

SOME FEATURES OF KHMER VERSIFICATION

Two transcriptions are used below. The one in heavy type, representing the spelling of Khmer words, is based on the transcription usually used for Sanskrit with four main differences:

1. that the inherent vowel is represented by **̄** when there is no short mark over the final consonant and by **̆** when there is a short mark over the final consonant, while the vowel written *añ* (Sanskrit *ā*) is represented by **ā** when there is no short mark over the final consonant and by **a** when there is a short mark over the final consonant.

2. that the following vowel-signs are used to represent the symbols added by the Khmers: **u** (*u*), **uo** (*uo*), **y** (*y*), **uo** (*uo*), **io** (*io*), **e** (*e*).

3. that although no virama is normally used to mark final consonants in the modern Khmer orthography the final consonants of words are transcribed without the following symbol **̄** (which would represent the implied inherent vowel).

4. that where a character has the virama, e.g. *ṅ̄*, brackets enclose the corresponding letter in the transcription: **bhūm(i)**.

The transcription in italics is that used by E.J.A.Henderson¹ to represent the modern pronunciation.

The metres which have been used in Khmer poetry have been described elsewhere.² The purpose of this article is to discuss in further detail two of the basic features of Khmer versification, the rhymes and the syllables. A description of the recitation of five of the metres, as taught in Cambodia now, is appended.

The rhymes used by Khmer poets are based on both the vowel and final of the metric syllables involved. Nevertheless they do not always seem satisfactory. The 'imperfect' rhymes may be described as follows:

1. those which are orthographically appropriate but which are discrepant in the modern pronunciation. These may indicate that a change in pronunciation has taken place since they were first used.

2. those of which the vowels or finals are orthographically different but are pronounced alike in the modern language. Some rhymes of this category have been noted only in the poetry of the nineteenth century onwards and may therefore reflect modern developments of pronunciation, e.g. **es** with **eh**, both now realized as *eh*.

3. those of which the vowels are equivalents neither in the orthography nor in the modern pronunciation. Many of these date back to what is assumed to be the earliest extant poetry and will be discussed in detail in the following pages.

It is the tradition of Khmer poetry that the vowels of one register³ may rhyme with the corresponding vowels of the same length on the other register. Thus **kɔ̃n**, *kɔ̃:ŋ* is as good a rhyme for **bɔ̃n** *pɔ̃ŋ*, as is **lɔ̃n**, *lɔ̃:ŋ*, and **gap**, *kɔ̃ap*, rhymes with **kap**, *kap*, just as well as with **rap**, *rɔ̃ap*. Rhymes occur, therefore, in these cases, between vowels which are written with the same symbol. It is possible that at the time when these spelling conventions were established, the corresponding vowels on the two registers were similarly articulated.⁴ It seems reasonable to suppose that it was at this same stage in the development of the vowel-system that poetic conventions were being established and perhaps some of the extant Khmer poetry being composed. Thus **lāy** and **rāy** (modern pronunciation *la:y* and *ri:əy*), which rhyme together in the 'Chbap Kram', were possibly as perfect rhymes for each other, as far as articulation is concerned, at the time when the poem was composed as the spelling would still indicate them to be. However this may be, and it must of course be largely a matter of conjecture, Khmer rhymes have always been made between corresponding vowels on the two registers as well as between 'identical' vowels. Rhymes across register continue to be tolerated in modern poetry. I know of only one long poem, 'Teav Ek', in which they do not occur at all. Cross-register rhymes are the only examples noted of the first type of 'imperfect' rhymes mentioned above, those which the orthography supports but which modern pronunciation denies.

