

## CHAPTER 13

# CONSONANT MERGERS — A CLOSER LOOK

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In an earlier study, ‘Consonant Mergers and Inscription One’ (included as Chapter 3 in this volume) — henceforth CM — attention was given to the status of the symbols traditionally read as *kho’ khuat* and *kho’ khai* in Inscription One. That study (and this brief note) should not be taken as addressing the question of Inscription One’s ‘authenticity’ in any sort of general terms, but rather as presenting a puzzle that those who suppose the inscription might have been written substantially after its traditional date would need to solve.

### 1. The ‘tortoise’ approach

The purpose is to illustrate how one particular rather technical issue in comparative Tai linguistics has bearing on the larger question. The particular (*kho’ khuat*) case was selected because, in this instance, it seems feasible to portray the issues and treat a limited corpus of data in a way that might be accessible to non-specialists (in particular, to those with no direct training or special interest in technical procedures of the comparative method or of Tai diachronic linguistics).

Other issues certainly merit equal or probably more attention. In historical linguistics, an excellent preliminary study of the Sukhothai distribution of the letters *yo’-yak* and *yo’-ying* had been made by Duangduen Suwattee and Pranee Kullavanijaya (1976).<sup>1</sup> The consequences of their work might lead to a line of argument similar to what was proposed for *kho’ khuat* and *kho’ khai* in CM, and might add another, but similar, puzzle for ‘late-

daters' to solve. In more historical - philological matters, whether a Sukhothai-era *tri:bu:n* - type wall would have necessarily had three sections or whether the word *na:ng* functioned as a title in Sukhothai times — and many similar questions — merit extended discussion and debate.

“Oh, get on with the main issue and stop worrying about microscopic and trivial matters!” — a critic of CM was heard to say. A main concern here is to counter that sentiment as being too superficial or ‘hare-like:’ what is needed in epigraphic and comparative-historical linguistic research is the opposite more ‘tortoise-like’ approach, devoting proper care to technical detail and fully analyzing and evaluating competing hypotheses. Of course, occasionally hares may leap to correct conclusions and tortoises may plod into quagmires, but in historical linguistics and epigraphy the opposite scenario is far more likely.

## 2. What was argued in CM?

In CM a particular correlation involving two consonants was discussed and it was shown that the correlation could be interpreted, together with some other evidence, to shed some light on the age of Inscription One relative to other inscriptions. Other interpretations of the correlation might be possible, but they would need to be put forward. Below we summarize the points in CM, provide a brief update, and present some of the critical evidence so that readers may see and judge for themselves the validity of the argument.

Relying on careful work of Vickery (1987) analyzing Sukhothai spelling variation and developing lines of inquiry originally suggested by Burnay & Coedès (1927-28), CM called attention to the fact that some sixteen items on Inscription One spelled with consonants traditionally read as *kho' khuat* and as *kho' khai* have regular cognates in most Southwestern Tai varieties.

These items are shown in Table 1 and in the Appendix. As Table 1 indicates, items 1 - 10 (and also 16) have traditionally

been read by most authorities as spelled with *kho' khuat* on Inscription One (i.e. x in Table 1); items 11-15 (and also 17),<sup>2</sup> with *kho' khai* (i.e. kh in Table 1). We refer below for convenience to the 'traditional readings' as those of Cham Thongkhamwan (1976, i.e. CT in Table 1) which are also the readings used in CM. We return to alternate possibilities and have a closer look at the letter shapes in section 4.

Some Southwestern Tai varieties, such as White Tai, show two distinctive velar consonants for cognate items; for White Tai, a palatal consonant (*ts-* or [ç]) is involved too, so the full correspondence pattern is two-to-three. ("Why concentrate so much on White Tai?" a critic asked. Answer: White Tai is the single relevant Southwestern Tai dialect for which an extensive and linguistically reliable dictionary is available: Dieu and Donaldson, 1970.) The 'traditional readings' of Inscription One show a distribution of *kho' khai* and *kho' khuat* in virtually complete agreement with the distinction in White Tai represented by Dieu and Donaldson as *kh* and *khh*. The former according to them indicates an aspirated stop and the latter, a velar fricative, phonetically identified by them as [x].

'Virtually complete agreement' above means in 15 cases out of 15, and barring a sixteenth cognate, the single apparent exception — 'tamarind' — for which there may be a plausible explanation in terms of dialect borrowing. More study of this exceptional case is warranted.

