65. Metre

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This chapter gives an overview of the elements of Greek and Latin metre, introduces the main technical terms and symbols used, and offers some suggestions for learning and for further study. It is written to be read continuously; technical terms are indicated in **bold** when they are first introduced or explained, and later paragraphs assume a grasp of the explanations given in previous paragraphs.

The music of poetry

Poetry is distinguished from prose in respect of sound no less than expression. The earliest Greek poems (including the epics of Homer and the compositions of the lyric poets) were songs. The melody would be accompanied by a lyre or *aulos* (reed-pipe), and the words were sung in predetermined patterns of rhythm based on movement and dance. The melodies are not preserved; but since each syllable of a Greek word has a natural spoken duration that may be measured as either short or long (like the dots and dashes of Morse Code), the patterns of verse rhythm are preserved in the actual words of the poems. From the fifth century BC most Greek poetry was no longer composed to be sung, but the Greeks continued to regard poetry not just as words, but as music (*mousikē* is derived from the Muses, goddesses of poetry, music and dance). Roman poets, who from the third century BC imitated the metres used in Greek poetry (displacing earlier Italian traditions such as **Saturnian** verse) and adapted them for use with Latin, followed this convention; Virgil's *Aeneid*, for instance, begins with the words *arma virumque cano*, 'Arms and the man I *sing*'. The music survives in the memorable, and measurable, rhythms of ancient poetry: metre (from Greek *metron*) means 'measure'. Since metre is thus integral to both Greek and Latin verse, and is used with great effectiveness and skill, some knowledge of how it works is essential to the proper understanding and enjoyment of classical poetry. The terminology and notation used for the formal description of ancient metres may seem daunting, but for practical and scholarly purposes they are unavoidable. The technical aspect of metre can, indeed, hold a fascination of its own; but the study of metre should above all help us appreciate something of the music of ancient poetry.

Quantitative metre

Ancient metre differs significantly from modern in that it depends on measuring *syllables* rather than *accents* (or *stresses*). In English, the rhythm of poetry comes from stressing certain syllables to create a regular pattern of beats. Take the first two lines of William Blake's poem *The Tiger* ('beats' are marked with ´):

> Tíger! Tíger! búrning bríght
> Ín the fórests óf the níght.

The beat is preserved even if we increase the number of syllables as, for example, in

> Tíger! Tíger! búrning bríght,
> Féarsomely sílent in the fórests of the níght.

Within each beat each syllable has approximately the same duration; we do not dwell twice as long

on the stressed syllables as the unstressed. By contrast, the metres of Greek poetry (and Roman poetry, insofar as it adopts Greek principles) are created from sequences of syllables, each of which has a measurable duration that is either **long** or **short**. The time-value assigned to a syllable is called its **quantity**. Quantity is standardly indicated by these symbols: – for long, ˘ for short. In theory the duration of the long was double that of the short (even if in practice this ratio is less precise): short and long may therefore be considered equivalent to quaver (♪) and crotchet (♩) in modern musical notation. The metrical term for the single time-unit is a **mora**, so a long syllable comprises two **morae**; in many cases two short syllables (˘˘) may be substituted for a long one (this is called **resolution** – the long syllable is **resolved**) or one long syllable for two short ones (**contraction**). If we artificially extend the stressed syllables of Blake's *Tiger* to twice the length of the unstressed ones, they present the following metrical pattern:

– ˘ – ˘ – ˘ – (♩ ♪ ♩ ♪ ♩ ♪ ♩)

Since such patterns are simply symbolic indications of time-values, it is more accurate to speak of long and short **positions**, each of which may be filled by a syllable; but for convenience we may occasionally refer simply to syllables. Sometimes a position permits *either* a long or short syllable; if so, it is called **anceps** (pronounced *án-seps*) and indicated by the symbol × (equivalent to ⏑ or ⏒). The syllable which fills an anceps position may itself be determined as being either long or short (when ambiguous, it is called **syllaba anceps**). The metrical symbols are most easily read by using *dum* for the long syllable (—) and *di* for the short (˘) as follows:

dum di dum di dum di dum

Bear in mind that we tend out of habit to stress the heavier syllables (*dúm di dúm di dúm di dúm*) rather than to lengthen them as ancient readers would have. *NB* The accent marks placed on ancient Greek words do not indicate stress as here (and as they do in modern Greek), but are used to mark alterations in vocal *pitch*; in spoken ancient Greek, the voice rose on syllables marked with the acute ´, rose slightly less on the grave `, and rose and fell on the circumflex ^.

