#### ĀNANDAJOTI BHIKKHU

# AN OUTLINE OF THE METRES IN THE PĀĻI CANON

#### Introduction

An understanding of the basic principles underlying Pāḷi metrical composition is not hard to acquire and will certainly enhance any reader's appreciation of the texts of Early Buddhism. Some of the most important and inspiring of these texts are written either wholly or mainly in verse, and even in the prose collections verse abounds. Below is a table giving estimates of the verse numbers in some of the most important collections in the *Sutta Piṭaka*, from which we can see that that collection alone contains well over 20,000 verses (numbers are based on the Pali Text Society [PTS] editions except where stated, and in some cases are approximate only):

Dīghanikāya	280+	
Majjhimanikāya	230+	
Saṃyuttanikāya	1000+	(945 in Sagāthavagga)
Anguttaranikāya	570+	
Khuddhakapāṭha	72	
Dhammapada	423	
Udāna	77	
Itivuttaka	263	
Suttanipāta	1149	

Vimānavatthu	1291 (Ce)1
Petavatthu	823 (Ce)
Theragāthā	1279
Therīgāthā ·	522
Jātaka	6905 (Ce)
Apadāna	5228 (Ce)
Buddhavaṃsa	960+
Cariyapiṭaka	372 (Ce)

In recent times much scholarly work in this field has been produced, so that it is now possible to outline the prosody of these texts with some degree of accuracy. However the difficulty the interested student faces at this point is that the studies that have been done are either too detailed for the beginner, or too narrow, being based on only one metre, or one type of metre.

This paper therefore is an attempt to summarise, within a relatively short compass, and hopefully in a fairly straightforward way, what is so far understood about Pāli verse composition during the canonical period. As such it relies very much on the work of previous scholars in this field such as SMITH, WARDER, and NORMAN<sup>2</sup>, whose tables on usage have been consulted at every stage. However, I have also re-scanned a number of works wherever it seemed necessary to check descriptions and standardise terminology. I have also attempted to summarise the results of monographs written by Alsdorf, Bollee, Bechert, and others.

In this paper I have preferred to use the Pāli names of the metres rather than their Sanskrit equivalents, as is the more common practice in recent works on the literature. Although verse composition in Pāli is intimately related to that of its cultural environment, it nevertheless represents a definite stage in the development of Indian verse compo-

<sup>&</sup>lt;sup>1</sup> For the key to the abbreviations used in this paper please refer to the Abbreviations listed at the end of this paper.

 $<sup>^2</sup>$  For the various works consulted in preparing this paper see the Bibliography at the end of this paper.

sition. It seems reasonable then, that if our intention is to describe the metres as they appear in the  $P\bar{a}$ li sources, that we should also designate them by their  $P\bar{a}$ li names, and understand from the outset that these metres differ somewhat from their usage in other, or later, cultural contexts.

At the time of the composition of these verses, of course, there was nothing like the Sanskrit hegemony in cultural matters that emerged after the canon was closed. In fact, it appears that in the period under discussion it was the vernacular cultures, of which Pāļi forms a part, that were in the forefront of cultural evolution, adopting popular or folk forms into their compositions, which were still quite fluid in structure, and which were only later classified and organised by writers on Sanskrit aesthetics. However, for the convenience of the student, in preparing this paper I have provided Sanskrit equivalents for the metres (and occasionally other words) at relevant places in the paper, and these and others are also noted in the glossary.

This paper is divided into 4 sections: the first deals with the rules for scansion, and the exceptions that have to be taken into consideration; the second presents a description of the metres themselves; the third considers briefly the important subject of the mixing of metres; and the fourth an index and glossary, which provides definitions of all the most important terms used in the literature, and seeks to disentangle some of the confusion that exists in the terminology.

In the descriptions that follow these conventions are used:

- $\smile$  = short;
  - -=long;
  - = short or long;
  - = one long or two shorts;
  - = one short or one long or two shorts;
  - = one short, one long & one short or two longs;
  - = = two shorts & one long or one long & two shorts.
- Sarabhatti vowels are normally written in superscript e.g. ariya
- Resolution is indicated by double underlining thus:

- In the metrical markings above the verses the *pādayugas* (pairs of lines) are separated by a double vertical line thus: ||;
- A single vertical line | marks off the main structural segments within a line (the opening, the break, & the cadence)<sup>3</sup>.

### Acknowledgements

The idea for this paper arose out of a talk I had with the English bhikkhu Ven. Paññānanda, in which we discussed the struggle we had both been through at the beginning of our studies owing to the lack of a simple, comprehensive guide to Pāli metrical composition. From the start Ven. Paññānanda has helped in this work by reading it through and making a number of corrections and suggestions for improvement which have helped to clarify the presentation.

Recently another monk, who wishes to remain anonymous, made a very careful review of this work and made many useful suggestions and corrections which have greatly enhanced the presentation of this paper. It should be noted that without the generosity of these monks this work would be so much the poorer.

#### ONE: SCANSION AND RELATED MATTERS

#### 1.1 Scansion

In analysing Pāļi verse a syllable is considered to be short or long metrically. Through the alternation of short and long syllables it is possible to build up rhythmic structures just as it is in music.

In order to define what is a short and what is a long syllable there are two sets of variables that have to be taken into consideration,

 $<sup>^3</sup>$  Note that sometimes in the literature on the subject segments and  $p\bar{a}dayugas$  are seperated by the use of a comma.

which is whether the syllable is open or closed; and whether the vowel is short or long.

- 1) An open syllable is one in which a vowel is followed by another vowel, or by not more than one consonant; a closed syllable is one in which a vowel is followed by a conjunct, or by the niggahīta (m).
- 2) a, i, & u, are naturally short (rassa) vowels; ā, ī, & ū, are naturally long (dīgha) vowels. e & o are long in open syllables and short in closed syllables.

An open syllable with a short vowel is short metrically.

A closed syllable, or a syllable with a long vowel, is long metrically.

In analysis 2 signs are used to indicate length,

viz:  $\smile$  = short; - = long.

We can represent the rules for scansion like this:

#### **SYLLABLES**

		open	closed
	short	*	
V	aiu	Ų	_
V O			
W	variable		
E	e o	*****	
L			
S	long		
	āīū	_	(-)

Here is a verse from Mangalasutta of  $Khuddakap\bar{a}tha$  (5: 1) together with its analysis:

# 1 2 3 4 5 6 7 8 11 1 2 3 4 5 6 7 8

a & b Bahū devā manussā ca, ~ mangalāni acintayum,

c & d ākankhamānā sotthānam, ~ brūhi mangalam-uttamam.

In this verse all the principles outlined in the rule can be seen:

- 1) a short vowel followed by another vowel =  $\circ$ , b 4
- 2) a short vowel followed by a single consonant = •, a 1, 5; b 2, 5, 7; c 3; d 2, 4, 5, 7
- 3) a short vowel followed by a conjunct consonant = -, a 6; b 1, 6; c 2; d 3, 6
- 4) a short vowel followed by niggahīta = -, b 8; c 8; d 8
- 5) a variable vowel followed by a single consonant = -, a 3
- 6) a variable vowel followed by a conjunct consonant = -, c 6
- 7) a long vowel followed by a single consonant = -, a 2, 4, 7; b 3; c 1, 4, 5, 7; d 1

Because of the tendency in Pāli for all syllables to be no longer than 2 measures ( $\smile = 1$  measure; - = 2 measures), a long vowel followed by a conjunct consonant is rare, and doesn't occur in our example. Note however that there are some words that do have a long vowel followed by a conjunct consonant, like  $sv\bar{a}kkh\bar{a}ta$  &  $br\bar{a}hmana$ , and they do occur in verse, where they are counted as 2 morae as with a long vowel or a syllable containing a conjunct consonant.

### 1.2 Digraphs

Note that in presenting Pāļi in Roman letters aspirates are indicated by digraphs (kh, gh, ch, jh, etc.) These are not to be taken as conjunct consonants, as they represent but a single sound, and are to be counted as single letters are elsewhere (indeed, in the Sinhalese, Burmese, Thai & Indian scripts they are normally represented by single letters).

