

STRATA OF CHINESE LOANWORDS IN THE MIEN DIALECT OF YAO

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The Mien dialect of Yao, which I previously called Highland Yao,¹ is probably spoken over a wider geographical area than any other Yao dialect, from northern Kuangtung and southern Hunan down to Laos and northern Thailand. Like the related Miao dialects, Yao (and Mien in particular) is characterized by the presence of a considerable number of loanwords from Chinese. There is, however, this difference, that in the Miao dialects, the loanwords (apart from a small number of very old loans that must be ascribed to Proto-Miao-Yao) appear to be of fairly recent origin, as they exhibit all the characteristics of modern southwest Mandarin dialects. Mien, while not lacking loans of the latter type, also possesses many loans which have unmistakably ancient features which are in general not found

¹ The term "Mien" is not without ambiguity. I follow Haudricourt in restricting its use to the dialect here under consideration. Chinese usage is to use "Mien" for what I call "Yao" and "Yao" is used instead to cover the languages (Yao, some Miao dialects and some Kam-Sui dialects) used by ethnographically-defined Yaos.

An earlier form of this paper was presented to the third Conference on Sino-Tibetan Linguistic Reconstruction at Cornell University, October 1970. For a description of Mien phonology, see Downer (1961).

among present-day Chinese dialects but which are known to have existed in the past. An examination of these earlier borrowings makes it clear that they are not all from one source; borrowing of lexical items was a continuous process, so that with movements of peoples (both Chinese and Yao), the Chinese dialects with which the Yao came into contact could differ as time went on, and even if the source-language remained "the same", phonological changes would occur in it during the apparently long period of borrowing. In fact several distinct strata of loanwords may be discerned. The purpose of this paper will be to investigate the Chinese loanwords in Mien, in order eventually to construct a phonological history of Mien and Yao generally. For the present many questions must remain unanswered, and this investigation only attempts to delineate the strata of the Chinese loanwords and to indicate some of the features of the source-languages. Items that are ascribed to P(roto-)M(iao-)Y(ao) present the most difficulties in interpretation in terms of older Chinese; in many cases these items have simply been listed, a proper study of them being necessarily subsequent to the establishment of PMY itself, which is beyond the limits of this paper.

The general picture of borrowing that is revealed by a study of the Chinese loanwords in Mien is as follows. The most recent stratum of loanwords may be called the Mandarin stratum. This stratum shows a type of presumably Yunnanese Mandarin dialect with five tones, in which the M(iddle) C(hinese) "muddy" series of plosives has become aspirated in the *yáng píngshēng* and unaspirated in the *qùshēng* and *rùshēng*. The final stops of the *rùshēng* have been lost, and the earlier distinction between *-en* and *-en̄* has been lost, both becoming *-en* – a typical feature of southwest Mandarin. In fact, a form of Yunnanese is very widely spoken by Yao men, and Yunnanese is also used in certain types of song, so that some acquaintance with this dialect is fairly widespread, and Yunnanese remains the principal source of new lexical items in the Mien dialect as spoken in Laos. The items given here (as indeed all the Yao material) were gathered in Laos and northern Thailand; it must be stressed that as far as the Mandarin stratum is concerned, these are examples only, as incorporating Yunnanese words into Yao is still a current process, so that any corpus of Mien material will probably reveal quite different acquisitions. From this point of view the Mandarin stratum differs from the other strata of loanwords. The Mandarin stratum is open-ended, whereas the other, earlier, strata belong to a closed system – the borrowing process is at an end.

The Mandarin stratum presents few problems, and the chief focus of this paper will be on the remaining strata. Here, a much more complicated picture arises. As a preliminary step, we can distinguish those items which show clear affinities with items found only in one or more southern Chinese dialects, that is, items which have no cognates in standard or older Chinese, so far as is known. In many cases it will be shown that these have affinities

with Cantonese, but items which are clearly cognate to Hakka or to Min are not lacking either. The recognition of relationship between a Yao item and, say, a Hakka item does not in itself mean, of course, that this item came into Yao from Hakka; merely that such an item is now found only in Hakka. There may, however, be other reasons, usually phonological ones, which indicate clearly from which dialect an item was borrowed. A rather important point, which will be emphasized here, but which will not appear later, is that for simplicity of treatment, all cases of cognation between Yao and Chinese will in this paper be treated in terms of borrowing from Chinese. When these items are found in older Chinese, and in the northern dialects, this would seem to be the reasonable assumption to make, except perhaps in the cases of lexical items for which a PMY source is posited – here the view about the relationship between MY and Chinese generally would influence the terms of the relationship, and this is part of a large question quite beyond the scope of this paper. On the other hand, when a lexical item is found in Yao and in one or more of the southern dialects of Chinese (and occasionally in the Dai dialects of Kam-Sui) but not in general Chinese, then there is generally no way to ascertain the direction of borrowing, whether from Chinese into Yao or from Yao into Chinese. There is ample evidence that the Yao were once widely settled in Kuangtung province, and also in Fukien province, if the so-called She 畲 people are Yao in origin, as seems likely; so that it is justifiable to assume that a fair percentage of the populations of these provinces, which are now culturally and linguistically Chinese, was once Yao. In that case it is not at all unlikely that some at least of the words common to Yao and one or more of the southern dialects (but not found in the north) are of Yao origin. Such an assumption must remain unproved for the time being; the discovery of cognates for any of these items in general Chinese would, of course, invalidate this item as one of Yao origin, while on the other hand, the discovery of cognates in Miao would strengthen the hypothesis. In fact, work on these lines is very much hampered by our lamentably sketchy knowledge of the vocabulary of the Chinese dialects. For example, one Mien word, *thiu* "to exchange", is, to my knowledge, reported from only one Chinese dialect, that of Shuangfeng in Hunan (it is also found in Qiangdong Miao dialects).² The word may, in fact, be very widely current in Hunan, Kweichow or Kuangsi, but so far there is no way of knowing, so that all one can do is to note the equivalence. Fortunately the coverage of southeast dialects (Cantonese, Hakka, Min) is much wider, so that this gap can be partially bridged.

To be associated with this stratum of vocabulary are the items which, although belonging to the common vocabulary of Chinese, can be shown to share a particular development with one of the southern Chinese dialects,

² See Hsiang (1960) p. 147, and Anon (1958).

usually, in fact, in Cantonese. There are apparently irregular phonological developments peculiar to Cantonese. Such, for instance, are:

(a) the apparent loss of palatalization in some items in Cantonese:

- 列 *lit* "to place in a row"; cp. *laat* "a row"
 逆 *jek*; cp. *yaak* "against the current" (colloq.)
 疊 *tip*; cp. *taap* "a pile; to pile up" (colloq.)
 研 *jin*; cp. *yaan* "to grind"
 搖 *jiu*; cp. *yau* "to shake" (colloq.);

(b) the appearance of a nasal in place of the plosive found in other Chinese dialects:

- 彌 Hak. *paŋ*, Cant. *maŋ* "to stretch"
 剝 Hak. *pok*, Cant. *moak* "to strip"
 擘 Hak. *pak*, Cant. *maak* "to break";

and (c) the reduction to zero initial or *j*- in some items:

- 錐 *cæi* (lit.) *jæi* (colloq.) "to bore with an awl"
 撐 *chaŋ* "to shore up", and *jaŋ* "to push with the foot"
 送 Hak. *suŋ*, Cant. *ʔoŋ* "to push".

Apparent anomalies of these types enable us to pinpoint the origin of some Yao items with some considerable confidence, as being (generally) Cantonese.

Finally, as an indication of the Cantonese origin of many Yao words, there is the possibility of demonstrating that the Yao reflex can only be from a Cantonese source because it reflects the regular development of a phonological feature in Cantonese, and not as found in other dialects. The only sure case of this is found in the reflexes of the Chinese fricatives: MC *s*-, (Karlgren *ʃ*-) *ʃ*-, where the Yao developments point without any ambiguity to Cantonese as the type of the source language.

It goes without saying that arguments of this type must be looked into very carefully. For instance, from the fact that Yao distinguishes all the six tones (that is, *píng*, *shǎng*, *qù*, divided along the voiceless distinction; the *rùshēng* not being relevant here) found in Cantonese, one might argue that therefore the loanwords in Yao are of Cantonese origin (or, perhaps, of Min origin, since Swatow and Hainanese also possess all six tones). This of course is quite inadmissible. The period of borrowing must have begun at a fairly early date, so that the characteristic developments of Hakka may not have taken place at that time; that is, the old muddy *shǎng* tone may not, in Hakka of that period, have yet merged with the clear *píng* tone, a development which now seems to be universal in and distinctive of Hakka. So evidence of this type, which is based upon features which are posited for older periods of *all* the southern dialects, cannot serve to pinpoint a particular dialect as the source of a loanword. In other words, only innovations can serve as evidence of the source of borrowing, not retentions of earlier features.

A second stratum in the material of older Chinese origin, after the stratum outlined above (where fairly definite signs point to one or another modern southern Chinese dialect), is much more difficult to handle. This second stratum is presumably older, and, since no modern dialect can be posited as the source-language, recourse must be had to MC; in other words, we have to fall back upon the (at present) generally accepted view that MC, more-or-less as revealed in the Qieyùn, lies at the base of most of the modern dialects, and also at the base of the loanwords in Yao. This assumption is, in my opinion, a gross over-simplification of the real state of affairs, but, since to go into this question would lead us far too far afield, it will be necessary in this paper to assume that, at the base of the Mien loanwords of this layer, there lies a language closely akin to that registered in the Qieyùn. Since this language also shows the same type of reflex for the Qieyùn fricatives as the previous (largely Cantonese) layer had done, a reasonable hypothesis would be that we have here an earlier form of Cantonese. As a working assumption this is not unsatisfactory, but, seeing that we have such little information about the dialects in parts of China which are adjacent to Yao regions but which lie outside the Cantonese area, the real course of the development must remain somewhat vague, and all that can be said with certainty is that the source-language for this earlier layer had undergone at least one development (*viz.*, that of the fricatives) in a way parallel to that found in Cantonese. Furthermore, it will be noted that in many cases it is impossible to draw a clear line between this layer and the previous one. In some cases there are undeniable criteria delineating the two layers; in other cases, no such differentiation is possible.

Some of the features of the language at the base of the second older stratum of loanwords in Yao are as follows: it had not, apparently, split the MC labial series into two series of bilabial stops and dentilabial affricates (or fricatives, perhaps); as mentioned above, the fricatives had developed in the same way as they have in Cantonese, and presumably the affricates too (although Mien has only one series of affricates, so that only an argument from analogy is possible here); the rimes 覃 and 談 are kept separate, a conservative feature now found only in a very restricted area centred about Anhui and Kiangsi, and found also in the Wu dialects and in Hunan; a complete separation between 東¹, 冬 in the "first grade" of the traditional rime-tables, and 東³, 鍾 of the third grade; and, most interestingly from the standpoint of the reconstruction of pre-Middle Chinese forms, the appearance of final consonants in certain places where Karlgren, among others, has reconstructed a final *-g* in pre-Chin Chinese.

Finally, after the layer roughly described above, there are many items in Yao which will, almost certainly, turn out to be reflexes of PMY; they show the same phonological developments that other, purely MY vocabulary shows, but nevertheless have a definite resemblance to Chinese. In

some cases the form of these items fits into the layer that has been described above; more often, they reveal various irregularities that cannot be explained with our present knowledge of either PMY or of earlier types of Chinese.

A possible hypothesis to account for the PMY layer in Yao, which shows some resemblance to the older layer of purely Yao loanwords, is that Miao and Yao, at some remote period, formed a single language; but that the part that later became Yao was already geographically separated from the other part that became Miao, and received a far greater number of borrowed items of vocabulary from Chinese than the Miao part did. This would account for the regularities found between the loanwords in P(roto) M(iao) and P(roto) Y(ao), as well as the fact that PY has so many more loanwords from this period than has PM. Such an hypothesis is, of course, very crude, and is not to be taken too seriously. The items that are thought to be of PMY origin are listed in this paper, along with the purely Yao material, but the analysis of these items, and the justification for regarding them as PMY, must await another occasion, as this would require consideration of all Miao and Yao dialects.

Summary of the Mien phonological system

It is convenient to add here a slightly modified analysis of the Mien phonological system which I shall employ in this article.

There is no change in the analysis or marking of tones:

1. *bīŋ* "monkey" 3. *pjǎu* "house" 5. *dīaŋ* "tree" 7. *kīəp* "bear"
 2. *mīən* "Yao" 4. *tūŋ* "pig" 6. *tō* "tortoise" 8. *bīət* "tongue"

Tones may be referred to by number. Note that aspirated consonants, except *h-* itself, do not occur in the even-numbered tones in native Mien words.

The rimes (nucleus plus final) are as follows (rimes that do not occur in loanwords are underlined):

Front					Back				
<i>-i</i>	<i>-iŋ</i>	<i>-in</i>	<i>-iu</i>	<i>-im</i>	<i>-u</i>	<i>-uŋ</i>	<i>-ui</i>	<i>-un</i>	—
<i>-ia</i>	<i>-iaŋ</i>	<i>-iən</i>	<i>-iəu</i>	<i>-iəm</i>	<i>-ua</i>	<i>-uaŋ</i>	<i>-uəi</i>	<i>-uən</i>	<u><i>-uəm</i></u>
<i>-e</i>	<i>-eŋ</i>	<i>-en</i>	<i>-eu</i>	<i>-em</i>	<i>-o</i>	<i>-oŋ</i>	—	<i>-on</i>	<u><i>-om</i></u>
<i>-ɛ</i>	<i>-ɛŋ</i>	<u><i>-ɛt</i></u>	—	—	<i>-ɔ</i>	<i>-ɔŋ</i>	<i>-ɔi</i>	<i>-ɔn</i>	<i>-ɔm</i>
Central									
<i>-əi</i> <i>-ən</i> <i>-əu</i>									
Low									
—	<i>-aŋ</i>	<i>-ai</i>	<i>-an</i>	<i>-au</i>	<i>-am</i>				
<i>-aa</i>	<i>-aaŋ</i>	<i>-aai</i>	<i>-aan</i>	<i>-aau</i>	<i>-aam</i>				

In the above table, a final nasal implies the homorganic final stop, with the same possibilities of occurrence. (*-uəm* and *-ən* are exceptions, no *-uəp* and *-ət* existing.)

The chief difference from the earlier presentation, apart from the trivial change of final *-y* and *-w* to the *-i* and *-u* here, lies in a reinterpretation of the compound nuclei and the vowel *-ə-*. This is based on the recognition of an essential phonetic difference between rimes with final zero or final velars on the one hand, and rimes with the other finals. This dichotomy is apparently universal in Chinese also: witness the different developments of the rimes written *-a* and *-ang* on the one hand and *-an* *-am* on the other (with the various medials) in Mandarin and Cantonese, with very different vowel systems for rimes with final zero or velar, and final labial or dental:

MC	<i>-a</i>	<i>-aŋ</i>	<i>-iaŋ</i>	<i>-an</i>	<i>-ian</i> (<i>ien</i>)
Mand.	<i>ə, uo</i>	<i>-aŋ</i>	<i>-iaŋ</i>	<i>-an</i>	<i>-ian</i>
Cant.	<i>-oa</i>	<i>-oaŋ</i>	<i>-əaŋ</i>	<i>-aan, oan</i>	<i>-i n</i>

The result of this change is a smaller number of rimes with the vowel-symbol *-ə-*, and an increase in the rimes with *-a-*, than in the previous system. Of course, the second vowel symbol in all the compound nuclei (including *-aa-*) can be interpreted as being different realizations of the same underlying unit, say, *-ə-*; but for the present purposes at least, I propose to keep closer to the phonetic ground.

The initials of Mien, and the combinations of initials and the medials *-j-* and *-w-*, are as follows:

<i>p</i>	<i>ph</i>	<i>b</i>	<i>m</i>	<i>hm</i>	<i>f</i>		
<u><i>pj</i></u>	<u><i>phj</i></u>	<u><i>bj</i></u>	<u><i>mj</i></u>		<u><i>ff</i></u>		
<u><i>pw</i></u>							
<i>t</i>	<i>th</i>	<i>d</i>	<i>n</i>	<i>hn</i>	<i>l</i>	<i>hl</i>	
		<u><i>dj</i></u>					
<i>ts</i>	<i>tsh</i>	<u><i>dz</i></u>			<i>s</i>		
		<u><i>dzj</i></u>			<i>sj</i>		
<i>k</i>	<i>kh</i>	<i>g</i>	<i>ŋ</i>	<u><i>hŋ</i></u>	<i>h</i>	<i>ʔ</i>	
<i>kj</i>	<i>khj</i>	<i>gj</i>	<i>ŋj</i>	<u><i>hŋj</i></u>	<i>hj</i>	<i>j</i>	<i>ʔj</i>
<i>kw</i>	<i>khw</i>	<i>gw</i>	<i>ŋw</i>		<i>hw</i>	<i>w</i>	<i>ʔʔ</i>

The medials have a restricted distribution *vis-à-vis* the vowels. *-j-* occurs only before the low and back nuclei, *-w-* occurs only before the low

³ Underlined items do not appear in loanwords. *pw-* occurs in one item only, *pwăt* "to see". *dj-* also is found in one item only, *djda* "down there", probably a fusion-word.

and front nuclei. The central nucleus \rightarrow does not occur after either of the medials.

A difference from the treatment in my "Phonology" of the initials here marked as having zero and glottal features involves an earlier misinterpretation of the evidence, a fact which only became clear after further visits to the field, and is part of a very interesting aspect of Mien which I had not understood in my earlier article. It is now clear that with some speakers at least, a glottal onset characterizes the pronunciation of syllables with the high nuclei $-i-$ and $-u-$ and also the medials $-j-$ and $-w-$, in the tones 1, 3, 5, 7 (the "clear" series) where I had previously heard no initial at all; and that this glottal onset does not occur in the tones 2, 4, 6, 8 (the "muddy" series), where instead there is smooth onset, with the slight trace of a homorganic semivowel. I now mark this difference in the transcription, and will refer to the two initials as "glottal" and "zero"; note that these are then concomitant features of tones. Glottal initial may occur before any vowel; zero initial occurs before $-i-$, $-u-$ and the two medials only. As examples of this difference we have: ʔiəu "surfeited", ʔūən "pest, cholera", ʔwét "dig", ʔjāy "rice-shoots": all in the clear series of tones, as against iəu "younger brother", ūən "soul", wāa "to paint", jūy "sheep" in the muddy series. In fact, the presence or absence of the sign for the glottal stop is predictable from the tone – note that with other vowels, such as in ʔʃ "meat", ʔóm "swollen", ʔāu "wife", ʔáa "mouthful", as stated above, there is no possibility of contrast, since zero initial does not occur with them – nevertheless, once again I prefer to stay close to the phonetic facts in my transcription.

This distinction of glottalized versus smooth onset as a correlate of tonal series is a fairly extensive one in the monosyllabic, tonal languages in this area – it is found in the Dai languages, and of course closely resembles the distinction posited by Karlgren between the 影 and 喻 initials of MC, even down to the fact that there are restrictions on the medials found with smooth onset that are not found with glottal onset. However, in the MY languages, the distinction is much more far-reaching than in most Chinese dialects.⁴ For PMY there must be posited three series of initials: glottalized, aspirated and voiced. In Mien, as indeed in most Miao dialects, tonal split has occurred: the glottalized and aspirated series forming one tonal set, the voiced forming the other. The result is, of course, a doubling of the number of tones from the original four to the present eight. Subsequent to the tonal split, the plosives of the old voiced series became devoiced (see next paragraph), and the nasals and laterals of the old glottalized series lost the (pre-)glottalization. These were clearly redundant features once the tonal split occurred. Subsequent visits to the field have, however, left no doubt that the loss of preglottalization occurs only when the syllable is in phrase-

initial positions, or when following a final stop. When following a final nasal or vocalic the glottalization is still present. In Mien, this means that in the clear series of tones, syllables with initial nasals or laterals may be aspirated or *preglottalized when they follow a syllable with final nasal or vowel*. Elsewhere they seem to be phonetically identical to the nasals and laterals of the muddy series. Some examples will make this clear. In non-initial position, when preceded by syllables ending in a nasal or vowel, nasals and laterals may be aspirated: dzáau hmíən "wash the face"; pūa hnōi "three days"; au-hlō "chief wife"; or they may be preglottalized: tsauʔmíən "foot-prints", dzōʔlūi "wash clothes", muyʔmēy "a blue fly", in both these cases, that is, when aspirated or preglottalized; the tone is one of the clear series. When the tone is in the muddy series, then instead of aspiration or preglottalization, we find smooth juncture: taau-míən "headman", dziəu-múət "kind of ant", hnaay-lāau "rice-crust". When syllables with nasal or lateral initials occur initially in a phrase, or in isolation, then there seems to be only a distinction between aspirated (voiceless) and voiced: the glottal feature being found only in juncture, so that we have lūi "jacket", mēy "green/blue". It thus appears that the old three-way distinction of glottalized, aspirated and voiced is still partially maintained in Mien, in the form of a juncture phenomenon when the initial concerned is a nasal or lateral. There is a small number of loanwards of Chinese origin where this distinction is relevant.

It was said in the previous paragraph that the old voiced set of plosives became devoiced, whereas the list of initials on p. 11-12 looks very much like the reconstructed sets (vargas) of initials in the Late Middle Chinese rime-tables, with $p - ph - b - m - hm$, and so on. In fact the resemblance is quite superficial, as the Mien set has quite different, and indeed fewer, tonal implications than the corresponding set of $p - ph - b - m$ in Chinese; in particular, the unaspirated members of the Mien set have a different and more complex history than their parallels in the Chinese set, and the present-day voiced plosives in Mien are not directly connected with the older three-way distinction of glottalized, aspirated and voiced initials. The voiced plosives of Mien correspond in most cases to prenasalized plosives in many Miao dialects, and it is necessary to posit prenasalized plosives as well as simple plosives for PMY. Like the simple plosives, and also the nasals and laterals, the prenasalized plosives could be glottalized, aspirated or voiced in PMY. This means, that if the list of homorganic initials as set out in the manner of the Chinese rime-tables, then instead of the usual four places for each point or articulation found in the Chinese rime-tables, there would be a total of nine places in the PMY rime-tables, $\text{ʔp} - \text{p} - \text{ʔm} - \text{ph} - \text{np} - \text{hm} - \text{b} - \text{nb} - \text{m}$. As an example (in which initials of different points of articulation must unfortunately be used), we may compare Mien with White Miao cognates, placed in the above order:

⁴ Recently a precisely similar distinction between glottalized and smooth nasals and laterals has been suggested for the Wenling dialect of Southern Wu. See Li (1966).

- ʔp: p̄uay/pu' "full"
 nʔp: b̄uam/npu' "snow"
 ʔm: m̄un/mɔ' "hurt"
 ph: kh̄aay/gha' "to hang over fire"
 nph: dz̄o/ntshua' "to wash (clothes)"
 hm: hm̄uay/hmɔ' "night"
 b: piay/pa' "flower"
 nb: bj̄au/nple' "rice"
 m: m̄un/mɔ' "a fly"

This PMY pattern was first modified (in both Mien and White Miao) by tonal split, with the glottalized and aspirated series on one side, the voiced series on the other. The subsequent Mien development must have been roughly as follows:

- (a) ʔ→O except as the juncture feature described above;
 (b) (n)b→(n)p, that is, all voiced plosives were devoiced;
 (c) np(h)→b, that is, both aspirated and unaspirated prenasalized plosives become voiced plosives and lose the prenasalization.

This long digression into questions of PMY has been necessary in order to proceed to an examination of the Chinese loanwords in Yao, as it will soon be apparent that for some features of the loanwords it is necessary to make reference to earlier features of the Mien dialect in order to understand the form now found in Mien. We can now turn to the loanwords at last, and attempt to indicate the criteria used for determining the different strata of borrowing.

The Mandarin stratum

First, the tones. Loanwords of the Mandarin stratum, with very few exceptions, are found to have only five of the eight possible tones of Mien. Examples are:

- Tone 1: 歎 kh̄i, 槍 tshāay, 生 s̄an Mandarin yīnpíng.
 Tone 2: 綢 tsh̄iəu, 和 h̄ə, 旁 ph̄ay: yánpíng.
 Tone 3: 武 ʔü, 火 h̄ə, 疳 ʔin: shǎngshēng.
 Tone 5: 夜 ʔia, 悶 m̄ən, 尙 siay: qùshēng.
 Tone 6: 六 lú, 脚 kj̄ɔ, 角 k̄ɔ: rùshēng.

There are a few instances of items which may have a separate origin, but which except for tone seem to belong to the Mandarin stratum, in which we find the correspondence: Mien tone 6 equals Mandarin qùshēng. Examples are:

望 wáy, 萬 wáan.

The tones found in the Mandarin stratum point to a not unusual form of southwest Mandarin, which may be used as a lingua franca in Laos. It would be difficult to associate it with certainty with any particular one of the

tonal systems given in Yang Shihfeng's work on the Yunnanese dialects,⁵ but it closely resembles some of the dialects which retain a separate rùshēng.

The initials of the Mandarin stratum in Mien reveal that the source-dialect has undergone the developments of the MC voiced series of initials in the way common to most Mandarin dialects; that is, items with MC voiced plosives in the shǎngshēng shifted to qùshēng; and general devoicing of these initials took place, the initials becoming aspirated in the yánpíng tone and unaspirated in the qùshēng and rùshēng; it is not suggested that the chronological order of these changes was necessarily the order in which they have been listed here. The result in Mien can be seen in examples such as 近 kin, an old voiced initial, now unaspirated surd, and 旁 ph̄ay, or 全 tsh̄uən, now aspirated surds. The presence of aspirated initials in the muddy series of tones in Mien is, of course, unusual, and is not found in native MY items of vocabulary (neither is it found in the other layers of loanwords in general); it is a sure criterion for the Mandarin stratum.

Apart from the reflexes of the MC voiced initials in the source-language of the Mandarin stratum, there are no forms irregular from the Mien point of view to be found. Some features of the source-language can be discovered: for instance there is no trace of any development of apical si-, ts(h)- to palatal si-, ts(h)i-, in other words the 尖團音 are kept distinct in this dialect, cf. Mien 七 tsh̄i, 尙 siay as against 欺 kh̄i, 急 k̄i. On the other hand, Mien provides no information about the number and realization of the fricatives and affricates in the source-language, as there is but one series of affricates and fricatives in Mien. Note, in particular, that the fricatives of the source-dialect, which are most likely to be s- and/or ʃ- (to judge from southwest Mandarin dialects in general), are all represented by s- in Mien: 鱒 s̄u, 尙 siay, 信 siən. This differs from the older layers, where a clear distinction is made between s- and ʃ- (or perhaps f-) in the source-language.

The rimes present a variety of features that serve to place certain Mien items in the category of loanwords from a Mandarin source:

(a) Among the finals, the lack of a final consonant in words of rùshēng origin points to the Mandarin stratum; this correlates with the occurrence of such items in tone 6 of Mien, as explained above. The same holds true of all items that have a final -n in place of an expected -m from MC: 三 sān. Finally the shift of -ŋ after certain high vowels to -n, typical of southwest Mandarin, is another indication when found in Mien, as in 杏 h̄in, 羹 k̄ən, 永 j̄ən.

(b) The occurrence of certain vowels, either by themselves or in their relation to MC or other Mandarin dialects, is also an indication of the item

⁵ See Yang (1959).

belonging to the Mandarin layer. The vowel $-ə-$, when occurring in the rime $-ən$, is in itself evidence of the Mandarin layer: 筮 $sən$, 吞 $thən$. Since this rime is restricted to items of Mandarin origin, there is no corresponding $-ət$. (A similar case would be the rime $-ə$, but it is not in the lists of this paper as it occurred in a name only: 百 $pə$.) I also take the occurrence of the high-vowel rimes $-i$ and $-u$, in items which have $-i$ or $-u$ in many Mandarin dialects, to be indicative of the Mandarin layer, for instance, 起 khi , 擠 tsi , 五 $ʔü$, 穀 $kü$. Notice particularly the evidence of an earlier $[s_i]$ in the items 獅 $sü$, 四 $sü$, where MC has an "i" - like rime.

(c) The loss of medial $-u-$ in some cases is a sign of the Mandarin layer. Such, for instance, as 火 $hǎ$, 和 $hə$, 果 $kǎ$ are to be taken as having their source in a Mandarin dialect where kuo , huo merge with ko , ho , a type of dialect well attested for southwest Mandarin. It is also possible that the Mien word 選 $sən$ is from a dialect where $-iuan$ after certain initials merges with $-ian$; this too, is known to occur in southwest Mandarin, but the single example makes the case more dubious.

All the features which are here taken as indicative of southwest Mandarin as the source language are convincing, in a positive sense that they agree with what is known of southwest Mandarin dialects, and also from the negative point of view, that they are features that do not occur in the southeast dialects of Chinese, generally speaking. There are, however, many gaps in the criteria for determining the Mandarin source of Mien items of vocabulary. Many such items, such as 化 $hwáa$ for example, could belong to any layer of vocabulary; tone, initial, medial and final could be ascribed to a Mandarin source, a Cantonese source, or indeed Hakka source. All that can be done is to distinguish those items for which there are adequate reasons for thinking that they belong to the Mandarin stratum, and then assume that the remaining items of clearly Chinese origin, but not necessarily Mandarin, belong to the earlier layer. This means that in some cases, a perfectly valid correlation between Mien and some earlier form of Chinese will in fact be partially based on items of vocabulary in Mien which in fact historically were of Mandarin origin, but for which there are no criteria for ascertaining this; in other words, the correlation (of vowel, tone, and so on) is valid, although in fact not all the examples are.

The earlier strata

From some features of the loanwords in Mien which do not belong to the Mandarin stratum, it is possible to discern two or even more layers of borrowing; the two principal layers will be referred to as the Old stratum and the Cantonese stratum. When this is impossible, then it is assumed that the various source-dialects resembled each other sufficiently to produce the same reflex in Mien, and presumably Mien itself remained the same in

the feature in question. In that case, the relationships with Chinese will be described as if all items showing such relationships were accepted into Mien at the same time; this is merely for ease of description.

1. The tonal correspondences

The tonal correspondence is one example of agreement between all possible strata of borrowing; although in other features there may be no lack of evidence of layering, this is not true of the tones. With scarcely any exceptions, the tonal correspondence fits into the pattern of a late form of MC - or Cantonese, for that matter - in the number of distinctions made, although no statements are possible about the phonetic realizations of these tones in MC or in earlier forms of Mien. As far as the distinctions are concerned, these coincide with the number of distinctions in the Mien vocabulary of MY origin, and are as follows (the numbers refer to the Mien tones):

MC	<i>píng</i>	<i>shǎng</i>	<i>qù</i>	<i>rù</i>
clear	1	3	5	7
muddy	2	4	6	8

The Mien equivalent (*i.e.* in PMY terms) of "clear" is "glottalized and aspirated initials"; "muddy", as in MC, refers to the old voiced series. It is assumed that PMY had a four-tone system, like MC, which split along these lines. To compare some Mien items with cognates in the Lungli Shuiwei dialect of Miao,⁶ where apparently no split took place (the Lungli Shuiwei form is given first, followed by the Mien equivalent):

plu^{31} - $pjái$ "hair" pi^{55} - $pjǎu$ "house" qwe^{35} - $kjáu$ "egg" ta^{31} - $dáat$ "wing"
 na^{31} - $hníi$ "day" no^{55} - $hníá$ "heavy" la^{35} - $hláa$ "moon" no^{31} - $hnóp$ "cough"
 $nico^{31}$ - $dzú$ "mouth" mpi^{55} - $bjǎu$ "fish" nta^{35} - $dó$ "hemp"
 $mple^{31}$ - $bíat$ "tongue" lep^{31} - $líj$ "field" wja^{55} - ia "urine" na^{35} - $nái$ "ask"
 za^{31} - $híat$ "eight".

The same type of split occurred in Chinese between voiced and unvoiced initials. Since each pair of Mien tones (*i.e.* tones 1 and 2, 3 and 4 etc.) corresponds to each pair of Chinese tones (*i.e.* clear and muddy, *píng* etc.) we must either assume that borrowing took place before the split occurred in either Mien or Chinese; or more likely, as there are clearly different layers of borrowing, that there are some phonetic features of the tones that are shared by Mien and the various Chinese dialects which were the sources of the loanwords. This could not have been pitch alone, as it is unreal to assume that earlier forms of Cantonese, Min and Hakka (which seem to have been the sources) had the same pitch features; for the relationship of the Mien tones is in terms of an historically underlying system of eight tones for each dialect. The conclusion seems inescapable that there is some

⁶ Lungli Shuiwei forms are taken from Li, Chen and Chen (1959).

feature of tonal systems that our present ways of regarding and describing tone do not account for.

The few exceptions to the tonal correspondences (in terms of MC) appear to be of Cantonese origin, where many words in the muddy shāng tone have switched to the qūshēng. The exceptions are: 腐 *pāu*, 受 *sīau*, 跪 *kūi*, all agreeing with Cantonese *fu*-, *sau*-, *kwai*-, i.e. Mien tone 6 corresponding irregularly to MC muddy shāng tone, but regularly to Cantonese muddy qū tone.

2. The initial correspondences

Unlike the tonal correspondences, the correspondences between the initials of Chinese and Mien partially differ according to the stratum – Old stratum or Cantonese – to which they are assigned. These correspondences may conveniently be set forth in terms of a late form of MC initials. The following chart gives the principal correspondences; others are also posited, but as these require explanation, they will be treated later.

It will be remarked that in the Mien reflexes of the Chinese plosives, both voiced and voiceless plosives occur in the Old stratum. This almost certainly indicates that at the time of borrowing, what are now voiced plosives in Mien were prenasalized, with an unaspirated/aspirated contrast now lost. The evidence of Miao cognates shows clearly that prenasalized plosives, both aspirated and unaspirated, are to be posited for PMY; for instance, Mien *dā:u*=White Miao *nte'* "to be long", Mien *būi*=White Miao *npau* "to boil", with unaspirated initials in Miao, as against Mien *dzyā:m*=White Miao *ntsha'* "blood", Mien *dxāi*=White Miao *ntshau'* "head-lice" with aspirated initials. Other Yao dialects reveal that this distinction must have been part of PY also.⁷ A plausible assumption is that this distinction still held at the time of the introduction of the Old stratum of loanwords into Mien: the borrowing of MC* *khat* 渴, for instance, as **nhkhat*, later developing into the present-day Mien *gáat*, is much more likely than an immediate reflex of *g-* for Chinese *kh-*, and this is confirmed by the existence of the Miao cognate, White Miao *nqhe* "to be thirsty". In general it is impossible to predict the occurrence of this postulated prenasalization in Chinese loanwords. There is some evidence that in PMY prenasalization may have had a grammatical function. (I use a very vague term, as the nature of this function is not at all clear.) This would explain the existence of pairs of words such as White Miao *qe* "to be low" as against *nqe* "to descend". Curiously enough, the best example of this suggested grammatical function of prenasalization is found in a pair of Mien words of Chinese origin: 開 *khāi* "to open" is a transitive, active verb, occurring in *khāi khēŋ* "to open the door", and so on, while *gāi* "to open" is

MC	Old	Cant.	MC	Old	Cant.	MC	Old	Cant.	MC	Old	Cant.
k	k, g	k	kh	kh, g	kh, h	kʰ	k, g	k	ɲ	ɲ	ɲ
p	p, b	p	ph	ph, b	ph	pʰ	p, b	p	m	m	m
f	p, b	f	fh	ph, b	f	fʰ	p, b	f	m	m	m
t	t, d	t	th	th, d	th	tʰ	t, d	t	n	n	n
ʈ	ts, dx	ʈ	tʰ	ts, dx	tʰ	tʰ	ts, dx	ʈ	n	n	n
tʂ	ts, dx	ʈ	tʂ	ts, dx	tʂ	tʂ	ts, dx	ʈ	s	s	s
tʃ	ʈ	ʈ	tʃ	ʈ	tʃ	tʃ	ʈ	ʃ	ʃ	ʃ	ʃ
ts	ʈ	ʈ	tʂ	ʈ	tʂ	tʂ	ʈ	s	s	s	s
ʔ	ʈ	ʈ	h	kh, h	h	h	g, h, O	h, O	ʃ	ʃ	ʃ
l	l	l	ɲ	ɲ	ɲ	ɲ	g, h, O	h, O	O, h	O, h	O, h

⁷ Haudricourt (1950), p. 560.

intransitive, as found in *hyiəu gji* "the heart opens: to be happy", *gji pian* "to blossom" and so on – both may occur in the same phrase, as in *khji m gji* "cannot get it open". Another possible pair of this kind, although not so convincing semantically, is 拆 *tshéʔ* "to pull down, pull apart" and *dxéʔ* "to be cracked (as earth)". Although Miao cognates for these pairs of words do not apparently exist, it seems likely that we must suppose a prefix (pre-nasalization) in these cases, with PY* *khji*, **tshék* as active verbs, **nhji*, **ntshék* as intransitive verbs; and that since these are found in words of Chinese origin, we must assume that this prefixation was still an active process at the time of borrowing. Judging from the vocalic correspondences, this process no longer took place by the time of the introduction of Cantonese stratum.

