The fact that the modal particles behave differently from other sentence particles (in admitting no low tone manifestations and being excluded from the predicativizing construction) can be compared to the situation in Late Archaic Chinese, which has however a very much simpler system of particles, where the particle yě 'marker of predication' occurs either after predicate (more commonly) or after subject (less commonly), whereas the particle yǐ 'marker of perfective aspect' occurs after predicate only, whether the predicate is postponed (more commonly) or preposed (less commonly). We can in other words in Akha as in Late Archaic Chinese distinguish between predication marker(s) and predicate marker(s). The informational and sensorial particles preceded by the negative mà form a very special construction which is not just the negating of a copula but which implies that the speaker is ignorant of what is happening (e.g. àjɔ̀q áŋ dì ə à shú ɣà mà ŋá 'I don't know who (the person is who) is beating him', àjɔ̀q 'he', áŋ 'noun particle for goal, object marker', dì 'beat', ə 'sandhi form of ó non-past tense verb particle', à shú ɣà 'who', mà 'negative', ŋá 'sensorial sentence particle for non-expected, non-past, visual perception'). The combination of a negative with a particle may be e.g. the origin of Archaic Chinese fēi 'is not' (piwər, cf. the negatives with initial p- and the copular particle diwər), but the meaning 'don't know' seems unique with Akha.

A system of sentence particles ("existential verbs", "copulae", etc.) is known from Tibetan, especially modern Tibetan, where such particles indicate tense, person, mood, source of knowledge etc. The Tibetan system is far from being as elaborate as the Akha one, but the salient point in both languages is the fact that the same particle by syncretism carries several kinds of unrelated information. To find a system of this kind which approaches Akha in intricacy we have to go to the Indo-European verb conjugations. In Indo-European languages the same verbal endings carry messages concerning tense, aspect, person, number, mood, and genus, in other words categories which also semantically resemble several of the Akha categories. Of course, some of the semantic features which in one language take part in verb desinence syncretisms, in the other language may be periphrastically expressed. It is the very presence of such syncretisms which is the common typological feature. However, such general features as tense, grammatical person, origin of knowledge, attitude or involvement of speaker are certainly present in many Indo-European languages as well as in Akha.

In our survey of typological features in Akha, which is far from complete, we have found points of contact with a number of related and unrelated languages, as well as, of course, lack of agreement on other points with these same languages. All of this must to a considerable degree be the product of contact and loss of contact with other languages over a long period. Some features, such as tones, phonation types, ergativity, participial genera and tempora, expression of grammatical person outside of the pronoun, and verbal desinence syncretisms, offer great similarities with Indo-European languages, past and present. Contacts with Indo-European in the form of sprachbünde and waves of diffusion cannot be ruled out as contributing factors in the development of the Akha language structure.

ALPHABET OR SYLLABARY IN SOUTH EAST ASIA:

'NEW WINE INTO OLD BOTTLES'

R. K. Sprigg

South East Asia and the islands of the Pacific are almost entirely without indigenous writing systems;[1] the languages have generally drawn, for their symbolization, on European, Middle Eastern, eastern Indian, and Chinese scripts, with suitable modifications.[2] Through adopting these foreign scripts the principal languages of the area have been drawn into the current controversy over the grammatological status of the Arabic script and the numerous derivatives of the Brahmi script.[3] This may be seen from a comparison of the following two passages, one of them claiming alphabetic status and the other claiming syllabic status for the Arabic script, while a further passage claims syllabic status for the Indian scripts, as against the predominantly alphabetic classification that I wish to give to them and, with qualifications, to their South East Asian derivatives.[4]

(i) 'I strongly agree with Barr (as against Gelb, possibly Pulgram, and certainly Abercrombie) in regarding the Semitic scripts of the type of Arabic and Hebrew as alphabetic and not to accept the recent trend towards the designation of them as syllabic' (Ullendorff 1977, 573);

(ii) 'we must, however, remember that the Arabic script is syllabic and not in our sense alphabetic' (Mitchell 1953, 13; cf. also Robins 1964, 123);

(iii) 'the script used in writing Gujarati is a slightly modified form of the Devanagari script, ... The writing system, based on the character

1 The only scripts to originate from this area the Rongo-rongo script, of Easter Island, and the Caroline Islands script or scripts. The former of these seems to be free from any foreign influence; the latter, according to Hamp and Riesenberg, is an example of 'stimulus diffusion from the West' (Gelb 1952/1963, 302), and certainly looks to me as though it had made some use of roman letters. The current view of Rongo-rongo seems be that it is either 'nothing else but pictorial concoctions for magical purposes' (Gelb, 61) or, possibly, a mnemonic form of writing, and lying outside the scheme of categories devised by Gelb, which comprises letters, syllabograms, logograms, and phraseograms.