#### 1.3 Conventions

As stated above two signs are used to indicate syllabic length (or weight, which is both a more precise definition, and more in keeping with Indian terminology), they are:

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 = short (lahu, lit: light) = long (garu, lit: heavy)
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This is the convention that is normally used in Europe, and the one followed in this paper. However it should be noted that in Indian works on the subject just the opposite convention normally prevails (i.e.  $\sim = long$ , - = short)! Therefore when consulting works on metre care must be excercised to find out which convention is being employed.

### 1.4 Exceptions

Occasionally we come across exceptions to the normal rules of scansion:

- 1) Some conjuncts do not make position (i.e. they fail to make the preceding syllable long as expected).
- 2) Occasionally partial vowels (*sarabhatti*) are written, but have to be ignored when scanning a verse.

# 1.5 Conjuncts not making position

The most common conjunct that does not make position is "br", which regularly fails in this regard in the following words: "brāhmaṇa", "brahma-", "brūti" (and its present declension), & "anu-brūhaye". This last is particularly interesting because elsewhere "br" regularly does make position medially.

Other words that sometimes fail to make position are "tvam", "dvāra", & "nhātaka".

"by" (or, alternatively "vy") quite often fails in this regard also. Other cases must remain doubtful.

# 1.6 Sarabhatti (svarabhakti), "broken", or partial vowels

Some words contain partial vowels that normally have to be ignored when scanning a verse. They usually involve the seperation of two semi-vowels; or of a semi-vowel from the aspirate, the nasal, or the sibilant. Some of the more common words containing *sarabhatti* are listed here (with the *sarabhatti* vowel in superscript):

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ar^{i}ya (normally to be scanned as ( - \sim) ir^{i}yati ( - \sim \sim) car^{i}ya ( - \sim) vir^{i}ya ( - \sim) ar^{a}ha ( - \sim) kay^{i}ra ( - \sim), in this nh is counted as a double consonant, making the previous syllable long.
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In illustration of *sarabhatti*, there is this verse from *Maṅgalasutta* (Khp 5: 10)<sup>4</sup>:

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Tapo ca brahmacariyañ-ca, – ariyasaccāna' dassanaṃ<sup>5</sup>, – — — — — — — nibbānasacchikiriyā ca – - etaṃ maṅgalam-uttamaṃ.
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Note that sometimes these vowels must be scanned as though they were indeed full vowels, and as it is not possible to discern any rule about this we must presume that it is due to metrical considerations (m.c.  $= metri\ causa$ ).

<sup>&</sup>lt;sup>4</sup> For abbreviations of text titles see the Bibliography at the end of this paper. <sup>5</sup> For the loss of *niggahīta* m.c. in line b, see 1.11 below.

From the *Lakkhaṇasuttanta* (D. 30. 2. 9), a line in the *Rucirā* metre<sup>6</sup> where kariya must be scanned as containing 3 syllables:

Sukhapphalam kariya sukhāni vindati.

\_\_\_\_;\_\_\_,\_\_\_

Occasionally we come across a line where the same vowel occuring in different positions must be scanned one time as *sarabhatti*, and the other as a full short vowel, as in Dhp 313:

Kayirañ-ce kayirath' enam ~ dalham enam parakkame.

# 1.7 Fluidity

In verse composition it was always considered possible to use alternate forms of words according to the needs of the metre. For that reason we sometimes find unusual forms in verse e.g. datthu (for  $disv\bar{a}$ ),  $gh\bar{a}tv\bar{a}$  (for  $gh\bar{a}yitv\bar{a}$ ). In the nominal inflection we sometimes find forms have alternative quantities e.g. in the masculine dative & genitive plural  $-\bar{i}nam$ , and the feminine ablative singular  $-\bar{i}to$  etc. As these alternatives were available in the language, they were simply employed according to convenience.

#### 1.8 Metrical licence

Besides these though, we also find many instances where words have been altered in certain ways in order to meet the needs of the metre, these can be summarised as follows:

- 1) Lengthening or shortening of vowels
- 2) Doubling or simplifying of consonants
- 3) Employing or dropping the niggahīta

<sup>&</sup>lt;sup>6</sup> For the parametres of this metre see 2.8 below.

It should be pointed out that these changes cannot occur arbitarily, but only in certain positions in words, which we may summarise thus:

- 1) End syllables are the ones most likely to be changed
- 2) Medial syllables only change where there is junction (either between words in compound, or between stem and affix)
- 3) Rarely, initial syllables may be changed also.

# 1.9 Vowel changes

We quite often find in verse composition that the vowels -\(\tilde{a}\), -\(\tilde{1}\), and -\(\tilde{u}\), have been either lengthened or shortened m.c. End vowels are often subject to these changes, and end vowels in -\(\tilde{1}\) in particular, indeed the lengthening of this vowel m.c. far exceeds all other cases. Occasionally vowels in medial position also undergo change, this being more common than the doubling or simplifying of consonants (which obtains the same result metrically).

The vowels e & o are variable in length, being normally long in open syllables (e.g.  $up\bar{e}kh\bar{a}$ ), and short in closed syllables (e.g.  $up\bar{e}kkh\bar{a}$ ). Occasionally in verse we find that these vowels must be scanned as short even in open syllables, and, as with the other vowels, this seems to occur particularly when they stand at the end of a word.

Example from *Ratanasutta* (Khp 6. 10f), where the last syllable in *abhabbo* must be scanned as short:

Cha chābhiṭhānāni abhabbŏ kātuṃ

# 1.10 Consonant changes

Another way to change the length of a syllable is by doubling or simplifying consonants. When a conjunct consonant is simplified it leaves an open syllable, which, provided the vowel is short, is short metrically. When a single consonant is doubled it closes the previous syllable, which then has to be scanned as long metrically.

In the example from *Ratanasutta* quoted above we can see that the double consonant in *abhiṭṭhānāni* has been simplified to meet the requirements of the metre.

# 1.11 Niggahīta

As can be seen in 1.1 above, a short vowel followed by niggahīta is long metrically, while if it is followed by labial m (and then a vowel) it is short metrically. It seems that the retention of niggahīta, or the change to labial m before a vowel was somewhat fluid even in prose in the canon. In line with our discussion in 1.8 above these alternatives may be applied according to the needs of the metre. Occasionally in verse we find that niggahīta is dropped altogether from the end of a word so as to leave the last syllable open and short. Example from Dhammapada (vs 183d):

Etaṃ Buddhāna' sāsanaṃ (= Etaṃ Buddhānaṃ sāsanaṃ).

### 1.12 Verses that do not scan correctly

It may come as a surprise that when so many changes are considered to be permissible, quite often the expected change does not in fact take place, even in cases where it appears to be easy to do so, and the metre is simply left "wrong" according to the norms that otherwise prevail.

# 1.13 Ti, and the recitor's remarks

It should be noted here that the quotation marker "ti", when it occurs at the end of a verse is normally considered as outside the metre (cases where it may need to be counted as inside the metre metri causa in order to make a line scan remain doubtful). Note however that ti and iti sometimes occur as an integral part of a verse, and the syllables are then counted as normal.

A similar phenomenon is the case of the so-called "recitor's remarks" (e.g. "iti Dhaniyo Gopo", Sn 1:2 vs 1 (vs 18), and see GD II, pg 137 for references), which are also outside the metre, and are presumed to have been added in by the recitor in order to clarify the context.

# 1.14 Syllabic equivalence

In Pāļi metrics it is clear that an equivalence was felt in the relationship between short and long syllables, so that to all intents and purposes 2 shorts = 1 long (i.e.  $\smile = -$ ). This has given rise to two complimentary phenomena which may be seen in composition:

- 1) the resolution of one long (or presumed long) syllable into two shorts: -> ->
- 2) the replacement of two short (or presumed short) syllables by one long one: ✓ ✓ > −

#### 1.15 Resolution

The resolution of a long (or presumed long) syllable into two shorts is a common feature of verse composition. The first syllable of any line is particularly susceptible to this treatment, but resolution is found mid-line also.

It appears however that resolution is only allowed in regard to the first two syllables of a word (including words that appear as the second half of a compound, or after a prefix). An exception to this seems to exist in regard to the negative particle "na", which sometimes forms the first half of a resolved syllable.