The second and third types of 'imperfect' rhymes will be dealt with together. Here we are first concerned with rhyming vowels of the same length but orthographically different; some are pronounced alike today while others are not. All common cases of this type of rhyme are mentioned below:

1. Short inherent vowel of either register rhymes with

- (a) **u**. Has been noted before final *k, ŋ, t, n, p, m, r, l, s, h*. e.g. **yɔl**, *ywəl* with **sɔmpur**, *sɔmbol*. Before final *p* and *m* only, and on the second register, the symbols are pronounced alike today, i.e. both symbols are realized as *ũ*.
- (b) **a**. Has been noted before *k, t, p, m, l, s, h*, e.g. **khɔp**, *khɔp* with **slap**, *slap*. These symbols are never pronounced alike in modern Khmer.
- (c) **o**. Only before final spirant, e.g. **bos**, *pwəs* with **smoh**, *smoh*. These symbols are always pronounced alike in the modern language, when on the same register.

2. **a** rhymes with

- (a) **ɛ**. Has been noted before the palatals, *c, ɲ, y*, and dentals, *t, n*, e.g.

cañ, *cap* with **muñ**, *mùp*. These symbols are never pronounced alike in modern Khmer.

- (b) **e** before palatals, e.g. **cañ**, *cap* with **ceñ**, *cep*. Before a final palatal plosive the vowels are pronounced alike today, both symbols being realized as **a** (*êac-âac* do not occur).

3. As might be expected because of 2, **u** rhymes with **e** before palatals, e.g. **muñ**, *mùp* with **ceñ**, *cep*. This coincides with modern pronunciation in which *ɿp* and *ep*, *ùp* and *êp* are indistinguishable. The vowels have been transcribed differently in order to maintain the link between spelling and pronunciation.

u, **ũ** and **i**, **ĩ** occasionally rhyme with **e**, e.g. **cer**, *ce*: with **prambir**, *prampũl*. Although these vowels are of different lengths it is convenient to mention them here.

4. **ĩ** rhymes with **ay**, e.g. **tay**, *day* with **stĩ**, *sdvy*. These symbols are never pronounced alike in modern Khmer.

5. **ɛ**, written with a first register-initial, rhymes with **e**:

- (a) before final **h** and in words of Sanskrit and Pali origin, e.g. **pr̥hes**, *pr̥hes* with **veh**, *vèh*; **tet**, *daet* with **hetu**, *haet*. The modern language supports these pronunciations.
- (b) in native Khmer words before final *k*, *ŋ*, *t*, *n*, *l* and in open syllables, e.g. **ɛñ**, *aen* with **leñ**, *lê:ŋ*. These symbols are never pronounced alike in modern Khmer.

6. **o** rhymes with:

- (a) **u** before *h*, e.g. **soh**, *sɔh* with **kuh**, *koh*. Modern pronunciation does not support this rhyme. (The word **noh**, *nùh*, 'that', is a modern exception as the vowel, **o**, is there pronounced as if it were **u**.)
- (b) the long inherent vowel of either register before *k*, *ŋ*, e.g. **r̥sk**, *r̥:k* with **pok**, *baok*. These symbols do not give a rhyme in the modern pronunciation.

It may be that at some time in the past each of the sets of vowels listed above did actually rhyme and that the convention of using the rhymes lingered on after the pronunciation changed (as we have guessed to be the case with rhymes across register). Certainly these rhymes between vowels written with different symbols are still used today, when many of them are not perfect rhymes.

An examination of the poetry of different periods has shown that there has apparently been a fashion in the use of certain of such rhymes. Thus the rhyme, **ĩ** with **ay**, which does not occur in what are generally taken to be the oldest poems, is used in the poems attributed to the time of King Sri Dhammaraja (reigned intermittently, 1702-1747). The rhyme is not steadily used from then onwards, however. In the poems of King Ang Duong and his contemporaries it rarely occurs. Whether this was mere fashion or a question of dialect cannot perhaps now be known. Again, the rhymes, **u** with **a** and short inherent vowel with **a** were used by King Sri Dhammaraja and the poets of the next generation and by King Ang Duong but not very much by the poets of the late nineteenth and early

twentieth centuries; the former seems to be obsolete while the latter is now used again.

