1. Introduction

This book is concerned with the metre and phonology of the longest surviving Old Khotanese poem, the *Book of Zambasta*, so named by Sir Harold Bailey because the most extensive surviving manuscript was commissioned by a patron named Zambasta (*Ysaṃbasta* in Khotanese orthography). This manuscript, of which 209 folios are preserved in whole or part, most of them in St Petersburg, is written on *pothi*-type folios in four columns divided by spaces, with the string-hole in the middle of the left-hand space and six verses on each side. It dates from the 7th or 8th century, but the text itself seems to have been composed no later than the 5th century. The poem, which is an original composition in Khotanese though based on Indian sources, is an exposition of Mahāyāna Buddhism in 24 chapters. It was evidently very popular and fragments survive of many other copies.[1]

The fact that the *Book of Zambasta* is a poem was recognized by its first editor, Ernst Leumann, who also discovered that three different metres are attested (referred to as A, B and C); that each verse consists of two hemistichs in the same metre; and that there is a caesura at the end of the first hemistich and, at least in the case of metres A and C, in the middle of each hemistich. These facts are almost the only points which have been accepted by every scholar who has subsequently examined the matter.

According to Leumann, the basic principle of the metre is quantitative or moraic, that is, it depends on a rhythmical alternation of long (or heavy) syllables consisting of two morae and short (or light) syllables consisting of one mora. In principle, each hemistich of a particular metre contains a fixed number of morae, though the number of syllables may vary widely. Certain points in the verse, especially the cadences immediately preceding a caesura or verse-end, require a specific pattern of morae, accompanied, in at least some cases, by a specific ictus, these two features in combination being the source of the poetic rhythm. For example, the most common cadence, attested in all three metres, consists of 7 morae –⏑⏑–⏑ or HLLHL, which Leumann took to be stressed ˊ–⏑⏑ˊ–⏑, very much like the final cadence of a Latin hexameter. In fact, Leumann regarded the Khotanese metrical system to be a descendant of a putative proto-Indo-European system and thus genetically related to those attested in Greek, Latin and other languages.

Ernst Leumann was followed by his son Manu Leumann, who completed the publication of the *Book of Zambasta* after his father's death (Leumann 1933–36, henceforth 'E', this being E. Leumann's designation of the principal manuscript). The edition provides a convenient synopsis of the metrical system as understood by the Leumanns (E, pp. xxii–

[1] The text of the *Book of Zambasta* will generally be referred to by chapter, verse and *pāda*, e.g. 1.41b. The division into chapters is generally clear from the auspicious word *siddham* 'success' which introduces them. In principle, as explained in §2.1, each verse occupies a single line, while the division of each verse into four *pāda*s (a b c d) is indicated by spaces between them, but the position of these spaces and sometimes even that of the verse-end may be shifted by the scribe for aesthetic reasons. — On the present locations of the various folios of the principal manuscript see Emmerick 1968a, pp. xi–xix, and Sims-Williams–Sims-Williams 2023. On the date of this manuscript and in particular that of the composition of the poem see Maggi 2004 (cf. n. 84 below). Other copies of the poem are taken into account here wherever they provide significant variants or missing parts of the text, but other OKh. poetic texts such as those listed in Leumann 1933–36, p. xxvi, are only occasionally referred to.

xxxv) as well as annotations throughout the text from which it is possible to see how they scanned each line.

The quantitative view of the metre was opposed by Sten Konow (e.g. 1934: 7–16), who objected to the large number of normalizations and emendations assumed by the Leumanns, the complexity of their metrical scheme and the implausibility of the notion that Khotanese had preserved an Indo-European metrical scheme. Though at times he considered the possibility that the Khotanese system might be an adaptation of an Indian moraic metre, perhaps the *dohā* (a suggestion taken up again in Emmerick 1973a: 150–51), in his 1934 paper he inclined to the view that it was purely accentual.