2 E.g. ệ, ỗ, ữ for Vietnamese, and ڤ (p), ڠ (ng), ڽ (ny), and ڬ or ک (g) for Malay.

3 For 'grammatological status' cf. Gelb 1952/1963: 'the aim of this book [A Study of writing] is to lay the foundation for a full science of writing, yet to be written. To the new science we could give the name "grammatology", ...' (23).

4 For my grammatological analysis of a related script, the Tibetan, as being alphabetic apart from a small syllabic component see Sprigg 1978, 184-5.

representing the syllable, is the same for all these languages' (Lambert 1953, 1; cf. also Jones 1971, 75).[5]

Proceeding, now, to definitions of 'alphabet' and 'syllabary' I find Gelb's observation 'if by the word "alphabet" we understand a writing system which expresses the single sounds of a language' (197) serviceable (cf. also Diringer 1948/1968, 13) except that it fails to cover three polyphonic letters ζ, ξ, and ψ, symbolizing [zd]/[dz], [ks], and [ps] respectively, in Ionic Greek and, later, in Greek generally, not to mention the polyphonic function of x in in the roman script, more relevant than Greek to South East Asia, in symbolizing the [ks] of (Latin) rex and (English) paradox and fox.[6] If we are to bring polyphonic letters such as these within the scope of that definition, it needs to be amended to read as follows: a writing system in which letters symbolize single sounds, and clusters and sequences of sounds provided that these are non-syllabic.

Diringer's definition of 'syllabary' is as follows: 'a syllabic system of writing is a set of phonetic symbols, the single symbols representing syllables, also vowels when these constitute syllables. .... It generally contains only open syllables.' (1948/1968, 13). I shall save my criticisms of this definition until later when I apply it to Indian and South-East-Asia languages (p. 107).

J. R. Firth and 'renewal of connection'. The general approach to alphabet and syllabary I owe to J. R. Firth and his concept 'renewal of connection': "renewal of connection with the language under description in experience requires that recognizable phonetic and possibly graphic shape shall be given to what have been termed the exponents of the phonological categories" (1957:15). This approach leads me to a quite different view of the Indian scripts from Lambert and from Jones, and, therefore, of the Burmese, Thai, and Cambodian scripts too, and to a somewhat different view of the Arabic script from either Ullendorff's or Mitchell's, and therefore of the Malay form of the Arabic script.

I can illustrate the way in which I apply Firth's concept to grammatological categories most clearly from the passage in Jones 1971 in which he uses a Hindi example to illustrate his view of the Devanagari script as a syllabary: 'thus written məʈələbə "purpose" is spoken /məʈləb/' (75). I feel that Firth would have regarded Jones's interpretation of the Devanagari form here as unsatisfactory, because it fails to meet the 'renewal of connection' test: analysing मतलब as 'məʈələbə' results in a non-existent word of four syllables, all of them open, --hardly even a possible word structure in Hindi -- whereas the Hindī word in question has only two

5 Against this cf. French 1976: 'the Devanagari script is neither syllable-delimiting, in any normal sense of the word syllable, nor syllabic (i.e. syllable-representing); it is a (segmentally) minimal cenemic (i.e. alphabetic) script' (153).

6 Other ancient Greek dialects, however, used sequences of mono-phonic symbols, ὄσ , χσ , φσ , and the like and therefore meet Gelb's definition without any need for the amendment that I have proposed; e.g. (Lesbian) ὄσδος (= ὄξος) 'bough', (pre-Eucleidean Attic) εδοχσεν [= ἔδοξεν], φσεφισμα [= ψήφισμα] (cf. Allen 1968, 53-7).
On the phonetic difference in English symbolized by the letter x versus the sequence of letters cks and ks see Sprigg 1974, 21-2.

syllables, both of them closed. In other words I would say that Jones is putting the cart before the horse, working from the symbols to the sounds. Working from the sounds to the symbols, on the other hand, means recognizing that the six sounds of [məʈləb], grouped into two syllables, are rendered in its writing system by the four symbols म, त, ल, and ब; consequently, the function of म must be that of symbolizing a consonant-vowel (CV) sequence, and so must that of ल , while the function of त and of ब must be purely consonantal (-C). Thus, as orthographic symbols, म , त , ल , and ब , and others like them, the 'consonant characters' of Lambert 1953 (11, 15, 61), can have two functions: a polyphonic function, that of symbolizing a CV sequence of sounds, in which, moreover, the V place is limited phonologically to the short-vowel unit a (Jones' /ə/), and a monophonic function, that of symbolizing a single consonant. This consonantal function can be specified by using a subscript symbol, the viramāh of Sanskrit and the virām of Hindi and Marathi, though its use in the latter two languages is mainly confined to Sanskrit loanwords; e.g. षट् , sat (Lambert 1953, 66; cf. also the limited function of the '/wiqriəm/' in the Cambodian script; Huffman 1970, 53).