### **Why? How is this agreement of 15 items out of 15 to be explained?**

CM argued that this could not be a mere coincidence. The correlation could not be due to chance alone, since the odds are simply too great: it would be equivalent to calling 'heads and tails' correctly fifteen times out of fifteen tosses ( $p = 1/2^{15}$  or less than one chance in the ten thousand.) Now there may be a variety of explanations for this correlation, but the straightforward one developed in CM is that both the 'traditional readings' of the letters in question on Inscription One and the regular

White Tai distinction point back to an earlier stage of Southwestern Tai when two velar consonants were distinct phonemes. Work by Gedney (1979), superseding and to some extent correcting reconstructions proposed by Li (1977), provides the crucial basis for this diachronic interpretation. (We return to another 'scandalous' possibility for the 'traditional readings' and the '15-out - of-15' correlation in section 3.)

A second branch of the argument in CM (actually presented there first in sequence) builds on important work of Vickery (1987), who has demonstrated so convincingly that mid-and late 14th century Sukhothai inscriptions show marked fluctuation with respect to items spelled with *kho' khai* and *kho' khuat*.

**Vickery's original (1987) observations as to spelling variation are surely correct** and still must stand as a characterization for the Sukhothai corpus, at least to judge from a survey of all published sources available to the writer. (It must be admitted that these sources are far from ideal for the type of close analysis demanded by the present project.) As noted in CM, particular inscriptions may vary somewhat in how consistently the *kho' khai/kho' khuat* distinction is maintained, but *taken as a whole*, the Sukhothai corpus strongly indicates that the distinction was gradually lost in the region, presumably through consonantal merger on an item-by-item basis — a merger that was probably completed by the early 15th century. Others have noticed the gradual deterioration of this particular spelling distinction as well; see Nantana Danvivathana (1987, p. 45 n. 2).

(Perhaps future revisions in this part of the argument may become necessary; for example, it is to be hoped that a new critical edition of the Sukhothai corpus — up to professional standards normal in epigraphy elsewhere — will be published before long. The presently available published plates and transcriptions of Sukhothai Inscriptions, other than Inscription One, fall short of the reliability and clarity needed to consider matters of orthographic detail effectively.)



### 3. Who could have rigged the ‘traditional readings’ – if not faked the inscriptions?

Perhaps another (‘scandalous’) way to explain this 15-out-of-15 correlation of the preceding section would be as follows. One could charge that those responsible for these ‘traditional readings’ of Inscription One were somehow influenced externally by White Tai or by a similar dialect. That is, the editors somehow ‘read into’ Inscription One the very *kh/khh* distinctions of the White Tai dictionary, which were not actually present on the inscription. This unfounded allegation seems so implausible as to be immediately discounted, but for the sake of argument, we take it up and show that it has insoluble difficulties.

To begin with, the majority of the ‘traditional readings’ were already fixed in publications well predating Dieu and Donaldson (1970), the first extensive and entirely reliable dictionary of a Tai dialect relevant to the issue at hand. For example, Burnay & Coedès (1927-28) were able to supply cognates for only some of the relevant forms and some data are in error (see CM, note 7).

Secondly, the Thai institutional context in which the ‘traditional readings’ arose must be carefully considered. Traditional language scholarship in Thai institutions has taken primary interest in classical (Pali - Sanskrit) etymology (*niruktisa:t*), with some attention to Khmer loan vocabulary. Until very recently indeed, there has been no interest at all in the intricacies of the comparative method as applied to the Tai languages or in linguistic details of Proto-Tai reconstruction. For instance, there is certainly no indigenous Central Thai tradition of interest in a normative spelling reform or codification based on comparison of Tai dialects other than Central Thai.

Quite the opposite: this would be anathema. In Central Thai traditional language study, non-Central dialects are considered ‘incorrect’ or ‘undeveloped’ — to be superseded by ‘correct’ Central Thai forms. The burning of Northern Thai manuscripts under Prime Minister Pibunsongkhram (Singha Wannasai, 1975, p. 8), as well as the present-day official banning of non-Central

dialects in classrooms, is symptomatic of this attitude. Traditionally, and even to this day in most Thai educational circles, the study of the 'correct' and 'refined' Central Thai language would not conceivably have anything to gain from attention to 'uncouth' local dialects. Certainly not to those outside of Thailand proper.