The idea of an exclusively accentual metre was disproved by R. E. Emmerick (1968 and elsewhere), who showed that the most typical cadences which end the hemistichs in metres A and C are both stressed on the penultimate syllable, but differ systematically in quantity, ˊ⏑ ('HL) in metre A vs. ˋ⏑ ('LL) in metre C. However, Emmerick did not accept the Leumanns' view as a whole, arguing that the Khotanese metrical system is at a transitional stage when stress is beginning to replace quantity as the fundamental principle. The Leumanns had already seen that the quantity of a syllable could be modified under the influence of the stress or metrical ictus, e.g. that a form of the shape H'HL was treated as L'HL at the end of a 7-mora cadence such as *samai-vyāyāmä* LHLHL 10.15c or *hāḍě uysnōra* HLLHL 1.32a. I shall refer to this lightening of the syllable preceding the ictus as the '*uysnora*-effect', a convenient term coined by Doug Hitch (on the basis that forms of *uysnōra* 'being' are amongst those most frequently affected).[2] More tentatively, the Leumanns also considered the possibility that a light syllable could in some circumstances be treated as heavy, e.g. *kyě tta hvatě* 2.30a scanned as HLLL rather than LLLL.[3] Emmerick took such ideas much further. In the cadences, he argued in his edition of the *Book of Zambasta* (Emmerick 1968a, henceforth 'Z'), "an accented syllable may serve as a long one, an unaccented one as a short one" (Z, p. 439). As for the non-cadential segments, Emmerick regarded them as essentially unmeasured. In metre A, for instance, he describes the structure of the segment preceding the cadence as "0–6 syllables (commonly two accents; frequently ˊ⏑ / ˊ⏑)" (*ibid.*).

Emmerick's system is so flexible that almost any hemistich can probably be scanned according to his rules. One might assume that Emmerick had no need to apply the numerous adjustments required by a strictly moraic system, but he does in fact accept many of the licences proposed by the Leumanns, allowing (for instance) that *jsei'ṇu* HL should be interpreted as *jsäṇu* LL, *uī'* H as *uvä'* LL, *maraṇäna* LLLL as *maraṇna* LHL, *vätäya* LLL as *vīya* HL, *ttatvata* HLL as *ttatva* HL, *hvāñäte* HLL as *hvāñe* HL.[4]

The chief defect of Emmerick's system, in my opinion, is that it does not account for the fact that, in the great majority of cases, the verses do indeed have a regular number of

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[2] Hitch 2014: 15 and *passim*. M. Leumann in E, pp. xxxiii–xxxiv, refers to this as the 'Iktusgesetz' and indicates the lightening of the first syllable by a breve: *ŭysnōra*, *vyă̆yāmä*. For the former case I prefer the notation u_{ys}*nōra*, since it is the consonant group which is lightened rather than the vowel. Since the combinations with macron + breve are not available in Unicode, I use a grave accent (*vyàyāmä* etc.) for the latter so that the text files are more easily searchable.

[3] M. Leumann in E, p. xxxiv, refers to this as the 'Iktuslizenz' and notes the syllable in question with an acute: *kyé*. For a different view of such 4-mora segments see below, §5.3.2.

[4] Emmerick 1968: 7 n. 8, 8, 16 n. 27; 1973a: 151, 152.

morae, even without any emendation or adjustment. Emmerick (1973a: 151–2) comes close to admitting this point, remarking that Ernst Leumann's basic scheme "is the best candidate available for the original quantitative scheme on which the later metre, as we have it, was built". Nevertheless, "it could have been only the original structure and not the structure as we have it". Over the years Emmerick's view moved closer to that of the Leumanns on certain points, most importantly on the distribution of *ē* and *ō* vs. *ĕ* and *ŏ* (see Emmerick–Maggi 1991), but his overall interpretation of the metre remained essentially unchanged.

A substantial study by Hitch (2014), as well as important remarks in a series of publications by Mauro Maggi, represent a partial return to the views of Ernst Leumann. Both scholars give formulae for the main metrical patterns which are very similar to the Leumanns'. Maggi (2009a: 336–7) describes Old Khotanese metrics as "essentially quantitative" but agrees with Emmerick that "the number of morae preceding the cadences is sometimes irregular". He observes that Emmerick's theory "overestimates the role of the accent" but accepts that the stress plays a significant role in the cadences at the end of each hemistich. Hitch also regards the metrical system as quantitative, though "there are plenty of examples [in the non-cadential segments] where the mora-count differs from the ideal" (Hitch 2014: 5). Unlike the Leumanns, Emmerick or Maggi, he does not regard stress as a structural feature of the metrical system (*ibid.*, 13).