The rhyme between **o** and **u** before *h* seems on the other hand to reflect a genuine development. It does not occur in what are taken to be the oldest group of poems; in the next group it occurs only with the word, **no_h**; finally all the syllables ending with **o_h** rhyme with **u_h**.

With reference to 6(b) above, there is evidence from the inscriptions that modern long inherent vowel and *ao/ô*: in many words derive from a vowel written **o**. Thus **mōk**, *mô:k*, **rōk**, *rô:k* were written **mok**, **rok** from the seventh century until the early eighteenth. They were probably therefore at some time pronounced the same, with regard to the vowel as other words then and still written with **o**, and now pronounced with *ao/ô*:. This may account for the rhyme.

So far, in discussing the 'imperfect' rhymes which are orthographically discrepant, we have been concerned with vowels which are written with different symbols but are of the same length. Two more rhymes must now be added to the 'imperfect' rhymes of the third type, those, that is, which are different both orthographically and in the modern pronunciation. The two additions are short and long vowels rhyming together. Thus the short inherent vowel rhymes with the long inherent vowel and **a** rhymes with **ā**. This feature persists throughout Khmer poetry. It is possible that the length opposition in the inherent vowel and in **a** in native Khmer words was a comparatively recent development. The short mark, which allows the short and long inherent vowel and **a/ā** to be distinguished in writing, was an eighteenth-century invention. Occasionally **ū** and **u** rhyme together.

It seems then that some of the large variety of 'imperfect' rhymes may have been perfect as regards articulation when they were first used. Once a rhyme was established it set a precedent for later poets; thus any of the above-mentioned rhymes may be used by a modern poet. Nevertheless, it appears that a wide choice of rhyming vowels was required by the poet if he was to fulfil the demands of the metres; for, quite apart from all the rhymes mentioned above, there are occasional instances of completely different vowels being rhymed together (**uo** with **o** and **y** with **ū** for example), and of final **k** being unpronounced as in the colloquial language in words such as *mô:k*, *rô:k* so as to rhyme with an open *ô*:. It might be suggested on the other hand that a near-rhyme appeals to the Cambodian aesthetic sense.

The final consonants which give 'imperfect' rhymes are few; all are orthographically different, as follows:

- | | |
|-----------------------------------|---|
| Final r with open syllable | Since final r is no longer pronounced the modern language supports this rhyme. |
| Final s and h | In colloquial speech both are usually realized as aspirates. In reading style they are distinguished. |
| Final r and l | Not now pronounced alike. |
| Final ūv and ū | Not now pronounced alike. |

It has been suggested already that certain rhyming features may be related to a particular period of poetry. It is in connection with the finals that this becomes especially clear. How far is it possible then to date a poem by the evidence of the rhymes? Working from the evidence available to me, I came to the conclusion that, while no one feature or set of features is by itself sufficient to establish with certainty the date of a poem, it may give some indication as to its age. The features enumerated below are thus indicative of age. They are given in order of value.

1. Final **r** and **l** rhyming together. A single example of this in a poem is no proof of its age, since modern poets still use the rhyme occasionally. Frequent use of the rhyme, however, may be taken as a reliable indication that it belongs to the oldest group of poetry.

2. Lack of rhyming between **s** and **h** finals. A negative feature which can prove nothing by itself but which, if it is consistent throughout a long poem, may corroborate other evidence.

3. Lack of rhyming between **i** and **ay**; between the short inherent vowel and **a**; between **u** and **a**; between **o** and **u**; between the short inherent vowel and **u** before **s**. Again, a negative argument which must be treated with circumspection.

The oldest extant dated poem known to me, written on the inscription No. 40(C), dated 1633 çaka (1701 A.D.) and published in *Ganthamala*, Vol. VIII, *Inscriptions modernes d'Angkor*, shows the above characteristics. The following poems have exactly the same features:— 'Chbap Ker Kal', 'Chbap Peak Chas', 'Preah Loeng Mêas', 'Chbap Kram'.⁵ Three of them may perhaps for this reason be regarded as being at least as old as, if not older than, the inscription.