If this is true now, it was even more so in the past. In the extensive language edicts of King Mongkut, there is much attention paid to linguistic correctness and to classical etymology (Rama IV, 1862). King Mongkut was indeed keenly interested in the formation and spelling of Indic-derived words and titles, but in these edicts *there is no interest at all* relating to 'etymologically correct' Tai spelling or to dialect-justified respelling of original Tai-provenance vocabulary. On the contrary, when Tai-provenance items, such as prepositions, are taken up at all, the project is to redefine their usage along *classical Indic lines*, (e.g. to make Thai prepositions conform to Indic case relations), never to prescribe or even to describe a particular usage as 'authentically Tai.' The latter type of (Tai-centric or puristic 'Tai') linguistic concern is hardly expressed in Central-Thai scholarship until after 1940, and even now etymological details of what is derived from Proto-Tai — and how — are only a very remote and marginal academic concern in Thai institutions.

Kings Mongkut's own etymological interest lay firmly in modifying, prescribing, 'improving' and polishing the Sanskritized Thai language of the elite. It involved no scholarly attention to the more 'base' origins of the language — except occasionally to proscribe arbitrarily a word that seemed especially offensive (e.g. *pho':m* 'thin'). A serious comparative or descriptive study of remote and 'uncouth' local dialects like White Tai, with a view to elucidating anything in the Central Thai language, would have been exactly opposite to the king's politico - linguistic projects and inclinations as revealed in his language edicts — even if adequate scholarly source materials had been available. King Mongkut and his associates could not conceivably have had any interest at all in details of the Proto-Southwestern-Tai 'etymological' distribution of *kho' khuat*. (For more discussion of these points, see Diller, 1988.)

If further proof of King Mongkut's lack of interest in the Tai 'etymological' distribution of *kho' khuat* were needed, turn to his own hand-transcribed extract of Inscription One presented to Sir John Bowring (reprinted, e.g., in *Sinlapa - watanatham*, 1983: 3). It could hardly constitute *lèse majesté* to observe that in just the first seven lines, he has misread the *kho' khai* versus *kho' khuat* distinction at least twice: he has mistakenly read *khi*: [B 1] 'ride' (1: 7) with *kho' khuat* (it should be *kho' khai*: see Table 1, item 11a) and he has transcribed equivalently the items 'rice/ (years)' (1: 4, etymologically *kho' khai*) and 'enter' (1: 7, etymologically *kho' khuat*). Readers can confirm that the transcript is otherwise quite accurate.

Thirdly, recall that the comparative method in linguistics was not fully formulated before the latter half of the 19th century, and it was not until the work of Grierson (1903) that any consistent attempt was made to apply the method to Tai languages. Even today, the great majority of Thai language authorities are entirely innocent of these interests and associated technical skills. Institutionalized Thai language study in Thailand is still overwhelmingly normative and classical. Comparative Tai linguistics has scarcely been an option for Thai university study prior to the present decade. Who could possibly have 'rigged' the 'traditional readings' of Inscription One to conform to the comparative evidence represented by the White Tai correspondences?

Finally, Tai comparative linguists themselves have differed as to how the velar consonants in Proto-Tai are to be reconstructed. The difference between Li's (1977) and Gedney's (1979) proposals are of critical importance for the argument developed in CM, which opts for Gedney's solution. Even granting, for the sake of argument, that the 'traditional readings' could in some way have been influenced by the enterprise of comparative Tai linguistics, it surely would have been Li's reconstructions (many of which were proposed several decades ago) or similar older ones that were being taken into account. Gedney's newer proposals entirely postdate these 'traditional readings' and certainly could not have affected them in any way.

Consider then the logical consequences of proposing substantially different readings for the letters in question on the inscription. The *'15-out-of-15' correlation regarding the 'traditional readings' would not simply fade away*. We would instead have an even thornier difficulty: how did the *editors* responsible for the 'traditional readings' come up with or 'rig' the '15-out-of-15' correlation themselves? Some form of the 'scandalous' allegation above would then need to be advanced seriously, or else some other explanation for the *editors'* agreement with the White Tai distinctions would need to be found.

However, as the reader can see from Table 1 and the Appendix, a drastic reappraisal of the 'traditional readings' is not warranted and the hypothetical discussion above can be discounted. There is no evidence — direct or indirect — for 'rigged' readings at all. Until a better explanation for the '15-out-of-15' correlation can be proposed, the diachronic hypothesis advanced in CM remains the preferred option.