I. Scripts of Indian origin

Having used an Indian script in the passage from Jones 1971 to illustrate the difference between his analysis and mine, and to introduce what I might call the 'matlab approach' to the problem of alphabet versus syllabary, I must now illustrate this approach directly from South-East-Asian scripts, beginning with those of Indian origin, and especially, since I am more familiar with it, from the script now used for Burmese and, with a few additional symbols and variations in the shape of some symbols, for Mon. Luce places this script in relation to other scripts of Burma as follows: 'All these were ultimately derived from India, and were written, like Brahmi, from left to right. ---more than one type of North Indian Nagari had spread from Pala Bihar and Bengal to Arakan, ---. Very different from both, the 'Mon' script, which ultimately triumphed, had come, it seems, from South India (?Kancipura) via Dvāravatī and the Gulf of Siam' (1969, 96-7).

Syllabic/consonantal symbols. As applied to the Mon-Burmese script the 'matlab approach' at once enables me to identify certain symbols as having a comparable polyphonic function to that of the म and the ल of मतलब ; symbols such as ဃ , ဏ , and ခ ('a, ka, kha) also symbolize a consonant-vowel (CV) sequence, which, as one would expect from the Indian origin of the script, follows not only the more general limitation to the open type of syllable but also the more restrictive limitation to a particular phonological vowel unit (a); e.g.

[ʔɑ:]	ဃ	[kɑ:]	ဏ	[khɑ:]	ခ
'a		ka		kha	
'be defective'		'dance'		'hire'[7]	

7 Another, and common, function of this so-called 'consonant' symbol in Burmese, and one that is foreign to Hindi, is that of symbolizing weak-stress syllables (in [-ə]); e.g. ဃရာ [shə ja:] cha-ra 'teacher' (not *[shɑ̀ :ja:]; ['] symbolizes ligamental phonation, cf. Sprigg 1978b, 15), ဃခံ [θəkhɑ̃ :] sakhan 'master' (not *[θɑ:gɑ̃ :]); cf. also the corresponding use of a CV symbol for the pĕpĕt of Malay (p. 111). It is worth noting that Burmese and the Indic scripts are markedly more specific than the un-'pointed' form of Malay and the Arabic script: in them the CV type of symbol specifies the -a vowel unit, of a

Mon-Burmese symbols such as these can claim to be not merely polyphonic but also syllabic in the sense that they symbolize not only the syllable nucleus but a preceding consonant as well, in the same way as the much-cited Japanese kana syllabary (apart, that is, from the kana vowel series a, i, u, e, o, and from its final symbol ん n); e.g. かきくけこ (ka, ki, ku, ke, ko); さしすせそ (sa, si, etc.), except, of course, that the Japanese 'syllabary', clearly, symbolizes a fivefold differentiation in vowel unit, while the Mon-Burmese script is limited to symbolizing only one of its vowel units in this way (in open syllables; for the more complex situation to be found in syllables in -an/-aṅ and in -an/-am see p. 110 below).[8] The same limitation also applies to other scripts of Indian origin, in the pronunciation of which, incidentally, like Bengali and Newari (more especially the Kathmandu dialect) but unlike Burmese (and Hindi), the a vowel unit has lip-rounding; e.g. (Cambodian) ក ka [kɒ:], ដប dap [dɒ:p] (Henderson 1952, 152, 156); (Thai) บน pan [bon], ตก tak [tok] (but lip-spreading in ม(หา) mahā [məhɑ:], กรร karr [kan]; cf. Anthony 1970, 42, 45, 105).

Open-syllable and closed-syllable symbols. The South-East-Asia scripts of Indian origin can, therefore, at least be said to have a syllabic component; but otherwise they conform to the same pattern as I have already illustrated for the Devanagari script in मतलब they do not provide single symbols for closed (CVC) syllables, though the languages that they symbolize all have syllables of the closed type. The Mon-Burmese script, for example, needs two symbols each for the two syllables of [jaŋgõõ:] ရန်ကုန် ran-kun 'Rangoon' (and even the kana syllabary, incidentally, needs two each for the two syllables of, for example, [ɲippɒn: にっぽん nippon 'Japan'). The Ca symbols of the South-East-Asia scripts are, therefore, syllabic in the sense of symbolizing the syllabic sound of the syllable (-a) together with its preceding consonant sound but not necessarily syllabic in the sense of symbolizing a whole syllable, CV or CVC. It is only the Ca symbols that symbolize open syllables which are syllabic in this latter sense as well, while, from this point of view, the म and the ल of मतलब and the ရ of ရန်ကုန် are only partially syllabic. Only the Caroline Islands language and Vietnamese can each be said to have a fully syllabic script; and this is true of Vietnamese only when it is written with syllabograms of the Chinese script, e.g. 越南 việt nam, or modifications of them.[9]

Ca sequence; in the Arabic-based scripts the CV type of symbol serves for -a, -i, and -u alike, and, in un-'pointed' Malay, for -o and -e as well, in at least one important context, Ca/i/u/o/eCC-, e.g. (a) بنتل bantal, (i), سڠكه singgah, (u) تمڤت tumpat, (o) لمڤت lompat, (e) تمڤت tempat. Lewis 1954, however, refers to this as 'older usage' (43) (cf. pp. 111-12 below); the examples are from Winstedt 1945, 137, 132.