This "rule of resolution", as we may call it, can help in identifying the underlying structure in lines of verse that are otherwise hypermetric (i.e. lines in which there are syllables additional to the normal metre), and we can thereby correctly identify the variation in a *Vatta* prior line, or the *gaṇa* structure in the bar metres (this will be

illustrated later in the paper, see 2.4 & 2.15). It may be noted here that the author of *Buddhavaṃsa* seems to have been a master of the art of resolution, as that text abounds in this particular feature.

1st example from *Buddhavaṃsa Sumedhakathā* vs 46 (A *Vatta* verse (normally 8 syllables long) showing resolution of the 4th syllable in line c, resolution of the 6th in line e, and resolution of the 1st in line f):

a & b Aniṭṭhite mamokāse, — Dīpaṅkaro Mahāmuni,

c & d Catūhi satasahassehi — jaḷabhiññehi tādihi,

Pathyā
e & f Khīnāsavehi vimalehi — paṭipajji añjasaṃ jino.

Further example from the *Vatthugāthā* to *Pārāyanvagga* (Sn 995), where it will be seen that resolution sometimes can occur twice within the same line:

katamamhi vā janapade lokanātho?

### 1.16 Replacement

The compliment to resolution is when two short (or presumed short) syllables are replaced by one long one. This is seen much less frequently though than resolution. It should be noticed that there is a compliment to the rule of resolution when replacement takes place, as it always occurs *after* a word break, which shows that it is the first two syllables of a word that are being presumed to be short. I call this the rule of replacement.

Example from *Pārāyanavagga* of *Suttanipāta*, (1068cd) (*Tuṭṭhubha* lines, normally 11 syllables to the line, the (presumed) short 6th & 7th vowels in both lines have been replaced by one long one):

Etaṃ viditvā saṅgo ti loke,

bhavābhavāya mā kāsi taṇhan-ti<sup>7</sup>.

# TWO: DESCRIPTION OF THE METRES

# 2.1 The types of metre

Pāļi metres can be divided into four main types according to their method of construction, in outline they are:

- 1) Syllabic metres, e.g. Vatta, Tutthubha, Jagatī
- 2) Measure metres, e.g. Vetālīya, Opacchandasaka, Vegavatī
- 3) Bar metres, e.g. Gīti, Ariyā, Gubbinī
- 4) Fixed metres, e.g. Upajāti, Rathoddhatā, Uggatā

In most metres a verse  $(g\bar{a}th\bar{a})$  is made up of 4 lines  $(p\bar{a}da)$ , though sometimes we find verses with 6 lines, or more rarely 5.

The metres are constructed according to the amount of syllables or measures there are in the line, and the patterns that are made through the alternation of the short and long syllables.

In the syllabic metres it is the number of syllables that make up a line that is the organizing principle, e.g. *Vatta* has 8 syllables to the line, *Tutṭhubha* 11, & *Jagatī* 12 (the various patterns that occur in these metres are discussed in the descriptions that follow).

In the measure metres the syllables may vary, but the total amount of measures should remain fixed ( $_{\circ} = 1$  measure, = -2 measures), e.g.  $Vet\bar{a}l\bar{i}ya$  has a  $matt\bar{a}$  count of 14 in the 1st & 3rd lines, and 16 in the 2nd & 4th; Opacchandasaka 16 in the 1st & 3rd, 18 in the

 $<sup>^{7}\,\</sup>mathrm{Note}$  that the quotation marker at the end of the line is outside of the metre, as discussed in 1.13 above.

2nd & 4th; *Vegavatī* has the same *mattā* count as *Vetālīya*, but the syllabic pattern is different.

In the bar metres a secondary organising principle is employed over and above that of counting the measures, which is to organize the syllables into bars, normally of 4 measures to the bar.

In the fixed metres virtually all of the syllables in the lines are of fixed quantity, with normally only the end syllable being variable.

After this brief outline of the different structural principles involved we can examine the metres in more depth.

# 2.2 The syllabic metres, akkharacchandas type 1 (akṣaracchandas)

In these the line length is determined by the number of syllables there are in a line, e.g. *Vatta* normally has 8; *Tuṭṭhubha* 11; *Jagatī* 12. These metres have more or less fixed cadences (i.e. the closing rhythm of a line), but allow a greater freedom in the rest of the line, in which they differ from *akkharacchandas* type 2. The syllabic metres are the most common type found in the canon.

# 2.3 Vatta [Vaktra, aka Śloka (=Siloka)]

The most important and prevalent metre in canonical Pāļi is the *Vatta*, which has a great deal of flexibility, and seems to be equally well adapted to aphorism, question & answer, narrative, and epic.

A *Vatta* verse normally consists of 4 lines with 8 syllables to the line, organised in dissimilar pairs which are repeated to make up a verse (note that owing to resolution sometimes a *Vatta* line may contain 9 syllables).

Here is an analysis of the pathyā (normal) structure of the Vatta:

1 2 3 4 5 6 7 8
Odd line: ⇌ ⊆ ⊆ □ □ □ □ □

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Even line: \stackrel{1}{\approx} \stackrel{2}{\approx} \stackrel{3}{\approx} \stackrel{4}{\approx} \stackrel{5}{\approx} \stackrel{6}{\sim} \stackrel{7}{\approx} \stackrel{8}{\approx} \stackrel{x2}{\approx} \stackrel{x2}{\approx} \stackrel{x2}{\approx} \stackrel{x2}{\approx} \stackrel{x2}{\approx} \stackrel{x3}{\approx} \stackrel{x4}{\approx} \stackrel{5}{\approx} \stackrel{6}{\approx} \stackrel{7}{\approx} \stackrel{8}{\approx} \stackrel{x4}{\approx} \stackrel{
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In the 2nd & 3rd positions two successive shorts are normally avoided, as we can see through occasional changes of syllabic length in words that occur in these positions.

#### 2.4 Variations

The cadence at the end of the even lines  $\smile - \smile \succeq$  is very well established and normally adhered to, but occasionally other patterns show up in this position, and we should perhaps take them as acceptable, even if extraordinary, variations, they are:  $--\smile \succeq$  and  $\smile --\succeq$ , others are doubtful.