Scansion and prosody

Repeatable rhythmic units of the type described above form the identifiable sequences, the **metres**, of Greek poetry. In antiquity, metres were assigned generic names related to features such as their provenance (eg the **Ionic** metre is related to Ionia and **Aeolic** metres are derived from poetry in the Aeolic dialect) or their structure; for example, **hexameters** consist of six metra (Greek *hex* = six) and **hendecasyllables** of eleven syllables (*hendeka* = eleven). Specific sequences were often identified by-names derived from poets with whom the metres were particularly associated, such as **Sapphics** from the poetess Sappho, **Alcaics** from Alcaeus. The key to identifying a metre is to scan correctly each given line of verse, **scansion** being the term used for the analysis of metrical quantities. The system of principles that determine quantity is called **prosody** (pronounced *prós-o-dee*), and includes rules about when vowels were pronounced long or short **by nature** (just as we 'naturally' pronounce *o* short in 'holiday' and long in 'holy') and when syllables with short vowels are long **by position**. Greek alphabetic characters exist for long *e* (*ēta*) and *o* (*ōmega*), though the other vowels (*a, i or u*) may be pronounced either long or short. No Latin vowels indicate natural quantities, but these can often be inferred from the position of a word in a metrical sequence (eg to fit the hexameter, the *i* of 'primus' in *Aeneid* 1.1 must be long by nature, and the *u* short). The first line of Virgil's *Aeneid* ends with the word *oris*, the third line begins with the word *litora*: how are they pronounced and scanned? The natural vowel-quantities are sometimes indicated in modern texts by printing *ōrīs* and *lītora*. The bars on top of the *o* and *i*, called **macrons** (from the Greek for 'long'), indicate that these vowels are here long by nature (*ō* as in English 'or', *ī* as in 'police'). They should accordingly be scanned long: *ōrīs* is two long syllables (– –), and *lītora* is a long followed by two shorts (— ˘˘).

Principles of prosody

The vowels in *ōrīs* and *lītora* precede at most a *single* consonant; in such circumstances vowels that are *not* long by nature (ie the *o* and *a* in 'litora') will be both pronounced and scanned short. A vowel followed by *two or more* consonants (including at the beginning of a following word) or by a double-consonant such as Latin x and Greek ψ (*psi*) will usually be scanned long by position, even if it is not long by nature. The exception to this principle is that particular groups of double-consonants such as *tr* and *pl* (as in Latin *patris* and Greek *haplos*) permit a short vowel preceding them to remain short; the basic rule is that the combination of a **mute** consonant – *c*, *p*, *t* – and a **liquid** consonant – *l*, *m*, *n*, *r* – permit this shortening (**packet** of **mineral**s may serve as a mnemonic). Principles of prosody overlap in Greek and Latin, but each language has distinct features. In both, for instance, **elision** of vowels takes place when a short vowel at the end of a word is followed by a vowel or aspirate (*h*) at the beginning of the following word. This is marked in Greek by an apostrophe, for example *muri' Achaiois* for *muria Achaiois*; but elision is not so marked in Latin, where word-endings such as *um* are also elided, as in *mult*(*um*) *ille* (for purposes of scansion, the elided element may be bracketed in this way). Diphthongs (eg *ae*, *oe*) are always scanned long in Latin; but diphthongs in Greek (eg *ai*, *au*, *eu*, *oi*) may sometimes be shortened, as may a naturally long vowel, before a vowel or aspirate. This is called **correption**, and occurs particularly between words (eg *eipe kai hēmin*, scanned – ⏑ ⏑ – –), though it may also occur within a word (eg *toioutos*, scanned ⏑ – –).