8 In this sense of the term the use made of the roman script in English ia also 'syllabic' to a small extent: the sequence [(-)ju:] is symbolized by u, as in U, U-turn, use, Buse, emu. The same function is performed by Я, Ю, and Ё in the Cyrillic script, and by Е as opposed to Э.

9 Japanese, too, draws on Chinese syllabograms (kanzi), as, for example, 日, symbolizing the [ɲip-] syllable of nippon 日本 'Japan', in one of its on (Sino-Japanese) readings, but with the added complication that not a few of the kanzi symbols symbolize two syllables, and are in such cases therefore, disyllabograms; e.g. the alternative pronunciation of 日 as [ɲitci], in niti-niti sinbun 'Nichi Nichi Shimbun'. From the standpoint of the kun (original Japanese) readings, however, the role of the kanzi is either that of

Circumscript symbolization of vowels. Apart from that phonological unit in each of the Indo-Aryan and Dravidian languages of South Asia and the Tibeto-Burman, Austro-Asiatic, and Austronesian languages of South East Asia which is symbolized by a syllabic or partially syllabic symbol, Ca or Ca-, the symbolization of vowels is alphabetic.[10] Only incidentally, though, is that symbolization linear; for the positioning of the vowel symbols is circumscript, and comprises postscript, prescript, superscript, subscript, and combinations of some of these, with only the modern Vietnamese script, through its origin in Europe, as an exception here; e.g. from Burmese (postscript) -ာ (-ā), (prescript) ေ- (-e), (superscript) -ဲ (-ai), (pre- and post-script) ေ-ာ (-o), (super- and sub-script) ို (-ui), e.g. [lɑ:] လာ lā 'come', [pò:] ပို့ pui' 'send' (certain vowel units are, however, symbolized by linear symbols of a consonantal appearance, such as, for [i:], [e:], and [ɛ:], ည် ñ, and for [ɛ:], also ယ် -y, while others are symbolized concurrently with consonant features, as part of a syllable-final complex, by င်, ဉ်, န်, မ်, and by က်, စ်, တ်, and ပ်, for which see p. 109 below). When the vowel is symbolized by one of these symbols, whether vowel, consonant-like, or consonant-and-vowel, the syllable-initial consonant is symbolized alphabetically, by monophonic symbols such as လ- and ပ- (l-, p-) of the two examples earlier in this paragraph. The Cambodian and the Thai vowel and consonant symbolization follows the same alphabetic principle as the Mon-Burmese, but with two further types of vowel combination for Cambodian, and one for Thai (cf. Henderson 1952, 154; Huffman 1970, 24: Anthony 1970, 17). At this point it is interesting to note that the pre- and post-script type, which is common to the three languages (Burmese ေ-ာ, Cambodian េ-ា, Thai เ-าะ), is not shared by Devanagari, though it is found in two of the south Indian scripts, Tamil and Malayalam.[11]

Suprasegmental (or prosodic) symbolization

A. Junction

1. **'Vowel-final'.** Certain of the Mon-Burmese vowel symbols apply only to open syllables, e.g. -ာ, -ံ, -ဲ, ေ-ာ်; they therefore act as syllable-final symbols.[12] Their symbolizing function does not, however, end there: in junction

logograms, symbolizing whole words, of one, two, or three syllables, e.g. 南 minami 'south', or that of symbolizing not the whole word but a grammatically defined part of it, a (monosyllabic or polysyllabic) stem, leaving the inflexion to be symbolized by a kana symbolization (with the final consonant of the stem included in the kana symbolization for the class of verb that has a root-final consonant; e.g. 越す ko-su 'cross', cf. also ko-si-masu, the stem being kos-).

10 But, in Burmese, a suprasegmental (or prosodic) role is proposed below (pp. 108-11) for certain syllable-final symbols.

11 A north-Indian script, the Bengali, also makes uses of the pre- and post-script type, e.g. কো ko; and so does the Newari script of Nepal. In this they continue the pre- and post-script modification (or something closely resembling it) of the Brahmi script; e.g. 𑀩𑁄 bo, cf. 𑀩 ba; 𑀓𑁄 ko, cf. 𑀓 ka.