#### 4. New 'bottles' or old plates?

Since the appearance of CM, various critics have raised questions as to the actual data on Inscription One. What are the true distinguishing features of the velar letters on the inscription? Are there new *kho' khuat* - like letters to be distinguished? (— new 'bottles' containing unrecognized Sukhothai phonemes or allophones?) Speculations of this sort are welcome, as they direct attention back to what one hopes is verifiable detail, i.e. to the concrete evidence of the inscription itself (as it is presently extant) as well as to (possibly more reliable) earlier rubbings and plates of it.

Those with access to original primary sources (especially to early rubbings and plates) do well to check this crucial evidence and make observations available. As Terwiel has noted (personal communication; see also his contribution to this volume — chapter 8), the condition of the inscription has deteriorated somewhat over the years, as can be traced from published sources. Perhaps

even the scholarly pursuit of obtaining rubbings in the past may have contributed to this unfortunate attrition. Formerly some researchers may not have been so careful as the recent Chulalongkorn University team that obtained the best present - day reproductions.

For the Chulalongkorn University edition (1983-84 — included in this volume), permission was obtained to make new photographs, which one assumes are what is shown in the plates. Photographs were prepared under the direction of Cham Thongkhamwan, Ari Sithiphan and Phichai Santhaphirom. The edition makes explicit the process followed in photographing the inscription, which was part of a project to make scale models. Work included cleaning each face with a wire brush, applying a white-powder paste to inscribed grooves, carefully removing excess powder and photographing the faces at a constant close range (Chulalongkorn University, 1984, p. 7). It is selected items extracted from the *folio plates of this edition* that are shown in the following Appendix.

At earlier times, it is not impossible that certain interpretive decisions were effectively being made as inscriptions were cleaned for rubbings or as paste, etc., was applied to prepare them for photography. That is, assumptions as to the original intentions of the engraver(s) may have been affecting to some extent exactly where paste was or was not applied. Worse still, with the passage of time and multiple 'cleanings' by wire brushes and similar tools, certain distinguishing features may have become less than distinctive. Also, new marks or notches may have been added.

To add to these possibilities of deterioration, there appears to have been a tendency for published versions of Inscription One and of others of the Sukhothai corpus to utilize older photographs of rubbings, or even photographs of photographs of rubbings. Provenance of older photographic sources has seldom been made explicit.

Further, a careless tendency has led some publications to assume rather modern-Thai-like interpretations of earlier letter

shapes. That is, some authorities have anachronistically 'read backwards' into earlier orthographic items certain modern distinctive features. For the case in point, because the recent orthographic distinction between *kho' khai* and *kho' khuat* has been a matter of whether or not the (upwards-oriented) small head - circle is 'broken,' some earlier published works have shown tables with a similar sort of (upwards-oriented) distinction in Inscription One: they have considered the top horizontal portions of the respective consonants to be either 'plain' or 'notched' in a distinctive manner.<sup>3</sup>

However, as virtually all recent serious orthographic studies make clear — such as authoritative work of Nantana Danvivathana (1987, pp. 44 - 48); see also recent National Library tables published in *Sinlapa-wathanatham* (1988) — the crucial point for distinguishing *kho' khuat* from *kho' khai*, on Inscription One at least, is whether or not there is a small notch or left inward jag on the upper right vertical portion of the letter, not on the horizontal top part. Close comparative study reveals that for Inscription One the horizontal topmost portion of the symbols *kho' khuat* and *kho' khai* is essentially unbroken. Any apparent deviations must be due to deterioration of the inscription or to poor-quality photographic plates. Jags in the top horizontal part thus play no significant role at all in distinguishing these consonants (see Appendix), at least not before c. 1400.

**A small leftward jag on the upper right vertical portion** of the letters in question, or the absence of such a jag, is clearly the sole consistent feature distinguishing *kho' khuat* (with jag) and *kho' khai* (without jag). If the vowel symbol [a:] follows directly, then the consonant's jag for *kho' khuat* is frequently (but not invariably) continuous with the left upper hook of the [a:] - vowel symbol (see Appendix, items 1a, 2a-b, 3c, 10a, 16a-b; compare *kho' khai*, no jag, in item 13a-d).

It is this distinction alone that relates directly to the '15-out-of-15' correlation: for the velar letters, if there is a jag present, the *White Tai dictionary* regularly shows *khkh* if no jag, *kh*. Even if one wishes to see something of significance in other marks, or even if one attempts to redefine what might be meant by the

letter-name *kho' khuat*, the correlation between the particular jag mentioned above and the White Tai evidence will simply not go away.