The poems of King Sri Dhammaraja are not very much later in date than the inscription, but it would seem that a new set of rhymes were used by him and later poets. Perhaps in the inscription of 1701 an older set of conventions is followed. The following characteristics are noted in the poetry of his poetic successors:

1. **r** and **l** finals are still a common feature but
2. **s** and **h** finals rhyme together.
3. **u** and **a**; short inherent vowel and **a**; **i** and **ay** rhyme together.

A large group of poems seems to fit into the eighteenth century, having the above characteristics. They are: 'Lboek Nokor Veat', 'Ruong Mea Yoeng', 'Chbap Tunmean Khluon', 'Ream Ker', 'Sisau', 'Chbap Pros', 'Chbap Vithur Bandoet', 'Kbuon Chumreah Utpatahah', 'Chbap Srei' by Moen, 'Chbap Trei Net'.

In the poems by King Ang Duong and other royal persons coming after him in the nineteenth century, final **r** and **l** are no longer rhymed together.⁶ As has been mentioned, rhyming between **i** and **ay** temporarily dropped out during the reign of King Ang Duong but came in again immediately afterwards. The other rhymes used by King Sri Dhammaraja were still used.

The writer's interest in the metric syllable sprang from the desire to

answer two questions: (1) How should the syllable, as counted in verse, be defined? (2) Have the Khmer poets kept strictly to the number of syllables required by the metres?

The reader of Khmer poetry who counts all the syllables implied by the orthography is forced to the conclusion that much of it was composed with great freedom, since, while a small number of verses has by this reckoning too few syllables, a very large number has too many. When one hears poetry recited, however, two things become clear. First, no difficulty is encountered in fitting orthographically irregular verses into the rhythm of the required tune. Roeské says,⁷ 'Dans la récitation, on abrège le mot s'il y a une syllabe de trop ou on le prolonge s'il y a une syllabe de moins'. Second, when the metric syllable, that is, the part of the verse which is recited on a specific note or series of notes in the tune, is the realization of several orthographic syllables, the structure of the latter is limited to certain types of syllable. After a detailed examination of recitations and of the scansion of Khmer poetry, it was found that, in most but not quite all the poetry which was handled, the following remarks apply. The words which have more written syllables than are required by the metre are almost all of one type; they are words of Sanskrit or Pali origin in which one or more inherent vowels or short vowels occur. When the metre so requires, a syllable with an inherent vowel or short vowel is given a rapid pronunciation, comparable with the colloquial realization of such words,⁸ and is thus recited either, together with a long syllable of the word, during the time allotted to one metric syllable or, together with another short syllable, as one metric syllable. Thus **mahā** may be recited either as two metric syllables, ¹*mā*:¹*ha*: or as one, ¹*mā*¹*ha*:. **bharyā** may be recited as three metric syllables, ¹*phē*¹*ri*¹*yī*:²,⁹ or as two, ¹*phē*¹*ri*¹*yī*:². Occasionally a trisyllable of Indian origin needs to be recited as one metric syllable only. Thus, in the following verse from a poem by King Ang Duong in the metre with nine syllables in each verse,¹⁰

dhv̄y mtec ge luəc pān prān thlay varamuut

thv̄r̄: mādec kē: luəc ba:n pra:n thlay v̄əɾə¹mūt¹¹

varamuut has to be one metric syllable. It would have been possible to reduce **mtec** to one metric syllable, *mdec*, instead of two, *mādec*,¹² so that **varamuut** might function as two metric syllables, were it not that the rhythm of the rhyming groups of syllables requires **pān**, rhyming with **prān**, to be the last of a group of three metric syllables.

On the whole it is more usual for a polysyllable to need the colloquial realization in recitation than for it to be required in its full length. No objection seems to be felt to the use of different pronunciations of the same word in verses which occur near together. Thus in the poem, 'Lboek Nokor Veat', the following verses occur in successive stanzas:

stec pry visnukomm
brōh visnukomm

sdac praə viśnūkam
prēəh viśnūkam

The metre, *Bat Kakagati*, requires four syllables in each verse. Thus **visnukomm** has to be pronounced as one metric syllable in the first verse and as three in the second.

Apart from this type of Indian borrowing, then, the syllables implied by the Khmer orthography have in most Khmer poetry the value of metric syllables, with the occasional exceptions now to be discussed. It is normal for two types of word which have hardly more than monosyllabic value in speech to be recited as two metric syllables. Thus **r5l5t**, **ponlae** (in rapid colloquial speech, *əlwət*, *pəlae*) are not, even in formal speech or reading style, pronounced with equal stress on the two 'syllables'. *rə'lwət*, *bən'lae* would perhaps be the transcription best representing the pronunciation of the two words in prose reading. In the recitation of poetry, however, the first 'syllable' of such words may have equal stress with the second (*'rə:lwət*, *'bən'lae*) or may even have a stronger beat in the rhythm of the tune.¹³ Moreover, such pieces may occur as the last syllable in the verse and may bear the rhyme. The following verses from the poem, 'Kakei', by King Ang Duong, contain three instances in succession, all rhyming together:

prē prān prōp pr5-
lom luən kākī
metrī trek tr5-
k5n k5bī p5-
pos pān thvp thay

*prae pra:n prō:p prō:-*¹⁴
laom luən ka:kxy
mē:trxy tre:k trō:-
kə:ŋ kə:bxy bə:-
baos ba:n thaəp thay

It is only a rare occurrence for these types of word to have their colloquial pronunciation. No example has been noted in the 'Chbap'.¹⁵ The poem, 'Kakei', provides a few instances, such as in the first verse of the following stanza, written in the metre, *Bat Pol*:

khom ət s5nktot nūv k5mhmūn
k5msānt tel khmūn
k5mptuūn k5mptau d5yā

khom ət səŋkət nūv kəmhxy
kəmsa:n dæl khxy
kəmdxy kəmdau tēəyì:ə

in which either **s5nktot** or **k5mhmūn** must count as one syllable. Since the rhyme between the second and fourth metric syllables here requires **s5nktot** to be given disyllable value, **k5mhmūn** is the word to be uttered in the colloquial style.

The instances of verses with too few syllables are rather rare. Where such poetic licence is taken, the last syllable of the verse, or of the rhythmical section of the verse, is prolonged in recitation in place of the missing syllable.

It seems then that provided that one accepts as normal the frequent abbreviation of suitable syllables in Indian borrowings and the occasional abbreviation of native Khmer words, as demonstrated above, one can state that the written syllable is the metric syllable and that the Khmer poets have kept quite closely to the number of syllables required by the metres.

It was mentioned that the above statements did not apply to all Khmer poetry. So far as the writer knows the only outstanding exception is one long poem, the 'Ream Ker'.¹⁶ This poem does seem in any case to be in a class apart, even from a purely technical point of view; for, while other poetry is recited in schools, homes and on the radio without any accompanying music, the 'Ream Ker' is normally recited with accompanying music and dancing. It does not fit into the category of song, however, since the metres used are those of poetry, not those of song.¹⁷ Certainly it differs from the poems discussed above in the frequency of the need to abbreviate Khmer words and in the greater frequency of the occurrence of verses with too few syllables.

Modern recitations have been used above as the basis of statements which concern poetry composed over two hundred years ago. This seems defensible for two reasons. First, the style of recitation is itself based on tradition and may well be as old as the poetry. Second, the scansion of all the poetry examined can be carried out satisfactorily on this basis.

The recitation of Khmer poetry resembles singing or intoning rather than speaking. Each metre, as taught in modern Cambodia, has its own tune and rhythm. Two Cambodians reciting the same stanza or one person reciting two stanzas may give different versions¹⁸ but the same outline of tune and rhythm will be audible in both cases.

A striking feature of the recitation of Khmer poetry is the humming sound which may occur, it has been found, after the utterance of metric syllables of which the final consonant is either (1) a nasal or (2) a plosive or (3) *h* or *s*. According to whether the final consonant is 1, 2 or 3, the person reciting uses (1) the nasal, (2) the nasal homorganic with the plosive or (3) a velar nasal, to hum on the appropriate note or notes. This humming sound will be referred to as the recitative nasal.

The duration of the utterance of the metric syllable and the recitative nasal which follows it must of course be adapted to the requirements of the tune and rhythm. Thus the utterance of the metric syllable may have to be more rapid than it otherwise would be in order to leave time for the nasal. Syllables which must be uttered on one short note (represented below by semiquavers) are not often followed by the recitative nasal. Syllables which must be uttered on one longer note are usually followed by the nasal if their final consonants are suitable. Syllables which must be spread over two or more notes and whose final consonants permit it are almost always followed by the nasal;¹⁹ and in these cases the latter usually begins with the second note of a descending sequence and the third or last note of an ascending sequence. (Compare *nih*(η) and *râ:k*(η) in tune 2.) Where a metric syllable which must be recited on one long note is followed by the recitative nasal, the nasal is syllabic. Thus the one long note which is the allotted tune for that syllable is heard as two notes (see *kuî*(*n*) p. 220, tune 1). When, however, a recitative nasal is used, contrary to normal custom, after a syllable which has only a short note (see *tûk*(η), p. 221, tune 5), the nasal is not syllabic. The recitative nasal following *h* or *s* is rarely syllabic if the metric syllable is recited on one note only. The taste of the person reciting may vary a little

with regard to the recitative nasal; one person may use it in reciting a given metric syllable of a given poem, while another may choose not to do so, especially if a succession of suitable syllables has just occurred.

I recorded in Cambodia the recitation of extracts of five poems of different metres by Miss Nophikoun, a teacher at the Malika School, Phnom Penh. Dr.A.A.Bake, Reader in Sanskrit in the University of London, gave considerable time and thought to the preparation of a musical notation from my recordings, for which I am very grateful indeed. One stanza of each poem is given below. The musical notation and the representation of the recitative nasal are as in the recording of that stanza. Dr.Bake also most kindly wrote some remarks on the musical aspect of the recitations, which are given on pp.221-23.²⁰

1. Bat Kakagati. The stanza is from the poem, 'Chbap Kram'.

Syllable-scheme: 4: 4: 4: 4: 4: 4.

tỳ:p kùt(η) aen ywəl — tha p̄wəs(η) ka:c səl — khvη

kham bot ph̄n̄:ə skā ka bot n̄h(η) prə:kham s̄əh s̄a — ywəl

sna:m c̄əək c̄i:ə — b̄ən - t̄əəl t̄iən kdat(η) tỳ:p,

2. Bat Brahmagita. The stanza is from the poem, 'Tumnuonh Trei'.^{etc.}

Syllable-scheme: 5: 6: 5: 6.

khluən mda:y n̄n̄η slap havy —

kom ko:n a:y — n̄uiv riən a:y — t̄uiv rò:k — (η) s̄i

aoy ch̄a:y - p̄i t̄i n̄ih (η —) phot - m̄ə - n̄s-sa khluən,
etc.

3. Bat Pumnol. The stanza is from the poem, 'Ruong Mea Yoeng'.

Syllable-scheme: 6: 4: 6.

mi:ə yǝ:ŋ nəh nùŋ phəə'-ri - yi:ə - ho:p

ba:y hayy na kə kan nùv da:v laŋ tùv - cam, etc.