The conclusions which I have reached are broadly similar to those of Maggi and the Leumanns: the metre of the *Book of Zambasta* is indeed based on the quantitative (moraic) principle, though some limited latitude to deviate from the ideal number of morae is permitted in the non-cadential segments. However, it is not purely quantitative but belongs, like the Latin hexameter, to a class which has been referred to as "hybrid accentual-quantitative metres".[5] Specifically, the metre requires a metrical ictus coinciding with the word-stress at one particular point in all or most cadences, a requirement which is met by the systematic lightening of unstressed heavy syllables in certain positions. This analysis makes it possible to interpret many features previously regarded as irregular as being regular.

The order and arrangement of this exposition presents two problems.

The first is a variant of the conundrum: "Which came first, the chicken or the egg?" In so far as the structure of the verses is at least partially quantitative, as it seems that everyone would now agree, one cannot define the structure of the verses until one has established which syllables count as one mora and which as two; on the other hand, the evidence for the quantity of the syllables is partly dependent on the position in which they occur in the verse. Similarly, stress is claimed to be a structural feature at certain points in the verse, but the evidence for the position of the stress derives in large part from the metre itself. In such circumstances one can hardly avoid the accusation of circular argument. Absolute proof is often impossible and the best one can hope for is a system "où (presque) tout se tient".

The second problem is the sheer bulk of the material. A complete presentation of the evidence on each contentious point would lead to an immensely long and dense argumentation, which almost any reader would find mind-numbingly boring.

The solution I have attempted here is to present in reasonably brief and simple terms the conclusions I have come to as a result of scanning the whole *Book of Zambasta* and studying the problems which arose during the process. In the course of the presentation, I will

[5] Ryan 2017: 583.

summarize the basis for my conclusions, where possible giving just a few examples and referring to footnotes or appendices for a fuller collection of evidence on each point. I have concentrated on identifying metrical principles and regularities. There remain, of course, a number of verses which appear irregular or corrupt, but I have not considered it my task to find an emendation for each one, let alone to re-edit the whole poem.

2. The overall structure of the verses

2.1. The three metres

As mentioned already, it is universally accepted that the *Book of Zambasta* and other Old Khotanese poetic texts attest three metres known as A, B and C. In the manuscript each verse, consisting of two hemistichs of the same metre, is written as a single line, often with a verse-number at the end. (In modern editions, for practical reasons, the verses are printed in two lines, one line for each hemistich.) There is a caesura, almost always coinciding with a word-boundary,[6] at the end of the first hemistich and also at a specific point within each hemistich. It is convenient to refer to the two parts of the first hemistich (i.e. those before and after the caesura) as a and b and to the two parts of the second hemistich as c and d. Each of these four units, which may be referred to by the Sanskrit term *pāda*, ends with a cadence, in most cases preceded by a non-cadential segment. In theory the caesurae are indicated by spaces in the manuscript, and sometimes by punctuation, but neither is employed consistently. In practice the position of the space, or even that of the verse-end, is often shifted by the scribe in order to achieve a neater appearance. In my scanned text, however—as in Leumann's edition, though not in Emmerick's—, I have tried to make the text more easily searchable and the scansion clearer by regularizing the position of the spaces as well as by removing the manuscript's irregular punctuation and verse-numbers.

As Leumann rightly observed, the metre is moraic, that is, the number of syllables in each part of the verse may vary but the number of morae is fixed (with some limited exceptions). Essentially, a syllable containing (i) a long vowel or diphthong or (ii) a short vowel followed in the same word by one or more consonants counts as two morae, i.e. a long or heavy syllable (– or H), while a syllable ending with a short vowel counts as one mora, i.e. a short or light syllable (⏑ or L). This definition is based on the assumption that when two or more consonants occur between vowels, as in *balysä* [balzə] 'Buddha', at least one belongs to the preceding syllable, which is thus heavy: [bal.zə] HL.[7]

The ideal types of hemistich in the three metres are as follows, the caesurae and verse-ends being marked with ‖. The positions marked + require at least a syllable-boundary.[8]

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[6] Exceptionally, a compound-boundary rather than a word-boundary divides the two parts of a hemistich in 4.40ab (A), 15.112ab (A), 18.13ab (C) and 19.77cd (B), and even two hemistichs in 10.15 (A), a verse full of awkward Skt. terms. In such cases I use a long dash (—) to indicate the caesura.

[7] An alternative formulation would be to define such a syllable as heavy only if it is followed by two consonants (in the same word): [balz.ə]. The two formulations yield the same result except in the rather rare case of syllables ending in word-final -V̆C, e.g. *maṃ* (beside *mamä*) 'my', *här* (beside *härä*) 'thing', which seem to count as heavy (see §3.3).

[8] Thus (for example) a heavy syllable, which consists of two indivisible morae, cannot stand immediately before the last 6 morae of a 7-mora cadence. The boundary here noted as + seems to be what M. Leumann (1971: 458–9) refers to as an 'unsichtbare Fuge' between the cadence and the preceding non-cadential segment, a concept rather unfairly ridiculed by Emmerick (1973: 144). More often than not this boundary is in fact a word- or compound-boundary. Where it is not, the division of the word usually leaves at least two morae either side of the boundary, e.g. *ava+śśärṣṭā*, *ttaran+daru*, *ā+tāśu*. Occasionally the initial light syllable of a word appears as the last mora of a segment (clear examples include *vi+kalpa* 4.116d, *pa+jättä* 12.42d, *nä+malśa* 22.202d); or the final light syllable of a word appears as the initial mora of a 7-mora cadence (*but+tĕ* 12.82b, *vā+tcä* 12.128b, *ṣṣahā+nĕ* 13.65a, 14.2b, *sārthavā+hä* 22.267a), more commonly where the syllable in question is followed by a clitic (*bul+ysu burŏ* 2.3b, *ttē+ru vätĕ* 2.56c, 2.136b, 5.45b, *niś+tä mä*

Metre A (24 morae)
5 + 7 ‖ 5 + 7 ‖
5 + 9 ‖ 3 + 7 ‖
5 + 10 ‖ 2 + 7 ‖

Metre B (18 morae)
5 + 3 ‖ 3 + 7 ‖
5 + 4 ‖ 2 + 7 ‖

Metre C (17/18 morae)
7 ‖ 5 + 5/6 ‖
9 ‖ 3 + 5/6 ‖
10 ‖ 2 + 5/6 ‖

One example of each of the above patterns:
Metre A
1.41ab ātamŏ ju balysä nĕ hvīndĕ cvī paḍā väta praṇähāna (5 + 7 ‖ 5 + 7 ‖)
HLLL HLLHL ‖ HLH LLLLHL ‖
1.49ab crrāma haspäsca mahāyāña kyĕ balysūśtu carīndi (5 + 9 ‖ 3 + 7 ‖)
HLH HLLHHL ‖ LH HLLHL ‖
2.187ab ttīyä vā badṛ panatä jsaunätĕ patä balysu nita'stä (5 + 10 ‖ 2 + 7 ‖)
HLH HLLLLHLL ‖ LL HLLHL ‖
Metre B
12.4cd balysūśtĕ vaska u biśśä trāyätĕ satva (5 + 3 ‖ 3 + 7 ‖)
HHL HL ‖ LLL HLLHL ‖
12.8cd ttandrāmä pīsai kūśāñi ku nāstĕ (5 + 4 ‖ 2 + 7 ‖)
HHL HH ‖ H HLLHL ‖
Metre C
2.118cd mahāsamudrä śśō kanā ūtca baña (7 ‖ 5 + 5 ‖)
LHLHL ‖ HLH HL|LL ‖
2.119cd irdhyau biśśä satva ttrāma balysä baña (9 ‖ 3 + 5 ‖)
HH|LLHL ‖ HL HL|LL ‖
3.47ab harbiśśä paramāṇava ttĕrä vasuta varä (10 ‖ 2 + 5 ‖)
HLLLLHLL ‖ LL LLL|LL ‖
2.107ab ṣṣai ttä nĕ balysu ō balysu biṣṭu tcaramu (7 ‖ 5 + 6 ‖)
HLLHL ‖ HHL HLLLL ‖
3.2ab mättrai āstanna kye käḍĕ meittra vasuta (9 ‖ 3 + 6 ‖)
HH|HHL ‖ LLL HLLLL ‖
2.115ab pamātu druai nūhäna ātāśu thatau (10 ‖ 2 + 6 ‖)
LHLHHLL ‖ H HLLH ‖

2.127b, *sīravā+tä tĕ* 2.185d, *biśā+na nä* 5.44d, *yiḍān+di sta* 22.108c. Very occasionally a 7-mora cadence even begins with a monosyllabic clitic, most unambiguously *jsa* in *ysurrĕ + jsa* 12.61b and *bis$_y$ō + jsa* 24.166b.

The variant forms of each metre are freely available alternatives. There is no expectation that the second hemistich of a verse should attest the same pattern as the first.

