INSTRUMENTAÇÃO: METAIS

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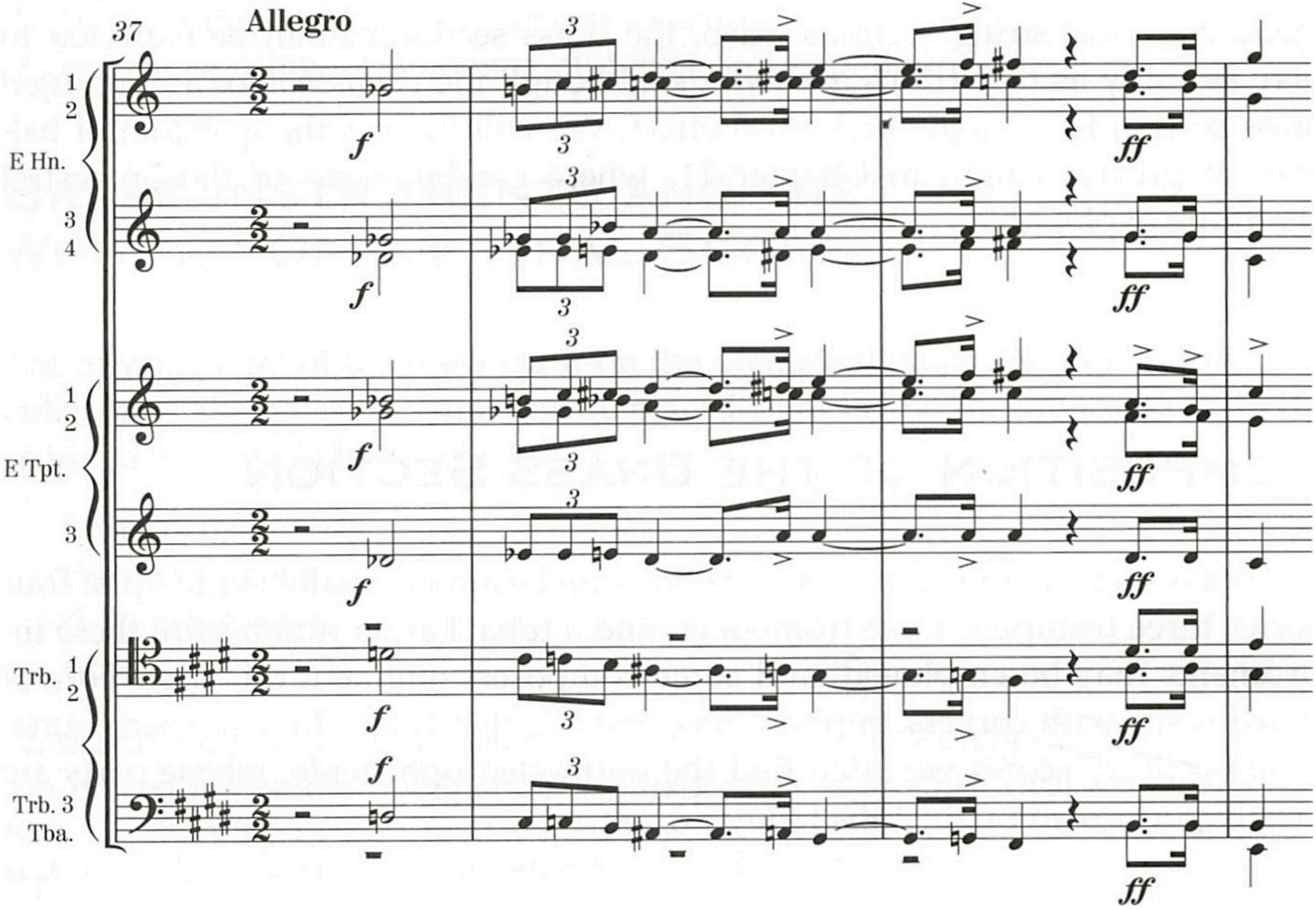
Departamento de Música