4. Bat Bantol Kak. The stanza is from the poem, 'Ruong Sophea Tunsay'.

Syllable-scheme: 4: 6: 4: 6.

thlaeŋ daoy tùm - nà:ŋ dəm - naŋ trvy phə:ŋ yi:ə - tra pǝ:p

nùŋ - cùc na trvy sraek tha vɔ:y ciəs ceŋ cùc(ŋ), etc.

5. Bat Peak Prampoel. The stanza is from the poem, 'Peak Preng Pradau'.

Syllable-scheme: 7: 7: 7: 7.

knoŋ daŋm ci:ə - tək (ŋ) tək(ŋ) nì - ba:t (ŋ) nùyy ha: - svp

ci:et nùh(ŋ) tə: - tha kùt kaŋt ci:ə sat(ŋ) sa'(ŋ) kù - na nùv knoŋ prùk - sa a - thvi:ətha:n prùyy, etc.

Remarks in connection with the musical notations of the Khmer metres by Dr. A. A. Bake:

The bar-lines in the notations have been put only after listening to all the available stanzas. It was found that in each case the musical time-scheme hardly varied at all from beginning to end. The melody given, however, is only that which fitted the particular stanza noted down, as, in contrast to the regular succession of stressed and weak beats, there was a marked

variation in the melody from stanza to stanza in order to suit the requirements of the words.

The fact that the poems were chanted unaccompanied allowed natural uncertainties and hesitations of the human voice to play a greater part than if the voice could have measured itself against a steady base. All the same, the voice was a good one and there was no doubt as to the general size of the intervals. They were near enough to our scale to be represented in ordinary staff notation. The difficulty lay in the nasal syllables of definite notes which were hard to fit into the time-schemes, since they were definitely not grace-notes but, on the other hand, did not seem to have a time-value that could be easily expressed in notation.

The melodies showed a strong tendency to use a scale with one or two degrees missing. As the full octave did not occur, it was impossible to say what the whole octave scale would have been, but the character seemed to be predominantly pentatonic.

As far as the pattern of musical time is concerned, it seems that in the chanting of Cambodian poetry there are two conflicting tendencies—the same as are found in India. On the one hand there is the prosodical scheme where the quantity of each individual syllable in the lines of poetry determines the metrical shape of the melody. A very clear instance of this tendency is No. 4, where the prosodical scheme with two very characteristic successions of short notes is the determining factor. It would be very difficult to fit a regular time-scheme with bar-lines into this pattern. The stanza has a very strong caesura before the fourth quarter, which gives the last line the appearance of an afterthought or a coda with a marked metrical pattern, beginning with a succession of six short notes. This afterthought, however, does not necessarily coincide (any more?) with the sense of the words.

But for the fact that slight changes in longs and shorts occur from stanza to stanza (and that a pause is sometimes filled up with part of a syllable), one might approximate this pattern to that of the classical Indian metres of the *śārdulavikrīḍita*-type. Perhaps it is even closer to the later Buddhist Sanskrit metres. The general appearance of the underlying metrical scheme of the melody is:

—/—υ—υ υ—υ—υ —υ—υ—[υ]/ υ—υ—υ—υ—υ—υ—υ//

In strong contrast to this purely prosodical melody-pattern stands the purely musical time-pattern, as, e.g. No. 1, a stanza of seven times four syllables, in which, however, the four metrical syllables do not correspond to a musical time of 4/4, but are forced into a pattern of unmistakable bars of three beats. Each stanza of seven quite rigid bars is then divided up into a group of three and two groups of two bars. The closing two-bar phrase is a near parallel to the two opening bars.

The other examples lie midway between these two extremes. The original prosodical scheme is still discernible, but the musical time with its stressed beats has exercised marked influence on it. The number of syllables in the stanza of the verse does not determine the total number of

beats in the groups of bars, nor does the original succession of longs and shorts determine the rhythmic character of the melody from bar to bar.

