TAI SCRIPTS AND PROTO-TAI:  
THE CASE OF PALATAL CONTINUANTS

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In the area of Tai philology, we are indebted to Professor G. Coedès for a lifetime of careful study of early Tai and Khmer written sources. Similarly, for Tai comparative-historical linguistics, Professor Fang Kuei Li has left with us the invaluable results of several decades of studying Tai languages and linguistics. This paper is a modest attempt to assess together some ideas of these great scholars and it is intended as a small tribute to each of them.  

Attention below will focus on some features of early writing systems used in both in Sukhothai and in the Lan Na area, and how these features may be interpreted in terms of comparative Tai linguistic evidence. We focus on palatal nasal and semivowel consonants. This consideration follows an important earlier study of how these initials are represented in Sukhothai sources by Duangduen Suwattee and Praneet Kullavanijaya (1976). To their important conclusions we add consideration of Lan Na and Lao sources.

The inventory of fifty Lan Na consonant symbols given by Davis in his Northern Thai Reader (1970: 4) includes four separate symbols relating to present-day Nan palatal continuant sounds [n̚] and [y] - one of which has no single corresponding letter in Standard Thai. The latter 'extra Y' symbol (called here for convenience 'lustral Y' - for reasons noted below) is the focus of discussion in later sections. As we see, the appearance of this symbol raises interesting questions and also points to several answers in the history of Southwestern Tai writing systems and establishing sequences of diachronic sound changes in these languages.

In particular, suggestions made by Coedès (1925) in his Tamnan nangsu ' thai ('History of Tai scripts') and by others as to the development of Lan Na, Tai Lü and Sukhothai scripts would appear to require some revision.

In the following sections we take as axiomatic conclusions of Gelb (1952) as to the necessity of distinguishing superficial forms from systematic functions in any analysis of orthographic change or innovation. Discussion below presupposes that an adequate analysis of a single symbol, such as 'lustral Y' as it appears in written sources, must take into account several sets of wider relations. There

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2 Lan Na script is also referred to as tua mu'ang and (tua) tham; (i.e. 'dharma letters', presumably because the script was first and foremost associated with religious texts). An additional script called thai nihet came into use in the 19th century and has direct links with Central Thai writing practice. It is not considered here (see Singkha Wannasai 1975:5). Some authorities use the term 'Lan Na' (writing) to refer inclusively to a different script called fak khâ:m described below; that inclusive practice is not followed here.
are factors relating both to reconstructed earlier Tai phonology and to systematic orthographic practices and conventions. For example, to note that 'lustral Y' was formed by adding a 'tail' to a 'normal Y,' is only a preliminary observation. One must go on to ask: What were the purposes or functions of 'added tails' more generally in the particular orthography? How did the symbol pattern contrastively with respect to others in its articulatory category? How would those contrast relations map onto phonological reconstructions? Finally, historical and cultural factors relating to writing practices need to be taken into account as well. As we see, a reasonable hypothesis can be supported on the basis of all of these factors taken together.

1. THE 'TRADITIONAL' VIEW OF SUKHOTHAI WRITING

In what could be called the traditional account of the spread of Thai scripts (e.g. Coedès 1925; Prasert na Nagar 1985; Chit Phumisak 1983), the 14th-century Sukhothai writing system holds a key position in the development of several (but not all) Tai script traditions. Sukhothai writing, in the traditional view, was based on contemporary late Khmer-Pallava and perhaps also Hariphunchai Mon-Pallava prototypes—many letters of the two scripts being quite similar in form. But Sukhothai script also showed substantial innovations, both in what is traditionally the first example—the Ramkhamhaeng Inscription—and in other writing of the Sukhothai corpus.

To the modern reader, innovations will undoubtedly be most strikingly evident in Inscription 1, dated 1292 A.D. and ascribed to King Ramkhamhaeng himself in the traditional view (Griswold and Prasert na Nagar, 1971). As is well-known, Inscription 1's innovative system of 'on-line' i-and u-vowel signs is not to be found in subsequently-dated sources. However, current impressions of 'relative strangeness' need not lead us to overlook important innovating features shared by Inscription 1 and by most others dated subsequently in the 14th-century Sukhothai corpus.

[1] indicates some innovations (i.e. changes from contemporary Mon and Khmer systems most likely to have been prototypes). These are shared by the majority of the 14th-century Sukhothai Tai inscriptions— including Inscription 1.

(i) Compound representation [glottal-stop + Y]. This is regularly used to represent a particular set of items, including (cognates of Modern Thai) yù: 'stay', yuː:n 'stand', yāːw 'house', etc. (Cp. Modern Thai spelling with 'oː - nam' of yuː: 'stay'; yāː: 'don’t'; yāːŋ 'sort, kind'; yāː:k 'want'. See discussion below.)

