## WORDS AND MUSIC

ICANNOT imagine anyone who is interested in either of the metrical arts not being fascinated by Dr. Curt Sachs' recent book: Rhythm and Tempo: A Study in Music History (Dent, 42s.). Immensely learned though he is, Dr. Sachs has a gift for clear exposition with which scholars are not always endowed and, except for a few pages on Proportional Signatures which, I must confess, made my poor head go round, the reader with only an amateur knowledge of music will find him quite easy to follow.
To read any history of music is to be unpleasantly reminded of the fantastic narrowness of the conventional concert repertoire. Despite the curse of Babel, it is much easier to get to know foreign and ancient literature than it is to hear any music other than that composed in Europe after 1600. Of course it is always possible that we are not missing much. Musicologists have their own and, for them, quite proper approach to music, but it does not always coincide with the listener's. I am tantalised, for example, by the few bars quoted by Dr. Sachs from the French manneristic composers of the 14th century, but when I find that Dr. Sachs admires Edgar Varèse's Ionization, a work which I have had the misfortune to hear, I get worried.

Dr. Sachs recognises two basic kinds of rhythm, divisive and additive. Divisive rhythm is based on the human stride and is therefore 2/4 or $4 / 4$ time. The East knows no other and cannot recognise a rhythm in triple time. Additive rhythm, which Dr. Sachs believes to be associated with the "tension and relaxation that we experience in breathing in and out," can be on the other hand, and generally is in triple time, for its patterns are not based on "a certain duration to be divided into equal parts, but rather a grouping composed of longer and shorter elements, such as $2+1$ or $3+2$ units, or any other arrangements of shorts and longs." In poetry the approximate equivalents are the
purely accentual prosody of, say, Anglo-Saxon poetry on the one hand, and the strictly quantitative metres of Greek poetry on the other. French and Italian poetry, which reckon by the number of syllables, are, presumably, more additive than divisive. Where English poetry should be placed, which, since Ormulum, is composed of feet, but feet which are made by accent not by length, I am not quite sure.

In music, according to Dr. Sachs, "any rhythm related to harmony must be of a divisive kind. Additive rhythm belongs to civilisations without harmony." The former he associates with classicistic cultures and a feeling in the visual arts for perspective, the latter with more other-worldly cultural phases. Thus, in the Gothic Middle Ages, ternary time and counterpoint are dominant; in the High Renaissance, $4 / 4$ time and harmony carry all before them; since 1900, Dr. Sachs sees a return to additive rhythms.

The association of accentual double time with perspective is a fascinating one, but when Dr. Sachs says "Greek-Roman art took an important turn to perspective, imperfect, it is true, at the beginning of the Common Era, as evidenced in the paintings of Pompeii and Herculaneum. There is a strong possibility that the change from metre to accentual rhythm in later antiquity was a kindred phenomenon," I become suspicious. Early Latin poetry, like vulgar-spoken Latin, was an accentual tongue, upon which, during the classic period of Latin poetry, a Greek prosody was imposed. If Dr. Sachs' generalisations were always true, then it would follow that in their early days, the Romans were interested in perspective: and what about the Germanic peoples who always had an accentual verse?

By the time a language can have a literature, it is more or less a fixed medium and its rhythmic possibilities are much more limited, much more resistant to cultural changes than
music, so that exact parallels are difficult to draw. Compare, for instance, the influence of 16th century classical humanism on music with its influence on English verse. It affected the former to such an extent that "most of the metrical songs written between 1500 and 1600 are strictly note against note and syllabic with their longs and shorts in the regular ratio $2: 1 "$; but the poets like Sidney, Spenser, and Campion who, under the same influence, attempted to write in classical metres abandoned them in a few years, for it was immediately obvious that such a prosody ran counter to the nature of the English language. In comparison with music, the difference between the "freest" kind of verse line, e.g. that of Shakespeare's late blank verse, and the strictest, e.g. that of the Pope couplet, is very slight indeed.
Dr. Sachs is on much safer ground, I think, in his parallels between music and architecture, e.g. when he sees in both the Gothic cathedral and the isorhythms of the 13 th-century composers a common "spiritualisation and abstraction of tone or stone under the sign of abstract number," or the same short sudden flurry of restlessness at the beginning of the 15 th century in Italian music and the work of Jacopo della Quercia in Bologna.