To English-speakers and English-writers the pre- and post-script principle should not appear exotic, because it is used in English to symbolize certain long-vowel and diphthong units; e.g. /i:/, as in mete (cf. met); /u:/, as in use (cf. us); /aɪ/, as in bite (cf. bit); /eɪ/, as in fate (cf. fat); but in English it is the following consonant symbol, not the preceding, that is circumscribed in this way.

between syllables within words (intraverbal junction) these, and all other syllable-final vowel symbols, whether limited to syllable-final position or not, also symbolize a feature of the following sound: voice as an alternative to voicelessness; e.g.

[(m ə)θw ɑ :bu:] (မ)သွားဘူး (ma) swā:bhū: 'does not go'; cf.
[(m ə)θa ɒ pphu:] (မ) သောက်ဘူး (ma) sokbhū: 'does not drink'.

This means that a sizable number of lexical items alternate in voicing between voice and voicelessness, e.g. [ph/bu:] ဘူး bhū: 'not', and cannot be pronounced with the correct feature unless the type of junction in which they occur is taken into account; and this, for correct phonetic interpretation of the symbols in reading, means consulting the final symbol of the preceding syllable in order to find out whether the type of junction is, for example, the 'vowel-final' or the 'stop-final', exemplified above. In other words, in intraverbal junction both syllable-final and syllable-initial symbol are linked in a junction complex, e.g. -ā:bh- versus -kbh-. The features appropriate to 'vowel-final' junction are symbolized by one or other of the three types of symbol distinguished above e.g. (CV) အ , က (p. 108), (final vowel symbol) - ာ, ေ- (p. 109), (final consonant-like symbol) - ည် , - ယ် (p. 108). These types of symbol therefore have a junction function, and are best regarded not merely as alphabetic symbols distinguishing one vowel unit from the others appropriate to that context but also as suprasegmental, or prosodic, symbols for the features appropriate to the type of junction. As far as 'vowel-final' junction is concerned, these features do not end with the voice feature: in fast-tempo utterances the syllable-initial feature symbolized by, for example, -ā:bh- is not plosion, as in [- ɑ:b-] above, but friction, [- ɑ : β -] (for a full account of 'vowel-final-junction, see Sprigg 1963b, 90-6).

2. **'Nasal-Final'**. The status of the syllable-final nasal symbols င် , ဉ် , န် (-ṅ, -ñ-, n), etc. of the Mon-Burmese script is still more complex, and difficult to classify in terms of a clear-cut dichotomy between alphabet and syllabary. In the first place they symbolize voice in contrast with the 'stop-final' type of junction's voicelessness as a feature of a following syllable-initial consonant (p. 110); but they also symbolize nasality for that consonant as a fast-tempo alternative to plosion; e.g. [(mə) jaɒmb/mu:] (မ) ရောင်း ဘူး(ma)roṅ:bhū: 'does not sell' (Sprigg 1963b, 93-40), in which the plosion-nasality alternation ([-b/m-]) is symbolized by င် . The labiality feature of this junction is symbolized by the syllable-initial bh of the -n:bh--; for the place of articulation is symbolized in the initial symbol of the second of the two orthographic syllables, whether labial, alveolar, palatal, velar, or, as in the following example, dental, and therefore symbolized by s: [(mə) jaɒn̥ðe: (bu:)] (မ)ရောင်းသေး (ဘူး) (ma)roṅ:se:(bhū:) 'has not yet sold'.

Finally, and paradoxically, the distinction symbolized by င် , ဉ်, ဏ် , န် , and မ် /ံ (ṅ, ñ, ṇ, n, m/ṁ) is not one of place of articulation for consonants but place of articulation for vowels, helping to distinguish certain phonological vowel units; e.g.

[m ĩ :]	[s ĩ :]	[ɲã:]	[tɕ ã:]	[w õ :]
မင်း	စဉ်း	ဉာဏ်	ကြံ	ဝမ်း
maṅ:	can:	ñāṇ	kraṁ	wam:
'ruler'	'chop'	'intellect'	'plan'	'belly'

12 Apart from certain loan words from Pali; e.g. ဉာဏ် ñāṇ.

3. **'Stop-final'**. Similar statements can be made for the syllable-final symbols က် , စ် , တ် , and ပ် (-k, -c, -t, -p), an example of which, sok, was given on page 110 ('stop-final' junction): [(m ə)θa ɒ pphu:] (မ) သောက် ဘူး (ma)sokbhū: 'does not drink'. The term 'stop-final' is, however, a term of convenience; for the characteristic features of the junction are not confined to the stop and plosive ([-pph-]) shown above but also include the friction feature [-θθ-] that appears in [(mə) -θa ɒ θθe: (bu:)] (ma)sokse:bhū: 'has not yet drunk', and indeed go beyond that to include laterality and even nasality ([-ll-, -m̥m-, -nn-]), in all of which the features appropriate to place of articulation and manner of articulation are symbolized in the initial symbol of the second syllable of the junction.