The scheme 5.6.5.6 (No.2) is broken up into two distinct phrases with a marked pause between them. Both consequently should have eleven beats. In point of fact, however, the musical time starts on an off-beat and the remaining ten syllables of the semi-stanza are brought into the musical pattern of 6/8, 5/8, 6/8, 5/8, plus a rest. Then the same pattern is repeated to the words of the next two lines, with a rest before the off-beat of the next stanza.

A kindred procedure is followed with the metrical scheme 6.4.6 (No.3) which is compressed into a pattern of ten beats. This again starts with an off-beat. The counting begins with the stressed second syllable of each stanza. There is a marked rest after the fourth beat, but the beats continue uninterruptedly with a bar of six beats which completes the 10/4 musical scheme.

The same general principle of having a musical line reminiscent of but not identical with the prosodical pattern seems to have been at work in the last of the five examples where, in the metrical scheme of four times seven syllables, the 'seven' appears in the number of beats in each of the six 'bars' of the melody of each stanza.

The recording of the chanting of this particular metre was somewhat faulty and consequently it was more difficult to arrive at a clear picture of what was happening. The notation therefore is definitely a tentative effort.

Notes

¹E.J.A.Henderson, 'The Main Features of Cambodian Pronunciation', *BSOAS* xiv (1952), pp. 149-173.

²M. Roeské, 'Métrique Khmère. Bat et Kalabat.' *Anthropos* viii (1913), pp. 673-687, pp. 1028-1043. It may perhaps be noted here that modern Khmer poets occasionally use metres which, though not actually described by Roeské, have the same verse- and rhyme-pattern as some of the metres with which he dealt. Thus stanzas consist of 4 verses, each having either 10, 11, 12 or 14 syllables with rhyme-schemes as follows:

1st Stanza	a	2nd Stanza	d
	b		c
	b		c
	c		e

The exact position of the internal rhyme varies, c.f. the metres with 6, 7, 8 and 9 syllables described on pp. 676-679 of op. cit.

³For the use of this term see E. J. A. Henderson, op. cit.

⁴Whether a register-distinction was then in operation is not, I think, known. It must surely be assumed to be possible that the surd and sonant initials once implied voice-opposition and not a register-distinction.

⁵The 'Chbap Kram' is the work of Preah Sugandha who lived during the reign of Sri Dhammaraja; it may therefore be at least slightly later than the poem on the inscription.

⁶One or two occurrences in the poetry of Nong, who wrote during King Ang Duong's reign, are the only exceptions noted.

⁷Roeské, op. cit., p. 673.

⁸The written inherent vowel is realized as ə instead of ɛə or ɔ̃; no glottal stop closes the syllable and stress is absent.

⁹As shown on p. 221 in verse 1 of example of Bat Pumnol.

¹⁰Published in *Kambujasuriya* (1939), No. 5, p. 106.

¹¹*vêarə'mwət* instead of *'vêə'rêə'mwət*.

¹²See below re abbreviated Khmer words.

¹³See *domnaə* in the stanza from the poem, 'Ruong Sophea Tunsay', p. 221; cf. also the treatment of syllables in Khmer songs.

¹⁴Here, in the words, **prəlom** and **trəksə**, and on p.220 in the word, **prəskham**, the first vowel is transcribed ə:, not ə in order to represent as closely as possible the pronunciation of the words in these contexts of recitation.

¹⁵It is not surprising that in these poems, written for the moral training of the young, the orthography should be respected.

¹⁶Khmer version of the Ramayana.

¹⁷See Roeské, op. cit., pp. 1028-1043, for a description of the construction of Khmer songs.

¹⁸Compare the variant versions of the same air played on the Cambodian xylophone, by which in fact the musician shows his skill.

¹⁹This, taken in conjunction with what Dr.Bake writes on p. 222 with regard to the quantitative nature of the prosodical schemes of the metres, would suggest that in Khmer poetry the recitative nasal may have been introduced to create the required long syllables.

²⁰It will be observed that no time signature is given in the musical notation for meters 2 and 4. The reason for this is explained in Dr.Bake's notes.