# Sinitic LoAnwords in Two Hmong DiALECTS OF SOUTHEAST ASIA 

by

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# Sinitic Loanwords in Two Hmong Dialects of Southeast Asia ${ }^{1}$ 

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Hmong Daw and Mong Leng are dialects of Western Hmong spoken China in Southeast Asia （Vietnam，Laos，and Thailand）．These dialects are often referred to as White Hmong and Green Hmong respectively，but in this study I have chosen to use untranslated self－designations instead． In the older literature，and in modern Chinese scholarship，the Hmong are typically referred to by the Chinese term 苗 Miǎo．The same sources typically refer to the family to which Hmong belongs （Hmong－Mien）as 苗瑤 Miǎo－Yáo．However，since the terms Miǎo and Yáo are offensive to the Hmong and Mien of Southeast Asia，most scholars now use the self－designations．

The speakers of Western Hmong，like the speakers of other Hmong－Mien languages，have spent most of their recorded history in the geographical region that is now China．This history is reflected in certain aspects of the Hmong languages．Though the Hmong languages are not as heavily sinicized as Mien，they do show unmistakable signs of Sinitic（Chinese）influence in their lexicon and are similar to the Sinitic languages in certain areas of their syntax，morphology， and phonology．These similarities do not seem to be the result of a genetic relationship．Rather， they seem to have been caused by extended contact between the speakers of the languages．The purpose of this paper is to examine the lexical component of this relationship－specifically，the Sinitic loanwords which may be identified in the Western Hmong dialects Hmong Daw and Mong

[^0]Leng as they are spoken in Laos and Thailand-as a step towards better understanding the linguistic and social history of the Hmong.

## 1 Review of Literature

The notion that Hmong contains a large body of loans from Sinitic languages is uncontroversial. Most scholars concede, further, that these loans exist in two or more strata, the earliest being prehistoric and the most recent being almost contemporary. To date, however, little research has been dedicated to identifying and categorizing these loans on a large scale. Enough data and secondary research are now available to make this feasible.

In 1953, Kun Chang was able to remark credibly that "it is difficult to say anything definite about the Chinese loanwords in the Miao-Yao [Hmong-Mien] languages" (375). At that time, this statement was basically true. Little was known about the history of social interaction between Hmong-Mien and Chinese peoples and the lexicographic data for Hmong-Mien languages were inadequate. However, the situation soon began to change.

By the late 1950s, Chinese linguists had begun extensive studies of the Hmong dialects of China. Out of this research came two important articles on Sinitic loans in Hmong-Mien, which were later translated into English and published in Purnell (1972). The first, Ying (1972), treats Chinese loans in several dialects of Hmong spoken in China (but none of those spoken in Southeast Asia). Ying demonstrated that the loans could be divided into a very modern stratum-most of which was borrowed in the twentieth century-and a much older stratum, which appeared to consist of at least two substrata. Ying demonstrated, through a very detailed treatment of their phonology, that the recent loans were for the most part borrowed independently and came from local dialects of Mandarin. This recent stratum of Mandarin loans is not shared by the Hmong dialects of Southeast Asia. His treatment of the older set, though less detailed, convincingly demonstrated certain important correspondences between the Qièyùn language and the tones, onsets, and rhymes of older Sinitic loans in Hmong ${ }^{2}$. In second article, Miao language team (1972), the authors

[^1]provide some similar, although less precise, information on Chinese loans in Mien (Yao).
Meanwhile, scholars from the West began to collect lexicographical data from the HmongMien languages spoken in Southeast Asia. Heimbach's (1969) excellent dictionary describes the vocabulary of Hmong Daw (White Hmong or White Meo) as it is spoken in Thailand. He also makes a point of identifying loans from Chinese, and does so with a great degree of accuracy, making this work a very useful tool for the study of recent Sinitic loans in Hmong Daw. However, his primary aims are lexicographical rather than etymological. He makes no attempt to divide the loans into different strata or to provide criteria by which Chinese loans may be recognized.

Lyman's (1974) dictionary of Mong Leng (Hmong Njua) —based upon his field work in Thailandis a useful complement to Heimbach's dictionary. In addition to providing basic lexicographic information, he presents special information about loanwords, noting specific words as likely loans from Chinese and giving the cognate form in a Southwest Mandarin dialect. In his introduction, he proposes that the Sinitic loans in Mong Leng are borrowed from the specific variety of Southwest Mandarin he calls (following Thai terminology) hôo (Lyman 1974:40-41). However, since there were no scholarly publications on hôว or Yunnanese (the variety of Southwest Mandarin spoken in Yunnan province) at the time Lyman was writing, he could not provide any example forms from these dialects. Unfortunately, Lyman did not address the issue of loans from the Middle or Old Chinese periods that had been raised by (Ying 1972).

This subject did receive further treatment, however, in Downer (1973). The aim of this article was to delineate the several strata of Chinese loanwords in Iu Mien. While Downer concentrated mainly upon Sinitic loans in Mien, he also addressed the presence of Sinitic loans in Hmong, particularly those loans which are present in both Hmong and Mien and were probably borrowed during the common-Hmong-Mien period. He asserted, contrary to the claims of this paper, that Chinese loans in Hmong, "(apart from a small number of very old loans that must be ascribed

[^2]to Proto-Miao-Yao) appear to be of fairly recent origin, as they exhibit all the characteristics of modern southwest Mandarin dialects" (1).

Ballard (1986) seemed less convinced that Sinitic vocabulary shared by both Hmong and Mien were of common origin. Specifically, he argued that there was a special relationship between the Wu and Old Xiang (Chu) dialects of Chinese and Hmong. This relationship, he suggested, is manifest both in the presence of loans from Wu or Xiang in Hmong and the presence of Hmong-like phonological features in Wu. He integrated this linguistic evidence with historical and archaeological evidence to support the argument that the early Hmong inhabited the Yangzi river valley and formed the substrate population from which the modern "Chinese" population of this area is derived.

Paul K. Benedict has made similar connections between the early Sino-Tibetan loans in HmongMien and the history of Hmong in central China. In Benedict (1987) (the only of his papers concerning this subject that is available in published form) he deals primarily with Tibeto-Burman loans in Hmong-Mien. However, he also devotes considerable attention to the early Sinitic stratum. Benedict contrasts the patterns of borrowing for Tibeto-Burman and Sinitic, and argues that the these differences are best accounted for by assymetries in the social, political, and economic relationships between these three groups. The early Hmong-Mien people, he contends, were "submerged" beneath a elite superstratum of Sinitic speakers (much as in Ballard's model), but participated in trade and social intercourse with a Tibeto-Burman people on a more or less equal footing (20). This model, he asserts, is consistent both with the linguistic evidence and with Pulleyblank's (1983) conjecture that the ancient state of Chu was of Hmong origin (20).

The idea that Hmong-Mien peoples and languages may have played a more important part in the history of East Asia than their current marginalized status would suggest also features in the most recent argument about the Hmong-Mien loan relationship. This conflict was ignited when Haudricourt \& Strecker (1991) proposed that certain elements in the Chinese lexicon relating to commerce and agriculture were borrowed from Hmong-Mien, contradicting earlier assumptions that they must have been Sinitic loans in Hmong. Haudricourt \& Strecker identified the Hmong-

Mien people with the late neolithic inhabitants of the Huáng Hé（Yellow River）valley and claimed that the Hmong－Mien first became subject to the Chinese when the latter invaded northern China from the steppes．

In his powerful rebuttal of their position，Sagart（1995）demonstrated that some of the vocab－ ulary Haudricourt and Strecker claimed was borrowed by Chinese from Hmong－Mien（especially the word 賣 $m a i^{C}$＇to sell＇）actually had to have been produced by morphological processes within Chinese．Presenting persuasive evidence that Haudricourt and Strecker＇s other examples were na－ tive Sinitic vocabulary，Sagart argued that the bulk of the vocabulary shared by the two languages was borrowed by Hmong－Mien．The specificity of the debate between Sagart（1995）and Haudri－ court \＆Strecker（1991）illustrate that the study of Sinitic loans in Hmong－Mien languages has advanced considerably since Kun Chang＇s 1953 lament．

As should be evident from this brief review of scholarship on the topic，the foundation is now in place for a more detailed and exhaustive analysis of the Sinitic vocabulary of Hmong Daw and Mong Leng．Extensive collections of lexicographical material are available for both of the major Hmong dialects of Southeast Asia．Considerable research on the social history of Hmong－ Chinese contact has also been completed．While all of the evidence now exists to begin a systematic exposition of the phonological correspondences for each stratum of Chinese loans in the Southeast Asia dilects of Hmong，no such survey seems to have been completed prior to the current paper．

## 2 Historical Background

The early history of the ancestors of the Hmong lies shrouded in obscurity．As such，a history of contact between Hmong speakers and speakers of Chinese is difficult to reconstruct．When recon－ structions are made，they are likely to be controversial．The only texts recording this interaction （up until there was an established European presence in China）were written by Han Chinese au－ thors．They often blur the distinctions between the various groups of＂Southern Barbarians＂and use such terms as 蠻 Mán and 苗 Miăo to refer to a wide range of non－Han ethnic groups．Hmong
oral histories may ultimately provide a much needed corrective, but most scholars have not taken them seriously (see, for example Eberhard 1982:82). As a result, they have not yet received the systematic analysis that they deserve.

This ambiguity regarding early Hmong history is reflected in the debate about Hmong origins and the geographical point of first contact between Hmong-Mien and Chinese peoples. A few scholars believe that Hmong-Mien peoples were early inhabitants of the Huáng Hé (Yellow River) valley, perhaps predating the Chinese in this area. This view was expressed by Haudricourt \& Strecker (1991), who assert that the early Hmong-Mien peoples were sedentary agriculturalists who were invaded and dominated by Sinitic speaking pastoralists from the steps (the early Chinese). Other scholars have suggested that the Sān Miǎo of the early Chinese annals were ancestors of modern Hmong-Mien people (Geddes 1976). If these accounts are correct, the forebears of the Hmong must have first encountered Sinitic speakers in northern China at the very dawn of Chinese history.

It seems more likely, however, that Hmong-Mien Urheimat lies in the Yangzi (Cháng Jiāng) river valley of South-Central China and that the ancestors of the Hmong first encountered their Sinitic speaking neighbors as an established, sedentary civilization with whom they exchanged various commodities and technologies (Sagart 1995). Very early Chinese loans into Hmong include words for metals ('iron' and 'gold'), agricultural terms (such as 'plow' and 'field') and names for various domestic animals and crops. It seems, then, that the early Chinese must have been technologically sophisticated enough to have had a significant influence on the material culture of the Hmong-Mien people. Based upon linguistic and genetic evidence, there is strong reason to believe that Chinese culture developed in situ from the prehistoric millet growing cultures of the Huáng Hé valley (Sagart 1995). The ancestors of the Hmong and Mien people, likewise, seem to have formed part of the rice growing culture of the Yangzi (along with speakers Austroasiatic and possibly Daic languages). Out of this southern culture, during the "Spring and Autumn Period" of Chinese history, there grew at least three large, organized political entities: Yue, Chu, and Wu. All three of these states were originally non-Chinese, but eventually succumbed to Chi-
nese influence in language and culture. Ultimately, all were absorbed by the growing Chinese nation. Different scholars have suggested that any or all of these states may have been home to various Hmong-Mien groups. It is doubtful, however, that any of them was wholly (or even predominantly) Hmong speaking. The population of Yue probably contained a substantial number of Mien speakers (along with speakers of Daic and Austroasiatic languages) (Ballard 1986). Wu may have been populated by members of both Hmong and Mien groups, though the evidence is weak. There is, however, a substantial body of evidence that Hmong were an important population in the Kingdom of Chu.

The ethnic and linguistic makeup of Chu is uncertain. Pulleyblank (1983:427) suggests that the Chu civilization was primarily Hmong-Mien, but Norman \& Mei (1976) give compelling evidence that the dominant language of the region may have actually been Austroasiatic. Whatever language the ruling class may have spoken, Hmong-Mien speakers were almost certainly part of the Chu population. Some Hmong even cite oral histories claiming that the independent Hmong state established by their ancestors was invaded and incorporated into Chu (Eberhard 1982:82). If the ancestors of the Hmong lived along the middle course of the Yangzi, at least some of them must have dwelt in this kingdom.

Though the ruling class in Chu was of non-Chinese origin, it ultimately adopted Chinese language and culture:

The civilization of Ch'u, which later made its own distinctive contribution to the syncretic Chinese civilization of Ch'in and Han, arose during the first millennium B.C. in the middle Yangtze region in the midst of the Man tribes. Though Ch'u became Chinese in language and eventually took its place among the contending Chinese states, there is abundant evidence that originally it was considered and considered itself to be of Man origin. Possibly it was founded as a state from the north, as some traditions have it, or it may have been a spontaneous local reaction to expanding Chinese pressure. In either case, the formation of a state and the acquisition of literacy mean adopting the Chinese written language and eventually the spoken language also. This
in turn meant the Ch'u dropped its Man identity and began to treat the unsinicized Man around it as "barbarians"-the same process that separated the Chou people from the Jung. (Pulleyblank 1983:427)

Literacy in Chinese brought Chinese language and culture to the Chu aristocracy. The sinicized aristocracy brought Chinese language and attitudes to their unsinicized subjects, including the ancestors of the Hmong. It was probably during this process of sinicization that many of the ancient loans cataloged in this paper entered the Hmong lexicon. A massive influx of loans may also have laid the phonological groundwork for the common tone system present in both Sinitic languages and Hmong-Mien languages, not to mention Daic languages and Vietnamese (Benedict 1987:12). As a subject people ruled by a (culturally) Chinese elite, the Hmong naturally adopted a wide range of Sinitic words. These, in turn, seem to have effected a profound restructuring in some areas of Hmong-Mien phonology.

Under these conditions, and under similar conditions subsequent to China's political assimilation of Wu and the the rest of the Yangzi region, many of the Hmong-indeed, many members of the other non-Han ethnic groups in the area-seem to have been assimilated. They became culturally Chinese just as their overlords had earlier. Those who were unwilling to accept Chinese domination fled to the periphery of Han influence in order to preserve some semblance of autonomy. This meant moving to remote and mountainous regions where Chinese control was weak-environments that have since become the preferred habitat of the Hmong and Mien (Jenks 1994:32). However, this does not seem to have stopped the influx of Sinitic lexical material in Hmong.

Chinese settlement continued to spread away from the river valleys that formed the arteries of Chinese civilization, meaning that the Hmong were under still under continual cultural, political, and economic pressure from their Sinitic-speaking neighbors even after leaving their former lowland home. The Yangzi river valley ceased to be the frontier of China and was transformed into its politically dominant heartland instead. Even as the Hmong moved steadily south and west, they
still seem to have remained within the Chinese shadow up through the late Tang dynasty ${ }^{3}$ —at least a millennium and a half after their first contact with the Chinese. That the Hmong remained within the pall of Chinese political and economic influence is indicated by the existence of several loans relating to government and political economy, such as 'tax' and 'emperor', dating from this period.

However, the advance guard of the Hmong migration, from whom the Mong Leng and Hmong Daw are descended, seem to have left the sphere of Chinese influence sometime after the Tang dynasty. They fled southward to the Guìzhōu region, which was then beyond China's control. Not surprisingly, there seems to have been a hiatus in borrowing from Sinitic languages at this point, explaining the exceptionally distinct phonological boundary that exists in Hmong between modern Chinese loans and loans from the pre-modern period. These Hmong would not come into regular contact with Chinese speakers again until after the Mongol-lead Chinese invasion of Guìzhōu and Yùnnán in the thirteenth century.

By this time, Sinitic languages had evolved considerably, and the dominant tongue of China was the northern dialect known in English as Mandarin. This was the language of the officials and settlers that came to Southwest China in increasing numbers during the subsequent centuries. Almost all of the Sinitic loans from this time on were from dialects of Mandarin. The renewal of contact between the Hmong and the Chinese resulted in a new and massive influx of Sinitic vocabulary into the Hmong languages. Under Chinese influence, the Hmong adopted the Mandarin forms of Chinese surnames (Eberhard 1982:84). Numerous terms, particularly those relating to economics, clothing, firearms, government, and jurisprudence, were adopted by Hmong, probably along with the accompanying concepts. The mid sixteenth century also saw the introduction of certain New World crops to China, some of which became very important to the Hmong economy. The words for 'maize', and later 'potato' and 'peanut', were all borrowed by Hmong from Mandarin.

But while Hmong did receive some benefits from their contact with the Chinese, the encroachment of Chinese settlers on Hmong lands soon lead to extensive conflict. As (Jenks 1994:6) com-

[^3]ments,

For the most part, the Miao did not come into regular contact with the Chinese until the mideighteenth century. From that point on, the Han encroached steadily on Miao lands, and the Miao responded with frequent rebellions.

These rebellions have been viewed as expressions of ethnic hostility. However, as the continued willingness on the part of Hmong to adopt aspects of Chinese culture and language demonstrates, the minority peoples of Guizhou were not opposed to Chinese culture per se, but to the alienation of their lands allowed by corrupt Chinese officials (Jenks 1994:48). The Hmong rebellions-in which various other minority elements, and even Han Chinese, seem to have participated (Jenks 1994:4)—were crushed brutally. The largest of these occurred in 1734-1736 and 1795-1806 (Eberhard 1982:146). The bulk of the Hmong in Vietnam, Laos, and Thailand (including the Mong Leng and Hmong Daw of Southeast Asia) are the descendants of refugees from these harsh defeats.

The Hmong and other minority ethnic groups of the Golden Triangle continued to use a variety of Southwest Mandarin as a lingua franca well into living memory. The some of the current author's Hmong informants (from Laos) report that they had frequent commercial contacts with traveling Chinese merchants, with whom some of the older Hmong men could converse in a form of Yunnanese. Given these conditions, the most recent Sinitic loans in Mong Leng and Hmong Daw may have been borrowed in Southeast Asia rather than China.

The Hmong and their linguistic forebears have been borrowing lexical material from the Chinese for at least two and a half millennia and under a variety of different situations. Just as the social and economic history of Hmong contact with the Chinese is reflected in these loans, some of the linguistic history of Hmongic and Sinitic languages is reflected in their phonology. As would be expected, the loans fall into a number of different strata (that is, different layers corresponding to a particular point of contact) displaying different phonological characteristics.

## 3 Loan Strata and Phonological Patterns

When researching loanwords in languages with extensive literary histories, it is often possible to determine the approximate time and source of loans by observing the date and context of their first use in written texts. Such techniques can also be used as an aid for distinguishing native vocabulary from borrowed vocabulary. In languages like Hmong, for which almost no written record exists prior to the twentieth century, other methods are needed to recognize loans and establish the time of borrowing. Examining phonological correspondences between loan forms and source forms, though important in any study of loanwords, is doubly important to the study of loanwords in languages for which no early written records exist. These patterns provide most of the clues that can be used to distinguish loan relationships from coincidental similarities. Furthermore, disjunctions in otherwise regular patterns allow researchers to distinguish multiple strata of loans.

Based on phonological criteria, the Sinitic loans that I identified in my data can be divided into at least three distinct strata. The most recent stratum is clearly Mandarin in origin and may be subdivided, with some ambiguity, into an older set, which is similar in some respects to Old Mandarin (the language of the Zhōngyuán Yīyùn, written in the early fourteenth century), and a newer set which clearly comes from a relatively modern variety of Southwest Mandarin. There is also a broad stratum of pre-modern loans showing some affinities to both Middle Chinese ${ }^{4}$ and the modern Wu and Xiang dialects. The final set consists of loans that appear to be very archaic and which may be most profitably compared to forms reconstructed for Old Chinese ${ }^{5}$. In the following section, I will present the patterns of phonological correspondence that relate the Sinitic source forms to their modern reflexes in Mong Leng and (where the differences are significant) Hmong Daw. As an organizing principle, I will use a tripartite analysis of Chinese and Hmong syllables into onsets, rhymes, and tones ${ }^{6}$.

[^4]
### 3.1 The Phonological Inventories of Mong Leng and Hmong Daw

In order to fully understand the phonological relationships between Sinitic loans in Hmong and their source forms, a brief introduction to the phonological inventories of the both of Hmong dialects that are treated here is essential.

### 3.1.1 Mong Leng

Because of my greater familiarity with the Mong Leng dialect, it has served as the basis for the majority of my examples. The following phonological inventory is based upon my own field notes and reflects the speech of Mong Leng speakers originally from Laos and currently living in San Diego, California. Lyman (1974) has described the phonology of a very similar dialect spoken in Thailand. While his description differs in some matters of interpretation, the system he described is essentially identical to the one given here.

Onsets Mong Leng has a rich inventory of onsets:

| p | ph | np | nph | v | f | m |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| pl | phl | npl | nphl |  |  | ml |
| t | th | nt | nth | l | hl | n |
| ts | tsh | nts | ntsh |  | s |  |
| ts | tşh | nts | ntşh |  |  |  |
| t | th | ntf | nţh | 3 | $\int$ |  |
| tç | tçh | ntç | ntçh | $j$ | ç | n |
| k | kh | nk | nkh |  |  | (y) |
| kl | khl | nkl | nkhl |  |  |  |
| q | qh | nq | nqh |  |  |  |
| ? |  |  |  |  | h |  |

For stops and affricates, both prenasalization ${ }^{7}$ and aspiration are distinctive features. The fricatives and nonnasal resonant are divided into contrasting voiced and voiceless sets. Historically, voicing was also contrastive for nasal resonants. However, this distinction has been lost in Mong Leng (at least in those Mong Leng subdialects spoken in Southeast Asia).
commonly employed by specialists in East Asian and Southeast Asian languages. The former terms are used here for the benefit of non-specialists.
${ }^{7}$ Prenasalization is always homorganic with the rest of the onset. In the transcription system used here, prenasalization is indicated by the presence of $n$-, regardless of the physical point at which the nasal is actually articulated.

Rhymes The rhyme set of Mong Leng is, in contrast to the inventory of onsets, very small:

| i |  | ai |  |
| :---: | :---: | :---: | :---: |
| e |  |  | eŋ |
| a |  |  | aŋ |
| j |  |  | oŋ |
| u | uə | au |  |
| u |  | aü |  |

Tones Proto-Hmong had a system of four tones (Wang 1994). Chang (1953) noted that these could be identified with the pīng, shăng, rù, and qù tones of Middle Chinese. In the current study, these tones are labelled as A, B, C, and D respectively. Like many of the Sinospheric languages, most of the Hmong languages later underwent a tone split in which each of the tones divided into a higher register (or yīn) tone and a lower register (or yáng) tone based upon various features of the onsets. In the system used in this paper, yīn tones are marked by the number one and yáng tones are marked by the number two. Mong Leng preserves seven of the original eight tone categories, tone B2 (yángshǎng) having merged with tone C2 (yángqù). The tone system of Mong Leng may be summarized as follows:

| A1 | $[55]$ | 7 | high level |
| :--- | :--- | :--- | :--- |
| A2 | $[52]$ | Y | high falling |
| B1 | $[24]$ | 1 | rising |
| C1 | $[33]$ | $\dashv$ | mid level |
| C2 (B2) | $[42]$ | Y | falling, breathy |
| D1 | $[22]$ | - | mid-low level |
| D2 | $[21]$ | $\downharpoonleft$ | low falling, creaky |

### 3.1.2 Hmong Daw

The phonological inventory of Hmong Daw is very similar to that of Mong Leng. The description given here is based upon earlier descriptions given by Heimbach (1969) and Strecker (1987) but has been revised following my own field notes and observations.

Onsets Hmong Daw's inventory of onsets differs from that of Mong Leng in that Hmong Daw preserves the distinction between voiced and voiceless nasals. Proto-Western Hmong had a series of lateral release stops, which are preserved in Mong Leng as /kl/, /khl/, /nkl/, and /nkhl/. In

Hmong Daw, these have become $/ \mathrm{d} /, / \mathrm{dh} /{ }^{8}$, $/ \mathrm{nt} /$ and $/ \mathrm{nth} /$ respectively. The complete inventory is as follows:

| p | ph | np | nph | v | f | m | hm |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| pl | phl | npl | nphl |  |  | ml | hml |
| t | th | nt | nth | l | hl | n | hn |
| ts | tsh | nts | ntsh |  | s |  |  |
| d | dh |  |  |  |  |  |  |
| t | nt | th | nth |  |  |  |  |
| t | th | nt | ntfh | 3 | $\int$ |  |  |
| tç | tçh | ntç | ntçh | $j$ | ç | n | hn |
| k | kh | nk | nkh |  |  | y |  |
| q | qh | nq | nqh |  |  |  |  |
| ? |  |  |  |  | h |  |  |

Rhymes The Hmong Daw rhyme set differs from that of Mong Leng in two major respects: Hmong Daw /a/ is equivalent to Mong Leng /aŋ/ and Hmong Daw /iə/ is equivalent to Mong Leng /a/. Also, in a certain cases, Hmong Daw /o/ corresponds to Mong Leng /u/ (as the result of the merger of the Proto-Hmong vowel */o/ with /u/ in Mong Leng and with /o/ in Hmong Daw). Hmong Daw has 13 rhymes:

| i | iə | ai |  |
| :--- | :--- | :--- | :--- |
| e |  |  | en |
| a |  |  |  |
| o |  |  | on |
| u | uə | au |  |
| u |  | aum |  |

Tones The tones of Hmong Daw are (surprisingly) almost identical to those of the Mong Leng dialects spoken in Southeast Asia. The one major difference is that, in Hmong Daw, the tone B2 (yángshǎng) merged with tone D1 (yīnrù) rather than tone C2 (yángqù).

[^5]| A1 | $[55]$ | 7 | high level |
| :--- | :---: | :--- | :--- |
| A2 | $[52]$ | y | high falling |
| B1 | $[24]$ | 1 | rising |
| C1 | $[33]$ | -1 | mid level |
| C2 | $[42]$ | $y$ | falling, breathy |
| D1 (B2) | $[22]$ | - | mid-low level |
| D2 | $[21]$ | $\downharpoonleft$ | low falling, creaky |

### 3.2 Modern Loans: Mandarin

Most of the previous scholarship that has dealt with Sinitic borrowings in Hmong has mentioned the majority of the obvious loans are from some form of Mandarin (Lyman 1974:40, Ballard 1986:71). It is apparent that these borrowings from Mandarin must comprise the most recent layer of Sinitic loans in Hmong. They show a strong phonetic similarity to their modern Mandarin equivalents. Furthermore, Hmong is known to have had more recent contact with Mandarin than with any other Sinitic language or dialect. Because of the large number of loans, it is possible to construct a nearly complete set of correspondences between Mandarin sounds and their reflexes in Hmong. Nevertheless, Pinpointing the exact variety of Mandarin from which the loans originate presents a number of complex questions. It is clear that there are at least two substrata within this group. However, the overlap between these two strata, in terms of patterns of correspondence, is great. Furthermore, there are a few distinctions which seem to be largely, but not entirely, correlated with a particular stratum. For these reasons, the great majority of Mandarin loans in Hmong cannot be decisively assigned to one stratum or the other, but there are areas of the phonology where the inter-layer difference is unmistakable.

Because of the difficulty involved in segregating many of the loans into strata, I will treat all Mandarin loans that do not clearly belong to the older stratum as loans from Southwest Mandarin. As a standard of comparison, I will use the Southwest Mandarin dialect from Chéngdù, Sichuan, as described in the Hànyǔ Fāngyán Zihuì (Beijing Daxue 1962). Certainly, this dialect differs in important respects from both the older stratum (which shares several characteristics with Old Mandarin) and the more recent stratum. I have employed data from Chéngdù dialect because it is the subdialect for Southwest Mandarin for which the greatest amount of data is conveniently
available. Where there is an apparent contrast within the Hmong data which can not be explained by the Chéngdù data, the Old Mandarin reconstruction from DOC (Wang \& Cheng 1993) is used as a standard for comparison.

### 3.2.1 The Phonological Inventory of Chéngdù Dialect

The following information about the phonological inventory of Chéngdù dialect is taken from the Hànyǔ Fāngyán Zìhuì (Beijing Daxue 1962).

Onsets Chéngdù dialect has 20 onsets in five series (plus the zero onset):

| p | ph | m | f | v |
| :--- | :--- | :--- | :--- | :--- |
| t | th | n |  |  |
| ts | th |  | s | z |
| t6 | tch | n | C |  |
| k | kh | y | x |  |
| $\emptyset$ |  |  |  |  |

Rhymes The rhyme system of Chéngdù dialect is similar to that of other Mandarin dialects:


Tones The following description of the tones is based upon that given by Norman (1988:195, 196). Note that tone D (rùshēng) has merged with A 2 (yángpīng) in this variety of Southwest Mandarin:

| A1 | $[44]$ | - | mid-high level |
| :--- | :--- | :--- | :--- |
| A2 (D) | $[31]$ | $\searrow$ | mid falling |
| B | $[53]$ | y | high falling |
| C | $[13]$ | $\lambda$ | low rising |

### 3.2.2 The Phonological Inventory of Old Mandarin

The phonological inventory of Old Mandarin has been reconstructed based upon the text of the Zhōngyuán Yēyùn, an early fourteenth century rhyme book. The description given here is taken
from Norman (1988). In agrees in most essential details with the Old Mandarin reconstruction employed in the DOC, from which the Old Mandarin data in used in this study are taken (Wang \& Cheng 1993).

Onsets Old Mandarin had 21 onsets in six series (Norman 1988:50):

| p | ph | m |  | f | v |
| :--- | :--- | :--- | :--- | :--- | :--- |
| t | th | n | l |  |  |
| ts | th |  |  | s |  |
| ty | th |  |  | $\int$ | 3 |
| k | kh | y |  | x |  |
| ? |  |  |  |  |  |

Rhymes The rhymes of Old Mandarin were similar to those of modern Mandarin dialects in that they did not include stop codas. However, Old Mandarin had three distinct nasal codas (-m, -n, and $-\eta$ ) rather than the two nasal codas (-n and $-\eta$ ) found in most modern varieties of Mandarin (Norman 1988:49, 50):

| Ï |  | a |  | 0 | ai | ei | au | au | Ou |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| i |  | ia | ie | io | iai | iei |  | iau | iou |
| u |  | ua |  | uo | uai | uei |  | uau |  |
|  |  |  | ye |  |  |  |  |  |  |
| an | on | ən |  | ay | ə刀 | uท | am | әm |  |
| ian |  | iən | ien | iay | iəŋ | iun | iam | iəm | iem |
| uan |  | uən |  | uay | иəŋ |  |  |  |  |
|  |  | yən | yen |  | уəŋ |  |  |  |  |

Tones Like most contemporary Mandarin dialects, the Old Mandarin pīngshēng was divided into yīn and yáng tones (A1 and A2). Shăngshēng (B) and qùshēng (C) were not divided. The status of rùshēng (D) in Old Mandarin is, however, somewhat controversial. The DOC reconstruction used here posits that Old Mandarin preserved rùshēng and that it was divided into yīn and yáng tones (D1 and D2). Many other authorities, however, assert that Old Mandarin did not preserve any distinct rùshēng tones at all (Norman 1988:49). As shall be seen in section 3.2.5, the older stratum of Mandarin loans come from a dialect of Mandarin that preserved rùshēng as a distinct tonal category, making the presence of this distinction in the DOC reconstruction useful for purposes of
comparison. Even if Old Mandarin did not preserve this feature, several modern Mandarin dialects have done so (Norman 1988:195).

### 3.2.3 Onsets

Because Hmong language has a considerably richer inventory of onsets than does Mandarin, Hmong loans tend to preserve all, or almost all, of the distinctions between Mandarin onsets. For this reason, onsets provide the most concrete clues for the identification of borrowed forms and the donor dialect from which they were borrowed. In several cases, there are two competing equivalents for a given onset in Mandarin, one of which is associated with the older stratum and one which is characteristic of the newer stratum.

| Sounds <br> MANDARIN |  | EXMONG |  |  |  | MANDARIN |  |  |
| :--- | :--- | :--- | :--- | :--- | :---: | :---: | :---: | :---: |

Table 1: The Mandarin labial series and its Hmong (Mong Leng) equivalents.

Labial Onsets Table 1 shows the patterns of correspondence for the Mandarin labial onsets. In this series, there is a one-to-one correspondence between the Mandarin phonemes and their Hmong equivalents. The stops, nasal, and fricative are identical to their source forms. The labialvelar glide /w/-treated by many Sinologists as part of the rhyme (Norman 1988:192)—is realized
as $/ \mathrm{v} /$ in the loans, probably due to the absence of $/ \mathrm{w} /$ from the Hmong phonological inventory.

| Sounds <br> MANDARIN |  | Hmong |  |  |  | MANDARIN |  |  |
| :--- | :--- | :--- | :--- | :--- | :---: | :---: | :---: | :---: |

Table 2: The Mandarin dental series and its Hmong (Mong Leng) eqivalents.

Dental Onsets The correspondence patterns for words with dental onsets in Southwest Mandarin are given in Table 2. These prove to be much more interesting than the labials. Although the stops are identical in both the source and the borrowed forms, the affricates and the fricatives show strong evidence of stratification. Old Mandarin distinguished between post-alveolar and dental affricates. Many modern dialects of Mandarin preserve this distinction as a retroflex-dental
contrast. However, Southwest Mandarin has lost this distinction (Norman 1988:193). As can be seen from Table 3, those loans that have post-alveolar onsets in Hmong also had post-alveolar onsets in Old Chinese. These words must belong to an older stratum of loans, borrowed from a dialect which shared many (but not all) of the characteristics of Old Mandarin.

Chéngdù Mandarin /n/ always corresponds to Hmong /l/. In Old Mandarin, as in Běijīng Mandarin and other northern dialects, all of the words listed for this correspondence in table 2 have the onset /l/. This suggests that neither of the Mandarin dialects from which Hmong Daw and Mong Leng borrowed vocabulary had undergone the merger of $* / 1 /$ with $/ \mathrm{n} /$, which occurred in Chéngdù dialect and is common throughout much of the Mandarin area (Norman 1988:198).

| Sounds |  | Examples |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :---: |
| Old Mandarin |  | HMONG |  | Old Mandarin |  |

Table 3: Selected loans from Table 2 compared to Old Mandarin.

Palatal Onsets Like the schema for dental onsets, the schema for the palatal onsets shown in Table 4 provides further evidence of stratification. Between the Old Mandarin period (in the 14th century) and the modern period, some Mandarin onsets became palatalized when they occurred before certain glides and front vowels. First, the velar series became palatalized before /j/, /i/ and /a/. Then the dental series was became palatalized before /j/ and /i/ (Ramsey 1987). While none of the loans from Mandarin appearing in my data seem to have been borrowed before the velars became palatalized, a substantial number were borrowed from a dialect which had not undergone dental palatalization. Thus, the split correspondences for the palatal affricates and fricative show in


Table 4: The Mandarin palatal series and its Hmong (Mong Leng) eqivalents.

Table 4 indicates a division between strata of loans. The Hmong words showing palatal onsets are borrowed from modern Southwest Mandarin. Those showing dental onsets are clearly borrowed from an older or more conservative variety of language in which the palatalization of dentals had not yet occurred, as the comparison with Old Mandarin in Table 5 demonstrates.

| Sounds |  | EXAMPLES |  |
| :---: | :---: | :---: | :---: |
| Old Mandarin | Hmong | Old Mandarin | Hmong |
| */tsh/ | /tsh/ | 齊 $*$ tshi $^{A 2}$ <br> 千 $*$ tshien $^{A}$ | $\begin{aligned} & \text { tshiA' 'completely' } \\ & \text { they }{ }^{A 1} \text { 'thousand' } \end{aligned}$ |
| */s/ | /s/ |  | $p e^{A 2} \operatorname{sen}{ }^{D 2}$ 'populace' $\mathrm{sut}^{D 2}$ 'small' san ${ }^{B 1}$ 'think, to' |

Table 5: Selected loans from Table 4 compared to Old Mandarin.

Velar Onsets Patterns for the last series of Mandarin onsets, the velars, are shown in Table 6. The stops $/ \mathrm{k} /$ and $/ \mathrm{kh} /$ are identical in the source form and the borrowed form. The velar fricative

| Sounds |  | EXAMPLES |  |
| :---: | :---: | :---: | :---: |
| MANDARIN | Hmong | MANDARIN | Hmong |
| ／k／ | ／k／ | 貴 $k u e i^{C}$ <br> 根 $k ə n^{A l}$ <br> 鋼 $k a \eta^{A l}$ | $k i t^{D 2}$＇expensive＇ <br> $\mathrm{keq}^{\text {Al }}$＇origin＇ <br> kan $^{A l}$＇steel＇ |
| ／kh／ | ／kh／ | 肯 $k h \partial \eta^{B}$ <br> 空 $k h o \eta^{C}$ <br> 苦 $k h u^{B}$ | kher ${ }^{B I}$＇consent，to＇ $k h o \eta^{D 2}$＇have free time＇ $k h \psi^{B 1}$＇toil，to＇ |
| ／x／ | ／f／ <br> ／h／ | 華 xua ${ }^{A 2}$ <br> 皇帝 $x u a \eta^{A 2} t i^{C}$ <br> 硫黃 niəu ${ }^{A 2}$ xuan $^{A 2}$ <br> 時候 $S 1^{A 2}$ xəu $^{C}$ <br> 號 xau $^{C}$ <br> 很 xәп ${ }^{B}$ | fuo ${ }^{D 2}$＇expand，to＇ fay ${ }^{A 2} t_{i}{ }^{D 2}$＇emperor＇ lau ${ }^{A 2} f a \eta^{A 2}$＇sulphur＇ $\int i^{A 2}$ hau $^{D 2}$＇time＇ $h \rho^{D 2}$＇mark＇ hen ${ }^{B 1}$＇very＇ |

Table 6：The Mandarin velar series and its Hmong（Mong Leng）eqivalents．
$/ \mathrm{x} /$ presents a much more troublesome aspect．There is a frequent confusion between／f／and／x／ in Mandarin dialects，which could account for the split in the reflexes of／x／．But，according to Norman（1988：192），the dialect of Chéngdù does not even show a distinction between the two， having merged／x／to／f／．The data from Hànyǔ Fāngyán Zihhuì（Beijing Daxue 1962），in contrast， clearly show such a distinction for Chéngdù dialect．This inconsistency between sources may not be important as the distinction between／f／and／h／in Mong Leng seems to have been conditioned by by the presence of／ u ／（in both syllabic and non－syllabic forms）．This explanation is not quite adequate，however，because it does not fully account for the distribution of $/ \mathrm{f} / \mathrm{and} / \mathrm{h} /$ in Hmong Daw．The reflexes of／x／，then，are the one unsolved puzzle in the onsets of the Mandarin loans．

Despite the existence of this one anomaly，the correspondances between Hmong and Madarin onsets are remarkably regular．The onsets provide the clearest evidence for the existence of two distinct strata of Mandarin loans in Mong Leng and Hmong Daw．The evidence for these two layers is very clearly indicated in the two sets of reflexes that exist for the affricates and fricatives in the dental and palatal series．Where such contrasting sets are not present，there is a very clear－almost deterministic－relationship between the the Mandarin forms and the Hmong forms．

### 3.2.4 Rhymes

Hmong rhymes, in contrast to the relatively straightforward onsets, are the most problematic aspect of Hmong historical linguistics (Purnell 1970:35). Through a complex process of simplifications and mergers, the rhymes of such Western Hmong dialects as Hmong Daw and Mong Leng have been reduced in number and type to a very small set. As a result, many of the distinctions between members of Mandarin's rich inventory of rhymes were lost as they were are shunted into a relatively minimal rhyme set of Hmong. This means that most of the clues that would allow us to separate Mandarin loans into distinct strata is largely absent from this set of data. But while the rhymes in Mandarin loans tell us little about the sources from which they orignated, they are a rich source of evidence for the reconstruction of Pre-Western-Hmong and Proto-Western-Hmong.

Simple Nuclei without Codas The schema of correspondences between Mandarin rhymes that are simple (that is, are not diphthongs or triphthongs) and that have no coda (no final consonant) is given in Table 7. On a superficial level, most of the correspondences for these rhymes seem less predictable than those for the onsets. Some of these surface dissimilarities provide us with important information about the recent phonological development of Hmong. For example, Mandarin /a/ always corresponds to /uə/ in both Hmong Daw and Mong Leng. We also know that Western Hmong /ua/ (generally transcribed as /ua/) usually corresponds to /a/, or a similar vowel in other Hmongic languages (Purnell 1970:61). In Purnell's reconstruction of Proto-Hmong-Mien, he assumes that Western Hmong /uә/ is the reflex of a group of rhymes of the form $/ \mathrm{u} /+$ vowel. He posits that the a-like forms developed from this series, presumably basing this assumption upon the evidence from Western Hmong (Purnell 1970:61). However, the evidence presented here suggests that that innovation occurred in Western Hmong (Pre-Western-Hmong */a/ > ML/HD $/ u z /$ ) and that the other members of the family have conservatively retained the older form of this rhyme. This agrees with the reconstruction given by Wang (1994), which treats Western Hmong /uə/ (Dànánshān dialect /ua/) as a reflex of Proto-Hmong */q/. We may tentatively postulate the development of this rhyme in Western Hmong as: PH */a/ > PWH */a/ > ML/HD /uə/. My data

| Sounds |  | Examples |  |
| :---: | :---: | :---: | :---: |
| Mandarin | Hmong | Mandarin | Hmong |
| ／a／ | ／ua／ | 茶 tSha $^{A 2}$ <br> 大 $t a^{C}$ <br> 打 $t a^{B}$ | thua ${ }^{\text {A2 }}$＇medicine＇ tuə ${ }^{D 2}$＇biggest＇ <br> tua ${ }^{B 1}$＇pound，to＇ |
| ／e／ | ／e／ | $\begin{array}{ll}\text { 明白 } & \min ^{A 2} p e^{A 2} \\ \text { 車 } & t^{4 h} h^{A 1} \\ \text { 白糖 } & p e^{A 2} t h a \eta^{A 2}\end{array}$ | $\begin{aligned} & \mathrm{meg}^{A 2} p e^{D 2} \text { 'be conscious, to' } \\ & \text { the }{ }^{41} \text { 'cart' } \\ & \text { pe } e^{D 2} \text { thand 'sugar' } \end{aligned}$ |
| ／i／ | ／i／ |  | $t$ çi $^{D 2} \operatorname{sen}^{A 1}$＇memory＇ tçhi ${ }^{D 2}$＇angry＇ $j{ }^{10} \eta^{42}{ }^{2} i^{D 2}$＇easy＇ |
| ／0／ | ／au／ ／u／ | 科 $\mathrm{kho}{ }^{A l}$ <br> 摸 $\mathrm{mo}^{A l}$ <br> 鎖 so <br> 合 $\mathrm{xo}^{A 2}$ <br> 㰻 $\mathrm{kh} o^{A 2}$ | khau ${ }^{A l}$＇branch＇ mau $^{A l}$＇grope，to＇ sau ${ }^{B 1}$＇lock，to＇ $h u^{D 2}$＇fit，to＇ $k h u^{D 2}$＇shell＇ |
| ／u／ | ／ $\mathrm{H} /$ | $\begin{array}{\|ll} \hline \text { 輸 } & s u^{A l} \\ \text { 主 } & t s u^{B} \\ \text { 獨猪 } & t u^{A 2} t s u^{A l} \end{array}$ | $\int \mathrm{t}^{\text {AI }}$＇lose，to＇ <br> ${ }_{t y} u^{B 1}$＇owner＇ <br> $t_{H^{2}}^{D 2} t f_{u^{A l}}$＇solitary pig＇ |
| ／y／ | ／i／ | 濾 $\mathrm{ny}^{\text {c }}$ | $l^{\text {i }}{ }^{D 2}$＇filter，to＇ |
| ／1／ | ／i／ ／u／ |  | $\int_{i^{A 2}}$ haul $^{D 2}$＇time＇ <br> $\int_{i}{ }^{D 2}$＇try，to＇ <br> $\int i^{B 1}$＇use，to＇ <br> $\operatorname{seg}^{A 1}{ }^{n}$ tst ${ }^{B 1}$＇grandson＇ <br> $p_{e y}{ }^{B 1}{ }^{s}{ }^{D 2}$＇ability＇ <br> $\mathrm{su}^{D 2}$＇event＇ |

Table 7：Loan－reflexes of Mandarin words with rhymes consisting of a simple nucleus and no coda．
suggest that the last change (*/a/ >/uə/) occurred fairly recently. Otherwise, ML/HD /uə/ would correspond to Mandarin /a/ only in loans from the older stratum and not from the more recent stratum as well.