To summarize, in 'nasal-final' and 'stop-final' junction the various features, voicing, place-of-articulation, and manner-of-articulation, require the two symbols that symbolize them to be taken jointly; and this joint symbolization reflects the suprasegmental (or prosodic) type of analysis that I have given them elsewhere (Sprigg 1963b, 90-6). It is unprofitable, in my view, to isolate the two symbols from each other and treat them as alphabetic.

B. Phonation A further suprasegmental feature, for the symbolization of which the Indian loan scripts had to be adapted, is a phonation difference found in Cambodian and Burmese. The means whereby the two types of phonation difference are symbolized in the two languages are not the same, possibly because Burmese also has to provide for tonal distinctions; in Cambodian they are symbolized through syllable-initial consonant symbols, but in the syllable final in Burmese.

1. **Cambodian (syllable-initial)**. The Cambodian 'first' and 'second' registers, with associated differences in vowel quality to some extent, are reflected in the two classes into which syllable-initial 'consonant' symbols are divided: '/qakhoosaq/ "voiceless"', e.g. k-, kh-, s-, h-, and '/khoosaq/' "voiced"', e.g. gg-, gh-, n-, y-, r- (cf. Henderson 1952, 151-3; Huffman 1970, 13-20). Since certain of the vowel symbols differ in phonetic value according to the class of syllable-initial 'consonant' symbol, those vowel sounds must be taken to be jointly symbolized by 'consonant' symbol and 'vowel' symbol; e.g. [khao] ខោ kho versus [kɒ̀] គោ go (Henderson 1952, 152-4; cf. also Huffman 1970, 19-20). This means that 'consonant' symbols have something of a vocalic role.

2. **Burmese (syllable-final)**. Burmese, on the other hand, symbolizes its distinction between 'ligamental' and 'normal' phonation to some extent through the symbols whereby its Indian predecessors distinguished short from long vowels; e.g.

'lig.': [ʔɑ̰:] အ 'a 'dumb'; ကု[kṵ:] ku 'treat medically'
'norm.': [ʔɑ:] အား 'ā: 'at leisure'; ကူ[ku:] kū 'help'

(for 'ligamental' and 'normal' see Catford 1964, 32-3, and Sprigg 1978b, 9, 15, and for a detailed account of this distinction in Burmese, Sprigg 1964, 431-6). This method of symbolization through the Indic short and long vowel symbols gives these symbols a further prosodic function, a function that applies to the syllable as a whole, in addition to the junction function described on p. 109; otherwise, 'ligamental' phonation is symbolized by a subscript circle, the

'okmrac, -့, and 'normal' phonation by the rhe'pok, -း, by က် (-k), etc., by ယ် (-y), and by other means (Sprigg 1964, 431-3).

C. **Tone (Thai, Burmese)** A further major prosodic feature of Burmese, and of Thai, that is to some extent symbolized by symbols that also have consonantal and vocalic functions is that of tone. Both languages make use of tone marks for this purpose, the -့ and -း of Burmese (in addition to their phonation functions), and the ่, ้, ๊, and ๋ of Thai. Thai, however, but not Burmese, also makes considerable use of initial 'consonant' symbols, though always jointly with syllable-final symbols, both 'vowel' and 'consonant'. The 'mid' tone, for example, is symbolized by one of the nine syllable-initial symbols of the klan class, k-, c-, t-, etc., or one of the twenty-four initial symbols of the tam' class, g-, g-, gh-, n-, y-, etc., combined, in either case, with a final long-vowel symbol or a final sonorant symbol such as n or w; e.g. กอ ka'/kɔ:/, ปิน pin/bin/. When combined with a final short-vowel symbol, however, e.g. -i, -o, or with a final stop symbol, e.g. -t, -k, it is the 'low' tone that the klan type of initial symbolizes, and so does the third class of initial symbols, the sun; e.g. kh-, s- (for a detailed account of these and other such combinations of syllable-initial and syllable-final symbols see Anthony 1970, especially 70-2 and 91-2).

Like Thai the different tones of Burmese have usually been associated with the syllable unit. One can say that (apart from certain exceptions considered below) (a) the upper of the two distinctive pitch levels is symbolized by such varied means as (i) -း (rhe'pok), combined with one of the long-vowel symbols or the nasal-final symbols; (ii) certain syllable-final vowel symbols: -ဲ, ေ-ာ (ai, o); (iii) the syllable-final 'consonant' symbols က်, စ်, တ်, ပ် (-k, -c, -t, -p); (iv) all three means of symbolizing ligamental phonation: the syllabic CV symbol (p. 107), the 'short-vowel' symbols, and the 'okmrac (-) (p. 110); while (b) the lower of the two distinctive pitch levels is symbolized by syllable-final long-vowel symbols, e.g. -ီ, -ူ (-i, -u), or syllable-final nasal symbols, e.g. င်, ဉ် (-ṅ, -ñ), or ယ် (-y), or the syllable-final vowel symbol ေ-ာ် (-ɔ̄).

Disyllabic and trisyllabic symbolization units. The exceptions to this general statement, which make it an over-generalization, are due to the fact that in certain contexts it is not the upper but the lower pitch level that is symbolized by methods (a) (iii) and (iv) above. These contexts are grammatical: particle lexical items written with the (a) (iii) and (iv) symbols have the lower pitch level when preceded within the word by a noun or a verb lexical item written with any of the upper-pitch symbols (a, i-iv); e.g. ([‾ _]) [mjò:nɛ̀:] မြို့နဲ့ mrui'nai' 'from the town'; noun and verb lexical items written with the (a) (iii) and (iv) symbols also have the lower pitch level when followed within the word by a noun or verb lexical item written with the (a) (i) and (ii) symbols; e.g. ([_ ‾]) 'ipkhan: 'bedroom', eṅ'khan: 'drawing room'. The types of symbolization (a) (iii) and (iv) are not, therefore, a constant symbolization of the upper pitch level; the grammatical status of the lexical item containing those symbols has to be taken into account; and so do the pitch and phonation features of preceding, or following, lexical items accordingly. In other words, those symbols cannot be interpreted in isolation, but must be taken jointly with symbols of their preceding, or following, lexical items; e.g. in the noun-and-particle word မြို့နဲ့ mrui'nai' the two 'okmrac (-့) symbols combine to symbolize a pitch pattern [‾ _] (cf. Sprigg 1964, 428); and in the disyllabic verb စွန့်စား cwan'ca: the symbols okmrac and rhe'pok (-့, -း) combine to symbolize a pitch pattern [_ ‾] (cf. Sprigg 1957, 128), while, in အိပ်ခန်း 'ipkhan:, it is the 'consonant' symbol ပ် -p that combines with -း to symbolize that same pitch pattern. Since, in some cases, one has no choice but to give a joint phonetic interpretation to two symbols in successive syllables, as a disyllabic tone unit, it seems reasonable to extend this 'unit' type of approach to all disyllabic nouns and verbs, and even to trisyllabic nouns. Thus, in [tɕɛʔmă:le:] ကြက်မလေး 'little hen' the three symbols က်, မ, and -း combine to symbolize a pitch pattern [_ _ ‾] for this trisyllabic word treated as a tone unit; and from the point of view of the Burmese reader too, I should guess that the three symbols are not phonetically interpreted one by one but as a three-part symbolization for a single tone unit with a [_ _ ‾] pitch pattern, to be distinguished from seven other such trisyllabic patterns (cf. Sprigg 1975-6, 16-19).

II. Scripts of Arabic origin

The Malay means of symbolizing weak-stress syllables, those containing the pĕpĕt vowel, provides a parallel from the Arabic script to the Burmese adaptation of an Indian script to deal with its [Cə-] syllables (cf. note 7); it does this by means of a syllabic symbol; e.g. the ب- of بسر bĕsar (Lewis 1954, 19, 23: but by alif for word-initial pĕpĕt, e.g. انم enam, امفت ĕmpat, and for a few exceptions, including a loan-word from Sanskrit, Lewis 1954, 25, 32).

A. **Suprasegmental (or prosodic) symbolizations** A further parallel with Burmese (and, incidentally, Tibetan), perhaps reflecting the influence of scripts of Indian origin, is to be found in the symbolization of the a vowel.[13] In Burmese this is, again, done by a syllabic symbol, Ca (simultaneously with ligamental phonation; p. 107); the Malay script uses the same means in most contexts: (i) generally, in closed syllables; e.g. سمفن sampan (Lewis 1954, 23-4, 41), very similar to मतलब matlab (pp. 106-7); (ii) in word-final open syllables where the preceding (penultimate) syllable is also Ca; e.g. راج ra-alif-jim raja (Lewis 1954, 24-8, 41). Symbolizations of this latter type, though, lend themselves to a prosodic interpretation whereby the alif is treated as a monograph symbolizing a as the vowel of both syllables taken together as a disyllabic unit, as it were $\frac{a}{\ }$(CVCV). Lewis 1954 lists a number of exceptions to generalization (ii) above, including a type in which a in a word-final open syllable is symbolized not syllabically but alphabetically, by alif, e.g. ترا tĕra (24-8, 41); but here too it is possible to give the alif a prosodic (or suprasegmental) role, as symbolizing an ĕ-a sequence, ĕa (CVCV), abstracted from a CVCV unit. A further type of disyllabic unit in which alif has implications for more than one syllable is the (-)CVCCa type, e.g. تمبا timba, بڠسا bangsa (Lewis 1954, 23), indicating an open syllable preceded by a closed syllable, or, to put it another way, word-final -VCCa, not *timaba, *bangasa.

