -uik -ac -at -it -ut -ap -ip -up

This orthographic system of rhymes is much less redundant as a traditional writing system with a history of more than nine centuries than many other systems. The only written rhymes that show variations in their correspondence with CB rhymes are -e, -aṅ, and -am~-aṅ (CB /-an/). Aside from atonic rhymes, most of which have resulted by the loss of their original distinctive tone in the course of time since OB, there are regular correspondences between the written rhymes and the CB rhymes. Such was not the case with the earlier systems of written rhymes.

I have included two rhymes -uin and -uik in the above tables, but Luce has long insisted that they are only found in loans, an opinion repeated in his book [1985 vol. 1: 100] in a slightly different manner.

'There are plenty of Burmese words in modern Shan, and plenty of Shan words in modern Burmese. Note especially the words ending in -uik, and -uin. Such finals are rarer in Old Burmese than in Modern. They do not fit into the old Burma Group pattern, where -ok and -oṁ finals are normal. Not all the -uik and -uin words in Burmese are Shan in origin, but most of them are.'

It is not clear that Luce has considered whether the non-Shan loan words in -uik and -uin are of Tibeto-Burman (=TB) origin. In fact, I could not find any cognate forms for the -uik and -uin rhymes in Burmese when I looked for them in vain among Lolo (/Yi/Yipho)-Burmese (=LB) languages, above all, among Burmish languages some twenty-five or six years ago. Although ample data on LB languages, some of which were totally unknown at the time, have been accumulated since, as in ZYC and ZYHC, I have yet failed to find sure
cognates among them. Strangely, however, Benedict [1972: esp. 76ff.] had already found sure cognates for some Burmese forms in -uik and -uin among the languages of his Mirish, Barish and Kukish groups, deriving them from Proto-TB *-u:k and *-u:ŋ, respectively. Thus, at least some words in these rhymes must be considered as of TB provenance, though there still remains the enigma why cognates are not found in LB languages, which are more closely related to Burmese.

It is especially a feature of MWB that it lost its concern for representing tonal distinction for vocalic and nasal rhymes completely and tolerated more redundancy for some rhymes, such as -um~um~umm, and an under-differentiation like -aŋ for Mod.WB -aŋ and -aŋ, which have been phonemically distinctly ever since OB. In the inscriptions of the OB period, we observe more variations in spelling of one and the same rhyme, and so much so that Luce, one of the real founders of the systematic study of Burmese inscriptions, finally gave up on distinguishing between OWB -i and -iy in his Comparative Word-List [Luce 1981: iii], Luce arranged OB rhymes i/i and iy/iy under one heading: -I and -E [= iy]. Henderson, who wrote its introduction, quotes Luce’s own explanation of this decision.

'I have decided to combine these [-I and -E finals], since obviously they were confused in Old Burmese. ... One can easily guess from the context whether siy, siy, si, si, sé, séy, etc. mean ‘dead’, ‘fruit’, ‘know’, ‘yet’, ‘sing’, ‘separate’, ‘fine’, ‘urine’, ‘thread’ etc. This is one of my many problems. Old Burmese certainly could distinguish them, on similar but not the same rigid lines as those by which they are now distinguished. I have satisfied myself that it was not just, or not always, a matter of prevalent carelessness or misspelling. Variations are often due to differences of Emotion, Rhythm or Forces. So in my present arrangement I no longer try to impose modern rules, for fear of obscuring the facts. Let the old spellings speak for themselves! (Dec. 1976)'

In spite of such variations that appear to be quite at random, Luce [1959a: 92] himself admitted that there was Standard Old [Written] Burmese, which he believed to have been initiated not in Pagan, but in Kyaukse, one of the better controlled districts or khayaing {kharuin2} (< {OWB kharuin})1213), and we find a general consent among scholars, both Burmese and non-Burmese, that there emerged what may be called the standard OB orthography after AD 1174. Thus, Ba Shin [1962: 25] says:

'Although the writing of Burmese began to gain ground during the period of transition [AD 1113-1174], it was not until the reign of King Cañsiu II [Narapatisithu, fl. 536–573s, 1174–1211AD] when Burmese became the main language of the inscriptions at Pagan. This reign ushered in what may be termed
the “Burmesse Sub-Period” of the Pagan dynasty. During the reign of his successor, King Nātoñmya (Nan2ton2-mya2 or Jeyyasinkha), fl. 573–c. 592s, 1211–c. 1230 AD, Old Burmese inscriptions became plentiful, and the spellings got standardized starting from about the end of his reign.’ (My underlining)

It seems that it was during the period between AD 1174 and 1230 that the Burmese really established their identity among many ethnic groups in Burma, and began to create their own cultural tradition after having fully absorbed the heritages of their predecessors, the Pyus and the Mons. Aung-Thwin [1985: 25] says:

‘It was a period in which the kingdom expanded physically to an extent never to be surpassed during its life; when military organization and success reached their zenith; when monumental architecture achieved a qualitative (and quantitative) standard that subsequent dynasties attempted to emulate but did not succeed in doing; when the government defined and established its ideologies of legitimacy and the society its criteria for being; and it was a time when the court finally developed the complex organization that was to be a model for later dynasties. It was also a period during which the agricultural economy reached its Upper Burma potential; when the sangha enjoyed one of its most wealthy periods; and one in which customary (civil) and criminal law were codified to become the basis of jurisprudence for subsequent ages.’

In writing Burmese, they no longer needed to rely on Mon or Pyu as they had done before. There may have been a period of a ‘broad’ diglossia [Fasold 1984: 53] during the reign of King Kyawzittha (kyan-cac-sa2) (= OWB Thi Luin Maň in inscriptions) (1084–1113), where Mon as the official language constituted H and Burmese L, possibly Pali enjoying the exalted status as extra-H in part of the domain of religion. However, even before this period, the Burmese had been continuously making attempts to write down their own language, using as a model the script and writing system of the Mons, but modifying them to fit their language better. One of the most significant differences between Mon and Burmese is that the latter is a tone language. Indeed, the earlier we go back, the more apparent are the efforts of the Burmese to represent the distinctive tones of the time, but they did not succeed in the consistent graphic distinction of tones throughout the OB period. Interestingly, however, there was an isolated attempt to represent the tones, attested in a single inscription dated 527s (1165 AD), called the Asawlat (OWB ‘Ajawlat) inscription or the Damayangyi (Dhammayam-kri2) inscription in Luce [1959c] and Pe Maung Tin and Luce [1928]14, contemporaneously with the mainstream attempt at standardization, which Luce considers to have started in Kyaukse. Thus, Luce [1959a: 92] points out:
‘At Pagan and elsewhere it[spelling] was for long varied and aberrant. One sees this, for example, in the variant ways of rendering the strange Burmese vowel which is now pronounced -o [Mod.WB -ui] in open syllables, and -au? [Mod.WB -uik] or -anj [Mod.WB -uin] in closed or nasal ones. It did not exist in the Indian alphabet for two Indian vowel-signs were usually combined to represent it. In the so-called ‘Myazedi’ inscription of Pagan (A.D. 1113) it is spelt either -ul, -el or -i. In other early Pagan inscriptions it is, more rarely, written -u. Princess Ajawlat, who in the Dhammayangyi inscription of 1165 invented an admirable all-round system for writing Burmese including the tones, preferred -ei to -ui. But already in 1150 the earliest Kyaukse inscription in Burmese had employed the -ui spelling; and it was followed by all the others in Kyaukse. So Ajawlat’s system, though in general far superior, was rejected; and Kyaukse, not Pagan, determined the spelling which you use today.’

In fact, the difference between the Asawlat and mainstream systems is concerned only with the representation of rhymes and tones. What is significant about the former system to the history of Burmese is that it undoubtedly attests that there were three distinctive tones in OB as early as the twelfth century and perhaps before. This orthographic system of rhymes is as shown below.

CB: ’Ajawlat Rhymes

/Ø/: -i -ä -ü -iy -äy -eiw -üy -äw -VN
/ 7/: -ih -ah -uh -iy ? -eiw -uy -o -VN
/ γ/: -i(‘) -a(‘) -u -iy’ -ay’ -eiw’ -uy’ ? -VN’
/ $./: -VC(Stops)

e.g. -i: nì~nì {nìi} “younger brother”, smih {sami2} “daughter”, si {si} “know”,
-a: klok-cä {[kyok]-cä} “inscription”, säh {sä2} “son”, na~na’ {nä} “my”,
-u: sü {sü} “person”, -phuh {-phü2} “already, ever (a verb suffix”,
 ‘u-yân {‘u-yyäň4} (< Pali uyyāna) “garden”,
-iy: niy {ne} “dwell”, riy {re2} “write”, niy’ {ne3} “day”,
-ay: lay {lay} “wet ricefield”, tay’ {?} “(not) yet quite”,
-eiw: -keiw {-kui} “a case suffix”, ŋeiw [name] (?{ŋui2} “blue, green”), -seiw’ (-su3) “like as”,
-uy: mrüy {mrwe} “snake”, mi-thuy {mi-thwe2} “mother’s younger sister”,
-ruy’ {-rwe3 [logograph]} “connective suffix”,
-aw/o: phun-taw [name] {[bhun2]-to} “honorary suffix”,
-so {-so} “participial suffix”,
-VN: ’im {‘im} “house”, kän {kan} “tank”, mrän {mrän} “see”;
-lum [name] (? {lum2} “round”), phun [name] {bhun2} [<San-
skrit puṇya] “merit”, 'ayañ (‘ayañ²) “original (n)”; plañ' [name] (?{prañ³}) “be full”, sañ’ {sañ³} “befall”.

Many syllables in this inscription are the names of persons, especially those donated as pagoda slaves, as in other inscriptions, many of which seem to have gone out of use in Burmese since. Thus, their identification with the corresponding Mod.WB is not always certain. Even so, we can specify such a regularity of spelling as indicated above. The characteristics of this writing system of rhymes are, first, that it appears to try to use -eiw for the commoner -uiw regularly, and, second, that it is so devised as to make a systematic distinction of three tones for non-stop rhymes by the systematic combination of the laryngeal letters -h and -' with short and long vowel symbols. It should be noted, however, that -oN, with N representing letters for nasals, but specifically -n here, cannot distinguish tone 1 from tone 2 since no graphic distinction of length is made for o and e, which are both considered as long vowels in the traditional Indian phonology.

Spellings on the reverse of the inscription are not so regular as those on the obverse. (The same tendency is often observed in other inscriptions, too.) Thus, “daughter” is consistently spelled as samih in all its ten instances on the obverse, but spelled twice as smi, once each as smi and sami out of its four instances on the reverse, and so is “son” as sah on the obverse, but sa on the reverse. However, the same regularity of spelling rules is generally observed on both faces. There are some interesting exceptions, such as -teiw’ (thrice) ~ -tuiw’ {-tui³} “a plural suffix”. As we would expect, though we find their examples among personal names, the standard -uik and -uin are spelled as -eik and -eun, but there is one instance each where they are spelled as -uik (ysuik) and -uin (tein ~ tuin), respectively. Judging from the fact that -ei or -ui is consistently used in parallel both before -w, and the velars -k and -n, and the fact that the range of variations of each graphic unit even in the earlier writing system of Burmese is generally much more restricted than in that of Mon, I think that we should retain this parallelism in the phonemic interpretation of OB -uiw, -uik and -uin.

Though not as systematic as in this inscription, the earlier attempt of the Burmese to represent tonal distinction is also seen in some of the other Burmese inscriptions (inclusive of ink writings, and inscriptions on some votive tablets), prior to 1174, such as the Myazedi inscription and the undated ink writings of the Lokahnteikpan Pagoda. The method of tonal representation is in principle to represent tone 1 in open rhymes by long vowel symbols (-ã, -i, -u), tone 2 in open rhymes by -h or -h (visarga) and/or long vowel symbols and tone 3 in open and nasal rhymes by -' and/or short vowel symbols (-a [inherent], -i, -u) in case of open rhymes. Thus, according to this method, tones 1 and 2 cannot be distinguished unless -h or -h is used for the latter. However, the use of -h/-h
never became popular and eventually went out of use when the standard orthography was established, where only the distinction between tones 1 and 2 by using long vowels for open rhymes on the one hand and tone 3 by using short vowels for open rhymes and -' for other non-stop rhymes on the other. It was probably this observation that led to the following view of Luce on OB tones, which is cited in the same Introduction of Henderson to [Luce 1981: ii], in which he seems to mean tones 1 and 2 by "level" tone, and tone 3 by "heavy tone" though the terms are now used differently:

'Luce felt strongly that there was a dominant emotional factor in the use of tone in Old Burmese, and he used to cite as an example the emotional use of the form hliʔ [hliʔ(OWB lhan')]! by Kyanzittha in the Myazedi inscription. He nevertheless believed that a two-fold tone difference was very ancient in Burmese, e.g. the difference between Θa with "level" tone and Θa with "heavy" tone.

Henderson then adds a comment on his view, which unfortunately would have not been accepted even before 1981 by many TB scholars:

It will not have escaped the informed reader that such notions as that there may have been a non-tonal stage in the history of Sino-Tibetan with tones developing when 'there was need for them', and that the early ancestor of Burmese may have had two tones only, are not very far removed from some of the recent proposals made independently by younger scholars currently working in the Tibeto-Burman field.'

It has been repeatedly proved that regular tonal correspondences can be set up between Burmese and other LB languages, for which see, for instance, [Burling 1967], [Thurgood 1977], [Bradley 1979a], and [Matison 1991], and among modern Burmese dialects, for which see, for instance, [Okell 1971], [Nishida 1972], [Bradley 1979b], and [Yabu 1980, 1981a, 1981b]. Thanks to the data of many LB languages recorded in ZYC and ZYHC, it is no longer a difficult task to find out tonal correspondences between Burmese and other LB languages. Thus, it is clear that there were already three distinctive tones even before OB, and they have remained distinctive since.

The problem remains, however, what the nature of tonal distinction in OB is. The fact that tones 2 and 3 are graphically represented by -h/-h and -', respectively, the latter perhaps indicating a glottal stop or laryngealization, may be interpreted to suggest that the distinctive features of these tones were voice registers rather than pitches in the earlier stage of Burmese. It may be further assumed that the obliteration of -h/-h in OWB would indicate that the distinctive feature of tone 2 in contrast to tone 1 shifted to pitch in the OB period, while the length distinction between tones 1 and 2, and tone 3 has remained as
it was, and tone 3 has basically retained its original feature throughout its history15.

Apart from the orthographic markings of tones, some rhymes in earlier inscriptions showed a range of variations in spelling: -yaC\sim eC, -wa(C) \sim o(C) \sim wo(C), -iy\sim i, -u\sim o\sim uo and -uiC\sim iC\sim eiC\sim uC. Such varied spellings were gradually unified into the standard spellings: -yaC, -wa(C), -iy, -u and -uiC in OWB. The sporadic non-distinctive use of length, too, seems to have no longer been favored in OWB. However, we more or less find variations in spelling in practically all OB inscriptions even after 1174 AD. These variations may represent scribal errors, due to their ignorance, or to reflect some regional or social phonemic variations. But the most important reason was that there had been no strict regulations for the use of the standard orthography at the time.

The following table shows the summary of the assumedly standard orthography in OWB.

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There is one exception to what I have just said. In my early paper [1976/77] I referred as a model of the standard OB orthography to a series of inscriptions called the Mahathenapati Anandathura Maungnhan {Mahasenapati 'Anantasura Mon-nham} ["Great General Anandathura and his wife"] inscriptions which date back to the reign of King Nadaungmya. They consist of eight inscriptions engraved on four faces of two stone pillars. Strictly speaking, it is those on the first pillar, dated from 585s (1223 AD) to 578s (1225 AD), that I specifically considered as the best model of the standard orthography of the time. All these inscriptions are considerably long, but the spellings, especially in the inscription of the east face of the first pillar, are amazingly consistent, even compared with all other OB inscriptions. And its writing system of rhymes (and, for that matter, of initials as well) can be regarded as an ideal presentation of the mainstream standardization of the time. Thus, all rhymes in tone 3 are consistently distinguished from tones 1 and 2. The short vowel symbols are used for open rhymes (-a [inherent], -i, -u) for tone 3 in contrast to the long vowel symbols for tones 1 and 2 (-ä, -ä, -än) and -' for all other rhymes (-e', -o', iy', -uy', -aw', -uiw'; -VN') in contrast to non-marking for tones 1 and 2. We find a number of exceptions, such as -iy, -äy, -äw, -än, -än, -im. Of
these, -iy, -āw and -īm are used each for a particular word: 'iy "this", -tāw "honorific suffix" and 'īm-thōn "household", and as they are all familiar words of high frequency of occurrence, these may represent their popular spelling at the time. The only lamentable variation is met in the spelling of the syllable prefixed to female names: 'i'～'ui'～'uiw'～'uiw, which is usually found as such in other inscriptions, too. Indeed, if the tone mark of EMod.WB for tone 2 were added, the writing system of this inscription would be almost comparable to that of Mod.WB.

3. FINAL SPECULATION

Clearly, there has been an uninterrupted history of WB from the time of its first standardization to the present, and the traditions of WB have been transmitted by successive generations of the literate class. The history of WB may have started to lead its own course of development even as early as the Late Pagan period, and diverted from the history of the spoken form, though they have kept contact for all time, as is witnessed by the repeated orthographic reforms to fill up the gaps to some extent. As assumed above, the codification of the standard orthography may not have been made until as late as the reign of King Kyaswa, virtually the last king of the Pagan Dynasty. However, the orthographic standard must have been established some time at the end of the eleventh century or at the beginning of the next century, and its codification may have been made privately even before Potbaganhta and its commentary, as the later tradition of writing the book of orthography suggests. Whatever it may have been, it was not like the standard we have to observe today, and may have tolerated a range of variations, while no one, but perhaps high officials, may have been forced to observe it in every detail. However, though Luce finally gave up on distinguishing -iy from -i, the fact that the varied spellings of the standard -iy regularly converged into -e in contrast to -i, which remained as it was, in the second standardization during the Ava period shows that there had been a better established tradition of orthography, such as that exemplified by the Anandathura Maunghan inscriptions, among the literate class, above all, among Buddhist monks.

Notes

1) Duroiselle's system of transliteration of WB is generally followed here, with slight modifications. For instance, as I adopt the order of CB tones in accordance with W. S. Cornyn (1944), the numbers of tone marks of WB is rearranged to conform to it. 'Big' ā is transliterated as ā-, ā- and ā for Pali loans, but always as ā for non-loan Burmese words when it is not distinguished from 'small' ā. If both ā's are distinguished, 'big' ā and 'small' ā are transliterated as ā and ā for the former, and as ā and ā for the latter. Braces {} enclose written forms, and unless noted
otherwise, they are Mod.WB forms. Syllables of Burmese words except atonic ones are hyphenated, while those of Pali are not, in transliteration. C and V are the respective abbreviations for consonant and vowel.

The main difference of the phonemic transcription here from that of Cornyn is that of vowels. Thus, CB simple vowels are transcribed as /ɪ ɛ æ ə o u/. The use of /ə/ is restricted to atonic syllables.

The italic s added to the year is the abbreviation of Thagayit/Thetkayit {Sakkaraj}, that is, the Burmese Era (B.E.) or the Myanmar Era (M.E.), which begins in AD 638.

2) For this part and above, see esp. the preface and the royal orders concerning Thatpon. [HANTHAWADI PRESS 1961]. The texts of all the eighteen references seem to have been published in the 1960s by Hanthawadi Press. Only nine of them were available to me. However, we should take caution when we use texts compiled earlier than perhaps the present century, for they may not be original manuscripts. There seems to be no autograph text of the Burmese dynastic periods as U Wun mentions [1956: 180]:

'No autograph text seems to have come down to us, except the original inscriptions. Our books are made from transmitted texts or copies of copies. During the course of many years, which were often disturbed by wars, errors, both voluntary and involuntary, have crept into the texts. Mistakes on the part of scribes and correctors, misunderstanding and misinterpretation, misplaced learning and irrelevant scholarship are also responsible for them.'

Thus, there remains the possibility that none of these would be a faithful copy of the original autograph manuscript.

3) There were four manuscripts of Wunnabodana Thatin. The publisher (Hanthawadi Press) chose one as the basis after their collation, and indicated differences by notations, using a distinct symbol for each manuscript.

4) The account in the Burmese Chronicle Zatabon Yazawin (Jātā-pum Rājawaṁ), which gives AD 849-50 as the date of its foundation, is now generally accepted. However, the history of Burmese writing begins in the reign of King Anawrahta 'Anorathā) (OB 'Aniruddha) (AD1044-1077).

5) We were not informed of exactly how many readable inscriptions had been discovered. Than Tun [1982], the most eminent Burmese historian, wrote: 'The inscriptions of Pagan times discovered around Kyaukse and Pagan amount to more than 600. As there are at the largest only about 1,000 inscriptions of the periods after Pagan, the Burmese inscriptions found to date as a whole number only about 2,000.' Fortunately, all the original and assumedly original inscriptions dated from 1112 AD. (474s) have been collected, rewritten in modern Burmese script, and compiled in the order of their dates, three volumes having been published by the Department of Archaeology, Ministry of Union Culture (Myanmar) so far. Vol. I contains the inscriptions between 1112 AD and 1238 (600s), Vol. II those between 1238 AD and 1260 (622s) in which the later discovered inscriptions of the previous period are also included, and Vol. III those between 1238 AD and 1327 (699s). Thus, all the original Burmese inscriptions of Pagan times are now available for any scholar who is interested in earlier Burmese in an easily readable form. Besides, two more volumes covering the periods between 1338 AD (700s) and 1435 (797s) and between 1438 AD (800s) and 1636 (998s) have long been ready for printing.

6) The reason why I enclosed the medial -y- in parentheses was that though it was clear that OWB c- and perhaps ch- in some native words represented the (alveo-)palatal affricates /ts-/ and /tʃ-/ respectively, as the mergers were apparently conditioned by palatality of initials, e.g. OB='OWB cät "to sift, to examine" (>Mod.WB cac, CB/sʃ/) and OB 'a-can (<can) "succession, tradition" (>Mod.WB *acañ, CB/asñ/). However, there are counterexamples like OWB chat "sambur (deer)" (>Mod.WB chat, CB/sha/) and OWB chan "husked rice" (>Mod.WB chan, CB/shan/). As we had to assume two series of distinctive initials "palatal and *alveolar affricates (*ts-, *tʃ- and *tʃh-, *tsʃ-) for PLB, and they have not been distinguished orthographically and both spelled as c-, ch- since OB times. I tentatively had to assume: In OB (probably in Early OB), c- and ch- both represented two distinctive [series of] initials, (alveo-)palatal and alveolar. After the rhymes -at and -ac^--ec had merged, the
alveolar initials merged with the (alveo-) palatal initials.' (016) As I have not had time to continue my research into Burmese since, and there seems to have been no one else who has ever taken interest in this problem, it still remains moot.

7) I was not then able to ascertain either when these two original distinct rhymes were again graphically distinguished. Even so, I was sure to some extent that the regular use of 'small' ñ had probably been established only after the Second World War. It is mentioned in the preface written by Maung U and F. G. Dickason to Judson's English and Burmese Dictionary, published in 1956 (9th Edition), that the spelling of the Burmese words in the dictionary had to follow the standard set by the prewar Textbook Committee, according to which 'big' ñ and 'small' ñ were not distinguished, but the nasal (ized) rhyme (CB/-in/) is 'distinguished [from the vocalic rhymes (CB/-i, -e, -e/) by a dot placed over it'. Judson's Burmese-English Dictionary (Unabridged Centenary Edition), published in 1953, follow this tradition. However, the 'small' ñ is consistently used in Judson's Pocket Dictionary, which was compiled from his dictionaries. The year of its publication is not printed in this dictionary, but it was presumably published several years after 1956, and probably had to follow the orthographic standard then officially established. I bought this dictionary in 1961 in Rangoon (now, officially, Yangon).

8) This introduction, and, for that matter, the dictionary as a whole, is a translation of Burmese Dictionary, published two years earlier. We find: 'was popularly used' in Paragraph 57 of the Burmese-English Dictionary, but: 'was no longer popularly used' in the corresponding Paragraph 56 of the Burmese Dictionary. Apparently, this English translation is a mistake, for what is mentioned here is otherwise contradictory to what is said in the preceding sentence.

9) Nishida's [1970: 263-268] chronological division and derivation of Modern Burmese dialects, especially the Central (Mandalay-Rangoon) dialect, is hard to accept. His conjecture seems to be based on not any linguistic evidence but on the fact that after the conquest of Pagan by the Mongol army the de facto rulers of Upper Burma were three brothers of Shan origin. The fact is, as Than Tun [1959c: 121] writes, that they were not only Buddhists, unlike the Northern Shans, but also were seemingly 'thoroughly Burmanized', leaving all their inscriptions in Burmese. And Hall [1981: 173] points out that Ava, the capital of the Ava dynasty founded by a descendant of one of the three brothers was, Burmese, not Shan. He then explains:

'The royal city followed the pattern of Pagan. Its founder sought to conciliate Burmese national sentiment by tracing his descent from the legendary kings of Tagaung. From its foundation its inscriptions were excellent Burmese. Thadominbya[the founder of the Ava Dynasty]s efforts to establish his rule were directed to the Burmese districts to the southwards, wishes unaffected by [Northern] Shan infiltration. In 1368 he died of smallpox while attacking Sagu. His successor, Mingyi Swasawke (1368-1401), significantly laid stress on his descent from the Pagan dynasty.'

When we read Burmese inscriptions from Pagan through Pinya and Sagain to Ava, we get an undeniable impression of the uninterrupted tradition of WB throughout.

Hall [1981: 173-174] further refers to Toungoo, which rose to the center of political power of the Burmese after Ava:

'The fall of Pagan led numbers of Burmese families to escape from Shan rule by trekking off and settling there. Its early development was almost unhampered, and by the middle of the fourteenth century it had become strong enough for its chief, Thinhkaba (1347-58) to assert his independence by assuming the royal title and building himself a palace in traditional style. During the reign of his son Pyanchi (1358-77) the liquidation of Sagain and Pinya brought a fresh wave of Burmese immigrants to Toungoo.'

It is clear that the Burmese had constantly flowed out from the area that covered Pagan and Kyaukse in Upper Burma to Toungoo during and after Pagan times. This influx of population down into Lower Burma has continued to the present day. I think that it is this fact that offers a plausible explanation to today's wide distribution of the Central Burmese dialect, though perhaps with a range of regional variations.

10) Bradley [1977] is the first to have called our attention to the diglossic situation in Modern Burmese though he restricted it to the high and low registers.
11) There is an interesting book of reference, \textit{Thattu} (Sat-th\textquotationmark{h}u), among the eighteen standard references, which seems to have been compiled in the late eighteenth century. The book is a classified list of syllables which are pronounced atonically. It is also certain from spelling variations that some non-final syllables were atonic even in \textit{OB}.

12) Luce [1959c: 85] distinguishes two types of administrative division, khayaing and taik (tuik) (=OWB) in the Pagan period as follows: `kharuin was as a term applied only to the early homes of the Burmans in the plains; which they regarded more especially as their own, with (at any rate in Kyaukse) a landed aristocracy of wealth, and a regular system of land-measurement and registration. Beyond the kharuin, were the tuik areas where Burmans mixed more freely, perhaps, with other tribes.'

13) Thus, Luce writes:

'So far as literature is concerned, Pagan, as capital, ultimately took the lead. But Standard Old Burmese, from which the modern spelling [Mod.WB] is derived, took shape, I think, in Kyaukse rather than Pagan. In the 44 Old Burmese inscriptions of Kyaukse, spelling is uniform from the first [{Mahather Nagasamin} inscription (512s= 1150 ADd).]'

14) The name of this inscription is Ahtawlat (\textquoteleft A (tha) wlat) in the text of Pe Maung Tin and Luce [1928], and so is read by E Maung [1958] and RMK-1 [1972]. The letter is probably not clearly readable as it is enclosed in round brackets in any of its texts.

15) This may be too simplified a statement of the statuses of the finals -\textipa{h} and -\textipa{b}, and -\textipa{ʔ} in \textit{OB}. The following argument about the sources of Burmese tones may be nothing but a recapitulation of what has been proposed or argued by Ba Shin, F. K. Lehman, La Raw Maran, D. Bradley and G. Thurgood since the 1960s, but hopefully it represents a slightly different point of view.

As for -\textipa{h} and -\textipa{b}, I tentatively assumed: (1) though -\textipa{h} and -\textipa{b} were not used alternatively in the same inscription or writing, they represented the same feature, that is, the phonation type of the preceding vowel, not the segmental -\textipa{h}, and (2) the fact that they are found only with open rhymes invites several different interpretations, all of which, however, point to the same ultimate source. As for, -\textipa{ʔ}, it represented the creaky phonation of the preceding vowel in \textit{OB}. One may object to calling the contrast in voice registers tonal, rather than phonatory, but this may be simply a matter of definition of the term `tone'.

In addition to the fact that the open rhymes in -\textipa{h} and -\textipa{b} both correspond to those of tone 2 in Standard (Central) Burmese, the alternative use of -\textipa{h} and -\textipa{b} may be compared with that of the written finals, -\textipa{m} and -\textipa{n}. If -\textipa{h}/-\textipa{b} were segmental, it would have been graphically more consistently represented even in the earlier writings. The ground for the second assumption is much weaker, and there are three possible interpretations of the fact; first, breathiness was not very conspicuous for the non-open vocalic and nasal rhymes; second, when Burmese began to be graphized, the tonal contrast of tones 1 and 2 was not that of pitch, but that of both the phonatory features, clear/normal (or modal) voice and breathy voice (or murmur), and the pitch registers, high and low (/mid) for open rhymes, to an extent that it was difficult even for \textit{OB} speakers to decide that either one of the features was less significant (or redundant), such indeterminacy being not unusual but observed when the contrast of pitch registers is in its incipient state, and third, the contrast in pitch was already established, but the breathy phonation of tone 2 remained as its redundant feature though still phonetically conspicuous for open rhymes. Even so, we may probably assume that the contrast between tones 1 and 2 must have been phonatory at the stage of \textit{Pre-OB}, and, thus, that there was some time lag in transphonologization between open and other non-stop rhymes.

If this was the case, we may further infer that 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 \textit{OB}. In that case, we have to assume that there occurred a tonal flip-flop in the later history of Burmese. This is indeed a possibility that is suggested by the correspondences of these tones with those of other Burmish languages, as shown below. (The correspondences in the following tables are based on data from ZYC.)
(1) TONAL CORRESPONDENCES OF NON-STOP RHYMES AMONG THE BURMISH LANGUAGES

<table>
<thead>
<tr>
<th>Burmese</th>
<th>Achang</th>
<th>Xiandao</th>
<th>Zaiwa (/Atsi)</th>
<th>Leqi (/Lashi)</th>
<th>Langsu (Maru)</th>
<th>Bola</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>55</td>
<td>55</td>
<td>51</td>
<td>33</td>
<td>31</td>
<td>55</td>
</tr>
<tr>
<td>2</td>
<td>31</td>
<td>31</td>
<td>21</td>
<td>55</td>
<td>35</td>
<td>35</td>
</tr>
</tbody>
</table>

*vd > 31

vd = voiced

There is one notable exception to this. In both the Myazedi inscription and the Lokahteikpan ink writings, one of the common words of high frequency of occurrence in inscriptions, "village" (rwa) is spelled as rwoh (~rwo) in the former and rwoh—rvah in the latter. However, its cognates among Burmish languages all point to tone 1 (Achang o95, Xiandao o95, Zaiwa va95, Leqi wo93, Langsu va93, Bola va93). Whether its tone was reversed in the course of time or was simply a dialectal variant cannot be decided yet.

The tonal value of the rhymes with * can also be interpreted in two ways. Our assumption of its value is based on the phonological nature of the corresponding tone 3 in Standard (Central) and regional dialects of Burmese today, where tone 3 is observed as creaky. However, the letter used to represent this tone from OWB to MWB is the vowel letter 'a with the devowelizer or 'a written under the devoweled nasal or semi-vowel letter. Though not considered phonemic, the letter is now pronounced with glottal onset, and hence, either [a] or [a] (atonic). Thus, another interpretation of its value can be that it was the glottal stop in OB, which was later weakened to the creaky phonation of the preceding vowel. This assumption may be further supported by the fact that all the reflexes of its corresponding tones in Burmish languages are generally high or mid-to-high in pitch as we would expect.

(2) TONAL CORRESPONDENCES OF NON-STOP RHYMES AMONG THE BURMISH LANGUAGES

<table>
<thead>
<tr>
<th>Burmese</th>
<th>Achang</th>
<th>Xiandao</th>
<th>Zaiwa (/Atsi)</th>
<th>Leqi (/Lashi)</th>
<th>Langsu (Maru)</th>
<th>Bola</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>35</td>
<td>35</td>
<td>35</td>
<td>53</td>
<td>55</td>
<td>35</td>
</tr>
<tr>
<td>31/—?</td>
<td>55/—?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

vd = voiced

It is interesting to note that there is a small number of cognates corresponding to *tone 3 ending in the glottal stop in three Burmish languages. These glottal stops may be considered to be not secondary in origin, but residues of the change. Thus, we may assume the final glottal stop *-? as the source of Proto-Burmish *tone 3. For the ultimate possible sources of this tone, see Thurgood [1981].

16) The independent vowel letters, here transiterated with V, aside, if we leave out some apparently anomalous combinations of symbols, we find nine vowel symbols: -a (inherent), -i, -i, -u, -u, -u, -o, -o, -au, and the combinations of -a/-a, -i/-i and -u/-u with -y: -iy/-iy, -uy/-uy, -ay/-ay and a digraph -ui and -ai in combination with -w: -uiw, -awi, -aw/-aw through the OB period. They are here regarded as vocalic rhymes though, strictly speaking, those in -y (inclusive of -ai, which alternates with -ay/-ay) may be analyzed differently. However, in the discussion of tone marks in orthography, which follows, only the short and long vowel symbols: -a (inherent), -i, -u, -o, -a/-a are considered as open rhymes. Both -ei and -ei that are attested in the Asawlat inscription and some other earlier inscriptions were later replaced by -ui and went out of use after standardization. The symbol -ai is said to occur in a Pali inscription of 1131 AD (493s) in combination with e as -eai. In Burmese inscriptions it first occurs in the Ngarwehin (Nanwaysan) inscription dated 509s (1147 AD) in the sentence: lai-kuiw phyak-chie-sa-si "One who destroys the (paddy) field.". The symbol -au is peculiar to Burmese.
writings. -Aw/-aw was commonly used in the first half of the twelfth century, and alternated
with -au in the second half of the century. In the thirteenth century we encounter a combined
symbol -oau, and -au seems to have adopted more frequently than -aw for particular words in
the next century. However, its use is said to have been abolished by the eighteenth century to
avoid confusion with the devowelizer atth (‘asat), because of their similarity.

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TIN HLA THAW, U.

U MYA

U WUN

WANNEMACHER, M. W.

WIN THAN TUN

YABU, S.

Zangmianyu Yuyin he Cihui BIANXIEZU (ed.)
ビルマ語（ミャンマー語）綴字法の標準化
——言語学的、社会言語学的考察——

西　義　郎

11世紀後半に文字化されたビルマ語（ミャンマー語）の綴字法を歴史的に辿ると、古ビルマ語の時代から現在の標準的綴字法の成立に至るまでに、少なくとも三度の改変を経ていることが既に知られていた。しかし、その改変が行われた社会的、歴史的な背景は不明であった。本論文は、ビルマ（ミャンマー）の最古のバガン王朝からアヴァ王朝までの碑文に見られる綴字法の変遷、ビルマ最後の王朝であるのコウンバウン王朝盛期のボートバヤー王及び最後の王ティボー王の綴字に関する動乱と、ティボー王が動乱で標準的正書法の参考文献として言及している論著の幾つかを比較検討し、王朝時代の綴字法の標準化の性格と植民地時代以降の標準化の性格の違いを論じると共に、古ビルマ語時代の標準的綴字法を推定した。更に、古ビルマ語時代の標準的綴字法が成立する以前の碑文に認められる特異な綴字法から現代の標準ビルマ語の舒音節の三声調に対応するプロザティクな要素の対立が当時既に存在していたことが確認されることを明らかにし、その表記法等から標準化以前のビルマ語の声調が、ピッチの対立ではなく、発声法（phonation types/modes: Clear (/Modal) voice vs. Breathy voice vs. Creaky voice）であった可能性を指摘した。