# CHAPTER X

## *A. Action in Time*

In the division of metrical units by 5, 7, etc., (quintuplets, septuplets, etc., of the preceding chapter) we already encountered certain deviations from the normal bipartite and tripartite metrical schemes.

But since division, as we know (see p. 115), can be replaced by multiplication, compound measures based on fractions with the numerators 5, 7, etc., are also possible.

This leads us to the construction of $\frac{5}{16}$, $\frac{5}{8}$, $\frac{5}{4}$, $\frac{5}{2}$, $\frac{7}{16}$, $\frac{7}{8}$, $\frac{7}{4}$, $\frac{7}{2}$. Theoretically, forms like $\frac{11}{4}$, $\frac{13}{8}$, etc., are also possible, but they are not practicable, since through sub-groupings these meters can be written in shorter and more legible forms ($\frac{11}{4}$ as $\frac{6}{4} \mid \frac{5}{4}$; $\frac{13}{8}$ as $\frac{4}{8} \mid \frac{5}{8} \mid \frac{4}{8}$, etc.).

The accents in the 5- and 7-compounds are:

5: (2+3) *or* (3+2)

7: (3+4) *or* (4+3).

In slow tempo, the accents in a 7-compound may even be felt as:

*or*

and even:

NOTATION: In measures with $\frac{1}{32}$ or $\frac{1}{64}$ as the metric unit the distribution of accents can easily be shown by the position of the beams ( , ), while use of the units $\frac{1}{16}$ and $\frac{1}{8}$ often leaves the performer without a hint as to where the accents are. If necessary, an auxiliary bar-line before the subordinate accent will contribute to the clarity of such cases:

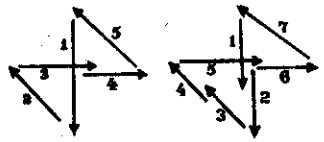


Sometimes other irregular metric groupings occur, the notes of which add up to a regular compound with one of the higher numerators 8, 9, or 12 in its time-signature, but with the accents placed as in $\frac{5}{4}$ or $\frac{7}{4}$. Here auxiliary bar-lines are indispensable:

*etc.*

NOTATION: The relationship that exists between $\frac{6}{8}$ and $\frac{2}{4}$, $\frac{9}{8}$ and $\frac{3}{4}$, etc., we find again between $\frac{15}{8}$ and $\frac{5}{4}$, and consequently in all other compounds where metric equations similar to $\frac{3}{12} = \frac{1}{4}$ (written: $\frac{3}{8} = \frac{1}{4}$, ) are used. Thus:

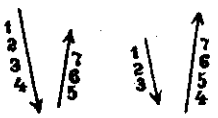
In beating time for all the aforementioned compound measures one generally divides them up into groups of 2, 3, or 4 beats, according to the position of their accents. Since in this case each accent, even a subordinate one, is indicated by a down-stroke, a certain ambiguity arises for singers and players following a conductor, in respect to the first beat of the measure. This can be avoided by conducting $\frac{5}{4}$ ($\frac{5}{8}$, $\frac{5}{16}$, $\frac{5}{2}$) and $\frac{7}{4}$ ($\frac{7}{8}$, $\frac{7}{16}$, $\frac{7}{2}$) thus:



In very fast tempo they can be beaten as defective two-beat measures:

$\frac{5}{4}$ ($\frac{5}{8}$, $\frac{5}{16}$, $\frac{5}{2}$)

$\frac{7}{4}$ ($\frac{7}{8}$, $\frac{7}{16}$, $\frac{7}{2}$)



Sometimes even conducting them as defective three-beat ($\frac{5}{4}$) or four-beat ($\frac{7}{4}$) measures may facilitate their performance: