What did they eat? Grain crops of the Burmic groups\(^1\)

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This paper will take a closer look at the reconstruction of words for various grain crops within the Burmic subgroup of TB, with a few more general remarks about TB and ST. It will then attempt to draw some conclusions about the implications of this reconstruction for the original homeland of the Burmic, TB and ST groups.

Following the schema for Burmic set out in Benedict (1972) and further developed in Bradley (1979a), Burmic can be divided into the Burmish, the Niish (formerly Loloish)\(^2\) and the Gong subgroups. The following table shows the words for nine major grain crops. Not all of these crops are currently used by all of these groups, and as one would expect, in some languages some cognates are missing and some cognates have shifted meaning.

\(^1\)I am very pleased to acknowledge data provided by speakers of a large number of languages, including Li Yongxiang on Nisu, Tseng Kuo-pin on Sani, Bai Bibo on Hani, and many others; also the comments of colleagues at the Second International Hani-Akha conference in Chiangmai in April 1996, and of students and staff of the Department of Nationality Languages of the Yunnan Institute of Nationalities in June 1996 where earlier versions of this paper were presented. Naturally all remaining errors are solely my responsibility.

\(^2\)The former term for this part of Burmic was Loloish; another current term is Yipho, but as both are based on exonyms I now prefer the term Niish, from Ni, the autonym for most Northern subgroups, also included as the second syllable in the name of some Southern subgroups such as Hani, and possibly cognate with the first syllable of the autonym of some Central subgroups such as Lisu, Laha and Lalo. In fact the “Central” subgroup is now mainly in the western part, the “Northern” subgroup in the northeastern part, and the “Southern” subgroup in the southeastern part of the Niish range.
The most likely inference is that the loss of a cognate may suggest a period of non-use of that grain. A semantic shift may imply a change in the use of more than one grain. Both of these changes may be due to migration. Thus the distribution of cognates and semantic shifts can suggest which groups have migrated into new ecological zones, and thus provide independent support for other historical evidence. The new terms and their sources indicate prior or current contacts and thus provide evidence about the direction of migration.

Grains whose use is less universal or which have a lesser importance in some societies may be less likely to show widespread cognacy, as in the case of ‘Job’s tears’. Newly-introduced grains may be named using internal linguistic resources or by using a contact term; in either case these terms are unlikely to show widespread cognacy, except among those groups which have only separated after the introduction of that grain. For example, ‘corn/maize’ is now a major grain crop in the region, planted by all Burmic groups; but it is believed to have been introduced to East and Southeast Asia by the Portuguese early in the sixteenth century.

The Lisu, Sani and Lahu are from the northern, eastern and southern extremes of what is usually called the Central subgroup of Niish; the Nosu are representative of the so-called Northern subgroup, and the Akha are from the Southern subgroup. Burmese is representative of the Burmish languages, and is of course orthographically attested since the early twelfth century. They represent the main subgroups within Burmic.

**Table 1. Burmic grain crops**

<table>
<thead>
<tr>
<th></th>
<th>Lisu</th>
<th>Sani</th>
<th>Lahu</th>
<th>Nosu</th>
<th>Akha</th>
<th>Burmese</th>
</tr>
</thead>
<tbody>
<tr>
<td>‘grain’</td>
<td>dza⁴⁴</td>
<td>tsə⁵³</td>
<td>tɕa²¹ɕi¹¹, z³³</td>
<td>dza³³</td>
<td>tɕe⁵⁵, kha⁵⁵</td>
<td>səba⁴²</td>
</tr>
<tr>
<td>‘rice’</td>
<td>tɕhu³³</td>
<td>tɕhɪ³³</td>
<td>tɕe³³, l³⁵³</td>
<td>tʃhu³³</td>
<td>tɕe⁵⁵</td>
<td>shan²²</td>
</tr>
<tr>
<td>‘millet (S)’</td>
<td>tʃʊhɔ²¹</td>
<td>tʃɪh₂¹</td>
<td></td>
<td>tʃi⁵⁵</td>
<td></td>
<td>sha⁵⁵</td>
</tr>
<tr>
<td>‘millet (P)’</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>tɕe⁵⁵</td>
<td>lu⁴²</td>
</tr>
<tr>
<td>‘sorghum’</td>
<td>ly⁵⁵</td>
<td>mo⁵⁵tɕo⁵⁵</td>
<td>kɔ³³lɛ³³</td>
<td>ku²¹bɛu³³</td>
<td>ca⁵⁵lɔ²¹</td>
<td>pjaun⁴²</td>
</tr>
<tr>
<td>‘buckwheat’</td>
<td>ɡwə²¹</td>
<td>qo²¹</td>
<td>ɡa³³</td>
<td>ɡu³³</td>
<td>ɡa²¹</td>
<td>-</td>
</tr>
<tr>
<td>‘barley’</td>
<td>zu⁴⁴</td>
<td>z³³</td>
<td>tʃo²¹</td>
<td>zu²¹</td>
<td>lɔ²¹lɔ⁵⁵</td>
<td>majo²²</td>
</tr>
<tr>
<td>‘wheat’</td>
<td>ɡwə³³</td>
<td>kə³³</td>
<td></td>
<td>ɡə³³mɑ³³</td>
<td>lɔ⁵⁵bɑ³³, a²¹tsy²¹</td>
<td>dzəi⁵⁵</td>
</tr>
<tr>
<td>‘Jobs’ tears’</td>
<td>(Cse)</td>
<td>le²¹kʊ³³sɛ²¹</td>
<td>(Bse)</td>
<td>dʊ²¹pi³⁵ɕi¹¹</td>
<td>a⁵⁵dʊ³³</td>
<td>pjaun⁴²</td>
</tr>
<tr>
<td>‘corn/maize’</td>
<td>k’hu²¹ca³³</td>
<td>sə⁴⁴pʊ³³</td>
<td>ca³³mɑ³³</td>
<td>i⁵⁵m²¹, i⁵⁵ma³³</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The two varieties of millet represent botanically different plants which are distinguished in Burmese, but not in the other languages. The botanical terms for these grains and words in the modern dominant majority languages of the Burmic area are given in Table 2 below.
Table 2. Some plant names in majority languages

<table>
<thead>
<tr>
<th>English</th>
<th>Botanical</th>
<th>Burmese</th>
<th>Thai</th>
<th>Chinese</th>
</tr>
</thead>
<tbody>
<tr>
<td>'rice'</td>
<td>Oryza sativa</td>
<td>ကြက်ကြက်</td>
<td>ข้าว</td>
<td>稻子</td>
</tr>
<tr>
<td>'foxtail millet'</td>
<td>Setaria italica</td>
<td>စိုးမှု</td>
<td>ข้าวပါး</td>
<td>棱</td>
</tr>
<tr>
<td>'panicled millet'</td>
<td>Panicum miliaceum</td>
<td>ကြက်ကြက်</td>
<td>ဆော့ကမ်းမှု</td>
<td>稷</td>
</tr>
<tr>
<td>'sorghum'</td>
<td>Sorghum vulgare</td>
<td>စိုးမှု</td>
<td>စိုးကမ်းမှု</td>
<td>高粱</td>
</tr>
<tr>
<td>'buckwheat'</td>
<td>Fagopyrum cymosum</td>
<td>အိုးအိုး</td>
<td>မိုးလာမှု</td>
<td>糧子</td>
</tr>
<tr>
<td>'barley'</td>
<td>Hordeum vulgare</td>
<td>လာမှု</td>
<td>လာမှု</td>
<td>大麥</td>
</tr>
<tr>
<td>'wheat'</td>
<td>Triticum aestivum</td>
<td>စိုးမှု</td>
<td>စိုးမှု</td>
<td>小麥</td>
</tr>
<tr>
<td>'Job's tears'</td>
<td>Coix lacryma-jobi</td>
<td>ကြက်ကြက်</td>
<td>ကြက်ကြက်</td>
<td>薏苡</td>
</tr>
<tr>
<td>'corn/maize'</td>
<td>Zea mays</td>
<td>ကြက်ကြက် (စိုး)</td>
<td>ကြက်ကြက် (စိုး)</td>
<td>玉米</td>
</tr>
</tbody>
</table>

As noted below, the ‘buckwheat’ term in Burmese is a Jinghpaw loan, and the ‘wheat’ term is an Indic loan. There is no indigenous Thai term for ‘barley’, and Thai does not distinguish the varieties of millets; several of the Thai terms given are relatively recent loanwords, which came with the relevant grains. The two distinct Chinese terms for the types of millet have several competing modern alternatives, but these are the cognate forms.

1. Reconstructed grain crop system

'Rice' appears to have been the basic grain crop of the Burmic speakers; the etymon for this crop can also be used in various languages as a general term for "grain". It can be reconstructed as *tsan₁ (Bradley 1979a #280) and has some cognates throughout TB, and indeed in ST. There are distinct terms for various stages in the use of 'rice'; this etymon refers to the grain before it is husked and cooked. For 'cooked rice' representatives of various alternative etyma can be found. One is from the 'food' etymon *dza₁ (Bradley 1979a #274) which is in turn related to the 'eat' etymon *dza² (Bradley 1979a #629). Another is a 'cooked rice' etymon *(ta)mar² (Bradley 1979a #281B) with cognates in Central Niish Lahu, throughout Southern Niish, and in Naxi, Dulong, Idu and Shixing elsewhere in eastern TB. A third is an alternative 'cooked rice' etymon *(taw)mar² (Bradley 1979a #281A) with the same rhyme and tone, but a different initial; cognates are found in Burmese, Gong, Niish Jinsuo, as well as Karen. There is a further distinct compound term for 'rice plant' in many languages, also often derived from the 'food' etymon.

The Burmese 'grain' term [səba⁴²] appears to be a borrowing from Mon, the language of the culturally dominant group in Lower Burma at the time the Burmans founded their valley-based kingdom in Upper Burma in the eleventh century. It is widely observed in all types of taxonomic systems that superordinate
category terms are often borrowed from culturally dominant contact languages; for example, the terms for ‘animal’ and ‘plant’ as well as ‘grain’ in English come from Romance sources. The borrowed Burmese ‘grain’ term is sometimes incorrectly related instead to the Tibetan form ḥbras. The alternative Akha grain term is derived from a homophonic verb meaning ‘to plant’. Other general ‘grain’ terms come either from the *dzaḷ ‘food’ etymon or the *tsanḷ ‘rice (grain)’ etymon in various Burmic languages.

‘Foxtail millet (Setaria)’ can be reconstructed back to Proto-ST with a form something like *tsap or *tsat. Its Burmic reconstruction is *tsapL which is supported by cognates throughout Burmish and Niish. In most Central and Northern Niish languages this term has been generalised to refer also to ‘panicked millet’; this may be due to the fact that the ‘panicked millet’ and ‘sorghum’ terms would have become quite similar due to regular sound change.

The only unimpeachable evidence for a separate ‘panicked millet (Panicum)’ etymon is in Burmese, whose form indicates a reconstruction *luḷ. This may also be related to a non-Burmese Burmish etymon for ‘buckwheat’, *kyuḷ, if that in fact reflects an earlier *k-луḷ with a prefix. In Akha this etymon appears to have a cognate in the second syllable of ‘barley’, which has shifted from an earlier meaning of ‘millet’; another possible cognate, but with an irregular rhyme correspondence, is seen as the second syllable of Lahu ‘sorghum’. Otherwise this etymon is weakly attested in Niish.

‘Sorghum’ can be confidently reconstructed as *p-loŋ2. The evidence for the initial *l is found in the Burmese inscriptive form plon (Luce 1981), which also gives evidence for the *p prefix. This prefix accounts for the voiceless [l] initial in those languages which have this initial, such as Southern Niish Bisu, some varieties of Hani, some types of Northern Niish such as Nasu and Nisu, and so on. Elsewhere the regular reflex is an initial [l]. The rhyme and tone correspondences are also quite regular. The possibility of reconstructing a *p prefix is unusual for this part of TB, and is due to the preservation of the prefix by fusion in Burmese.

‘Buckwheat’ is universally cognate in Niish languages, with a form that can be reconstructed as *ŋga2. The correspondences are entirely regular. Sun (1991:560) shows cognates for this etymon in Qiangic Guichong and possibly Erzu, Naxi and Bai as well as Nu and Idu; Dai (1992:138) gives another Qiangic cognate also in Namuyi; so perhaps this is an Eastern Tibeto-Burman etymon. There is no Burmese cognate, and as noted above the Burmic form may instead be related to one of the ‘millet’ etyma. The Burmish groups lived at lower altitudes together with speakers of other languages who did not use this crop or used different words for it, so this lexical gap is unremarkable.

‘Barley’ is another dry-field highland crop, for which a Niish etymon *zuḷ can be reconstructed. Cognates are widespread within Niish, nearly all with the meaning ‘barley’. The Burmish form *mayaw2 does not show regular correspondences to the Niish form, but the Bai form [me55zo42] may indicate a link between Burmish and Niish. Other TB cognates are unclear.
‘Wheat’ as a crop is similar in its distribution and use to ‘barley’; a Niish etymon */da³* is reconstructible. Limited evidence for this etymon outside Niish can be found in Burmic Lashi (Dai 1992:137) as well as closely related Nusu, Nu and Dulong. Likely cognates are also found in some Qiangic languages including Zhaba, Ersu, Pumi and Namuyi (Sun 1991:558). So, like ‘buckwheat’, this may be an Eastern TB cognate. Like ‘buckwheat’ and ‘barley’, this unirrigated crop would have become irrelevant to the Burmans when they reached the valley of Upper Burma more than a millennium ago, so the absence of solid Burmese cognates is not surprising. The modern Burmese form, which is also the source of the Lahu and Akha forms, is a loanword from an Indic source. It is interesting to note that this etymon is also used in various compounds: in Akha as a prefix with the ‘millet’ and ‘sorghum’ terms, and in various Central Niish languages in compounds to create forms for the newly-introduced ‘corn/maize’.

‘Job’s tears’ is the most problematic of these crops, as cognate forms are absent from many languages. Nevertheless, forms which may be cognate appear in Burmese, the first syllable of the Central Niish Lahu term, and the second syllable of one of the Southern Niish Akha terms; a possible reconstruction is *(m*l?)-tsi:l*-.

The Lahu form shows an irregular tonal correspondence; one would expect the high rising tone, but perhaps the first of two syllables with this tone shows a dissipatory sandhi here. The Burmese form shows an irregular initial; in spoken Burmese it is voiced, and though phonetically similar to the Lahu and Akha initials, the position of articulation is irregular, reflecting initial *k?y. Part of the problem could be accounted for if one postulates that the Lahu form is actually derived from the ‘cowrie’ etymon *m-jwe*l (Bradley 1979a #239) or a blend of this with the ‘Job’s tears’ term. This is not unreasonable as both are small round white decorative objects, used mainly for sewing onto clothing and for bracelets and necklaces. In this case, the main ‘Job’s tears’ etymon could instead be reconstructed as *?-tsi:l/kyi:l*, removing the tone problem and the irregularity in the initial manner.

‘Corn/maize’ is of course not a reconstructible etymon for Proto-Burmic; if it were there would be a serious historical problem, as the crop was only introduced in the sixteenth century. Bradley (1979a #290) proposes a Central Niish form which is in fact a compound containing the ‘wheat’ etymon. Otherwise, the new forms used for it involve semantic shift (from ‘sorghum’ in Burmese), an innovative form *du³* cognate across much of Southern Niish, and borrowing (in Nosu and various other languages).

It is interesting to note that three of the reconstructed grain crop terms have Proto-Tone 3, including ‘barley’, ‘wheat’ and the new Southern Niish ‘corn/maize’ term. This tone is one of the defining characteristics of the Burmic subgroup of TB but can only be reconstructed in a small proportion of the inherited TB lexicon, mostly in cases involving *s* or *?* prefixation in etyma without final stops. Thus it is not too surprising that new lexicon should add to the proportion of words with this lexically infrequent tone.

In the third branch of Burmic, the Gong forms provide support for the ‘rice’ etymon with a form [se₃₅] (with [s] from earlier [ʃ]), for one of the ‘cooked rice’ etyma in [man₃₃], and for the ‘sorghum’ etymon in [lo₃₅lo₃₅]. The form for
'corn/maize', [khu⁳³meʔ³⁵], is unsurprisingly not a cognate. Given the extensive and longstanding contact between Thai and Gong, it is unremarkable that other cognates are missing.

In the strictest sense, one might need to exclude the 'buckwheat' and 'wheat' etyema from Proto-Burmic; but as these are also attested in various less closely related Qiangic TB languages to the north, this gap is more likely to be due to subsequent loss of the words with the crops by the Burmish groups. More problematic is 'barley', which shows distinct though similar forms in Niish and Burmish, perhaps linked by a Bai form.

2. Changes to grain crop terminology in Burmic languages

To give a better idea of the degree of internal difference within a subgroup of Niish, the forms from two nearly mutually intelligible languages of the Southern Niish subgroup, Akha and Hani, are given in Table 3. From traditional migration stories it is known that the Akha migrated to the southwest away from the main Hani area of south central Yunnan some 20 generations ago; this ties in well with the fact that the term for 'corn/maize' (introduced, as noted above, in the early sixteenth century) is identical in Hani and Akha; a cognate form is also found in other closely related languages such as Piyo and Khatu in China and Mpi in Thailand.

The two terms for 'Job's tears' reflect two different varieties with different uses: the hard, inedible white subvariety, widely used for bead ornaments, is the cognate form [a²¹tsy²¹], while the softer, edible off-white subvariety shows a noncognate form [lb⁵⁵ba³³]. The replacement of terms for 'wheat' and 'barley' in both languages suggests that these were not core crops for the Hani/Akha. This is hardly surprising given the many centuries of labour put into the creation and maintenance of terraces of irrigated fields up the hillsides in the Hani area.

Table 3. Hani / Akha Grain Crops

<table>
<thead>
<tr>
<th>Grain</th>
<th>Hani</th>
<th>Akha</th>
</tr>
</thead>
<tbody>
<tr>
<td>'rice'</td>
<td>tshə⁵⁵</td>
<td>tshə⁵⁵</td>
</tr>
<tr>
<td>'millet'</td>
<td>lb²¹ly⁵⁵</td>
<td>ca⁵⁵do³³</td>
</tr>
<tr>
<td>'sorghum'</td>
<td>se⁵⁵lb²¹</td>
<td>ca⁵⁵l⁵²¹</td>
</tr>
<tr>
<td>'buckwheat'</td>
<td>ya²¹le³³</td>
<td>ya²¹</td>
</tr>
<tr>
<td>'barley'</td>
<td>(Chinese)</td>
<td>(Chinese)</td>
</tr>
<tr>
<td>'wheat'</td>
<td>(Chinese)</td>
<td>(Burmese)</td>
</tr>
<tr>
<td>'Job's tears'</td>
<td>lb⁵⁵ba³³/a²¹tsy²¹</td>
<td>lb⁵⁵ba³³/a²¹tsy²¹</td>
</tr>
<tr>
<td>'corn/maize'</td>
<td>a⁵⁵du³³</td>
<td>a⁵⁵du³³</td>
</tr>
</tbody>
</table>

One can easily see that even four centuries of separation can lead to substantial semantic shifts and replacements. In Akha, the cognate form for 'millet' has come to mean 'barley' (or other unfamiliar small grain), and a new term for
‘millet’ has been coined. Various minor vowel differences are due to phonological change in the intervening centuries since separation, as are the addition of a suffix in Hani ‘buckwheat’. It is interesting to note that even though the core etymon for ‘wheat’ is no longer used to refer to this grain, it has become grammaticalised into a prefix for two other small grain crops, in ‘sorghum’ where it has been prefixed to the cognate syllable, and in the newly-compounded Akha ‘millet’, where the [ɗo³³] syllable may be from a verb meaning ‘come up and out’. The sources of the new terms for ‘wheat’ and for Hani ‘barley’ indicate that the Hani remain in contact with speakers of Chinese, and the Akha in Burma and Thailand have borrowed various words including ‘wheat’ from Burmese.

The language with the largest number of semantic shifts is Lahu; this may be attributed to the migration of the Lahu from the north, according to their traditional stories, and the resulting ecological and grain crop shifts. Briefly, the Lahu cognate [z³³] for the *barley etymon means ‘unfamiliar grain’; the Lahu cognate [tʃoʔ²¹] for the Niish *foxtail millet etymon means ‘barley’, and the Lahu cognate [lɔ⁵³] for the *sorghum etymon means ‘millet’. The cognate status of the Lahu form [kɔ³³ɛ³³] for ‘sorghum’ is unclear, though the second syllable may be related to the *panicled millet etymon if it is not just an early Chinese loan; and Lahu has borrowed a Burmese term for ‘wheat’, retaining the cognate only as one syllable in the compound for ‘corn/maize’; this may indicate that the migration and contact with Burmese is relatively recent. The Yellow Lahu form [kʰv³²¹çɛ³³] for ‘corn/maize’ (Bradley 1979b:174) also retains the cognate of the *wheat etymon, but in second position and with a first syllable reminiscent of the Lisu form. Thus the separation of Black and Yellow Lahu, unlike the separation of the Hani and Akha, may antedate the introduction of this crop. The Lahu [dʒu²¹] form for ‘Job’s tears’ may actually be a blend of this etymon and the etymon for *cowrie. Thus relatively few forms in Lahu show cognates without semantic shifts, even though most cognates are attested.

Conversely, the other two Central Niish languages, Lisu and Sani, have retained cognates for nearly all grain crops in their reconstructed meanings, apart from the merger of the millets under the *foxtail millet’ etymon. Sani has added a prefix to the ‘sorghum’ form, and the two languages have independently created new compound forms for ‘corn/maize’ using the ‘wheat’ form plus another syllable: in Lisu, a prefix parallel to the one in Yellow Lahu, and in Sani, a suffix [pu³³] written with a Sani character that only refers to a grain of corn or maize (Jin 1983:9). Some versions of Sani traditional history suggest that the Sani migrated from the far west, the area around Dali in western central Yunnan, which ties in well with the close linguistic relationship to be found between Sani (‘Southeastern Yi’), and the more northerly members of the Central Niish subgroup who still live in that area, the Lalo (‘Western Yi’), Lolopo and Lipo (‘Central Yi’) and Lisu.

In the Northern Niish subgroup, most languages retain a large proportion of the cognate forms; in fact Nosu is unusual among languages of this subgroup in having replaced the cognate for ‘sorghum’ with a new form. Despite this, Nosu is used here as an exemplar of the Northern subgroup because it is the most widespread, best-described language within this subgroup. Cognates for ‘sorghum’ can be found elsewhere in Northern Niish; see for example Sun (1991:562) where
various forms including Nisu (‘Southern Yi’) and Nasu (‘Eastern Yi’) are given. The term for ‘wheat’ has been augmented with the suffix *ma³ meaning ‘something big’, and the term for ‘corn/maize’ appears to be a loan from the regional Sichuan form [jì¹mì²¹] reflecting standard [jì³mì²¹]. It is not unexpected that Nosu should show some lexical innovations, as Nosu is the Northern Niiish group which has migrated furthest from traditional territory near Kunming, and is out of contact with the other members of its subgroup.

The Burmans are another group who migrated long ago into upper Burma. It is probable that they arrived there as part of the Nanzhao armies which destroyed the Pyu cities there in the early 9th century (Stargardt 1990:78). The languages most closely related to Burmese are Maru, Atsi, Lashi, Ngochang and the other Burmish languages of what is now the Northern Shan State in Burma and the adjacent areas of the southeastern Kachin State in Burma and Dehong Prefecture in western Yunnan. These other Burmish groups have remained in a symbiotic cultural relationship with the surrounding Jinghpaw (Kachin) and Tai (Shan) groups, while the Burmans have become the dominant majority of central Burma. Traditional history backdates their arrival somewhat, but the earliest Burman rulers of upper Burma enter conventional history in the mid-eleventh century, using and developing the irrigation and other infrastructure created by the Pyu. Given this radical geographical, political, social and economic change of about a millennium ago, it is hardly surprising that the Burmese language does not retain cognates for all of the grain crops found in other Burmic languages.

In fact, most speakers of modern Burmese do not know all of the terms in Tables 1 and 2. The differences between the various varieties of millet are unknown to most speakers, and the old ‘barley’ term is not used; an English loan is more widespread. The ‘corn/maize’ term is semantically shifted from the older term for ‘sorghum’, [pyaun⁴²], sometimes but not always with [bu⁴²] ‘gourd’ added as a suffix; for most people ‘corn/maize’ is now the primary referent of this word. Cognate terms for ‘buckwheat’ and ‘wheat’ are completely absent; these upland crops were not reported among the early crops grown by the Burmans. For ‘buckwheat’ the other Burmish languages have a form derived from another etymon, *kyu²; see cognate forms in Dai (1992:138). Modern Burmese sometimes uses [jì³mì²¹] which is a loan from Jinghpaw, but many speakers are not familiar with this word either. Another interesting loanword is from Mon, speakers of which formed the literate elite of the early Burman kingdom in the eleventh and twelfth centuries; it is the general term for ‘grain’ [ząba⁴²].

3. Conclusion

It appears likely that the Burmic groups used all of the eight grain crops for which etyma have been reconstructed. There have been various losses and shifts in meaning with migration and consequent changes in contacts, ecology and crop use. These changes are greatest for Burmese, whose speakers’ migration about a thousand years ago led to very substantial cultural and ecological changes including the loss of several upland grain crops; and for Gong, whose speakers have been out
of contact with other Burmic groups for a long time, and in very close contact with
speakers of Thai and other languages.

The original homeland of the Burmic groups appears to have been the
uplands of what is now Yunnan in China; all these crops still exist in this area, and
indeed several of them were first domesticated here or nearby, probably by
speakers of ST languages.

The relatively recently introduced grain, ‘corn/maize’, is interesting because
it shows how these languages coin new compounds or shift the meaning of existing
words. Perhaps most interestingly, shared forms reflecting a new etymon *du3
for ‘corn/maize’ may indicate that the Hani/Akha group of languages was still unified
or at least in close contact when this crop was introduced in the sixteenth century.
Conversely, distinct terms indicate that closely related languages or dialects were no
longer unitary at that time, as in the case of Black Lahu and Yellow Lahu, or indeed
standard Thai and Northern Thai. On the other hand, compound forms created for
this grain in Lisu, Sani and Lahu based on the ‘wheat’ term may suggest that these
languages were still in contact, and that the Sani had not yet migrated to the east at
that time.

Taking the reconstruction further back, one finds cognates for ‘rice’ and
‘sorghum’ in Gong to the south and in a variety of other Tibeto-Burman languages
to the west and north. Cognates of some etyma for upland unirrigated crops, such
as ‘wheat’, ‘barley’ and ‘buckwheat’, are found mainly among the eastern TB
Qiangic languages to the north. At the most remote level, comparing Sinitic forms,
some ST cognates can also be found: see, for example, Karlgren (1972) 737d
*liang glossed as ‘fine millet’; this is the ‘sorghum’ etymon. For ‘foxtail millet’,
Karlgren 337e *tsiad and 922b *tsiak are probable cognates, also showing an ST
origin for this etymon. Luce (1981) also proposes a Sinitic cognate for Burmic
‘panicled millet’ in Karlgren 93a *sjo, which would also provide an ST etymology.
Luce (1981) also notes the ‘rice’ cognate reflected in Karlgren 154c *ts’an glossed
as ‘fine pure grain’. It is interesting that all of these are or can be primarily highland
crops, perhaps suggesting a mountain homeland for ST as well as TB and Burmic.
This correlates well with botanical evidence that rice, foxtail millet, panicled millet,
buckwheat and probably Job’s tears were first domesticated in this region (de Wet

This discussion is part of a larger-scale study of the linguistic history of
plants among these groups, which will eventually attempt a cultural reconstruction
of this area of traditional knowledge.
REFERENCES


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