In all three metres, the segments immediately preceding each caesura or verse-end are cadences, whose rhythm is at least partially fixed, both in terms of the pattern of morae with which they end, e.g. LL or HL, and, in most if not all cases, in terms of a particular ictus, e.g. 'LL or 'HL.[9] The 5-mora segments at the beginning of the hemistichs in metres A and B and the 2-, 3- and 5-mora segments which follow the mid-hemistich caesura in all three metres have no discernible structure beyond the fixed number of morae; and in fact almost 5% of the segments here described as consisting of 5 morae have only 4 morae (nearly 300 instances, to be discussed in §5.3, together with other less common variants).

In metre A, each hemistich typically consists of 24 morae,[10] usually divisible into segments of 5 + 7 ‖ 5 + 7 ‖ morae, more rarely into 5 + 9 ‖ 3 + 7 ‖ morae and even more rarely into 5 + 10 ‖ 2 + 7 ‖, in each case with caesurae as marked. The 7- or 9-mora segment is a cadence generally ending HL or LLL, while the 10-mora segment is a cadence ending HLL or HH. The 7-mora cadence HLLHL is overwhemingly preferred.

In metre B, each hemistich typically contains 18 morae, divisible into segments of 5 + 3 ‖ 3 + 7 ‖ or 5 + 4 ‖ 2 + 7 ‖ morae, with a final 7-mora cadence exactly like that of metre A. In describing the structure thus, rather than as 5 + 6 + 7 ‖ or simply as 11 + 7 ‖ morae, I am departing from the general consensus. However, it seems to me that it can hardly be by chance that there is virtually always a word-boundary before the last 10 or 9 morae of the hemistich,[11] and that not only a space but even a punctuation mark is commonly found in this position,[12] implying a caesura. This caesura is preceded by a cadence of 3 morae, usually HL or LLL, or of 4 (2 + 2) morae, usually HLL or HH.

In metre C, each hemistich typically contains 17 or 18 morae, usually divisible into segments of 7 ‖ 5 + 5/6 ‖ morae, more rarely into 9 ‖ 3 + 5/6 ‖ or 10 ‖ 2 + 5/6 ‖ morae. The first cadence, of 7, 9 or 10 morae, generally follows the same principles as the equivalent cadences in metre A, though here the 7-mora cadence LHLHL, which is rare in metres A and B, is almost as common as HLLHL. The final segment of the hemistich, however, attests two cadences not found in any other metre. The more common of these consists of 5 morae ending with two light syllables preceded by a word- or compound-boundary: |LL. The other consists of 6 morae ending either LL or H.

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[9] For the reader familiar with Greek, Latin or Sanskrit metre it may be worth pointing out that there is virtually no evidence to suggest that the final syllable of any Khotanese cadence is indifferent to length (⏑). A very few (three) cadences apparently ending with an unexpected heavy syllable are discussed in §4.2.5. In the formulae given by Emmerick, Z, p. 439, the final syllable of all cadences is noted as ⏑, but there is no basis for this.

[10] Sometimes 23 or even 22 morae, if one or both 5-mora segments are replaced by 4-mora segments, e.g.

11.40ab paśśātajīvätĕ āstĕ araṃñä ṣī vari hōrä
-LHL HLLHL ‖ -LHL HLLHL ‖

[11] The one exception is 12.63cd, which appears to have no caesura at all and is probably corrupt (see below, §4.5). In the case of 24.421ab I accept the analysis in Hitch 2014: 7 n. 10.

[12] I count 122 instances of a punctuation point in the position where I assume the caesura as opposed to just four cases where it occurs after the initial 5-mora segment (24.52c, 24.116c, 24.256c, 24.268a) and one where it occurs before the 7-mora cadence (24.495d).

2.2. Attestation of the three metres in the *Book of Zambasta*

The list below is a slightly corrected version of that in Z, p. xxi,[13] but arranged metre by metre rather than in the order of occurrence in the text. I have added an approximate number of the complete or almost complete hemistichs in each chapter. Some chapters, it should be noted, also include a significant number of badly damaged hemistichs, most of which do contain at least some metrically relevant data.