In the "guttural" series of MC initials (喉音), Mien shows no distinction between "third grade" and "fourth grade" 喻, and the Mien reflexes of *O-* and *h-* for these and also for 匣 can be explained in terms of Mien initial patterning, and not as representing a distinction in Chinese. In the Mien "muddy" series, *O-* occurs only with the high vowels *-i* and *-u*, and the medials *-j-* and *-w-*, while *h-* is found with the other vowels as well as *-i* and *-ia*, but not before *-ua* or the medials *-j-* and *-w-*. There are thus few possibilities of contrast between *O-* and *h-*. The *h-* that appears in the loanwords derived from Chinese is thus not significant (while the modern Mien contrast between 野 *hja* and *ia* "urine" is explained by developments in the medial of the latter word, which will be discussed below). Note that the Mien reflexes of 匣 resemble Cantonese in the loss of aspiration before *-w-*, but the further Cantonese development *hj-* → *j-* is not found in Mien, compare 現 Mien *hin*, Cant. *ji:n*.

Another instance of an initial correspondence which shows a typically Cantonese development, but where Cantonese has since had a further development not seen in Mien, is in items with MC initial 溪. Only two items are found in Mien with *h-*, 輕 *hēŋ* and 禱 *həu*; but the presumably later Cantonese change of *hw-* → *f-* (that is, Cantonese *hw-* derived from both earlier *hw-* and *kw-*), does not occur: Mien 苦 *khəu*, 荒 *hwəŋ*, 晒 *khúən* beside Cantonese *fu*, *foaŋ*, *fan*. Note also that the Cantonese change *hj-* → *j-* before *-a-*, as in Cantonese 泣 *jaʔ*, 休 *jaʔ*, 欣 *jan* does not occur in Mien, to judge from the sole example of such items found, 休 *hiəu*.

In the same series, the presence of a velar occlusive as the reflex in Mien of 曉 and 匣 initials seems to be an indication of items of the Old stratum of loanwords. Although most items with MC 曉 initial have *h-* in Mien, the following have *kh-*: 孝 *khjəu*, 海 *khji*, 花 *khwəa*, 好 *khə*, 蝦 *khjəa*, 火 *khia*. The vocalic correspondence in the last example points clearly to the Old stratum of loanwords. There are also a few examples of Mien *g-* for items with MC initial 匣, such as 縣 *gwən*, reminiscent of Min dialect forms such as Amoy *kuəi-*. 下 *gia* appears to be regularly related to

White Miao *nge-* (as given above), and, being considered part of the PMY loans from Chinese, must *ipso facto* belong to the Old stratum.

The set of labial initials in Chinese give some clear indications of strata in Mien loans. Items which in late MC developed into fricative *f-* have two sets of reflexes in Mien, occlusives *p-ph-* *b-* and fricative *f-*. There seems to be no reason to doubt that the former represent earlier borrowings than the latter, so in the terms used in this paper, the former reflexes in Mien are criteria for inclusion in the Old stratum, the latter being taken as belonging to the Cantonese stratum. Most items with the occlusive set of initials in Mien originate in Chinese words with the 非 or 奉 initial, and are therefore unaspirated. Aspirated forms are few: 副 *phəu* and 拂 *phut*, but seem convincing. One word, *pūaŋ* "hump of an ox" may perhaps be related to Chinese 峰, but if so, should have *ph-*, not *p-*.

The dental series poses no problems. Here, if we assume that in an early type of MC there was no phonetic difference between what later developed into a contrast of dental and supradental (that is, first and fourth grades as against second and third grades, in the rime-tables), then the Mien forms definitely reflect the later stage of MC; only two examples of Mien *t-* for Chinese supradentals occurring, to wit, 竹 *tuaʔ* and 中 *tuəŋ*. The supradentals of Chinese have, in Mien, merged completely with the reflexes of the MC affricate series, as they have, indeed, in most Chinese dialects. The affricates of Mien are derived from various PMY sources, with a large-scale merger in Mien which has not, in general, occurred in the Miao dialects. The commonest correspondences are exemplified below, with White Miao cognates, as PMY initials have not yet been well established; in the table, headings such as TS, etc., signify all homorganic initials in the dialect concerned.

1. Mien TS = White Miao TS.

Ex. *dziəu* = *ntsoʔ* "early"; *dzó* = *ntshuaʔ* "to wash (clothes)".

2. Mien TS = White Miao t.

Ex. *dzó* = *ntua* "drum"; *tsiəi* = *tu* "a boil".

3. Mien TS = White Miao tf.

Ex. *tsóʔ* = *tʃəu* "few"; *tsiəi* = *tʃu* "to stink".

4. Mien TS = White Miao KJ.

Ex. *dziəi* = *nhjəu* "mouth"; *tshəu* = *kjhəu* "bed; place".

Whether the wide variety of affricates found in Miao, and therefore in PMY, are also to be ascribed to PY is not yet known. At any rate, in Mien the result is that there is only a single series of affricates, so that all the affricates of Chinese (including 禪 and 斜, surprisingly) become merged in Mien, as *ts-*, *tsh-*, *dz-*. There are a few exceptional cases of *s-* in the muddy series: 隨 *səi*, 誰 *səi*, 事 *sí*, 順 *súən*, 受 *səu* exhaust the list. It is possible that in an early stage of Mien, the voiced affricates of PMY all became *ts-* or *dz-*, in which case loanwords such as those given above with initial *s-*

represent a later layer, perhaps the Cantonese stratum; but a small number of words of non-Chinese origin, such as *sia* "seven" (definitely MY) and *sóp* "white pumpkin" makes this hypothesis difficult to uphold.

The only suggestion in Mien of earlier distinctions in the affricates comes instead from the fricatives, where *s-* and *f-* are the two reflexes of the Chinese sibilants. This is a very important point in determining the type of Chinese dialect(s) from which the Mien loanwords came. Mien evidence shows quite clearly that at least two sibilants existed in Chinese: 1st and 4th grade → *f-*, 2nd and 3rd grade → *s-*, suggesting a Chinese distinction of *s-* in 1st and 4th, and *f-* in 2nd and 3rd. This may be compared with Cantonese and Hakka:⁸

	Mien	Cant.	Hakka
1st grade:	鎖 <i>fj̄</i>	<i>soa'</i>	<i>so'</i>
	三 <i>fāam</i>	<i>saam</i>	<i>sam'</i>
	孫 <i>fün</i>	<i>syn'</i>	<i>sun'</i>
2nd grade:	生 <i>s̄ɲ</i>	<i>saɲ'</i>	<i>saɲ'</i>
	山 <i>s̄n</i>	<i>saan'</i>	<i>san'</i>
	門 <i>s̄n</i>	<i>saan'</i>	<i>son'</i>
3rd grade:	水 <i>süi</i>	<i>seɪ'</i>	<i>sui'</i>
	身 <i>sin</i>	<i>san'</i>	<i>sin'</i>
	世 <i>sai</i>	<i>sai'</i>	<i>se'</i>
4th grade:	心 <i>fim</i>	<i>sam'</i>	<i>sim'</i>
	寫 <i>fia</i>	<i>sea'</i>	<i>sia'</i>
	四 <i>fai</i>	<i>sei'</i>	<i>si'</i>

This distribution of the fricatives offers one of the clearest proofs that the dialect or dialects on which the earlier strata of Mien loanwords are based shared at least one very important development with Cantonese. The correspondence is exact, and the Hakka material will not fit into it. We may safely assume that the phonetic development was *s* → *θ* → *f*, the middle stage being exemplified in the dialect of Yao described by Y. R. Chao.⁹

The irregular initial correspondences may be mentioned under two headings. The first is "non-Qieyun" reflexes, the second is PMY reflexes. The first type is dubbed non-Qieyun because the correspondence points to combinations of features in Chinese which are impossible in MC, as exemplified in the Qieyun. However, they occur in one or other of the modern dialects. These may be words which are found in general Chinese, but which show special phonological developments in, say, Cantonese, and this is then reflected in Mien:

⁸ The Cantonese distinction is found only in non-standard Cantonese now; this transcription is based on that given in the dictionaries of Eitel and Williams. In the Seiyap dialects the realizations of *s-* and *f-* are [h-] and [s-] respectively.

⁹ Chao (1930); e.g. 寫 *θi:a* in this dialect, cp. Mien *fia*.

Mien *mē* "to peel" = Cantonese *maak* "to strip or break off" 擘 where other dialects have *p-* initially in this item. More commonly, these are words found only in the dialects of southeast China, and not in older Chinese or in the north. When this happens, there is no way, in fact, to decide the direction in which the borrowing occurred. However, the different phonological possibilities open to Mien, as compared with those of a Chinese dialect, provide some intriguing examples of syllables which cannot be related in any regular way with MC. Consider the following:

Mien		Cant.	
<i>náam</i>	"span, to span"	<i>naam'</i>	"id"
<i>lój</i>	"to raise with a stick"	<i>loaj'</i>	"id"
<i>láam</i>	"to step across"	<i>laam'</i>	"id"
<i>hlút</i>	"to slip off"	<i>lat'</i>	"id"
<i>hnám</i>	"to think, to love"	<i>nam'</i>	"to think"
<i>hlǒj</i>	"to rinse"	<i>loaj'</i>	(in <i>loaj' hau'</i> , "to rinse the mouth") "id"

Other examples may be found in the lists of correspondences with Cantonese. In each case in Cantonese we find words for which there is no etymology in MC, nor any cognate known in northern Chinese. Phonologically, each item begins with a nasal or lateral initial but has one of the clear series of tones, appropriate to voiceless initials only. Thus no reconstructed MC form is possible, unless a radical departure is allowed, with the phonological possibilities of MC widened to include voiceless nasals and laterals. In Mien, on the other hand, the items are not at all irregular; as explained above, the unaspirated nasals and laterals in the clear tones can be derived from pre-glottalized initials, and the aspirated are of course from earlier aspirated initials. There are thus phonological grounds for considering these items to be of Mien (or Yao) origin, borrowed into Cantonese. However, this is not conclusive, or rather, is over-simple: two of the above items appear to have affinities with Hakka, although not as directly as with Cantonese - "span" is *njam'* in Hakka, "to step across" is *kham'*. Thus the possibility remains that these are native Chinese words, only recorded in Cantonese and Hakka. The picture is complicated by the existence of suspiciously similar words in Mon-Khmer ("span" is Khmer *cm'aam*, Sre *naam*) and in the Dai languages ("to step across" is Siamese *khaam*). Once again, wider documentation of Chinese dialects is needed before well-based hypotheses are possible.

The second type of irregular correspondence, where items seem to have PMY affinities, can only be mentioned. The lists include words which appear to be related in some way to Chinese, but which require special rules to account for the irregularities in the phonological correspondence, and which clearly have Miao cognates, so that they are taken to be part of the PMY stock. Such words as

	Mien	White Miao	MC	
"dog"	<i>kjü</i>	<i>de'</i>	<i>kāu</i>	狗
"wine"	<i>tlu</i>	<i>kjau'</i>	<i>tsjü</i>	酒
"snore"	<i>gjàn</i>	<i>qa'</i>	<i>hān</i>	鼾
"indigo"	<i>gjàm</i>	<i>nka'</i>	<i>lām</i>	藍

all present difficulties in the initial correspondences with Chinese; it might be added that the word for "dog" is certainly to be reconstructed with initial *kl-* in PMY. Nevertheless there is a clear over-all resemblance with the MC (and earlier) forms that suggests cognation. In cases such as these we must await reconstruction of PMY, as well as more work on the oldest forms of Chinese, before the relationship can be explained. The possibility also exists that some Mien (or PMY) items should be taken to be related more directly to Tibeto-Burman than to Chinese.

Finally, some speculation about a single word, not found in Miao and therefore not to be ascribed to PMY but simply to PY, which is quite irregular in the initial correspondence with Chinese, but which may point the way to the discovery of some phonological features of older southeastern Chinese dialects, now extinct. This is the Mien word *kjháa?* "strength", which it is proposed is derived from a variant form of Chinese 力. The Mien initial could be derived from an earlier *klh-*, and the rime is regular for 力 - see the lists. Thus only the initial requires explanation, in order to relate this item to Chinese. If we turn to Vietnamese, we find a small number of words, clearly related to Chinese items with initial *l-*, but which have *s-* in Vietnamese. Such are Viet. *sen* "lotus", *sáp* "wax" and *súc* "strength". Haudricourt has suggested, working purely from the Vietnamese side, that these are derived from earlier Chinese forms with initial *klh-*.¹⁰ This is precisely what the Mien form suggests also. One conclusion might be, therefore, that both Vietnamese and Yao, in the case of the word for "strength", were in contact with Chinese dialects which had a form approximately like **klhjək* instead of the otherwise universally attested **ljək*: and that by regular phonetic changes in the two languages, this evolved into *súc* in Vietnamese, and *kjháa?* in Mien.

3. The medial and final correspondences

As the lists of proposed Chinese-Mien cognates are arranged by rime, only a few general remarks are required here to introduce the assumptions

¹⁰ See Haudricourt (1954). Note that although no loanwords from Vietnamese have yet been identified in Mien, there are some indications that Viet. and Mien were in contact with similar Chinese dialects at one time. For example, Mien *tsài* "late" and Viet. *cháy* "id." both point to a Chinese source with a form *tshjwēi*, which is a non-occurring and "impossible" MC (or Qieyun) form, a pingsheng of 祭 rime, cp. the occurring MC *tshjēi* 遲.

underlying the choice of cognates, and to point out those features which differentiate the Old stratum from the Cantonese stratum.

First, the finals. With some exceptions due to the monophthongization of rimes derived from MC final *-i* and *-u*, the Mien finals show a one-to-one relationship with MC, so that items with MC finals *-o*, *-i*, *-u*, *-ŋ*, *-n*, *-m*, *-k*, *-t*, *-p* will have the same finals in Mien (but MC *-k* = Mien *-ʔ*). Exceptions are very few, and when they occur, as in the word 法 MC *pjwep* Mien *fáat*, they are indicative of developments known from Cantonese or other southeastern Chinese dialects, where, as in this case, dissimilation has taken place.

A very interesting anomaly is found in a handful of items which occur with a final velar nasal in Mien, the corresponding words in MC having final *-i* or *-u*. Examples so far found are

MC	Mien	MC	Mien
時 <i>xi</i>	<i>tsian</i>	指 <i>tshéi</i>	<i>tsian</i>
子 <i>tsi</i>	<i>tsán</i>	柴 <i>tshæi</i>	<i>tsán</i>
字 <i>dzi</i>	<i>dzán</i>	婦 <i>phju</i>	<i>buan</i>
記 <i>ki</i>	<i>kján</i>	母 <i>mu</i>	<i>muan</i>
基 <i>ki</i>	<i>kjān</i>	牛 <i>nyū</i>	<i>nyōn</i>

According to Tung Tungho, Wang Li and Chou Fakao, all these words except 指 had final *-g* in Old Chinese; Karlgren considers 柴 to have had *-r*, as 指 had. The appearance of a final velar (nasal or occlusive) is not recorded for any modern Chinese dialects, but it is possible that Mien, developing in a different manner from Chinese dialects, has here retained a very old feature of Chinese, not now found elsewhere. Chinese dialects with final velar nasal in some of these items at least may have existed until fairly late. It may be noted that the form these rimes take in Mien is precisely that found for the reflexes of the 蒸 and 鍾 of MC. The 集韻 gives a few examples of readings of this kind, that is, where the "normal" reading is of the 之 rime-group, but another reading in the 蒸 rime-group is also recorded, presumably from some dialect which has left no descendants. Examples are:

耳、而止切, *noi*, and 仍拯切 *nyjən*
齒、昌里切 *tshí*, and 稱拯切 *tshjən*

The presence of *-ŋ* in words of this type may be taken as an indication of assignment to the Old stratum of borrowings.

Much more variation in reflex is found in the vocalic nuclei, as is to be expected. Only a few features that show unusual developments in the Chinese source-dialect(s) will be mentioned. In the MC first-grade rimes, a distinction is maintained in Mien between the vowels of the rimes 覃, Mien *-om* and *-əm*, and 談, Mien *-aam* (and, of course, in the corresponding *rùshēng* too). This is a distinction not now found in the southeastern dialects of Chinese, being apparently confined to Kiangsi, and the Wu dialects, but

one which must have been much more widespread at one time. This also can serve as a criterion for inclusion in the Old stratum of loanwords.

In the second grade, the appearance of "e"-like vowels, as in 棟 *kĕn*, 挖 ²*wét*, 喊 *hém*, 剝 *tsép*, 生 *sĕŋ*, 白 *pĕt*² makes Mien agree with the Dai languages and Vietnamese in the nature of these vowels, where Chinese dialects tend to have "a"-like vowels in the southeast, and also in the colloquial layer in the Kiang and Wu dialects. In most dialects of Chinese there is evidence that the syllables with labial initials in the MC rime-groups 元 and 凡 early merged vocally with the second grade; this is even shown by one fānqiè in the 廣韻, 符咸切 for 凡. In Mien, curiously, only one example of such a development has been found, namely 飯 *pĕn*. All other members of this group have instead the vowel -aa-: 罰 *pāat*, 發 *fāat* (also *pūt*), 犯 *pāam*, etc. The fact that some fourth-grade items such as 牽 *khĕn*, 縣 *gwĕn*, 僭 *dzĕm* etc. have the same vowel as the second grade testifies to the phonetic proximity of these vowels in MC, examples of the same order being found in the Mien dialects.

The Mien reflexes to the third-grade rimes show a regular distinction between pure-vowels in Mien for MC "a"-like rimes, and falling diphthongs for "ə"-like rimes:

"a"-like rimes		"ə"-like rimes	
Mien		Mien	
仙, 先	-in, it	眞	-iən, iət
鹽, 添	-im, ip	侵	-iəm, -iəp
宵, 蕭	-iu	尤	-iəu
清, 青	-iŋ, -i ² ; -eŋ, -e ² ; -eŋ, -e ²	蒸	-iaŋ, ia ² (also -aa ²)
陽	-u	鍾, 東 ²	-uaŋ, -ua ²

However, in some cases the colloquial Mien form goes against this rule, while the literary (or "song-language") form follows it:

"heart": col. *fim*, lit. *fiam*; cf. 心 MC *sjĕm*

"body": col. *sĭn*, lit. *sian*; cf. 身 MC *sjĕn*

"bridge": col. *kiəu*, lit. *kiu*; cf. 橋 MC *khjĕu*

It is not clear how this is to be fitted into the proposed strata. The occurrence of pure-vowel nuclei as reflexes of MC "a"-like vowels is very much like Cantonese, where they are found as long vowels; standard Cantonese has however lost the medial -j- with the "ə"-like rimes, a fact that suggests either that this is a relatively recent development in Cantonese, or that the source of the Mien borrowings was a sub-dialect of Cantonese.

Finally, there is evidence from other types of Yao, including one dialect of Mien in Vietnam, that the nucleus -ia- (or -iə-) is derived from an older form -wia- or -wiə- in some words, among them being reflexes of the MC first-grade "a"-like rimes with lip-rounding:¹¹

	MC	Mien	Man Tai-pan		MC	Mien	Man Tai-pan
廣	<i>kwāŋ</i>	<i>kiāŋ</i>	<i>kwiāŋ</i>	過	<i>kwà</i>	<i>kià</i>	<i>kwia</i>
黃	<i>fwāŋ</i>	<i>lāŋ</i>	<i>wiāŋ</i>	換	<i>fwàn</i>	<i>iən</i>	<i>wiən</i>

The sequence -wia- (or -wiə-) is almost extinct in Mien; I have heard it in two words, from two speakers: 觀音 *kwian-²iəm*, and "gibbon" *kwian* (not a word of Chinese origin), but the much more widespread pronunciation for these words is *kian-²iəm* and *kian*. The falling diphthong is unusual as a reflex of the first-grade vowel -a- of MC, and appears to be confined to the labialized velar initials and to labial initials; thus it is also found in 藩 *piā²*, 伴 *bian* etc. This suggests that at the time of borrowing, these rimes still possessed the same vowel, presumably -a-, and that this vowel differed from the vowel found in the same rimes with other initials. The nature of this difference is not clear, however. There is clear evidence here of a difference in strata, as MC items of the same type are found also with -ua-, -un and so on, which must be taken as a later layer, that is, the Cantonese stratum. There is no trace in Mien of what is apparently a still later Cantonese development, the split between syllables with final -un and labial or velar initials (管 Cant. *kwun'*, Mien *kūn*) and syllables with a front rounded vowel with other initials: compare Cantonese 船 *syn*, 算 *syn*, 聯 *lyn*, with Mien *tsin*, *fün*, *lün*.

List of Mien-Chinese cognates

In the list, Mien rimes are arranged primarily by finals (-O, -ŋ/², -i, -n/², -u, -m/²) and secondarily by nuclei in the order: front, back, central, low; as in the chart on p.6 *supra*. An item without a tone-mark but followed by a dash indicates that it is one that occurs only pre-finally in the word-group.

In the index, the order of rimes is that found in Chou (1968) but with the herkou ("c") following the kaikou ("o") in each rime.

¹¹ Savina (1926); ex. from pp. 14-25.

Lists of proposed Chinese-Mien cognates

1.-i.

之^o: 己 kǐ 欺 khī 起 khī 麒 khī-

事 sǐ 鼓 sǐ-

支^o: 脾 phi-微^o: 氣 khí虞^o: 七 tshí

侵: 急 kǐ

魚: 如 jǐ

2.-ia.

麻³: 姐 tsǐa 借蔗 tsǐa 斜 tsǐa 社 tsǐa

謝 tsǐa 車 tshǐa 扯 tshǐa 遮 dzǐa

蛇 dzǐa 捨 sǐa 赦射 sǐa 寫 fǐa 瀉 fǐa

夜 yǐa 野 hǐa 惹 nǐa 爹 tǐa 爹 tǐa

戈: 過 kǐa 火 khǐa 禾 ia 婆 piá

模: 補 bíá 步 bíá

齊: 帝 tíá 底 díá

戈³: 茄 kǐa

歌: 鴉 nǐa

麻^{2o}: 下 gǐa微^o: 氣 khíá支^o: 痺 bíá泰^o: 外: nǐa

先: 鐵 thǐa

3.-e.

之^o: 騎旗 kè 忌 ké支^o: 易 hé脂^o: 罌 kè

齊: 計 ké

佳^o: 鞋 hè

4.-e. No Chinese cognates.

5.-u.

毫: 高 ku- 好 khǔ 寶保 pǔ

侯: 狗 kǔ 口 khǔ 戊 mú

脂^o: 蠟 sū 四 sù東¹: 穀 kú 獨 tu-東³: 六 lú

模: 五 wǔ

虞: 武 wǔ

6.-ua.

戈: 伏 húa 貨 húa 禾 ùa 禍 ùa

毫: 蕩 púa 帽 mùa

侯: 九 kjǔa

7.-o.