Only two of these simple nuclei show any evidence of stratification. The evidence is relatively weak and inconclusive (when compared to that for the onsets). The Chéngdù Mandarin phoneme $/ \mathrm{o} /$ has two equivalents in Hmong loans: /au/ and $/ \mathrm{u} /$. The second of these seems to be associated with the older stratum. It is certain that Mong Leng $h u^{D 2}$ 'to fit' belongs to this older stratum because its tone agrees with Old Mandarin form $x o^{D l}$ rather than the modern Mandarin form. Although a reconstructed Old Mandarin form was not available for comparison, we may assume that Mong Leng $k e^{D 2}$ 'shell' is from the older stratum as well, since it shares the same tone and seems to have the same relation to its Chéngdù dialect equivalent as 'to fit'. Since none of the Hmong forms which have /au/ for Chéngdù /o/ are known to belong to the older stratum, it appears that the division may be along inter-stratum lines. However, in Hmong Daw, both 'to fit' and 'shell' have the rhyme /au/, so this distinction does not hold up across dialects.

The two reflexes of the "apical vowel" $/ 1 /$-which, phonetically, is the syllabic dental fricative [z] (Norman 1988:194)—may also belong to different strata. Depending upon the phonological analysis one accepts, $/ 1 /$ is either an allophone of the vowel / $\mathrm{i} /$ that occurs after dental fricatives and affricates or is a distinct phoneme historically derived from /i/ (Norman 1988:141-142). /i/ as a Hmong equivalent to $/ 1 /$ is most common in loans that are from the older stratum. $/ \mathrm{t} /$ commonly occurs as a reflex of $/ 2 /$ in words that are borrowed from Southwest Mandarin. We know this because, in loan words with post-alveolar onsets we are more likely to see /i/ and in those with dental onsets, we are more likely to see $/ \mathrm{t} /$. Because the distinction between strata is confounded with a phonological distinction which could have played a part in conditioning this difference, it is too early to reach a solid conclusion regarding its source.

Complex Nuclei without Codas Table 8 shows the patterns of correspondence for Mandarin words with complex (dipthongal or triphthongal) nuclei but without codas. The most striking thing

| Sounds <br> MANDARIN |  | EmONG |  |  |  | MANDARIN |  |  |
| :--- | :--- | :--- | :--- | :--- | :---: | :---: | :---: | :---: |

Table 8: Sound correspondences for loan-reflexes with complex nuclei without codas.
shown on Table 8 is that medials ${ }^{9}$ were completely ignored by Hmong speakers as they adapted Mandarin words to Hmong phonological patterns．The loan－reflex for a rhyme without a medial is exactly the same as the reflex for that rhyme plus a medial．While it will be seen that there are a few possible exceptions to this rule，the distinction between rhymes with and without medial glides was almost completely erased in the borrowing process．

The data from Table 8 also bring attention to another significant mistake in Purnell＇s（1970） reconstruction of Proto－Hmong．Purnell（1970：59）suggests that the Hmong Daw and Mong Leng phoneme $/ \mathrm{J} /$（which he transcribes as $/ \mathrm{o} /$ ）is the reflex of Proto－Western－Hmong $\% / \mathrm{o} /$ ．However，in some other Hmong dialects－including several Western Hmong dialects－the cognate of Hmong Daw and Mong Leng $/ 2 /$ is $/ \mathrm{au} /$ ．A comparison with Mandarin loans suggests the following（more parsimonious）solution：ML／HD $9 /<\mathrm{PWH}$＊／au／．

| Sounds |  | Examples |  |
| :---: | :---: | :---: | :---: |
| Mandarin | Hmong | Mandarin | Hmong |
| ／an／ | ／an／ |   <br> 染 zan $^{B}$ <br> 班 pan $^{A l}$ <br> 摚竿 tshən $^{A l} \mathrm{kan}^{A l}$ | 3ay ${ }^{D 1}$＇dye，to＇ <br> pay ${ }^{41}$＇group＇ <br> tshey ${ }^{4 l} \mathrm{kan}^{4 l}$＇boat pole＇ |
| ／an／ | ／an／ | 商量 $\operatorname{say}^{A l} \operatorname{liag}^{C}$ <br> 忙 may <br> 胖 phay ${ }^{\text {A2 }}$ |  |
| ／in／ | ／en／ | 明白 $\min ^{A 2} p e^{A 2}$ <br> 心 $\operatorname{cin}^{A l}$ <br> 靈 $\operatorname{nin}^{A 2}$ | $\begin{aligned} & \operatorname{meg}^{A 2} p^{D 2} \text { 'be conscious, to' } \\ & \operatorname{sef}^{A 1} \text { 'heart' } \\ & \text { lenf }^{A 2} \text { 'effective' } \end{aligned}$ |
| ／ən／ | ／en／ | 成 tshən ${ }^{A 2}$ <br> 人 $z ə \eta^{A 2}$ <br> 生 $\operatorname{snn}^{A 1}$ | they ${ }^{\text {A2 }}$＇become，to＇ 3en ${ }^{42}$＇person＇ $\operatorname{seg}^{4 l}$＇exist，to＇ |
| ／on／ | ／on／ | 同 tol $^{A 2}$ <br> 空 $k^{42}{ }^{C}$ <br> 共 $k o \eta{ }^{C}$ | thoy ${ }^{42}$＇be the same，to＇ khor ${ }^{4 l}$＇hollow＇ <br> kon ${ }^{D 2}$＇share，to＇ |

Table 9：Loan－reflexes of Mandarin words with simple nuclei plus codas．

Simple Nuclei with Codas Western Hmong dialects，including Mong Leng and Hmong Daw， only allow one coda in rhymes：a final nasal that is here transcribed as $/ \mathrm{y} /$ ．In most cases，this coda

[^6]is realized as a velar nasal，but it may also be realized as a dental nasal or as vocalic nasalization． In Mong Leng，there are only three rhymes with a coda：／ay／，／ey／，and／oy／．In Hmong Daw，there are only two，／ay／having recently lost its coda to become／a／．

Mandarin，like Hmong，does not allow any codas in its rhymes with the exception of nasal con－ sonants．Most Mandarin dialects，however，distinguish two separate nasal codas：$/ \mathrm{y} /$ and $/ \mathrm{n} /$ ．Old Mandarin had a third coda，$/ \mathrm{m} /$ ，which has merged its way out of existence in all modern Mandarin dialects（Norman 1988：193）．Even without this bilabial nasal code，Mandarin distinguishes a far greater number of rhymes with codas than does Hmong（see section 3．2．1）．

Mandarin rhymes with nasal codas，as shown in Tables 9 and 10，are always reflected in Hmong loans as a vowel plus the nasal coda $/ \mathrm{y} /$ ．A quick examination of the simple rhymes with codas shown in Table 9 reveals a straightforward pattern．Rhymes containing／a／plus a nasal coda are reflected as／ay／．Rhymes containing／o／plus a nasal coda are reflected as／oy／．The balance of the rhymes with a nasal coda are reflected as／ey／．

| Sounds |  | Examples |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Mandarin | Hmong |  | Andarin | Hmong |
| ／ian／ | ／en／ | 千 <br> 面貌 <br> 偏 | $\begin{aligned} & \text { tchian }^{A I} \\ & \text { mian }^{C} \text { mau }^{C} \\ & \text { phian }^{A l} \end{aligned}$ | tshey ${ }^{4 l}$＇thousand＇ $m e \eta^{A 2} m^{D 2}{ }^{D 2}$＇appearance＇ phey ${ }^{A l}$＇lean，to＇ |
| ／iay／ | ／an／ | 箱 商量 相 | $\begin{aligned} & \operatorname{ciain}^{A I} \\ & \operatorname{salj}^{A} \text { nian }^{C} \\ & \operatorname{ciay}^{B} \end{aligned}$ | say ${ }^{\text {AI }}$＇box＇ <br> $\int a y^{41}$ lay ${ }^{A 2}$＇discuss，to＇ <br> sat ${ }^{B 1}$＇think，to＇ |
| ／uan／ | ／an／ |  | $\begin{aligned} & \text { tshuan }^{A 2} \\ & \text { kuan }^{B} \\ & \text { suan }^{C} \end{aligned}$ | thay ${ }^{42}$＇propagate，to＇ <br> kay ${ }^{B 1}$＇govern，to＇ <br> say ${ }^{D 2}$＇reckon，to＇ |
| ／uay／ | ／ay／ | $\begin{aligned} & \text { 皇帝 } \\ & \text { 望 } \\ & \text { 硫黃 } \end{aligned}$ | $\begin{aligned} & x_{1 u a \eta^{A 2}} i^{C} \\ & \text { uan }^{C} \\ & \text { nizu }^{42} \text { xuan }^{A 2} \end{aligned}$ | $\begin{aligned} & \text { fan }^{A 2} t i^{D 2} \text { 'emperor' } \\ & \text { val } \eta^{D 2} \text { 'hope, to' } \\ & \text { laui }{ }^{42} \text { fan }{ }^{A 2} \text { 'sulphur' } \end{aligned}$ |
| ／yan／ | ／en／ | $\begin{aligned} & \text { 原告 } \\ & \text { 家園 } \\ & \text { 圓 } \end{aligned}$ | $\begin{aligned} & y^{y^{A 2} \mathrm{kau}^{C}} \\ & \mathrm{tcia}^{41} \text { yan }^{A 2} \\ & \text { yan }^{A 2} \end{aligned}$ | $j e y^{42} \mathrm{~kg}^{D 2}$＇plaintiff＇ $t ̧ ̧ u \partial^{A 1}{ }^{1}{ }^{\text {jel }}{ }^{A 2}$＇implements＇ jeg ${ }^{42}$＇round＇ |
| ／yoy／ | ／on／ | $\begin{aligned} & \text { 熊 } \\ & \text { 容易 } \end{aligned}$ | $\begin{aligned} & \text { Cyoof }^{42} \\ & \text { yoy }^{42}{ }_{i}^{C} \end{aligned}$ | $\begin{aligned} & \text { Col }^{A 2} \text { 'Xiong (surname)' } \\ & \text { jonj }{ }^{42} i^{i 2} \text { 'easy' } \end{aligned}$ |

Table 10：The loan－reflexes of Mandarin rhymes consisting of complex nuclei plus nasal codas．

Complex Nuclei with Codas Cursory examination of the reflexes of Mandarin rhymes with complex nuclei and codas，as shown in Table 10，introduces a few of complications to statements I have made earlier．While the majority of the rhymes reaffirm what I have already said，with regard to both complex nuclei and nasal codas，the rhymes／ian／and／yan／are exceptions．First of all，the medial does not seem to have been ignored．That is to say，the reflexes for／ian／and／yan／ differ from those for／an／and／uan／．Furthermore，according to the pattern we saw in Table 9，these rhymes－both with／a／in the nucleus－should be reflected as／ay／．It is likely that，in the case of both $/ \mathrm{ian} /$ and $/ \mathrm{yan} /$ ，the high，front medial caused the position of the vowel $/ \mathrm{a} /$ to be raised so that Hmong speakers perceived it as／e／rather than／a／．

## 3．2．5 Tones

| MANDARIN |  | Hmong |  | Examples |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Tone | Pitch | Tone | Pitch | MANDARIN | Mong Leng |
| A1 | 44 － | A1 | 557 | 車 $t s h e^{A l}$ <br> 輸 $s u^{A l}$ <br> 倉 $t^{4} h a y^{A l}$ | the ${ }^{A l}$＇cart＇ $\int \mathrm{ut}^{\mathrm{Al}}{ }^{\prime}$＇lose，to＇ tshay ${ }^{4 l}$＇granary＇ |
| A2，D | 31 V | A2 <br> D2 | $\begin{aligned} & 52 \mathrm{~V} \\ & 21 \quad \text { J } \end{aligned}$ | 同 $t o \eta^{A 2}$ <br> 人 $z \partial A^{A 2}$ <br> 壺 $f u^{A 2}$ <br> 出 $t h u^{A 2}$ <br> 夾 $t 6 i i^{A 2}$ <br> 學 $6 i i^{A 2}$ | thoy ${ }^{42}$＇be the same，to＇ 3en ${ }^{42}$＇person＇ $\mathrm{ft}_{\mathrm{t}} \mathrm{Al}^{2}$＇bottle＇ <br> thy ${ }^{D 2}$＇emerge，to＇ <br> $t_{\text {çu }}{ }^{D 2}{ }^{2}$＇press，to＇ <br> $C^{C} u^{D 2}$＇practice，to＇ |
| B | 53 y | B1 <br> D1 | $\begin{array}{ll} 24 \\ 22 \end{array}$ |  | $t^{5} u^{B I}$＇owner＇ say ${ }^{B 1}$＇think，to＇ $\int i^{B 1}$＇use，to＇ <br> 3ay ${ }^{D 1}$＇dye，to＇ <br> sut $^{D I}$＇like，to＇ <br> mua ${ }^{D l}$＇Moua（surname）＇ |
| C | $13 \lambda$ | D2 |  | 脹 $\operatorname{tsan}^{C}$ <br> 正 $\operatorname{tsan}^{C}$ <br> 姓 $\operatorname{cin}^{C}$ | tay ${ }^{D 2}$＇bloated＇ tey ${ }^{D 2}$＇genuine＇ sel ${ }^{D 2}$＇surname＇ |

Table 11：Loan－reflexes for tones of words borrowed from Mandarin．

A glance at the the loan－reflexes for Mandarin tones，as shown in Table 11，raises some im－ portant questions about the interpretation of tones during the borrowing process．It is not agreed
when Chinese first underwent tonogenesis (that is, gained tonal distinctions as part of its phonological system). However, it is known that by the Middle Chinese period, Chinese had four tones, traditionally labelled as pīng, shăng, qù, and rù (Norman 1988:52-53). By the late Middle Chinese period, each of these tones had split into two distinct tones depending upon the voicing of the onset-a high register ȳ̄n tone for voiceless consonants and a low register yáng tone for voiced consonants (Norman 1988:53). While some Chinese dialects have preserved the full eight tone system, modern Mandarin dialects have merged several of the tone categories yielding inventories of between three and six tones, with four being the most common number (Norman 1988:194).

The development of Hmong tones follows a similar trajectory to Sinitic tones (see section 3.1). The tone system of Proto-Hmong-Mien was a four category inventory with striking similarities to the Chinese system (Chang 1953). This system later underwent a tone-split, which was also very similar to that described for Chinese (Purnell 1970:191-192). With a few small irregularities, both Mong Leng and Hmong Daw preserve seven of the eight original Proto-Hmong-Mien tone categories. Both dialects have lost the tone B2 through mergers. In the case of Mong Leng, it merged with tone C2. In Hmong Daw, it became indistinguishable from tone D1.

In both language groups, the phonetic forms of the tones have varied widely. The data given by Chang (1953:375) show that there is little correlation between tone categories and tone contours among modern Hmong-Mien languages. This marked synchronic variation suggests that the pitch contours of the tones have varied widely on the diachronic dimension as well. Norman (1988:195) further comments that "tonal values vary immensely" between dialects of Mandarin. Based upon this type of variation, we might expect a radically different set of correspondences for our two strata of Mandarin loans. Remarkably, though, the two strata show basically the same reflexes for each of the tones. Furthermore, the correspondences between tones tend to line up according to the ancient tone system. Yīnpīng words from Mandarin, for example, were also given the yinnping tone when they were borrowed into Hmong.

The one example of stratification in the tone system tends to reaffirm the historical robustness of tone categories. In Chéngdù dialect, and likely other dialects of Southwest Mandarin, the rùshēng
tonal category（D）has merged with the yángping tone（A2）．As can be seen from Table 11，there are two possible equivalents for this tone．The first—with clear instances from both strata—is tone A2．The second possibility，D2，is attested only in loans from the older strata．Furthermore，all the Mandarin loans in this correspondence set also had the rù（D）tone in Old Mandarin and some modern Mandarin dialects ${ }^{10}$ ．For example：

1．ML thy ${ }^{\mathrm{D} 2}$＇to emerge＇：OM 出＊thiu ${ }^{\mathrm{D} 2}$＇to go or come out＇
2．ML tçua ${ }^{\mathrm{D} 2}$＇to press＇：OM 夾＊ka ${ }^{\mathrm{D} 2}$＇to press＇
3． ML ç $\mathrm{D}^{\mathrm{D} 2}$＇to practice＇：OM 學＊xau ${ }^{\mathrm{D1}}$＇to learn＇

Clearly，then，the donor language for the older stratum of Mandarin loans in Hmong maintained the fourth tone（pingshēng）as a separate category．There is no evidence，however，that the distinction between yīnpíng and yángpíng was maintained in this dialect．It was probably dialect with five distinct tones，not unlike certain subdialects of modern Yunnanese（Downer 1973：10－11）．

The striking regularity of most of the tonal correspondences makes the one major irregularity even more perplexing．The Mandarin B tone occasionally corresponds to the Hmong tone D1． Problematically，this pattern does not seem to be tied to either of the strata－it occurs in both sets of loans，as does the more common（competing）pattern in which Mandarin B corresponds to Hmong B1．For this，I can presently offer no explanation．

There are still unanswered questions regarding the phonological history of Mandarin loans in Hmong．But，aside from a very few anomalous sets，the Mandarin loans in Hmong show very regular patterns of phonological development．Owing to the large amount of data available，it is possible to predict－with great precision－the form that a Chinese loan will take in Hmong．The same factors make it possible to clearly discern two substrata of Mandarin loans．The newer stra－ tum is a fairly standard subdialect of Southwest Mandarin．The older stratum was borrowed from a dialect featuring a number of archaic Mandarin features（the preservation of rùshēng as a sepa－ rate tonal category and the retention of dental fricatives and affricates in environments where they

[^7]would later become palatalized). The dialect from which the second stratum of loans originated was very similar, and perhaps identical to the dialect Downer (1973:10-11) postulates as the source for Mandarin loans in Iu Mien.

### 3.3 Pre-Modern Loans: Middle Chinese and Early Central Sinitic

After the vast number of Mandarin loans are eliminated from the pool of unclassified Sinitic loans in Hmong, a considerable residue still remains. A substantial number of these lexemes (which will hereafter be referred to as pre-modern loans) seem to have been borrowed during the Middle Chinese period. The loans I have assigned to the pre-modern group were almost certainly borrowed over a wide period of time. Some of the loans are found in both Hmong and Mien (meaning the could have been borrowed at a very early time, before these two language groups became differentiated) while others are found only within a few branched of the Hmong family. As such, it is hard to draw a line between this stratum and the ancient stratum (discussed in section 3.4) without making certain arbitrary distinctions. Within this group of there are stratification effects causes by both changes and variations in Sinitic and phonological developments within Hmong.

Some of these loans, as W. L. Ballard (1986) has noted, show a strong affinity to the Wu and Xiang dialects of the Yangzi river region. He asserts, contrary to the received Sinological orthodoxy, that the Sinitic languages of southern China are not descendants of a Middle Chinese Tang koine, but semi-independent linguistic traditions that were influenced both by non-Sinitic substrates and the "Mandarin" ${ }^{11}$ superstrate. Ballard argues that there is a particularly close relationship between Wu and Xiang and that they may have both had a Hmongic substrate. The similarity of some very early Hmong loanwords to their modern Wu and Xiang equivalents is certainly consistent with Ballard's claims. However, some of the correspondences which Ballard notes are likely to be the result of coincidental parallel development.

The exact origins of these loans are uncertain (and probably quite diverse). Since the goals of this study require specific phonological relationships to be established, I have been forced to select

[^8]a single reconstruction of a single language as a basis for the bulk of my comparisons．For this purpose，I have decided to employ Pulleyblank reconstruction of Early Middle Chinese（EMC），for which an extensive lexicon exists（Pulleyblank 1991）${ }^{12}$ ．Also，when it is instructive，I will make comparisons between the Hmong forms and modern Wu and Xiang forms．

## 3．3．1 The Phonological Inventory of Early Middle Chinese

Early Middle Chinese refers to the language of the Qièyùn rhymebook．The following phono－ logical inventory for Early Middle Chinese is based upon material from Pulleyblank（1984）and Pulleyblank（1991）．The transcriptions are modified，however，to bring them closer to standard IPA and the system of tone notation used in this paper．

Onsets The following are the onsets Pulleyblank（1991：15）reconstructs for EMC written ac－ cording to the conventions used in this paper：

| ＊ t $_{6}$ | ＊tch | ＊${ }_{\text {¢ }}$ | ＊ n | $*_{6}$ | $*_{\text {\％}}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| ＊t | ＊th | ＊d | ＊ n |  |  |
| ＊t | ＊th | ＊${ }^{\text {d }}$ | ＊$\downarrow$ |  |  |
| ＊ts | ＊tsh | ＊ ¢ |  | $*_{\text {S }}$ | $*_{\mathrm{Z}}$ |
| ＊ts | ＊tsh | ＊ dz |  | $*^{\text {S }}$ | ${ }^{\text {Z }}$ |
| ＊p | ＊ph | ＊ b | ＊m |  | ＊W |
| ＊？ |  |  |  |  |  |

Rhymes The following inventory of EMC rhymes is taken from Pulleyblank（1984：176－177）but are written according to the conventions used in both Pulleyblank（1991）and this current essay． The Chinese characters are the names of Qièyùn rhymes here transcribed．

|  | Type A |  |  | Type B |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 麻＊ai | 歌＊aว̆ | 模 ${ }^{\text {a }}$ | 脂 $*_{i}$ ，＊${ }_{\text {ji }}$ | 之 ${ }_{\text {i }}$ |  |
|  |  |  |  | 皮 $*_{\mathrm{i}}{ }^{\text {a }}$ ，${ }_{\mathrm{j} i}$ | 魚＊$*_{\text {¢ }}$ | 虞＊uă |
|  |  |  |  | 麻＊iaă | 歌＊${ }_{\text {i }}$ | 歌＊uă̆ |
|  |  |  |  |  | 微＊${ }_{\text {ij }}$ | 微＊uj |
| 齊 ${ }^{\text {e }}$ j | 皆 ${ }^{*}$ ¢ ij | 咍＊${ }^{\text {j }}$ | 灰＊${ }^{\text {d }}$ j | 祭 $*_{\text {iaj，}} *^{\text {jiaj }}$ | 廢 $*_{\text {iaj }}$ | 廢＊uaj |

[^9]| 佳夫＊aij |  | 泰＊${ }^{\text {j }}$ |  | 幽 ${ }_{i}{ }_{i w}$ <br> 宵＊iaw，＊jiaw |  | 尤＊uw |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 蕭 $*_{\text {ew }}$ | 肴＊aiaw | 豪＊aw | 侯 *ow |  |  |  |
|  |  |  |  | 陽＊ iă̆！ |  |  |
| 青＊${ }_{\text {cj }}$ | $\begin{aligned} & \text { 耕 * } 2 \mathrm{ij} \mathrm{\eta} \\ & \text { 庚 *aijŋ } \\ & \hline \end{aligned}$ |  |  | 清＊iany，＊jiajŋ庚＊iajı |  |  |
|  | 江＊aiwn |  | 東＊${ }^{*}$ <br> 冬＊awn |  |  | 東＊uwn鐘＊uawn |
| 先＊عn | $\begin{aligned} & \text { 山 * *in } \\ & \text { 刪 *ain } \end{aligned}$ | 痕 ${ }^{*}$ ən <br> 寒＊an | 魂＊wən | $\begin{aligned} & \text { 真 } *_{\mathrm{in}}, *_{\mathrm{jin}} \\ & \text { 仙 } *_{\mathrm{ian}} *_{\mathrm{j} \mathrm{jian}} \end{aligned}$ | $\begin{aligned} & \text { 殷 } *_{\text {in }} \\ & \text { 元 } *_{\text {ian }} \end{aligned}$ | $\begin{aligned} & \text { 文 *un } \\ & \text { 元 *uan } \end{aligned}$ |
| 添＊عm | 咸＊วim <br> 銜＊aim | $\begin{aligned} & \text { 覃 *om } \\ & \text { 談 *am } \end{aligned}$ |  | 侵＊im，＊jim鹽 ${ }^{*}$ iam，${ }^{*}$ jiam | 嚴 $*$ iam | 凡 *uam |

Tones Early Middle Chinese had four distinct tones：píngshēng，shăngshēng，qùshēng and rùshēng． In this paper，these are labelled $\mathrm{A}, \mathrm{B}, \mathrm{C}$ ，and D respectively．Pulleyblank＇s notation for the tones （which suggests the final consonants that he believes conditioned the tonal distinctions）is not employed here．

## 3．3．2 Onsets

Labial Onsets The Sino－Hmong reflexes of Middle Chinese bilabial stops that appear in my data are very predictable，as shown in table 13．The aspiration distinction is maintained，so that EMC $/ \mathrm{p} /$ becomes ML／p／and EMC／ph／becomes ML／p／．However，the voicing distinction（between／b／ and $/ \mathrm{p} /$ ）is reflected in the difference between the $y \bar{n}$ and yáng tones（as explained in section 3．3．4） but does not affect the onsets．The same pattern－the preservation of the aspiration distinction but the collapse of the voicing distinction－characterizes the other obstruent series as well．

The Early Middle Chinese bilabial nasal $/ \mathrm{m} /$ has two reflexes in Hmong loans belonging to this stratum．This distinction is clearly the result of an assimilatory process（labiodentalization）which occurred between the early and late Middle Chinese period（Baxter 1992）．In the case of 網＇net＇，

| SoUNDS |  | ExAMPLES |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :---: | :---: | :---: | :---: |
| EMC | HMONG |  |  |  |  |  | EMC | HMONG |

Table 13: Correspondences between Middle Chinese labial onsets and their reflexes in Hmong loans.

Pulleyblank gives the following reconstructions: EMC $*$ muan $^{\mathrm{B}}>\mathrm{LMC}_{\mathrm{Ljyan}}{ }^{\mathrm{B}} / \mathrm{van}^{\mathrm{B}}$. It is obvious that this word was borrowed by Hmong after this process had taken place. The contrast between the $/ \mathrm{v} /$ in $\mathrm{van}^{\mathrm{C} 2}$ 'fish net' and $/ \mathrm{m} /$ in muə ${ }^{\mathrm{C} 2}$ 'to sell' reflects contrast that developed between $/ \mathrm{v} /$ ( a labiodental approximate) and $/ \mathrm{m} /$ between Early and Late Middle Chinese.

Dental Onsets Table 14 shows the correspondences between the dental (or perhaps alveolar) onsets of Early Middle Chinese and the onsets in Hmong loans from this period. The stops and affricates present nothing new. Like the labial stops, they show the preservation of the aspiration contrast in Hmong, but not of the voicing contrast. In my data, there was only one example of a late pre-modern borrowing with a dental nasal in Middle Chinese (難 MC nan ${ }^{A}$ 'difficult'). Curiously, the Hmong reflex has a palatal nasal onset. There is little reason to believe that this is a general pattern, as none of the other dental onsets have palatal reflexes. Oddly, too, the Middle Chinese palatal nasal $/ \mathrm{\eta} /$ has the dental reflex $/ \mathrm{n} /$ in at least one borrowing from Middle Chinese (人 MC $\eta i i^{A}$ 'human' > ML nen $\eta^{A 2}$ 'human life'). It seems likely that this difference is the result of variation in the donor language and that these two borrowings will ultimately be shown to be members of different strata of loans.

| Sounds |  | Examples |  |  |
| :---: | :---: | :---: | :---: | :---: |
| MC | Hmong |  | MC | Hmong |
| ＊／t／ | ／t／ | 皇帝 |  | fue ${ }^{\text {AI }}$ tai ${ }^{\text {DI }}$＇emperor＇ |
| ＊／th／ | ／th／ | $\begin{aligned} & \text { 炭 } \\ & \text { 寶塔 } \end{aligned}$ 透 | $\begin{aligned} & \text { *than } \\ & \text { *paw }^{B} \text { thap }^{D} \\ & \text { *th }^{C}{ }^{C} \end{aligned}$ | they ${ }^{C l}$＇charcoal＇ pe ${ }^{D 2}$ thue ${ }^{D 2}$＇pagoda＇ tho ${ }^{\text {Cl }}$＇pierce，to＇ |
| ＊／d／ | ／t／ | 銅 | ＊dawif ${ }^{4}$ | toy ${ }^{42}$＇copper＇ |
| ＊／ts／ | ／ts／ | 足 | ＊tsuawk ${ }^{\text {D }}$ | tsau ${ }^{\text {DI }}$＇enough＇ |
| ＊／tsh／ | ／tsh／ | 千 | ＊tshen ${ }^{\text {A }}$ | tsha ${ }^{\text {Al }}$＇thousand years＇ |
| ＊／（k／ | ／ts／ | 錢 | ＊ $\mathrm{Eian}^{\text {A }}$ | tsa ${ }^{\text {A2 }}$＇money＇ |
| ＊／n／ | ／n／ | 難 | ＊ $\mathrm{nan}^{\text {A }}$ | nue ${ }^{\text {A2 }}$＇difficult＇ |
| ＊／s／ | ／s／ | 選 | ${ }^{\text {swian }}{ }^{\text {B }}$ | sai ${ }^{B 1}$＇choose，to＇ |
| ＊／1／ | ／1／ | $\begin{aligned} & \text { 犁 } \\ & \text { 老 } \\ & \text { 來 } \\ & \text { 露 } \\ & \text { 鐮 } \end{aligned}$ | $\begin{aligned} & *{ }^{\prime} \varepsilon^{A} \\ & * \operatorname{law}^{B} \\ & * \operatorname{loj}^{A} \\ & * l^{C} \\ & * \operatorname{liam}^{A} \end{aligned}$ | $\begin{aligned} & \text { lia }{ }^{A 2} \text { 'plow, to' } \\ & \text { lau }{ }^{C 2} \text { 'old' } \\ & l u^{C 2} \text { 'come back, to' } \\ & l^{C 2} \text { 'dew' } \\ & l^{C 2} \text { 'sickle' } \end{aligned}$ |

Table 14：Correspondences between Middle Chinese dental onsets and their reflexes in Hmong loans．

| Sounds |  | EXAMPLES |  |  |
| :---: | :---: | :---: | :---: | :---: |
| MC | Hmong |  | MC | Hmong |
| ＊／t／ | ／f／ | 桌 | ＊taiwk ${ }^{\text {b }}$ | $t u^{D 2}$＇table＇ |
| ＊／tsh／ | ／ts／ | 插 | ＊tshəip ${ }^{\text {D }}$ | tsuə ${ }^{\text {D2 }}$＇insert，to＇ |
| ＊／ף／ | ／n／ | 娘 | ＊$\eta$ ネaŋ ${ }^{\text {A }}$ | $n a \eta^{A l}$＇daughter－in－law＇ |

Table 15：Correspondences between Middle Chinese retroflex onsets and their reflexes in Hmong loans．

Retroflex Onsets Reflexes of Early Middle Chinese retroflex onsets are shown in table 15．Be－ cause of the small number of data from my collection that belong to this category，it is difficult to come to a solid conclusion regarding the somewhat ordering of correspondences shown in the table．Each of the three examples from the database show a different point of articulation in the Hmong reflexes．At this point，no explanation is forthcoming．

Alveopalatal and Palatal Onsets Table 16 shows the correspondences for Early Middle Chinese alveopalatal and palatal onsets．As with the retroflexes，the data set is too small to draw reliable conclusions．

| Sounds |  | Examples |  |
| :---: | :---: | :---: | :---: |
| MC | Hmong | MC | Hmong |
| ＊／tc／ | ／f／ | $\begin{array}{ll} \hline \hline \text { 只 } & * \operatorname{tcia}^{B} \\ \text { 折 } & * \operatorname{tciaiat}^{D} \end{array}$ | $\begin{aligned} & \hline \hline \text { fua }{ }^{D 1} \text { 'only' } \\ & \text { ty } e^{D 2} \text { 'turn, to' } \end{aligned}$ |
| ＊／n／ | ／n／ | 人＊ $\min ^{\text {A }}$ | neyl ${ }^{\text {A2 }}$＇human life＇ |
| ＊／j／ | ／j／ | 融＊juwy ${ }^{\text {A }}$ | jay ${ }^{42}$＇to melt＇ |

Table 16：Correspondences between Middle Chinese alveopalatal and palatal onsets and their re－ flexes in Hmong loans．

| Sounds |  | Examples |  |  |
| :---: | :---: | :---: | :---: | :---: |
| MC | Hmong |  | MC | Hmong |
| ＊／k／ | ／k／ /q/ | $\begin{aligned} & \hline \text { 光 } \\ & \text { 角 } \\ & \text { 捲 } \\ & \text { 絞 } \\ & \text { 隔 } \end{aligned}$ | ＊kway ${ }^{\text {A }}$ <br> ＊ kaiwk $^{D}$ <br> ＊ kwian $^{B}$ <br> ＊ kaitw $^{B}$ <br> ＊${ }^{2}$ әjjk ${ }^{D}$ | kay ${ }^{42}$＇bright＇ $\mathrm{kau}^{D 2}$＇corner＇ $\mathrm{kau}^{B 1}$＇roll，to＇ $\mathrm{ki}^{B I}$＇turn，to＇ $q u \partial^{D 1}$＇separate，to＇ |
| ＊／kh／ | ／qh／ | $\begin{aligned} & \text { 口 } \\ & \text { 客 } \\ & \text { 開 } \end{aligned}$ | $\begin{aligned} & \text { *khow }{ }^{B} \\ & \text { *khaijk }{ }^{D} \\ & \text { *khoj }{ }^{A} \end{aligned}$ | $q h h^{B I}$＇hole＇ qhuar ${ }^{\text {Cl }}$＇guest＇ qhe ${ }^{1 l}$＇open，to＇ |
| ＊／g／ | $\begin{aligned} & \hline \text { /k/ } \\ & \text { /tç/ } \end{aligned}$ | 蛩 期 騎 鉗 | $\begin{aligned} & \text { *guawi } \\ & \text { *git } \\ & \text { *giá } \\ & \text { *giam } \\ & \hline \end{aligned}$ | kof ${ }^{\text {A2 }}$＇grasshopper＇ <br> $t$ çaiA ${ }^{A 2}$＇time＇ <br> tçai ${ }^{A 2}$＇ride，to＇ <br> tça ${ }^{A 2}$＇tongs＇ |
| ＊／y／ | $\begin{aligned} & / \mathrm{v} / \\ & / \mathrm{n} / \end{aligned}$ | $\begin{aligned} & \text { 瓦 } \\ & \text { 牛 } \\ & \text { 銀 } \\ & \hline \end{aligned}$ |  | $\begin{aligned} & v_{2}{ }^{C 2} \text { 'Clf (tiles)' } \\ & n u^{A 2} \text { 'cattle' } \\ & n a^{A 2} \text { 'silver' } \\ & \hline \end{aligned}$ |
| ＊／x／ | $\begin{aligned} & \hline \mathrm{h} / \\ & / \mathrm{g} / \\ & \hline \end{aligned}$ | $\begin{aligned} & \text { 喊 } \\ & \text { 嚇 } \\ & \text { 稀 } \end{aligned}$ | $\begin{aligned} & \text { *xam }{ }^{B} \\ & \text { *xaijk }^{C} \\ & \text { *xij }^{A} \end{aligned}$ | hau ${ }^{B 1}$＇shout，to＇ he ${ }^{D 2}$＇frighten，to＇ $\int \mathrm{i}^{\text {Al }}$＇thinly spaced |
| ＊／8／ | $\begin{array}{\|l\|} \hline \text { /f/ } \\ \text { /h/ } \end{array}$ | $\begin{array}{\|l\|} \hline \text { 皇帝 } \\ \text { 合 } \\ \hline \end{array}$ | $\begin{aligned} & \text { * ywaty }{ }^{A} t \varepsilon{ }^{C} \\ & \text { * уәp }{ }^{D} \end{aligned}$ | $\begin{aligned} & \text { fua }{ }^{41} \text { tai }{ }^{D I} \text { 'emperor' } \\ & h u^{22} \text { 'fit, to' } \end{aligned}$ |

Table 17：Correspondences between Middle Chinese velar onsets and their reflexes in Hmong loans．

Velar Onsets The velar onsets of Early Middle Chinese，show in table 17，reveal some of the most interesting patterns in loans from the Early Modern Period．The voiceless unaspirated stop ＊／k／has both velar and uvular reflexes（both／k／and／q／）．The voiceless aspirated stop＊／kh／has only uvular reflexes（／qh／），but this may well be accidental．At this point，there is not enough evidence to decide whether the two series of reflexes（velar and uvular）represent borrowings from
different dialects or whether they are the result of phonological processes within Hmong. However, since the same kind of split exists with very old loans (see section 3.4.2), an explanation internal to Hmong would be very attractive. Unfortunately, the present data do not reveal any obvious correspondence between uvular onsets and the phonological environments in which they occur.

The voiced velar stop $* / g /$, the velar nasal $* / g /$, and the voiceless velar fricative $* / x /$ have some palatalized reflexes. This change, as far as can be determined from the data, only occurs before a high front vowel ( $* / \mathrm{i} /$ ) or a high central vowel $(* / \mathrm{i} /)^{13}$. The absence of evidence for palatalization in reflexes of words containing voiceless velar stops is peculiar, but is probably accidental.

### 3.3.3 Rhymes

The Hmong reflexes of Sinitic loans from the medieval period, when compared to reconstructions of Middle Chinese, show an extremely complex-almost erratic-pattern of correspondences. There is reason to believe that this lack of coherence is due to dialect differences in the source language. Given more data, it is very likely that the varied reflexes would reveal clear boundaries between various substrata within this diverse group of loans. As the data currently stands, it does suggest (though not overwhelmingly) a bipartite division. The older stratum appear to be from a language which shows some affinities to the modern Wu and Xiang dialects (most likely, due to coincidental parallel development). The newer stratum, perhaps paradoxically, is clearly more similar to Middle Chinese.

Rhymes with no Nasal or Stop Codas Table 18 shows the correspondences between Early Middle Chinese rhymes without nasal or stop codas and their equivalents in Mong Leng. Particularly interesting is the recurrence of ML/uz/ as a reflex for rhymes containing */a/ in Early Middle Chinese. Also significant is the correspondence between EMC */əw/ and ML / $\% /$. This supports the the earlier assertion that ML/HD $/ \mathrm{s} /$ is a reflex of a diphthongal rhyme. Other similarities seem to exist between the EMC and ML rhymes, but without more data, it is impossible to say how systematic

[^10]| Sounds |  | EXAMPLES |  |  |
| :---: | :---: | :---: | :---: | :---: |
| MC | Hmong |  | MC | Hmong |
| ＊／a／ | ／uə／ | 破 | ＊pha ${ }^{\text {c }}$ | phuə ${ }^{\text {Cl }}$＇break open，to＇ |
| ＊／aw／ | $\begin{aligned} & \text { /au/ } \\ & \text { /e/ } \end{aligned}$ | 老寶塔 | $\begin{aligned} & \text { *law }^{B} \\ & \text { *paw }^{B} \text { thap }^{D} \end{aligned}$ | $\begin{aligned} & \text { lau } C 2 \text { 'old' } \\ & \text { pe }^{D 2} \text { thue }^{D 2} \text { 'pagoda' } \end{aligned}$ |
| ＊／aw／ | ／uə／ | 抱 | ＊ baw $^{B}$ | риə ${ }^{\text {C2＇}}$ embrace，to＇ |
| ＊／aij／ | ／uə／ | $\begin{aligned} & \text { 敗 } \\ & \text { 賣 } \end{aligned}$ | $\begin{aligned} & \text { *baij }{ }^{C} \\ & \text { * } \mathrm{ai} \dot{\mathrm{i} j} \end{aligned}$ | $\begin{aligned} & \text { puә }^{C 2} \text { 'broken' } \\ & \text { muә }{ }^{C 2} \text { 'sell, to' } \end{aligned}$ |
| ＊／aia／ | ／i／ | 絞 | ＊kaiaw ${ }^{\text {B }}$ | $\mathrm{ki}^{B 1}$＇turn，to＇ |
| ＊／iă／ | ／ai／ | 騎 | ＊ $\mathrm{ira}^{4}$ | tçai ${ }^{A 2}$＇ride，to＇ |
| ＊／uw／ | ／u／ | 牛 | ＊${ }^{\text {guw }}{ }^{\text {a }}$ | $n u^{A 2}$＇cattle＇ |
| ＊／wai／ | ／ua／ | 瓦 | ＊ gwai $^{B}$ | vuə ${ }^{\text {2 }}$＇${ }^{\text {Clf（tiles）}}$ |
| ＊／əj／ | ／a／ <br> ／e／ $/ \mathrm{l} /$ | 背 <br> 開 <br> 來 | $\begin{aligned} & \text { *pəjC } \\ & \text { * } k h \partial j^{A} \\ & \text { *ləj }^{A} \end{aligned}$ | $\mathrm{pa}^{B I}$＇recite，to＇ <br> $q h e^{A l}$＇open，to＇ $l u{ }^{C 2}$＇come back，to＇ |
| ＊／əw／ | ／o／ | $\begin{aligned} & \text { 口 } \\ & \text { 透 } \end{aligned}$ | $\begin{aligned} & \text { *khəW }{ }^{B} \\ & \text { * thə }{ }^{C} \end{aligned}$ | $\begin{aligned} & \text { qho }{ }^{B I} \text { 'hole' } \\ & \text { tho }{ }^{C l} \text { 'pierce, to' } \end{aligned}$ |
| ＊／əıj／ | ／e／ | 拜 | ＊${ }^{\text {a }}$ ij $^{C}$ | pe ${ }^{C l}$＇kneel，to＇ |
| ＊／\＆j／ | ／ai／ | 犁 | ＊ $1 \varepsilon j^{A}$ | $1 \mathrm{ai}^{\text {A2 }}$＇plow，to＇ |
| ＊／i／ | ／ai／ | 期 | ＊${ }^{\text {a }}{ }^{\text {A }}$ | tçai ${ }^{\text {A2 }}$＇time＇ |
| ＊／ij／ | ／i／ | 稀 | ＊ $\mathrm{xij}^{A}$ | $\int i^{A l}$＇thinly spaced＇ |

Table 18：Correspondences between Middle Chinese rhymes without codas（excepting off－glides） and their reflexes in Hmong loans．
these relationships are．

| Sounds |  | Examples |  |
| :---: | :---: | :---: | :---: |
| MC | Hmong | MC | Hmong |
| ＊／am／ | ／au／ | 喊 ${ }^{\text {xam }}{ }^{B}$ | hau ${ }^{B 1}$＇shout，to＇ |
| ＊／iam／ | ／a／ | $\begin{array}{cc}\text { 鐮 } & * \operatorname{liam}^{A} \\ \text { 鉗 } & * \text { giam }^{A}\end{array}$ | la ${ }^{C 2}$＇sickle’ <br> $t_{\text {ça }}{ }^{A 2}$＇tongs＇ |
| ＊／an／ | $\begin{array}{\|l\|} \hline \text { /ey/ } \\ \text { /ua/ } \\ \hline \end{array}$ | 鞍 PRan $^{A}$ <br> 炭 ${ }^{\text {than }}{ }^{C}$ <br> 難 nan $^{A}$ | Pen ${ }^{41}$＇saddle＇ then ${ }^{C l}$＇charcoal＇ nu ${ }^{42}$＇difficult＇ |
| ＊／jian／ | ／ua／ | 面 $*^{\text {mjian }}{ }^{\text {c }}$ | mu2 ${ }^{\text {C2 }}$＇face＇ |
| ＊／ian／ | $\begin{array}{\|l\|} \hline \text { la/ } \\ \text { len/ } \\ \hline \end{array}$ | $\begin{array}{ll} \text { 錢 } & * \operatorname{tian}^{A} \\ \text { 辯 } & * \operatorname{bian}^{B} \end{array}$ | tsa ${ }^{A 2}$＇money＇ <br> pen ${ }^{B 1}$＇plead ones case＇ |
| ＊／in／ | $\begin{array}{\|l\|} \hline \text { la/ } \\ \text { /en/ } \end{array}$ | $\begin{array}{\|ll} \hline \text { 銀 } & * \operatorname{nin}^{A} \\ \text { 人 } & * \operatorname{nin}^{A} \end{array}$ | $\begin{aligned} & \operatorname{na}^{A 2} \text { 'silver' } \\ & n e y d^{42} \text { 'human life' } \end{aligned}$ |
| ＊／wain／ | ／a／ | 彎＊${ }_{\text {Wwain }}{ }^{\text {a }}$ | va ${ }^{\text {AI }}$＇bent＇ |
| ＊／wian／ | $\begin{array}{\|l\|} \hline \text { /ai/ } \\ \text { /au/ } \end{array}$ | $\begin{array}{\|ll} \hline \text { 選 } & { }^{*} \text { Swian }^{B} \\ \text { 捲 } & * \text { kwian }^{B} \\ \hline \end{array}$ | $\begin{array}{\|l\|} \hline \text { sai }{ }^{B I} \text { 'choose, to' } \\ \mathrm{kau}^{B 1} \text { 'roll, to' } \\ \hline \end{array}$ |
| ＊／8n／ | ／a／ | 千＊tshen ${ }^{\text {A }}$ | tsha ${ }^{\text {AI }}$＇thousand years＇ |
| ＊／aiwy／ | ／ay／ | 棒＊baiw ${ }^{B}$ | pay ${ }^{\text {D1 }}$＇stick＇ |
| ＊／uawy／ | ／on／ | 蛩 ${ }^{\text {c }}$ guawl ${ }^{\text {A }}$ | koy ${ }^{42}$＇grasshopper＇ |
| ＊／uay／ | ／an／ | 網＊muan ${ }^{\text {B }}$ | vay ${ }^{\text {c2 }}$＇fish net＇ |
| ＊／way／ | ／ay／ | 光＊kwayd ${ }^{\text {a }}$ | kay ${ }^{42}$＇bright＇ |
| ＊／iay／ | ／ay／ | $\begin{array}{\|ll} \hline \text { 娘 } & * \eta \dot{\text { in }}{ }^{4} \\ \text { 嘗 } & * d z \dot{a} n^{A} \end{array}$ | $\begin{aligned} & \operatorname{lan}^{A 1} \text { 'daughter-in-law' } \\ & \text { fay }^{42} \text { 'taste, to' } \\ & \hline \end{aligned}$ |

Table 19：Correspondences between Middle Chinese rhymes with nasal codas and the rhymes of Pre－Modern Hmong loans．

Rhymes with Nasal Codas Table 19 shows the Hmong reflexes for rhymes with nasal codas in Middle Chinese．While it does not seem possible，at this point，to account for all of the variation within this data set，it is possible to make a few generalizations．Middle Chinese rhymes with the codas $/ \mathrm{n} /$ and $/ \mathrm{m} /$ seem to have two sets of reflexes．One set，which I believe to be older，reflects all of these rhymes as／ey／．The other set is characterized by the deletion of the nasal coda．In this second set，these rhymes are often reflected as ML／a／or／uә／．As shall be discussed later in this section，these rhymes correspond more regularly with modern Wu and Xiang dialects than with Early Middle Chinese（see table 22）．

| SoUNDS |  | EXAMPLES |  |  |
| :---: | :---: | :---: | :---: | :---: |
| MC | Hmong |  | MC | HMong |
| ＊／ap／ | ／uə／ | 䆩塔 | ${\text {＊} \text { paw }^{B} \text { thap }}^{\text {D }}$ | pe ${ }^{\text {D2 }}$ thuə ${ }^{\text {D2 }}$＇pagoda＇ |
| ＊／aïjk／ | $\begin{aligned} & \text { /e/ } \\ & \text { /uə/ } \end{aligned}$ | $\begin{aligned} & \text { 嚇 } \\ & \text { 百 } \\ & \text { 客 } \end{aligned}$ | $\begin{aligned} & \text { *xaijk }{ }^{C} \\ & \text { *paijk } \\ & \text { *khaijk } \end{aligned}$ | he ${ }^{D 2}$＇frighten，to＇ puə ${ }^{C l}$＇hundred＇ $q h u ə{ }^{C l}$＇guest＇ |
| ＊／aip／ | ／u／ | 鴨 | ＊${ }^{\text {aipp }}{ }^{\text {D }}$ | Pu ${ }^{D I}$＇duck＇ |
| ＊／aiwk／ | $\begin{aligned} & \text { /au/ } \\ & / \mathrm{u} / \end{aligned}$ | 角桌 | $\begin{aligned} & \text { * } \text { kaíwk }^{D} \\ & \text { *taiwk } \end{aligned}$ | $\begin{aligned} & \mathrm{kau}^{D 2} \text { 'corner' } \\ & t \mathrm{u}^{D 2} \text { 'table' } \end{aligned}$ |
| ＊／iat／ | ／e／ | 折 | ＊tciat ${ }^{\text {D }}$ | tye ${ }^{D 2}$＇turn，to＇ |
| ＊／jiat／ | ／e／ | 憋 | ＊ pjiat $^{\text {D }}$ | $p e^{D 2}$＇hold breath，to＇ |
| ＊／uawk／ | ／au／ | 足 | ＊tsuawk ${ }^{\text {D }}$ | tsau ${ }^{\text {DI }}$＇enough＇ |
| ＊／əр／ | ／u／ | 合 | ＊уәр ${ }^{\text {D }}$ | $h u^{D 2}$＇fit，to＇ |
| ＊／əijk／ | ／uə／ | 隔 | ＊ kəijk $^{\text {D }}$ | $q u \partial^{D 1}$＇separate，to＇ |
| ＊／วip／ | ／uə／ | 插 | ＊tshəip ${ }^{\text {D }}$ | tsuə ${ }^{\text {D2 }}$＇insert，to＇ |

Table 20：Correspondences between Middle Chinese rhymes with stop codas．

Rhymes with Stop Codas According to the rhyme correspondences shown in table 20，the rhymes with stop codas do not present any more ordered a picture than do the other Middle Chi－ nese rhymes．The amount of data is too scant to support any broad generalizations about this part of the phonological system．However，these rhymes are still informative．The ML rhyme／uə／ again appears in several words with varied EMC rhymes．As a comparison with table 22 shows， these rhymes usually have a more regular relationship to Wu and Xiang dialects（particularly that of Wēnzhōu）than to EMC．However，two of the words belonging to this group，puə ${ }^{D l}$＇hundred＇ and $q h u \partial^{D l}$ exhibit a tonal correspondence which is typical of ancient（Old Chinese）rather than pre－modern loans．These words may actually belong to the ancient stratum（see section 3．4．4）．

Evidence for Loans from a Wu－like Dialect The close（in some cases striking）correspon－ dences that exist between modern Wu and Xiang dialects and the loans of this stratum－which are confined almost wholly to the rhymes－invite the examination of Ballard＇s（1986）assertion that some of the early Sinitic loans in Hmong were borrowed from the ancestor of the Wu and Xiang dialects（and that，in fact，these dialects had a Hmongic substrate）．The rhyme sets which illustrate these correspondences most persuasively are given in tables 21 and 22.

The Hmong forms in table 21 bear a strong resemblance to the Wu forms（from Wēnzhōu and

Sūzhōu) and the Xiang forms (from Chángshā). In the Hmong forms, like the Wu and Xiang forms, the nasal coda has been deleted. The Hmong Daw forms are temptingly similar to those from Chángshā, in particular. However, there is reason to believe that this is a case of drift rather than of Hmong borrowing from Wu or Xiang. In other dialects of Hmong, the cognates of these words (indeed, the cognates of this rhyme), tend to have a nasal coda like the EMC forms; both Purnell (1970) and Wang (1994) reconstruct the coda for Proto-Hmong. Given this information, the resemblance seems somewhat less compelling.

The pattern shown in 21 is somewhat harder to debunk. The correspondence between the ML/HD rhyme /ua/ and the Wu rhymes is much stronger than that between the Hmong rhyme and the EMC rhymes. The relationship with Wēnzhōu dialect is, in particular, uncannily regular. This is problematic, however, because this dialect is spoken in the southern part of the Yangzi delta region (not on the central course of the Yangzi, where the ancient Hmong are typically supposed to have lived). Based upon historical and geographical criteria, we would expect the strongest similarity to be between Hmong and Xiang. Oddly, however, this is seldom the case. While Hmong borrowing from a Wu dialect of the southern delta is somewhat hard to imagine, parallel drift is not a particularly satisfying explanation either. In addition, there are two Sinitic loans in Hmong for which it is difficult to account without making reference to Wu (both of which show strong resemblances to forms from Wēnzhōu):
 contrast ChÁngshā pau ${ }^{\mathrm{B}}$ tha ${ }^{\mathrm{D}}$ EMC * paw $^{\mathrm{B}}$ thap $^{\mathrm{D}}$.
2. 'emperor': ML fua ${ }^{\mathrm{A} 1} \mathrm{tai}^{\mathrm{D} 1}, \mathrm{HD}$ huə ${ }^{\mathrm{A} 1} \operatorname{tai}^{\mathrm{D} 1}$; compare WĒNZHŌU fui ${ }^{\mathrm{A} 2} \mathrm{tei}^{\mathrm{Cl}}$; contrast ChÁNGSH $\overline{\mathrm{A}}$ $\operatorname{fan}^{\mathrm{A} 2} \mathrm{ti}^{\mathrm{C} 1}, \mathrm{EMC}$ * ${ }^{2}$ wan $^{\mathrm{A}} \mathrm{trj}^{\mathrm{C}}$.

In the case of 'pagoda', the relationship is strengthened by both phonetic similarity in the first syllable and a regular rhyme correspondence in the second syllable (see table 22). Despite the tonal discrepancies in 'emperor', the Hmong forms resemble the Wēnzhōu form much more closely than the other Sinitic forms. It seems very likely that at least these two words were borrowed by

Hmong from a Wu dialect．While Ballard＇s case is far from made，the issue of Wu and Xiang loans in Hmong deserves further investigation．At this point，it appears that words from a Wu －like dialect did find their way into the Hmong lexicon，but probably not on the scale suggested by Ballard．

| GLOSS | Hz | Mong Leng | HMONG DAW | WĒNZHŌU | SŪZHŌU | ChÁNGSHĀ | EMC |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| money | 錢 | tsa ${ }^{\text {A2 }}$ | tsia ${ }^{\text {A2 }}$ | $\mathrm{fii}^{\text {A2 }}$ | $\mathrm{ZI}^{\text {A2 }}$ | tsie ${ }^{\text {A2 }}$ | ${ }^{*}$ dian $^{\text {A }}$ |
| sickle | 鐮 | $1 a^{\text {C2 }}$ | li2 ${ }^{\text {C2 }}$ | $\mathrm{li}^{\text {A2 }}$ | $1 \mathrm{l}^{\text {A2 }}$ | $n \tilde{e}^{\mathrm{A} 2}$ | ＊ $\operatorname{liam}^{\text {A }}$ |
| thousand | 千 | tsha ${ }^{\text {Al }}$ | tshi2 ${ }^{\text {A } 1}$ | tchi ${ }^{\text {Al }}$ | tshi ${ }^{\text {Al }}$ | tshie ${ }^{\text {A1 }}$ | ＊tshen ${ }^{\text {A }}$ |
| tongs | 鉗 | tca $\mathrm{a}^{\text {A2 }}$ | tcia ${ }^{\text {A2 }}$ | di ${ }^{\text {A2 }}$ | der ${ }^{\text {A2 }}$ | tcie $\tilde{e}^{\text {A2 }}$ | $*$ giam $^{\text {A }}$ |
| year | 年 | $n a^{\text {A2 }}$ | $n i 2{ }^{\text {A2 }}$ | $\mathrm{ji}^{\text {A2 }}$ | $\mathrm{jri}{ }^{\text {A2 }}$ | nıẽ ${ }^{\text {A2 }}$ | ${ }^{n} \mathrm{n} \mathrm{n}^{\text {A }}$ |

Table 21：The Hmong reflexes of the MC rhymes／ian／，／iam／，and／عn／compared with the Wu （Wēnzhōu and Sūzhōu）and Xiang（Chángshā）reflexes．

| Gloss | Hz | Mong Leng | Hmong Daw | Wenzhou | SUZHOU | CHANGSHA | EMC |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| broken | 敗 | pua ${ }^{\text {c2 }}$ | pua ${ }^{\text {D1 }}$ | $\mathrm{ba}^{\text {C2 }}$ | $\mathrm{bD}^{\text {C2 }}$ | pai ${ }^{\text {c2 }}$ | ＊baij ${ }^{\text {c }}$ |
| difficult | 難 | пua ${ }^{\text {A2 }}$ | пu＊${ }^{\text {A2 }}$ | $n a^{\text {C2 }}$ | $\mathrm{nE}^{\mathrm{C} 2}$ | nan ${ }^{\text {C1 }}$ | ＊ $\mathrm{nan}^{\text {A }}$ |
| embrace | 抱 | pue ${ }^{\text {C2 }}$ | pue ${ }^{\text {C2 }}$ | $b \varepsilon^{B 2}$ | $b æ^{C 2}$ | pau ${ }^{\text {C2 }}$ | ＊ baw $^{\text {B }}$ |
| hundred | 百 | pua ${ }^{\text {C1 }}$ | pue ${ }^{\text {C1 }}$ | $\mathrm{pa}^{\text {D1 }}$ | ppl ${ }^{\text {D1 }}$ | pr ${ }^{\text {D }}$ | ＊${ }_{\text {paijk }}{ }^{\text {D }}$ |
| to interfere | 插 | tsua ${ }^{\text {D2 }}$ | tsua ${ }^{\text {D2 }}$ | tsha ${ }^{\text {D1 }}$ | tsha？${ }^{\text {D1 }}$ | tsha ${ }^{\text {D }}$ | ＊tshəip ${ }^{\text {D }}$ |
| pagoda | 寶塔 | pe ${ }^{\text {D2 }}$ thua ${ }^{\text {D2 }}$ | pe ${ }^{\text {A2 }}$ thua ${ }^{\text {D2 }}$ | $\mathrm{p} \varepsilon^{\mathrm{B} 1}$ tha $^{\mathrm{D} 1}$ | pæ ${ }^{\text {B }}$ thar ${ }^{\text {D1 }}$ | pau ${ }^{\text {B }}$ tha ${ }^{\text {D }}$ | ${ }^{\text {paw }}{ }^{\text {B }}$ thap ${ }^{\text {D }}$ |
| to polish | 擦 | tshue ${ }^{\text {D2 }}$ | tshue ${ }^{\text {D2 }}$ | tsha ${ }^{\text {D1 }}$ | tshar ${ }^{\text {D1 }}$ | tsha ${ }^{\text {D }}$ | ＊tshat ${ }^{\text {D }}$ |
| to sell | 賣 | mue ${ }^{\text {C2 }}$ | mue ${ }^{\text {C2 }}$ | $\mathrm{ma}^{\text {C2 }}$ | $\mathrm{mp}^{\text {C2 }}$ | mai ${ }^{\text {C1 }}$ | $*_{\text {maij }}{ }^{\text {C }}$ |
| to separate | 隔 | qua ${ }^{\text {D1 }}$ | qua ${ }^{\text {D1 }}$ | ka ${ }^{\text {D1 }}$ | $\mathrm{kr}{ }^{\text {D1 }}$ | $\mathrm{kr}{ }^{\text {D }}$ | ＊${ }^{\text {a }}$ ijk ${ }^{\text {D }}$ |
| to split | 破 | phua ${ }^{\text {C1 }}$ | phu2 ${ }^{\text {C1 }}$ | pha ${ }^{\text {C1 }}$ | phu ${ }^{\text {C1 }}$ | pho ${ }^{\text {C1 }}$ | ＊pha ${ }^{\text {C }}$ |
| guest | 客 | qhue ${ }^{\text {C1 }}$ | qhue ${ }^{\text {C1 }}$ | kha ${ }^{\text {D1 }}$ | kho？${ }^{\text {D1 }}$ | khr ${ }^{\text {D }}$ | ＊khaijk ${ }^{\text {D }}$ |

Table 22：Correspondence between Hmong／uə／and the equivalent rhymes in Wu（Wēnzhōu and Sūzhōu），Xiang（Chángshā），and EMC．

## 3．3．4 Tones

The very predictable relationship between the tones of Middle Chinese and those of Sinitic loans in Hmong borrowed during the Middle Chinese period is shown in table 23．Clearly，the tonal system of Middle Chinese and that of earlier stages of Hmong must have been very similar．As Ying（1972：56）notes：

If we compare these loans with the Ch＇ieh－yün［Qièyùn］rhyme tables，we find that the tones have been borrowed by Miao primarily on the basis of the p＇ing，shang，ch＇ü and

| MC | Hmong |  | Examples |  |
| :---: | :---: | :---: | :---: | :---: |
| Tone | Tone | Pitch | Middle Chinese | Mong Leng |
| A | A1 A2 | $055$ $52 \mathrm{Y}$ | 鞍 Pan $^{A}$ <br> 千 thhrn $^{A}$ <br> 彎 ？wain <br> 開 $k^{A} h \partial j^{A}$ <br> 難 $n a n^{A}$ <br> 生 $\eta u w^{A}$ <br> 鉗 giam <br> 銀 $\eta i i^{A}$ | Pen ${ }^{A l}$＇saddle＇ tsha ${ }^{A l}$＇thousand years＇ va ${ }^{A l}$＇bent＇ $q h e^{A l}$＇open，to＇ nue ${ }^{\text {A2 }}$＇difficult＇ $n u^{A 2}$＇cattle＇ tça ${ }^{A 2}$＇tongs＇ na ${ }^{42}$＇silver＇ |
| B | B1 C2 | $24 \quad 1$ $42 \quad \text { y }$ | 捲 $\mathrm{kwian}^{B}$ <br> 口 $\mathrm{kh} \mathrm{\partial w}^{B}$ <br> 絞 $\mathrm{kaiw}^{B}$ <br> 喊 $x^{3} \mathrm{am}^{B}$ <br> 瓦 $\eta w a i^{B}$ <br> 老 $\operatorname{law}^{B}$ <br> 網 muan $^{B}$ <br> 抱 baw $^{B}$ | $\mathrm{kau}^{B 1}$＇roll，to＇ $q h s^{B 1}$＇hole＇ $k i^{B I}$＇turn，to＇ hau ${ }^{B 1}$＇shout，to＇ vuə ${ }^{C 2}$＇Clf（tiles）＇ <br> lau ${ }^{C 2}$＇old＇ $\operatorname{vay}^{C 2}$＇fish net＇ puә ${ }^{C 2}$＇embrace，to＇ |
| C | C1 C2 | $\begin{array}{ll} 33 & -1 \\ 42 & y \end{array}$ | 透 thaw ${ }^{C}$ <br> 炭 than <br> 破 $p h a^{C}$ <br> 拜 $p a i j{ }^{C}$ <br> 敗 $b a i j$ <br> 賣 maij <br> 露 $1 C^{C}$ <br> 面 mjian | ${ }_{t J}{ }^{C I}$＇pierced＇ they ${ }^{c l}$＇charcoal＇ phua ${ }^{C l}{ }^{\text {＇break open，to＇}}$ $p e^{C l}$＇kneel，to＇ puә ${ }^{C 2}$＇broken＇ muә ${ }^{\text {C2 }}$＇sell，to＇ $1 u^{C 2}$＇dew＇ muә ${ }^{\text {C2 }}$＇face＇ |
| D | D1 D2 | $\begin{aligned} & 22 \\ & 21 \\ & 21 \end{aligned}$ | 足 tsuawk <br> 鴨 Paip <br> 隔 kəijk $^{D}$ <br> 角 kaiwk $^{D}$ <br> 整 pjiat $t^{D}$ <br> 合 yəp <br> 插 tshəip ${ }^{D}$ |  |

Table 23：Middle Chinese tone categories and their reflexes in Hmong．
$j u$ [pīng, shăng, qù, and rù] tone categories. In most cases, the borrowing also agrees with the feature of voicing and can be subdivided into two categories.

Early-modern loans with the tone A, B, C, or D generally have the corresponding tone in Hmong. The Hmong yin tones (here designated as A1, B1, C1, and D1) generally appear in words whose Middle Chinese equivalent had a voiceless onset. The yáng tones (A2, C2, and D2) generally appear in words whose Middle Chinese equivalent had a voiced onset. Oddly, however, there are a large number of rùshēng words (words in the tone group D ) that had voiceless initials in Middle Chinese but that occur in the Hmong yángrù category (D2).

The data shown in table 23 show one apparent anomaly. Based on the other patters, we would expect Middle Chinese shăngshēng ( B tone) words with voiced initials to have the tone B2 (yángshăng) in Hmong, rather than the C 2 (yángqù) tone shown in the Mong Leng data or the D1 (yinruù) tone that appears in the Hmong Daw data. The explanation for this irregularity is simply that the B2 (yángshăng) tone has been lost-via mergers-from both of these dialects since the time that these words were borrowed (see section 3.1).

The pre-modern loans form the least distinct and hardest to analyze stratum of Sinitic loans in Hmong. All areas of their phonology present interesting problems for the historical linguist. Future analysis may prove that some of the loans identified here as pre-modern have actually been borrowed from dialects other than those examined in this essay or are members of the ancient stratum of Sinitic loans.

### 3.4 Ancient Loans: Old Chinese

There is, in the Hmong-Mien family, a considerable inventory of shared forms which bear a strong resemblance to their Sinitic equivalents, but which display archaic features that predate in Middle Chinese. These seem to be loans from a group of very ancient Sinitic dialects similar to those that have been reconstructed as Old Chinese. Other possibilities have been suggested. For example, many Chinese linguists maintain that Hmong-Mien is part of the Sino-Tibetan family of languages and that these related words are cognates. Wáng Fúshì and Māo Zōngwǔ more cautiously suggest
that it is too early to tell whether these forms are borrowed or inherited (Wang 1994; Wang \& Mao 1995). I maintain that these words are best treated as loans rather than as Sino-Tibetan cognates. However, it is entirely possible that some of these ancient loans were borrowed from non-Sinitic languages. For example, Benedict (1987) has persuasively argued that there was an early loan relationship between Hmong-Mien and the Tibeto-Burman branch of the Sino-Tibetan family. Some of the forms that I have assigned to this group could actually be loans from TibetoBurman. Others may have been borrowed by Hmong-Mien from Sinitic via a third language. Still others could have been borrowed by both Chinese and Hmong-Mien from a third language. For example, HD hneŋ ${ }^{B 1}$ 'crossbow', which is cited in the Glossary as a possible loan from Old Chinese, is more likely to have been borrowed by both Hmong-Mien and Chinese from an Austroasiatic language (Norman \& Mei 1976:293-294). Finally, as the idea that speakers of Sinitic languages have borrowed vocabulary from their southern neighbors has gained increasing currency, scholars have pointed out that certain Sinitic words could have been borrowed from Hmong-Mien languages. For example, Norman (1988:17) suggests that the Chinese 狗 'dog' was borrowed by Chinese from Hmong, rather than by Hmong from Chinese (as suggested here). Haudricourt \& Strecker (1991) have even argued that various words for commerce and agriculture were borrowed into Chinese from a Hmong-Mien language. Put simply, there are still too many questions to be answered about the early linguistic relationships between the peoples of East and Southeast Asia to pretend that the relationships proposed here are in any way finalized.

### 3.4.1 The Phonological Inventory of Old Chinese

As a standard of comparison from prehistoric Sinitic loans in Hmong, I have chosen Baxter's (1992) reconstruction of Old Chinese. While it does contain certain elements and hypotheses that are still considered controversial by many Sinologists, it presents a very clear and explicit model of Old Chinese phonology which has proved useful in my comparisons between Old Chinese and modern Hmong Daw and Mong Leng. It also incorporates certain innovations that allow it to better
account for the Hmong data than can earlier standards like Karlgren (1957) ${ }^{14}$. Baxter treats the Old Chinese syllable as having six elements ${ }^{15}$ :

1. Pre-initial (onset)
2. Initial (onset)
3. Medial (usually, onset)
4. Main vowel (nucleus)
5. Coda
6. Post-coda

The term onset, as used elsewhere in this paper, includes Baxter's pre-initial, initial and (at least in most cases) medial. As I have used the term rhyme, it includes Baxter's main vowel, and coda. Technically, the post-coda is part of the rhyme as well, but in Baxter's system it is distinguished as a separate unit because it is the source of Middle Chinese tonal distinctions rather than distinctions between Middle Chinese rhyme codas.

Onsets Baxter proposes that Old Chinese had several "pre-initials" which sometimes occurred in the onsets before his initials. These include *i-, *s-, and *N-.

The initials Baxter reconstructs for Old Chinese are as follows:

| *p | *ph | * b | *m | *hm | *W | *hw |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| * | *th | *d | *n | *hn | * | *hl |
|  |  |  |  |  | *r | *hr |
|  |  |  |  |  | * | *hj |
| *ts | *tsh | * ¢ |  |  | * z | *s |
| *k | *kh | *g | * g | *hy |  |  |
| * ${ }^{\text {w }}$ | * $\mathrm{k}^{\mathrm{w}} \mathrm{h}$ | * ${ }^{\text {w }}$ | * $\mathrm{J}^{\text {w }}$ | *hg ${ }^{\text {w }}$ |  |  |
| *? | * X | *f |  |  |  |  |
| * ${ }^{\text {w }}$ |  |  |  |  |  |  |

[^11]Medials Baxter reconstructs the medials *-r-, *-j- and *-w-.

Nuclei Baxter's reconstruction includes a richer inventory of nuclear vowels than most earlier OC reconstructions. The vowel system he proposes is summarized in this diagram:

```
*i * *i * *
*e *o
    *a
```

Codas Baxter treats off-glides, as well as final stops, as codas. He proposes the following set, which seem to combine more or less freely with the nuclear vowels to form rhymes:

| $*_{-\emptyset}$ | $*_{-\mathrm{k}}$ | $*_{-\mathrm{y}}$ |
| :--- | :--- | :--- |
| $*_{-\mathrm{j}}$ | $*_{-\mathrm{t}}$ | $*_{-\mathrm{n}}$ |
| *-w $^{2}$ | $*_{\text {-wk }}$ |  |
|  | $*_{-\mathrm{p}}$ | $*_{-\mathrm{m}}$ |

Post Codas Following Pulleyblank and Mei, Baxter has proposed that the Middle Chinese tone categories were the result of earlier consonant distinctions. He reconstructs the following consonant endings which he labels post-codas:

```
*-s Source of Middle Chinese qùshēng (C)
*-? Source of Middle Chinese shăngshēng (B)
```

 and syllables ending in a nasal or glide coda. The tone rùshēng, by definition, occurs in syllables that end (or at an earlier period, ended) in the voiceless stop consonants /p/, /t/, and /k/.

The complex changes that occurred between the language of the Old Chinese period-when the first loans from Sinitic languages entered Hmong-Mien-and Middle Chinese are not well understood. Baxter's reconstruction, ambitious as it is, is still provisional in many respects. In the case of some words, reconstructions according to Baxter's system are simply not available. For this reason my analysis of the reflexes of Old Chinese sounds will follow the well documented Qièyùn categories to some extent, rather than strictly following Baxter's divisions.

## 3．4．2 Onsets

The onsets of the ancient loans will probably prove to be of greater interest to Sinologists than the rhymes or tones．The current evidence available for reconstructing Old Chinese is largely derived from studies of poetic rhyme．Thus，evidence from Sinitic loanwords in other languages has proved very valuable to the enterprise of Old Chinese reconstruction（particularly of the onsets）．Because Hmong＇s inventory of onsets is so rich，it may preserve some contrasts lost in other languages． The onsets of the ancient loans，like those of the modern and pre－modern loans，also provide the clearest criteria for identifying loans．

| QY | ML | Gloss | Hz | $\mathrm{OC}_{\mathrm{B}}$ | $\mathrm{MC}_{\mathrm{P}}$ | Proto－Hmong | Mong Leng |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 非 | ／ph／ | bad | 否 | ＊phi？ | ＊ $\mathrm{bi}^{\text {B }}$ | － | phe ${ }^{\text {D2 }}$ |
| 明 | ／m／ | barbarian | 蠻 | ＊mron | ＊ main $^{\text {A }}$ | － | $\mathrm{man}^{\text {AI }}$ |
|  |  | spear | 矛 | ＊m（r）ju | ＊ muw $^{\text {A }}$ | － | $\mathrm{mu}^{\text {B1 }}$ |
|  | $/ \mathrm{ml} /$ | cat | 貓 | － | ＊ maiw $^{\text {A }}$ | － | $\mathrm{ml}^{\text {A }}$ |
| 微 | ／m／ | vine | 蔓 | － | ＊muan ${ }^{\text {C }}$ | ＊mşaj ${ }^{\text {A }}$ | $\mathrm{man}^{\text {AI }}$ |

Table 24：Ancient loans with labial initials in Old Chinese arranged according to the Cièyùn initials．

Labials The number of loans in the strata with labial onsets is surprisingly small，indicating， perhaps，that some of these loans have been misassigned to a different stratum or that processes have occurred which obscure the original identity of these loans．The loans identified in table 24 have a couple of interesting properties．While it is not evident from the Mong Leng data given，both ＇spear＇and＇vine＇had voiceless initials in Proto－Western Hmong．Compare，for example，Hmong Daw $h m u^{B I}$＇spear＇and $h m a y^{A l}$＇vine＇．Currently，I have no hypothesis to explain this situation， but it does merit further investigation．Also，the appearance of the cluster in the Hmong word for ＇cat＇raises a number possible questions．If it is，in fact，a loan from an early Sinitic language to Hmong－Mien，then the $/ 1 /$ in the Hmong onset would seem to reflect an element no longer present in Middle Chinese．More information on the etymology of Chinese 貓＇cat＇could shed additional light on this issue．

| QY | ML | Gloss | Hz | $\mathrm{OC}_{\text {B }}$ | $\mathrm{MC}_{\mathrm{p}}$ | Proto－Hmong | Mong Leng |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 端 | ／t／ | to obtain | 得 | ＊tik | ＊tək ${ }^{\text {D }}$ | ＊${ }^{\text {c }}{ }^{\text {c }}$ | $\mathrm{tau}^{\text {Cl }}$ |
|  |  | to wait | 等 | － | ＊ $\operatorname{tgn}^{\text {B }}$ | ＊ $\mathrm{d} \boldsymbol{y}{ }^{\text {B }}$ | ts ${ }^{\text {C2 }}$ |
|  |  | to answer | 答 | ＊k－lup | ＊ p $^{\text {D }}$ | ＊ ® $^{\text {A }}$ | te ${ }^{\text {A1 }}$ |
|  | ／nt／ | many | 多 | ＊taj | ＊ $\mathrm{a}^{\text {A }}$ | ＊nts ${ }^{\text {C }}$ | ntau ${ }^{\text {C1 }}$ |
|  |  | to hit | 打 | － | ＊tajy ${ }^{\text {B }}$ | ＊nta ${ }^{\text {D }}$ | ntau ${ }^{\text {D1 }}$ |
| 透 | ／th／ | whole | 統 | － | ＊thaw！${ }^{\text {C }}$ | － | thon ${ }^{\text {AI }}$ |
|  |  | pail | 桶 | － | ＊ thug $^{\text {B }}$ | ＊thuy ${ }^{\text {A }}$ | thon ${ }^{\text {Al }}$ |
|  | ／hl／ | iron | 鐵 | ＊hlet | ＊thet ${ }^{\text {D }}$ | ＊${ }_{0}{ }^{\text {C }}$ | hlau ${ }^{\text {C1 }}$ |
|  |  | to take off | 脱 | ＊hlots | ＊thak ${ }^{\text {D }}$ | － | hle ${ }^{\text {C1 }}$ |
| 定 | ／t／ | bean | 豆 | ＊dos | ＊${ }^{\text {d w }}{ }^{\text {C }}$ | ＊də ${ }^{\text {D }}$ | tau ${ }^{\text {D2 }}$ |
|  |  | dry field | 地 | ＊Irjajs | ＊ $\mathrm{id}^{\text {C }}$ | ＊ ® $^{\text {A }}$ | te ${ }^{\text {A1 }}$ |
|  | ／1／ | paddy | 田 | ＊din | ＊dəw ${ }^{\text {C }}$ | $* \operatorname{lin}^{\text {A }}$ | $1 a^{\text {A2 } 2}$ |
| 章 | ／tģ／ | to steam | 蒸 | ＊ tjin | ＊tcuawy ${ }^{\text {B }}$ | ＊tcon ${ }^{\text {A }}$ | tçu ${ }^{\text {AI }}$ |
|  | ／fy／ | type，kind | 種 | － | ＊tcuawn ${ }^{\text {B }}$ | － | $t a^{\text {bi }}$ |
| 心 | ／s／ | to send | 送 | ＊soys | ＊sawn ${ }^{\text {c }}$ | ＊son ${ }^{\text {c }}$ | san ${ }^{\text {Cl }}$ |
|  | ／j／ | write | 寫 | ＊ $\mathrm{sj} \mathrm{A}(\mathrm{k})$ ？ | ＊sia ${ }^{\text {B }}$ | ＊fsoi ${ }^{\text {C }}$ | $\int \mathrm{au}^{\text {C1 }}$ |
|  |  | to rest | 息 | － | ＊sik | ＊ $\mathrm{so}^{\text {c }}$ | $\mathrm{ju}^{\text {C }}$ |

Table 25：Ancient loans with dental initials in Old Chinese arranged according to the Qièyùn initials．

Dentals The Hmong reflexes of Old Chinese dentals，shown in table 25，show that the loans in this stratum are not a unified group．Rather，they comprise a broad category of loans borrowed over several hundred years．During this time period both languages underwent significant changes．The most obvious example of this is the presence of both lateral approximates and stops in categories which，by the Middle Chinese period，had come to have consisted entirely of stops．Some of the words clearly show an earlier stage of development．Both＇iron＇and＇to take off＇originally began with voiceless lateral onsets ${ }^{16}$ This is reflected in the borrowed forms．Although Baxter reconstructs OC $\boxplus$＇wet field；paddy＇as din，there is evidence that，at a very early point at least， this word had a lateral onset like the Hmong form $l a^{A 2}$＇paddy＇．As Sagart（1995：334）remarks regarding this word，

The reconstruction of initial 1－rather than d－in the series is supported by interchange with 1－words：in the meaning＂kind of drum＂（in Ode 280）the Zheng 鄭 version of the Shi Jing has a hapax character corresponding to the Mao 毛 version，and the Jing

[^12]Dian Shi Wen gives that character the reading 亂 MC jienC, which can only reflect OC ljin.

In other words, there are very good reasons-based upon evidence from the Chinese writing system and early glosses of the Shījing (an ancient book of poems)—to suppose that the initial /d/ in this word is a reflex of an earlier */l/. These three words-'iron', 'to take off', and 'paddy'—are clearly very early loans. Another word in this group, $t e^{A l}$ 'dry field' seems to have been borrowed after the change $* / l />* / d /$ occurred. Rather than reflecting the early $* / l \mathrm{l} /$ cluster that Baxter reconstructs for Old Chinese, it reflects the later */d/. Based upon the tone, however, the */d/ seems to have become devoiced before the yīn-yáng tone split occurred in Hmong.

Another interesting feature of these data is the occurrence of the prenasalized alveolar stop $/ \mathrm{nt} /$. Prenasalized stops also occur as reflexes of the velar series. The occurrence of these stops does not appear to be predictable based upon the reconstructions of Old Chinese currently available. Commenting on the analogous situation in Mien, Downer (1973:14) states, "In general it is impossible to predict the occurrence of this postulated prenasalization in Chinese loanwords." He goes on to suggest that the prenasalization may have been due to a morphological process:

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 Meo [Hmong Daw] $q e_{-}$'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 kh $\bar{\jmath} i$ 'to open' is a transitive, action verb, occurring in kh̄̄i kèn 'to open the door', and so on while gø̄i 'to open' is intransitive. [...] Although Miao [Hmong] cognates for these words do not exist, it seems likely that we must suppose a prefix (prenasalization) in these cases [...] 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.