Considering the general problems of deterioration and of questionable reproduction noted above, it is fortunate and even surprising that epigraphists have read the inscription with as much consensus as they have. As for how to read *kho' khuat* and *kho' khai* items on Inscription One, there is a very high degree of professional agreement among scholars. CM was based on readings of Griswold and Prasert na Nagara (1971); Table 1 summarizes nearly identical readings from four additional more recent sources — the best contemporary readings available.

Note in Table 1 that the readings of Cham Thongkhamwan (1976; CT in the table) accord exactly with the White Tai cognates (excepting only 'tamarind,' the exception discussed at length in CM), while other readings differ slightly. Table 1 summarizes a total of 168 separate readings, of which 162 or 96% are in agreement with those of Professor Cham. (The exceptions relate mainly to 'right side,' item 8 in Table 1 and the Appendix. To the writer's satisfaction, at least, careful inspection of all available plates strongly confirms Professor Cham's reading of this item.)

## 5. Example: two minimal pairs

Two particularly clear and salient cases — a subset within the '15-out-of-15 correlation' — involve minimal pairs.

The reader can refer to the Appendix and easily confirm that items 3 ('enter') and 13 ('rice') differ only by the presence or absence of the telltale jag described above. This is true for all exemplars that can be seen clearly: five cases of 'enter' (3a-e) and four cases of 'rice' (13a-d; as in other Tai dialects, this word is sometimes also used to mean 'year'). The White Tai correspondence is correct, showing *khh-* for 'enter' and *kh* - for 'rice,' both words having the regular dictionary tone marker for the C 1 tonal category. Note that the modern spelling of 'rice' in Standard Thai

with a long vowel is a recent innovation. (Item 10 'kill' has also been respelled.)

Similarly, the reader can see that item 4 'sing' and item 14 'drive' differ in the same way. The diagonal scratch through the word for 'sing,' item 4a, fortunately does not obscure the telltale jag, which is quite obvious. Compare the clear *absence* of a jag for item 14 'drive' (especially 14b, the clearer exemplar). The White Tai correspondence is in *khh-* ('sing') and *ts-* ('drive'). The latter initial was discussed in CM and shown to be regular: as noted above, Inscription One's *kho' khai* items actually have two regular cognate reflexes in White Tai, which depend on which Proto-Tai initial they are derived from. (As can be seen in Table 1, alone of all the reputable editions, SW is unfortunately infected with an erroneous reading for 'sing'.)

Pairs such as these were becoming confused by the time of Inscription Two (assuming that the transcription of *Prachum Silacharu'k Phak thi 1* (1978) is accurate; see CM).

## 6. *Kho' khuat* in Ayuthaya

An important source for Ayuthaya-era language study is the hand-written diary of Ambassador Kosapan (Kosathibodi, 1685; photo - produced facsimile in Silpakorn 2528/1985). Kosapan, a Thai ambassador to the court of Louis XIV, wrote what appears to be a rough draft of his diary notes; the draft was fortunately left behind and preserved in France. In this source, for the first minimal pair mentioned above, 'rice' appears a total of 5 times with *kho' khai* (and in one additional indistinct reading); 'enter' appears a total of 32 times, also entirely with *kho' khai* (and in three additional indistinct readings). Neither of these items occurs with *kho' khuat* at all.

This spelling contrasts in an interesting way with the item *kho':p - cai* 'to thank' (which should be considered as 'etymologically *kho' khuat*' on the basis of the White Tai cognate in *khh-*). 'To thank' occurs four times with *kho' khuat* but also four times with *kho' khai*. (In addition, the item occurs six times with



*kho' khwa:i* — confirming contemporary evidence of Simon de la Loubère and others that by the late 17th century the consonantal value of that letter also, along with the other two, was a voiceless aspirated velar stop.)<sup>4</sup> All other Ayuthaya - era samples of spelling examined are similar in showing lack of velar - consonant systematicity.