Metre A	*complete hemistichs*
Z1	35
Z2.1–104,[14] 123–244	440
Z4	240
Z5	228
Z6	120
Z9	56
Z10	70
Z11	154
Z13	312
Z15.1–113,[15] 124–33	70
Z16.1–4, 7–11, 19–27, 31, 50–51, 57–67	30
Z22	470
Z23	282
Z24.493–4	4
Total	2,511

Metre B	*complete hemistichs*
Z12.1–89, 126–9	186
Z14	120
Z16.5–6, 12–18, 32–46, 48–9	23
Z19	41
Z24.1–207,[14] 215–43, 249–81, 378–492, 495–521, 642–59	600
Total	970

Metre C	*complete hemistichs*
Z2.105–22	36
Z3	302
Z7	94
Z8	78
Z12.90–125, 130–34	58
Z15.114–23	5
Z16.28–30, 47, 52–6	9
Z17 + Z18[16]	70
Z20	141
Z21[17]	55
Z24.208–14, 244–8, 318–29	36
Total	884

2.3. Preliminary remarks on metre and stress

As has already been mentioned, the ends of certain cadences require a word (or group of words) with a specific accentual as well as a specific quantitative pattern. For instance, it is generally accepted that the 7-mora cadence ends 'HL (occasionally 'LLL) and the metre C 5-

[13] Contrary to what is stated there, 16.47 and 24.208 are in metre C, not B. On the other hand, 16.5 is in metre B, not C, while 16.31 is in metre A, as are 15.112–13 (as already noted by Maggi 1992: 98 n. 1), the address to the Buddha in metre C beginning in verse 114. In Emmerick 1968: 4 n. 6 (though not in Z, p. xxi), 15.111 is also listed as being in metre C, but the surviving hemistich is far too long for metre C.

[14] Z2.31–42 and 24.6–17 are two previously unknown folios edited in Sims-Williams–Sims-Williams forthcoming.

[15] This includes a folio from a different MS containing Z15.73–84 edited in Maggi 2022a.

[16] Z17 and Z18 are now recognized to be a single chapter, see Maggi–Martini 2014.

[17] This includes a folio first published in SDTV3: 212–13 and identified by Maggi as containing 21.107–17 (see Maggi 1998: 287–8; 2017: 275). Since 21.117 is the last verse of the chapter, as indicated by the blank line which follows, it must have been followed by a chapter ‘21a’, now completely lost.

mora cadence ends 'LL. The alternative metre C 6-mora cadence has been assumed to end 'LH or 'LLL (thus Maggi 1992, §75), but I shall argue below in favour of L'H and L'LL. Whatever the details, it is clear that the coincidence of metrical ictus and word-stress is an essential feature of these cadences. It is therefore impossible to study the Old Khotanese metrical system without at the same time studying the equally controversial question of Khotanese accentuation.

Many scholars have commented on the position of the stress in individual Khotanese words, but the only systematic study of this topic is Mauro Maggi's 1992 dissertation. Since the following discussion will necessarily emphasize points on which I differ from Maggi, I should like to make it clear at the outset that his study is an indispensable source of both data and analysis and that there are many aspects of his argument which I accept.

Maggi identified the following types of evidence as contributing to the identification of the syllable bearing the word-stress in Old Khotanese:

1. Vowel palatalization, which only affects stressed syllables;

2. Vowel weakening, assimilation and (especially in Late Khotanese) loss, all of which affect unstressed syllables; and

3. The metre, in which certain cadential positions require a combination of word-stress and metrical ictus.

Of Maggi's three types of evidence, the first two are largely uncontroversial. The third type, the argument from metre, is certainly valid in principle, but can only be used once the metrical rules are established. According to Maggi, who describes the major cadences in Old Khotanese poetry as consisting of two feet each (a foot being a unit of 2–4 morae, e.g. ⏑⏑, ⏑–, –⏑, – –, –⏑⏑), a syllable can be assumed to bear the word-stress if it is the first syllable of either foot of the cadence, at least in the case of the final cadences (i.e. those which occur at the end of a hemistich). Thus, the most common final cadence in metre C would be stressed 'HL 'LL, while the most common final cadence in metres A and B would be stressed 'HLL 'HL. There is a risk of circular argumentation here, as deductions about the position of the stress in particular words are dependent on assumptions about the position of the metrical ictus and vice versa. To take one crucial instance, it is clear from Maggi 1992, §94, that metrical considerations provide the only evidence for his statement that the heavy final syllable of a polysyllabic word is never accented. This rule is chiefly based on the occurrence of words of the shape LH at the end of certain 6-mora final cadences in metre C and at the beginning of certain 7-mora final cadences in metres A and B. Maggi (following Emmerick, Z, p. 439) interprets both contexts as requiring a stress 'LH. I hope to show (below, §4.1.4) that in fact the ictus in all final cadences in metre C is aligned with the penultimate mora (i.e. 'LL or 'H), and that consequently words of the shape LH in this position must be stressed L'H, e.g. *hva'tai* 'you said' 15.114b, not †*'hvatai*.[18] In the case of the 7-mora final cadences, while it is most often the case that the first syllable is stressed, in many *pāda*s there is clearly no stress earlier than the second or even the third syllable of the cadence, e.g. *ṣṣuvai bulyṣu burŏ tsutātä* LHH LLLLLHL 'his fame went afar' 2.3b, *u ysāyṣänai paju**tt**ä* LH LHLHL 'and (one) covers it with grass' 2.28d, *u niśṭä mä cu va būṣṣä* LH LLLLHL 'and I have nothing to distribute' 2.127b, *biśāṇa nä biśśä rräṣṭĕ* LH LLLLHL