In the odd lines 7 variations ( $vipul\bar{a}$ ) occur, besides the normal structure, they are:

```
Anutthubha
            张 L L L l L L L L
                                      javipulā
1st vipulā
                                      navipulā
2nd vipulā
                                      bhavipulā
3rd vipulā
                                      mavipulā
4th vipulā
            46 トレヒ - - - - - -
                                      ravipulā
5th vipulā
                                      savipulā
6th vipulā
                                      tavipulā (sporadic)
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There is normally a *caesura* (word break) after the fifth syllable in the 3rd  $vipul\bar{a}$ , and after the fourth syllable in the 4th  $vipul\bar{a}$ .

Occasionally other patterns show up in the opening of the first three  $vipul\bar{a}s$  such as  $\simeq \sim --$ , but only rarely. As can be seen in the descriptions above resolution of the first syllable is quite common and acceptable. The 6th & 4th are occasionally resolved, and apparently the 3rd, 5th, & 7th can be also, but not the 2nd or the 8th. By applying

the rule of resolution described in 1.15 above, it is possible to help identify the underlying structure of a  $vipul\bar{a}$ , take the case of an odd line showing the following structure:

if the caesura (word break) occurs after the fourth syllable, the  $vipul\bar{a}$  is the 4th:

if the caesura occurs after the 5th syllable, it is pathyā:

### 2.5 Vatta periods

The *Vatta* metre in the canon can be divided roughly into two periods, the early and the late, according to whether the *Anuṭṭhubha* variation occurs in the prior lines, or whether it is normally avoided. In the early period the *pathyā* accounts for about 60% or more of the prior lines, and the *Anuṭṭhubha* at that time is the most important variation accounting for about 15%. As the metre comes closer to its classical form in the later part of the canon the *Anuṭṭhubha* occurs only sporadically, and the *pathyā* greatly predominates, sometimes accounting for as much as 85% of all the lines.

An interesting comparison is afforded between the early *Vatta* of the questions and answers in *Pārāyanavagga* of *Suttanipāta*, and the late *Vatta* of the Introductory Verses (*Vatthugāthā*). We may note here that in *Hemakamāṇavāpucchā* (Sn V:8) (vs 1084 ff) we may have a case of the *Anuṭṭhubha* being used as an independent metre in the canon, but as it is only 4 vs long it is too short to be sure.

# 2.6 Tuṭṭhubha (Triṣṭubh), & Jagatī

Tuṭṭhubha in the canon occurs in basically three forms. In the early period Tuṭṭhubha verses are used in the main independently. Only occasionally do we find Jagatī lines in the early verses, and then

only as an expedient, as it were<sup>8</sup>. Later in the middle period we find that these two metres are frequently intermixed in composition, and at that point we might better describe the metre as being *Tuṭṭhubha-jagatī*. Later still these metres are replaced by their classical counterparts-*Upajāti* and *Vaṃsaṭṭhā* (described in 2.8 below).

As the variations that occur in the one also occur in the other, we can describe the two metres together.

Tuṭṭhubha normally has 11 syllables to the line, and is defined thus:

 $Jagat\bar{\imath}$  is similar, but has an extra short syllable in penultimate position, giving a line of 12 syllables, thus:

#### 2.7 Variations

The normal opening in both metres is described as being = ---, but there are a significant number of occasions when variations are seen (especially in the early period), the most common being = ---, but also we come across = ---, = ---. Others occur only very rarely.

<sup>&</sup>lt;sup>8</sup> The last two sections of *Suttanipāta* are considered to contain some of the earliest texts in the canon. And in the first of these sections, *Aṭṭhakavagga* (Sn IV), there are only 4 *Jagatī* lines among nearly 400 lines of *Tuṭṭhubha* (there is also one *Jagatī* verse, no 836). In *Pārāyanavagga* (Sn V), the *Jagatī* lines amount to approx 7% of the lines in the *Tuṭṭhubha* verses.

terns -- and --, so that the 6th syllable, though normally short, may occasionally be long.

Sometimes an extended form is produced by resolution at the first syllable, which then gives a line of 12 (13) syllables - note that the pattern of the cadence will help identify the metre in these cases.

Another extended form may be produced by a line having a *cae-sura* at the 5th syllable, and restarting from the same syllable, giving the line:

Occasionally replacement takes place, whereby two short syllables are presumed in the 6th & 7th positions, and replaced by one long one. The line then has one syllable less than expected. (see 1: 16 above for an example):

Examples: early *Tuṭṭhubha*, *Khaggavisāṇasutta* Sn I:3; the "Aṭṭhaka" suttas Sn IV:2-5; and the *Tuṭṭhubha* verses in Pārāyanavagga Sn V. The second of the extended forms described above is used extensively in the *Vatthugāthā* to *Nālakasutta* Sn III:11 (vs 679ff). Late *Tuṭṭhubha* tends to conform to the fixed patterns that emerged during this time and which are described below.

# 2.8 Upajāti, Vaṃsaṭṭhā (Vaṃśasthā), and Rucirā

These are the fixed metres in the canon that have been derived from *Tutthubha* and *Jagatī*, their profile looks like this:

i) Upajāti (from Tuṭṭhubha):

ii) Vaṃsaṭṭhā (from Jagatī):

As can be seen these are the "normal" forms of their respective metres, but now allowing only little flexibility.

iii) Rucirā (from Jagatī, with resolution of the 5th syllable, giving a 13 syllable line):

Examples: *Upajāti* and *Vaṃsaṭṭḥā* are used to great effect, both mixed and independently in *Tālaputta's gāthās* Th 1091-1145. *Vaṃsaṭṭhā* and *Rucirā* both appear as independent metres in *Lakkhaṇasuttanta* DN.30 (see 2.24).

# 2.9 The measure metres, mattāchandas (mātrācchandas)

These metres have a different method of organising the line: not by counting the syllables, but according to the total number of measures (*mattā*) there are in a line. In these metres a short syllable is counted as one measure, and a long one as two, and it is therefore possible to determine the exact amount of measures there are in a line. When this is done of course the syllabic length will vary.

Note that a syllable at the end of the line is normally counted as two  $matt\bar{a}$  whether it is long or not, a short syllable counted in this way is called  $p\bar{a}dantagaru$ .

# 2.10 Vetālīya (Vaitālīya) and Opacchandasaka (Aupacchandasaka)

The first of these metres,  $Vet\bar{a}l\bar{\imath}ya$ , has 14 measures in the odd lines, and 16 in the even, with the cadence at the end of each line being  $-\cdots-\cdots=$ .

Opacchandasaka, the second of the metres, has 16 measures in the odd lines, and 18 in the even. The cadence is similar to  $Vet\bar{a}l\bar{\imath}ya$ , but with an extra long syllable in penultimate position  $-\sim -\sim -\simeq -\simeq$ .

The most common forms of the odd lines are:

The most common forms of the even lines:

with occasional resolution of a long syllable giving rise to other patterns in the opening. Through syncopation of syllables in adjacent groups we occasionally find different patterns in the opening of the prior lines, so that sometimes:

Occasionally we find a short syllable at the beginning of the line, which must be counted as long in order to complete the *mattā* count (this we may call *pādādigaru*, in compliment to *pādantagaru*).

Examples: *Vetālīya*, Dhp 15-18, 235-238; *Subhā Jīvakambava-nikā's gāthās* Thī 367-399; *Jarāsutta* Sn IV:6

Opacchandasaka, Uragasutta Sn I:1; Cundasutta Sn 1:5; Kātiyāna's gāthās Th 411- 416.

#### 2.11 Mattāchandas Periods

It should be noted that in the early texts the most common opening of the odd lines in *Vetālīya* is \_\_\_\_\_ . In the later period this falls back considerably with the other variations, notably \_\_\_\_\_ showing a marked increase, also in the later period the syncopated forms almost come to an end, and runs of short syllables start to appear.

# 2.12 Rathoddhatā and Pupphitaggā (Puṣpitāgrā)

These are the two fixed metres derived from the above.

Rathoddhatā (a Vetālīya even pāda): 
$$\simeq - \circ = + - \circ = \times 4$$

Similarly *Pupphitaggā* (from *Opacchandasaka*) in the canon is still somewhat flexible:

with occasional resolution of a long syllable elsewhere. In its post-canonical form the opening of the first line was fixed as and the second as

Note that in both of these metres the fixed forms have unusual variations in the openings, the latter especially showing the classical period's fondness for runs of short syllables.

Examples: *Rathoddhatā*, early: *Gotama's gāthās* Th 258-260; *Ambapālī's gāthās* Thī 252-270; late: *Kuṇāla-jātaka* Ja 536.

Both metres are used independently in Lakkhanasuttanta D.30.

# 2.13 Vegavatī

This metre has 14 measures in the odd lines, and 16 in the even, as with  $Vet\bar{a}l\bar{i}ya$ , but with a different cadence: ----.

In the canon the most common forms of the odd lines:

we sometimes find syncopation producing different patterns in the opening of these lines.

When it attains to its classical form, it is restricted to:

Examples: *Kokāliyasutta* (pt.) Sn III:10; *Vaṅgīsa's gāthās* (pt.) Th 1214 - 1222, the latter *gāthās* being mixed with *Vetālīya*.

### 2.14 Svāgatā

In the canon this metre has two dissimilar lines repeated to make up a verse, and the structure was still quite fluid:

```
      Svāgatā odd lines:

      - ○ - ○ | - - ∞ ⊆

      - ○ ○ - | - ∞ ⊆

      Svāgatā even lines:

      - ○ - ○ - | - ∞ - ⊆

      - ○ - ○ - | - ∞ - ⊆
```

Note how close this is to *Vegavatī* at this stage. In the later period however the even line is fixed and repeated four times, so that the structure is then defined as:

$$\cup$$
  $\cup$   $\cup$   $x4$ 

Examples: early, *Mahāsamayasuttanta* DN. 20 vs 3; late: *Jātakanidānakathā* vs 291.

### 2.15 The bar metres (gaṇacchandas)

Once a measure count was established, it was not long before a second structural principle was introduced, which was to organise the lines into bars, or *gaṇas*, normally having 4 measures to the bar, which may therefore take one of the following forms:

The rhythm of these metres is defined by the alternation of two rhythmic structures:

In the descriptions that follow it should be borne in mind that resolution of a long syllable was always deemed acceptable, which means that any of the first three alternatives outlined above may appear as  $\sim \sim \sim$ . By applying the rule of resolution discussed in 1.15 above it is possible to help identify the underlying structure, thus:  $\sim, \simeq \sim \sim$  with resolution;  $\sim \simeq \sim \sim$  ;  $\sim \sim \sim$  with resolution;  $\sim \sim \sim \sim$  . (Of course there would have to be double resolution for it to equal  $\sim \sim$ ).

#### 2.16 Old Gīti

This appears to be the earliest of the bar metres, and indeed, is most probably a transitional metre between *mattāchandas* and *gaṇacchandas* metres. There are two structures to the metre: the first is the normal form; the second is an extended form, which after the word break, restarts with a full *gana*, thus:

Normal structure:

In the 2nd, 4th, and 6th gaṇas the pattern = sometimes occurs, but - is very rare. The opening gaṇa quite frequently looks like this: -; in this case we have to count the initial syllable as long ( $p\bar{a}d\bar{a}digaru$ ) to make up the mattā count (cf 2.10 above). In the normal form we sometimes find that the 4th gaṇa looks like this: -, -; in this case we have to count the short syllable, which occurs at the end of the first half of the  $p\bar{a}dayuga$  as long ( $p\bar{a}dantagaru$ ). With the extended form cf. the extended Tuṭṭhubha, 2.7 above.

Examples: *Mettasutta* Khp 9; *Tuvaṭakasutta* Sn IV:14; *Vaṅgīsa's* gāthās (pt) Th 1242-1245; *Upālisutta* MN:56

# 2.17 Gīti, Ariyā (Āryā), and their derivatives

In the *gaṇacchandas* metres in the Pāḷi canon, there are two structures to the  $p\bar{a}dayuga$  (pair of lines), they are:

Ganacchandas 1st pādayuga:

Resolution occasionally produces different patterns e.g. -->-- Replacement sometimes produces different patterns e.g. -->-- Note that --- is very rarely found in any *gaṇa*.

The only difference between the two  $p\bar{a}dayugas$  lies in the 6th gana.

 $Ariy\bar{a}$ , which is the most common metre in this class, has the first  $p\bar{a}dayuga$  described above followed by the second, this gives a  $matt\bar{a}$  count of 30 + 27.

Examples: Isidāsī's gāthās Thī 400 - 447, and Sumedhā's gāthās Thī 448 -522.

The next three metres are much less common:

 $G\bar{\imath}ti$  has the first  $p\bar{a}dayuga$  repeated to make up a verse,  $matt\bar{a}=30+30$ .

Example: Paripuṇṇaka's gāthā Th 91.

 $Ugg\bar{\imath}ti$  has the second  $p\bar{a}dayuga$  followed by the first,  $matt\bar{a}=27+30$ .

Example: the last of Vijitasena's gāthās Th 359.

Upagīti has the second line repeated,  $matt\bar{a} = 27 + 27$ .

Example: Gotama's gāthās 587, 588, & 591, the latter being mixed with Vatta.

Other gaṇacchandas variations, including  $p\bar{a}dayugas$  with a full last gaṇa (giving a  $matt\bar{a}$  count of 32), are apparently not found in the canon.

# 2.18 Jagana (amphibrachys)

In these metres the *gaṇa* pattern —— is normally found only in the even *gaṇas*, and occurs in roughly half of the 2nd & 4th *gaṇas*, and virtually always in the 6th (where appropriate), so that its inclusion there appears to be the rule.

# 2.19 Hypermetres, Vedha & Gubbinī

Only two examples of *ganacchandas* hypermetre have been found in the canon so far, they are *Vedha* and *Gubbinī*. The structure of both is similar and can be defined as follows:

Opening: Value 1 sass 1 Value

Middle: ==== 1 V==V

End: 🏎 🕝 💴

The middle gaṇ as can be repeated a flexible number of times. The end normally finishes with a full gaṇ a as described above but may finish with a half  $gaṇ a \ge$ . Note that in these metres the pattern  $\smile - \smile$  is supposed to occur only in the odd gaṇ as (in contradistinction to the  $Ariy\bar{a}$  class of metres).

The *Vedha* metre is normally composed of descriptive compounds (*varṇakas*) of varying length. The only examples discovered so far are in the *Kuṇāla-jātaka* Ja 536. Sometimes there are only four gaṇas in the compound, then the structure looks like this:

but the text of these compounds now is very corrupt, and they sometimes have only three *gaṇas* (lacking the first).

 $Gubbin\bar{\imath}$  has the same structure, but need not consist solely of compounds. The only known example is the frequently repeated praise of the Three Treasures beginning "Iti pi so..."

2.20 The fixed metres: akkharacchandas type 2 (akṣaracchandas) aka vutta (vṛtta).

These metres can be divided into 3 kinds according to their verse structure:

- 1) Samavutta, have the same line repeated four times.
- 2) Addhasamavutta, have two dissimilar lines repeated.
- 3) Visamavutta, have four dissimilar lines.

# 2.21 Samavutta (Samavrtta)

The more popular of these fixed metres, *Upajāti, Vaṃsaṭṭhā*, *Rucirā*, *Rathoddhatā*, and *Svāgatā* have been described in 2.8 2.12 & 2.14 above.

Pamitakkharā (from gaṇacchandas):	
	w./l

Example: Lakkhaṇasuttanta (DN. 30. 2. 15).

Some others occur, which we may outline here:

# Upaṭṭhitā:

\_ \_ U U \_ U U \_ U <u>u x</u>4

Example: Ja 125 20-219

**Dodhaka** (a Vegavatī even line repeated):  $- \bigcirc \bigcirc - \bigcirc \bigcirc \bigcirc = \bigcirc \bigcirc = \times 4$ 

Example: the last two verses of *Kokāliyasutta* (Sn III:10) (vs 677-8)

Other Metres: there are 3 others have not been named:

# 2.22 Addhasamavutta (Ardhasamavrtta)

Vegavatī, which in its classical form belongs to this class, has been described in 15 above. Pupphitaggā was described in 2.12.

*Aparavatta*, which is derived from  $Vet\bar{a}l\bar{i}ya$ , shows the following structure:

Example: Bhallāṭiya Jātaka Ja 504 vs 25

 $<sup>^9</sup>$  This is Warder's reference, given on page 221 of  $P\bar{a}li$  Metre, I have been unable to trace it.

### 2.23 Visamavutta (Visamavrtta)

In *Lakkhaṇasuttanta* DN. 30 we find two metres belonging to this class, which has four dissimilar lines to the verse. The first is derived from *mattāchandas*:

### Upatthitappacupita:

There are normally word-breaks after the 8th syllable in the 1st line; 5th syllable in the 3rd line; and 7th syllable in the 4th line.

Example Lakkhanasuttanta (D. 30. 1. 30).

### Uggatā (from gaṇacchandas):

Example Lakkhaṇasuttanta (D. 30. 2.12).

### 2.24 Lakkhaṇasuttanta DN 30

As can be seen from the references supplied to the fixed metres above, the late *Lakkhaṇasuttanta* of the *Dīghanikāya* supplies us with a number of metres which are either rare or not otherwise found in canonical Pāḷi. For easy reference the metres are listed below, giving the *bhāṇavāra* and paragraph number of the PTS edition in brackets:

- 1 (1.6) *Vaṃsaṭṭhā* 5 vs
- 2 (1.9) Vamsatthā 6 vs

3	(1.12)	Pupphitaggā 4 vs	
4	(1.15)	Rathoddhatā 3 vs	
5	(1.18)	Pupphitaggā 4 vs	
6	(1.21)	Rathoddhatā 5 vs	(total 8 vs)
7	(1.24)	Vaṃsaṭṭhā 4 vs	- 1 (Market mense)
8	(1.27)	Vaṃsaṭṭhā 4 vs	
9	(1.30)	Upaṭṭhitappacupita 4 vs	
10	(1.33)	Vaṃsaṭṭhā 4 vs	
11	(2.3)	Pupphitaggā 4 vs	(total 12 vs)
12	(2.6)	Vaṃsaṭṭhā 4 vs	,
13	(2.9)	Rucirā 3 vs	
14	(2.12)	Uggatā 4 vs	
15	(2.15)	Pamitakkharā 4 vs	
16	(2.18)	<i>Vaṃsaṭṭhā</i> 4 vs	(total 31 vs)
17	(2.21)	Pamitakkharā 4 vs	
18	(2.24)	Pamitakkharā 4 vs	(total 12 vs)
19	(2.27)	Upaṭṭhitappacupita 4 vs	•
20	(2.31)	Upaṭṭhitappacupita 7 vs	(total 15 vs)

# THREE: THE MIXING OF METRES

#### 3.1 Introduction

As we have seen from the description of the metres presented above, one of the main features of  $P\bar{a}|i$  verse composition in the canon is its flexibility. Even the fixed classical metres which were just beginning to emerge towards the end of this period were somewhat fluid in structure, and there was still some room within which composition could take place.

Another way in which this shows itself is in the flexibility allowed to move between metres as and when required. This is evident both in the freedom with which different metres may be employed within a composition, and even the allowance to change metres within the verse itself, if that proved to be convenient for expression.

In what follows we will be concerned with what may be considered the more extreme case of metre mixing within the limits of a verse, but this will also serve to provide examples of the ability to move between metres in the composition as a whole.

### 3.2 Tuṭṭhubha, Jagatī and their derivatives

We saw in 2.6 above that although both *Tuṭṭhubha* and *Jagatī* exist as independent metres in their own right, and are used as such frequently, nevertheless the metres are commonly mixed, as a line in *Jagatī* metre was always considered acceptable in what is otherwise a *Tuṭṭhubha* verse (and visa versa). For a good example of this see *Ratanasutta* Sn II:1.

This characteristic continues even when the metres have achieved their fixed forms as  $Upaj\bar{a}ti$  and  $Vamsatth\bar{a}$ , as can be seen e.g. in  $T\bar{a}laputta$ 's gāthās Th 1091-1145, where the metres are used both independently and in combination.

Rarely we find *Tuṭṭhubha* mixed with *Mattāchandas* lines. Examples: Sn 1:2 vs 18, 19; Ud II:6

# 3.3 Vetālīya, Opacchandasaka, & Vegavatī

These metres, being built around the same structural principle, are quite frequently mixed, though with the first two it seems that the rule is that  $Vet\bar{a}l\bar{\imath}ya$  should appear in the odd lines, and Opacchandasaka in the even (though there may be one or two counter-examples to this cf. Dhp 344 & Sn 527). With  $Vet\bar{a}l\bar{\imath}ya$  and  $Vegavat\bar{\imath}$  there appears to be no particular rule about line order, perhaps because their  $matt\bar{a}$  count is the same.

Examples: Vetālīya & Opacchandasaka - Dhaniyasutta Sn I:2; Sabhiyasutta Sn III:6 (pt: 510-540); Vetālīya & Vegavatī from Vangīsa's gāthās Th 1214-1222.

#### 3.4 Vatta and other metres

So far we have mainly been considering the mixing of metres that employ similar structural principles, and that may account for the ease with which it was felt to be possible to move between the metres. However, when we come to *Vatta*, we have a syllabic metre with an *aḍḍhasamavutta* structure. None of the other metres have this particular combination of characteristics of course, but still we frequently find *Vatta* lines appearing alongside other metres, perhaps because it was by far the most common and familiar of the metres employed.

Normally the situation appears to be that account has been taken of the structure of the *Vatta* in mixing, and we usually find *Vatta* odd and even lines appearing in their expected positions in the verse. Below we will see that various combinations can be illustrated:

```
Vatta & Tuṭṭhubha

Sn 1061 = T, ab - V, cd

Dhp 330 = V, ab - T, cd

Sn 995 = T, abd - V, ef (Jagatī, c)

Sn 1055 = V, a - T, bcd

Sn 423 = V, abd - T, c

Sn 482 = T, abc - V, d

Th 1253 = T, a - V, bcd etc.
```

*Vatta & Jagatī* Th 306 = V, ab - J, cd Th 1089 = V, abc - J, def

Vatta & Mattāchandas
Th 1 = Op, acd - V, b
Th 551 = V, a - Vet, bcd
Th 1004 = Veg, ab - Vet, c - V, d!

#### Vatta & Ganacchandas

Vatta lines appear in gaṇacchandas verses a surprising number of times. It seems to be the rule that when the two metres share a pādayuga, Vatta takes the odd line. Gotama's gāthās Th 587-596 provide a good example of the mixing of Vatta lines in what are otherwise gaṇacchandas verses.

#### Conclusion

This then concludes our outline of the metres in the Pāḷi canon and their usage, but that is far from the end of the work that remains to be done in this field. We still do not have comprehensive analyses of all the metrical texts, particularly in regard to the later compositions like Vv, Pv, Ap, Bv, & Cp. And upto now we know very little about Pāḷi verse composition in post-canonical times, where we can find a whole library of works composed in verse according to classical norms. These include the various Chronicles pertaining to the history of the Sāṣana; the verse Summaries of the Vinaya, Dhamma, & Abhidhamma composed by Ven. Buddhadatta and others; and the late medieval lives of the Buddha, composed in a mixture of ornate metres.

The student who is interested in the Pāļi language and its development can be assured therefore that there is still much yet to discover and contribute in this area, and there is still much room for original research to be carried out in the area of Pāļi metrical composition.

# FOUR: INDEX AND GLOSSARY (Roman order of letters)

### aḍḍhasamavutta (ardhasamavṛtta)

a metre having two dissimilar lines repeated to make up a verse e.g. Vatta,  $Vet\bar{a}l\bar{t}ya$ , see also 2.20ff

akkharacchandas (akṣaracchandas), syllabic metres there are two types:

- 1) the flexible syllabic metres e.g. *Vatta*, *Tuṭṭhubha*, in which the syllabic patterns are still somewhat variable, see 2.1ff
- 2) the fixed syllabic metres, in which all, or nearly all, of the syllables are of fixed quantity e.g. *Vaṃsaṭṭhā*, *Uggatā*, see 2.20ff

#### anacrusis

one or two extra syllables at the beginning of a line, before the metre proper begins.

#### anceps ≥

indicates that the syllable may be long or short in the stated position. In the Pāḷi canonical period the last syllable in a line is nearly always considered to be *anceps*, and sometimes the first syllable too, see *pādādigaru & pādantagaru*.

#### Anutthubha (Anustubh), see 2.3ff

1) this is a Vedic metre originally having a *samavutta* structure

Over time variations from this basic pattern started to emerge, which eventually gave rise to a new metre having two dissimilar lines, the *Vatta*. As this was a gradual evolution at which point we should declare the metre to have gone over from *Anutthubha* to *Vatta* is a moot point. But the general position is that in the Pāli canonical period we find that we are dealing with the new metre, which has an *aḍḍhasamavutta* structure.

- 2) The name is also used when describing a variation that occurs in the odd lines of *Vatta* metre, which shows the same structure as the line illustrated above, and which is therefore the same as the *Vatta* even line.
- Sometimes used as generic name applied to any metre having 8 syllables to the line.

### anusvara, see niggahīta

# Aparavatta (Aparavaktra) 2.22

### **Ariyā** (Āryā) 2.17

- 1) a gaṇacchandas metre having two dissimilar lines with a matt $\bar{a}$  count of 30 + 27
- sometimes the name is used more loosely to refer to any ganacchandas metre.

#### assimilation

euphonic change whereby one consonant takes the form of another which follows or precedes it e.g.  $ud + gh\bar{a}ta > uggh\bar{a}ta$ 

**br**, see 1.5

Brahatī, generic name for metres having 9 syllables to the line

bar metres, see ganacchandas

#### break

the middle part of the Tutthubha and other similar metres, see 2.6ff

#### cadence

the closing rhythm of a line, or pair of lines

caesura, see yati

#### catalectic

having an incomplete number of syllables or  $matt\bar{a}$  (opp: acatalectic, complete).

#### chandas

- 1) metre
- sometimes is used loosely to indicate merely the number of syllables in a line

cheda, pause, see also yati

closed syllable see 1.1

# conjunct consonants

two (or more) consonants which are not seperated by a vowel e.g. tt in  $mett\bar{a}$ , ndr in indriya

#### contraction

change from original two short vowels (usually seperated by a semivowel) to one long one e.g. aya > e, ava > o. This sometimes makes sense of otherwise metrically "wrong" verses.

#### Dodhaka 2.21

#### dīgha (dīrgha)

used to refer to a naturally long vowel (not to be confused with *garu* which refers to metrical length)

#### digraphs

two letters that indicate but one sound, see 1.2

#### elision

the loss of a syllable, or part of a syllable, at the beginning or end of a word (which sometimes happens m.c.)

#### epenthesis

the insertion of a vowel between two consonants for euphonic reasons, see sarabhatti

### euphony

ease of pronounciation, see also sandhi

even line = posterior line = the second line in a pādayuga

#### fixed metre

akkharacchandas type 2, aka vutta 2.20ff

#### foot

a division of a line of poetry, usually consisting of 3 syllables, see also gana

### gana, a bar or section

in gaṇacchandas metre this refers to a bar normally consisting of 4
mattā, derived from musical structure. These accurately reflect the
structure of the metres. There are five such gaṇas, which are given here
with their Sanskrit and Greek names.

jagaṇa	J	amphibrachys
bhagaṇa		dactylus
sagaņa	<b>-</b>	anapaest
magaṇa	****	spondee
nagaṇa	0000	proceleusmaticus

2) a division consisting of 3 syllables which are a kind of shorthand used to describe the *akkharacchandas* metres. There are 8 such *gaṇas* which are used in classical Indian theory:

```
amphibrachys
 jagana
                   dactylus
bhagana
 sagana
                   anapaest
                   bacchius
 yagana
                   cretius, amphimacer
 ragana
                   palimbacchius
 tagana
                   molossus
magana
                   tribrachys
 nagana
          -
```

in the descriptions that occur in the Indian prosodies these are normally indicated as ja, bha, sa, etc.

```
la(hu) \sim and ga(ru) — are used to describe the end syllable(s), sometimes la la (i.e. \sim) is seen written as l\bar{a}; and ga ga (--) as g\bar{a}. (note: \sim — = iambus; -\sim = trochee; -- = spondee; \sim \sim = pyrrhic) (cf. magaṇa & nagaṇa as they are used differently in the two systems, and have different names in Greek)
```

Although these signs can be used to describe the alternation of long and shorts quite accurately, they often disguise the underlying structure of the metres, so that e.g.  $Indavajir\bar{a}$  is described as being ta ta ja ga ga, which when written out gives the pattern:

this gives the impression that there are rhythmic patterns in the metre which do not, in fact, appear. The structure is better defined like this:

\_\_\_\_\_\_\_

which better reflects the rhythm.

#### ganacchandas

name of a class of metres built around the first of the gaṇa principles outlined above, there are about 450 gaṇacchandas verses in the canon, see 2.15ff

#### garu

literally heavy, a syllable considered to be long metrically, see 1.1ff

#### gāthā

variously translated as verse, stanza, or strophe. A  $g\bar{a}th\bar{a}$  normally consists of 4 lines, sometimes 6, though occasionally we come across a verse which is defective in this regard

#### geyya

literally *singable*, in the tradition signifies a type of composition of mixed prose and verse, some of which at least may have been 'performed' to illustrate points of Buddhist doctrine or folklore. *Sagāthavagga of Saṃyuttanikāya* contains many examples of *geyya* 

#### Gīti

literally song 2.17ff cf also Old Gīti 2.16

#### Gubbinī (Gurvinī)

a ganacchandas hypermetre see 2.19

half-verse (or half-stanza etc.) see pādayuga

#### haplography

omission of a syllable by accident when it appears twice in a word

#### hiatus

- 1) a gap
- sometimes used to refer to two vowels in succession without an intervening consonant

### hypermetre

- 1) a class of metres composed using extendable forms, see 2.19
- 2) having a syllable, or syllables additional to the normal metre (even a line showing syllablic resolution may be referred to as hypermetric)

#### ictus

in metre a syllable that is stressed or emphasized (ictus strictly speaking does not apply to Pāļi verse composition, but it is sometimes mentioned in the literature).

#### Jagatī

- 1) a syllabic metre 2.6ff
- 2) sometimes used as a generic name for any metre having 12 syllables to the line

#### Jāti

- 1) another name for the measure metres
- 2) another name for *Upajāti*

junction, see sandhi

kabba (kāvya), literature

lahu (laghu)

literally light, a syllable considered to be short metrically see 1.1ff

*Māgadhikā* (aka *Māgadhī*)

another name for Vetālīya (2.10), presumably because Magadhi is where the metre originated

mattā (mātrā)

literally a measure, short syllables are counted as one matta, long ones as two

mattāchandas (mātrācchandas), measure metre 2.9ff there are about 400 verses in mattāchandas metre in the canon

measure metre, see mattāchandas above

#### metathesis

exchange of syllabic position e.g. kariyā > kayirā

metrical licence, see 1.8ff

metri causa, the metre is the cause (of a change in word form)

 $mora = matt\bar{a} = a$  measure

#### musical metres

refers to the *mattāchandas* and *gaṇacchandas* metres which have been derived under the influence of musical structures

#### new metres

refers to the mattāchandas, gaṇacchandas, and fixed akkharacchandas metres

#### niggahīta

the pure nasal sound. Only occurs normally after a short vowel (i.e as aṃ, iṃ, & uṃ), but then makes that syllable long metrically, sometimes also referred to as anusvara, see 1.1 & 1.11

odd line = prior line = the first line in a pādayuga

### Old Gīti (aka Old Āryā)

the earliest form of ganacchandas metre 2.16

Opacchandasaka (Aupacchandasaka) 2.10

#### opening

the beginning section of a line, may be followed by a break and cadence as in *Tuṭṭhubha* and related metres, or simply by a cadence as in *Vatta* and the *mattāchandas* metres

open syllable, see 1.1

#### pāda

a line of verse

### pādādigaru

a short syllable that is counted as long because it stands at the beginning of a line (this is sometimes seen in early gaṇacchandas verses)

# pādantagaru

a short syllable that is counted as long because it stands at the end of a line, see 2.9

### pādayuga

- 1) a pair of lines
- 2) sometimes loosely used to refer to a line in ganacchandas verse

### pajja (padya)

verse (as opposed to gajja, prose)

Pamitakkharā (Pramitākṣarā) 2.21

Panti, generic name for metres having 10 syllables to the line

partial vowels, see sarabhatti

pathyā

the normal structure of a line (as opposed to vipulā, variation), see 2.3

pause, cheda (see also yati)

position

for syllables not making position see 1.5

**posterior**  $p\bar{a}da$  = even line = the second line in a  $p\bar{a}dayuga$ 

**prior**  $p\bar{a}da$  = odd line = the first line in a  $p\bar{a}dayuga$ 

Pupphitaggā (Puṣpitāgrā) 2.12

rassa

a naturally short vowel, not to be confused with *lahu*, which refers to metrical length

Rathoddhatā 2.12

recitor's remarks 1.13

redundant syllable

a syllable extra to the metre

replacement, see 1.14ff

resolution, see 1.14ff

Rucirā 2.8

rule of resolution, 1.15; 2.4; 2.15

samavutta (samavṛtta)

a metre having the same line repeated (normally four times) to make up a verse e.g. *Tutthubha*, *Rucirā*, *Pamitakkharā*, see also 2.20ff

#### samprasāna, reduction

a phonetic change whereby a semi-vowel is reduced to its vowel equivalent e.g.  $ya > \bar{t}; va > \bar{u}$ 

#### sandhi

refers to the junction between words, and the euphonic changes that take place accordingly

sara (svara), vowel; (vyañjana, consonant)

#### sarabhatti (svarabhakti)

literally a broken vowel, an anaptyctic vowel, see 1.6

#### scansion

metrical analysis, see 1.1ff

Siloka (Śloka)

another name for Vatta, for which see 2.3ff

stanza, see gāthā

strophe, see gāthā

Svāgatā 2. 14

### syllable

can be defined as a word, or a part of a word, which can be uttered with a single effort of the voice

syllabic metres, akkharacchandas type see 1, 2.1ff