## 7. Conclusion

One hardly need restate the observation of CM that anyone with a phonological system reflecting Kosapan's 1685 spelling would have been utterly incapable of arriving at the '15-out-of-15' correlation. Similarly, as would be expected, the 19th century distribution of *kho' khuat*, e.g. as found in the Pallegoix dictionary (1854), is substantially at odds with the Sukhothai data and with White Tai as well. (It is even at odds with Kosapan's diary.) There is no system here at all. By this time, any systematic use of 'etymological *kho' khuat*' has been unknown for centuries. The proposals of Gedney (1979) and the line of argument developed in CM would still seem the best way to explain the '15-out-of-15' correlation between White Tai and the particular 'telltale jags' of Inscription One reviewed above. For those who prefer to regard this inscription as a late fake, the puzzle remains.

## Notes

- 1 They conclude that, taken as a whole, spelling of the Sukhothai corpus strongly correlates with Li's reconstructions for palatal nasal and semivowel consonants. It would be valuable in this regard to 'factor out' Inscription One, making more specific comparisons between Inscription One's palatal spellings and that of other Sukhothai inscriptions, finally taking into consideration direct comparative evidence, in a manner similar to the method pursued in CM. Certain palatal mergers may have occurred somewhat after the velar ones treated in CM for the Sukhothai area, and so would be less valuable in establishing relative dating. For example, the loss of a palatal nasal sound in Central Thai is probably quite recent. On the other hand, the loss of preglottalized \*'y would be a good topic for a CM-like study.

Note that the low-series pair of velar consonants *kho'* *khwa:i* and *kho'* *khon* represents a phonemic distinction still regularly made in conservative Lanna, Shan and Lue dialects. The Northern Thai (Lanna), Lue and Khuen writing systems clearly distinguish an analogue letter answering to *kho'* *khon*. (In contrast, as far as the writer is aware, none of these writing systems has ever recognized or distinguished *kho'* *khuat* as a regular alphabet letter.) Phonetically in these languages the difference between *kho'* *khwa:i* and *kho'* *khon* is now realized as unaspirated versus aspirate stop. Why were not these consonants discussed in CM? Answer: a later putative faker who spoke one of these dialects or who had studied their written texts could have correctly arrived at how relevant items on Inscription One should be spelled. Therefore these consonants cannot logically be of any use in establishing the sort of argument advanced in CM, although of course their distribution is of interest for other inquiries.

Note that if anyone could produce post-14th century texts written in languages of the Northern Thai region, or indeed

point to any nearby modern dialect in which the *kho' khai* versus *kho' khuat* distinction is still consistently made, then the argument in CM would need to be reassessed and might not hold. (Lue dialects should be researched in this regard.)

- 2 Item 17, *kha*: [A1] does not mean 'leg' (*khha* in White Tai), but probably 'parties (in an argument),' a meaning still in use. Griswold and Prasert na Nagara (1971, p. 207, n. 37) explain this form as a third person plural pronoun. Unfortunately these interpretations do not lead to a satisfactory White Tai cognate in Dieu and Donaldson (1970). Although Li (1977, p. 193) reconstructs these two lexemes (as 'leg' and 'classifier for one of a pair') as identical Proto-Tai forms, perhaps assuming the latter is a metaphorical extension of the former, his notes (p. 194) make it clear that they are in fact distinguished in many Tai languages. Just how to reconstruct the latter form for Proto-Southwestern-Tai remains problematic, but, since it does not mean 'leg,' it would not seem to constitute an additional exception for the correlation discussed in CM.

The White Tai item *khhun* 'noble title' (item 7 in Table 1 and in the Appendix) is somewhat conjectural. The word occurs as part of the name of a legendary character in an example phrase given by Dieu and Donaldson (1970, e.g. p. 2; p. 174), but it is not accorded a separate dictionary entry. (It is apparently homonymous with 'fur' in WT.) One would not want to place much weight on this form taken alone. Note that just for the item 'noble title,' the Appendix shows only a subset — four representative samples — of the Inscription One occurrences. Otherwise, the Appendix represents a *complete* listing of all Inscription One forms relevant to the CM discussion.

- 3 Charts of this sort can be found in secondary-level Thai-language textbooks. Even the 'lithographed copy of the transcript' sections appearing in the Chulalongkorn University (1984) edition are not without infelicities of this sort; e.g. 'rice/(years)' 1:4 is shown with a decided nick in the top horizontal portion of the letter. This nick is clearly lacking

on the accompanying photographic plates of the original inscription; see also Appendix, item 13a. Note that in spite of the 'lithographed copy,' in this edition the correct transliteration for the item is given: *kho' khai*.