The colon

Scholars in antiquity subdivided bodies of metre such as verses and stanzas into smaller units for analysis, naming some subdivisions after anatomical terms such as *kōlon* 'limb' (Latinised as 'colon'), *pous* 'foot' ('pes'), and *daktylos* 'finger' (or 'toe'). But ancient poets composed in rhythm, not to metre; and **cola** (plural of **colon**) are the shortest units of metre that would have been viable for purposes of composition (most cola have between five and eleven syllables). The eight-syllable sequence we encountered above – *dum di dum di dum di dum* – is found as a colon in Greek poetry, and was named a **lekythion** (pronounced *le-kíth-i-on*), meaning 'little oil-bottle', on account of an amusing literary association. The rhythmical sequence is repeatedly used in a scene of Aristophanes' comedy *Frogs*, in which the tragedian Aeschylus claims that he can substitute the ends of verses written by his rival Euripides with the phrase *lēkuthion apōlesen* (— ⏑ ⏑⏑ ⏑ — ⏑ —), which constitutes a lekythion with the second long resolved, meaning 'lost his bottle of oil, he did' (the translation mimics the metre). The comic effect may be suggested by making a similar substitution in Blake's lines:

> Tiger! Tiger! burning bright
> *Lost his bottle of oil, he did!*

Dochmiacs

Many commonly used cola are identified by-names based either on intrinsic features or on literary associations. The **dochmiac** colon is named from a Greek word meaning 'askew', because of the jerky movement of the sequence of short and long syllables:

⏑ — — ⏑ — *di dum dum di dum*

Dochmiacs are regularly found in the lyric choruses of Greek tragedies, and always associated with agitation or distress (virtually all other metres have no such emotional association but are used for a variety of emotional expression). The following mnemonic (memory-aid) for dochmiacs was invented by Gilbert Murray, the Regius Professor of Greek at Oxford 1908–36 (I have slightly changed his second line):

> The wise kangaroos
> Prefer boots to shoes.

Mnemonics are helpful for recalling the sequence of longs and shorts in cola or longer units of metre. However, they are likely to misrepresent the true nature of the rhythms (in due course one should learn by heart representative verses in the

original languages). An English-speaker would tend to utter the above using four beats as follows:

The wíse kángaróos ´
Prefér bóots to shóes ´

Here the fourth and eighth stress-marks fall on a silent beat that would be marked by a rest in a musical score; but there is no evidence that sequences of dochmiacs in Greek admitted a silent beat of this kind. The little evidence we by chance possess shows that a dochmiac colon might have been heard as having essentially *two* principal beats as follows:

˘ ˊ — ˊ —

A suitable mnemonic in this case (proposed by Oxford undergraduate Gail Trimble in 2001) might be:

That ól' man ríver,
he jús' keeps róllin' . . .

The dochmiac metre shows a degree of flexibility found in few other metres in the licence allowed for the basic sequence to be resolved and for the substitution of longs for shorts. All three longs may be resolved into two shorts, and either short of the basic dochmiac may be replaced by a long ('**dragged**') – which may in turn be resolved. With just the last long of the basic dochmiac resolved, one gets the rhythm ˘ — — ˘ ˘˘ 'The Regius Professor'! ('Regius' has two syllables as in 'region'). With all three long syllables resolved, we get eight short syllables as follows (it helps to bunch the resolved syllables together, visibly and audibly):

˘ ˘˘ ˘˘ ˘ ˘˘

That is, 'The wise kangaroos prefer boots to shoes – *in any regular leather*'.