# syncopation

a change in the order of syllables, which produces a different rhythm e.g. ———— see 2.10

#### Ti & iti

quotation marker 1.13

### Tuṭṭhubha (Triùṭubh) 2.6ff

also sometimes used as a generic name for any metre having 11 syllables to the line

Uggatā (Udgatā) 2.23

Uggīti (Udgīti) 2.17

Upagīti 2.17

Upajāti 2.8

sometimes loosely referred to as Tuṭṭhubha

Upaṭṭhitā 2.21

Upaṭṭhitappacupita (Upasthitapracupita) 2.23

Vaṃsaṭṭhā (Vaṃśasthā) 2.8 sometimes loosely referred to as Jagatī

vaṛṇaka

a descriptive compound having an extendable metrical structure, see 2.19

Vatta (Vaktra) 2.3ff

**Vedha** 2.19

Vegavatī 2.13

Vetālīya (Vaitālīya) 2.10

vipulā, variation (as opposed to pathyā, normal) 2.4

visamavutta (visamavįtta)

a verse with 4 dissimilar lines 2.23ff

vutta (vṛtta)

a fixed syllablic metre, akkharacchandas type 2

vutti

the "length", or weight, of a syllable

yati, caesura

a word break (not a pause as sometimes stated). Occasionally the word break is hidden or concealed (avyakata) in a compound

# GUIDE TO FURTHER STUDY (with abbreviations, and method of quoting)

The following books and articles contain further information on the  $g\bar{a}th\bar{a}s$  and metres of the Pāļi canon (all volumes are as published by PTS, unless otherwise stated):

#### TEXTS:

DN:  $D\bar{\imath}ghanik\bar{a}ya$  - each volume has a  $g\bar{a}th\bar{a}$  index (quoted by sutta name, number,  $bh\bar{a}nav\bar{a}ra$  (where appropriate), and paragraph number)

MN:  $Majjhimanik\bar{a}ya$  - volume 3 contains a very incomplete  $g\bar{a}th\bar{a}$  index (quoted by sutta name, number,  $bh\bar{a}nav\bar{a}ra$  (where appropriate), and paragraph number)

SN:  $Samyuttanik\bar{a}ya$  - each volume has a  $g\bar{a}th\bar{a}$  index, and the index volume (no 6) collates these (quoted by Samyutta name, and sutta number)

AN:  $Anguttaranik\bar{a}ya$  - each volume has a  $g\bar{a}th\bar{a}$  index, and the index volume (no 6) collates these (quoted by  $nip\bar{a}ta$  number, and sutta number)

Khp:  $Khuddakap\bar{a}tha$  - has a  $g\bar{a}th\bar{a}$  index and an analysis of the metres (quoted by sutta name and verse number)

Dhp: Dhammapada - index volume contains a  $p\bar{a}da$  index (quoted by verse number)

Ud: Udāna - includes udāna index (quoted by vagga & sutta number)

It: Itivuttaka - includes  $g\bar{a}th\bar{a}$  index (quoted by vagga & sutta number)

Sn:  $Suttanip\bar{a}ta$  - the  $g\bar{a}th\bar{a}$  index and metre analysis are contained in Vol 3 of the commentary  $Paramatthajotik\bar{a}$ , (quoted by sutta name, vagga and sutta number, and/or verse number)

Vv: Vimānavatthu - (quoted by Vimāna name and line number)

Pv: Petavatthu - (quoted by Peta name and line number)

Th: *Theragāthā* - 2nd edition (1966) contains ALSDORF's reconstruction of the *gaṇacchandas* metres in Appendix 2 (quoted by *Thera* name and verse number)

Thī: Therīgāthā - as above (quoted by Therī name and verse number)

Ja: Jātaka - (quoted by Jātaka name and verse number)

KJa:  $Kun\bar{a}la$ - $j\bar{a}taka$ - contains metre analysis, including a commentary on the lines in Vedha metre

Ap: Apadāna - Buddha Jayanti edition (quoted by verse number)

Bv: Buddhavaṃsa - (quoted by book and line number)

Cp: Cariyapiṭaka - (quoted by book and line number)

#### TRANSLATIONS, STUDIES ETC.

Alsdorf L.: Die Āryā-Strophen des Pāli Kanon, Mainz 1967

BECHERT H.: "Alte Vedhas" im Pāli-Kanon, Gottingberg 1988

BECHERT H.: "A Metric 'Varṇaka' in the Pāli Scriptures", in Studies in Buddhism and Culture, Tokyo 1991

Bollee W.B.: Reverse Index of Dhammapada, Sutta Nipāta, Theragāthā, and Therīgāthā, with Parallels from the Ārāraṅga, Sūyagaḍa, Uttarajjhāya, Dasaveyāliya and Isibhāsiyāiṃ, Reinbeck 1980

Franke R.O.: "Die Gāthās des Dīghanikāya mit ihren Parallelen", JPTS 1909, contains parallel passages to the Dīgha verses, including Lakkhaṇasuttanta

Franke R.O.: "Konkordanz der *Gāthās* des *Majjhimanikāya*", in Kleine Schriften vol 2, Wiesbaden 1978

HARE E. M.: Woven Cadences of Early Buddhists (trans of Sn), contains a complete concordance to the  $p\bar{a}das$  of Sn

LIENHARD S.: "Sur la Structure Poetique des Thera-Therīgāthā", JAs 1975

Moore J.H.: "Metrical Analysis of the Pāli Itivuttaka", JAOS 28 1907

NORMAN K.R.: Elders Verses 1 (trans of Th), contains a list of the metres and metrical analysis in the Introduction, and a running commentary on the metres of the verses (EV 1)

NORMAN K.R.: Elders Verses II (trans of  $Th\bar{i}$ ), contains a list of the metres and metrical analysis in the Introduction, and a running commentary on the metres of the verses (EV II)

NORMAN K.R.: The Group of Discourses II (trans of Sn), contains a running commentary on the metres of the verses (GD II)

NORMAN K.R.: Word of the Doctrine (trans of Dhp), contains metrical analyses in the Introduction, and a running commentary on the metres of the verses (WD)

NORMAN K.R.: Collected Papers, Vol 3, 4, & 5 contain reconstructions of 3 metres found in Lakkhaṇasuttanta. Vol 4, & 5 also have articles on gaṇacchandas metres (CP)

Sakamoto-Goto J.: Les Stances en Mātrāchandas dans le Jātaka, Paris 1982

SIMON R.: "Der Śloka im Pāli", ZDMG 1890

SMITH H.: "Conspectus terminorum (metricorum)", in Saddanīti, Vol IV, Lund 1966

SMITH H.: "Epilegomena" in Critical Pali-English Dictionary Vol 1, Copenhagen 1947

STEDE W.: "The Pādas of Thera- and Therī- gāthā", JPTS 1924-7

Warder A.K.: Introduction to  $P\bar{a}li$ , chapter 30 contains an all-too-brief outline of  $P\bar{a}li$  metre (Intro)

Warder A.K.:  $P\bar{a}li$  Metre, the most comprehensive book on the subject studying the development of  $P\bar{a}li$  metre against its historical background, contains many useful tables on usage (PM)

#### OTHER ABBREVIATIONS OCCURING IN THE LITERATURE

AMg: Ardhamāgadhī, the language of the Jaina Canon

Apa: Apabhramśa, a late Prākrit language

Be: Text in Burmese characters, usually refers to the relevant Chattha Saṅgāyana text

BHS: Buddhist Hybrid Sanskrit

Ce: Text in Sinhalese characters, usually refers to the relevant Buddha Jayanti Tripitaka text

Ee: Text in Roman characters, usually refers to the relevant PTS edition; or to the Harvard Oriental Series

m.c.: metri causa, the metre is the cause (of a change in word form)

MIA: Middle Indo-Āryan = Pāļi & Prākrit

OIA: Old Indo-Āryan = Vedic & Classical Sanskrit

Pkt: Prākrit

Se: Text in Thai characters, usually refers to the relevant Royal Thai edition of the text

Skt: Sanskrit

v.l.: variant reading (in the manuscripts)

v.r.: variant reading (in the commentaries, grammarians, etc.)