But Downer＇s solution to this problem is not satisfying for a number of reasons．First of all，his Hmong example，if taken seriously，implies that the intransitive verb ML nqe ${ }^{C 2}$＇to descend＇is derived from the stative verb $q e^{C 2}$＇low＇．This intransitive－to－stative relationship is much different from the transitive－to－intransitive relationship shown in his Mien example．Furthermore，the tran－ sitive verb $n q e^{C 2}$＇to descend＇is almost certainly，as Downer mentions at a later point，a direct loan from OC 下＇to descend＇（see table 27）．It can hardly have been both borrowed from Chinese and derived from another Hmong word through a morphological process．Clearly，a better explanation is needed for the presence of prenasalized stops in these loans from ancient Sinitic．It is possible， for example，that Old Chinese had prenasalized stops．Baxter（1992：221－222）speculates that this is the case．However，there is not enough evidence，at this juncture，to ascertain the existence of OC prenasalized stops or to determine whether these could explain the data in question．Testing this hypothesis will require additional research and analysis．

| QY | ML | Gloss | Hz | $\mathrm{OC}_{\text {B }}$ | MC ${ }_{\text {P }}$ | Proto－Hmong | Mong Leng |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 以 | $\begin{aligned} & \hline / 1 / \\ & \text { /j/ } \end{aligned}$ | to follow | 由 | ＊lju | ＊juw ${ }^{\text {A }}$ | － | lau ${ }^{\text {B1 }}$ |
|  |  | to melt | 融 | ＊juy | ＊juwn ${ }^{\text {A }}$ | ＊zey ${ }^{\text {A }}$ | $\mathrm{jan}^{\text {A2 }}$ |
|  |  | to raise | 養 | ＊（1）jay？ | ＊jiay ${ }^{\text {B }}$ | ＊ $\mathrm{Zon}{ }^{\text {C }}$ | $\mathrm{ju}^{\text {C2 }}$ |
| 來 | ／／ | COMPL | 了 | － | ＊ $18{ }^{\text {B }}$ | － | lau ${ }^{\text {D2 }}$ |
|  |  | deaf | 聾 | － | ＊lown ${ }^{\text {A }}$ | ＊ $\log ^{\text {A }}$ | $1 \mathrm{lay}{ }^{\text {c2 }}$ |
|  | ／3／ | pear | 梨 | － | ＊ $1 i^{\text {A }}$ | ＊ $\mathrm{Vqau}^{\text {A }}$ | $33^{\text {A } 2}$ |
|  |  | strength | 力 | ＊C－rjik | ＊ $\mathrm{lik}^{\text {D }}$ | ＊ $\mathrm{Vq},^{\text {C }}$ | $3 \mathrm{u}^{\mathrm{C} 2}$ |
|  |  | dragon | 龍 | ＊C－rjor | ＊luawg ${ }^{\text {A }}$ | ＊vzoy ${ }^{\text {A }}$ | $3 \mathrm{y}^{\mathrm{A} 2}$ |
|  |  | village | 里 | ＊C－rji 3 | $* 1 i^{\text {B }}$ | ＊vzon ${ }^{\text {B }}$ | $30^{\text {C2 }}$ |

Table 26：Ancient loans with nonnasal resonant onsets in Old Chinese arranged according to the Qièyùn initials．

Nonnasal Resonants The nonnasal resonants，shown in table 26，also show that the early Sinitic loans in Hmong－Mien were borrowed over a wide period of time．Note，for example，the words with the MC onset 以＊／j／．Both Old Chinese and Middle Chinese had a lateral approximate，but the $\mathrm{MC} * / 1 /$ is never a reflex of $\mathrm{OC} * / 1 / . \mathrm{OC} * / 1 /$ was deleted before the medial $* /-\mathrm{j}-/$ and became $* / \mathrm{d} /$ elsewhere（as explained in the part of this section labelled＂Dentals＂）．The ancient loans include one word，lau ${ }^{B 1}$＇to follow＇，which seems to have been borrowed before the change $* / \mathrm{l} /{ }^{\prime} /{ }^{\prime} / \mathrm{j} /$
took place．Other words，$j a \eta^{A 2}$＇to melt＇and $j u{ }^{C 2}$＇to raise＇clearly entered Hmong－Mien after this change had occurred as their palatal fricative onset reflects the palatal glide onset which resulted from it．

MC 來＊／l／seems to be a reflex of OC＊／r／or，in Baxter＇s reconstruction，of clusters of the type ＊／C－r／where C is an arbitrary consonant．My data include a few loans older than MC but showing this change，such as the word lay ${ }^{C 2}$＇deaf＇．Several others，however，seem to predate this change and show $/ 3 /$ as the reflex of the Old Chinese onsets Baxter reconstructs as＊／C－r／．Wang（1994） reconstructs the Proto－Hmong forms of each of these words with the onset＊／vzl．Whether this may actually reflect the cluster postulated by Baxter or whether this data will suggest changes to one or both systems is a matter requiring further research．

| QY | ML | Gloss | Hz | $\mathrm{OC}_{\mathrm{B}}$ | $\mathrm{MC}_{\mathrm{P}}$ | Proto－Hmong | Mong Leng |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 見 | ／k／ | horn | 角 | ＊krok | ＊kaiwk ${ }^{\text {D }}$ | ＊kon ${ }^{\text {A }}$ | $\mathrm{ku}^{\text {AI }}$ |
|  |  | saw | 鋸 | － | ＊kĭ̆ ${ }^{\text {C }}$ | － | kau ${ }^{\text {C1 }}$ |
|  |  | gold | 金 | ＊k（r）jim | ＊ $\mathrm{kim}^{\text {A }}$ | － | $\mathrm{ku}^{\text {A1 }}$ |
|  |  | road | 街 | － | ＊kaij ${ }^{\text {A }}$ | ＊kæ ${ }^{\text {B }}$ | $\mathrm{ke}^{\text {B1 }}$ |
|  | ／kl／ | dog | 狗 | － | ＊ k $^{\text {w }}{ }^{\text {B }}$ | ＊ $\mathrm{qlæ}{ }^{\text {B }}$ | $\mathrm{kle}^{\text {B1 }}$ |
|  |  | melon | 瓜 | ＊${ }^{\text {w }}$ ra | ＊kwai ${ }^{\text {A }}$ | ＊qlwa ${ }^{\text {A }}$ | $\mathrm{kli}^{\text {A1 }}$ |
|  |  | large | 廣 | $*^{\text {w }} \mathrm{a}$ ¢ ${ }^{\text {a }}$ | ＊ wag $^{\text {B }}$ | － | $\mathrm{klan}^{\text {B1 }}$ |
|  |  | spirit | 鬼 | － | ＊ $\mathrm{kuj}^{\text {B }}$ | ＊qlen ${ }^{\text {A }}$ | $\mathrm{klan}^{\text {A }}$ |
|  |  | to pass | 過 | ＊${ }^{\text {w }}$ aj | ＊kwa ${ }^{\text {C }}$ | ＊qlwau ${ }^{\text {C }}$ | klua ${ }^{\text {C1 }}$ |
|  | ／nq／ | pigeon | 鴿 | － | ＊ әр $^{\text {D }}$ | － | nque ${ }^{\text {A1 }}$ |
|  |  | value | 價 | － | ＊ $\mathrm{kai}^{\text {C }}$ | ＊ $\mathrm{Nqa}^{\text {C }}$ | nqe ${ }^{\text {C1 }}$ |
|  |  | hook | 鉤 | － | ＊kəw ${ }^{\text {A }}$ | ＊ $\mathrm{vq}^{\text {C }}$ | nqai ${ }^{\text {C2 }}$ |
| 溪 | ／nqh／ | to thirst | 渴 | ＊khat | ＊khat ${ }^{\text {D }}$ | ＊${ }^{\text {qqh }}{ }^{\text {D }}$ | nqhe ${ }^{\text {D1 }}$ |
| 群 | ／q／ | old | 畕 | ${ }^{*} \mathrm{~g}^{\mathrm{w} j \mathrm{j}}$ ？ | ＊${ }^{\text {guw }}{ }^{\text {c }}$ | － | $\mathrm{qu}^{\text {AI }}$ |
| 來 | ／nk／ | indigo | 藍 | ＊g－ram | ＊${ }^{\text {am }}{ }^{\text {A }}$ | ＊ лfen $^{\text {A }}$ | nkay ${ }^{\text {A2 }}$ |
| 匣 | ／k／ | to learn | 學 | ＊fikruk | ＊yaiwk ${ }^{\text {D }}$ | － | kaum ${ }^{\text {D2 }}$ |
|  | ／kl／ | yellow | 黃 | ＊$g^{\text {w }}$ a | ＊ $\mathrm{wwan}^{\text {A }}$ | ＊Glweg ${ }^{\text {A }}$ | $\mathrm{klan}^{\text {A2 }}$ |
|  | ／nq／ | descend | 下 | ＊gra？ | ＊ $\mathrm{rai}^{\text {B }}$ | $*_{\mathrm{NGa}}{ }^{\text {B }}$ | nqe ${ }^{\text {c2 }}$ |

Table 27：Ancient loans with velar initials in the Old Chinese arranged according to the Qièyùn initials．

Velars and Laryngeals The loan forms of words with OC velar onsets，shown in table 27， present a number of very interesting questions．When these loans are grouped by their Qiè yùn initials，it appears－though the data is complete only for the groups 見 jiàn and 匣 xia－that there
are three different types of Hmong onsets for each group: velar stops, lateral-release velar stops, and uvular stops (which are usually prenasalized). We may safely attribute all three of these patterns to Old Chinese, as they all appear in members of the 匣 xiá group, which comprises words whose initials had changed from velar stops to voiced velar fricatives by the Middle Chinese period (thus, for later loans, we would not expect stop reflexes). The pattern of occurrence for the lateralrelease stops is easy to explain: they are the reflexes of Old Chinese labialized velar stops. The only obvious exception to this rule is 狗 'dog', which—judging from its Middle Chinese reading— probably did not have had a labialized onset in Old Chinese. However, it may actually be a loan from a Hmong-Mien language to Chinese (Norman 1988), a possibility which may explain this irregularity. The patterns for the normal velar stops and the uvular stops are more difficult to discern. Determining what conditioned these differences, and whether the conditioning factor was a feature intrinsic to the borrowed forms or a general process within an ancestor of the Hmong languages is a subject deserving further investigation.

The presence of prenasalization as a characteristic of the uvular stops is also somewhat problematic. As with the dentals, the possibility exists that prenasalization in these loans reflects some feature of Old Chinese onsets not evident from the Chinese data and thus not featured in current reconstructions. However, in the case of the uvulars, almost all of the voiceless stops are prenasalized. If this distribution is not accidental, there is a significant chance that this prenasalization does not reflect a feature of Old Chinese phonology but is the result of a phonological process within Hmong.

### 3.4.3 Rhymes

Given the current quantity of data, it is difficult to make any conclusive or comprehensive statements about the reflexes of rhymes in loans from the oldest stratum. However, two very general observations must be made:

1. Rhymes consisting of a high or mid rounded vowel and a nasal coda tend to be reflected as the Mong Leng rhyme /ay/ (which is equivalent to the Hmong Daw rhyme /a/).
（a）OC 蠻＊mron＇barbarian＇$>$ ML man ${ }^{A l}$
（b）OC 聾 $*$ ljug＇deaf＇$>$ ML lay ${ }^{C 2}$
（c） OC 中 ${ }^{*} k$－ljug＇middle＇$>\mathrm{ML} n t s a \eta^{A l}$
（d）OC 送＊sons＇to send＇$>\mathrm{ML}$ san ${ }^{C l}$
（e）OC 龍＊C－rjog＇dragon＇$>$ ML zay ${ }^{42}$

2．Some rhymes containing the high mid unrounded vowel＊／i／in Baxter＇s reconstruction of Old Chinese tend to be reflected as／u／in Hmong：
（a）OC 金 $* k(r)$ jim＇gold＇$>$ ML $k u^{A l}$
（b）OC 力 ${ }^{*} C$－rjik＇strength＇$>$ ML $з u^{C 2}$
（c）OC 蒸＊tjì＇to steam＇$>$ ML tçu $u^{A l}$

Future investigations of this stratum of loans will hopefully provide more data，allowing a more comprehensive statement on the subject of rhymes in ancient Sinitic loans．

## 3．4．4 Tones

It is clear that there is some degree of correspondence between the Qièyùn tones and modern Hmong tones for Old Chinese loans in Hmong．However，this relationship is difficult to charac－ terize and to explain in specific terms．William Baxter（whose reconstruction of Old Chinese has been used in this paper）and Edwin G．Pulleyblank（whose reconstruction of Early Middle Chinese was employed earlier）both hold that Old Chinese was non－tonal and that the tone categories in Middle Chinese were conditioned by syllable－final consonants in earlier stages of the language． This model of tonogenesis was originally proposed for Vietnamese by Haudricourt，and immedi－ ately applied to Chinese（Norman 1988：56）．If the same type of process that has been proposed for Vietnamese and Chinese is also assumed for Hmong，we might expect a fairly regular correspon－ dence between Hmong tones and Qièyùn tones in this stratum．However，the correspondences at this stage are clearly less balanced and regular than for the Middle Chinese loans．

| QY | ML | Gloss | Hz | $\mathrm{OC}_{\text {B }}$ | $\mathrm{MC}_{\mathrm{P}}$ | Proto－HMONG | Mong Leng |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 平（A） | A1 | cat | 貓 | － | ＊ maiw $^{\text {A }}$ | － | $\mathrm{ml}^{\text {Al }}$ |
|  |  | middle | 中 | ＊k－ljug | ＊tuwy ${ }^{\text {A }}$ | ＊ntur ${ }^{\text {A }}$ | $n t s a y^{\text {A } 1}$ |
|  |  | barbarian | 蠻 | ＊mron | ＊ main $^{\text {A }}$ | － | $\operatorname{man}^{\text {A1 }}$ |
|  |  | to steam | 蒸 | ＊ tjin | ＊ $\mathrm{tcin}{ }^{\text {A }}$ | ＊tcon ${ }^{\text {A }}$ | tçu ${ }^{\text {A1 }}$ |
|  |  | melon | 瓜 | ＊${ }^{\text {w }}$ ra | ＊ $\mathrm{kwai}^{\text {A }}$ | ＊qlwa ${ }^{\text {A }}$ | $\mathrm{kli}^{\text {A1 }}$ |
|  |  | needle | 針 | － | ＊tcim ${ }^{\text {A }}$ | ＊ $\mathrm{cug}^{\text {A }}$ | $\mathrm{kog}^{\text {Ai }}$ |
|  |  | gold | 金 | ＊k（r）jim | ＊ $\operatorname{kim}^{\text {A }}$ | ＊ $\mathrm{con}^{\text {A }}$ | $\mathrm{ku}^{\text {A1 }}$ |
|  |  | seedling | 秧 | － | ＊${ }^{\text {iag }}{ }^{\text {A }}$ | ＊ zzon $^{\text {A }}$ | $\mathrm{ju}^{\text {A1 }}$ |
|  | A2 | indigo | 藍 | ＊g－ram | ＊ $\mathrm{lam}^{\text {A }}$ | ＊nfen ${ }^{\text {A }}$ | nkay ${ }^{\text {A2 }}$ |
|  |  | paddy | 田 | ＊din | ＊ $\mathrm{d} \varepsilon \mathrm{n}^{\text {A }}$ | ＊ $\mathrm{in}^{\text {A }}$ | $1 \mathrm{a}^{\text {A2 }}$ |
|  |  | yellow | 黃 | ＊$g^{\text {w }}$ a | ＊ ¢ $^{\text {a }}$ ，${ }^{\text {A }}$ | ＊Glwey ${ }^{\text {A }}$ | $\mathrm{klay}^{\text {As }}$ |
|  |  | pear | 梨 | － | ＊ $\mathrm{l} \mathrm{i}^{\text {A }}$ | ＊vzau ${ }^{\text {A }}$ | $342^{\text {A2 }}$ |
|  |  | dragon | 龍 | ＊C－rjoy | ＊luawn ${ }^{\text {A }}$ | ＊ $\mathrm{Vzog}^{\text {A }}$ | $3 \mathrm{ab}^{\text {A2 }}$ |
|  |  | to melt | 融 | ＊ljuy | ＊luawn ${ }^{\text {A }}$ | ＊zey ${ }^{\text {A }}$ | jay ${ }^{\text {A2 }}$ |
|  | B1 | road | 街 | － | ＊kaij ${ }^{\text {A }}$ | ＊ $\mathfrak{æ}^{\text {B }}$ | $\mathrm{ke}^{\mathrm{B} 1}$ |
|  |  | to follow | 由 | ＊ lju | ＊juw ${ }^{\text {A }}$ | － | law ${ }^{\text {B1 }}$ |
|  |  | spear | 矛 | ＊m（r）ju | ＊ muw $^{\text {A }}$ | － | $\mathrm{mu}^{\text {B1 }}$ |
|  | C1 | many | 多 | ＊taj | ＊ $\mathrm{ta}^{\text {A }}$ | ＊nts ${ }^{\text {C }}$ | ntau ${ }^{\text {C1 }}$ |
|  |  | hook | 鉤 | － | ＊ 2 $^{\text {w }}{ }^{\text {A }}$ | $*_{\mathrm{Nq} æ^{\text {C }}}$ | nqai ${ }^{\text {C1 }}$ |
|  | C2 | deaf | 聾 | － | ＊lawn ${ }^{\text {A }}$ | ＊ $\log ^{\text {A }}$ | $l a y^{\text {C2 }}$ |
| 上（B） | A1 | pail | 桶 | － | ＊thəw！${ }^{\text {B }}$ | ＊ thup $^{\text {A }}$ | thon ${ }^{\text {AI }}$ |
|  |  | spirit | 鬼 | － | ＊kuj ${ }^{\text {B }}$ | ＊qley ${ }^{\text {A }}$ | $\mathrm{klay}^{\text {A2 }}$ |
|  | B1 | to roll | 滾 | － | － | ＊qloy ${ }^{\text {B }}$ | $\mathrm{klo}^{\text {B1 }}$ |
|  |  | dog | 狗 | － | ＊ k $^{\text {w }}{ }^{\text {B }}$ | ＊qlæ ${ }^{\text {B }}$ | $\mathrm{kle}^{\text {A2 }}$ |
|  |  | large | 廣 | ＊${ }^{\text {w }}$ aŋ？ | ＊ wway $^{\text {B }}$ | － | $\mathrm{klan}^{\text {B1 }}$ |
|  | C1 | to write | 寫 | ＊sjA $(\mathrm{k})$ ？ | ＊ $\mathrm{sia}^{\mathrm{B}}$ | ＊fsoi ${ }^{\text {C }}$ | Jau |
|  | C2 | to wait | 等 | － | ＊ty ${ }^{\text {B }}$ | ＊ dj $^{\text {B }}$ | to ${ }^{\text {C2 }}$ |
|  |  | to descend | 下 | ＊gra？ | ＊ ai $^{\text {B }}$ | ＊ $\mathrm{NGa}^{\text {B }}$ | nqe ${ }^{\text {C2 }}$ |
|  |  | to raise | 養 | ＊（1）jaŋ？ | ＊jian ${ }^{\text {B }}$ | ＊ $\mathrm{zog}^{\text {C }}$ | ju ${ }^{\text {C2 }}$ |
|  | D1 | to hit | 打 | － | ＊tajy ${ }^{\text {B }}$ | ＊$n$ tr ${ }^{\text {D }}$ | ntau ${ }^{\text {D1 }}$ |
|  | D2 | COMPL | 了 | － | ＊ $\mathrm{l} \mathrm{w}^{\text {B }}$ | － | law ${ }^{\text {D2 }}$ |
|  |  | bad | 否 | ＊pji ${ }^{\text {P }}$ | ＊ $\mathrm{if}^{\text {B }}$ | － | phe ${ }^{\text {D2 }}$ |
| 去（C） | A1 | whole | 統 | － | ＊thawn ${ }^{\text {C }}$ | － | thon ${ }^{\text {AI }}$ |
|  |  | old | 舊 | ＊ $\mathrm{g}^{\mathrm{w}} \mathrm{ji}$ ？ | ＊${ }^{\text {guw }}{ }^{\text {C }}$ | － | $\mathrm{qu}^{\text {A1 }}$ |
|  |  | vegetable | 㛵 | － | ＊tshəj ${ }^{\text {C }}$ | ＊？vzoi ${ }^{\text {A }}$ | $3 \mathrm{au}^{\text {A1 }}$ |
|  |  | vine | 曼 | － | ＊muan ${ }^{\text {C }}$ | ＊msan ${ }^{\text {A }}$ | $m a \eta^{\text {A1 }}$ |
|  |  | dry field | 地 | ＊Irjajs | ＊ $\mathrm{di}^{\text {C }}$ | ＊ ® $^{\text {A }}$ | $t e^{\text {A1 }}$ |
|  | $\begin{aligned} & \mathrm{B} 1 \\ & \mathrm{C} 1 \end{aligned}$ | Clf（types） | 種 | － | ＊tcuawy ${ }^{\text {B }}$ | － | ta $\mathrm{a}^{\text {B1 }}$ |
|  |  | value | 價 | － | ＊ $\mathrm{kai}^{\text {C }}$ | ＊ $\mathrm{nqa}^{\text {C }}$ | nqe ${ }^{\text {C1 }}$ |
|  |  | saw | 鋸 | － | ＊kĭ口 ${ }^{\text {C }}$ | － | kau $^{\text {C1 }}$ |
|  |  | to send | 送 | ＊soys | ＊səw！${ }^{\text {C }}$ | ＊soy ${ }^{\text {C }}$ | $\mathrm{san}^{\mathrm{Cl}}$ |
|  | D2 | bean | 豆 | ＊dos | ＊dəw ${ }^{\text {C }}$ | ＊ $\mathrm{d}{ }^{\text {D }}$ | $\mathrm{tau}^{\text {D2 }}$ |
| $\lambda$（D） | A1 | horn | 角 | ＊krok | ＊kaiwk ${ }^{\text {D }}$ | ＊kon ${ }^{\text {A }}$ | $\mathrm{ku}^{\text {AI }}$ |
|  |  | pigeon | 鴿 | ， | ＊ zәp $^{\text {D }}$ | ＊${ }^{\text {qupu }}{ }^{\text {A }}$ | nqua ${ }^{\text {A } 1}$ |
|  |  | to answer | 答 | ＊k－lup | ＊təp ${ }^{\text {D }}$ | ＊tæ ${ }^{\text {A }}$ | te ${ }^{\text {A1 }}$ |
|  | C1 | iron | 鐵 | ＊hlet | ＊thet ${ }^{\text {D }}$ | ＊${ }^{\text {a }}{ }^{\text {C }}$ | hlau ${ }^{\text {C1 }}$ |
|  |  | to obtain | 得 | ＊tik | ＊tak ${ }^{\text {D }}$ | ＊ $\mathrm{t}^{\text {C }}$ | tau ${ }^{\text {C1 }}$ |
|  |  | to rest | 息 | － | ＊ $\mathrm{sik}^{\text {D }}$ | ＊ $\mathrm{SO}^{\text {C }}$ | $\int \mathrm{u}^{\mathrm{C} 1}$ |
|  |  | to take off | 脱 | ＊hlots | ＊ hak $^{\text {D }}$ | － | hle ${ }^{\text {c1 }}$ |
|  | C2 | strength | 力 | ＊C－rjik | ＊ $\mathrm{ik}^{\text {D }}$ | ＊ $\mathrm{VZO}^{\text {C }}$ | $3 \mathrm{u}^{\mathrm{C} 2}$ |
|  | D1 | thirsty | 渴 | ＊khat | ＊ khat $^{\text {D }}$ | $*_{\text {Nqh }}{ }^{\text {D }}$ | nqhe ${ }^{\text {D1 }}$ |
|  | D2 | to learn | 學 | ＊fikruk | ＊ yaiwk $^{\text {D }}$ | － | kaw ${ }^{\text {D2 }}$ |

Table 28：Tones of ancient Sinitic loans in Hmong arranged according to the Qièyùn tone cate－ gories．

Table 28 show the relationship between Old Chinese post-codas and Hmong tones for this stratum of loans. The table is divided according the the Qièyùn tone categories. The A tone categoryopen syllables and syllables ending in nasal codas, according to Baxter's OC reconstructioncorresponds with the Hmong A tone in a majority of cases. The split between A1 and A2 generally follows the voicing of the Old Chinese and Middle Chinese onsets, though there are a number of exceptions. The B tone category, which was conditioned by a final glottal stop in Baxter's model, does not show such a decisive pattern. There is an apparent but weak tendency for Hmong to show B tones (Mong Leng B1 and C2) in words marked as shăngshēng in the Qièyùn. More data will be required to determine whether this is the result of chance or an actual correspondence.

The C tone category, the members of which are supposed to have ended in -s in Old Chinese, shows a clear but problematic pair of correspondences. Some words from this group have the C1 tone in ML and HD. These words invariable had voiceless onsets in OC and MC. Another (apparently larger) set of words from this category-with both voiced and voiceless onsets-have the A1 tone in ML and HD. Inexplicably, a very similar state of affairs characterizes the reflexes of D tone words. The majority of these words also have the A 1 or C 1 tone in Hmong. The same distinction between reflexes is found in Mien. The Mien cognates of these loans have an A tone if the tone in Hmong is A1 and a D tone if the tone in Hmong is C1. For example, Chang's (1972) data indicate that, in all the Mien dialects he surveyed, the word 'iron' has the tone D1. In all of the Hmong dialects, the word has the tone C1. Almost certainly, this is the result of a very earlier merger in Hmong between some of the words in the rùshēng category (D) and the qùshēng category (C). The tendency for many Chinese words with the C and D tones to appear in the category A1 in Hmong is more difficult to explain. Perhaps, at the time of borrowing, there was process that contributed to the deletion of certain consonant codas-the stops and fricatives that characterized qùshēng and rùshēng syllables. However, this does not explain the devoicing of onsets that placed these words in the yīn division rather than the yáng division following the yin-yáng tone split.

A more thorough examination of the tonal relationships between Pre-Hmong-Mien and early Sinitic languages may help to answer many of the vexing historical problems regarding the origin
of tone as an areal feature in East and Southeast Asia. Until such an investigation is launched, most of the problems introduced here will remain insoluble.

Indeed, the interesting problems found in all areas of the phonology of these ancient loans will require addition research if they are to be satisfactorily resolved. At this point, it is merely possible to provide a brief outline of the correspondences for onsets and tones and few brief observations on the rhymes. Working from this outline, it should be possible to identify additional ancient loans in Hmong Daw, Mong Leng, and other Hmongic languages and dialects. This evidence, in turn, will clarify the phonological patterns pertaining to ancient Sinitic loans and may prove valuable in refining current phonological reconstructions of Proto-Hmong Mien and Old Chinese.

## 4 The Effects of Chinese Loanwords upon the Hmong Language

While the primary purpose of this paper is the identification and categorization of Sinitic loanwords (as necessary groundwork for less prosaic studies of this important body of lexemes) this work would not be complete without a brief summary of the obvious effects the relationship has had upon the Hmong dialects under examination.

### 4.1 Lexicon

Obviously, the presence of Sinitic loans in Hmong has had an effect upon the Hmong lexicon. In the database compiled for this study, which was based upon the Mong-English section of the Xiong dictionary (Xiong et al. 1988), almost twenty percent of the lexemes proved to be loans from a Sinitic language. This estimate is artificially high because a some words not included Xiong et al. (1988) were added to the database simply because they seemed to be loans. However, it is still very likely that the percentage of Sinitic vocabulary in Hmong is even higher than twenty percent, as many of the difficult to identify loans from the older stratum were probably not recognized. It is doubtless that, as Downer (1973) has pointed out, Mien has a far more Sinicized lexicon than
does Hmong ${ }^{17}$. Still, it is undeniable that Chinese languages have influenced the Hmong lexicon immensely. There are a few categories where this influence is especially notable:

1. Almost all Hmong terms for metals and metalworking have been borrowed from Sinitic languages.
2. A large number of words for various crops and domestic animals were borrowed from Sinitic languages.
3. The Hmong words for government and jurisprudence are largely Chinese, as are words for economic activities.
4. The commonly use Hmong surnames are all borrowed from an early form of Mandarin.
5. The ordinal numbers used for identifying children by birth order were borrowed from Chinese, as were many of the larger numbers ('hundred', 'thousand', and 'ten thousand', for example).
6. A respectable number of words with grammatical functions were borrowed from Chinese. This group consists, primarily, of conjunctions and aspectual markers.

### 4.2 Phonology

Hmong phonology, too, seems to have been changed in some respects through the introduction of lexical material from the Sinitic languages. If, as Benedict (1987) suggests, the Hmong-Mien languages became tonal through the introduction of loanwords from a very early Sinitic language, the phonological results of borrowing from Chinese have been profound for Hmong. Unfortunately, the evidence to fully substantiate this hypothesis is still lacking.

There is evidence, though, for far more recent changes in Hmong phonology resulting by borrowing from Chinese. For example, a preponderance of Mong Leng and Hmong Daw words with

[^13]the onset /f/ seem to be loans from Sinitic languages. /f/ may have been introduced (or, more likely, reintroduced) as a distinctive phoneme through borrowings from Chinese.

### 4.3 Syntax

Borrowings from Chinese seem to have affected the syntax of Hmong as well. For example, the creation of a new grammatical category-adjectival words which appear before the noun head rather than after it-may have been stimulated by the entry of Chinese adjectives into the Hmong lexicon. ML tuə ${ }^{D 2}$ 'biggest' from Mandarin 大 $t a^{C}$ 'large', for instance, always appears before the noun it modifies, following the Chinese word order. ML $q u^{A 1}$ 'old' and ML lau ${ }^{C 2}$ 'old', both of which are also loans from Sinitic languages, may precede (rather than follow) the noun they modify. If, at one time, only Chinese loans could occur in this position, the rule has since been generalized to allow native Hmong adjectives to appear in this slot as well. There is now a closed set of adjectives-some native and some of Sinitic origin-that occur after the noun classifier but before the noun head and exhibit other traits which distinguish them from stative verbs (the carriers of most of Hmong's adjectival load). Borrowed Sinitic vocabularly probably stimulated the creation of this grammatical category.

## 5 Conclusion

The study of the historical relationship between the Hmong-Mien languages and other languages of East and Southeast Asia is still in its infancy. The purpose of this paper has been to advance this project by identifying a specific body of Sinitic loans in Mong Leng and Hmong Daw and proposing relatively rigorous phonological criteria by which further loans may be identified and categorized. While it is hoped that this, in itself, will contribute to our understanding of the social history of the Hmong language, this study is most important as preliminary groudwork for other investigations. Without a thorough survey of borrowed vocabulary in Hmong and Mien, the lexicon of proto-Hmong-Mien and any proposed affiliations between Hmong-Mien and other language
families cannot be placed on a solid footing. Furthermore, evidence gleaned from Sinitic loans in Hmong may eventually prove useful in the reconstruction of earlier stages of Chinese. Perhaps most importantly, the borrowed Sinitic words in Hmong can provide a window into the historical relationship between the ancestors of the Hmong and the Chinese. Information of the sort presented here, combined with Chinese historical records and Hmong oral histories, will eventually help scholars to better understand the nature of this rich but conflicted inter-ethnic relationship.

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## A Glossary of Sinitic Loans

The following is a comprehensive listing, divided by stratum and subdivided by semantic category, of probable Sinitic loans in Hmong. The strata are presented in reverse order with the modern loans (from Mandarin) first and the ancient loans last. The semantic and grammatical categories present into which the loans in each stratum are divided are presented in the following order:

- Abstract Concepts
- Gambling Terms
- Objects
- Adjectives
- Geography
- Physical Properties
- Adverbs
- Agricultural Terms
- Material Goods
- Plants
- Anatomical Terms
- Grammatical Morphemes
- Political Terms
- Animals
- Health and Medicine
- Religious Terms
- Noun Classifiers
- Terms Referring to Human Qualities
- Implements
- Kinship
- Terms Relating to Law and Justice
- Terms relating to Writing and Literacy
- Sociality
- Clothing Terms
- Color Terms
- Commands
- Terms of Comparison
- Containers
- Cultural Terms
- Economic Terms
- Terms Relating to Education
- Terms Referring to Emotion
- Ethnic Terms
- Food Items
- Figures of Speech
- Furniture
- Magic
- Manufacturing
- Metal
- Military Terms
- Nouns
- Nouns Relating to Cognition
- Nouns Relating to Social Interaction
- Numeric Terms
- Terms Relating to Social Status
- Structures
- Substances
- Surnames
- Technological Terms
- Terms Relating to Time
- Transportation
- Units of Measurement
- Verbs
- Verbs of Cognition
- Verbs Pertaining to Social Interaction
- Weapons
- Weather (Meteorological) Terms

The Sinitic forms given here are based upon character readings and are provided for comaprison. The presence of a multisyllabic compound or word under a given dialect or period heading should not be taken to imply the existence of such a compound in that dialect.

## A． 1 Modern Loans（from Mandarin）

## A．1．1 Abstract Concepts

| Gloss appearance | Mong Leng $j a \eta^{D}{ }^{0}{ }_{n t s u^{B 1}}{ }^{0}$ | Hmong Daw $\mathrm{ja}^{\mathrm{D} 2} \mathrm{n}^{\circ} \mathrm{s} \mathrm{u}^{\mathrm{B} 1}$ | Hanzi樣子 | Sintic Forms $\text { OMD: } \operatorname{ian}^{\mathrm{C}_{\mathrm{ts} 1} \mathrm{~B}}$ | Comments |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |
| basis | tshey ${ }^{\text {A } 2}$ tshen ${ }^{\text {D2 }}$ | tshey ${ }^{\text {A } 2}$ tshey ${ }^{\text {D2 }}$ | 層層 | $\begin{aligned} & \text { OMD: } \\ & \text { tshə } \mathrm{A}^{\mathrm{A} 2}{ }^{\text {tsh}} \mathrm{\eta}^{\mathrm{A} 2} \end{aligned}$ |  |
|  |  |  |  | CHÉNGDÙ： <br> tshən ${ }^{\mathrm{A} 2}$ tshən ${ }^{\mathrm{A} 2}$ |  |
| be the same，to | thor ${ }^{\text {A2 }}$ | thon ${ }^{\text {A2 }}$ | 同 | OMD：thuy ${ }^{\text {A2 }}$ |  |
|  |  |  |  | ChÉNGDÙ： $\operatorname{ton}^{\text {A2 }}$ |  |
| complete | they ${ }^{\text {A2 }}$ | they ${ }^{\text {A2 }}$ | 成 | OMD：thiz ${ }^{\text {A } 2}$ |  |
|  |  |  |  | Chéngdù：tshən ${ }^{\text {A2 }}$ |  |
| origin | ken ${ }^{\text {A1 }}$ | key ${ }^{\text {A1 }}$ | 根 | OMD：kən ${ }^{\text {A }}$ |  |
|  |  |  |  | CHÉNGDÙ：kən ${ }^{\text {A1 }}$ |  |

## A．1．2 Adjectives

| Gloss | Mong Leng | Hmong Daw | Hanzi | Sintic Forms | Comments |
| :---: | :---: | :---: | :---: | :---: | :---: |
| archaic | ， | $\mathrm{va}^{\text {D2 }}$ | 玩 | OMD：on ${ }^{\text {c }}$ |  |
|  |  |  |  | CHÉNGDÙ：uan ${ }^{\text {A2 }}$ |  |
| busy | $\operatorname{man}^{\text {A2 }}$ | $\mathrm{ma}^{\text {A2 }}$ | 忙 | OMD： $\mathrm{man}^{\text {A2 }}$ |  |
|  |  |  |  | Chéngdù：may ${ }^{\text {A2 }}$ |  |
| cool | $\underline{l a y}{ }^{\text {A2 }}$ | $1 \mathrm{la}^{\text {A2 }}$ | 涼 | Chéngdù：niag ${ }^{\text {A2 }}$ |  |
| destroyed | ， | pia ${ }^{\text {D2 }}$ | 敗 | OMD：pai ${ }^{\text {C }}$ |  |
|  |  |  |  | ChÉngdù：paic |  |
| easy | jon ${ }^{\text {A2 }} \mathrm{jiP}^{\mathrm{D} 2}$ | jon ${ }^{\text {A2 }} \mathrm{jiP}^{\mathrm{D} 2}$ | 容易 | OMD：iug ${ }^{\text {A } 2} \mathrm{i}^{\text {D }}$ 3 |  |
|  |  |  |  | Chéngdù：yoy ${ }^{\text {a }} \mathrm{i} \mathrm{C}$ |  |
| false | tçu ${ }^{\text {B1 }}$ | tçu ${ }^{\text {B1 }}$ | 假 | OMD： $\mathrm{ka}^{\text {C }}$ |  |
|  |  |  |  | Chéngdù：tcia ${ }^{\text {B }}$ |  |
| genuine | teen ${ }^{\text {D2 }}$ | teen ${ }^{\text {D2 }}$ | 正 | OMD：tfion ${ }^{\text {c }}$ |  |
|  |  |  |  | Chéngdù：tsan ${ }^{\text {C }}$ |  |
| have free time | khoy ${ }^{\text {D2 }}$ | khoy ${ }^{\text {D2 }}$ | 空 | OMD：khuy ${ }^{\text {c }}$ |  |
|  |  |  |  | Chéngdù：khon ${ }^{\text {C }}$ |  |
| important | － | $\mathrm{j}^{\mathrm{D} 2} \mathrm{tscg}^{\text {B1 }}$ | 要緊 | OMD：iau ${ }^{\text {kian }}{ }^{\text {B }}$ |  |
|  |  |  |  | Chéngdù：iau ${ }^{\text {Ctgin }}{ }^{\text {B }}$ |  |
| quick | tçen ${ }^{\text {B1 }}$ | tçen ${ }^{\text {B1 }}$ | 緊 | OMD：kiən ${ }^{\text {B }}$ |  |
|  |  |  |  | Chéngdù：tcin ${ }^{\text {B }}$ |  |
| remaining | $\int \mathrm{en} \mathrm{D}^{\text {2 }}$ | $\int \mathrm{en} \mathrm{D}^{\text {2 }}$ | 剩 | OMD： Jiən $^{\text {c }}$ |  |
|  |  |  |  | Chéngdù：san ${ }^{\text {C }}$ |  |
| tired | － | $\mathrm{li}^{\text {D2 }}$ | 累 | OMD：luei ${ }^{\text {C }}$ |  |
|  |  |  |  | Chéngdù：nuei ${ }^{\text {c }}$ |  |
| true | teej ${ }^{\text {A1 }}$ | $\mathrm{tjeg}^{\text {A1 }}$ | 真 | Pútōnghuà：tşn ${ }^{\text {A1 }}$ |  |
| ugly | $\operatorname{tsaj}^{\text {A1 }}$ | $\mathrm{tsa}^{\text {A1 }}$ | 骿 | Chéngdù：tsan ${ }^{\text {A1 }}$ |  |
| very | － | $\mathrm{h}^{\mathrm{B1}}$ | 好 | OMD： $\mathrm{xau}^{\text {C }}$ |  |
|  |  |  |  | Chéngdù：xau ${ }^{\text {C }}$ |  |
| weird | － | $\mathrm{ku}^{\text {B1 }} \mathrm{kia}^{\text {D2 }}$ | 古怪 | OMD： $\mathrm{ku}^{\text {B }}$ kuai ${ }^{\text {C }}$ |  |
|  |  |  |  | CHÉNGDÙ：ku ${ }^{\text {k }}$ kuai ${ }^{\text {C }}$ |  |

## A．1．3 Adverbs

| Gloss all of a time | Mong Leng thaw ${ }^{\text {D1 }}$ | Hmong Daw thaw ${ }^{\text {D2 }}$ | Hanzi <br> 透 | Sintic Forms <br> OMD：thou ${ }^{\text {C }}$ | Comments |
| :---: | :---: | :---: | :---: | :---: | :---: |
| all of a time |  |  |  | ChÉngdù：thəu ${ }^{\text {C }}$ |  |
| approximately | $\mathrm{ku}^{\mathrm{B1}} \mathrm{lan}^{\mathrm{D} 2}$ | $\mathrm{ku}^{\mathrm{B} 1} \mathrm{la}^{\mathrm{D} 2}$ | 估量 | OMD： $\mathrm{ku}^{\text {B }}$ |  |
|  |  |  |  | CHÉNGDÙ： $\mathrm{ku}^{\mathrm{B}} \mathrm{nian}^{\text {C }}$ |  |
| broken－heartedly | $l a \eta^{A 2} \operatorname{sen}^{\text {A1 }}$ | $1 a^{\text {A2 }} \operatorname{sen}^{\text {A1 }}$ | 氣良心 | OMD： <br> $\mathrm{khi}^{\mathrm{C}} \mathrm{lian}^{\mathrm{A} 2}$ siom $^{\mathrm{A}}$ |  |
|  |  |  |  | ChÉngdù： <br> tchi ${ }^{\mathrm{C}} \mathrm{nian}^{\mathrm{A} 2} \operatorname{cin}^{\mathrm{A} 1}$ |  |


| Gloss completely | Mong Leng tshi ${ }^{A 2}$ | Hmong Daw tshi ${ }^{\text {A2 }}$ | Hanzi | Sintic Forms OMD：tshi ${ }^{\text {A2 }}$ | Comments |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | CHÉNGDỪ：tchi ${ }^{\text {A2 }}$ |  |
| exert effort，to | － | jog ${ }^{\text {A2 }} \operatorname{sen}^{\text {A1 }}$ | 用心 | OMD：ium $\mathrm{C}_{\text {sizm }}{ }^{\text {A }}$ |  |
|  |  |  |  | ChÉngdù： yoy ${ }_{6} \operatorname{cin}^{\mathrm{Al}}$ |  |
| gradually | － | $\mathrm{ma}^{\text {A2 }} \mathrm{ma}^{\text {D2 }}$ | 慢慢 | OMD： $\operatorname{man}^{\text {C }} \mathrm{man}^{\text {C }}$ |  |
|  |  |  |  | ChÉngdù： $\operatorname{man}^{\mathrm{C}} \mathrm{man}^{\mathrm{C}}$ |  |
| in moderation | $\mathrm{hu}^{\mathrm{A} 2} \mathrm{j} \mathrm{i}^{\mathrm{D} 2}$ | $h u^{\text {A2 }} \int_{1} \mathrm{D}^{\mathrm{D} 2}$ | 合適 | OMD： $\mathrm{xo}^{\mathrm{D} 1} \mathrm{j}_{1} \mathrm{D} 2$ |  |
|  |  |  |  | ChÉngdù： $\mathrm{xo}^{\text {A2 }} \mathrm{Sl}^{\text {A2 }}$ |  |
| probably | － | $\mathrm{ta}^{\mathrm{D} 2} \mathrm{fa}^{\mathrm{A} 2}$ | 大凡 | OMD： $\operatorname{ta}^{\text {Cfan }}{ }^{\text {A2 }}$ |  |
|  |  |  |  | Chéngdù： $\operatorname{ta}^{\mathrm{C}} \mathrm{fan}^{\mathrm{A} 2}$ |  |
| repeatedly | phey ${ }^{\text {A2 }}$ | phen ${ }^{\text {A2 }}$ | 頻 | OMD：phi ${ }^{\text {A2 }}$ |  |
|  |  |  |  | Chéngdù：phin ${ }^{\text {A2 }}$ |  |
| still | teey ${ }^{\text {D2 }}$ | $4 \mathrm{fen}{ }^{\text {D2 }}$ | 正 | OMD：tfian ${ }^{\text {c }}$ |  |
|  |  |  |  | Chéngdù：tsan ${ }^{\text {C }}$ |  |
| very | hen ${ }^{\text {B1 }}$ | hen ${ }^{\text {B1 }}$ | 很 | Chéngdù：xən ${ }^{\text {B }}$ |  |

## A．1．4 Agricultural Terms

Gloss
overgrown

Mong Leng fan ${ }^{\text {Al }}$

Hmong Daw $\mathrm{fa}^{\mathrm{Al}}$

Hanzi
荒

| Sintic Forms <br> OMD：xuay ${ }^{\text {A }}$ CHÉNGDÙ：xaug ${ }^{\text {Al }}$ |
| :---: |
|  |  |
|  |  |

Comments

## A．1．5 Anatomical Terms

| Gloss beard | Mong Leng <br> $\mathrm{fu}^{\mathrm{A}} \mathrm{tSt}^{\mathrm{B} 1}$ | Hmong Daw <br> $h H^{A 2}+5 H^{B 1}$ | Hanzi <br> 胡子 | Sintic Forms <br> $\mathrm{OMD}: \mathrm{xu}^{\mathrm{A} 2}{ }_{\mathrm{t} 1} \mathrm{~B}$ | Comments |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Chéngdù： $\mathrm{fu}^{\mathrm{A} 2} \mathrm{tS1}^{\mathrm{B}}$ |  |
| fetus | － | thia ${ }^{\text {A1 }} 3 \mathrm{en} \mathrm{y}^{\mathrm{A} 2}$ | 胎人 | OMD：thai ${ }^{\text {A }} 3$ iən ${ }^{\text {A2 }}$ |  |
|  |  |  |  | ChÉngdù： $\text { thai }^{\mathrm{Al} 1} \mathrm{zən}^{\mathrm{A} 2}$ |  |
| gills | $\mathrm{sa}^{\text {A1 }}$ | － | 鰓 | PÚTŌNGHUÀ：sai ${ }^{\text {A1 }}$ |  |
| horse＇s back teeth | － | $10^{\text {D1 }}$ ju2 ${ }^{\text {A } 2}$ | 老牙 | OMD： $\operatorname{lau}^{\text {B }} \mathrm{a}^{\text {A2 }}$ |  |
|  |  |  |  | Chéngdù：nau ${ }^{\mathrm{B}} \mathrm{ia}^{\mathrm{A} 2}$ |  |
| shell | khu ${ }^{\text {D2 }}$ | khau ${ }^{\text {D2 }}$ | 殼 | ChÉngdù：kho ${ }^{\text {A2 }}$ |  |
| skin | － | phi ${ }^{\text {A2 }}$ | 皮 | OMD：phei ${ }^{\text {A2 }}$ |  |
|  |  |  |  | Chéngdù：phi ${ }^{\text {A2 }}$ |  |
| womb | tha ${ }^{\text {A1 }}$ | thia ${ }^{\text {A1 }}$ | 胎 | OMD：thai ${ }^{\text {A }}$ |  |
|  |  |  |  | CHÉNGDÙ：thai ${ }^{\text {A1 }}$ |  |

## A．1．6 Animals

| Gloss deer | Mong Leng $\mathrm{m}^{\mathrm{D} 1} \mathrm{l}_{\mathrm{u}}^{\mathrm{A} 2}$ | Hmong Daw $m u \partial^{\mathrm{Dt}} \mathrm{lu}^{\mathrm{A} 2}$ | Hanzi <br> 馬鹿 | Sintic Forms <br> OMD： $\mathrm{ma}^{\mathrm{B}} \mathrm{lu}^{\mathrm{D} 3}$ <br> CHÉNGDÙ：ma ${ }^{\mathrm{B}} \mathrm{nu}^{\mathrm{A} 2}$ | Comments |
| :---: | :---: | :---: | :---: | :---: | :---: |
| male | lau ${ }^{\text {B1 }}$ | － | 佬 | PÚTŌNGHUÀ：lau ${ }^{\text {B }}$ | ML：said of birds． |
| mule | $\mathrm{lu}^{\mathrm{A} 2} \mathrm{tsu}^{\mathrm{B} 1}$ | $1 \mathrm{u}^{\mathrm{A} 2} \mathrm{tsu}^{\mathrm{B} 1}$ | 騾子 | $\begin{aligned} & \text { OMD: luo }{ }^{\mathrm{A} 2} \mathrm{tt1}^{\mathrm{B}} \\ & \text { CHÉNGDÙ: } \mathrm{no}^{\mathrm{A} 2} \mathrm{tS1}{ }^{\mathrm{B}} \end{aligned}$ |  |
| panther | $\mathrm{p} 0^{\mathrm{D} 2} \mathrm{tsu}^{\mathrm{B} 1}$ | $\mathrm{p} 0^{\mathrm{D} 2} \mathrm{tsu}^{\mathrm{B} 1}$ | 豹子 | $\begin{aligned} & \text { OMD: pau }{ }^{\mathrm{C}_{\mathrm{t} 1}}{ }^{\mathrm{B}} \\ & \text { CHÉNGDÙ: pau }{ }^{\mathrm{C} \mathrm{tS}_{1}} \mathrm{~B} \end{aligned}$ |  |
| pig | $t \mathrm{ta}^{\text {A1 }}$ | $t \mathrm{ta}^{\text {A1 }}$ | 豬 | OMD：tfiu ${ }^{\text {A }}$ <br> CHÉNGDÙ：tsu ${ }^{\mathrm{A} 1}$ |  |
| sheep | $j a 习^{\text {A } 2}$ | $\mathrm{ja}^{\text {A2 }}$ | 羊 | $\begin{aligned} & \text { OMD: iaŋ̄ }{ }^{\mathrm{A} 2} \\ & \text { CHÉNGDÙ: iaŋ } \end{aligned}$ |  |
| solitary pig | $\mathrm{tu}^{\mathrm{D} 2} \mathrm{tfu} \mathrm{u}^{\mathrm{Al}}$ | $\mathrm{tu}^{\mathrm{D} 2} \mathrm{tfu} \mathrm{u}^{\mathrm{A} 1}$ | 獨豬 | OMD： tu $^{\mathrm{D1}} \mathrm{tfiu}^{\mathrm{A}}$ <br> CHÉNGDÙ： $\mathrm{tu}^{\mathrm{A} 2} \mathrm{tsu}^{\mathrm{A} 1}$ |  |

## A．1．7 Noun Classifiers

| Gloss <br> Clf（crowds） | $\underset{\substack{\text { Mong Leng } \\ t_{0} \mathrm{D}^{2}}}{ }$ | $\begin{aligned} & \text { Hmong Daw } \\ & \text { tfon }^{\mathrm{D} 2} \end{aligned}$ |
| :---: | :---: | :---: |
| Clf（kinds） | jan ${ }^{\text {D2 }}$ | ja ${ }^{\text {D2 }}$ |
| CIf（levels） | thoy ${ }^{\text {A2 }}$ | thhon ${ }^{\text {A2 }}$ |
| CIf（levels） | then ${ }^{\text {A2 }}$ | they ${ }^{\text {A2 }}$ |
| Clf（mouthfull） | khaur ${ }^{\text {B1 }}$ | khaur ${ }^{\text {B1 }}$ |
| Clf（persons） | $1 \mathrm{leg}{ }^{\text {A2 }}$ | $1 e y^{\text {A2 }}$ |


| Hanzi衆 | Sintic Forms |
| :---: | :---: |
|  | OMD：tfiuy ${ }^{\text {c }}$ |
|  | Chéngdù：tson ${ }^{\text {C }}$ |
| 樣 | OMd：ian ${ }^{\text {c }}$ |
|  | Chéngdù：iay ${ }^{\text {C }}$ |
| 重 | OMD：thhiug ${ }^{\text {A2 }}$ |
|  | ChÉngdù：thon ${ }^{\text {A2 }}$ |
| 層 | OMd：tshan ${ }^{\text {A2 }}$ |
|  | Chéngdù：tshon ${ }^{\text {A2 }}$ |
| $\square$ | OMD：khou ${ }^{\text {B }}$ |
|  | Chéngdù：khau ${ }^{\text {B }}$ |
| 人 | OMD： jign $^{\text {A2 }}$ |
|  | ChÉngdù：zon ${ }^{\text {A2 }}$ |

Comments

## A．1．8 Clothing Terms

| Gloss | Mong Leng | Hmong Daw | Hanzi | Sintic Forms | Comments |
| :---: | :---: | :---: | :---: | :---: | :---: |
| button | khaw ${ }^{\text {D2 }}$ | khawi $^{\text {D2 }}$ | 万釦 | PÚTŌNGHUÀ：khou ${ }^{\text {C }}$ |  |
| dye，to | $3 \mathrm{ay}{ }^{\text {D1 }}$ | $3 \mathrm{a}^{\text {D1 }}$ | 染 | OMD： $3^{1 \mathrm{iem}}{ }^{\text {B }}$ |  |
|  |  |  |  | CHÉNGDÙ：zan ${ }^{\text {B }}$ |  |
| hat | mo ${ }^{\text {D2 }}$ | $\mathrm{m} 0^{\text {D2 }}$ | 帽 | OMD：mau ${ }^{\text {C }}$ |  |
|  |  |  |  | ChÉngdù：mau ${ }^{\text {C }}$ |  |
| robe | thay ${ }^{\text {B1 }} \mathrm{ntst}{ }^{\text {B1 }}$ | tha ${ }^{\text {B1 }}$ ntsu ${ }^{\text {B1 }}$ | 毯子 | OMD：tham ${ }^{\text {B }}{ }_{\text {t1 }}{ }^{\text {B }}$ |  |
|  |  |  |  | Chéngdù：than ${ }^{\text {B }}$ S1 ${ }^{\text {B }}$ |  |
| silk | － | thaum ${ }^{\text {A } 2}$ | 紬 | PÚTŌNGHUÀ：tşhou ${ }^{\text {A2 }}$ |  |

## A．1．9 Color Terms

| Gloss | Mong Leng | Hmong Daw | Hanzi | Sintic Forms | Comments |
| :--- | :--- | :--- | :--- | :--- | :--- |
| varicolored | - | huə $^{\mathrm{A} 1}$ | 花 | OMD：xua |  |
| ChÉNGDÙ：xua |  |  |  |  |  |

## A．1．10 Commands

| Gloss | Mong Leng |
| :--- | :--- |
| be quiet | $t_{4} \mathrm{D}^{2} \int^{\text {and }}$ |

## Hmong Daw

Hanzi Sintic Forms
Comments be quiet

$$
\mathrm{ty}^{\mathrm{D} 2} \mathrm{e}_{\mathrm{e}} \mathrm{n}^{\mathrm{A} 1}
$$

住聲 OMD：tfiu ${ }^{\mathrm{C}}$（iə ${ }^{\mathrm{A}}$
ChÉngDÙ：tsu ${ }^{\text {C }}{ }^{\text {sən }}{ }^{\mathrm{A}}$

## A．1．11 Terms of Comparison

| Gloss compare | Mong Leng $\mathrm{pe}^{\mathrm{B} 1}$ | Hmong Daw $\mathrm{pi}^{\mathrm{B} 1}$ | Hanzi比 | Sintic Forms OMD：phi ${ }^{\text {A2 }}$ | Comments |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | ChÉngdù： $\mathrm{pi}^{\text {B }}$ |  |
| match | phi ${ }^{\text {D2 }}$ | phi ${ }^{\text {D2 }}$ | 配 | OMD：phei ${ }^{\text {C }}$ |  |
|  |  |  |  | CHÉNGDÙ：phei ${ }^{\text {C }}$ |  |

## A．1．12 Containers

| Gloss bottle | Mong Leng $\mathrm{fu}^{\mathrm{A} 2}$ | Hmong Daw $h \mathrm{H}^{\mathrm{A} 2}$ | Hanzi <br> 壺 | Sintic Forms $\text { OMD: } \mathrm{xu}^{\mathrm{A} 2}$ | Comments |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | ChÉngdù：fu ${ }^{\text {A2 }}$ |  |
| cup | － | $\mathrm{pi}^{\text {A1 }} \mathrm{tsu}^{\mathrm{B} 1}$ | 杯子 | OMD：pei ${ }^{\text {A }}$ tS1 ${ }^{\text {B }}$ |  |
| trunk | phi ${ }^{\text {A2 }} \mathrm{san}^{\text {A }} 1$ | $\mathrm{phi}^{\text {A2 }} \mathrm{sa}^{\mathrm{A} 1}$ | 皮箱 | ChÉngdù：pei ${ }^{\text {A1 }}{ }_{\text {ts } 1} \mathrm{~B}$ OMD：phei |  |
|  |  |  |  | CHÉNGDÙ： phi $^{\mathrm{A} 2}{ }^{6} \operatorname{cian}^{\mathrm{A} 1}$ |  |

## A．1．13 Cultural Terms

| Gloss | Mong Leng | Hmong Daw | Hanzi | Sintic Forms | Comments |
| :---: | :---: | :---: | :---: | :---: | :---: |
| middleman | － | tory ${ }^{\text {A1 }} 3 \mathrm{en}^{\mathrm{A} 2}$ | 中人 | OMD：tfiuy ${ }^{\text {C }}$ 3iən ${ }^{\text {A2 }}$ |  |
|  |  |  |  | CHÉNGDÙ： tson ${ }^{\text {C }}{ }_{\text {Zon }}{ }^{\text {A2 }}$ |  |
| tales | $\mathrm{ku}^{\mathrm{B} 1} \mathrm{hu}{ }^{\text {D } 2}$ | $\mathrm{ku}^{\mathrm{B} 1} \mathrm{hu}^{\text {D }}{ }^{\text {2 }}$ | 古話 | OMD： $\mathrm{ku}^{\text {B }} \mathrm{xua}^{\text {C }}$ |  |
|  |  |  |  | CHÉNGDÙ： $\mathrm{ku}^{\mathrm{B}}$ xua ${ }^{\text {C }}$ |  |

## A．1．14 Economic Terms

| Gloss <br> boss | Mong Leng | Hmong Daw | Hanzi | Sintic Forms | Comments |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | $10^{\text {D1 }} \mathrm{pan}^{\text {B1 }}$ | $1_{0}{ }^{\text {d }} \mathrm{pa}^{\text {B1 }}$ | 老闆 | OMD： $\mathrm{lau}^{\text {B }}$ |  |
|  |  |  |  | ChÉngdù：nau ${ }^{\text {B }}$ |  |
| capital | － | pey ${ }^{\text {B1 }}$ tshen ${ }^{\text {A } 2}$ | 本錢 | OMD： pan $^{\text {B }}$ tshien ${ }^{\text {A2 }}$ |  |
|  |  |  |  | CHÉNGDÙ： pon $^{\mathrm{B}} \mathrm{t}_{6}$ hian ${ }^{\mathrm{A} 2}$ |  |
| capital | pey ${ }^{\text {B1 }}$ | pef ${ }^{\text {B1 }}$ | 本 | OMD： $\mathrm{pan}^{\text {B }}$ |  |
|  |  |  |  | Chéngdù：pan ${ }^{\text {B }}$ |  |
| cheap | － | phey ${ }^{\text {A2 }}{ }_{\mathrm{ji}}{ }^{\text {C2 }}$ | 便宜 | OMD：phiən ${ }^{\text {A } 2} \mathrm{i}^{\mathrm{A} 2}$ |  |
|  |  |  |  | CHÉNGDÙ： phian ${ }^{\mathrm{A} 2} \mathrm{jii}^{\mathrm{A} 2}$ |  |
| expensive | ki ${ }^{\text {D2 }}$ | ki ${ }^{\text {D2 }}$ | 貴 | OMD：kuei ${ }^{\text {C }}$ |  |
|  |  |  |  | ChÉngdù：kuei ${ }^{\text {C }}$ |  |
| family property | － | tçue ${ }^{\text {A1 }} \mathrm{ti}^{\text {B1 }}$ | 家底 | OMD： $\mathrm{ka}^{\text {A }} \mathrm{ti}^{\text {B }}$ |  |
|  |  |  |  | Chéngdù：tcia ${ }^{\text {A1 }} \mathrm{ti}^{\mathrm{B}}$ |  |
| goods | － | $h u^{\text {D2 }}$ | 貨 | OMD：xuo ${ }^{\text {C }}$ |  |
|  |  |  |  | Chéngdù：xo ${ }^{\text {C }}$ |  |
| mark | － | h2 ${ }^{\text {D } 2}$ thaum ${ }^{\text {A } 2}$ | 號頭 | OMD：xau ${ }^{\text {C }}$ thou ${ }^{\text {A2 }}$ |  |
|  |  |  |  | CHÉNGDÙ： xau $^{\text {C }}$ thəu ${ }^{\text {A2 }}$ |  |
| mark | $\mathrm{h} 0^{\text {D2 }}$ | ho ${ }^{\text {D2 }}$ | 號 | OMD：xau ${ }^{\text {C }}$ |  |
|  |  |  |  | Chéngdù：xau ${ }^{\text {C }}$ |  |
| portion | fen ${ }^{\text {D2 }}$ | fen ${ }^{\text {D2 }}$ | 份 | ChÉngdù：fən ${ }^{\text {C }}$ |  |
| scale | ten ${ }^{\text {B1 }}$ | ten ${ }^{\text {B1 }}$ | 晹 | PÚTŌNGHUÀ：tə ${ }^{\text {B }}$ |  |

## A．1．15 Terms Relating to Education

| Gloss | Mong Leng | Hmong Daw | Hanzi | Sintic Forms | Comments |
| :---: | :---: | :---: | :---: | :---: | :---: |
| assistant teach | $\mathrm{ti}^{\mathrm{D} 2} \mathrm{fu}^{\text {A1 }}$ | － | 弟夫 | OMD： $\mathrm{ti}^{\text {C }} \mathrm{fu}^{\text {A2 }}$ |  |
|  |  |  |  | ChÉNGDÙ： $\mathrm{ti}^{\mathrm{C}} \mathrm{fu}^{\mathrm{Al}}$ |  |
| practice，to | $\mathrm{çu}^{\text {D2 }}$ | çau ${ }^{\text {D2 }}$ | 學 | OMD： $\mathrm{xau}^{\text {D1 }}$ | Md：＇to learn＇ |
|  |  |  |  | ChÉNGDÙ：¢io ${ }^{\text {A2 }}$ |  |
| student | thy ${ }^{\text {A } 2} \mathrm{ti}^{\mathrm{D} 2}$ | thy ${ }^{\text {A } 2} \mathrm{ti}^{\mathrm{D} 2}$ | 徒弟 | OMD：thu ${ }^{\text {A } 2} \mathrm{ti}^{\text {C }}$ |  |
|  |  |  |  | Chéngdù：thu ${ }^{\text {A2 }} \mathrm{ti}^{\mathrm{C}}$ |  |
| teacher | $\mathrm{si}^{\mathrm{Al}} \mathrm{fu}^{\mathrm{Al}}$ | $\mathrm{si}^{\mathrm{Al}} \mathrm{ht} \mathrm{t}^{\mathrm{A} 1}$ | 師傅 | OMD： $\int \mathrm{i}^{\mathrm{A}} \mathrm{fu}^{\mathrm{C}}$ |  |
|  |  |  |  | CHÉNGDÙ： $\mathrm{si}^{\text {A1 }} \mathrm{fu}{ }^{\text {C }}$ |  |

## A．1．16 Terms Referring to Emotion

| Gloss angry | Mong Leng $t_{\text {çhi }}{ }^{D 2}$ | Hmong Daw $\mathrm{tçhi}^{\mathrm{D}}{ }^{2}$ | Hanzi氣 | Sintic Forms OMD：khi ${ }^{\text {C }}$ | Comments |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | CHÉNGDÙ：tçhi ${ }^{\text {C }}$ |  |
| brave | tue ${ }^{\text {D } 2} \tan ^{\text {B1 }}$ | tua ${ }^{\mathrm{D} 2} \mathrm{ta}^{\mathrm{B} 1}$ | 大膽 | OMD： $\operatorname{ta}^{\text {C }} \operatorname{tam}^{\text {B }}$ |  |
|  |  |  |  | Chéngdù： $\operatorname{ta}^{\text {C }} \tan ^{\text {B }}$ |  |
| cautious | － | $¢ ¢^{\text {B1 }} \operatorname{sen}^{\mathrm{A} 1}$ | 小心 | OMD： siau $^{\text {B }}$ siəm ${ }^{\text {A }}$ |  |
|  |  |  |  | CHÉNGDÙ： $\operatorname{ciau}^{\mathrm{B}} \operatorname{cin}^{\mathrm{A} 1}$ |  |
| distressed | $f a 习^{\text {A1 }}$ | $\mathrm{fa}^{\text {A1 }}$ | 慌 | CHÉNGDÙ：xaup ${ }^{\text {A1 }}$ |  |
| happy | － | ci $^{\mathrm{B} 1} \mathrm{fa}^{\mathrm{Al}}$ | 喜歡 | OMD： $\mathrm{xi}^{\mathrm{B}}$ xon ${ }^{\text {A }}$ |  |
|  |  |  |  | CHÉNGDÙ： $\text { ci }^{\mathrm{B}} \text { xuan }{ }^{\mathrm{Al}}$ |  |
| heart | $s \operatorname{sen}^{\text {A1 }}$ | $\operatorname{sen}^{\text {A1 }}$ | 心 | OMD：simm ${ }^{\text {A }}$ |  |
|  |  |  |  | Chéngdù：cin ${ }^{\text {Al }}$ |  |


| Gloss pity，to | Mong Leng | Hmong Daw $\mathrm{khu}^{\mathrm{B} 1} \operatorname{len}^{\mathrm{A} 2}$ | Hanzi <br> 可憐 | Sintic Forms $\text { OMD: kho }{ }^{\mathrm{B}} \operatorname{lien}^{\mathrm{A} 2}$ | Comments |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | ChÉngdù： <br> $\mathrm{kho}^{\mathrm{B}}$ nian $^{\mathrm{A} 2}$ |  |
| satiated | $\mathrm{p} 0^{\text {B1 }} \mathrm{khaum}^{\text {B1 }}$ | po ${ }^{\text {B1 }} \mathrm{khaw}^{\text {B1 }}$ | 飽口 | OMD：pau ${ }^{\text {B }} \mathrm{khou}^{\mathrm{B}}$ CHÉNGDÙ： pau ${ }^{\mathrm{B}} \mathrm{khəu}^{\mathrm{B}}$ |  |
| startled | $\mathrm{tçen}^{\text {A1 }}$ | $\mathrm{tçen}^{\text {A1 }}$ | 惊 | PÚTŌNGHUÀ：tciy ${ }^{\text {A1 }}$ |  |
| too bad | － | khu ${ }^{\text {B1 }} \mathrm{Si}^{\mathrm{D} 2}$ | 可惜 | $\begin{aligned} & \text { OMD: kho }{ }^{\mathrm{B}} \mathrm{si}^{\mathrm{D} 2} \\ & \text { CHÉNGDŨ: kho }{ }^{\mathrm{B}} \mathrm{Ci}^{\mathrm{A} 2} \end{aligned}$ |  |
| worry | tshaw ${ }^{\text {A2 }} \operatorname{seg}^{\text {A1 }}$ | tshau ${ }^{\text {A2 }} \operatorname{sen}^{\text {A1 }}$ | 愁心 | OMD：thou ${ }^{\mathrm{A} 2}$ sirm $^{\mathrm{A}}$ Chéngdù： tshəu ${ }^{\mathrm{A} 2} \operatorname{cin}^{\mathrm{A} 1}$ |  |
| worry，to | tshaum ${ }^{\text {A2 }}$ | tshaum ${ }^{\text {A2 }}$ | 愁 | OMD：thhou ${ }^{\text {A } 2}$ <br> CHÉNGDÙ：tshəu ${ }^{\mathrm{A} 2}$ |  |

## A．1．17 Food Items

| Gloss <br> black pepper | Mong Leng $\mathrm{ft}^{\mathrm{A} 2} \mathrm{ts)}^{\mathrm{A} 1}$ | Hmong Daw $\mathrm{hu}^{\mathrm{A} 2}{ }_{\mathrm{ts} 0^{\mathrm{A}} 1}$ | Hanzi胡椒 | Sintic Forms <br> OMD： $\mathrm{xu}^{\mathrm{A} 2}$ | Comments |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | ChÉnglù： <br> $\mathrm{fu}^{\mathrm{A} 2}{ }_{\text {tciau }}{ }^{\mathrm{A} 1}$ |  |
| flavor | － | $\mathrm{vi}^{\mathrm{D} 2} \mathrm{t}^{\mathrm{D} 2}$ | 味道 | $\begin{aligned} & \text { OMD: vei }{ }^{\mathrm{C}} \mathrm{tau}^{\mathrm{C}} \\ & \text { CHÉngDÙ: uei } \end{aligned}$ |  |
| liquor | tçaum ${ }^{\text {B1 }}$ | tçam ${ }^{\text {B1 }}$ | 酒 | $\begin{aligned} & \text { OMD: tsiou }{ }^{\mathrm{B}} \\ & \text { CHÉNGDÙ: tçiəu } \end{aligned}$ |  |
| maize | $\mathrm{p} 9^{\mathrm{Al}} \mathrm{kt}^{\mathrm{D} 1}$ | $\mathrm{po}^{\mathrm{A} 1} \mathrm{ku}^{\mathrm{D} 1}$ | 包穀 | PÚTŌNGHUÀ： $\mathrm{pau}^{\text {A1 }} \mathrm{ku}^{\mathrm{B}}$ |  |
| peanut | － | hue ${ }^{\text {A1 }} \mathrm{Sen}^{\text {A } 1}$ | 花生 | OMD：xua ${ }^{\mathrm{A}} \int ə \eta^{\mathrm{A}}$ Chéngdù： $x^{\text {a }}{ }^{\mathrm{Al}}{ }^{\text {sən }}{ }^{\mathrm{A} 1}$ |  |
| potato <br> string beans | $j a \eta^{\text {A }}{ }_{j} \mathrm{u}^{\mathrm{B} 1}$ | $\begin{aligned} & \mathrm{ja}^{\mathrm{A} 2} \mathrm{ju}^{\mathrm{B} 1} \\ & \text { tau }^{\mathrm{D} 2} \mathrm{pu}^{\mathrm{A} 2} \mathrm{je}^{\mathrm{D} 2} \end{aligned}$ | 洋芋 豆八月 | Chéngdù：ian ${ }^{\mathrm{A} 2}$ <br> OMD：tou ${ }^{\mathrm{C}} \mathrm{pa}^{\mathrm{D} 2} \mathrm{ye}^{\mathrm{D} 3}$ <br> ChÉngdù： <br> $t_{\text {tru }}{ }^{\mathrm{C}} \mathrm{pa}^{\mathrm{A} 2} \mathrm{ye}^{\mathrm{A} 2}$ | 豆＇bean＇is ancient loan． |
| sugar | － | tha ${ }^{\text {A2 }}$ | 糖 | $\begin{aligned} & \text { OMD: than }{ }^{\mathrm{A} 2} \\ & \text { CHÉNGDÙ: thay }{ }^{\mathrm{A} 2} \end{aligned}$ |  |
| sugar | $\mathrm{pe}^{\mathrm{D} 2}$ than ${ }^{\text {A } 2}$ | pia ${ }^{\text {D2 }}$ tha ${ }^{\text {A2 }}$ | 白糖 | $\begin{aligned} & \text { OMD: pai }{ }^{\mathrm{D} 1} \text { than }^{\mathrm{A} 2} \\ & \text { CHÉNGDÙ: } \\ & \text { pe }^{\mathrm{A} 2} \text { than }^{\mathrm{A} 2} \end{aligned}$ |  |
| vegetables | tsha ${ }^{\text {D2 }} \mathrm{st}^{\text {D2 }}$ | tshia ${ }^{\text {D } 2} \mathrm{su}^{\text {D2 }}$ | 菜蔬 | $\begin{aligned} & \text { OMD: tshai }{ }^{\mathrm{C}} \\ & \text { CHÉNGDÙ: tshai } \end{aligned}$ |  |
| yeast | － | $k e g^{\text {A1 }}$ | 根 | $\begin{aligned} & \text { OMD: kən }{ }^{\mathrm{A}} \\ & \text { CHÉNGDÙ: kən } \end{aligned}$ | Md：＇source，cause＇ |

## A．1．18 Figures of Speech

| Gloss all sides | Mong Leng | $\begin{aligned} & \text { Hmong Daw } \\ & \mathrm{su}^{\mathrm{D} 2} \mathrm{fa}^{\mathrm{A} 1} \mathrm{pu}^{\mathrm{A} 2} \mathrm{me}^{\mathrm{D} 2} \end{aligned}$ | Hanzi <br> 四方八面 | Sintic Forms OMD： | Comments |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | $\mathrm{si}^{\mathrm{C}} \mathrm{fan}^{\mathrm{A}} \mathrm{pa}^{\mathrm{D} 2} \mathrm{mien}^{\mathrm{C}}$ ChÉngdù： $\mathrm{s}_{1} \mathrm{C}_{\text {fan }}{ }^{\mathrm{A} 1} \mathrm{pa}^{\mathrm{A} 2} \mathrm{mian}^{\mathrm{C}}$ |  |
| from beginning | － | pue ${ }^{\text {D1 }} \mathrm{tsu}^{\text {B1 }} \mathrm{pua}^{\text {A2 }} \mathrm{tia}^{\text {2 } 2}$ | 百祖八代 | OMD： $\mathrm{pai}^{\mathrm{D} 2} \mathrm{tsu}^{\mathrm{B}} \mathrm{pa}^{\mathrm{D} 2} \mathrm{tai}^{\mathrm{C}}$ |  |
|  |  |  |  | CHÉNGDÙ： $\mathrm{pe}^{\mathrm{A} 2} \mathrm{tsu}^{\mathrm{B}} \mathrm{pa}^{\mathrm{A} 2} \mathrm{tai}^{\mathrm{C}}$ |  |

## A．1．19 Gambling Terms

Gloss

cards $\quad$\begin{tabular}{llll}
Mong Leng <br>
phai $^{\mathrm{A} 1}$

$\quad$

Hmong Daw <br>
phai $^{\mathrm{A} 1}$

$\quad$

Hanzi <br>
guess，to
\end{tabular}

## A．1．20 Geography

| Gloss | Mong Leng | Hmong Daw | Hanzi | Sintic Forms | Comments |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | tuə ${ }^{\text {D2 }}$ tçh ${ }^{\text {A } 2}$ | tua ${ }^{\text {2 }}$ tgho ${ }^{\text {A2 }}$ |  | OMD：ta ${ }^{\mathrm{C}}{ }_{\mathrm{t}} \mathrm{fhiau}^{\mathrm{A} 2}$ ChÉngdù： ta $^{\mathrm{C}} \mathrm{tshau}^{\mathrm{A} 2}$ |  |
| Indochina | － | $\mathrm{s} 3^{\mathrm{B} 1} \mathrm{tgh}{ }^{\text {A2 }}$ | 小朝 | OMD： $\operatorname{siau}^{\mathrm{B}} \mathrm{tfhiau}^{\mathrm{A} 2}$ Chéngdù： ciau $^{\mathrm{B}}$ tshau $^{\mathrm{A} 2}$ |  |
| boundary | － | $t \operatorname{çia}^{\text {A2 }}$ | 界 | OMD：kiai ${ }^{\text {C }}$ ChÉNGDÙ：tçia ${ }^{\text {C }}$ |  |
| boundary | － | $\mathrm{tçig}^{\text {D2 }}$ | 界 | OMD：kiai ${ }^{C}$ CHÉNGDÙ：tçia ${ }^{\mathrm{C}}$ |  |
| gulley | $\mathrm{ku}^{\text {A2 }}$ | $\mathrm{kt}{ }^{\text {A2 }}$ | 谷 | Chéngdù：ku ${ }^{\text {A2 }}$ |  |
| province | $\operatorname{sen}^{\text {B1 }}$ | $\operatorname{sen}^{\text {B1 }}$ | 省 | $\begin{aligned} & \text { OMD: } \operatorname{siə\eta }^{\mathrm{B}} \\ & \text { CHÉNGDÙ: } \operatorname{sən}^{\mathrm{B}} \end{aligned}$ |  |
| sea | － | hiə ${ }^{\text {B1 }} \mathrm{tsu}^{\text {B1 }}$ | 海子 | $\begin{aligned} & \text { OMD: xai }{ }^{\mathrm{B}} \mathrm{tt1}^{\mathrm{B}} \\ & \text { CHÉNGDÙ: } \mathrm{xai}^{\mathrm{B}}{ }_{\text {ts1 }}{ }^{\mathrm{B}} \end{aligned}$ |  |

## A．1．21 Material Goods

| Gloss <br> plate | Mong Leng pha ${ }^{\text {A1 }}$ | Hmong Daw phiə ${ }^{\text {A1 }}$ | Hanzi <br> 牌 | Sintic Forms <br> OMD：phai ${ }^{\text {A2 }}$ | Comments |
| :---: | :---: | :---: | :---: | :---: | :---: |
| sugar | $\int u 2^{\mathrm{B} 1} \operatorname{thay}^{\mathrm{A} 2}$ | $\int \mathrm{u} 2^{\mathrm{B} 1}$ tha ${ }^{\text {A } 2}$ | 糖 | $\begin{aligned} & \text { CHÉNGDÙ: phai }{ }^{\text {A2 }} \\ & \text { OMD: than }{ }^{\text {A2 }} \end{aligned}$ |  |
| things | － | $\operatorname{tog}^{\mathrm{A} 1} \mathrm{si}^{\mathrm{A} 1}$ | 東西 | ChÉngdù：than ${ }^{\mathrm{A} 2}$ <br> OMD：tuŋ ${ }^{\mathrm{A}} \mathrm{si}^{\mathrm{A}}$ <br> CHÉNGDÙ： $\operatorname{ton}{ }^{\mathrm{A} 1}{ }_{61}{ }^{\mathrm{A} 1}$ |  |

## A．1．22 Grammatical Morphemes



## A．1．23 Health and Medicine

| Gloss <br> bloated catch cold，to | Mong Leng | Hmong Daw | Hanzi | Sintic Forms | Comments |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | $t \mathrm{ar}{ }^{\text {D2 }}$ | $\mathrm{fa}^{\text {D2 }}$ | 脹 | ChÉngdù：tsan ${ }^{\text {C }}$ |  |
|  | － | $\int \mathrm{a}^{\mathrm{Al}}$ foy ${ }^{\mathrm{Al} 1}$ | 傷風 | OMD： $\int \mathrm{ia} \mathrm{\eta}{ }^{\text {A }}$ fug ${ }^{\text {A }}$ |  |
|  |  |  |  | ChÉngdù： $\operatorname{san}^{\mathrm{A} 1}$ fon ${ }^{\mathrm{A} 1}$ |  |
| craving | jen ${ }^{\text {D1 }}$ | jel ${ }^{\text {D1 }}$ | 瘾 | PÚTŌNGHUÀ：jin ${ }^{\text {B }}$ |  |
| effective | $l e y^{\text {A2 }}$ | $l e y^{\text {A2 }}$ | 靈 | OMD： $\operatorname{li} \mathrm{y}^{\text {A2 }}$ |  |
|  |  |  |  | ChÉngdù：nin ${ }^{\text {A2 }}$ |  |
| massage，to | $3 \mathrm{aw}{ }^{\text {D1 }}$ | $3 \mathrm{aw}{ }^{\text {D1 }}$ | 揉 | CHÉNGDÙ：zzu ${ }^{\text {A1 }}$ |  |
| massage，to | $3 \chi^{\text {A2 }}$ | $3 \chi^{\text {A2 }}$ | 揉 | CHÉNGDÙ：zəu ${ }^{\text {A1 }}$ |  |
| medicine | thuo ${ }^{\text {A2 }}$ | thue ${ }^{\text {A2 }}$ | 茶 | OMD： $\mathrm{ff}^{\text {A2 }}$ |  |
|  |  |  |  | CHÉNGDÙ：tsha ${ }^{\text {A2 }}$ |  |
| pulse | － | $\mathrm{me}^{\mathrm{D} 2}$ | 脈 | OMD：mai ${ }^{\text {D }}$ |  |
|  |  |  |  | ChÉngdù：me ${ }^{\text {A2 }}$ |  |
| serious | $\int a \eta^{\text {A }}$ | $\int \mathrm{a}^{\mathrm{A} 1}$ | 傷 | OMD： $\left.\int i a\right]^{\text {A }}$ |  |
|  |  |  |  | Chéngdù：say ${ }^{\text {A1 }}$ |  |
| sickness | － | tsia ${ }^{\text {A1 }} \operatorname{seg}^{\text {A1 }}$ | 災身 | OMD：tsai ${ }^{\text {A }}$ fion ${ }^{\text {A }}$ |  |
|  |  |  |  | CHÉNGDÙ： <br> tsai ${ }^{\mathrm{A} 1}$ son $^{\mathrm{A} 1}$ |  |
| tea leaves | － | thue ${ }^{\text {A } 2} \mathrm{fu}^{\mathrm{D}} 2$ | 茶樹 | OMD：ffa ${ }^{\text {A } 2} \mathrm{jiu}^{\mathrm{C}}$ |  |
|  |  |  |  | ChÉngdù： <br> tsha ${ }^{\mathrm{A} 2} \mathrm{su}^{\mathrm{C}}$ |  |

## A．1．24 Terms Referring to Human Qualities

| Gloss ability | Mong Leng $\mathrm{pen}^{\mathrm{B}} \mathrm{Su}^{\mathrm{D} 2}$ | Hmong Daw $\mathrm{pen}^{\mathrm{B} 1} \mathrm{su}^{\mathrm{D} 2}$ | Hanzi <br> 本事 | Sintic Forms <br> OMD： $\operatorname{pan}^{B} \int_{1}^{C}$ | Comments |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | ChÉNGDÙ： pon $^{\text {B }}{ }_{\text {S1 }}{ }^{\text {c }}$ |  |
| appearance | $m e y^{\text {A } 2 ~ m o ~}{ }^{\text {D2 }}$ | － | 面貌 | OMD：mien ${ }^{\text {C }}$ mau $^{\text {C }}$ |  |
|  |  |  |  | CHÉNGDÙ： $\operatorname{mian}^{\mathrm{C}} \mathrm{mau}^{\mathrm{C}}$ |  |
| concerned about | － | $\mathrm{tçen}^{\text {B1 }}$ | 謹 | PÚTŌNGHUÀ：tcin ${ }^{\text {B }}$ |  |
| cruel | $\mathrm{li}^{\mathrm{D} 2} \mathrm{ha}^{\text {D2 }}$ | $\mathrm{li}^{\mathrm{D} 2} \mathrm{hia}^{\text {D2 }}$ | 利害 | PÚTŌNGHUÀ： $\mathrm{li}^{\mathrm{C}}$ xai ${ }^{\text {C }}$ |  |
| docile | $\mathrm{ka}^{\text {A1 }}$ | kia ${ }^{\text {A1 }}$ | 乘 | OMD：kuai ${ }^{\text {A }}$ |  |
|  |  |  |  | CHÉNGDÙ：kuai ${ }^{\text {A1 }}$ |  |
| memory | $\mathrm{tçi}^{\text {D } 2} \operatorname{sen}^{\text {A1 }}$ | $\mathrm{tçi}^{\text {D2 }} \operatorname{seg}^{\text {A1 }}$ | 記心 | OMD： $\mathrm{ki}^{\mathrm{C}}$ sizm ${ }^{\text {A }}$ |  |
|  |  |  |  | Chéngdù：tcie ${ }^{\text {C }} \operatorname{cin}^{\text {A1 }}$ |  |
| weight（of a person） | － | $\operatorname{tçen}^{\text {A1 }}$ thau ${ }^{\text {A2 }}$ | 斤頭 | OMD：kiən ${ }^{\text {A }}$ thou ${ }^{\text {A } 2}$ |  |
|  |  |  |  | CHÉNGDÙ： <br> $\operatorname{tcin}^{\mathrm{A} 1}$ thəu ${ }^{\mathrm{A} 2}$ |  |

## A．1．25 Implements

| Gloss boat pole | Mong Leng | Hmong Daw | Hanzi | Sintic Forms | Comments |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | tshen ${ }^{\text {A1 }} \mathrm{kan}^{\text {A1 }}$ | － | 撐竿 | OMd：thhən ${ }^{\text {A }}$ |  |
|  |  |  |  | CHÉNGDÙ： tshən ${ }^{\mathrm{A} 1} \mathrm{kan}^{\mathrm{A} 1}$ |  |
| canon | tua ${ }^{\text {D2 }} \mathrm{ph}{ }^{\text {d }}$ 2 | － | 大炮 | OMD：ta ${ }^{\text {c }} \mathrm{phau}^{\text {A2 }}$ |  |
|  |  |  |  | Chéngdù：ta ${ }^{\text {c }}$ phau ${ }^{\text {C }}$ |  |
| hatchet | － | $h 4^{\text {B1 }}$ | 斧 | OMD： $\mathrm{fu}^{\text {B }}$ |  |
|  |  |  |  | CHÉNGDÙ：fu ${ }^{\text {B }}$ |  |
| household goods | － | $\mathrm{tçu}^{\text {a }}{ }^{\text {1 }} \mathrm{ta}^{\text {D } 2}$ | 家當 | OMD：ka ${ }^{\text {A }}$ tə ${ }^{\text {C }}$ |  |
|  |  |  |  | CHÉNGDÙ： $\text { tcia }{ }^{\mathrm{Al}} \tan ^{\mathrm{C}}$ |  |
| implements | tçua ${ }^{\text {A1 }}{ }_{\text {jen }}{ }^{\text {A2 }}$ |  | 家園 | OMd：ka ${ }^{\text {A }}$ yen ${ }^{\text {A2 }}$ |  |
|  |  |  |  | CHÉNGDÙ： <br> $\operatorname{tcia}^{\mathrm{A} 1}$ yan $^{\mathrm{A} 2}$ |  |
| knife | － | t9 ${ }^{\text {A } 1}$ | 刀 | OMd：tau ${ }^{\text {A }}$ |  |
|  |  |  |  | CHÉNGDÙ：tau ${ }^{\text {A1 }}$ |  |
| lamp | $\operatorname{ten}^{\text {A1 }}$ | $\operatorname{ten}^{\text {A1 }}$ | 燈 | Chéngdù：ton ${ }^{\text {A1 }}$ |  |
| lamp wick | $\operatorname{teg}^{\mathrm{A} 1} \operatorname{sen}^{\text {A1 }}$ | $\operatorname{teg}^{\mathrm{A} 1} \operatorname{sen}^{\mathrm{A} 1}$ | 燈芯 | Chéngdù：ton ${ }^{\text {A1 }}$ |  |
| mallet | pay ${ }^{\text {D2 }}$ thaum ${ }^{\text {A2 }}$ | $\mathrm{pa}^{\text {D2 }}$ thaum ${ }^{\text {A } 2}$ | 棒頭 | OMD：pay ${ }^{\text {C }}$ thou ${ }^{\text {A2 }}$ |  |
|  |  |  |  | CHÉNGDÙ： pan $^{\mathrm{C}}$ thəu ${ }^{\mathrm{A} 2}$ |  |


| Gloss | Mong Leng | Hmong Daw | Hanzi | Sintic Forms | Comments |
| :---: | :---: | :---: | :---: | :---: | :---: |
| sticklac | － | $\mathrm{tço}{ }^{\text {A1 }}$ | 膠 | OMD：kau ${ }^{\text {A }}$ |  |
|  |  |  |  | CHÉNGDÙ：ţiau ${ }^{\text {A1 }}$ |  |

## A．1．26 Kinship



## A．1．27 Terms Relating to Law and Justice

| Gloss accuse，to | $\mathrm{k}^{\mathrm{D} 2}$ | Hmong Daw $\mathrm{k}^{\mathrm{D} 2}$ | Hanzi <br> 告 | Sintic Forms <br> OMD：kau ${ }^{\text {C }}$ | Comments |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\mathrm{ky}^{\mathrm{D} 2}$ | 告 | Chéngdù：kau ${ }^{\text {C }}$ |  |
| be punished，to | － | $\int \mathrm{aum}^{\text {D2 }}$ tsi ${ }^{\text {D2 }}$ | 受罪 | OMD： $\int_{\text {iou }}{ }^{\text {ctsuei }}{ }^{\text {C }}$ |  |
|  |  |  |  | CHÉNGDÙ： <br> sau $^{\mathrm{C}_{\text {tsuei }}}{ }^{\mathrm{C}}$ |  |
| defendant | $\mathrm{pe}^{\mathrm{D} 2} \mathrm{k} 9^{\mathrm{D} 2}$ | $\mathrm{pe}^{\mathrm{D} 2} \mathrm{k} 9^{\mathrm{D} 2}$ | 被告 | OMD：pei ${ }^{\text {c }}$ kau ${ }^{\text {C }}$ |  |
|  |  |  |  | CHÉNGDÙ： $\mathrm{pi}^{\text {C }} \mathrm{kau}^{\text {C }}$ |  |
| guarantor | $\mathrm{po}^{\text {B1 }}$ thaw ${ }^{\text {A } 2}$ | $\mathrm{p} \mathrm{s}^{\mathrm{B} 1}$ thaum ${ }^{\text {A } 2}$ | 保頭 | OMD：pau ${ }^{\text {B }}$ thou ${ }^{\text {A2 }}$ |  |
|  |  |  |  | CHÉNGDÙ： pau $^{\text {B }}$ thəu ${ }^{\text {A2 }}$ |  |
| guilt | tsi ${ }^{\text {D2 }}$ | tsi ${ }^{\text {D2 }}$ | 罪 | OMD：tsuei ${ }^{\text {C }}$ |  |
|  |  |  |  | Chéngdù：tsuei ${ }^{\text {C }}$ |  |
| just | － | koy ${ }^{\text {A1 }}$ phen ${ }^{\text {A2 }}$ | 公平 | OMD：kuף ${ }^{\text {A }}$ phiə ${ }^{\text {A }}{ }^{2}$ |  |
|  |  |  |  | Chéngdù： |  |
|  |  |  |  | kon ${ }^{\text {A1 }}$ phin ${ }^{\text {A2 }}$ |  |
| plaintiff | jen $\left.{ }^{\text {A2 }} \mathrm{k}\right)^{\text {D2 }}$ | jen ${ }^{\text {A2 }} \mathrm{k} \mathrm{v}^{\mathrm{D} 2}$ | 原告 | OMD：yen ${ }^{\text {2 } 2} \mathrm{kau}^{\text {C }}$ |  |
|  |  |  |  | CHÉNGDÙ： $\operatorname{yan}^{\mathrm{A} 2} \mathrm{kau}^{\mathrm{C}}$ |  |

## A．1．28 Terms relating to Writing and Literacy

| Gloss character | Mong Leng | Hmong Daw | Hanzi | Sintic Forms | Comments |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | － | $\mathrm{tsu}^{\text {D2 }}$ | 字 | OMD：ts ${ }^{\text {C }}$ |  |
|  |  |  |  | ChÉngdù：ts ${ }^{\text {C }}$ |  |
| ink | － | $\mathrm{me}^{\mathrm{D} 2}$ | 墨 | OMD：mei ${ }^{\text {D3 }}$ |  |
|  |  |  |  | CHÉNGDÙ：me ${ }^{\text {A2 }}$ |  |
| read | ney ${ }^{\text {D2 }}$ | nen ${ }^{\text {D2 }}$ | 唸 | PÚTŌNGHUÀ：nian ${ }^{\text {C }}$ |  |

## A．1．29 Location

| Gloss | Mong Leng | $\underset{\text { Hmong Daw }}{ }$ | Hanzi | Sintic Forms | Comments |
| :---: | :---: | :---: | :---: | :---: | :---: |
| bottom | － | $\mathrm{ti}^{\mathrm{B} 1} \mathrm{tsu}^{\mathrm{B} 1}$ | 底子 | OMD： $\mathrm{ti}^{\text {B }}{ }_{\text {t1 }}{ }^{\text {B }}$ |  |
|  |  |  |  | Chéngdù： $\mathrm{ti}^{\text {B }}{ }_{\text {S1 }}{ }^{\text {B }}$ |  |
| over there | ts ${ }^{\text {D2 }}$ | ts ${ }^{\text {D2 }}$ | 到 | OMD：tau ${ }^{\text {C }}$ |  |
|  |  |  |  | ChÉNGDÙ： $\operatorname{tau}^{\text {C }}$ |  |

## A．1．30 Magic

| Gloss | Mong Leng | Hmong Daw | Hanzi | Sintic Forms | Comments |
| :---: | :---: | :---: | :---: | :---: | :---: |
| charm | － | $\mathrm{pa}^{\text {B1 }} \mathrm{hu}^{\mathrm{D} 2}$ | 寶護 | OMD：pau ${ }^{\text {B }}$ |  |
|  |  |  |  | Chéngdù：pau ${ }^{\mathrm{B}} \mathrm{fu}^{\mathrm{C}}$ |  |
| guard from demons， | $\mathrm{p} \mathrm{g}^{\mathrm{B1}} \mathrm{fu}^{\mathrm{D} 2}$ | $\mathrm{p} 0^{\mathrm{B} 1} \mathrm{ht}^{\mathrm{D} 2}$ | 保護 | OMD： $\mathrm{pau}^{\mathrm{B}}$ |  |
| to |  |  |  | Chéngdù：pau ${ }^{\text {B fu }}{ }^{\text {C }}$ |  |
| magic | － | hut ${ }^{\text {A2 }} \mathrm{hu}{ }^{\text {D }}{ }^{\text {jeg }}{ }^{\text {D1 }} \mathrm{ntsu}^{\text {B1 }}$ | 影子 | OMD：ion ${ }^{\mathrm{B}}$ t1 ${ }^{\text {B }}$ |  |
|  |  |  |  | ChÉngdù：in ${ }^{\text {B }} \mathrm{SI}^{\mathrm{B}}$ |  |
| make illusion，to | jen ${ }^{\text {C2 }}$ | jen ${ }^{\text {D1 }}$ | 影 | OMD：iəๆ ${ }^{\text {B }}$ |  |
|  |  |  |  | Chéngdù：in ${ }^{\text {B }}$ |  |
| talisman | $\mathrm{p} \mathrm{s}^{\mathrm{B} 1}$ | $\mathrm{p} \mathrm{s}^{\mathrm{B} 1}$ | 寶 | OMD：pau ${ }^{\text {B }}$ |  |
|  |  |  |  | ChÉngdù：pau ${ }^{\text {B }}$ |  |

## A．1．31 Manufacturing

| Gloss <br> join，to | Mong Leng <br> tçs $^{\mathrm{A} 1}$ |
| :--- | :--- |
| solder <br> solder，to | haŋ̧ $^{\mathrm{D} 2}$ |
|  | - |

Hmong Daw
$\mathrm{t}_{\mathrm{c} \varsigma^{\mathrm{A} 1}}$
$\mathrm{ha}^{\mathrm{D} 2}$
$\mathrm{ha}^{\mathrm{D} 2}$ thauw $^{\mathrm{A} 2}$

| Hanzi | Sintic Forms |
| :--- | :--- |
| 交 | OMd：kauA |
|  | CHÉNGDÙ：tciauu ${ }^{\mathrm{A} 1}$ |
| 焊 | PÚTŌNGHUÀ：xan ${ }^{\text {C }}$ |
| 錩頭 | OMd：thou <br>  <br>  <br>  <br> CHÉNGDÙ：thəu |

## Comments

## A．1．32 Metal

| Gloss <br> aluminum | Mong Leng | Hmong Daw $\mathrm{pe}^{\mathrm{A} 2} \mathrm{tch}^{\mathrm{D}}{ }^{\mathrm{D} 2}$ | Hanzi <br> 百钃 | Sintic Forms <br> OMD：pai ${ }^{\text {D2 }}$ | Comments |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | ChÉngdù̀：pe ${ }^{\text {A2 }}$ |  |
| bellows | － | for ${ }^{\text {Al }} \mathrm{sa}^{\text {A1 }}$ | 風箱 | OMD：fuy ${ }^{\text {A }}$ |  |
|  |  |  |  | CHÉNGDÙ： <br> fon ${ }^{\mathrm{A} 1} \operatorname{cian}^{\mathrm{A} 1}$ |  |
| tin | $j a \eta^{\text {A2 }}$ the ${ }^{\text {D2 }}$ | $\mathrm{ja}^{\text {A } 2}$ the $^{\mathrm{D} 2}$ | 洋鐵 | OMD：thie ${ }^{\mathrm{D} 2}$ ChÉNGDÙ： $\operatorname{ian}^{\mathrm{A} 2}$ thie $^{\mathrm{A} 2}$ | Md phrase is conjec－ tural． |

## A．1．33 Military Terms

| Gloss camp | Mong Leng $j e \eta^{\mathrm{A} 2}$ | Hmong Daw $\mathrm{jeg}^{\mathrm{A} 2}$ | Hanzi營 | Sintic Forms <br> OMD：iə $\eta^{\mathrm{A} 2}$ | Comments |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | ChÉngdù：in ${ }^{\text {A2 }}$ |  |
| flag | tçhi ${ }^{\text {A2 }}$ | tçhi ${ }^{\text {A2 }}$ | 旗 | CHÉNGDÙ：tchi ${ }^{\text {A2 }}$ |  |

## A．1．34 Nouns

| Gloss event | Mong Leng $\mathrm{su}^{\mathrm{D} 2}$ | Hmong Daw $\mathrm{su}^{\mathrm{D} 2}$ | Hanzi事 | Sintic Forms <br> OMD： $\int_{1}{ }^{\mathrm{C}}$ ChÉngdù： ${ }_{51}{ }^{\text {C }}$ | Comments |
| :---: | :---: | :---: | :---: | :---: | :---: |
| group | pay ${ }^{\text {A1 }}$ | $\mathrm{pa}^{\text {A1 }}$ | 班 | CHÉNGDÙ：pan ${ }^{\text {A1 }}$ |  |
| line | pha ${ }^{\text {A2 }}$ | － | 排 | OMD：phai ${ }^{\text {A2 }}$ ChÉngdù：phai ${ }^{\text {A2 }}$ |  |
| paste | $t c ̧ a \eta{ }^{\text {D2 }}$ | － | 漿 | $\begin{aligned} & \text { OMD: } \operatorname{tsian}^{\mathrm{A}} \\ & \text { CHÉNGDÙ: tcian } \end{aligned}$ |  |
| person | $3 \mathrm{en} \mathrm{A}^{\text {2 }}$ | $3 \mathrm{ey}{ }^{\text {A2 }}$ | 人 | $\begin{aligned} & \text { OMD: } \text { jiən }^{\mathrm{A} 2} \\ & \text { CHÉNGDÙ: zən } \end{aligned}$ |  |
| seal | jen ${ }^{\text {D2 }}$ | jel ${ }^{\text {D2 }}$ | 印 | $\begin{aligned} & \text { OMD: iən }{ }^{\mathrm{C}} \\ & \text { CHÉNGDÙ: in } \end{aligned}$ |  |
| side | － | $\mathrm{fa}^{\text {A1 }}$ | 方 | $\begin{aligned} & \text { OMD: faŋ̉ }{ }^{\mathrm{A}} \\ & \text { ChÉNGDÙ: } \text { fan }^{\mathrm{A} 1} \end{aligned}$ |  |
| strength | － | $t_{\text {çen }}{ }^{\text {D2 }}$ | 勁 | ChÉngdù：tain ${ }^{\text {C }}$ |  |

## A．1．35 Nouns Relating to Cognition

| Gloss | Mong Leng | Hmong Daw | Hanzi | Sintic Forms | Comments |
| :---: | :---: | :---: | :---: | :---: | :---: |
| plan | － | $\mathrm{tfu}^{\mathrm{B1}} \mathrm{jiD}^{\mathrm{D} 2}$ | 主意 | OMD： i $^{\mathrm{C}}$ Chéngdù： |  |

## A．1．36 Nouns Relating to Social Interaction

| Gloss <br> all people | Mong Leng | Hmong Daw tfon ${ }^{\mathrm{D} 2}$ zen $^{\mathrm{A} 2}$ | Hanzi衆人 | Sintic Forms <br> OMD：tfiun ${ }^{\text {C }}$ zion ${ }^{\text {A2 }}$ | Comments |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Chéngldù： tson ${ }^{\mathrm{C}} \mathrm{zon}^{\text {A2 }}$ |  |
| friend | phoy ${ }^{\text {A2 }}{ }^{\mathrm{j} \mathrm{H}^{\mathrm{C}} 2}$ | phon ${ }^{\text {A2 }}{ }_{j}{ }^{\text {C2 }}$ | 朋友 | OMD：phən ${ }^{\text {A } 2}$ iou $^{\text {B }}$ |  |
|  |  |  |  | ChÉngdù： $\text { phoy }^{\text {A2 } 2} \text { iəu }{ }^{\mathrm{B}}$ |  |
| manager | － | $\mathrm{ka}^{\mathrm{B} 1} \mathrm{su}^{\text {D2 }}$ | 管事 | OMD： $\operatorname{kon}^{\text {B }} \mathrm{fl}^{\text {C }}$ |  |
|  |  |  |  | ChÉngdù：kuan ${ }^{\text {B }}{ }^{\text {c }}$ |  |
| name | － | $m e y^{\text {A2 }}$ | 名 | OMD：miən ${ }^{\text {A } 2}$ |  |
|  |  |  |  | ChÉngdù：min ${ }^{\text {A2 }}$ |  |

## A．1．37 Numeric Terms

| Gloss | Mong Leng | Hmong Daw | Hanzi | Sintic Forms | Comments |
| :---: | :---: | :---: | :---: | :---: | :---: |
| fifth | $\mathrm{vu}^{\text {D1 }}$ | $\mathrm{vu}^{\text {D1 }}$ | 五 | $\begin{aligned} & \text { OMd: } \mathrm{u}^{\mathrm{B}} \text { CHÉNGDÙ: } \\ & \mathrm{vu}^{\mathrm{B}} \end{aligned}$ |  |
| first | － | thaum ${ }^{\text {A2 }}$ | 頭 | OMD：thou ${ }^{\text {A2 }}$ |  |
|  |  |  |  | CHÉNGDÙ：thəu ${ }^{\text {A2 }}$ |  |
| first | $\mathrm{su}^{\text {A1 }}$ | $\mathrm{su}^{\text {A1 }}$ | 初 | OMD： $\mathrm{thu}^{\text {A }}$ |  |
|  |  |  |  | Chéngdù：tshu ${ }^{\text {A1 }}$ |  |
| first | $\mathrm{su}^{\text {A1 }}$ thaur ${ }^{\text {A } 2}$ | $\mathrm{su}^{\text {A1 }}$ thaum ${ }^{\text {A } 2}$ | 初頭 | OMD：thhu ${ }^{\text {A }}$ thou ${ }^{\text {A2 }}$ |  |
|  |  |  |  | CHÉNGDÙ： $\text { tshu }^{\mathrm{A} 1} \text { thəu }{ }^{\mathrm{A} 2}$ |  |
| fourth | $\mathrm{st}^{\text {D2 }}$ | $\mathrm{st}{ }^{\text {D2 }}$ | 四 | OMD： $\mathrm{sl}^{\text {C }}$ |  |
|  |  |  |  | Chéngdù：s1 ${ }^{\text {C }}$ |  |
| next | $1 \mathrm{t}^{\text {D2 }}$ | $1 \mathrm{H}^{\text {D2 }}$ | 二 | OMD： $3_{1}{ }^{\text {C }}$ |  |
|  |  |  |  | ChÉNGDÙ：$x^{\text {C }}$ |  |
| single | $\mathrm{tH}^{\mathrm{D} 2}$ | $\mathrm{tH}^{\text {D2 }}$ | 獨 | OMD： $\mathrm{tu}^{\text {D1 }}$ |  |
|  |  |  |  | CHÉNGDÙ： $\mathrm{tu}^{\text {A2 }}$ |  |
| ten thousand | － | $\mathrm{va}^{\text {D2 }}$ | 万 | PÚTŌNGHUÀ： wan $^{\text {C }}$ |  |
| third | － | $\mathrm{sa}^{\text {A1 }}$ | 三 | OMD：sam ${ }^{\text {C }}$ |  |
|  |  |  |  | CHÉNGDÙ： $\operatorname{san}^{\text {A1 }}$ |  |
| thousand | tshen ${ }^{\text {A1 }}$ | tshen ${ }^{\text {A1 }}$ | 千 | OMD：tshien ${ }^{\text {A }}$ |  |
|  |  |  |  | CHÉNGDÙ：tchian ${ }^{\text {A1 }}$ |  |

## A．1．38 Objects

| Gloss | Mong Leng | Hmong Daw | Hanzi | Sintic Forms | Comments |
| :---: | :---: | :---: | :---: | :---: | :---: |
| box | san ${ }^{\text {A1 }}$ | $\mathrm{sa}^{\mathrm{A} 1}$ |  | CHÉNGDÙ：cian ${ }^{\text {A1 }}$ |  |
| knot | t ¢ $^{\text {D }}{ }^{\text {2 }}$ | － | 結 | OMD： $\mathrm{kie}^{\text {D2 }}$ |  |
|  |  |  |  | ChÉngdù：tçie ${ }^{\text {A2 }}$ |  |
| pebble | ¢u2 ${ }^{\text {A1 }}$ | $\int u 2^{\text {A } 1}$ | 砂 | Pútōnghuì：sa ${ }^{\text {A1 }}$ |  |
| round object | $\mathrm{p} \mathrm{g}^{\mathrm{A} 1}$ | $\mathrm{p} \mathrm{g}^{\mathrm{A} 1}$ | 包 | OMD：pau ${ }^{\text {A }}$ |  |
|  |  |  |  | Chéngdù：pau ${ }^{\text {A1 }}$ |  |

## A．1．39 Physical Properties

| Gloss | Mong Leng | Hmong Daw | Hanzi | Sintic Forms | Comments |
| :--- | :--- | :--- | :--- | :--- | :--- |
| biggest | tu2 $^{\mathrm{D} 2}$ |  | 大 | OMD： $\mathrm{ta}^{\mathrm{C}}$ | Md：＇large＇ |
|  |  |  | CHÉNGDUU： $\mathrm{ta}^{\mathrm{C}}$ |  |  |


| Gloss <br> clear | Mong Leng $m e n^{\text {A2 }}$ | Hmong Daw men ${ }^{\text {A2 }}$ | Hanzi <br> 明 | Sintic Forms <br> OMD：miən ${ }^{\mathrm{A} 2}$ | Comments |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | ChÉNGDÙ：min ${ }^{\text {A2 }}$ |  |
| fat | phan ${ }^{\text {D2 }}$ | pha ${ }^{\text {D2 }}$ | 胖 | ChÉngdù：phan ${ }^{\text {C }}$ |  |
| full | phen ${ }^{\text {A2 }}$ | phey ${ }^{\text {A2 }}$ | 平 | OMD：phiə ${ }^{\text {A2 }}$ |  |
|  |  |  |  | Chéngdù：phin ${ }^{\text {A2 }}$ |  |
| hollow | khon ${ }^{\text {A1 }}$ | khon ${ }^{\text {A1 }}$ | 空 | OMD：khuy ${ }^{\text {C }}$ |  |
|  |  |  |  | Chéngdù：khonc ${ }^{\text {C }}$ |  |
| loose | Soy ${ }^{\text {A1 }}$ | son ${ }^{\text {A1 }}$ | 松 | OMD：siug ${ }^{\text {A }}$ |  |
|  |  |  |  | ChÉngdù：soj ${ }^{\text {A1 }}$ |  |
| round | jen ${ }^{\text {A2 }}$ | jen ${ }^{\text {A2 }}$ | 圓 | OMD：yen ${ }^{\text {A2 }}$ |  |
|  |  |  |  | Chéngdù：yan ${ }^{\text {A2 }}$ |  |
| small | $\mathrm{sut}^{\mathrm{D} 2}$ | $\mathrm{sut}^{\mathrm{D} 2}$ | 細 | OMD：si ${ }^{\mathrm{C}}$ ChÉngdù： $\mathrm{ci}^{\mathrm{C}}$ |  |
| square | － | $\mathrm{su}^{\mathrm{D} 2} \mathrm{fa}^{\mathrm{A} 1}$ | 四方 | OMD： $\mathrm{sl}^{\mathrm{C}}$ fan ${ }^{\text {A }}$ |  |
|  |  |  |  | Chéngdù：s1 ${ }^{\text {Cfay }}{ }^{\text {A1 }}$ |  |
| stable | － | ven ${ }^{\text {D1 }}$ | 穩 | OMD：uən ${ }^{\text {B }}$ |  |
|  |  |  |  | ChÉNGDÙ：uən ${ }^{\text {B }}$ |  |

## A．1．40 Plants

| Gloss <br> branch | Mong Leng <br> khau $^{\mathrm{A} 1}$ | Hmong Daw <br> $\mathrm{khau}^{\mathrm{A} 1}$ |
| :--- | :--- | :--- |
| stem | $\mathrm{kaj}^{\mathrm{B1}}$ | $\mathrm{ka}^{\mathrm{B} 1}$ |


| Hanzi | Sintic Forms |
| :--- | :--- |
| 科 | OMd：khuo |
| CHÉNGDÙ：kho ${ }^{\text {A1 }}$ |  |
| 稆 | OMD：kan |
|  | CHÉNGDÙ：kan |

Comments

## A．1．41 Political Terms

| Gloss chief | Mong Leng thaw ${ }^{\text {A2 }}$ | Hmong Daw thaum ${ }^{\text {A2 }}$ | Hanzi <br> 頭 | Sintic Forms <br> OMD：thou ${ }^{\text {A2 }}$ | Comments <br> Md：＇head＇ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| emperor | fay ${ }^{\text {A2 }} \mathrm{ti}^{\mathrm{D} 2}$ | $\mathrm{fa}^{\mathrm{A} 2} \mathrm{ti}^{\mathrm{D} 2}$ | 皇帝 | CHÉNGDÙ：thəu ${ }^{\mathrm{A} 2}$ <br> OMD：xuay ${ }^{\mathrm{A} 2} \mathrm{ti}^{\mathrm{C}}$ <br> ChÉNGDÙ： <br> xua，${ }^{\mathrm{A} 2} \mathrm{ti}^{\mathrm{C}}$ |  |
| imprison | $10^{\text {A2 }}$ | $10^{\text {A2 }}$ | 暒 | $\begin{aligned} & \text { OMD: lau }{ }^{\text {A2 }} \\ & \text { CHÉNGDÙ: nau } \end{aligned}$ |  |
| officials | － | $\mathrm{ti}^{\mathrm{D} 2} \mathrm{ffu}^{\mathrm{Bl}}$ | 弟主 | $\begin{aligned} & \text { OMD: } \mathrm{ti}^{\mathrm{C}} \text { CHÉNGDÙ: } \\ & \mathrm{ti}^{\mathrm{C}_{\mathrm{tsu}}{ }^{\mathrm{B}}} \end{aligned}$ |  |
| populace | $\mathrm{pe}^{\mathrm{A} 2} \operatorname{sen}^{\mathrm{D} 2}$ | $\mathrm{pe}^{\mathrm{A} 2} \operatorname{sen}^{\mathrm{D}} 2$ | 百姓 | $\begin{aligned} & \text { OMD: pai }{ }^{\mathrm{D} 2} \mathrm{si}_{1} \eta^{\mathrm{C}} \\ & \text { CHÉNGDÙ: pe }{ }^{\mathrm{A} 2} \operatorname{cin}^{\mathrm{C}} \end{aligned}$ |  |
| prison | $13^{\text {A2 }}$ fan ${ }^{\text {A2 }}$ | $10^{\mathrm{A} 2} \mathrm{fa}^{\mathrm{A} 2}$ | 牢房 | $\mathrm{OMD}: \operatorname{lau}^{\mathrm{A} 2} \mathrm{fan}^{\mathrm{A} 2}$ ChÉNGDÙ： nau $^{\mathrm{A}^{2}}$ fan $^{\mathrm{A} 2}$ |  |
| soldier | － | $p e]^{\text {A1 }}$ | 兵 | OMD：piəg ${ }^{\text {A }}$ ChÉNGDÙ：pin ${ }^{\text {A1 }}$ |  |

## A．1．42 Religious Terms

| Gloss | Mong Leng | Hmong Daw | Hanzi | Sintic Forms | Comments |
| :---: | :---: | :---: | :---: | :---: | :---: |
| coffin | $\operatorname{san}^{\text {A1 }}$ | － | 箱 | Chéngdù：cian ${ }^{\text {A1 }}$ |  |
| earth | $j a 习^{\text {A2 }}$ | $\mathrm{ja}^{\text {A2 }}$ | 陽 | OMD：ian ${ }^{\mathrm{A} 2}$ Chéngdù：ian ${ }^{\text {A2 }}$ | Md：＇yang（male prin－ ciple）＇ |
| heaven | $\mathrm{tçen}^{\mathrm{A} 1} \mathrm{thh}^{\text {a }}{ }^{\text {A } 2}$ | $\mathrm{tçen}^{\text {A1 }}$ tghen ${ }^{\text {A2 }}$ | 京城 | OMD：kiə ${ }^{\mathrm{A}}{ }^{\text {tghiəg }}{ }^{\mathrm{A} 2}$ ChÉNGDÙ： $\operatorname{tcin}^{\mathrm{A} 1}$ tshən $^{\mathrm{A} 2}$ | Md：＇capital city＇ |
| incarnate，to | thhy ${ }^{\text {D2 }} \mathrm{ji}^{\mathrm{D} 2}$ | thy ${ }^{\text {D2 }} \int_{i 1}{ }^{\text {D2 }}$ | 出示 | $\begin{aligned} & \text { OMD: thiu }{ }^{\mathrm{D} 2} \int_{1} \mathrm{C} \\ & \text { CHÉNGDÙ: tshu }{ }^{\mathrm{A} 2}{ }_{\mathrm{S} 1} \mathrm{C} \end{aligned}$ |  |
| incense | çan ${ }^{\text {A1 }}$ | ça $^{\text {A1 }}$ | 香 | OMD： $\operatorname{xiay}^{\text {A }}$ <br> ChÉngdù：cian ${ }^{\mathrm{A} 1}$ |  |
| monk | － | $\mathrm{hu}^{\text {A2 }} \mathrm{Ja}^{\mathrm{D} 2}$ | 和尚 | $\begin{aligned} & \text { OMD: xuo }{ }^{\mathrm{C}} \mathrm{Siang}^{\mathrm{C}} \\ & \text { CHÉNGDÙ: xo }{ }^{\text {C }}{ }_{\text {San }} \mathrm{C} \end{aligned}$ |  |
| monk | $h u^{\text {A } 2} \int \mathrm{an}{ }^{\mathrm{D} 2}$ | hau ${ }^{\text {A } 2} \mathrm{fa}^{\mathrm{D} 2}$ | 和尚 | $\begin{aligned} & \text { OMD: xuo }{ }^{\mathrm{C}} \mathrm{jian}^{\mathrm{C}} \\ & \text { CHÉNGDÙ: xo }{ }^{\mathrm{C}}{ }_{\text {san }} \mathrm{C} \end{aligned}$ |  |


| Gloss | Mong Leng | Hmong Daw | Hanzi | Sintic Forms | Comments |
| :---: | :---: | :---: | :---: | :---: | :---: |
| other world | $j e j^{\text {A1 }}$ | $j e \eta^{\text {A1 }}$ | 陰 | OMD： iəm $^{\text {A }}$ | Md：＇yin（female prin－ |
|  |  |  |  | CHÉNGDÙ：in ${ }^{\text {A1 }}$ | ciple）＇ |

## A．1．43 Sociality

| Gloss <br> alone | Mong Leng $\mathrm{tu}^{\mathrm{D} 2}{ }_{3} \mathrm{en}^{\mathrm{A} 2}$ | Hmong Daw $t_{4}{ }^{\mathrm{D}}{ }^{2} \mathrm{en} \mathrm{g}^{\mathrm{A} 2}$ | Hanzi獨人 | Sintic Forms <br> OMD： tu $^{\mathrm{D} 1}{ }_{3 i} \mathrm{~m}^{\mathrm{A} 2}$ <br> ChÉNGDÙ： $\operatorname{tu}^{\mathrm{A} 2} \mathrm{zon}^{\mathrm{A} 2}$ | Comments |
| :---: | :---: | :---: | :---: | :---: | :---: |
| in behalf of | thi ${ }^{\text {D1 }}$ | thi ${ }^{\text {D1 }}$ | 替 | $\begin{aligned} & \text { OMD: thiC } \\ & \text { CHÉNGDÙ: thiC } \end{aligned}$ |  |
| win，to | $j e \eta^{\text {A2 }}$ | $j e]^{\text {A2 }}$ | 贏 | $\begin{aligned} & \text { OMD: iə } \eta^{\mathrm{A} 2} \\ & \text { CHÉNGDÙ: in } \end{aligned}$ |  |

## A．1．44 Terms Relating to Social Status

| Gloss enemy | Mong Leng | Hmong Daw | Hanzi | Sintic Forms | Comments |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | － | $\text { thaum }{ }^{\mathrm{A} 2} \mathrm{tçhi}^{\mathrm{D} 2}$ | 仇氣 | $\text { OMD: } \text { khiou }^{\mathrm{A} 2} \mathrm{khi}^{\mathrm{C}}$ |  |
|  |  |  |  | CHÉNGDÙ： <br> tshəu ${ }^{\mathrm{A} 2}$ ttghi $^{\mathrm{C}}$ |  |
| glory | $j e \eta^{\mathrm{Al}} \mathrm{ko} \mathrm{\eta}^{\text {A1 }}$ | jen ${ }^{\text {A1 }}$ kon ${ }^{\text {A1 }}$ | 英功 | PÚTŌNGHUÀ： |  |
| good name | － | $\mathrm{kon}^{\mathrm{A} 1} \mathrm{men}^{\text {A } 2}$ | 公名 | OMD：kuŋ ${ }^{\text {A }}$ miə $\eta^{\text {A2 }}$ |  |
|  |  |  |  | CHÉNGDÙ： $\operatorname{kon}^{\mathrm{A} 1} \min ^{\mathrm{A} 2}$ |  |
| native | $\mathrm{tsu}^{\text {D2 }} \mathrm{ti}^{\mathrm{D} 2}$ | $\mathrm{tsu}^{\text {D2 }} \mathrm{ti}^{\text {D2 }}$ | 駐地 | OMD：fiu ${ }^{\text {cti }}{ }^{\text {C }}$ |  |
|  |  |  |  | ChÉNGDÙ： $\mathrm{tsu}^{\mathrm{C}} \mathrm{ti}^{\text {C }}$ |  |
| owner | $\mathrm{ty}^{\text {B1 }}$ | $\mathrm{ty}^{\text {B1 }}$ | 主 | CHÉNGDÙ：tsu ${ }^{\text {B }}$ |  |

## A．1．45 Structures

| Gloss bridge | Mong Leng t çh ${ }^{\mathrm{A}}{ }^{2}$ | Hmong Daw $\operatorname{tch})^{\text {A2 }}$ | Hanzi <br> 橋 | Sintic Forms OMD：khiau ${ }^{\text {A2 }}$ | Comments |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | CHÉNGDÙ：t¢hiau ${ }^{\text {A2 }}$ |  |
| build，to | tshi ${ }^{\text {D2 }}$ | tshi ${ }^{\text {D }}$ | 砌 | PÚTŌNGHUÀ：tchii ${ }^{\text {C }}$ |  |
| fence | － | $\mathrm{la}^{\mathrm{A} 2} \mathrm{ka}^{\text {A1 }}$ | 欄杆 | CHÉNGDÙ：nan ${ }^{\text {A2 }}$ |  |
| granary | tshay ${ }^{\text {A1 }}$ | tsha ${ }^{\text {A } 1}$ | 倉 | OMD：tshay ${ }^{\text {A }}$ |  |
|  |  |  |  | CHÉNGDÙ： $\mathrm{sh}^{\text {a }}{ }^{\text {A1 }}$ |  |
| tent | － | phor ${ }^{\text {A2 }}$ | 蓬 | Chéngdù：phon ${ }^{\text {A2 }}$ |  |

## A．1．46 Substances

| Gloss sulphur | Mong Leng <br> $\operatorname{lam}^{\mathrm{A} 2} \mathrm{fa}^{\mathrm{A} 2}$ | Hmong Daw <br> $1 \mathrm{aw}^{\mathrm{A} 2} \mathrm{fa}^{\mathrm{A} 2}$ | Hanzi硫黃 | Sintic Forms <br> OMD $\cdot \operatorname{liou}^{\mathrm{A} 2} \mathrm{xuan}^{\mathrm{A} 2}$ | Comments |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\operatorname{law}^{\mathrm{A} 2} \mathrm{fan}^{\mathrm{A} 2}$ |  |  | OMD：liou ${ }^{\mathrm{A} 2} \mathrm{xuaj}^{\mathrm{A} 2}$ |  |
|  |  |  |  | ChÉNGDÙ： niəu ${ }^{\mathrm{A} 2}$ xua，${ }^{\mathrm{A} 2}$ |  |

## A．1．47 Surnames

| Gloss <br> Chang | Mong Leng tan ${ }^{\mathrm{A} 1}$ | Hmong Daw $t \mathrm{a}^{\mathrm{A} 1}$ | Hanzi張 | Sintic Forms <br> OMD：tfian ${ }^{\text {A }}$ | Comments |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Chéngdù：tsa ${ }^{\text {A1 }}$ |  |
| Her | haur ${ }^{\text {A2 }}$ | haw ${ }^{\text {A2 }}$ | 侯 | OMD：xou ${ }^{\text {A2 }}$ |  |
|  |  |  |  | CHÉNGDÙ： $\mathrm{x}^{\text {a }}{ }^{\text {A2 }}$ |  |
| Lee | $1{ }^{\text {D1 }}$ | $1{ }^{\text {D1 }}$ | 李 | $\mathrm{OMD}: ~ l i{ }^{\mathrm{B}}$ ChÉNGDÙ： $\mathrm{ni}^{\mathrm{B}}$ |  |
| Moua | mu2 ${ }^{\text {D1 }}$ | mu2 ${ }^{\text {D1 }}$ | 馬 | OMD：ma ${ }^{\text {B }}$ |  |
|  |  |  |  | ChÉngdù：ma ${ }^{\text {B }}$ |  |
| Thao | th9 ${ }^{\text {A } 2}$ | tho ${ }^{\text {A } 2}$ | 陶 | OMD：thau ${ }^{\text {A2 }}$ |  |
|  |  |  |  | CHÉNGDÙ：thau ${ }^{\text {A2 }}$ |  |


| Gloss | Mong Leng | Hmong Daw | Hanzi | Sintic Forms | Comments |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Vang | $\mathrm{van}^{\text {A2 }}$ | $\mathrm{va}^{\mathrm{A} 2}$ | 王 | OMD：uay ${ }^{\text {A2 }}$ |  |
|  |  |  |  | CHÉNGDÙ：uaŋ ${ }^{\text {A2 }}$ |  |
| Vue | $\mathrm{vt}^{\text {A2 }}$ | $\mathrm{vt}^{\text {A2 }}$ | 吳 | OMD： $\mathrm{u}^{\text {A2 }}$ |  |
|  |  |  |  | CHÉNGDÙ̀：vu ${ }^{\text {A2 }}$ |  |
| Xiong | çon ${ }^{\text {A2 }}$ | çon $^{\text {A2 }}$ | 熊 | OMD：xiuy ${ }^{\text {A2 }}$ |  |
|  |  |  |  | ChÉngdù：cyon ${ }^{\text {A2 }}$ |  |
| Yang | $j a j^{\text {A2 }}$ | $\mathrm{ja}^{\text {A2 }}$ | 陽 | OMD：iay ${ }^{\text {A2 }}$ |  |
|  |  |  |  | Chéngdù̀：iaŋ ${ }^{\text {A2 }}$ |  |

## A．1．48 Technological Terms

| Gloss <br> inner workings | Mong Leng | Hmong Daw |
| :--- | :--- | :--- |
| steel | $\mathrm{kay}^{\mathrm{A} 1}$ | $\mathrm{k}^{\mathrm{D} 2} \mathrm{tsu}^{\mathrm{B} 1}$ |
| telescope | - | $\mathrm{ka}^{\mathrm{A} 1}$ |
|  |  | $\mathrm{je} \mathrm{\eta}^{\mathrm{A} 1} \mathrm{ja}^{\mathrm{A} 2}$ |


| Hanzi | Sintic Forms | Comments |
| :---: | :---: | :---: |
| 稿子 | OMD：ts ${ }^{\text {B }}$ |  |
|  | Chéngdù：kau ${ }^{\text {B }} \mathrm{ts}^{\text {B }}$ |  |
| 鋼 | OMD：kay ${ }^{\text {A }}$ |  |
|  | ChÉngdù：kay ${ }^{\text {A1 }}$ |  |
| 陰陽 | OMD：iəm ${ }^{\mathrm{A}} \mathrm{ian}^{\mathrm{A} 2}$ <br> CHÉNGDÙ：in ${ }^{\mathrm{A} 1} \mathrm{ian}^{\mathrm{A} 2}$ | Md：＇yin－yang＇ |

## A．1．49 Terms Relating to Time

| Gloss beginning | Mong Leng | Hmong Daw tçhi $^{\mathrm{B} 1}$ thau $^{\mathrm{A} 2}$ | Hanzi起頭 | Sintic Forms <br> OMD：khi ${ }^{\text {B }}$ thou ${ }^{\text {A } 2}$ | Comments |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | ChÉngdù： $\text { tchi }{ }^{\mathrm{B}} \text { thəu }{ }^{\mathrm{A} 2}$ |  |
| beginning | － | $\mathrm{ky}^{\mathrm{B} 1} \mathrm{tsu}^{\mathrm{B} 1}$ | 稿子 | OMD：ts ${ }^{\text {B }}$ |  |
| generation | $\mathrm{ta}^{\text {D2 }}$ | tia ${ }^{\text {D2 }}$ | 代 | $\begin{aligned} & \text { ChÉngdù: } \text { kau }^{\mathrm{B}} \mathrm{ts}^{\mathrm{B}} \\ & \text { OMd: tai } \end{aligned}$ |  |
| immediately | $\tan ^{\mathrm{D}} \mathrm{fi}^{\mathrm{D}} 2$ | $\mathrm{ta}^{\mathrm{D} 2} \int \mathrm{i}^{\mathrm{D}} 2$ | 當時 | $\begin{aligned} & \text { CHÉNGDÙ: tai } \\ & \text { OMD: } \operatorname{ta\eta }{ }^{\mathrm{C}} \int \mathrm{i}^{\mathrm{A} 2} \end{aligned}$ |  |
| lifetime | $\int \mathrm{i}^{\text {D2 }}$ | $\int \mathrm{i}^{\text {D2 }}$ | 世 | Chéngdù： $\operatorname{ta\eta }{ }^{\mathrm{C}} \mathrm{Si}^{\mathrm{A} 2}$ <br> OMD： $\int \mathrm{i}^{\mathrm{C}}$ <br> CHÉNGDÙ： $\mathrm{s} 1{ }^{\mathrm{C}}$ |  |
| previous | － | tshen ${ }^{\text {A2 }}$ | 曾 | OMD：tshə ${ }^{\mathrm{A}}{ }^{2}$ <br> ChÉngdù：tshən ${ }^{\mathrm{A} 2}$ |  |
| time | $\int i^{\text {A } 2}$ hawi $^{\text {D2 }}$ | $\int \mathrm{i}^{\mathrm{A} 2}$ hawu $^{\mathrm{D} 2}$ | 時候 | $\begin{aligned} & \text { OMD: } \int \mathrm{i}^{\mathrm{A} 2} \mathrm{xou}^{\mathrm{C}} \\ & \text { CHÉNGDÙ: } \mathrm{si}^{\mathrm{A} 2} \mathrm{x}^{\mathrm{x}} \end{aligned}$ |  |

## A．1．50 Transportation

| Gloss | Mong Leng |
| :--- | :--- |
| cart | the $e^{\mathrm{A} 1}$ |
| pole a boat，to | they $y^{\mathrm{A} 1}$ |

## Hmong Daw

 the ${ }^{\text {AI }}$tshey ${ }^{\mathrm{A} 1}$

Hanzi
車
摚

Sintic Forms
Chéngdù：tshe ${ }^{\text {AI }}$
OMD：thəə ${ }^{\text {A }}$
ChÉNGDÙ̀：tshən ${ }^{\mathrm{A} 1}$

## Comments

## A．1．51 Units of Measurement

| Gloss | Mong Leng | Hmong Daw | Hanzi | Sintic Forms | Comments |
| :--- | :--- | :--- | :--- | :--- | :--- |
| cubit | - | thi $^{\text {D2 }}$ | 呎 | PÚTōNGHUÀ：tşhi |  |

## A．1．52 Verbs

| Gloss <br> aim at，to | Mong Leng <br> $\mathrm{t}_{5} \mathrm{D} 2$ | Hmong Daw <br> $\mathrm{t} 9^{\mathrm{D} 2}$ |
| :--- | :--- | :--- |
| aportion，to | $\mathrm{fai}^{\mathrm{A} 1}$ | $\mathrm{fai}^{\mathrm{A} 1}$ |
| avoid，to | $3 \mathrm{an}^{\mathrm{D} 2}$ | $\mathrm{Fa}^{\mathrm{D} 2}$ |


| Hanzi | Sintic Forms <br> 照 <br> OMd：fiau |
| :--- | :--- |
|  | CHÉNGDÙ：tsau |
| 分 |  |
|  | OMd：fən |