One of the many pleasures his book affords is similar to that of watching a film in which a flower grows up in a few minutes; one sees history pulsating, becoming itself rhythmical. In the I4th century the North is complicated, rapid, ternary in time, while Italy is slower, more lyrical, binary; the Italian style triumphs over the Northern but then, in the last third of the isth century, a new, excited period returns, to be again overcome by the stateliness and binary time of the High Renaissance; by 1600 polyphony is being attacked for destroying the metrical values of words, but by 1680 the Italians are beginning to tire of Stile Recitativo and to prefer the Neapolitan da capo aria; in the same century ternary time predominates over binary; in 1700 Italy is the home of cantabile, expressiveness and wide tempo range, while Germany is the home of polyphony and moderate tempi, but by 1750 the positions are reversed; the dynamism of Baroque music shows itself in its fondness for entrances on an upbeat, the elegance of Rococo music in its reluctance to approach a note directly and its tendency, particularly in France,
to dotted notes, i.e. to lengthening the "good" notes and shortening the "bad"; and so it goes on.

I hope Dr. Sachs will forgive me if I now give up trying to review his excellent book, and concern myself with a problem, which is not his subject, but which his book necessarily raises, namely the relation between musical rhythm and verse rhythm, a relation which is of importance to anyone, who, like myself, is interested in the musical setting of words. I must, of course, confine myself to the English language.

RHYTHM AND MEASUREMENT On page 68 Dr. Sachs makes a statement which amazes me because it seems to run contrary to the whole argument of his book:
Philologists have been asking why rhythmical poetry, as opposed to music, is allowed to violate the evidently fundamental quality of all rhythm: the exactly equal distance between stimuli or groups of stimuli.

This assumption is utterly false. It is a fundamental law of rhythm, as of any æsthetic quality, that it is perceptible but not mathematically measurable. If the distance between stimuli were exactly equal, there would be no rhythm whatsoever, any more than there is in the noise of a road drill. Rhythm is to time what symmetry is to space. We call the human face symmetrical-two eyes at equal distance from the nose, two ears at the same level, etc. -and in books on anatomical proportions mathematical norms are given, but any face in which the symmetry were really mathematically exact, in which, for instance, the two eyes were identically the same size and shape, would appear to us, not as a face, but as a lifeless mask.
It certainly looks, at first sight, as if musical rhythm was based on identity. On paper, if one is given the metronome marking, all quarter notes are identical in length, but if the work could be played, which is doubtful, exactly as it appears on paper, it would not sound rhythmical but mechanical like a musical box. The reason why this fact is so easy to see in verse and so difficult to see in music is, probably, because in music there are so many other variables like pitch, volume, colour, the range in permissible "rubato" beyond which a rhythmical pattern becomes
unrecognisable, is so much narrower in the latter art. In a line of verse like Prior's

$$
\begin{aligned}
& \text { The god }|\stackrel{u}{\text { of us verse }}| \begin{array}{|c}
u \\
\text { sun }
\end{array} \\
& \text { you know, } \mid \text { child, the } \\
& \text { sur }
\end{aligned}
$$

the unaided human ear can perceive the difference in exact length between the two similar rhythmical units the god of and you know, child, while it would probably take a very sensitive instrument to detect the bar to bar variations in a performance of a Mozart symphony.

MUSIC AND VERSE QUANTITY

Though neither musical nor verse rhythm are based on identities, the differences between them are so great as to make it impossible to express one in terms of the other. If this has not always been clear, the probable reason is that most primitive poetry is not spoken but chanted or recited to a musical accompaniment. When Plato laid down the rule that "Rhythm and harmony are regulated by the words, and not the words by them," he was really only objecting to a style of music in which the distortion of verbal rhythm by musical rhythm was greater than he was accustomed to. Indeed it is difficult to see how the basic principle of quantitative prosody, namely, that all syllables may be divided into long and short, the former being twice as long as the latter, could have been arrived at except through music for, even in a language with little accent like Greek, it would be obvious in speaking that all long and all short syllables were not the same length. It is only by singing them that they can be made to appear so.

If one asks, for example, why the $\bar{a}$ in fäther is called long and the $\check{a}$ in fathom is called short, one cannot help noticing that it is much easier to sustain a note on the first than on the second.