B. **Alphabetic symbolization** In word-initial position, and in certain other types of sequence within words, a is symbolized alphabetically, by alif;

13 For the use of scripts developed from south-Indian early Grantha in Malaysia see Diringer 1968, 300-1, 314-15, 331-41, and 345-9; all these scripts, Kavi, and its descendants, in Java, Sumatra, the Sundanese islands, and Borneo, Buginese and Macassarese in the Celebes, and Tagalog and its related scripts in the Philippines have in common the use of a syllabic symbol for sound sequences of a Ca type.

e.g. (word-initial) انتن antan, مولا mula, موات muat, واڠ wang (Lewis 1954, 29-30, 32-3, 41-3).[14]

In older usage there were contexts in which some of the remaining vowels, u, o, and i, were symbolized syllabically, through CV symbols, by ya and wau respectively, with alif-ya and alif-wau digraphs as the word-initial variants (alif alone in a number of exceptions; e.g. امڤن umpan, انسڠ insang Lewis 1954, 43, 34-5).

The wide use of ya and wau means that i, e, and ai share a common symbol; and u, o, and au are similarly unspecified; e.g. (ya) تالى tali, لبير lebar, سوڠاي sungai, (wau) بولو bulu, بولا bola, ڤولو pulau (Winstedt 1945, 134). This must place those with little or no knowledge of the Malay lexicon at a disadvantage; but it should be borne in mind that English too is not without under-specification: the roman alphabet provides only five symbols for the sixfold vowel differentiation to be found in certain types of closed syllable, including syllables in /-l/, with the result that /ʌ/ and /ʊ/ have to share the letter u. Consequently, I do not know whether to pronounce Pulgram (p. 105) as /pʌlgrəm/ or /pʊlgrəm/; it is not included in the English Pronouncing Dictionary (1977), and the rather similar word Bulstrode appears as: 'bʊlstrʌʊd, 'bʌl- (66).[15]

III. Conclusion

In conclusion I would say that there is a grammatological lesson to be learnt from the adaptation of scripts of Indian and Arabic origin to the phonation, tone, and junction features of the Sino-Tibetan, Austro-Asiatic, and

[14] The Arabic script as used for symbolizing Arabic seems to me to be almost entirely alphabetic in its 'pointed' form: the three short vowel units, a, i, and u are symbolized respectively by the super- and sub-script symbols fatḥah, kasrah, and ḍammah, the long vowel units by fatḥah and ' alif, kasrah and yā, and ḍammah and wāw, with consonant status indicated by sukūn for short consonant units and by tashdid for long. The only syllabic symbol in this form of the script is tanvīn, a set of three VC syllabic symbols, -an, -in, and -un, distinguished by their grammatical role, as suffixes (the use of 's in English for the syllable [ɪ z] of, e.g., fox's brush is a rough parallel).

In its un-'pointed' style, on the other hand, the syllabic component is more prominent in the Arabic form of the script than the current Malay form; for all CV syllables, Ca, Ci, and Cu, are symbolized syllabically, and without distinction; e.g. by -ڡ for ma-, mi-, and mu-, as in the initial syllables of mashhūrun, miṣakkun, and muṣṭanaʕun (Mitchell 1953, 60-1), and, since tanvīn is absent from this style, the -an, -in, and -un suffixes are symbolized syllabically by the final symbol of the word. Thus, the -un of the three words above is symbolized, in the case of mashhūrun, by the word-final; ر ra, which therefore functions as a syllabic symbol of the CVC type (-run), while -kun and -ʕun are similarly symbolized by kāf and ʕain respectively.

[15] The limitation to 'certain types of syllable' is due to the fact that the five roman letters are enough for symbolizing the fivefold differentiation for short vowels in syllables closed by a nasal: /ɪ/, /e/, /æ/, /ɔ/, /ʌ/, but not /ʊ/; e.g. rung, run, rum (though certain speakers, including myself, use [o] in preference to [u:] in syllables with /r/ in the syllable initial: room, broom, groom; but I would assign these examples of [o] not to the /ʊ/ unit of the short-vowel system but to the /u:/ unit of the long-vowel system, as members of a r-initial sub-system).

Austronesian languages of South East Asia. The outcome has been novel, and especially prosodic, roles for symbols that had been devised for consonantal or vocalic purposes, or, in the case of C(a) symbols, both. I would suggest that there is room for a further symbolization category in addition to the alphabetic and the syllabic, namely, a prosodic category (pp. 108-9), and, further, that one should not expect a script to be exclusively alphabetic, syllabic, or logogrammatic, but to be mixed, its components being drawn from several categories of symbolization.

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