- 4 See Kosathibodi (1865). 'Rice' — 25:2, 25:5, 48:14, 49:1, 49:3, 49:4. 'Enter' — 1:13, 2:4, 10:13, 11:7, 11:9, 11:10, 12:7, 12:12, 13:1, 15:10, 15:13, 21:1, 21:9, 21:11, 22:1, 23:2, 26:10, 27:2, 31:1, 31:4, 31:10, 31:12, 31:13, 31:14, 33:12, 36:11, 44:1, 44:5, 44:7, 44:8, 44:11, 48:10, 50:9, 50:11. 'To thank' — 3:2, 5:6, 8:5, 13:5, 13:6, 14:1, 27:12, 28:3, 42:6, 52:8, 56:2, 59:10, 61:4, 63:12. (I am indebted to Khun Ayuth Kodkaew for preparing an index to this source.)

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(For citations not included below, see references after *Consonant Mergers and Inscription One*.)

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TABLE 1

	SW (1988)	CU (1984)	PS (1978)	CT (1976)	WT (1970)
1. <b>kha:i</b> [A1] 'sell'					x
1a. 1:20,	x	x	x	x	
2. <b>khao</b> [A1] 'horn; mountain'					x
2a. 3:6	x	x	x	x	
2b. 3:9	x	x	x	x	
3. <b>khao</b> [C1] 'enter'					x
3a. 1:6	x	x	x	x	
3b. 1:7	x	x	x	x	
3c. 1:26	x	x	x	x	
3d. 2:17	x	x	x	x	
3e. 2:22	x	x	x	x	
3f. 3:22	x	(x)	(x)	(x)	
4. <b>khap</b> [D1] 'sing'					x
4a. 2:19	kh	x	x	x	
5. <b>kh'u'n</b> [C1] 'raise'					x
5a. 1:3	x	x	x	x	
5b. 1:9	x	x	x	x	
5c. 3:15	x	x	x	x	
5d. 3:17	x	x	x	x	
5e. 3:21	x	x	x	x	
6. <b>kho':</b> [A1] 'hook, goad'					x
6a. 1:23	x	x	x	x	
7. <b>khun</b> [A1] 'lord'					x(?)

	SW (1988)	CU (1984)	PS (1978)	CT (1976)	WT (1970)
7a. 1:34	x	x	x	x	
7b. 3:7	x	x	x	x	
7c. 4:2	x	x	x	x	
7d. 4:11	x	x	x	x	
8. <b>khwa:</b> [A1] ‘right’					x
8a. 1:5	x	x	kh	x	
8b. 3:20	kh	kh	kh	x	
9. <b>khwae : n</b> [A] ‘hang’				x	
9a. 1:32	x	x	x	x	
9b. 1:35	x	x	x	x	
10. <b>kha</b> [C1] ‘kill’					x
10a. 1:31	x	x	kh	x	
11. <b>khi</b> [B1] ‘ride’					kh
11a. 1:7	kh	kh	kh	kh	
11b. 1:20	kh	kh	kh	kh	
11c. 1:28	kh	kh	kh	kh	
11d. 3:21	kh	kh	kh	kh	
12. <b>khut</b> [D1] ‘dig’					kh
12a. 4:4	kh	kh	kh	kh	
13. <b>khao</b> [C1] ‘rice’					kh
13a. 1:4	kh	kh	kh	kh	
13b. 1:19	kh	kh	kh	kh	
13c. 1:23	kh	kh	kh	kh	
13d. 1:27	kh	kh	kh	kh	

	SW (1988)	CU (1984)	PS (1978)	CT (1976)	WT (1970)
14. <b>khap</b> [D1] 'drive, push'					ts
14a. 1:5	kh	kh	kh	kh	
14b. 1:7	kh	kh	kh	kh	
15. <b>kha:</b> [C1] 'upland group; slave'					ts
15b. 1:31i	kh	kh	kh	kh	
15b. 1:31ii	kh	kh	kh	kh	
15c. 4:16	kh	kh	kh	kh	
16. <b>kha : m</b> [A1] 'tamarind'					kh
16a. 2:35	x	x	x	x	
16b. 3:5	x	x	x	x	

**TABLE 1.** Comparison of velar consonant initials in four readings of Inscription One: SW = *Sinlapa-wathanatham* (1988), a reading prepared by the National Library; CU = Chulalongkorn University (1984); PS = *Prachum Silacharu'k Phak thi 1* (1978); CT = Cham Thongkhamwan (1976); WT = White Tai cognate, phonetic value indicated as in Dieu and Donaldson (1970); elsewhere x = item read as *kho' khuat*; kh = item read as *kho' khai*. See also Appendix.