毫: 告 kó 號 hò 報 pó 刀 tō 倒 tó

桃逃 rò 道 tō 討 thō 癆牢 lò 老 lō

漕 ló 槽 tsō 曹槽 tsō 草 tshō

灶 dzó

侯: 厚後 hō 候 hò

虞: 雨 hō

脂: 二 ló

Cant: C. tou- 'to poison, drug' tō.

C. lou 'fellow' lō.

Hak: H. to, 'to tether' dò.

8.-o.

才: 果 kǒ 火 hǒ 和 hò 摩磨 mǒ

朵 tǒ 刺 tǒ 銼 tshǒ 鎖 fǒ 驪螺 lǒ.

歌: 哥 kǒ 可 khǒ 餓 nǒ 河 hò 多 tǒ

拖 thǒ 駝 tǒ 羅羅 lǒ

魚: 初 tshǒ 疏 sǒ 疏 sǒ.

陽^o: 脚 kjǒ 雀 tshǒ

江: 角 kǒ

9.-aa.

麻^{2o}: 假 kǎ 家加 kjǎa 假 kjǎa

價嫁架 kjǎa 牙芽 njǎa 蝦 kjhǎa

鴉 yǎa 下夏 hǎa 把 pǎa 琶 pǎa

麻 màa 馬 mǎa 渣 tsǎa 詐榨 tsǎa

茶擦查 tsàa 义差 tshǎa 杈 tshǎa

沙 sǎa 洒 sǎa

麻^{2o}: 瓜 kwǎa 寡 kwǎa 花 kwhǎa

瓦 ŋwǎa 化 hwǎa

魚: 疏 sǎa

夫^e: 話 wǎa佳^o: 罷 pǎa刪^o: 八 pǎa麻³ 也 jǎa

模: 穹 hnǎa

歌: 歌 kǎa

佳^e: 卦, 掛 kwǎa

?: 打 tǎa 媽 mǎa 媽 màa 卜 khǎa

10A.-iŋ.

青^o: 經 kīŋ 釘 tīŋ 釘 tīŋ 亭延停 tīŋ

定 tīŋ 序 thīŋ 聽 thīŋ 靈鈴 lìŋ

令 lìŋ 青 tshīŋ 星 fīŋ 醒 fīŋ

清^o: 羸 hīŋ 餅 pīŋ 嶺 lìŋ 清 tshīŋ

請 tshīŋ 聲 sīŋ 情城 tsīŋ 聖 sīŋ

性姓 fīŋ

庚^{3o}: 驚京 kīŋ 鏡 kīŋ清^e: 傾 khīŋ 營 wīŋ

Cant: C. seŋ- 'rust' dzīŋ, C. peŋ-

'to hide' pīŋ.

10B.-iʔ.

青^o: 吃 khíʔ 壁 píʔ 劈 phíʔ 笛荻 tíʔ

踢 díʔ 歷 líʔ 錫 fíʔ

清^o: 炙 tsíʔ 席石 tsíʔ 尺 tshíʔ 惜 fíʔ

11A.-iaŋ.

陽^o: 張 tsiaŋ 鎗 tshiaŋ 場 tshiaŋ

尙 siaŋ

清: 正 tsiaŋ 成 tsiaŋ

蒸^o: 稱 dziaŋ 稱 dziaŋ

之: 時 tsiaŋ

脂^o: 指 tsiaŋ

11B.-iaʔ.

蒸^o: 織 tsiaʔ 翼 iaʔ唐^o: 薄 piaʔ青^o: 寂 dziaʔ

12A.-eŋ.

蒸^o: 應 zēŋ 剩 tsēŋ 稱 tshēŋ 勝 sēŋ

承 sēŋ

清^o: 頸 kēŋ 輕 hēŋ 名 mēŋ 淨 dzēŋ庚^{3o}: 敬 kēŋ 丙 pēŋ 明 mēŋ清^o: 丁 tēŋ 頂 tēŋ 審 lēŋ登^o: 登 tēŋ

Cant. fēŋ- 'to shake' M. fēŋ

12B.-eʔ.

蒸^o: 暹 péʔ 敷 tshéʔ青^o: 威 tshéʔ

13A.-eŋ.

庚^{2o}: 庚 kēŋ 鯁 géŋ 行桁 hēŋ 彭 pēŋ

盲 mēŋ 生牲 sēŋ 省 sēŋ

庚^{3o}: 英 zēŋ 映 zēŋ 兵 pēŋ 柄 pēŋ

平坪 pēŋ 病 pēŋ 命 mēŋ

耕^o: 耕 kēŋ 硬 ŋēŋ 爭 dzēŋ清^o: 領 lēŋ 鄭 tsēŋ青^o: 瓶 pēŋ庚^{2o}: 橫 wēŋ 橫 wēŋ

Cant: C. ʔeŋ- 'even more' zēŋ, C.

tshaŋ 'boiler' tshēŋ

Hak: H. Kwŋ 'stalk' kwēŋ, H. paŋ-

'to pull' pēŋ

13B.-eʔ.

庚^{2o}: 格 kékʔ 客 khékʔ 嚇 héʔ 百伯柏

pékʔ 白 péʔ 拍魄 békʔ 拆 tshékʔ

塌 dzékʔ

耕^o: 隔 géʔ 麥眠 mēʔ 摘 dzékʔ耕^e: 薑 wēʔ

Cant: C. maak- 'to break apart' méʔ

14A.-uŋ.

陽^o: 強 kjuŋ 香 hūŋ 向 húŋ 張 tsūŋ

羊 juŋ 養 jūŋ 樣 júŋ 漿 tsūŋ

脹將 tsuŋ 兩 lūŋ

陽^e: 王 huŋ 方 puŋ 放 puŋ 房 puŋ

防 buŋ 網 muŋ

東¹: 空 khūŋ 送 fūŋ 總 tsūŋ

鐘: 容 huŋ

蒸^o: 馮 pūn
 庚^{3o}: 癸 kjūn
 江: 雙 sūn
 MIn: Amoy tsan, 'classifier for trees'
 tsùn.
 14B.-u?
 東¹: 穀 kú? 獨 dū?
 陽: 着 tsú? 着 tsú?
 東³: 福 fú?
 唐^o: 鑿 tsú?
 江: 壳 khú?
 登^o: 得 tú?
 Cant: C. lok- 'to scald' hlú?; C.
 nok- 'to point' nú?
 15A.-ua?
 鐘: 供 kjūan 共 kjūan 凶胸 hjūan
 封 pūan 逢 pūan 捧 phūan 種 tsūan
 種 tsūan 籠 lūan 擁 jūan 容 jūan
 東³: 宮弓 kjūan 窮 kjūan 風 pūan
 中 tūan 中 tsūan 衆 tsūan
 蒸^o: 凭 pūan
 東¹: 蒙 mùan
 侯: 母 mūan
 尤: 婦 būan
 15B.-ua?
 東³: 竹 túa? 六 lú? 粥 tsúa? 熟 tsúa?
 畜 tshúa? 伏 púa? 服袱 bú?
 鐘: 獄 ŋjú? 觸足 tsúa? 屬贖 tsúa?
 陽^o: 脚 kjú? 藥 jú?
 東¹: 木 múa? 登^o: 國 kú?
 16A.-o?
 東¹: 公工 kōŋ 孔 khōŋ 洪紅 hòŋ
 翁 ŋōŋ 瓮 zōŋ 東 tōŋ 通 thōŋ
 桶 thōŋ 同銅 tōŋ 動 tōŋ 峒 tōŋ
 筒 dòŋ 籠 lòŋ 葱 tshōŋ 搓 fōŋ
 鍾: 奉 fōŋ 濃 nōŋ 籠 lòŋ 鐘 tsōŋ
 松 tsōŋ 重誦 tsōŋ 茸 ŋjōŋ
 冬: 冬 tōŋ 膿 nōŋ 癩 dzōŋ 鬆 fōŋ
 東³: 中 tsōŋ 銃 tshōŋ

江: 窗 fōŋ 尤: 牛 nōŋ
 Cant: C. toŋ- 'to place upright' tōŋ
 'upright post'; C. loŋ 'box' lōŋ.
 MIn: Amoy taŋ, 'spirit medium' tōŋ.
 16B.-o?
 東¹: 屋 wó? 讀 tō? 獨 dō? 祿 lō?
 東³: 宿 sō? 縮 só?
 冬: 毒 tō?
 江: 學 hō?
 Cant: C. tok- 'bottom, end' dō?
 17A.-o?
 唐^o: 糖 khōŋ 行 hòŋ 幫 pōŋ 當 tōŋ
 當 tōŋ 唐糖堂 tōŋ 湯 thōŋ
 燙 thōŋ 郎榔 lōŋ 倉 tshōŋ
 江: 江 kōŋ 講 kōŋ 降 kōŋ 雙 sōŋ
 巷 hōŋ
 陽^o: 裝 tsōŋ 牀 tsōŋ 狀 tsōŋ 霜 sōŋ
 爽 sōŋ
 陽^o: 框 khjōŋ
 登^o: 憎 dzōŋ
 Cant: C. noaŋ- 'seat of trousers' nōŋ
 C. loaŋ 'to rinse' hlōŋ; C. loaŋ 'to
 raise with stick' lōŋ; C. ŋoaŋ, 'to
 raise the head' ŋōŋ.
 17B.-o?
 唐^o: 各 kó? 惡 wó? 箔 pō? 托 thó?
 度 dō? 落 lō?
 江: 角 kó? 壳 khó? 學 hō? 電 pō?
 捉 tsó? 啄 dzó?
 Cant: C. poak- 'to join' pō?, C. soak-
 'to suck' sō?
 18.-a?
 登^o: 肯 khōŋ 燈 tōŋ 戥 tōŋ 凳 tōŋ
 籠 tōŋ 鄧 tōŋ 屠 dzōŋ
 陽^o: 帳 tōŋ 長 tōŋ 槍 tshōŋ 唱 tshōŋ
 相 fōŋ 相 fōŋ 洋 jōŋ
 唐^o: 廣 kwōŋ 廣 kjōŋ 光 gōŋ 黃 jōŋ
 旁 phōŋ
 之: 記 kōŋ 子 tsōŋ 字 dzōŋ

陽^o: 望 wōŋ
 唐^o: 葬 tsōŋ
 蒸^o: 甌 tsōŋ
 19A.-aa?
 陽^o: 鄉 hjōŋ 秧 jōŋ 楊陽 jōŋ
 娘 njōŋ 涼梁良量 làŋ
 浪亮 làŋ 章 tsōŋ 掌 tsōŋ
 象 tsōŋ 匠上尚 tsōŋ 槍 tshōŋ
 箱 fōŋ
 登^o: 簾 dàŋ 崩 bōŋ
 唐^o: 荒 hwōŋ 誑 hwōŋ
 蒸^o: 柴 tsōŋ
 佳^o: 柴 tsōŋ
 之: 基 kjōŋ
 Cant: C. loaŋ- 'to dry in wind' làŋ,
 C. jōŋ- 'to stuff' njōŋ
 19B.-aa?
 登^o: 德 tá? 北 pá? 葡 pá? 賊 tsō?
 蒸^o: 力 kjhá? 直 tsō?
 Cant: sak- 'distant descendant' fā?,
 C. khak- 'notch' khā?
 20.-uí
 灰: 灰 hūi 回 ùi 推 thūi 退 thūi
 堆 dūi 杯 pūi 背 pūi 陪 pūi
 背輩 pūi 配 phūi 媒 mùi 妹 mùi
 罪 tsūi
 脂^o: 水 sūi 帥 sūi
 支^o: 饒 wūi 吹 tshūi
 支^o: 寄 kjūi
 泰^o: 會 ūi
 微^o: 費 fūi
 祭^o: 歲 fūi
 21.-uai
 微^o: 歸 kūai 鬼 kūai 貴 kúai 圍 ùai
 飛 būai 沸 búai 味 múai 尾 mūai
 支^o: 跪 kúai 為 ùai 累 lúai 嘴 tsūai
 鍾 tsūai 睡 tsūai 隨 sūai
 脂^o: 癸季 kúai 位 ūai 淚 lúai
 雖 tsūai 衰 sūai 誰 sūai

