

Sources of ambiguity in rhythm notation of Western Music

Notated rhythm in Western music is based off two indicators: note length indicators and time signature. Note length indicators like note beaming give information about the lengths of notes relative to each other while time signature gives information about the number of notes that should fit in each bar. In most cases, the total amount of beats calculated by summing the note length indicators in a bar will equal the bar length specified by the time signature. When they are different, it requires a certain level expertise on the part of the musician to know how to perform the passage.

Two cases where the sum of the note lengths in a bar do not equal the bar length occur on the first page of the oboe part of Antonio Pasculli's *Fantasia sull' opera Poliuto di G. Donizetti*, published by Musica Rara (Figure 1). The first example is circled in green. In this case, the note flag (beam structure) indicates each note is a sixteenth notes, or each note is 1/4 beat long. Thus, it follows that the total length of the green circled notes should be 1.25 beats. However, going by this scheme the total length of the bar would be 4.25 beats, a sixteenth note more than the 4 beats per measure designated by the time signature. When performing this piece, I resolved this discrepancy by interpreting the notes in the green circled region as quintuplets rather than sixteenth notes; this allowed me to maintain the 4-beat-per-measure time signature directive and stay in sync with the accompanist. Looking at Figure 1b, we can see that Photoscore makes the same choice and explicitly notated the green-circled notes as quintuplets. This is a case where information from the time signature supersedes information from the note lengths.

Another instance of time signature and total note length mismatch occurs in the red-circled bar in Figure 1a. Here, the total value of the notes far exceeds the 4 beat-limit imposed by the time signature. Looking at the corresponding bar in the piano accompaniment, I saw that it contained a fermata above a whole rest, a sign to the accompanist that they should continue playing after the oboist has completed the bar. I therefore concluded that section was a *cadenza*, or a section traditionally notated within one bar where a performer improvises or plays the notes outside of the confines of the previously determined beat (Ideally, cadenzas should be indicated with the word "cadenza" written above the bar but that is not always the case in practice). Thus in this case, information from note lengths supersedes that from the time signature. Looking at Figure 1b, we see that Photoscore correctly notates the first 12 notes in the bar, which correspond to the 4 beats allocated by the time signature, but truncates all the notes coming afterward.

Figure 1

A

B

FANTASIA
Sull' opera Poliuto di G. Donizetti
for
Oboe and Piano

A. PASCULLI
(1842-1924)
Editor: O. Zokgi

Maestoso 18

21

25

30

34

36

38

39

42

45

affrett.

con grazia

con passione

con espansione

schierzando

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(1842-1924)

Maestoso

Editor: O. Zokgi

elegante

Poco meno

affrett.

con grazia

passione am

espansione

schierzando

Left: Image of the first page of Antonio Pasculli's *Fantasia sull' opera Poliuto di G. Donizetti*
Right: PDF generated by MuseScore from Photoscore's MusicXML transcription of left image