TEMPO IN MUSIC AND VERSE
Dr. Sachs tells us the tempo range in music from Adagio to Prestissimo is about I:4. Taking the Nightmare Song from Iolanthe as an example of a verse Prestissimo, and Tears, idle tears as an Adagio, I find that, in a given period, I recite about twice as many syllables of the former as of the latter. However, much of this difference is due, not to a faster delivery of the syllables themselves, but to the absence of rests, of the cæsuras I make
in the Tennyson. The widest tempo range in verse, that is, is less than I : 2 .

Further, this range lies in the rapid half of the musical tempi. Thus, if I recite a hymn at the pace at which it is normally sung, the verse rhythm disappears. The iambs of Now Thank we all our God, for instance, turn into spondees, the dactyls of Sun of my soul into molossoi.

The slowest tempo at which it is possible to take spoken verse is, musically, an Allegretto.

Quantitative and accentual feet I am not sure that Dr. Sachs is fully aware of how completely different a rhythmical significance the prosodic terms dactyl, anapæst, trochee, iamb, have in an accentual prosody from that they have in a quantitative. In this he is not alone; the medieval composers who were setting accentual Church Latin, continued to scan it as if it were Vergil.

Thus Dr. Sachs believes that dactyls and anapests are in binary time, trochees and iambs in ternary. So they are in classical Greek and Latin, but in an accentual tongue like English, the exact opposite is the case : it is the trochees and iambs that are in binary time.

To demonstrate this, let me take the musical examples given on pp. 22-23 of Dr. Sach's book and try fitting English words to them.

Ex. 2. Beethoven. Seventh Symphony. Slow movement.

$$
\approx d \delta \mid d
$$

Musically and quantitatively, this is, as Dr. Sachs says, an adonic. But when I try to sing to it an English adonic, e.g. beau-ti-full $\mid \overline{b a l l}-\overline{p e n}$, the second beat of the bar confers too much accent on the $t i$. The nearest approximation I can find makes the first foot a bacchic, .e.g. Come, come a $\mid$ way, dear.

Ex. 4. Beethoven. Ninth Symphony. Scherzo.

Quantitatively, cyclic dactyls. But this time there is an excess of accent on the third syllable, so that the accentual dactyl beautiful becomes a
cretic, beau-ti- $\overline{f u l}$. Actually, in this case, it is not the temporal value of the notes themselves that is at fault, but the rest: had the phrase been repeated without interruption, English dactyls could be sung to it.

Ex. 5. Bach. Brandenburg Concerto \#3

## 

Anapæsts, says Dr. Sachs; so I try
The Assyr $\mid \stackrel{U}{\text { ian }}$ came down $\mid$ like a a wolf $\left\lvert\, \begin{gathered}\stackrel{O}{o n} \text { the }\end{gathered}\right.$ fold
and the music makes it sound like this, a set of cretics.

The Assyr $\mid \overline{i a n}$ came down $\mid$ like a wolf $\mid \overline{o n}$ the fold.

Ex. 6. Brahms. Deutsches Requiem. Second movement


Iambs to Dr. Sachs. But set to it
and the accented syllables are dragged out to a disproportionate length. On the other hand, if I turn the half notes into quarters, the Byron anapests, which would not go with the previous examples, go very nicely.

Finally, an example of my own. Bach. Fugue in G minor.

## 

Dr. Prout, the famous Victorian organist, composed words for this which are prosodically admirable

$$
\begin{aligned}
& \bar{O}|\bar{E}-\breve{b e-}| \overline{n e}-z e e^{U} \mid \text { Prout }
\end{aligned}
$$

$$
\begin{aligned}
& \text { You-ou } \mid \text { make } \mid \text { Bach } \mid \overline{\text { fugues }} \\
& \text { Just as } \mid \text { sil-luy }\left|\begin{array}{c}
u \\
\text { as you }
\end{array}\right| \overline{c a n} .
\end{aligned}
$$

From this I conclude:
I. An exact identity of English verse rhythms and musical rhythms is impossible.
2. In setting accentual verse, the distortion is
least when accented syllables are allotted to down beats, unaccented to up-beats.
3. The approximate musical values of the commonest English feet are as follows. The tempo in all cases is an Allegro.

(E.g. Beggar's Opera: "How happy could I be with either.')
$A^{\text {pt distortion }}$ $A$ Because some distortion is inevitable, it does not follow that the composer is free to ignore the verbal prosody altogether, nor that he is bound at all times to adopt the most "natural" method, setting all iambic verse in binary time and all anapestic in ternary. An apt setting of a line is one which achieves a just balance between its rhythm and its content. In English verse, with its large number of common syllables, it is often impossible to know the correct scansion of a line without knowing its context, and the sense of the words is often that which settles rival claims. E.g.

> Come away, come away, death, And in sad cypress let me be laid;
> Fly away, fly away, breath;
> I am slain by a fair cruel maid.

The fourth line of this can only be scanned as anapæsts.

$$
\stackrel{\cup}{I} \text { am stain } \mid \stackrel{\cup}{b y} \text { a } \stackrel{\cup}{\text { fair }} \left\lvert\, \begin{gathered}
\cup \\
\text { cru-el maid }
\end{gathered}\right.
$$

But lines one and three could, in theory, be scanned in three ways:
As anapæsts
Come $\stackrel{\cup}{a}-\overline{w a y},\left|\begin{array}{cc}\cup & \underset{\text { come }}{\text { co-way }}, \mid\end{array}\right| \overline{\text { death }}$
As trochees with catalexis

$$
\text { Come u- } \mid \text { way, } \mid \overline{\text { come }} \text { á- way }, \mid \text { death }
$$

As dactyls

In fact, however, the first alternative, which is the one Dr. Sachs chooses, is impossible, because the spacing of the unaccented and accented syllables will make the line sound,
spoken or sung, like an impatient nursemaid calling a disobedient child. (Had the line run

$$
\text { Come } \stackrel{\cup}{a}-\overline{w a y},||\stackrel{\cup}{\text { come }} \stackrel{\cup}{a}-\overline{w a y}| \text { to the fields }| \text { and }
$$

the woods
an anaprestic scansion, on the other hand, would be the only possible one.) A composer could, I believe, use the second scansion, if it suited him; but the third scansion is the only possible one for speaking.

In Dido and EEneas occurs the following couplet:

> Fear no danger to ensue, The hero loves as well as you

If nothing but the rhythm be considered, the aptest setting would be to some four-four tune like Tallis' Canon, but the result would be lacking in the martial vigour which the meaning of the words requires. Purcell, accordingly, sets it to a syncopated $\frac{3}{4}$ time, thus

$$
\text { The } \left\lvert\, \begin{array}{c|c|c|c}
d e-r o & d & d & d \\
\text { loves as } & d \text { well as } & d \text { you. }
\end{array}\right.
$$

Substitute a heroine for a hero and the syncopation might seem out of place, and more fitting a straightforward waltz time, thus

$$
d|d| d \cdot d .
$$

English verse and additive rhythms In so far that English feet are based on accent not length, and that the predominant rhythm in English verse is iambic (musically, that is, in binary time), one must class its poetic rhythms as divisive.

The language, however, permits certain licences which often give an additive effect. Inversion of an iamb into a trochee has always been permitted and, except between 1700 and 1780, the substitution of trisyllabic feet, limited only by the proviso that the underlying iambic basis must not be destroyed; further, unlike French verse, English verse not only permits but prefers a constant shift in position of the cæsura from line to line.

He ended, and the heav'nly Audience loud Sung Halleluia, as the sound of seas, Through multitude that sung. Just are thy ways, Righteous are thy decrees on all thy Work; Who can extenuate thee? Next, to the Son, Destined restorer of Mankind, by whom New Heav'n and Earth shall to the Ages rise, Or down from Heav'n descend.
(Paradise Lost. Book X.)
It would be very difficult, if the fifth line of this passage were quoted by itself, to guess that the base is iambic, for, if it be read in strict conformity with its norm, the result is a monstrosity.

$$
\text { Who can }|\stackrel{\cup}{\text { exten }}| \text { wate thee? } \mid \text { Next to } \mid \stackrel{U}{\text { the }} \overline{\text { Son }}
$$

It can, however, be read naturally and its variations explained.