Comments

| Gloss | Mong Leng | Hmong Daw | Hanzi | Sintic Forms | Comments |
| :---: | :---: | :---: | :---: | :---: | :---: |
| be born，to | － | $\operatorname{sen}^{\text {A1 }}$ | 生 | OMD： $\int \partial \eta^{\text {A }}$ |  |
|  |  |  |  | ChÉngdù：sən ${ }^{\text {A1 }}$ |  |
| become，to | they ${ }^{\text {A2 }}$ | they ${ }^{\text {A2 }}$ | 成 | OMD：¢hion ${ }^{\text {A2 }}$ |  |
|  |  |  |  | ChÉNGDÙ：tshən ${ }^{\text {A2 }}$ |  |
| bind，to | pay ${ }^{\text {B1 }}$ | $\mathrm{pa}{ }^{\mathrm{B} 1}$ | 綁 | PÚTŌNGHUÀ：pan ${ }^{\text {B }}$ |  |
| carry away，to | thon ${ }^{\text {A1 }}$ | thon ${ }^{\text {A1 }}$ | 沖 | PÚTŌNGHUÀ：tşhug ${ }^{\text {A1 }}$ |  |
| continue，to | $\mathrm{jiP}^{\text {2 }}$ men ${ }^{\text {D2 }}$ | $\mathrm{ji}^{\text {D2 }}$ men ${ }^{\text {D2 }}$ | 以免 | OMD： $\mathrm{i}^{\mathrm{B}}$ mien $^{\mathrm{B}}$ |  |
|  |  |  |  | CHÉNGDÙ：$i^{\mathrm{B}}$ mian ${ }^{\mathrm{B}}$ |  |
| converge，to | thue ${ }^{\text {D2 }}$ | thue ${ }^{\text {D2 }}$ | 岔 | Chéngdù：tsha ${ }^{\text {C }}$ |  |
| create，to | － | $\mathrm{ffi}^{\text {D2 }}$ | 致 | OMD： tgiC |  |
|  |  |  |  | Chéngdù：tsi ${ }^{\text {C }}$ |  |
| discuss，to | $\operatorname{tçan}^{81}$ | $\mathrm{tça}^{\text {B1 }}$ | 講 | OMD：kiay ${ }^{\text {B }}$ |  |
|  |  |  |  | Chéngdù：tcian ${ }^{\text {B }}$ |  |
| drive，to | taa ${ }^{\text {B1 }}$ | ta ${ }^{\text {B1 }}$ | 掌 | OMD： tfian $^{\text {B }}$ |  |
|  |  |  |  | Chéngdù：tsay ${ }^{\text {B }}$ |  |
| dry，to | $l a 3^{\text {D2 }}$ | － | 晾 | PÚTŌNGHUÀ：lianc ${ }^{\text {C }}$ |  |
| emerge，to | thy ${ }^{\text {D2 }}$ | thtur ${ }^{\text {D2 }}$ | 出 | OMD：thiu ${ }^{\text {D2 }}$ |  |
|  |  |  |  | ChÉngdù：tshu ${ }^{\text {A2 }}$ |  |
| exist，to | $s e y^{\text {A1 }}$ | $s e]^{\text {A1 }}$ | 生 | OMD： $\int ⿰ 习 习{ }^{\text {A }}$ |  |
|  |  |  |  | Chéngdù：sən ${ }^{\text {A1 }}$ |  |
| expand，to | fue ${ }^{\text {D2 }}$ | hua ${ }^{\text {D2 }}$ | 華 | OMD：xua ${ }^{\text {C }}$ |  |
|  |  |  |  | CHÉNGDÙ：xua ${ }^{\text {A2 }}$ |  |
| filter，to | li ${ }^{\text {D2 }}$ | $\mathrm{li}^{\text {D2 }}$ | 濾 | OMD：liu ${ }^{\text {C }}$ |  |
|  |  |  |  | ChÉngdù：ny ${ }^{\text {C }}$ |  |
| flourish，to | － | $\mathrm{va}^{\text {D2 }}$ | 旺 | OMD： uan $^{\text {C }}$ |  |
|  |  |  |  | Chéngdù：ua̧ ${ }^{\text {C }}$ |  |
| grab，to | pua ${ }^{\text {B1 }}$ | pua ${ }^{\text {B1 }}$ | 把 | OMD： $\mathrm{pa}^{\text {B }}$ |  |
|  |  |  |  | Chéngdù：pa ${ }^{\text {B }}$ |  |
| grope，to | mau ${ }^{\text {A1 }}$ | mau ${ }^{\text {A1 }}$ | 摸 | OMD：mu ${ }^{\text {A2 }}$ |  |
|  |  |  |  | ChÉngdù：mo ${ }^{\text {A1 }}$ |  |
| investigate，to | － | Sey ${ }^{\text {B1 }}$ | 讅 | Pútōnghuì：şn ${ }^{\text {B }}$ |  |
| lean，to | phey ${ }^{\text {A1 }}$ | phey ${ }^{\text {A1 }}$ | 偏 | Chéngdù：phian ${ }^{\text {A1 }}$ |  |
| level off，to | tshi ${ }^{\text {A2 }}$ | tshi ${ }^{\text {A2 }}$ | 齊 | OMD：tshi ${ }^{\text {A2 }}$ |  |
|  |  |  |  | ChÉNGDÙ：tchii ${ }^{\text {A2 }}$ |  |
| lock，to | sau ${ }^{\text {B1 }}$ | sau ${ }^{\text {B1 }}$ | 鎖 | OMD：suo ${ }^{\text {B }}$ |  |
|  |  |  |  | CHÉNGDÙ： $\mathrm{so}^{\text {B }}$ |  |
| make way，to | － | $3 \mathrm{a}^{\text {D2 }}$ | 讓 |  |  |
|  |  |  |  | ChÉngdù：zanc ${ }^{\text {C }}$ |  |
| mix up，to | ts ${ }^{\text {B1 }}$ | ts ${ }^{\text {B1 }}$ | 搗 | Chéngdù：tau ${ }^{\text {B }}$ |  |
| pack goods，to | $\int a u^{\mathrm{A} 1}{ }^{\text {i }}{ }^{\mathrm{D} 2}$ | － | 收拾 | OMD： $\int i o u^{\text {A }} \mathrm{ji}^{\text {D1 }}$ |  |
|  |  |  |  | ChÉNGDÙ：səu ${ }^{\text {A1 }} \mathrm{S}^{\text {A2 }}$ |  |
| pile up，to | $\mathrm{ti}^{\text {A1 }}$ | $\mathrm{ti}^{\text {A1 }}$ | 堆 | OMD：tuei ${ }^{\text {A }}$ |  |
|  |  |  |  | ChÉngdù：tuei ${ }^{\text {A1 }}$ |  |
| pound，to | tua ${ }^{\text {B1 }}$ | tua ${ }^{\text {B1 }}$ | 打 | OMD：ta ${ }^{\text {B }}$ |  |
|  |  |  |  | Chéngdù：ta ${ }^{\text {B }}$ |  |
| pour，to | $\mathrm{kan}^{\text {D2 }}$ | － | 裸 | PÚTŌNGHUÀ：kuan ${ }^{\text {C }}$ |  |
| press，to | tçue ${ }^{\text {D2 }}$ | tçue ${ }^{\text {D2 }}$ | 夾 | OMD： $\mathrm{ka}^{\text {D2 }}$ |  |
|  |  |  |  | Chéngdù：tcia ${ }^{\text {A2 }}$ |  |
| press，to | tue ${ }^{\text {D2 }}$ | tyua ${ }^{\text {D2 }}$ | 榨 | OMD： $\mathrm{ff}^{\mathrm{C}}$ |  |
|  |  |  |  | Chéngdù：tsa ${ }^{\text {C }}$ |  |
| prosper，to | － | hue ${ }^{\text {D2 }} \mathrm{va}^{\text {D2 }}$ | 華旺 | OMD：xua ${ }^{\text {Cuan }}{ }^{\text {C }}$ |  |
|  |  |  |  | CHÉNGDÙ： $\text { xua }^{\mathrm{A} 2} \mathrm{ua}^{\mathrm{C}}$ |  |
| push up，to |  |  |  | PÚTŌNGHUÀ：tşhuyc ${ }^{\text {c }}$ |  |
| remove，to | the ${ }^{\text {D2 }}$ | the ${ }^{\text {D2 }}$ | 轍 | PÚTŌNGHUÀ： $\operatorname{tşh} \gamma^{\text {C }}$ |  |
| resist，to | $\mathrm{ti}^{\mathrm{B} 1}$ | $\mathrm{ti}^{\mathrm{B} 1}$ | 抵 | $\text { OMD: ti }{ }^{\mathrm{B}} \text { CHÉNGDÙ: }$ $\mathrm{ti} \mathrm{i}^{\mathrm{B}}$ |  |
| save，to | tçaum ${ }^{\text {D2 }}$ | tçaum ${ }^{\text {D2 }}$ | 救 | OMD：kiou ${ }^{\text {C }}$ |  |
|  |  |  |  | ChÉNGDÙ：ţ̧iəu ${ }^{\text {C }}$ |  |
| seal，to | fon ${ }^{\text {A1 }}$ | foy ${ }^{\text {A1 }}$ | 封 | OMD：fug ${ }^{\text {A }}$ |  |
|  |  |  |  | Chéngdù：fon ${ }^{\text {A1 }}$ |  |
| set，to | $\operatorname{ten}^{\text {D2 }}$ | ten ${ }^{\text {D2 }}$ | 定 | OMD：tiən ${ }^{\text {C }}$ |  |
|  |  |  |  | Chéngdù：tin ${ }^{\text {C }}$ |  |
| soak，to | thaum ${ }^{\text {D1 }}$ | thaw ${ }^{\text {D2 }}$ | 透 | OMD：thou ${ }^{\text {C }}$ |  |
|  |  |  |  | Chéngdù：thəu ${ }^{\text {C }}$ |  |
| sort out，to | sauf ${ }^{\text {A1 }}$ | saur $^{\text {A1 }}$ | 搜 | OMD：sou ${ }^{\text {A }}$ |  |
|  |  |  |  | Chéngdù：səu ${ }^{\text {A1 }}$ |  |


| Gloss stack，to start，to | Mong Leng | Hmong Daw | Hanzi | Sintic Forms | Comments |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\mathrm{tu}^{\text {D2 }}$ | $\mathrm{tu}^{\text {D2 }}$ | 垛 | PÚTŌNGHUÀ：tuo ${ }^{\text {C }}$ |  |
|  | tçhi ${ }^{\text {B1 }}$ | tçhi ${ }^{\text {B1 }}$ | 起 | OMD：khi ${ }^{\text {B }}$ |  |
|  |  |  |  | Chéngdù：tçhi ${ }^{\text {B }}$ |  |
| stop，to | $\tan ^{B 1}$ | $\mathrm{ta}^{\mathrm{B} 1}$ | 擋 | PÚTŌNGHUÀ： $\tan ^{\text {B }}$ |  |
| suffer，to | － | $\int \mathrm{aum}^{\text {D2 }}$ | 受 | OMD： $\int$ iou ${ }^{\text {C }}$ |  |
|  |  |  |  | Chéngdù：səu ${ }^{\text {C }}$ |  |
| suffer，to | － | $\int a u^{\text {D2 }} \mathrm{kht}^{\mathrm{B} 1}$ | 受苦 | OMD： $\int i o u{ }^{\text {C }} \mathrm{khu}^{\text {B }}$ |  |
|  |  |  |  | Chéngdù：səu ${ }^{\text {c }}$ khu ${ }^{\text {B }}$ |  |
| suffer，to | khy ${ }^{\text {B1 }}$ | khti ${ }^{\text {B1 }}$ | 苦 | OMD：khu ${ }^{\text {B }}$ |  |
|  |  |  |  | Chéngdù：khu ${ }^{\text {B }}$ |  |
| support，to | － | $h \psi^{\text {A2 }}$ | 扶 | OMD：fu ${ }^{\text {A2 }}$ |  |
|  |  |  |  | ChÉngdù：fu ${ }^{\text {A2 }}$ |  |
| surpise，to | $\operatorname{tçen}^{\text {A1 }}$ | $\operatorname{tçen}^{\text {A1 }}$ | 驚 | OMD：kiə刀 ${ }^{\text {A }}$ |  |
|  |  |  |  | ChÉngdù：tcin ${ }^{\text {A1 }}$ |  |
| swallow，to | － | then ${ }^{\text {A1 }}$ | 吞 | OMD：thən ${ }^{\text {A }}$ |  |
|  |  |  |  | ChÉngdù：thon ${ }^{\text {A1 }}$ |  |
| teach，to | tç ${ }^{\text {A }}{ }^{\text {1 }}$ | tço ${ }^{\text {A }}$ | 教 | OMd：kau ${ }^{\text {C }}$ |  |
|  |  |  |  | Chéngdù：thiau ${ }^{\text {C }}$ |  |
| toil，to | kht ${ }^{\text {B1 }}$ | kht ${ }^{\text {B1 }}$ | 苦 | OMD：khu ${ }^{\text {B }}$ | Md：＇bitter＇ |
|  |  |  |  | Chéngdù：khu ${ }^{\text {B }}$ |  |
| try，to | $\int \mathrm{i}^{\text {D2 }}$ | $\int \mathrm{i}^{\text {D2 }}$ | 試 | OMD： $\int_{1}{ }^{\text {C }}$ ChÉNGDÙ： |  |
|  |  |  |  |  |  |
| turn around，to | － | $\mathrm{fa}^{\mathrm{B1}}$ | 反 | OMD： fan $^{\text {B }}$ |  |
|  |  |  |  | ChÉngdù：fan ${ }^{\text {B }}$ |  |
| turn over，to | － | $\mathrm{fa}^{\mathrm{A} 1}$ | 反 | OMD：fan ${ }^{\text {B }}$ |  |
|  |  |  |  | ChÉngdù：fan ${ }^{\text {B }}$ |  |
| use，to | $\int \mathrm{i}^{\mathrm{B} 1}$ | $\int \mathrm{i}^{\mathrm{B} 1}$ | 使 | OMd： $\int 1{ }^{\mathrm{B}}$ Chéngdù |  |
|  |  |  |  | $\mathrm{si}^{\mathrm{B}}$ |  |
| verify，to | thue ${ }^{\text {A } 2}$ | thua ${ }^{\text {A2 }}$ | 查 | OMD： $\mathrm{ffa}^{\text {A }}$ |  |
|  |  |  |  | CHÉNGDÙ：tsha ${ }^{\text {A2 }}$ |  |

## A．1．53 Verbs of Cognition



## A．1．54 Verbs Pertaining to Social Interaction

| Gloss |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| accept，to | Mong Leng | Hmong Daw | Hanzi | Sintic Forms | Comments |
| $l e \eta^{C 2}$ |  |  |  |  |  |


| Gloss <br> admit，to | Mong Leng | Hmong Daw $\operatorname{le\eta }{ }^{\mathrm{A} 2}$ | Hanzi <br> 認 | Sintic Forms <br> OMD：зiən ${ }^{\text {C }}$ | Comments |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | ChÉngdù：zan ${ }^{\text {C }}$ |  |
| agree，to | jen ${ }^{\text {D2 }}$ | jen ${ }^{\text {2 }}$ | 愿 | PÚTŌNGHUÀ：juan ${ }^{\text {C }}$ |  |
| alert，to | － | $\mathrm{fa}^{\text {A2 }}$ | 防 | OMD：fan ${ }^{\text {A2 }}$ |  |
|  |  |  |  | Chéngdù：fan ${ }^{\text {A2 }}$ |  |
| as you like it | － | $\mathrm{si}^{\text {A2 }} \mathrm{pen}^{\text {D2 }}$ | 隨便 | OMD：suei ${ }^{\text {C }}$ phiən ${ }^{\text {A2 }}$ |  |
|  |  |  |  | CHÉNGDÙ： suei $^{\mathrm{A} 2}$ phian ${ }^{\mathrm{A} 2}$ |  |
| be quiet，to | $\mathrm{ty}^{\mathrm{D} 2} \mathrm{Seg}{ }^{\text {A1 }}$ | $\mathrm{ty}^{\mathrm{D} 2} \mathrm{Sen}^{\text {A1 }}$ | 制聲 | OMD： $\mathrm{tgi}^{\mathrm{C}}$ jiəg ${ }^{\text {A }}$ |  |
|  |  |  |  | Chéngdù：ts1 ${ }^{\text {San }}{ }^{\text {A1 }}$ |  |
| beg，to | － | tho ${ }^{\text {B1 }}$ khau ${ }^{\text {B1 }}$ | 討口 | OMD：thau ${ }^{\text {B }}$ khou ${ }^{\text {B }}$ |  |
|  |  |  |  | CHÉNGDÙ： |  |
| beg，to | tho ${ }^{\text {B1 }}$ | tho ${ }^{\text {B1 }}$ | 討 | OMD：thau ${ }^{\text {B }}$ |  |
|  |  |  |  | CHÉNGDÙ：thau ${ }^{\text {B }}$ |  |
| beware，to | － | $\mathrm{tçeg}^{\mathrm{B} 1} \mathrm{fa}^{\mathrm{A} 2}$ | 謹防 | OMD：fan ${ }^{\text {A2 }}$ |  |
|  |  |  |  | Chéngdù：fay ${ }^{\text {A2 }}$ |  |
| blame，to | $1 \mathrm{la}^{\text {D2 }}$ | $1 i 3{ }^{\text {D2 }}$ | 賴 | OMD：lai ${ }^{\text {C }}$ |  |
|  |  |  |  | Chéngdù：nai ${ }^{\text {C }}$ |  |
| bump，to | phon ${ }^{\text {D2 }}$ | phon ${ }^{\text {D2 }}$ | 碰 | PÚTŌNGHUÀ：phən ${ }^{\text {C }}$ |  |
| cause trouble | ts ${ }^{\text {A }}{ }^{\text {1 }}$ | ts ${ }^{\text {A }}{ }^{\text {1 }}$ | 招 | OMD：fiau ${ }^{\text {A }}$ |  |
|  |  |  |  | ChÉngdù：tsau ${ }^{\text {A1 }}$ |  |
| change clan，to | $k a^{B 1} \operatorname{sen}^{\text {D2 }}$ | ki2 ${ }^{\text {B1 }}$ sen ${ }^{\text {D2 }}$ | 改姓 | OMD：kai ${ }^{\text {B }}$ Siə ${ }^{\text {C }}$ |  |
|  |  |  |  | Chéngdù： $\mathrm{kai}^{\mathrm{B}} \mathrm{Cin}^{\mathrm{C}}$ |  |
| chat，to | thay ${ }^{\text {D2 }}$ | tha ${ }^{\text {D2 }}$ | 談 | OMD：tham ${ }^{\text {A2 }}$ |  |
|  |  |  |  | CHÉNGDÙ：than ${ }^{\text {A2 }}$ |  |
| consent，to | kherf ${ }^{\text {B1 }}$ | khey ${ }^{\text {B1 }}$ | 肯 | OMD：khən ${ }^{\text {B }}$ |  |
|  |  |  |  | Chéngdù：khən ${ }^{\text {B }}$ |  |
| curse，to | taum ${ }^{\text {D2 }}$ | tfau ${ }^{\text {D2 }}$ | 咒 | PÚTŌNGHUÀ：tşou ${ }^{\text {C }}$ |  |
| defy，to | $\mathrm{ta}^{\mathrm{D} 2}$ | － | 黷 | PÚTŌNGHUÀ： $\mathrm{tu}^{\text {A2 }}$ |  |
| discuss，to | $\int a y^{\text {A1 }} \operatorname{lay}{ }^{\text {A2 }}$ | $\int \mathrm{a}^{\mathrm{Al}} \mathrm{la}^{\text {A2 }}$ | 商量 | OMD： $\int$ ian ${ }^{\text {A }}$ |  |
|  |  |  |  | CHÉNGDU̇̀： |  |
|  |  |  |  | $\operatorname{san}^{\text {A1 }}$ nian ${ }^{\text {c }}$ |  |
| dislike，to | $f a)^{B 1}$ | － | 反 | OMd： $\mathrm{fan}^{\text {B }}$ |  |
|  |  |  |  | Chéngdù：fan ${ }^{\text {B }}$ |  |
| forbid，to | $\mathrm{tsu}^{\text {B1 }}$ | $\mathrm{tsu}^{\text {B1 }}$ | 阻 | OMD：tfu ${ }^{\text {B }}$ |  |
|  |  |  |  | CHÉNGDÙ：tsu ${ }^{\text {B }}$ |  |
| forget it，to | puə ${ }^{\text {2 }}$ tç̧haum ${ }^{\text {A } 2}$ | － | 罷休 | OMD： $\mathrm{pa}^{\text {C }}$ |  |
|  |  |  |  | Chéngdù： <br> ${ }^{\mathrm{C}}{ }^{\text {ciou }}{ }^{\mathrm{A} 1}$ |  |
| govern，to | kay ${ }^{\text {B1 }}$ | $\mathrm{ka}^{\mathrm{B} 1}$ | 管 | OMD：kon ${ }^{\text {B }}$ |  |
|  |  |  |  | CHÉNGDÙ：kuan ${ }^{\text {B }}$ |  |
| habit，to | $\int \mathrm{u}^{\mathrm{D} 2}$ | $\int \mathrm{t}^{\mathrm{D} 2}$ | 嗜 | PÚTŌNGHUÀ：sis ${ }^{\text {C }}$ |  |
| help，to | pay ${ }^{\text {A1 }}$ | $\mathrm{pa}^{\text {A1 }}$ | 幫 | OMD：pan ${ }^{\text {A }}$ |  |
|  |  |  |  | Chéngdù：pay ${ }^{\text {A1 }}$ |  |
| hinder，to | － | $\mathrm{ta}^{\text {A } 1} \mathrm{kau}^{\mathrm{D} 2}$ | 擋克 | Chéngdù：khe ${ }^{\text {A2 }}$ |  |
| honor，to | － | phi ${ }^{\text {D2 }} \mathrm{hu}{ }^{\text {A2 }}$ | 佩服 | OMD：phei ${ }_{\text {fu }}{ }^{\text {D1 }}$ |  |
|  |  |  |  | Chéngdù： <br> phei ${ }^{\mathrm{C}} \mathrm{fu}^{\mathrm{A} 2}$ |  |
| in front of，to | － | $\mathrm{ta}^{\text {A1 }} \mathrm{meg}{ }^{\text {C2 }}$ | 當面 | OMD： $\operatorname{ta\eta }^{\text {C }}$ mien ${ }^{\text {C }}$ |  |
|  |  |  |  | Chéngldù： <br> $\tan ^{\mathrm{C}} \mathrm{mian}^{\mathrm{C}}$ |  |
| insist，to | tçhaum ${ }^{\text {A2 }}$ | tçhau ${ }^{\text {A2 }}$ | 求 | OMD：khiou ${ }^{\text {A2 }}$ |  |
|  |  |  |  | ChÉNGDÙ：tchiəu ${ }^{\text {A2 }}$ |  |
| look after，to | － | $\mathrm{kt}^{\mathrm{D} 2}$ | 顧 | Chéngdù：ku ${ }^{\text {C }}$ |  |
| lose，to | $\int \mathrm{u}^{\text {A1 }}$ | $\int \mathrm{t}^{\text {A } 1}$ | 輸 | OMD： $\int \mathrm{iu}^{\text {A }}$ |  |
|  |  |  |  | Chéngdù：su ${ }^{\text {A1 }}$ |  |
| manage，to | $\mathrm{ty}^{\text {A2 }}$ | $\mathrm{ty}^{\text {A2 }}$ | 治 | OMD： $\mathrm{tgi}{ }^{\text {C }}$ |  |
|  |  |  |  | Chéngdù：ts1 ${ }^{\text {C }}$ |  |
| not matter，to | $\mathrm{si}^{\text {A2 }} \mathrm{pen}^{\text {D2 }}$ | $\mathrm{si}^{\text {A2 }} \mathrm{pen}^{\text {D2 }}$ | 隨便 | OMD：suei ${ }^{\text {C }}$ phiən ${ }^{\text {A2 }}$ |  |
|  |  |  |  | CHÉNGDÙ： <br> suei $^{\mathrm{A} 2}$ phian ${ }^{\mathrm{A} 2}$ |  |
| pay respect，to | $¢_{9}{ }^{\text {D2 }}$ | ¢̧ ${ }^{\text {D2 }}$ | 孝 | OMD：xau ${ }^{\text {C }}$ |  |
|  |  |  |  | Chéngdù：ciau ${ }^{\text {C }}$ |  |
| propagate，to | thay ${ }^{\text {A2 }}$ | tha ${ }^{\text {A2 }}$ | 傳 | OMD：thyen ${ }^{\text {A2 }}$ |  |
|  |  |  |  | ChÉngdù：tshuan ${ }^{\text {A2 }}$ |  |


| Gloss <br> protect，to | $\underset{\mathrm{m}_{\mathrm{B} 1}^{\mathrm{B}}}{\text { Mong Leng }}$ | $\mathrm{p}_{\mathrm{p} 3^{31}}^{\text {Hmong Daw }}$ | Hanzi <br> 保 | Sintic Forms <br> OMD：pau ${ }^{\text {B }}$ | Comments |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Chéngdù：pau ${ }^{\text {B }}$ |  |
| recognize，to | $3 \mathrm{ey} \mathrm{g}^{\text {2 }}$ | $3 \mathrm{en} \mathrm{D}^{\text {2 }}$ | 認 | OMD： 弓ian $^{\text {C }}$ |  |
|  |  |  |  | Chéngdù：zan ${ }^{\text {C }}$ |  |
| repay，to | $\mathrm{pau}^{\text {A2 }}$ | pau ${ }^{\text {A2 }}$ | 報 | OMD：pau ${ }^{\text {C }}$ |  |
| respect，to | － | $h H^{\text {D2 }}$ | 服 | ChÉngdù̀：pau ${ }^{\text {C }}$ OMD：fu ${ }^{\text {Dl }}$ |  |
|  |  |  |  | Chéngdù：fu ${ }^{\text {A2 }}$ |  |
| share，to | koy ${ }^{\text {D2 }}$ | koy ${ }^{\text {D2 }}$ | 共 | OMD： $\mathrm{kuj}^{\text {C }}$ |  |
|  |  |  |  | Chéngdù：koy ${ }^{\text {C }}$ |  |
| support | $\operatorname{tag}^{\text {A1 }}$ | ta ${ }^{\text {A1 }}$ | 擔 | OMD： $\operatorname{tam}^{\text {C }}$ |  |
|  |  |  |  | Chéngdù： $\tan ^{\text {C }}$ |  |
| take care，to | $\tan ^{\text {A1 }} \mathrm{ntçu} 2^{\text {A }}$ | $\operatorname{ta}^{\text {A1 }}$ ntçue ${ }^{\text {Al }}$ | 當家 | OMd： $\operatorname{ta\eta }{ }^{\text {c }} \mathrm{ka}^{\text {A }}$ |  |
|  |  |  |  | ChÉNGDÙ： $\tan ^{\mathrm{C}_{\mathrm{tch}} \mathrm{aia}^{\mathrm{A} 1}}$ |  |
| warn，to | tçen ${ }^{\text {Al }}$ ton ${ }^{\text {D2 }}$ | $\mathrm{tçen}^{\text {Al }}$ tong ${ }^{\text {D2 }}$ | 惊動 | OMD： $\operatorname{tug}^{\text {c }}$ |  |
|  |  |  |  | Chéngdù：ton ${ }^{\text {c }}$ |  |
| watch，to | kay ${ }^{\text {A1 }}$ | $\mathrm{ka}^{\text {A1 }}$ | 觀 | Chéngdù：kuan ${ }^{\text {C }}$ |  |

## A．1．55 Weapons

| Gloss bomb | Mong Leng | Hmong Daw hon ${ }^{\mathrm{Al}} \mathrm{po}^{\mathrm{A} 1}$ | Hanzi轟包 | Sintic Forms <br> OMD：$x u \eta^{A}$ pau $^{\text {A }}$ | Comments |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | ChÉngdù： xon $^{\text {A1 }}{ }^{\text {pau }}{ }^{\text {A1 }}$ |  |
| bullet | － | mu2 ${ }^{\text {D1 }} \mathrm{tsu}^{\text {B1 }}$ | 末子 | $\begin{aligned} & \text { OMD: } \mathrm{mo}^{\mathrm{D} 3} \mathrm{tS1}^{\mathrm{B}} \\ & \text { CHÉNGDÙ: } \mathrm{mo}^{\mathrm{A} 2} \mathrm{tS1}^{\mathrm{B}} \end{aligned}$ |  |
| gun | $\mathrm{ph}{ }^{\text {D2 }}$ | pho ${ }^{\text {D2 }}$ | 炮 | OMD：phau ${ }^{\text {A } 2}$ Chéngdù：phauc |  |
| gunpowder | － | hau ${ }^{\text {A2 }} \mathrm{ju}^{\mathrm{D}} 2$ | 火藥 | $\begin{aligned} & \text { OMD: xuo }{ }^{\mathrm{B}} \mathrm{iau}^{\mathrm{D} 3} \\ & \text { CHÉNGDÙ: } \mathrm{xo}^{\mathrm{B}} \mathrm{yo}^{\mathrm{A} 2} \end{aligned}$ |  |
| gunpowder | － | $h u^{\text {A2 }}{ }^{\text {j }}{ }^{\text {D2 }}$ | 火藥 | $\begin{aligned} & \text { OMD: xuo }{ }^{\mathrm{B}} \mathrm{iau}^{\mathrm{D} 3} \\ & \text { CHÉNGDÙ: } \mathrm{xo}^{\mathrm{B}} \mathrm{yo}^{\mathrm{A} 2} \end{aligned}$ |  |
| pistol | $j a \eta^{\text {A } 2} \mathrm{ph} 2^{\mathrm{D} 2}$ | $j a^{\text {A } 2} \mathrm{ph} 2^{\mathrm{D} 2}$ | 洋炮 | OMD：phau ${ }^{\text {A2 }}$ ChÉngdù： iay ${ }^{\mathrm{A} 2}$ phau ${ }^{\mathrm{C}}$ |  |

## A． 2 Pre－Modern Loans

## A．2．1 Adjectives

| Gloss | Mong Leng | Hmong Daw | Hanzi | Sintic Forms | Comments |
| :---: | :---: | :---: | :---: | :---: | :---: |
| bright | kay ${ }^{\text {A2 }}$ | $\mathrm{ka}^{\text {A2 }}$ | 光 | $\mathrm{EMC}_{\mathrm{P}}$ ： kway $^{\text {A }}$ |  |
|  |  |  |  | $\mathrm{MC}_{\mathrm{B}}$ ： kway $^{\text {A }}$ |  |
|  |  |  |  | CHÁNGSHĀ：kuan ${ }^{\text {A1 }}$ |  |
|  |  |  |  | WĒnZHŌU：kus ${ }^{\text {A1 }}$ |  |
| broken | pua ${ }^{\text {C2 }}$ | pu2 ${ }^{\text {D1 }}$ | 敗 | $\mathrm{EMC}_{\mathrm{P}}$ ：＊baij］ |  |
|  |  |  |  | $\mathrm{MC}_{\mathrm{B}}$ ：＊bæj ${ }^{\text {C }}$ |  |
|  |  |  |  | ChÁngShā： $\mathrm{pai}^{\text {C2 }}$ |  |
|  |  |  |  | WĒNZHŌU：ba ${ }^{\text {C2 }}$ |  |
| difficult | nua ${ }^{\text {A2 }}$ | nue ${ }^{\text {A2 }}$ | 難 | $\mathrm{EMC}_{\mathrm{P}}$ ： nan $^{\text {A }}$ |  |
|  |  |  |  | $\mathrm{MC}_{\mathrm{B}}$ ： nan $^{\text {A }}$ |  |
|  |  |  |  | CHÁNGSHĀ： $\mathrm{nan}^{\text {C1 }}$ |  |
|  |  |  |  | WĒNZHŌU：na ${ }^{\text {C2 }}$ |  |
| enough | tsau ${ }^{\text {D1 }}$ | tsau ${ }^{\text {D1 }}$ | 足 | $\mathrm{EMC}_{\mathrm{P}}$ ：＊tsuawk ${ }^{\text {D }}$ |  |
|  |  |  |  | $\mathrm{MC}_{\mathrm{B}}$ ： tsjowk $^{\text {D }}$ |  |
|  |  |  |  | CHÁNGSHĀ：tsru ${ }^{\text {D }}$ |  |
|  |  |  |  | WĒNZHŌU：t6yo ${ }^{\text {D1 }}$ |  |

## A．2． 2 Adverbs



## A．2．3 Agricultural Terms

| Gloss | Mong Leng | Hmong Daw | Hanzi | Sintic Forms | Comments |
| :---: | :---: | :---: | :---: | :---: | :---: |
| castrate | $\left.\int a\right]^{\text {D2 }}$ | $\int \mathrm{a}^{\text {D2 }}$ | 騸 | PÚTŌNGHUÀ：şan ${ }^{\text {C }}$ |  |
| plow，to | $1 a^{\text {A2 }}$ | $1 \mathrm{ai}^{\text {A2 }}$ | 犁 | $\mathrm{EMC}_{\mathrm{P}}$ ：＊ $\mathrm{l}^{\text {j }}{ }^{\text {A }}$ |  |
|  |  |  |  | ChÁngShā：ni ${ }^{\text {A2 }}$ WĒnZhōU：lei ${ }^{\text {A2 }}$ |  |
| sickle | $1 \mathrm{la}^{\mathrm{C} 2}$ | lia ${ }^{\text {C2 }}$ | 鐮 | EMC ${ }_{\text {P }}$ ：＊liam ${ }^{\text {A }}$ |  |
|  |  |  |  | ChángShā：$n i e z{ }^{\text {A2 }}$ |  |
|  |  |  |  | WĒNZHŌU：li ${ }^{\text {A2 }}$ |  |

## A．2．4 Anatomical Terms

| Gloss | Mong Leng | Hmong Daw | Hanzi | Sintic Forms | Comments |
| :---: | :---: | :---: | :---: | :---: | :---: |
| face | mua ${ }^{\text {2 }}$ | mue ${ }^{\text {C2 }}$ | 面 | $\mathrm{EMC}_{\text {P }}$ ：＊mjian ${ }^{\text {C }}$ |  |
|  |  |  |  | CHÁNGSHĀ：miez ${ }^{\text {C2 }}$ |  |
|  |  |  |  | WĒNZHŌU：mi ${ }^{\text {C2 }}$ |  |

## A．2．5 Animals

| Gloss cattle | Mong Leng | Hmong Daw | Hanzi | Sintic Forms | Comments |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\mathrm{nu}^{\text {A2 }}$ | $\mathrm{nu}^{\text {A2 }}$ | 牛 | $\mathrm{EMC}_{\mathrm{P}}$ ： ＊$_{\text {duw }}{ }^{\text {A }}$ |  |
|  |  |  |  | $\mathrm{MC}_{\mathrm{B}}$ ： ＊$_{\text {jjuw }}{ }^{\text {A }}$ |  |
|  |  |  |  | CHÁNGSHĀ：jiruu ${ }^{\text {A2 }}$ |  |
|  |  |  |  | WĒNZHŌU： jau $^{\text {A2 }}$ |  |
| duck | Pu ${ }^{\text {D1 }}$ | $23^{\text {D1 }}$ | 鴨 | $\mathrm{EMC}_{\mathrm{P}}$ ：＊${ }^{\text {Paip }}{ }^{\text {D }}$ |  |
|  |  |  |  | CHÁNGSHĀ： $\mathrm{ga}^{\text {D }}$ |  |
|  |  |  |  | WĒNZHŌU：${ }^{\text {D1 }}$ |  |
| grasshopper | koy ${ }^{\text {A2 }}$ | koy ${ }^{\text {A2 }}$ | 蛩 | $\mathrm{EMC}_{\mathrm{P}}$ ：＊guawy ${ }^{\text {A }}$ |  |

## A．2．6 Economic Terms

| Gloss | Mong Leng | Hmong Daw | Hanzi | Sintic Forms | Comments |
| :---: | :---: | :---: | :---: | :---: | :---: |
| buy | － | mua ${ }^{\text {D1 }}$ | 買 | $\mathrm{EMC}_{\mathrm{P}}$ ： maij $^{\text {B }}$ |  |
|  |  |  |  | ChángShā：mai ${ }^{\text {B }}$ |  |
|  |  |  |  | WĒNZHŌU：ma ${ }^{\text {B2 }}$ |  |
| money | $\mathrm{tsa}^{\text {A2 }}$ | tsia ${ }^{\text {A } 2}$ | 錢 | $\mathrm{EMC}_{\mathrm{P}}$ ：＊ $\operatorname{cian}^{\text {A }}$ |  |
|  |  |  |  | CHÁNGSHĀ：tsiez ${ }^{\text {A2 }}$ |  |
|  |  |  |  | WĒNZHŌU：fii ${ }^{\text {A2 }}$ |  |
| sell，to | mue ${ }^{\text {C2 }}$ | mue ${ }^{\text {C2 }}$ | 賣 | $\mathrm{EMC}_{\mathrm{P}}$ ：＊maij ${ }^{\text {C }}$ |  |
|  |  |  |  | CHÁNGSHĀ：mai ${ }^{\text {C1 }}$ |  |
|  |  |  |  | WĒnZHŌU：ma ${ }^{\text {C2 }}$ |  |
| tax | $\int \mathrm{e}^{\mathrm{C} 1}$ | $\int \mathrm{e}^{\mathrm{C} 1}$ | 税 | $\mathrm{EMC}_{\mathrm{P}}: *_{\text {Cwiaj }}{ }^{\text {C }}$ |  |
|  |  |  |  | CHÁNGSHĀ：cyei ${ }^{\text {C1 }}$ |  |
|  |  |  |  | WĒNZHŌU：S1 ${ }^{\text {C1 }}$ |  |

## A．2．7 Furniture

| Gloss | Mong Leng | Hmong Daw |
| :--- | :--- | :--- |
| table | $\mathrm{tyu}^{\mathrm{D} 2}$ | - |


| Hanzi | Sintic Forms |
| :--- | :--- |
| 桌 | EMC $_{\text {p }}:$＊taíwk $^{\text {D }}$ |
|  | CHÁNGSHĀ：tso |
|  | WĒNZHŌU：tcyo ${ }^{\text {D }}$ |

Comments

## A．2．8 Material Goods

| Gloss | Mong Leng | Hmong Daw | Hanzi | Sintic Forms | Comments |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Clf（tiles） | vu2 ${ }^{\text {C2 }}$ | － | 瓦 | $\mathrm{EMC}_{\mathrm{P}}$ ： \＃$^{\text {mwai }}{ }^{\text {B }}$ |  |
|  |  |  |  | $\mathrm{MC}_{\mathrm{B}}:$＊$^{\text {¢ }}$ æ $^{\text {B }}$ |  |
|  |  |  |  | CHÁNGSHĀ：ua ${ }^{\text {B }}$ |  |
|  |  |  |  | WĒNZHŌU：yo ${ }^{\text {B2 }}$ |  |

## A．2．9 Terms Referring to Human Qualities

| Gloss | Mong Leng | Hmong Daw | Hanzi | Sintic Forms | Comments |
| :---: | :---: | :---: | :---: | :---: | :---: |
| old | lau ${ }^{\text {C2 }}$ | lau ${ }^{\text {D1 }}$ | 老 | $\mathrm{EMC}_{\mathrm{p}}$ ：${ }^{\text {law }}{ }^{\text {B }}$ |  |
|  |  |  |  | $\mathrm{MC}_{\mathrm{B}}$ ：＊ $\mathrm{law}^{\text {B }}$ |  |
|  |  |  |  | CHÁNGSHĀ： $\mathrm{nau}^{\text {B }}$ |  |
|  |  |  |  | WĒNZHŌU： $1 \varepsilon^{\text {B2 }}$ |  |

## A．2．10 Implements

| Gloss fish net | Mong Leng vanc2 ${ }^{C 2}$ | Hmong Daw $v a^{\text {D1 }}$ | Hanzi <br> 網 | Sintic Forms | Comments |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | $\mathrm{EMC}_{\mathrm{P}}: *$ muan $^{\text {B }}$ |  |
|  |  |  |  | ChángShā：uan ${ }^{\text {B }}$ |  |
|  |  |  |  | WĒNZHŌU：mus ${ }^{\text {B2 }}$ |  |
| saddle | $2 \mathrm{ey}{ }^{\text {A1 }}$ | Rey ${ }^{\text {A1 }}$ | 鞍 | $\mathrm{EMC}_{\mathrm{P}}$ ：＊ 2an $^{\text {A }}$ |  |
|  |  |  |  | ChÁngShā： gan $^{\text {A1 }}$ |  |
|  |  |  |  | WĒNZHŌU：y ${ }^{\text {A1 }}$ |  |
| stick | $p a y{ }^{\text {D1 }}$ | $\mathrm{pa}{ }^{\text {D1 }}$ | 棒 | $\mathrm{EMC}_{\mathrm{P}}$ ：＊baiwn ${ }^{\text {B }}$ |  |
|  |  |  |  | ChángShā：pan ${ }^{\text {C1 }}$ |  |
|  |  |  |  | WĒNZHŌU：bus ${ }^{\text {B2 }}$ |  |
| tongs | $\mathrm{tça}^{\text {A2 }}$ | $t \operatorname{çia}^{\text {A2 }}$ | 鉗 | $\mathrm{EMC}_{\mathrm{P}}: *{ }^{\text {giam }}{ }^{\text {A }}$ |  |
|  |  |  |  | ChÁngShā：tciez ${ }^{\text {A2 }}$ |  |
|  |  |  |  | WĒNZHŌU：dz̧i ${ }^{\text {A2 }}$ |  |

## A．2．11 Kinship

| Gloss | Mong Leng | Hmong Daw |
| :--- | :--- | :--- |
| daughter－in－law | $\operatorname{man}^{\mathrm{A} 1}$ | $\mathrm{na}^{\mathrm{A} 1}$ |


| Hanzi | Sintic Forms |
| :---: | :---: |
| 娘 | $\mathrm{EMC}_{\mathrm{P}}$ ：＊niay ${ }^{\text {A }}$ |
|  | CHÁNGSHĀ：jian ${ }^{\text {A2 }}$ |
|  | WĒNZHŌU：ni ${ }^{\text {A2 }}$ |

Comments

## A．2．12 Terms Relating to Law and Justice

Gloss
plead ones case

## Mong Leng pen ${ }^{\text {B1 }}$

Hmong Daw
－

Hanzi辯

Sintic Forms
$\mathrm{EMC}_{\mathrm{p}}$ ：＊bian ${ }^{\mathrm{B}}$
ChÁNGSHĀ：piez ${ }^{\mathrm{Cl}}$
WĒNZHŌU：bi ${ }^{\text {B2 }}$

Comments

Comments

Gloss
copper
silver

## Mong Leng <br> tog ${ }^{\mathrm{A} 2}$

$\mathrm{na}^{\mathrm{A} 2}$
niə ${ }^{\mathrm{A} 2}$
Hmong Daw ton ${ }^{\text {A2 }}$

Hanzi銅銀

Sintic Forms

CHÁngShā： $\operatorname{ton}^{\text {A2 }}$ WĒNZHŌU： $\operatorname{don}^{\text {A2 }}$ $\mathrm{EMC}_{\mathrm{p}}$ ： $\boldsymbol{*}_{\mathrm{n}} \mathrm{in}^{\mathrm{A}}$ CHÁNGSHĀ：in ${ }^{\text {A2 }}$ WĒNZHŌU：niaŋ ${ }^{\text {A2 }}$

| Gloss charcoal | Mong Leng then ${ }^{\mathrm{Cl}}$ | Hmong Daw then ${ }^{\mathrm{Cl}}$ | Hanzi炭 | Sintic Forms <br> $\mathrm{EMC}_{\mathrm{P}}$ ：＊than ${ }^{\mathrm{C}}$ <br> $\mathrm{MC}_{\mathrm{B}}$ ：＊than ${ }^{\mathrm{C}}$ <br> ChÁngSHĀ：than ${ }^{\text {C1 }}$ <br> WĒnZHŌU：tha ${ }^{\text {C1 }}$ | Comments |
| :---: | :---: | :---: | :---: | :---: | :---: |
| corner | kau ${ }^{\text {D2 }}$ | $\mathrm{kau}^{\text {D2 }}$ | 角 | $\begin{aligned} & \text { EMC }_{\mathrm{P}}: \text { *kaiwk }^{\mathrm{D}} \\ & \mathrm{MC}_{\mathrm{B}}: \text { kkæwk }^{\mathrm{D}} \\ & \text { CHÁNGSHĀ: ko } \\ & \text { WĒNZHŌU: ku }{ }^{\text {D1 }} \end{aligned}$ |  |
| hole | qha ${ }^{\text {B1 }}$ | $\mathrm{qh})^{\text {B1 }}$ | 口 | $\begin{aligned} & \text { EMC }_{\mathrm{P}}: \text { *khəw }^{\mathrm{B}} \\ & \mathrm{MC}_{\mathrm{B}}: \text { 'khuw }^{\mathrm{B}} \\ & \text { CHÁNGSHĀ: khru } \\ & \text { WĒNZHŌU: khəu }{ }^{\text {B1 }} \end{aligned}$ |  |
| human life | $n e y^{\text {A2 }}$ | $n \mathrm{ne} \mathrm{g}^{\text {A2 }}$ | 人 | $\begin{aligned} & \text { EMC }_{\mathrm{P}}: \text { *nin}^{\mathrm{A}} \\ & \text { MC }_{\mathrm{B}}: \text { ninin }^{\mathrm{A}} \\ & \text { CHÁNGSHĀ: zəŋn }{ }^{\mathrm{A} 2} \\ & \text { WĒNZHŌU: zaß } \end{aligned}$ | MC：＇person＇ |
| person | tua ${ }^{\text {A1 }} \mathrm{ne} \mathrm{y}^{\mathrm{C} 2}$ | $\mathrm{ti}^{\text {A1 }} \mathrm{nen} \mathrm{g}^{\text {C2 }}$ | 人 | $\begin{aligned} & \text { EMC }_{\mathrm{P}}: \text { Ninin }^{\mathrm{A}} \\ & \text { MC }_{\mathrm{B}}: \text { nnin }^{\mathrm{A}} \\ & \text { CHÁNGSHĀ: zən }{ }^{\mathrm{A} 2} \\ & \text { WĒNZHŌU: zaß } \end{aligned}$ |  |

## A．2．15 Numeric Terms

| Gloss hundred | Mong Leng pu2 ${ }^{\mathrm{C} 1}$ | Hmong Daw pu2 ${ }^{\mathrm{C} 1}$ | Hanzi <br> 百 | Sintic Forms <br> $\mathrm{EMC}_{\mathrm{p}}$ ：＊paijk ${ }^{\text {D }}$ | Comments |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | CHÁNGSHĀ： $\mathrm{pr}^{\text {D }}$ WĒnZhōU：pa ${ }^{\text {D1 }}$ |  |
| thousand years | tsha ${ }^{\text {A1 }}$ | tshia ${ }^{\text {A } 1}$ | 千 | $\begin{aligned} & \mathrm{EMC}_{\mathrm{P}}: * \operatorname{tshen}^{\mathrm{A}} \\ & \mathrm{MC}_{\mathrm{B}}: * \text { tshen }^{\mathrm{A}} \\ & \text { CHÁNGSHĀ: tshiez }^{\mathrm{A} 1} \\ & \text { WĒNZHŌU: țhi } \end{aligned}$ | MC：＇thousand＇ |