Feet and metra

Units smaller than cola are artificial subdivisions, constructed for the purpose of metrical analysis; no poet ever composed by adding such small units of metre together. A **foot** may consist of two or three syllables (eg – –, – ˘˘); so a whole line (or **verse**) may be analysed as a series of feet in varying sequences. Feet with different metrical shapes are assigned names of their own: thus a foot consisting of two longs, *dum dum* (– –), is called a **spondee** (easy to remember because 'spondee' itself has two long syllables), while one consisting of a long followed by two shorts (– ˘˘) is a **dactyl** (from the Greek word for 'finger' and 'toe', which similarly consist of a long section attached to two short ones). In many metrical contexts, dactyl and spondee are interchangeable; in terms of duration, the unit-measure (or **metron**) of a dactyl (1 long + 2 shorts) is equivalent to that of a spondee (2 longs). An **iambic** (*I-ám-bic*) foot is traditionally defined as *di dum* (˘ –) with two positions (the English 'iambic pentameter', as used in sonnets, has five iambs, eg in Shakespeare's 'Shall I compare thee to a summer's day'). For iambic and other metres, however, the metron is a different, and more useful, unit of analysis than the foot. In the **iambic trimeter**, for instance, which is used for speeches in Greek drama (Aristotle decribed iambics as 'most like speaking'), a spondee, dactyl, and even **anapaest** (˘˘–) might occur in place of ˘ – ; the system is more economically mapped out by the iambic metron (× – ˘ –), consisting of four positions beginning with long or short (anceps) and permitting numerous possible resolutions (in Greek comedy even the short syllable may be resolved). Thus the basic iambic trimeter may be simply represented as three similar *metra* as follows (a single vertical line is used to mark off the metra):

× – ˘ – | × – ˘ – | × – ˘ – ||

A passage of iambic trimeters consists of verses like this, variously resolved, following one another in serried ranks, with a **pause** (marked with two vertical lines as above) at the end of each line and the same metrical sequence starting afresh at the beginning of each line. The term for such forms of verse is **stichic** (*stíck-ic*, from Greek *stichos* 'rank'). it contrasts with **lyric** metres in which lines often quite different from each other in metrical form flow continuously into each other without pause (such continuity is called **synapheia**, pronounced *sin-a-fée-a*).

The Hexameter

Students often begin (and, regrettably, sometimes end) their study of metre with another regular stichic metre, the **dactylic hexameter**. This is one of the most abundantly employed metres in both Greek and Latin, used in epics of Homer and Virgil (so it is also called the **epic hexameter**, or simply abbreviated to 'hexameters') and in didactic and pastoral poetry. As its name indicates, the metre may be analysed into six dactylic metra:

1 2 3 4 5 6
– ⏑⏑ | – ⏑⏑ |– ⏑⏑ | – ⏑⏑ | – ⏑⏑ | – – ‖

'High on a branch of a tree sat a woodpecker watching a weevil' mimics the rhythm (or with spondaic fourth foot 'Everyone knows that *Survive* is a song by Gloria Gaynor'). If a regular pulse (or **ictus**) occurs on the first long of each foot (the **princeps**), the conflict of ictus with the natural stress accent of Latin words may be used to great poetic effect (see Wilkinson 1963). Each metron except the last consists of either a dactylic or spondaic foot; the final metron always has two long positions, in the second of which the syllable may be either long or short. Thus in *Aeneid* 1.2, the *it* of the last word *vēnit* is short; and since *dum di* (– ⏑) is traditionally called a **trochee** (*tróe-key*), the resulting foot is notionally trochaic (though a trochaic *metron*, – ⏑ – ×, is a reduplicated foot on the same lines as the iambic metron). But in hexameters such a short final syllable is better described as **brevis in longo**, that is, 'a short syllable in a long position'; the same applies to a short syllable in the final long of the iambic trimeter. In practice, the penultimate (fifth) foot of the hexameter is usually a dactyl, thus providing a satisfying impetus to end the line with the sequence – ⏑⏑ – – (called an **adonean** colon in lyric metre, after the ritual cry *ō ton Adōnin*, 'Oh for Adonis!').

The caesura

Poets in both Greek and Latin avoided making a strong word-break in the very centre of the hexameter line (ie at the end of the third foot), thus avoiding the jingle effect created by splitting the line into two halves of similar length and rhythm (compare 'High on a branch of a fir-tree, watchfully woodpeckers idled'). Instead, a significant word-break invariably occurs close to either side of this central point, allowing for the line to be divided according to a more rhythmically effective ratio (the same principle applies to the iambic trimeter). The resulting near-to-central-word break that occurs in the third or fourth foot of the hexameter (after either the first long or first short syllable) is called a **caesura** (pronounced *se-zyú-ra*); there may indeed be caesurae in both feet, but the one that constitutes the more significant break in sense or rhythm will be the *principal* or *main* caesura. Thus the three words with which the *Aeneid* begins allow for a strong word-break in the third foot after the first long (a **strong caesura**): 'arma virumque cano' – 'Arms and the man I sing.' For purposes of scansion, quantities are marked above each syllable, with the main caesura indicated by a short vertical double line:

– ⏑ ⏑ – ⏑ ⏑ – | – – – – ⏑ ⏑ – – ‖
arma vi | rumque ca | no Troi | ae qui | primus ab | oris

'Arma virumque cano' itself constitutes a colon called a **hemiepes** (*hem-e-é-pez*, and meaning 'half [*hemi*] an epic hexameter [*epos*]' – in fact it is just *under* half). In choosing a dactylic hemiepes pregnant with programmatic meaning to begin his great epic, Virgil was consciously imitating Homer, whose incomparable *Iliad* also begins with three weighty words in the same rhythm, *Mēnin a* | *eide the* | *ā* ('[Of] anger sing, goddess'). To read hexameters fluently, it helps first to practise reading lines up to the main caesura, and identifying the words that constitute the – ⏑ ⏑ – – of the last two feet (eg *primus ab oris*), over a series of lines.The so-called **pentameter**, a line which alternates with the hexameter in the couplets (or **distichs**) of **elegiacs**, is simply two hemiepes cola in sequence. In developed Latin elegiacs, the second half of the pentameter is always fully dactylic, thus:

– ⏑⏑ – ⏑⏑ – | – ⏑⏑ – ⏑⏑ – ‖

Additional remarks and symbols

Each metre has its own complexities and peculiarities. Aeolic metres, for instance, as originally used in Greek by Sappho and Alcaeus and brilliantly employed in Latin by Horace, use a variety of different cola notionally based on the **choriambic** foot (– ⏑ ⏑ –), such as **glyconics** (× × – ⏑ ⏑ – ⏑ –) and **pherecrateans** (× × – ⏑ ⏑ – –). The cola are usually arranged in stanzas, and in synapheia; they may be lengthened by internal additions (**expansion**) of either choriambs or dactyls: thus × × – ⏑ ⏑ – ⏑̲ ⏑̲ – ⏑ ⏑ – is a glyconic expanded by a dactyl (underlined). Pindar uses Aeolic and other cola, such as **dactylo-epitrite** (mainly hemiepes cola linked to **epitrites** – ⏑ –, which in other contexts are called **cretics**). These are combined into larger structures which end with a clear metrical break called **periods** (period end is marked with |||); and periods in turn are built up into **triads**, sequences of three stanzas called **strophe** (*stróe-fee*), **antistrophe** (*an-tís-tro-fee*) and **epode**. In this arrangement, strophe and antistrophe use an identical metrical pattern (they are in **responsion**) while the epode is in a different pattern; but the precise metrical sequence of each triad may then be repeated (Pindar's fourth *Pythian* ode spans thirteen such triads). For convenience, modern metricians use abbreviations for the names given to metra and cola; of those we have encountered above, the lekythion is notated *lk*, dochmiac d, dactyl *da* (so hexameter = 6*da*), iambic metron *ia* (so iambic trimeter = 3*ia*), anapaestic metron (⏑̲ ⏑̲ –⏑̲ ⏑̲ –) *an*, trochaic metron *tr*, adonean *ad*, hemiepes *D* (so a pentameter is *DD*), choriamb *cho*, glyconic *gl*, pherecratean *pher*, glyconic expanded by a dactyl gl^{da}, epitrite *e*, cretic *cr.* This notation is particularly useful when distinct cola are found mixed together in long sequences, as in the lyrics of Greek tragedy; Latin metres are more uniform. Armed with such terms and symbols, one may proceed to analyse metres and assimilate their complex patterns with economy and accuracy, and in due course hope to recreate in one's reading something of the vital rhythms of ancient verse.

Further reading

M. L. West, *Greek Metre*, Oxford: Oxford University Press, 1982 – authoritative and comprehensive, but not always easy reading.

L. P. Wilkinson, *Golden Latin Artistry*, Cambridge: Cambridge University Press, 1963.