[18] In this specific instance, the stress is confirmed by the cadence *rraṣṭŏ hva'tai thu* HLL'HL 'rightly have you said' (24.1b), where Maggi's own analysis of the metre also requires the ictus indicated here.

'he kissed them all with (his) tongue' 5.44d. Similarly in the case of metre C final cadences, the first syllable of the cadence is usually stressed, but there are clear exceptions, e.g. *hära hämēṃatĕ jsa asama* LLLH LLLLLL 'things unlike because of arising' (8.23b). In all these cases, the first syllable of the cadence (here marked with dotted underlining) is one which cannot bear a stress according to Maggi's own stress rules.[19]

Thus, while I accept that the word-stress and metrical ictus always coincide in the last 'foot' of these cadences, Maggi's assumption that the first foot of each final cadence begins with a stressed syllable seems to me unacceptable, at least as an absolute rule. Since this assumption plays an important role in his argumentation, abandoning it has wide consequences, requiring a reconsideration of all cases in which it is the sole or principal basis for determining the stress of a particular word or class of words.

At this point it may be useful to provide for reference a table of the various cadences attested in the *Book of Zambasta*, showing what I take to be the position of the ictus (where there is a fixed ictus, which seems not to be the case in the 3- and 4-mora cadences of metre B), even though the detailed arguments on which it is based have not yet been presented. The numerals indicate a number of morae without any fixed pattern, e.g. '3' implies that LLL, HL or LH are all possible (though not necessarily equally common). For the other symbols used see p. 12 above.

Table 1: Cadences attested in the *Book of Zambasta*

3-mora cadence: metre B	HL, LLL, LH
4-mora cadence: metre B	HLL, HH, LLLL, LLH
5-mora cadence: metre C	3+'LL
6-mora cadence: metre C	4+'LL, 4+'H
7-mora cadence: metres A, B and C	4+'HL, 4+'LLL
9-mora cadence, Type 1: metres A and C	4+'H+3, 4+'LL+3
10-mora cadence, Type 1: metres A and C	4+'HH+2, 4+'LLH+2
9-mora cadence, Type 2: metres A and C	3+'HL+3, 3+'LLL+3
10-mora cadence, Type 2: metre A (and C?)	3+'HLH+2, 3+'LLLH+2

After analysing all available evidence, Maggi comes to the conclusion that Old Khotanese was a language with a 'quasi-fixed' stress. In general, he argues, the stress in polysyllables fell on the first heavy syllable from the end of the word (other than the final syllable, which was never stressed), while words containing only light syllables were stressed on the initial syllable. However, these rules are not absolute, hence the qualification 'quasi-'. In particular, Maggi states that words of four or more syllables with the abl. sg. m. ending *-äna* or the loc. pl. ending *-uvŏ'* are stressed on the antepenultimate syllable, even if this is light. As he observes (his §83), this subsidiary rule is of a kind typical of languages

[19] As pointed out in n. 8 above, where further examples are cited, the occurrence of a final light syllable at the beginning of a cadence is rather more common in cases where it is followed by a clitic. One might be tempted to suppose that the enclitic draws the stress onto the preceding syllable, as with the pitch accent in Greek, but this seems to be excluded by the stress of *'ysurrĕ jsa* (not †*ysu'rrĕ jsa*), *hä'mätĕ mä*, *'väta śtä* etc. at the end of 7-mora cadences (see p. 48).