## A．2．16 Physical Properties

| Gloss | Mong Leng | Hmong Daw | Hanzi | Sintic Forms | Comments |
| :---: | :---: | :---: | :---: | :---: | :---: |
| bent | $\mathrm{va}^{\text {A1 }}$ | vi9 ${ }^{\text {Al }}$ | 彎 | $\mathrm{EMC}_{\mathrm{P}}$ ：＊？wain ${ }^{\text {A }}$ |  |
|  |  |  |  | ChángShā：uan ${ }^{\text {A1 }}$ |  |
|  |  |  |  | WĒNZHŌU：ua ${ }^{\text {A1 }}$ |  |
| dry | qhue ${ }^{\text {B1 }}$ | qhue ${ }^{\text {B1 }}$ | 熇 | PÚTŌNGHUÀ：khau ${ }^{\text {B }}$ |  |
| thinly spaced | $\int \mathrm{i}^{\text {A1 }}$ | $\int \mathrm{i}^{\mathrm{Al}}$ | 稀 | EMC $\mathrm{P}_{\mathrm{P}}$ ： $\mathrm{xij}^{\text {A }}$ |  |
|  |  |  |  | ChángShā：cii ${ }^{\text {A1 }}$ |  |
|  |  |  |  | WĒNZHŌU：S1 ${ }^{\text {A1 }}$ |  |

## A．2．17 Political Terms

| Gloss | Mong Leng |
| :--- | :--- |
| emperor | fua $^{\mathrm{Al}}$ tai $^{\mathrm{Dl}}$ |

$\underset{h u e^{\mathrm{A} 1} \mathrm{tai}^{\mathrm{D} 1}}{\text { Hmong Daw }}$

| Hanzi | Sintic Forms |
| :---: | :---: |
| 皇帝 | $\mathrm{EMC}_{\mathrm{P}}$ ：＊ \％waj $^{\text {A }}$ t ${ }^{\text {j }}{ }^{\text {C }}$ |
|  | $\mathrm{MC}_{\mathrm{B}}$ ：＊hway ${ }^{\text {A }}$ tej ${ }^{\text {C }}$ |
|  | CHÁNGSHĀ： |
|  | fan ${ }^{\mathrm{A} 2} \mathrm{ti}^{\mathrm{Cl}}$ WĒNZHŌU |

Comments
emperor

$$
\text { fuə }{ }^{\mathrm{Al}} \text { tai }^{\mathrm{D1} 1}
$$


CHÁNGSHĀ：
fan ${ }^{\mathrm{A} 2} \mathrm{ti}^{\mathrm{C} 1}$ WĒNZHŌU：
fuo ${ }^{\mathrm{A} 2} \mathrm{tei}^{\mathrm{Cl}}$

## A．2．18 Religious Terms

| Gloss |  |  |
| :--- | :--- | :--- |
| call spirits，to | - | Mong Leng | | Hmong Daw |
| :--- |
| tshen ${ }^{\mathrm{B1}}$ |


| Hanzi | Sintic Forms |
| :--- | :--- |
| 請 | EMC $_{\text {P }}$ ：＊tshiajy ${ }^{\text {B }}$ |
|  | CHÁNGSHĀ： thin $^{\text {B }}$ |
|  | WĒNZHŌU：tsheŋ ${ }^{\text {B1 }}$ |

Comments
MC ：＇to invite＇

## A．2．19 Terms Relating to Social Status

| Gloss guest | Mong Leng qhue ${ }^{\mathrm{Cl}}$ | Hmong Daw qhuə ${ }^{\mathrm{Cl}}$ | Hanzi 客 | Sintic Forms <br> EMC $_{\mathrm{P}}$ ：＊khaijk ${ }^{\text {D }}$ | Comments |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | $\mathrm{MC}_{\mathrm{B}}$ ： $\mathrm{khhek}^{\mathrm{D}}$ |  |
|  |  |  |  | ChángShā：khr ${ }^{\text {D }}$ |  |
|  | － | $\mathrm{tfi}^{\mathrm{D} 2} \mathrm{tsi2}^{\text {A }} 2$ | 值錢 | WĒNZHŌU：kha ${ }^{\text {D1 }}$ <br> $\mathrm{EMC}_{\mathrm{P}}$ ：＊dik ${ }^{\mathrm{D}}$ dian $^{\mathrm{A}}$ | lit：＇to be worth money＇ |
| worthy | － | $\mathrm{gi}^{\text {L }}$ | 值錢 | ChángShā： <br> $\mathrm{tsp}_{1} \mathrm{D}_{\text {tsiez }}{ }^{\mathrm{A} 2}$ |  |
|  |  |  |  | $\begin{aligned} & \text { WĒNZHŌU: } \\ & \text { kei }^{\mathrm{D} 2} \mathrm{hi}^{\mathrm{A} 2} \end{aligned}$ |  |

## A．2．20 Structures

| Gloss pagoda | Mong Leng $\mathrm{pe}^{\mathrm{D} 2} \mathrm{thu}^{\mathrm{D} 2}$ | Hmong Daw $\mathrm{pe}^{\mathrm{A} 2}$ thue ${ }^{\mathrm{D} 2}$ | Hanzi寶塔 | Sintic Forms | Comments |
| :---: | :---: | :---: | :---: | :---: | :---: |

## A．2．21 Terms Relating to Time

| Gloss <br> time | Mong Leng $\mathrm{t}_{\mathrm{c}}^{\mathrm{ai}} \mathrm{ai}^{\mathrm{A} 2}$ | Hmong Daw $\mathrm{t}_{\mathrm{c}}^{\mathrm{ai}}{ }^{\mathrm{A} 2}$ | Hanzi期 | Sintic Forms | Comments |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | $\mathrm{EMC}_{\mathrm{P}}$ ：${ }^{\text {g }} \mathrm{if}^{\mathrm{A}}$ |  |
|  |  |  |  | $\mathrm{MC}_{\mathrm{B}}$ ： $\mathrm{gri}^{\text {A }}$ |  |
|  |  |  |  | ChÁngShā：tcia ${ }^{\text {A2 }}$ |  |
|  |  |  |  | WĒNZHŌU：¢ıa ${ }^{\text {A } 2}$ |  |
| year | － | ni ${ }^{\text {A }}$ 2 | 年 | $\mathrm{EMC}_{\mathrm{P}}$ ：$*_{\text {nen }}{ }^{\text {A }}$ |  |
|  |  |  |  | $\mathrm{MC}_{\mathrm{B}}$ ：＊nen ${ }^{\text {A }}$ |  |
|  |  |  |  | ChángShā：jiez ${ }^{\text {A2 }}$ |  |
|  |  |  |  | WĒNZHŌU： $\mathrm{ni}^{\text {A2 }}$ |  |

## A．2．22 Verbs

| Gloss <br> blow，to | Mong Leng thhue ${ }^{\text {A1 }}$ | Hmong Daw thure ${ }^{\text {A1 }}$ | Hanzi吹 | Sintic Forms <br> CHÁNGSHĀ：tchyei ${ }^{\text {A1 }}$ | Comments |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | WĒNZHŌU： $\operatorname{tsh}^{\text {A1 }}$ |  |
| break open，to | phue ${ }^{\text {C1 }}$ | phue ${ }^{\text {C1 }}$ | 破 | $\begin{aligned} & \mathrm{EMC}_{\mathrm{P}}: \text { phac }^{\mathrm{C}} \\ & \mathrm{MC}_{\mathrm{B}}:{ }^{*}{ }^{\text {phac }} \end{aligned}$ |  |
|  |  |  |  | ChÁngShā：pho ${ }^{\text {C1 }}$ WĒnZHŌU：pha ${ }^{\text {C1 }}$ |  |
| come back，to | $1 u^{C 2}$ | $10^{\text {D1 }}$ | 來 | $\begin{aligned} & \mathrm{EMC}_{\mathrm{P}}: * \operatorname{laj}^{\mathrm{A}} \\ & \mathrm{MC}_{\mathrm{B}}: * \operatorname{loj}^{\mathrm{A}} \\ & \text { CHÁNGSHĀ: nai }{ }^{\mathrm{A} 2} \\ & \text { WĒNZHŌU: } \mathrm{lE}^{\mathrm{A} 2} \end{aligned}$ | MC：＇to come＇ |
| fit，to | $h u^{\text {D2 }}$ | hau ${ }^{\text {D2 }}$ | 合 |  |  |
| fit，to | $h u^{\text {D2 }}$ | $h u^{\text {D2 }}$ | 合 | EMC $_{\mathrm{P}}$ ：＊ әр $^{\mathrm{D}}$ <br> $\mathrm{MC}_{\mathrm{B}}$ ：＊hop <br> CHÁNGSHĀ：xo ${ }^{\text {D }}$ <br> WĒNZHŌU：f $\emptyset^{\text {D2 }}$ |  |
| hold breath，to insert，to | $\begin{aligned} & \mathrm{pe}^{\mathrm{D} 2} \\ & \text { tsu2 }{ }^{\mathrm{D} 2} \end{aligned}$ | $\begin{aligned} & \mathrm{pe}^{\mathrm{D} 2} \\ & \text { tsu2 }{ }^{\mathrm{D} 2} \end{aligned}$ | 憋 <br> 插 | $\begin{aligned} & \text { EMC }_{\mathrm{P}}: \text { *pjiat }^{\mathrm{D}} \\ & \text { EMC }_{\mathrm{P}} \text { : *tshəip } \\ & \text { CHÁNGSHĀ: tsha } \\ & \text { WĒNZHŌU: tsha }{ }^{\text {D1 }} \end{aligned}$ |  |
| open，to | qhe ${ }^{\text {A1 }}$ | qhe ${ }^{\text {A1 }}$ | 開 | $\mathrm{EMC}_{\mathrm{P}}$ ：＊khəj ${ }^{\text {A }}$ CHÁNGSHĀ：khai ${ }^{\text {A1 }}$ WĒNZHŌU：khe ${ }^{\text {Al }}$ |  |


| Gloss pierce，to | Mong Leng $\operatorname{th} 0^{\mathrm{Cl}}$ | Hmong Daw $\operatorname{th})^{\mathrm{C} 1}$ | Hanzi透 | Sintic Forms <br> EMC $_{\mathrm{P}}$ ：＊thəw ${ }^{\text {C }}$ | Comments |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | CHÁNGSHĀ：thru ${ }^{\text {C1 }}$ |  |
|  |  |  |  | WĒNZHŌU：thau ${ }^{\text {C1 }}$ |  |
| play，to | Pue ${ }^{\text {D1 }} \mathrm{ii}^{\mathrm{Cl}}$ | Pu2 ${ }^{\text {D1 }} \mathrm{ii}^{\mathrm{Cl}}$ | 戲 | $\mathrm{EMC}_{\mathrm{P}}$ ：＊xiэ̆ ${ }^{\text {C }}$ |  |
|  |  |  |  | CHÁNGSHĀ：¢i ${ }^{\text {Cl }}$ |  |
|  |  |  |  | WĒNZHŌU：S1 ${ }^{\text {C1 }}$ |  |
| polish，to | tshu ${ }^{\text {D2 }}$ | tshuə ${ }^{\text {D2 }}$ | 擦 | CHÁNGSHĀ：tsha ${ }^{\text {D }}$ |  |
|  |  |  |  | WĒNZHŌU：tsha ${ }^{\text {D1 }}$ |  |
| push，to | thauw ${ }^{\text {A1 }}$ | thame ${ }^{\text {A } 1}$ | 推 | ChángShā：thei ${ }^{\text {A1 }}$ |  |
|  |  |  |  | WĒNZHŌU：thai ${ }^{\text {A1 }}$ |  |
| recite，to | $\mathrm{pa}{ }^{\text {B1 }}$ | pi2 ${ }^{\text {B1 }}$ | 背 | $\mathrm{EMC}_{\mathrm{P}}$ ：${ }^{\text {ppj }}$ c |  |
|  |  |  |  | $\mathrm{MC}_{\mathrm{B}}$ ：＊bwoj ${ }^{\text {c }}$ |  |
|  |  |  |  | CHÁNGSHĀ： $\mathrm{pei}^{\text {C1 }}$ |  |
|  |  |  |  | WĒNZHŌU： $\mathrm{pai}^{\text {C1 }}$ |  |
| ride，to | tçai ${ }^{\text {A2 }}$ | tçai ${ }^{\text {A2 }}$ | 騎 | $\mathrm{EMC}_{\mathrm{P}}$ ：＊gi欠̆ ${ }^{\text {A }}$ |  |
|  |  |  |  | $\mathrm{MC}_{\mathrm{B}}:$＊gi $^{\text {A }}$ |  |
|  |  |  |  | ChángShā：tci ${ }^{\text {A2 }}{ }^{\text {2 }}$ |  |
|  |  |  |  | WĒNZHŌU： di $^{\text {A }}{ }^{\text {2 }}$ |  |
| roll，to | kau ${ }^{\text {B1 }}$ | kau ${ }^{\text {B1 }}$ | 捲 | EMC ${ }_{\text {P }}$ ：＊kwian ${ }^{\text {B }}$ |  |
|  |  |  |  | ChángShā：t¢yez ${ }^{\text {B }}$ |  |
|  |  |  |  | WĒnzHŌU：tcy ${ }^{\text {B1 }}$ |  |
| separate，to | qua ${ }^{\text {D1 }}$ | que ${ }^{\text {D1 }}$ | 隔 | $\mathrm{EMC}_{\mathrm{P}}$ ：＊kəijk ${ }^{\text {D }}$ |  |
|  |  |  |  | $\mathrm{MC}_{\mathrm{B}}$ ：＊k\＆k |  |
|  |  |  |  | ChángShā： $\mathrm{kr}^{\text {D }}$ |  |
|  |  |  |  | WĒNZHŌU： $\mathrm{ka}^{\text {D1 }}$ |  |
| shout，to | haur ${ }^{\text {B1 }}$ | haum ${ }^{\text {B1 }}$ | 喊 | EMC $\mathrm{P}_{\text {：}}$＊xam ${ }^{\text {B }}$ |  |
|  |  |  |  | ChÁngShā： $\mathrm{xan}^{\text {B }}$ |  |
|  |  |  |  | WĒNZHŌU： $\mathrm{xa}^{\text {B1 }}$ |  |
| taste，to | $\int a \eta^{\text {A2 }}$ | $\int \mathrm{a}^{\text {A2 }}$ | 嘗 | $\mathrm{EMC}_{\mathrm{P}}$ ：＊dzaiay ${ }^{\text {A }}$ |  |
|  |  |  |  | $\mathrm{MC}_{\mathrm{B}}$ ：${ }^{\text {dzana }}{ }^{\text {A }}$ |  |
|  |  |  |  | ChángShā： $\operatorname{san}^{\text {A2 }}$ |  |
|  |  |  |  | WĒNZHŌU：fii ${ }^{\text {A2 }}$ |  |
| turn，to | ki ${ }^{\text {B1 }}$ | $k i^{\text {B1 }}$ | 絞 | EMC ${ }_{\text {P }}$ ：＊kaiw ${ }^{\text {B }}$ |  |
|  |  |  |  | CHÁNGSHĀ：tciau ${ }^{\text {B }}$ |  |
|  |  |  |  | WĒNZHŌU：ku9 ${ }^{\text {B1 }}$ |  |
| turn，to | ty $\mathrm{C}^{\text {2 }}$ | ty $\mathrm{c}^{\mathrm{D} 2}$ | 折 | EMC ${ }_{\text {P }}$ ：＊tciat ${ }^{\text {D }}$ |  |
|  |  |  |  | $\mathrm{MC}_{\mathrm{B}}$ ： ＊tcet $^{\text {D }}$ |  |
|  |  |  |  | CHÁNGSHĀ：tşr ${ }^{\text {D }}$ |  |
|  |  |  |  | WĒNZHŌU：tsei ${ }^{\text {D1 }}$ |  |

## A．2．23 Verbs of Cognition

| Gloss <br> choose，to | Mong Leng $\mathrm{sai}^{\mathrm{B1}}$ | Hmong Daw $\mathrm{sai}^{\mathrm{B} 1}$ | Hanzi選 | Sintic Forms <br> $\mathrm{EMC}_{\mathrm{P}}$ ： ＊swian $^{\text {B }}$ <br> $\mathrm{MC}_{\mathrm{B}}$ ：＊sjwen ${ }^{\mathrm{B}}$ <br> ChÁngShā：siez ${ }^{\text {B }}$ <br> WĒnZHŌU： cy $^{\text {B1 }}$ | Comments |
| :---: | :---: | :---: | :---: | :---: | :---: |

## A．2．24 Verbs Pertaining to Social Interaction



## A．2．25 Weather（Meteorological）Terms

| Gloss |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
| dew | Mong Leng | Hmong Daw | Hanzi | Sintic Forms |$\quad$ Comments

## A． 3 Ancient Loans

## A．3．1 Abstract Concepts

Gloss Mong Leng whole
$\underset{\text { thong }{ }^{\text {A1 }}}{\text { Mong Leng }}$
$\underset{\text { thon }{ }^{\mathrm{Al}}}{\text { Hmong Daw }}$

| Hanzi | Sintic Forms |
| :--- | :--- |
| 統 | OC $_{\mathrm{K}}:$＊thŏ |

## A．3．2 Adjectives

| Gloss <br> bad | Mong Leng <br> phe $^{\mathrm{D} 2}$ | Hmong Daw <br> $\mathrm{phe}^{\mathrm{D} 2}$ |
| :--- | :--- | :--- |
| many | $\mathrm{ntau}^{\mathrm{C} 1}$ | $\mathrm{ntau}^{\mathrm{C} 1}$ |
| old | $\mathrm{qu}^{\mathrm{A1} 1}$ | $\mathrm{qu}^{\mathrm{A} 1}$ |


| Hanzi | Sintic Forms |
| :---: | :---: |
| 否 | $\mathrm{OC}_{\mathrm{B}}$ ：＊pjip |
|  | $\mathrm{OC}_{\mathrm{K}}$ ：＊pjag |
| 多 | $\mathrm{OC}_{\mathrm{B}}$ ：＊taj OC $\mathrm{K}_{\text {：}}$＊ $\mathrm{ta}^{\text {a }}$ |
| 舊 | $\mathrm{OC}_{\mathrm{B}}: * \mathrm{~g}^{\mathrm{w}} \mathrm{ji}$ ？ |
|  | $\mathrm{OC}_{\mathrm{K}}$ ：＊gjŭg |

Comments

## A．3．3 Agricultural Terms

| Gloss <br> dry field | Mong Leng <br> $\mathrm{te}^{\mathrm{A} 1}$ |
| :--- | :--- |
| paddy | $\mathrm{la}^{\mathrm{A} 2}$ |
| raise，to | $\mathrm{ju}^{\mathrm{C} 2}$ |
| seedling | $\mathrm{ju}^{\mathrm{A} 1}$ |

$\underset{\text { Hmong Daw }}{\text { te }{ }^{\mathrm{A} 1}}$
$\operatorname{li}^{\mathrm{A} 2}$
$j u^{\mathrm{C} 2}$
$j u^{\mathrm{A} 1}$

| Hanzi地 | Sintic Forms |
| :---: | :---: |
|  | $\mathrm{OC}_{\mathrm{B}}$ ：＊lrjajs |
|  | $\mathrm{OC}_{\mathrm{K}}$ ：＊dhia |
| 田 | $\mathrm{OC}_{\mathrm{B}}$ ：＊din |
|  | $\mathrm{OC}_{\mathrm{K}}$ ：＊dhien |
| 養 | $\mathrm{OC}_{\mathrm{B}}: *(1) \mathrm{ja} \mathrm{\eta}$ ？ |
|  | $\mathrm{OC}_{\mathrm{K}}$ ：＊zjay |
| 秧 | $\mathrm{EMC}_{\mathrm{P}}$ ：＊${ }_{\text {ian }}{ }^{\text {A }}$ |

Comments

## A．3．4 Anatomical Terms

| Gloss | Mong Leng | Hmong Daw |
| :--- | :--- | :--- |
| arm | $n p a \eta^{A 1}$ | $n_{p a}{ }^{\mathrm{A} 1}$ |
| horn | $\mathrm{ku}^{\mathrm{Ai}}$ | $\mathrm{ku}^{\mathrm{A} 1}$ |


| Hanzi | Sintic Forms |
| :--- | :--- |
| 膊 | OC $_{\mathrm{K}}:$＊phak |
| 角 | OC $_{\mathrm{B}}:$＊krok |
|  | $\mathrm{OC}_{\mathrm{K}}:$＊kŭk |

Comments

## A．3．5 Animals

| Gloss | Mong Leng |
| :--- | :--- |
| cat | $\mathrm{mlo}^{\mathrm{A} 1}$ |
| chicken | $\mathrm{qa}^{\mathrm{A} 1}$ |
| dog | $\mathrm{kle}^{\mathrm{B} 1}$ |
| pigeon | $\mathrm{nqua}^{\mathrm{A} 1}$ |

## A．3．6 Noun Classifiers

| Gloss | Mong Leng | Hmong Daw | Hanzi | Sintic Forms | Comments |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Clf（types） | $\mathrm{t} \mathrm{ag}^{\mathrm{B1}}$ | $\mathrm{fa}^{\mathrm{B} 1}$ | 種 | $\mathrm{OC}_{\mathrm{K}}:{ }^{*} \mathrm{cjug}$ |  |

## A．3．7 Color Terms

| Gloss | Mong Leng | Hmong Daw | Hanzi | Sintic Forms | Comments |
| :--- | :--- | :--- | :--- | :--- | :--- |
| yellow | $\mathrm{da}^{\mathrm{A} 2}$ | 黃 | $\mathrm{OC}_{\mathrm{B}}: \mathrm{g}^{\mathrm{W}}$ ay <br> $\mathrm{OC}_{\mathrm{K}}: *$ ghway |  |  |

## A．3．8 Containers

| Gloss | Mong Leng | Hmong Daw | Hanzi | Sintic Forms | Comments |
| :--- | :--- | :--- | :--- | :--- | :--- |
| pail | tho $^{\mathrm{A1}}$ | tho $^{\mathrm{A1}}$ | 桶 | $\mathrm{OC}_{\mathrm{K}}:$ thu $^{\text {th }}$ |  |

## A．3．9 Economic Terms

| Gloss | Mong Leng | Hmong Daw | Hanzi | Sintic Forms | Comments |
| :--- | :--- | :--- | :--- | :--- | :--- |
| value | $\mathrm{nqe}^{\mathrm{C} 1}$ | $\mathrm{nqe}^{\mathrm{C} 1}$ | 價 | $\mathrm{OC}_{\mathrm{K}}: * \mathrm{k} \boldsymbol{r}$ |  |

## A．3．10 Terms Relating to Education

| Gloss | Mong Leng | Hmong Daw | Hanzi | Sintic Forms | Comments |
| :--- | :--- | :--- | :--- | :--- | :--- |
| learn，to | kau $^{\mathrm{D} 2}$ |  | 學 | $\mathrm{OC}_{\mathrm{B}}: *_{\text {fikruk }}$ | $\mathrm{OC}_{\mathrm{K}}:{ }^{*}$ ghọ̆k |

## A．3．11 Ethnic Terms

| Gloss | Mong Leng | Hmong Daw | Hanzi | Sintic Forms | Comments |
| :--- | :--- | :--- | :--- | :--- | :--- |
| barbarian | $\mathrm{ma}^{\mathrm{A} 1}$ |  | 蠻 | $\mathrm{OC}_{\mathrm{B}}: *$ mron | $\mathrm{OC}_{\mathrm{K}}: * \operatorname{mlwan}$ |

## A．3．12 Food Items

| Gloss | Mong Leng | Hmong Daw | Hanzi | Sintic Forms | Comments |
| :---: | :---: | :---: | :---: | :---: | :---: |
| banana | taum ${ }^{\text {A1 }}$ | tfaur ${ }^{\text {Al }}$ | 蕉 | PÚTŌNGHUÀ： $\operatorname{tciau}^{\text {Al }}$ |  |
| bean | $\operatorname{tau}^{\text {D2 }}$ | tau $^{\text {D2 }}$ | 豆 | $\mathrm{OC}_{\mathrm{B}}$ ：＊ dos |  |
|  |  |  |  | $\mathrm{OC}_{\mathrm{K}}$ ：＊dhu |  |
| melon | $\mathrm{kli}^{\text {A1 }}$ | di ${ }^{\text {A1 }}$ | 瓜 | $\mathrm{OC}_{\mathrm{B}}: *^{\text {k }}{ }^{\text {r }} \mathrm{ra}$ |  |
|  |  |  |  | $\mathrm{OC}_{\mathrm{K}}$ ：＊kwo |  |
| pear | $342^{\text {A } 2}$ | － | 梨 | $\mathrm{OC}_{\mathrm{K}}$ ：＊${ }^{\text {j }}$ \％r |  |
| steam，to | tçu ${ }^{\text {A1 }}$ | $t \mathrm{tçu}{ }^{\text {A1 }}$ | 蒸 | $\mathrm{OC}_{\mathrm{B}}$ ：＊ tjiq |  |
|  |  |  |  |  |  |
| vegetable | $3 \mathrm{au}^{\text {A1 }}$ | $3 \mathrm{au}{ }^{\text {A1 }}$ | 菜 | $\mathrm{OC}_{\mathrm{K}}$ ：＊tshəg |  |

## A．3．13 Geography

| Gloss | Mong Leng | Hmong Daw | Hanzi | Sintic Forms | Comments |
| :--- | :--- | :--- | :--- | :--- | :--- |
| village | ${ }_{3}{ }^{\mathrm{C} 2}$ | 里 | $\mathrm{OC}_{\mathrm{B}}:{ }^{\mathrm{C} 1} \mathrm{C}-\mathrm{rjij}$ ？ |  |  |

## A．3．14 Grammatical Morphemes

| Gloss | Mong Leng | Hmong Daw | Hanzi | Sintic Forms | Comments |
| :--- | :--- | :--- | :--- | :--- | :--- |
| COMPL | law $^{\text {D2 }}$ | $\operatorname{law}^{\text {D2 }}$ | 了 | EMC $_{\mathrm{P}}: *_{l} l w^{B}$ |  |

## A．3．15 Terms Referring to Human Qualities

| Gloss | Mong Leng | Hmong Daw | Hanzi | Sintic Forms | Comments |
| :--- | :--- | :--- | :--- | :--- | :--- |
| deaf | $\operatorname{la}^{\mathrm{C} 2}$ | 聾 | $\mathrm{OC}_{\mathrm{K}}:{ }^{*} \mathrm{lu} \mathrm{l}$ |  |  |

## A．3．16 Implements

| Gloss | Mong Leng | Hmong Daw | Hanzi | Sintic Forms | Comments |
| :---: | :---: | :---: | :---: | :---: | :---: |
| needle | koy ${ }^{\text {A }}$ | kon ${ }^{\text {A1 }}$ | 針 | $\mathrm{EMC}_{\mathrm{P}}$ ：＊tcim ${ }^{\text {A }}$ |  |
| saw | kau ${ }^{\text {C1 }}$ | kaw ${ }^{\text {C1 }}$ | 鋸 | $\mathrm{OC}_{\mathrm{K}}$ ：＊kjo |  |

## A．3．17 Terms relating to Writing and Literacy

| Gloss | Mong Leng | Hmong Daw | Hanzi | Sintic Forms | Comments |
| :---: | :---: | :---: | :---: | :---: | :---: |
| write | $\int \mathrm{au}^{\text {C1 }}$ | $\int a u^{\text {C1 }}$ | 寫 | $\mathrm{OC}_{\mathrm{B}}$ ：$*_{\mathrm{sj}} \mathrm{A}^{\mathrm{A}}(\mathrm{k})$ ？ |  |
|  |  |  |  | $\mathrm{OC}_{\mathrm{K}}$ ：＊sjag |  |

## A．3．18 Location

| Gloss | Mong Leng | Hmong Daw | Hanzi | Sintic Forms | Comments |
| :---: | :---: | :---: | :---: | :---: | :---: |
| in | $\mathrm{hu}^{\mathrm{B} 1}$ | hau ${ }^{\text {B1 }}$ | 於 | $\mathrm{OC}_{\mathrm{B}}$ ：＊Rja $\mathrm{OC}_{\mathrm{K}}$ ：＊Ro |  |
| middle | $n \tan ^{\text {A1 }}$ | $n \mathrm{n}^{\text {A }}{ }^{\text {a }}$ | 中 | $\mathrm{OC}_{\mathrm{B}}$ ：＊k－ljuy |  |
|  |  |  |  | $\mathrm{OC}_{\mathrm{K}}$ ：＊ $\mathrm{tjǒ}$ ¢ |  |

## A．3．19 Metal

| Gloss gold | Mong Leng | Hmong Daw | Hanzi | Sintic Forms | Comments |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\mathrm{ku}^{\text {A1 }}$ | $\mathrm{ku}^{\text {A1 }}$ | 金 | $\mathrm{OC}_{\mathrm{B}}: * \mathrm{k}(\mathrm{r}) \mathrm{jim}$ |  |
|  |  |  |  | $\mathrm{OC}_{\mathrm{K}}$ ：＊kjəm |  |
| iron | hlau ${ }^{\text {C1 }}$ | hlau ${ }^{\text {C1 }}$ | 鐵 | $\mathrm{OC}_{\mathrm{B}}$ ：＊hlet |  |
| rust | $\mathrm{se}^{\mathrm{Al}}$ | $\mathrm{se}^{\mathrm{Al}}$ | 鏽 | PÚTŌNGHUÀ：ciou ${ }^{\text {C }}$ |  |

## A．3．20 Nouns

| Gloss | Mong Leng | Hmong Daw | Hanzi | Sintic Forms | Comments |
| :---: | :---: | :---: | :---: | :---: | :---: |
| hook | nqai ${ }^{\text {C1 }}$ | $n q e^{\text {C1 }}$ | 鉤 | $\mathrm{OC}_{\mathrm{K}}$ ：＊ku |  |
| road | $\mathrm{ke}^{\mathrm{B} 1}$ | $\mathrm{ke}^{\mathrm{B} 1}$ | 街 | $\mathrm{OC}_{\mathrm{K}}$ ：＊kว̆g |  |
| strength | $3 \mathrm{u}^{\mathrm{C} 2}$ | $39^{\text {C2 }}$ | 力 | $\mathrm{OC}_{\mathrm{B}}$ ：＊C－rjik |  |
|  |  |  |  | $\mathrm{OC}_{\mathrm{K}}$ ：＊ljək |  |

## A．3．21 Physical Properties

| Gloss | Mong Leng | Hmong Daw | Hanzi | Sintic Forms |
| :--- | :--- | :--- | :--- | :--- |$\quad$ Comments

## A．3．22 Plants

| Gloss | Mong Leng | Hmong Daw | Hanzi | Sintic Forms | Comments |
| :---: | :---: | :---: | :---: | :---: | :---: |
| indigo | $n k a \eta^{\text {A2 }}$ | $n k a^{\text {A2 }}$ |  | $\mathrm{OC}_{\mathrm{B}}$ ：＊g－ram |  |
|  |  |  |  | $\mathrm{OC}_{\mathrm{K}}$ ：＊glam |  |
| vine | $m a y^{\text {A1 }}$ | $\mathrm{hma}^{\text {A1 }}$ | 曼 | $\mathrm{OC}_{\mathrm{K}}$ ：＊mjwăn |  |

## A．3．23 Religious Terms

| Gloss | Mong Leng | Hmong Daw | Hanzi | Sintic Forms | Comments |
| :---: | :---: | :---: | :---: | :---: | :---: |
| dragon | $3 \mathrm{ay}{ }^{\text {A2 }}$ | $3 \mathrm{a}^{\text {A2 }}$ |  | $\mathrm{OC}_{\mathrm{B}}$ ：＊C－rjog |  |
|  |  |  |  | $\mathrm{OC}_{\mathrm{K}}$ ：＊ljug |  |
| spirit | klan ${ }^{\text {Al }}$ | $\mathrm{da}^{\text {A1 }}$ | 鬼 | OC ¢ $^{\text {：}}$＊jјwәr |  |

## A．3．24 Verbs

| Gloss | Mong Leng | Hmong Daw | Hanzi | Sintic Forms | Comments |
| :---: | :---: | :---: | :---: | :---: | :---: |
| bathe，to | klay ${ }^{\text {C1 }}$ | $\mathrm{da}^{\mathrm{C} 1}$ | 澣 | $\mathrm{OC}_{\mathrm{K}}$ ：＊ghwan |  |
| caress | plhy ${ }^{\text {C1 }}$ | plhy ${ }^{\text {C1 }}$ | 撫 | $\mathrm{OC}_{\mathrm{K}}$ ：${ }^{*}$ phjwo |  |
| descend，to | nqe ${ }^{\text {C2 }}$ | $n q e^{\text {D1 }}$ | 下 | $\mathrm{OC}_{\mathrm{B}}$ ：＊gra？ |  |
|  |  |  |  | $\mathrm{OC}_{\mathrm{K}}$ ：＊gho |  |
| follow，to | $\mathrm{law}{ }^{\text {B1 }}$ | $\mathrm{law}{ }^{\text {B1 }}$ | 由 | $\mathrm{OC}_{\mathrm{B}}$ ：＊lju |  |
|  |  |  |  | $\mathrm{OC}_{\mathrm{K}}$ ：＊djŏg |  |
| hang，to | klai ${ }^{\text {C1 }}$ | dai ${ }^{\text {C1 }}$ | 挂 | $\mathrm{OC}_{\mathrm{K}}$ ：＊kwăg |  |
| hit，to | ntau ${ }^{\text {D1 }}$ | ntau ${ }^{\text {D1 }}$ | 打 | $\mathrm{EMC}_{\mathrm{P}}$ ：＊ $\mathrm{taj}^{\text { }}{ }^{\text {B }}$ |  |
| melt，to | $j a \eta^{\text {A2 }}$ | $\mathrm{ja}^{\text {A2 }}$ | 融 | $\mathrm{OC}_{\mathrm{B}}$ ：＊ljuy |  |
|  |  |  |  | $\mathrm{OC}_{\mathrm{K}}$ ：＊djŏŋ |  |
| obtain，to | $\operatorname{tau}^{\mathrm{C} 1}$ | $\operatorname{tau}^{\text {C1 }}$ | 得 | $\mathrm{OC}_{\mathrm{B}}$ ：＊tik $\mathrm{OC}_{\mathrm{K}}$ ：＊tık |  |
| pass，to | klue ${ }^{\text {C1 }}$ | dua ${ }^{\text {C1 }}$ | 過 | $\mathrm{OC}_{\mathrm{B}}$ ：$*^{\text {k }}{ }^{\text {aj }}$ |  |
|  |  |  |  | $\mathrm{OC}_{\mathrm{K}}$ ：＊kwa |  |
| rest，to | $\int \mathrm{u}^{\mathrm{C} 1}$ | $\int 9^{\mathrm{C} 1}$ | 息 | $\mathrm{OC}_{\mathrm{K}}$ ：＊sjək |  |
| roll，to | $\mathrm{kl} 3^{\mathrm{B} 1}$ | $\mathrm{d} 0^{\text {B1 }}$ | 滾 | PÚTŌNGHUÀ：kuən ${ }^{\text {B }}$ |  |
| take off，to | hle ${ }^{\text {C1 }}$ | hle ${ }^{\text {C1 }}$ | 脱 | $\mathrm{OC}_{\mathrm{B}}$ ：＊hlots |  |
|  |  |  |  | $\mathrm{OC}_{\mathrm{K}}$ ：＊thwad |  |
| thirst，to | nqhe ${ }^{\text {D1 }}$ | $n q h^{\text {D1 }}$ | 渴 | $\mathrm{OC}_{\mathrm{B}}$ ：＊khat |  |
|  |  |  |  | $\mathrm{OC}_{\mathrm{K}}$ ：＊khat |  |
| wait，to | ts ${ }^{\text {C2 }}$ | ts ${ }^{\text {D1 }}$ | 等 | OCK：＊təŋ |  |

## A．3．25 Verbs Pertaining to Social Interaction

| Gloss | Mong Leng | Hmong Daw | Hanzi | Sintic Forms | Comments |
| :---: | :---: | :---: | :---: | :---: | :---: |
| accuse，to | $\mathrm{ka}^{\text {D2 }}$ | kia ${ }^{\text {D2 }}$ | 訐 | $\mathrm{OC}_{\mathrm{K}}$ ：＊kjăt |  |
| answer，to | $t e^{\text {A } 1}$ | te ${ }^{\text {A1 }}$ | 答 | $\mathrm{OC}_{\mathrm{B}}$ ：＊k－lup |  |
|  |  |  |  | $\mathrm{OC}_{\mathrm{K}}$ ：＊təp |  |
| send，to | $\operatorname{san}{ }^{\text {C1 }}$ | $\mathrm{sa}^{\mathrm{Cl}}$ | 送 | $\mathrm{OC}_{\mathrm{B}}$ ：＊soys |  |
|  |  |  |  | $\mathrm{OC}_{\mathrm{K}}$ ：＊suy |  |

## A．3．26 Weapons

| Gloss | Mong Leng | Hmong Daw | Hanzi | Sintic Forms | Comments |
| :---: | :---: | :---: | :---: | :---: | :---: |
| crossbow，to | $n \mathrm{ne}{ }^{\text {B1 }}$ | hney ${ }^{\text {B1 }}$ |  | $\mathrm{OC}_{\mathrm{K}}$ ：＊no |  |
| spear | $m u^{B 1}$ | $h m u^{\text {B1 }}$ | 矛 | $\mathrm{OC}_{\mathrm{B}}: * \mathrm{~m}(\mathrm{r}) \mathrm{ju}$ |  |
|  |  |  |  | $\mathrm{OC}_{\mathrm{K}}$ ：＊mjŏg |  |

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[^0]:    ${ }^{1}$ The Hmong Data used in this study are derived from a database compiled by the author．The Hmong Daw（HD） data are from Heimbach（1969）unless otherwise noted．The Mong Leng（ML）data are from Xiong et al．（1988）and Lyman（1974），except where supplemented by my own field notes．My field notes on Mong Leng and Hmong Daw were collected in the San Diego Hmong community during 1995－1997 and during brief visits in 1998 and 2000．The Chinese dialect data for Chéngdù，Wēnzhōu，Sūzhōu，and Shuángfēng，as well as the Old Mandarin（OM）Data are taken from the DOC database（Wang \＆Cheng 1993）．The source for Old Chinese and Middle Chinese reconstructions can be determined by the label： $\mathbf{O C}_{\mathbf{B}}$ Baxter（1992）， $\mathbf{O C}_{\mathbf{K}}$ Karlgren（1957）， $\mathbf{M C}_{\mathbf{B}}$ Baxter（1992），MC $\mathbf{P}_{\mathbf{P}}$ Pulleyblank （1991）．In many cases，the transcriptions used in the original sources have been altered to conform to standard IPA． Special thanks are due to Faiv Yim Lauj，who first inspired my interest in Sinitic loans in Hmong；to Xab Yaj，without whose patience and boundless good humor I would have never learned to speak Hmong；to Tshuav Ntxaij Yaaj，who selflessly gave of his time to tutor me in Mong Leng；to the other members of the Hmong community of San Diego who generously shared their language and culture with me；to Dr John McLaughlin，without whose mentoring I could not have carried this project to completion；and to the other members of my committee，whose helpful comments and advice have allowed me to greatly improve the presentation of my work．

[^1]:    ${ }^{2}$ Ying's (1972) work differs from the current study in a number of respects. He does not make as many divisions

[^2]:    between loan-strata-all of that sets of loans examined in this study, with the possible exception of some very recent Mandarin loans, are part of his older stratum. While he shows that this set is not monolithic, he does not subdivide it into substrata by phonological criteria. The data in his study are drawn from dialects of Hmong from China that are quite different, in their lexicon, phonology, and recent history, from the Western Hmong dialects I have treated here, and the bulk of his study is devoted to recent loans from Mandarin that entered these dialects during the twentieth century.

[^3]:    ${ }^{3}$ The Tang dynasty lasted from 618 to 907 CE.

[^4]:    ${ }^{4}$ Middle Chinese refers the language (or more properly, the sound system) codified in the Qièyùn and the Yùnjìng and probably resembles the sound system of Chinese as it was spoken during the sixth to the tenth centuries CE (Pulleyblank 1991:2).
    ${ }^{5}$ Old Chinese is often used as an equivalent to Karlgren's term Archaic Chinese. Here, it is used it a broader sense-that given by Baxter (1992:25): "any variety of the Chinese of early and mid Zhōu." Thus, it refers roughly to the various dialects used in China during the eleventh and tenth centuries BCE.
    ${ }^{6}$ The terms onset and rhyme are used here as equivalents for the terms initial and final. The latter pair of terms is

[^5]:    ${ }^{8}$ Phonetically, /d/ and /dh/ are [d] and [d]. See Jarkey (1987)

[^6]:    ${ }^{9}$ The term medial used by Sinologists to refer to an on－glide at the beginning of a rhyme．

[^7]:    ${ }^{10}$ The status of rùshēng in Old Mandarin is controversial．See section 3．2．2．

[^8]:    ${ }^{11}$ Ballard uses the term Mandarin in its most general sense, referring not to the specific northern dialect group, but to the succession of quasi-official languages that includes both the Tang koine and modern Pútōnghuà.

[^9]:    ${ }^{12}$ There is no reconstruction of Middle Chinese agreed upon by historical linguists．I have chosen to employ Pulleyblank＇s reconstruction（over other reconstructions，such as those of F．K．Li and Karlgren）because of its currency and accesibility．

[^10]:    ${ }^{13}$ Pulleyblank reconstructs 牛 'cattle' as: EMC *nuw ${ }^{\mathrm{A}}>\mathrm{LMC} * \eta \mathrm{iw}{ }^{\mathrm{A}}$. If Pulleyblank's reconstruction is accurate, this word must have been borrowed later than the Early Middle Chinese Period.

[^11]:    ${ }^{14}$ Karlgren (1957), however, gives explicit reconstructions for the pronunciation for a larger number of characters than does Baxter (1992). For this reason, Karlgren's reconstructions are also given in the Glossary.
    ${ }^{15}$ I have chosen to modify this terminology somewhat to make it more consistent with the terminology used elsewhere in this paper. Where my term differs, it is placed in parenthesis next to Baxter's term.

[^12]:    ${ }^{16}$ The Old Chinese reconstructions for 鐵＇iron＇and 脱＇to take off＇used here are my own，based upon Baxter＇s system．

[^13]:    ${ }^{17}$ According to Matisoff (1991:489), over $50 \%$ of the lexicon of some Mien dialects is of Sinitic origin.