(ii) Superficial innovations in letter shape:
(a) The Sukhothai form for the letter Y is a clear simplification of plausible prototypes: earlier scripts show two connected 'U-like' units; Sukhothai script, only one.
(b) The symbols for the velar nasal [ŋ] and palatal aspirate [ch] represent clear and bold reversals of Khmer (and/or possibly Mon) prototype forms: Sukhothai letters are turned around 180° with respect to all contemporary Khmer and Mon samples presently available to us.
(c) The form of the symbol regularly representing [n] also departs markedly from Mon and Khmer prototype scripts.
(iii) A separate single symbol for the vowel pronounced (now, at least) as [oːː] both for Tai items and also for Indic-provenance vocabulary. This symbol was written (as now) preceding its associated con-

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4 It is important to note that the essential innovation did not lie in placing these vowel signs on-line per se, since Khmer-Pallava as well as other Indic-based scripts had similar on-line symbols for words beginning in vowel-sounds /iː/and /uːː/. In fact, the latter symbols somewhat resemble those used on Inscription 1. The innovation lay in establishing an interpretive convention: to allow the value of such symbols to represent either a vowel sounding before, or a vowel sounding after, the consonant that orthographically followed. Thus in 'Sî Intharath', both the /iː:/ in Si and the first vowel sound in Intharath are treated in the same way, with a preceding on-line /iː:/ symbol. In Khmer-Pallava, only the latter would have been treated in this on-line way. Note, however, that the way of representing the postconsonantal /eː:/ sound in Khmer and similar scripts was exactly analogous to the reading allowed for /iː:/, etc., on Inscription 1. So the innovation was not so much the physical invention of on-line symbols as establishing a new (or actually an additional) method of reading.
sonant. (In Mon and Khmer prototype scripts [ oː ] is routinely a compound vowel, either written as a discontinuous before - and - after configuration somewhat resembling that used to represent [-aw] in Modern Thai or else as the sign for [ eː ] along with a superscript loop above the following consonant - the latter arrangement being characteristic of 'late' Khmer Pallava scripts and a plausible basis for innovating the Sukhothai [ oː ] through joining of the two components.)

(iv) A separate representation for the low vowel [ æː ], created by doubling the symbol for [ eː ]. This vowel representation is not found in prototype scripts. (The sound unit was probably either absent or not phonemic in Old Mon and Khmer.)

(v) A special complex three-component representation created for the diphthong [ uːaː ]; in some texts this is simplified to two components in the presence of a final consonant.

(vi) Creation of three new symbols to complete the full range of Tai labial contrasts - viz, those giving rise to Modern Thai [ p ], [ b ], [ ph ], [ f ]. The latter two are each paired with a high - tone - class ( sùng ) and low - tone - class ( tām ) counterpart letters. Sukhothai symbols for (what are now, at least) [ p ], [ f ]/[ high - class ] and [ f ]/[ low - class ] were clearly created systematically by raising as a looped 'tail' the rightmost vertical sides of preexisting symbols, i.e. those symbols respectively representing (what are now, at least) [ b ], [ ph ]/[ high - class ] and [ ph ]/[ low - class ].

(vii) Similar analogical creation of low - class [ s ] (wː'; sɔː') by modification of [ ch ]/[ low - class ] (choː'; châː') again, giving these symbols their modern values.

(viii) Minimal use of vertical ligatures (except occasionally for - r -), but instead consistent use of horizontal cluster representations, both for Indic and for Tai - provenance vocabulary. (There is good evidence that items perceived as clusters or functioning so phonologically were regularly represented by an iconic 'close juxtaposition' of vertical symbols.)

Although the majority of presently known Sukhothai inscriptions are written in the 'Classical Sukhothai' (henceforth SK) writing system, characterized in part by the innovations in [ 1 ], nonetheless other scripts were clearly in use in the Sukhothai area. Orthographic variation, pluralism and experimentation appear to have been the tolerated situation in the 14th century. The notion of functional differentiation of scripts is also important. As one method for writing Pali, monks at Sukhothai clearly used the Mon alphabet very much as it appeared in Hariphunchai (Lamphun) at about the same time. A functional differentiation of writing systems is evident in the Sukhothai 'golden palm - leaf' text of 1376, first brought to general attention by Prince Damrong Rajanubhab. 6 The gold sheet in palm - leaf shape is inscribed with three lines in the Tai language in SK, followed by a brief Pali invocation written in the Mon - based system.

Khmer script - presumably an SK prototype - was widely used in the Sukhothai area to write both Pali and Khmer. 7 Interestingly, Khmer letters with specifically Khmer writing practices (e.g. subscript cluster representation, etc.) were also used to write Tai, thus in some sense competing with SK. In the Chai - nat area similar examples have been found dating from about 1400; a few of innovations of [ 1 ] are introduced into this otherwise Khmer writing - presumably to represent Tai phonemic contrasts. 8

2. THE 'SUKHOThAI - CENTRIC' VIEW OF LAN NA ORTHOGRAPHIC HISTORY

In the traditional view, Sukhothai - like writing became established in the Lan Na area in association with Buddhist activity. This is evidenced perhaps in an inscription found in Phrae - up the Yom river from Sukhothai - commemorating a chedi established in 1339 (Inscription 107). More overtly, the Wat

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6 Charuꞌ samai Sukhothai (1983:385); the editors of this work characterize the 1376 Pali text in question as the first known example of Lan Na script, but an essentially similar Mon script had been used to write Pali in the Lamphun area for some two centuries (Wikhro' alcharuꞌ nai phiphitthaphansathan hoeng chat Hariphunchai, 1979).