## Appendix

## Velar Items on Inscription One Compared with White Tai

**KEY - PLATE:** Item from Inscription One as in edition of Chulalongkorn University (1983); *first line below plate:* (face: line) modern cognate transcribed [tone class]; *second line:* modern cognate; gloss; *third line:* White Tai cognate as in Dieu & Donaldson (1970), page indicated; dictionary orthography represented.



1a. (1:20) khai: i [A1]

ขาย ‘sell’

WT (p. 161) khhai



2a. (3:6) khao [A1]

เข่า ‘mount; horn’

WT (p. 163) khhau



2b. (3:9) same



3a. (1:6) khao [C1]

เข้า ‘enter’

WT (p. 164) khhǎu



3b. (1:7) same



3c. (1:26) same



3d. (2:17) same



3e. (2:22) same



4a. (2:19) khap [D1]  
𣪠𣪠 ‘sing’  
WT (p. 165) khhăp



5a. (1:3) khu’n [C1]  
𣪠𣪠 “rise”  
WT (p. 175) khhu’n



5b. (1:9) same



5c. (3:15) same



5d. (3:17) same



5e. (3:21) same



6a. (1:23) kho’: [A1]  
𣪠𣪠 ‘hook’  
WT (p. 168) khho



7a. (1:5) khun [A1]  
𣪠𣪠 ‘noble title’  
WT (p. 174?) khhun



7b. (1:25) same



7c. (3:7) same



8a. (1:5) khwa: [A1]

ขวา ‘right side’

WT (p. 169) khhoa



8b. (3:20) same



9a. (1:32) khwae: n [A1]

แขวน ‘hang’

WT (p. 171) khhoen



9b. (1:35) same



10a. (1:31) kha: [C1]

ฆ่า ‘kill’

WT (p. 160) khhá



11a. (1:7) khi: [B1]

ขี่ ‘ride’

WT (p. 158) khuĩ



11b. (1:20) same



11c. (1:28) same



11d. (3:21) same



12a. (4:4) khut [D1]

ขุด ‘dig’

WT (p. 159) khút



13a. (1:4) khao [C1]

ข้าว 'rice; year'

WT (p. 150) khǎu



13b. (1:19) same



13c. (1:23) same



13d. (1:27) same



14a. (1:5) khap [D1]

ขับ 'drive in'

WT (p. 373) tsǎp



14b. (1:7) same



15a. (1:31i) kha: [C1]

ข้า 'upland group'

WT (p. 369) tsǎ



15b. (1:31ii) same



15c. (4:16) same



16a. (2:35) kha:m [A1]

(มะ) ขาม 'tamarind'

WT (p. 149) kham



16b. (3:5) same



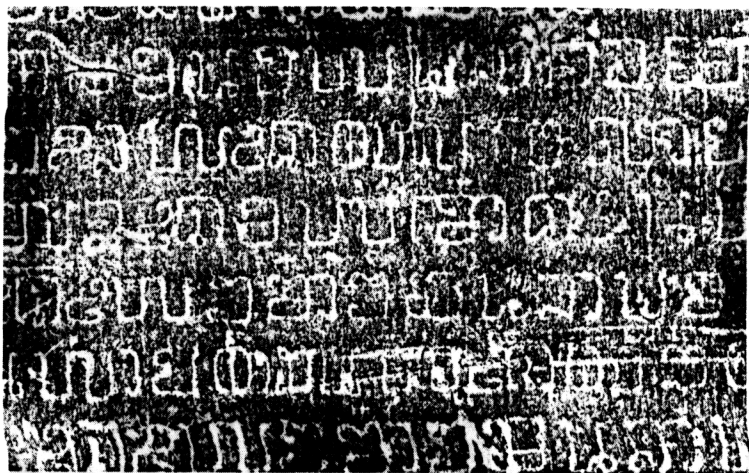
17a. (1:26) kha: [A1]

ᠬᠠ 'faction'

(cognate not found)



Item 4a (*khap* 'sing') in context : line four, centre. Photograph 1990, Courtesy of the Thai National Library.



Items 14a-b (*khap* 'drive') in context: lines one and three, slightly left of centre. Photograph 1990, courtesy of the Thai National Library.