Who can $\left.|\stackrel{\cup}{\text { ex-ten- }}|$| $\cup$ |
| :---: |
| $u$ |
| -ate thee | \right\rvert\,$\hat{?}$ Next $\mid$ to the Son

First foot. Inversion. Trochee for iamb.
Second foot. Iamb.
Third foot. Substitution. Anapæst for iamb. Fourth foot. Catalectic iamb. The "rest" of the cæsura replacing the unaccented syllable.
Fifth foot. Substitution. Anapæst for iamb.
This is an extreme case, but in even the most "regular" verse, the emphasis on the accented syllables varies, so that one of them very often almost becomes unaccented, e.g. in the second line of

Those ghosts of beauty ling'ring there abide And haunt the places where their honour died.
(Pope.)
the accent of where is very nearly suppressed, making the iamb -es where almost a pyrrhic.

The effect, in the Milton passage, of the constant cæsura shift is to provide two sets of foot groupings: on the one hand there is the recurrent symmetrical grouping by line- $5: 5: 5: 5$ $\ldots$; on the other the assymmetrical grouping by pause- $1 \frac{1}{2}: 3 \frac{1}{2}+2 \frac{1}{2}: 2 \frac{1}{2}: 3: 2: 3: 2: 4$ : I+2:3.

That is enough, or more than enough, for now. No quarrels are as bitter as those of persons whose prosodic theories differ: I like to think this testifies to the interest of the subject.
W. H. Auden

## Letter from Teheran

## PERSIA : LAND OF UNREALITIES

VERy few cars travel the road over the border between Turkey and Persia at Bazergan, located near the double peak of Ararat. For the small trickle of traffic that passes this way, one bus a day is really sufficient. The road winds its way through the dozing frontier village, past a massive arched gateway into the inner court of a square building which looks like a fort from the Middle Ages and yet has a surprisingly contemporary air. (In fact, it has only been standing for a few years.) Across the courtyard there is a low brick wall; on one side flutters the red Turkish flag with the half moon and silver star, and on the other the green, white, and red Persian tricolour with its faded lion bearing a sword and in the background its golden sum, almost invisible with age. At the narrow passage-way through the wall stand the two sentries in khaki: the Turk with the flat helmet of the British Tommy, the Persian wearing one that is brimless, American-style.

While the Turkish sentries stir themselves out of their siesta there is time to look round. Although the frontier building was clearly designed as a single structure, there is no mistaking the difference between the two sides. On the Turkish side the roof is nearly covered with red tiles, while the Persians have been content to cover theirs with corrugated iron sheets. One section of the roof behind the Persian lionbanner has collapsed and no effort seems to have been made to put it up again.
The Turks, with their courteous manner and tedious formalities, have completed their customs examination. It is time to prepare ourselves for the same procedure on the other side. Or so we think : but it seems that on the Persian frontier luggage is not examined. A sentry asks for our passports and disappears behind a door. In a few moments he is back again, waves us on, and salutes.
It seems impossible that we are to be let off so lightly and we expect at any moment to be halted again. But nothing happens and so we
move on downhill, over a bumpy road which shows signs of having seen better days. A gorge opens in the rocky landscape; between the vertical slopes there is a thick mass of beautiful green poplars surrounded by the characteristic low clay walls. A green track winds its way among the trees, and then suddenly, on the left, through an opening in the trees, we catch our first breathtaking glimpse of a Persian town. With its steep mountain paths and steps, it climbs dizzily up to the rock face which appears at this point to be more than vertical and to overhang towards us. The houses are of burnt clay, interspersed with a few coloured rectangular structures. Crowning it all stands a palatial edifice which is joined to a number of lavishly decorated subsidiary buildings.
But there is little time to speculate how this town could have found its way into this loncly valley. Another policeman has seen our car and ordered us to halt. There is much headshaking over our passports and much talking in Persian which I can only answer with a helpless shrug of the shoulders. Then a decision is made. The policeman climbs on to the running-board and waves us back to the police-station. This turns out to be a garden pavilion in rococo style set in beautiful surroundings, with pillars and arched windows, incongruous and charming.
Inside, a policeman rises from a dirty campbed, inspects our passports (upside down), and disappears. A second policeman arrives, thumbs through our papers (upside down), and also disappears, this time taking our passports with him. For an hour I have to sit and wait, perched on a low stool, while a third policeman busies himself at an improvised writing desk. He is a man of about fifty, tall, lean, melancholy, and handsome. His temples have sunk inwards, his fine sensitive mouth seems to convey a boundless sorrow. His long, aristocratic hands delve aimlessly and uselessly among a pile of documents, but his deep-blue eyes stare unseeingly into the distance. A caller enters with some