7 E.g. in the 'Mango - Grove' inscriptions of 1361; Charuꞌ samai Sukhothai (1983:222-226); see also Charuꞌ nai Prathet Thai 5 (1986:43-62).

8 Viz [ 1 ] l. iv; see Charuꞌ nai Prathet Thai 5 (1986:77-83; 201-221).
Phra Yu'n inscription of Lamphun' (1371; Inscription 62, or Lamphun - 38) refers to missionary activities of a scholarly monk from the Sukhothai south. The method of writing on these inscriptions, and of some six others in the area, is quite similar to contemporary writing of the Sukhothai area proper. 9

Starting with an inscription dated 1411 (Inscription Lamphun - 9, originally from Phayao) a somewhat divergent type of Sukhothai-like script is documented in the Lan Na area. This is referred to as Fak Kham (hence forth FK) script > fak khǎːm tama-rind pod', probably referring to the script's somewhat tapering letter shapes). 10 FK was used to write Tai on over a hundred inscriptions in the Lan Na region for the next 150 years and sporadically thereafter. 11 The content of these inscriptions is almost entirely a matter of bearing witness to monastic land grants or to the donation and dedication of Buddhist buildings, images and relics.

In the traditional account of Thai script development, FK writing has been considered a straightforward subsequent development of SK. Indeed, it shares with SK virtually all of the major systematic innovations from plausible Mon or Khmer prototypes, e.g. most in [1] (see Naina Prongthura 1984 : 14; Prasert na Nagara 1985 : 87). The only real inventory change relates to [1] (i) and its relation to 'illustral Y', discussed below.

In Lan Na, after 1420 and especially during the reign of King Tilokchara, there was reportedly a refreshment of the Theravada tradition through direct contact with Lanka. Missionary activity appears to have spread FK writing to Nan by 1427, to Keng Tung by 1451 and to other Northern centres. FK was used to write Tai-language texts on stone, but save for brief invocations - apparently not to write Pali scriptures.

As noted above for Sukhothai, and as was undoubtedly the case in the Lan Na area as well, a script which is best referred to as 'Hariphunchai) Mon' from its earlier cultural roots was commonly used in the 14th and 15th centuries to write Pali texts, e.g. Buddhist scriptures written on palm leaves. 12 In terms of presently available evidence, the first attested and dated 'innovative' use of this script to write a text in a language unambiguously Tai (instead of Pali or Mon) is from 1465 (Prasert na Nagara 1985 : 87; Penth 1973). This is a full half a century after the first documented appearance of FK in the Lan Na area, and close to a century after the appearance of SK there. The 1465 text is in the bilingual Pali-Tai dedication of a Buddha image of Wat Chiang Man, Chiang Mai; other early uses are similar, with Tai language material quite restricted. As Penth (1985a, etc.) has surmised, there undoubtedly must have been attempts prior to this to write Tai using Mon and/or other Indic scripts; however, for the present at least, conclusively dated examples of earlier Tai texts in such scripts have yet to be found; see below. 13

As Mon script came to be used to write Tai more regularly - first on bronze images (and palm leaves?) and considerably later on stone inscriptions - certain SK innovations were introduced. The obvious immediate provenance for these innovations (but of course not for other features of Lan Na writing) would be local FK; i.e. through a progression SK > FK > LN (i.e. Lan Na, and so henceforth). These innovations would appear to be just the features required to supplement the Mon-based writing system in order to represent efficiently Lan Na Tai phonemic contrasts, especially the vowel representations indicated in [2]. Slightly later, other innovations appear to have been introduced into the Mon-based script from local FK (as one presumes), e.g. symbols for the 'missing' Tai labials. The latter addition was done through systematic 'raised-tail' modifications in a manner exactly analogous to [1] (iv) in this case it was the FK (and SK) method of extra-letter creation - not superficial letter shape - that appears to have been utilized. The SK system of tone marking (rather erratically applied in Sukhothai, save on Inscription 1), was used sporadically in

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10 ibid., p. 187.
11 Kannika Wimonkasem (1983:37) calls attention to an interesting gap in FK sources from about 1600-1800.
12 For other designations, see note 2.
13 But see Charu'k na Prathet Thai 5 (1986:202) for an undated Sukhothai-area gold leaf with Tai written in Mon letters. The editors date it the century after 1450. The vowel [ae:] is represented in SK.