灰: 雷 lui 妹 mùai
 祭^o: 脆 tshúai
 22.-oi
 哈: 改 kōi 開 khōi 海 khōi 開 gōi
 亥 hōi 愛 wōi 台 tōi 待代 tōi
 胎 thōi 耐 nōi 再 tsōi 財 tsōi
 在 tsōi 菜 tshōi 鯉 fōi
 灰: 雜對 tōi 隊 tōi 內 nōi
 泰^o: 蓋 kōi 害 hōi
 泰^o: 外 ŋōi
 齊^o: 齊 dzōi
 23.-oi
 之: 箕 kōi 醫 wōi 意 wōi 厘理 lōi
 里理 lōi 子 tsōi 麗 tsōi 時辭 tsōi
 已 tsōi 事 tsōi 思絲 fōi 試 sōi
 脂^o: 地 tōi 地 dōi 姊 tsōi 治 tsōi
 屍 sōi 死 fōi 四 fōi 比 pōi 二 ŋōi
 利 lōi
 支^o: 戲 hōi 易 hōi 椅 wōi 避 pōi
 離 lōi 紙 tsōi 匙 tsōi 是 tsōi
 賜 tshōi 兒 ŋōi
 齊^o: 踏 tōi 梯 thōi 刺替 thōi 砌 tshōi
 米 hmōi
 祭^o: 世 sōi
 微^o: 微 mài 未 mùai
 魚: 墟 hōi
 24.-ai
 齊^o: 鷄 kjāi 泥 nāi 米 māi 妻 tshāi
 西 fāi 細 fāi 犁 lài
 佳^o: 解 kjāi 捱 nāi 差叙 tshāi 矮 wōi
 排 bài
 脂^o: 利 lāi 眉 mài 遲 tsāi 師 sāi
 皆^o: 乖 kwāi 怪 kwāi 排 bài
 祭^o: 祭 tsāi
 25.-aai
 佳^o: 街 kjāi 牌 pāi 稗 pāi 買 māai
 賣 māai 晒 sāai
 泰^o: 蓋 gāai 艾 ŋjāi 帶 táai 大 tāai
 太 thāai 賴 lāai 賴 lāai

皆: 芥戒 kjái 懷 wài 壞 wái
 拌 pái
 夫^o: 敗 pái
 敵^c: 貴 kjái
 齊^o: 帝 tái
 Cant.: C. laai 'last, smallest' M. lái
 26A.-in
 先^o: 見 kín 烟 yin 燕 hín 現 hín
 邊 pin 辦 bin 麵 mín 顯 tìn
 填 tìn 電殿殿 tìn 天 chin 年 nín
 蓮 lín 前 tsin 千 tshín 先 fín
 仙^o: 乾 khin- 件 kín 筵 ln 鞭 pin
 便 pin 篇 phin 面 mín 煎 tsin
 箭 tsin 錢 tsin 賤 tsin 扇 sín
 仙 fín 線 fín
 元^c: 勸 kwín 寬 wín 怨 wín
 園 win 遠 win
 真^o: 因 yin 震 tsín 身 sìn 幸 fín
 殷: 近 kín
 侵: 稟 pín
 ? : 疴 yin
 Cant: pin- 'side' M. pín
 26B.-it
 仙^o: 熱 nít 滅 mít 折 tsít
 先^o: 結 kít
 元^o: 歇 hít
 真^o: 吉 kít
 27A.-ian
 真^o: 緊 kían 人 nian 忍 nian 因 yian
 印 yian 寅 yan 引 yan 麟 lien
 真 tsian 神 tsian 盡 tsian 親 tshian
 申 shian 信 sian 信 fian
 桓: 官 kian 寬 gian 觀 k(w)ian
 碗 nian 換 ian 搬 pian 半 pían
 盤 pian 伴 bian 滿 mian
 仙^o: 偏 phian 騙 phian 綿 mian
 元^c: 元 nian 反 bian
 先^o: 眠 mian 攤 lian
 仙^c: 選 sian

殷: 勤 kian
 Cant: C. nan- 'tough (meat)' M.
 nian; C. khan, 'gizzard' M. kien,
 C. man- 'close to the edge' M.
 mian; C. nan' 'to finger, twist',
 M. nian
 27B.-iat
 真^o: 一乙 yiat 實 tsiat 七 tshiat
 桓: 闊 giat 潑 phiat
 仙^o: 滅 miat
 28A.-en.
 山^o: 間 kēn 揀 kēn 間 gén 閒 hèn
 限 hēn 辦 bēn 鏟 tshēn 山 sēn
 冊^o: 斑 pēn 板 pēn
 先^o: 算 kēn 牽 khēn
 仙^o: 變 pénn 面 mēn 覆 dzēn
 痕: 狼 hēn 恩 yēn
 冊^c: 價 kwēn 豐 wēn
 先^c: 縣 gwēn
 元^c: 飯 pēn
 Cant. cin- 'to entangle' M. dzēn.
 28B.-et
 冊^o: 八 pétt 殺 sēt
 冊^c: 挖 wét
 蒸^o: 色 sét
 29.-et. No Chinese cognates.
 30A.-un.
 桓: 管 kün 罐 kün 冠 gūn 貫 gūn
 團 tūn 斷 tūn 端 tūn 緞 tūn
 團 dùn 暖 nūn 鬻 lūn 鑽 dzūn
 算 sūn
 魂: 温 yūn 嫩 nūn 嫩 lūn 盆 pūn
 村 tshūn 寸 tshún 孫 fūn
 文: 軍君 kjūn 裙 kujūn 雲 jūn
 仙^c: 緣 jūn 磚 tsūn 船傳 tsūn
 川 tshūn 門 sūn
 元^c: 願 njūn 元 jūn 萬 mūn
 諄: 淮 tsūn 旬 tsūn 春 tshūn
 庚^{3c}: 永 jūn

? : 褪 dún
 Cant: C. lyn 'to sew' Mlùn, C. eyn-
 'whorl' M. tsūn. C. jyn 'pill' M.
 jūn,
 Hak: pun- 'to give' M. pūn.
 30B.-ut.
 桓: 脫 thút 撮 tshút
 元^c: 月 njút 發 pút
 真^o: 日 njút
 仙^c: 絕 tsút
 諄: 戍 fút
 鍾: 玉 njút
 Cant: tat- 'plump' M. tút; C. lat-
 'to come off' M. hlút.
 31A.-uən.
 魂: 坤 khūən 關 khúən 昏 hūən
 穩 wūən 魂 uən 本 pūən 噴 phūən
 門 mùən
 文: 文 wuən 運 úən 分 pūən 羹 pūən
 份 pūən 粉 būən 閏 mūən
 仙^c: 拳 kujūən 轉 dzūən 全 tshūən
 諄: 輪 lūən 春 tshūən 順 sūən
 元^c: 源 njūən 元 jūən 晚 mūən
 冊^c: 關 kūən
 ? : 瘟 wūən
 Cant: C. wan- 'to enclose' M. wūən
 Hak: H. tsun 'ditch' M. tsúən
 31B.-uət.
 文: 屈 giuət 拂 phúət 物 mūt
 魂: 骨 kúət 窟 khúət
 元^c: 蕨 kjúət
 諄: 出 tshúət
 Hak: H. vut- 'to twist' M. wúət.
 Cant. kwat- 'blunt' M. kjúət.
 32A.-on.
 魂: 墩 tōn 頓 tōn 頓 tōn
 真: 普 tsón
 32B.-ot.
 Cant: cat- 'to plug' M. tsót.

33A.-ən.
 寒: 寒 hən 罽 hən 安鞍 ʔən 案 ʔən
 冊^c: 撰 tsōn 悶 sōn
 痕: 根 kōn
 33B.-ət.
 山^c: 刷 sót
 34.-ən.
 庚²⁰: 羹 kān 生筮 sōn
 痕^o: 吞 thən
 魂: 悶 mən
 35A.-an.
 真: 進 tsán 陣 tsán
 痕: 跟 kān 根 hən
 文: 群 kwən
 冊^o: 慢 mən
 寒: 汗 hən
 Cant: C. nan, 'seed' nən.
 35B.-at.
 山^o: 轄 hát 賴 tshát
 真^o: 筆 pát
 元^c: 襪 mət
 登^o: 墨 mət
 Cant: pat- 'elephant's trunk' M. pát
 36A.-aan.
 寒: 竿 kān 趕 kān 看 khān
 岸 nān 旱 hān 軒 gjān 單 tān
 彈 tān 攤 thān 炭 cháan
 難 nān 難 nān 攔 lān
 殘 tsān 傘 fān 散 dzān
 冊^o: 菅 gān 晏 yān 班 pān 蠻 mān
 真: 銀 njān 民 mājān 辰 tsān
 殷: 斤筋 kjān
 山^o: 間 kān 蓋 tsān
 冊^o: 環 wān
 元^c: 擔 fān 煩 fān 萬 wān 萬 mān
 仙^o: 賤 tsān
 桓: 寬 kwān
 談: 三 sān
 Cant: maan' 'to pull' M. mian; C.

naan- 'insect-bite, scar' M. nán
36B.--aat.
寒: 割 kiát 渴 giát 擦 dzíat 撒 fíat
元: 發髮 fíat 罰 pát
凡: 法 fíat
Cant: ȝaat_ 'to bite' M. ȝíat C.
naat- 'to burn' náat; C. phou,
taat- 'bitter melon' M. pa-táat.
37. -iu.
宵: 橋 kiu 蟠 kiu 獠 ȝiu- 表 piú
表 biú 苗 miú 廟 tsíu 招朝蕉
椒 tsíu 照醮 tsíu 朝 tsíu 鐵 tshiu
燒 siú 消硝 fiú 小 fiú
滿: 曉 hǐu 彫 tiú 鈞 tíu 條 tiú 調 tiú
挑 thiu 吊 díu 寮 liú 了 liú
料 liú
尤: 酒 tiú
了: 跳 thiu
Cant: C. ciu_ 'to chew' M. tsíu,
Cant. khiu_ 'to curl up' M. giú
Min. Amoy jiau_ 'claw' M. ȝiu
38.-iau.
尤: 九 kiǎu 求球 kiǎu 舊 kiǎu
救 giǎu 柔 ȝiǎu 憂 ȝiǎu 休 hiǎu
油游 iǎu 酉友 iǎu 又 iǎu 浮 biǎu
扭 niǎu 留劉榴流 liǎu 柳 liǎu
迥 tsǎu 州 tsǎu 呪 tsǎu 就 tsǎu
鯨 tshǎu 醜 tshǎu 網仇 tshǎu
収 siǎu 守 siǎu 受 siǎu 修 fiǎu
秀 fiǎu
魚: 距 kiǎu 去 khǎu 鋸 giǎu 魚 ȝiǎu
女語 ȝiǎu.
虞: 句 kiǎu 主 tsǎu
宵: 橋 kiau
39.-eu.
肴: 包 pēu 飽 pēu 砲 phéu 拋 bēu
豹爆 béu 抄 tshēu 吵 tshēu
巢 dzèu
宵: 漂 phēu 趙 tsēu

Cant: C. phaau 'goitre' M. pèu.
40.-au.
模: 姑 kǎu 古牯 kǎu 雇顧 kǎu
枯 khǎu 苦 khǎu 褲 háu 壺 hòu
獲 hǎu 烏 ȝǎu 步 pǎu 鋪 phǎu
鋪 phǎu 圖 tǎu 度 tǎu 兎 thǎu
土 thǎu 賭 dǎu 奴 nǎu 怒 nǎu
爐蘆 lǎu 路 lǎu 祖 tsǎu 粗 tshǎu
侯: 口 khǎu 後 hǎu 母姆某 mǎu
透 thǎu
虞: 夫 pǎu 斧 pǎu 扶符 pǎu 腐 pǎu
副 phǎu 無 mǎu 務霧 mǎu 夫 fǎu
府 fǎu 珠 tsǎu 厨 tsǎu 樹 tsǎu
住數 sǎu
魚: 責 tsǎu 餘 tsǎu 箸 tsǎu 處 tshǎu
書 sǎu
尤: 富 fǎu 浮 fǎu 搜 sǎu
?: 箍 khǎu 步 pǎu 做 tsǎu
Cant: wu_ 'taro' M. hǎu (芋)
41.-au
侯: 狗 kǎu 够 kǎu 扣 khǎu 斗 tǎu
鬥 tǎu 頭 tǎu
豪: 考 khǎu 靠 khǎu 到 thǎu
操 tshǎu
尤: 抽 tshǎu 愁 dzǎu
Cant: ȝǎu 'hook' M. ȝǎu (鈎)
C. thǎu 'to sigh' M. thǎu; C. lau_ 'betel leaf' M. kja-lǎu
Min. Amoy jiau_ 'wrinkled' M. ȝǎu.
42.-au
肴: 交 kjǎu 玟 kjǎu 孝 kjhǎu
教 gjǎu 孝 hjǎu 卯 māu
鬧 nǎu 罩 tsǎu 炒 tshǎu
拗 ȝǎu
豪: 藁 gǎu 蒿 hǎu 豪 hǎu 倒 táu
套 thǎu
侯: 頭 tǎu 樓 làu
尤: 丑 tshǎu 數 sǎu
宵: 蒿 kjhǎu

Cant: C. saau- 'pigswill' M. sjǎu.
43A.-im
鹽: 筭 gim 鬧 ȝim 籤 tshim 閃 sim
鍊 lim
侵: 壬 ȝim 心 fim
添: 點 tim 添 thim
凡: 劍 kim
先: 鍊 lim
Cant.: C. jim_ 'scab' M. ȝim.
43B.-ip.
鹽: 葉 ip 攝 nip 接 tsip 摺 dzip
添: 挾 gip 牒 tip 帖 thip
先: 節 tsip
仙^o: 孽 nip
Cant: jip 'to salt' M. ȝip
44A.-iam
侵: 今金 kiǎm 任 ȝiǎm 陰 ȝiǎm
林淋臨 liǎm 浸 tsǎm 尋 tsǎm
深 siǎm 審 siǎm 沉 siǎm 心 fiǎm
添: 點 tiǎm
凡: 欠 khǎm
真: 辛 fiǎm
44B.-iap
侵: 立 liǎp 執 tsǎp 十 tsǎp
45A.-em.
添: 嫌 gǎm 僭 dzǎm
咸: 喊 hǎm
侵: 沉 tsǎm
仙^o: 連 lǎm
45B.-ep.
咸: 筭 tsǎp 插 tshǎp
銜: 狹 hǎp
46.-uam. No Chinese cognates.
47A.-om
覃: 坎 khǎm 潭 tǎm
侵: 枕 dzǎm 枕 dzǎm
鹽: 染 ȝǎm
47B.-op
覃: 鴿 kǎp 鑄 thǎp
侵: 謬 sǎp
48A.-om
覃: 含 gǎm 陪 ȝǎm
侵: 霖 sǎm
48B.-op.
覃: 合 hǎp 納 nǎp 拉 lǎp 雜 tsǎp
49A.-am
侵: 凜 lǎm 謁 tsǎm 尋 tsǎm
Cant: C. nam_ 'to think' M. hnǎm,
C. tam_ 'to stamp the foot' M.
dǎm.
49B.-ap
覃: 合 kǎp 合 gǎp
侵: 笠 lǎp
咸: 夾 giǎp
Cant: C. laap-saap- 'garbage' M.
lap-lǎp.
50A.-aam.
談: 甘柑 kǎam 敢 kǎam 藍 gjǎam
藍 liǎm 襪 láam 胆 tǎam 担 dǎam
担 dǎam 三 fǎam
覃: 男南 nǎam 覃 tsǎam
覃: 岩 ȝǎam 滙 páam 衫 sjǎam
凡: 凡 pǎam 犯 pǎam
?: 站 tsǎam
Cant: C. laam- 'to step over' M.
láam; C. naam- 'span' M. náam
50B.-aap.
談: 塔 tǎap 蠟 láap
銜: 甲 kjǎp 鴨壓 ȝǎp
覃: 答 táap 踏 tǎap
Cant: C. taap- 'a pile, to pile' M.
tǎap; C. jaap- 'to wave' M. jáap.
51.-m.
模: 五午 hǎm

Index to Guangyun Rimes

歌 a: 2. ia (1), 8. ɔ (11), 9. aa (1).
 戈 wa: 2. ia (4), 6. ua (4), 8. ɔ (11).
 麻^o a: 2. ia (1), 9. aa (28).
 麻^{2c} wa: 9. aa (7).
 麻³ ja: 2. ia (20), 9. aa (1).
 戈 ja: 2. ia (1).
 模 o: 2. ia (2), 5. u (1), 40. əu (26).
 魚 jo: 1. i (1), 8. ɔ (3), 9. aa (1), 23. əi (1), 38. iəu (6), 40. əu (5).
 虞 jwo: 5. u (1), 7. o (1), 38. iəu (2), 40. əu (16).
 泰^o ai: 22. əi (2), 25. aai (8).
 泰^c wai: 2. ia (1), 20. ui (1), 22. əi (1).
 咍 ai: 22. əi (17).
 灰 wai: 20. ui (14), 21. uəi (2), 22. əi (4).
 佳^o əi: 3. e (1), 9. aa (1), 19. aŋ (1), 24. ai (6), 25. aai (6).
 佳^c wəi: 9. aa (2).
 皆^o ei: 25. aai (3).
 皆^c wəi: 24. ai (3), 25. aai (2).
 央^o ai: 25. aai (1).
 夬^c wai: 9. aa (1).
 祭^o jəi: 23. əi (1), 24. ai (1).
 祭^c jwəi: 20. ui (1), 21. uəi (1).
 廢 jəi: no Mien examples.
 齊^o iei: 2. ia (2), 3. e (1), 22. əi (1), 23. əi (5), 24. ai (7), 25. aai (1).
 齊^c iwəi: no Mien examples.
 支^o je: 1. i (1), 2. ia (1), 3. e (1), 20. ui (1), 23. əi (10).
 支^c jwe: 20. ui (2), 21. uəi (7).

脂^o jei: 3. e (1), 5. u (2), 7. o (1), 23. əi (10), 24. ai (4).
 脂^c jiwe: 20. ui (2), 21. uəi (7).
 之 ji: 1. i (6), 3. e (3), 11. iaŋ (1), 18. aŋ (3), 19. aaŋ (1), 23. əi (17).
 微^o jəi: 1. i (1), 2. ia (1).
 微^c jwəi: 20. ui (1), 21. uəi (8), 23. əi (2), 25. aai (1).
 豪 au: 5. u (4), 6. ua (2), 7. o (18), 41. au (4), 42. aau (5).
 肴 au: 39. eu (9), 42. aau (10).
 宵 jəu: 37. iu (19), 38. iəu (1), 39. eu (2), 42. aau (1).
 蕭 ieu: 37. iu (10).
 幽 jəu: No Mien examples.
 尤 ju: 15. uaŋ (1), 16. oŋ (1), 37. iu (1), 38. iəu (33), 40. əu (3), 41. au (2).
 侯 u: 5. u (3), 6. ua (1), 7. o (3), 15. uaŋ (1), 40. əu (6), 41. au (6), 42. aau (2).
 談 am/p: 36. aan (1), 50. aam/p (13).
 覃 am/p: 47. om/p (4), 48. ɔm/p (6), 49. ap (2), 50. aam/p (5).
 銜 am/p: 45. ep (1), 50. aam/p (6).
 咸 em/p: 45. em/p (3), 49. ap (1).
 鹽 jəm/p: 43. im/p (9), 47. om (1).
 嚴 jəm/p: No Mien examples.
 凡 jwem/p: 36. aat (1), 43. im (1), 44. iəm (1), 50. aam (2).
 添 im/p: 43. im/p (5), 44. iəm (1), 45. m (2).
 侵 jem/p: 1. i (1), 26. in (1), 43. im

(2), 44. iəm/p (16), 45. em (1), 47. om/p (2), 48. ɔm (1), 49. am/p (4).
 寒 an/t: 33. ɔn (5), 35. an (1), 36. aan/t (22).
 桓 wan/t: 27. inə/t (12), 30. un/t (17), 36. aan (1).
 刪^o an/t: 9. aa (1), 28. en/t (5), 35. an (1), 36. aan (4).
 刪^c wan/t: 28. en/t (3), 31. uən (1), 33. ɔn (2), 36. aan (1).
 山^o ən/t: 28. en (8), 35. at (2), 36. aan (2).
 山^c wən/t: 33. ɔt (1).
 仙^o jən/t: 26. in/t (17), 27. iən/t (4), 28. en (3), 36. aan (1), 43. ip (1), 45. em (1).
 仙^c jwən/t: 27. iən (1), 30. un/t (7), 31. uən (3).
 元^o jen/t: 26. it (1), 35. at (1).
 元^c jwen/t: 26. in (5), 27. iən (2), 28. en (1), 30. un/t (5), 31. uən/t (4), 36. aan/t (7).
 先^o ien/t: 2. ia (1), 26. in/t (19), 27. iən (2), 28. en (2), 43. im/p (2).
 先^c iwən/t: 28. en (1).
 痕 ən/t: 28. ən (2), 33. ɔn (1), 34. ən (1), 35. an (2).
 魂 wən/t: 30. un (7), 31. uən/t (10), 32. on (3), 34. ɔn (1).
 臻 ən/t: No Mien examples.
 真 jen/t: 26. in/t (5), 27. iən/t (20), 32. on (1), 30. ut (1), 35. an/t (3), 36. aan (3), 44. iəm (1), 1. i (1).
 諄 jwen/t 30. un/t (4), 31. uən/t (4).
 殷 jən/t: 26. in (1), 27. iən (1), 36. aan (2).
 文 jwən/t: 30. un (4), 31. uən/t (10), 35. an (1).

唐^o aŋ/k: 11. iaŋ (1), 14. uŋ (1), 18. aŋ (1), 19. aaŋ (2), 17. ɔŋ/? (20).
 唐^c wan/k: 18. aŋ (5).
 陽^o jaŋ/k: 8. ɔ (2), 11. iaŋ (4), 14. uŋ/? (13), 15. uaŋ (2), 17. ɔŋ (5), kəaŋ (7), 19. aaŋ (21).
 陽^c jwan/k: 14. uŋ (6), 17. ɔŋ (1), 18. aŋ (1).
 庚²⁰ eŋ/k: 13. eŋ/? (20), 34. ən (3).
 庚^{2c} wen/k: 13. eŋ (2).
 耕^o æŋ/k: 13. eŋ/? (7).
 耕^c wæŋ/k: 13. eŋ (1).
 庚³⁰ jəŋ/k: 10. iŋ (3), 12. eŋ (3), 13. eŋ (8), 14. uŋ (1).
 庚^{3c} jwəŋ/k: 30. un (1).
 清^o jən/k: 10. iŋ/? (16), 11. iaŋ (2), 12. eŋ/? (4), 13. eŋ (2).
 清^c jwəŋ/k: 10. iŋ (2).
 青^o ien/k: 10. iŋ/? (23), 11. iaŋ (1), 12. eŋ/? (4), 13. eŋ (1).
 青^c iwən/k: no Mien examples.
 登^o əŋ/k: 12. eŋ (1), 14. uŋ (1), 17. ɔŋ (1), 18. aŋ (7), 19. aaŋ/? (6), 35. at (1).
 登^c wəŋ/k: 15. uaŋ (1).
 蒸^o jəŋ/k: 11. iaŋ/? (5), 12. eŋ/ (7), 14. uŋ (1), 15. uaŋ (1), 18. aŋ (1), 19. aaŋ/? (3), 28. et (1).
 蒸^c jwan/k: no Mien examples.
 東¹ ɔŋ/k: 5. u (2), 14. uŋ/? (5), 15. uaŋ/? (2), 16. oŋ/? (22).
 冬 oŋ/k: 16. oŋ/? (5).
 東³ juŋ/k: 5. u (1), 14. uŋ (1), 15. uaŋ/? (15), 16. oŋ/? (4).
 鍾 joŋ/k: 14. uŋ (1), 15. uaŋ/(17), 16. oŋ (8), 30. ut (1).
 江 ɔŋ/k: 14. uŋ/? (2), 16. oŋ/ (2), 17. ɔŋ/? (11).