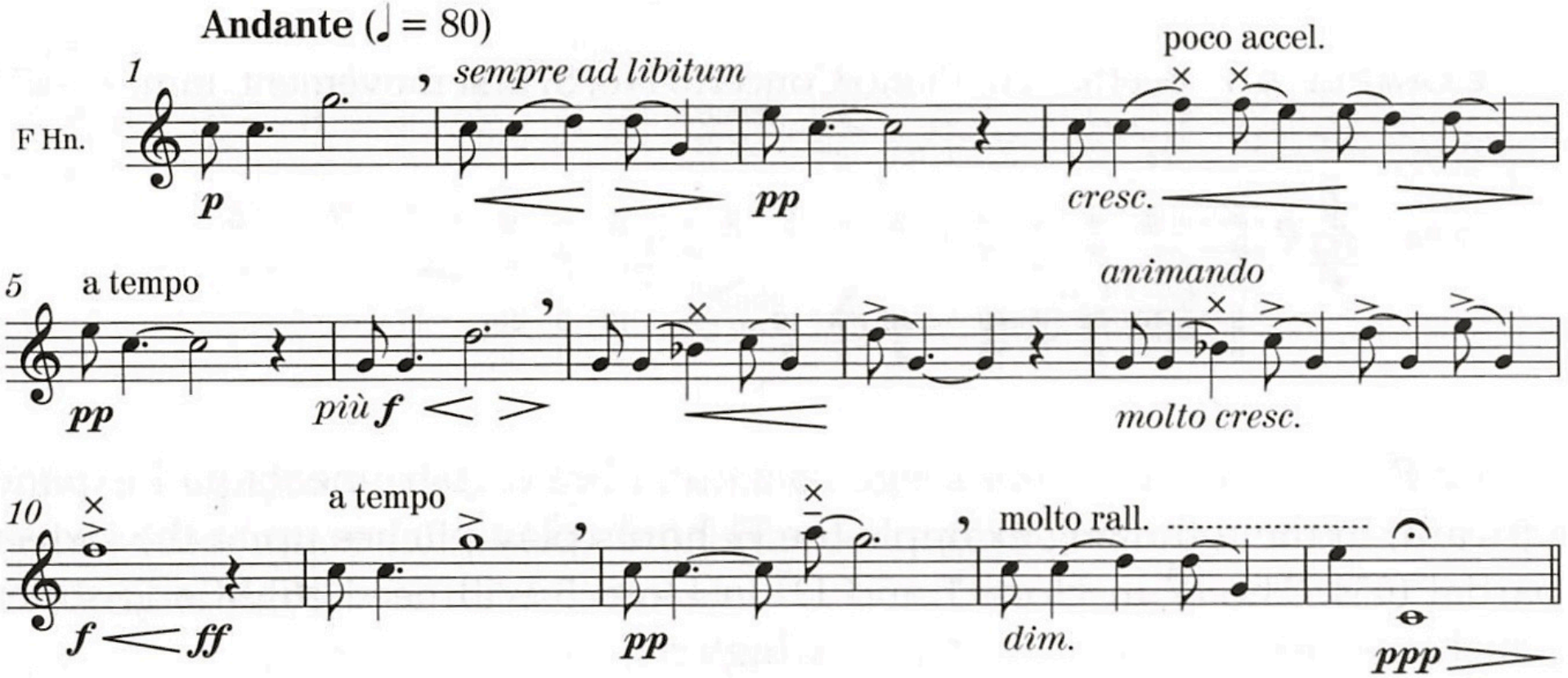
EXAMPLE 9-1. R. Strauss, *Don Juan*, mm. 37–40



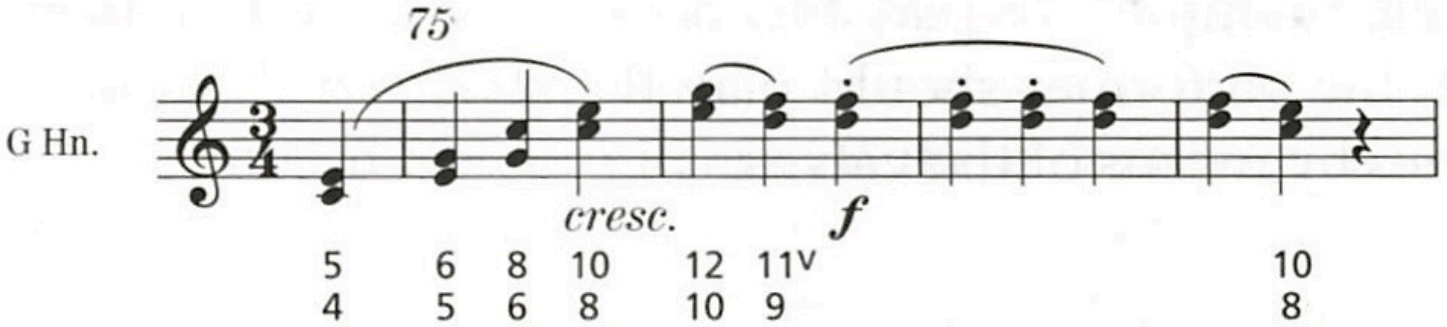
Metais

- Transpositores e não transpositores;
- Possui número específico de pentagramas em que são escritos na orquestra (vide formação básica);
- Utilizam o princípio da série harmônica para a projeção das notas na escala;
- A tessitura e a qualidade acústica dependem do tamanho do tubo do instrumento;
- Respiração para fraseados e tempo para descanso dos lábios;
- Trinados e trêmulos em geral são fáceis de serem produzidos (trêmulo de lábio);

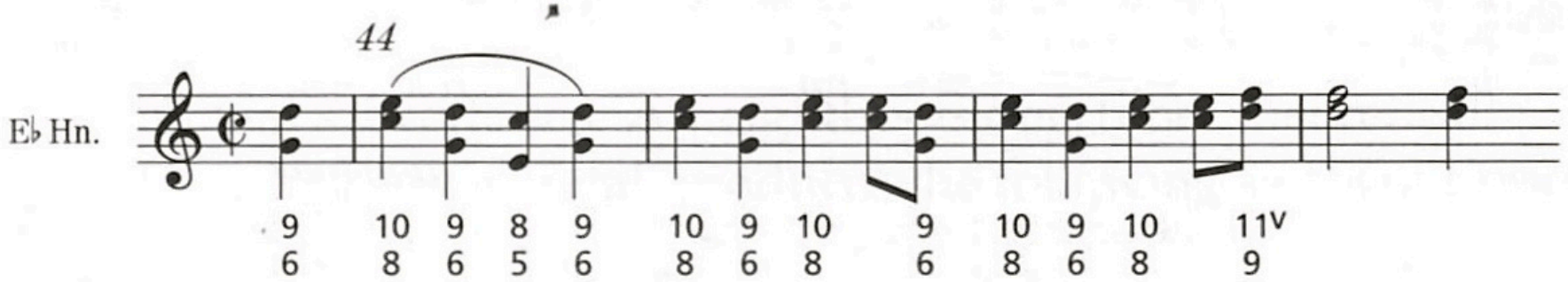
EXAMPLE 9-4. Britten, *Serenade*, Prologue, mm. 1–14



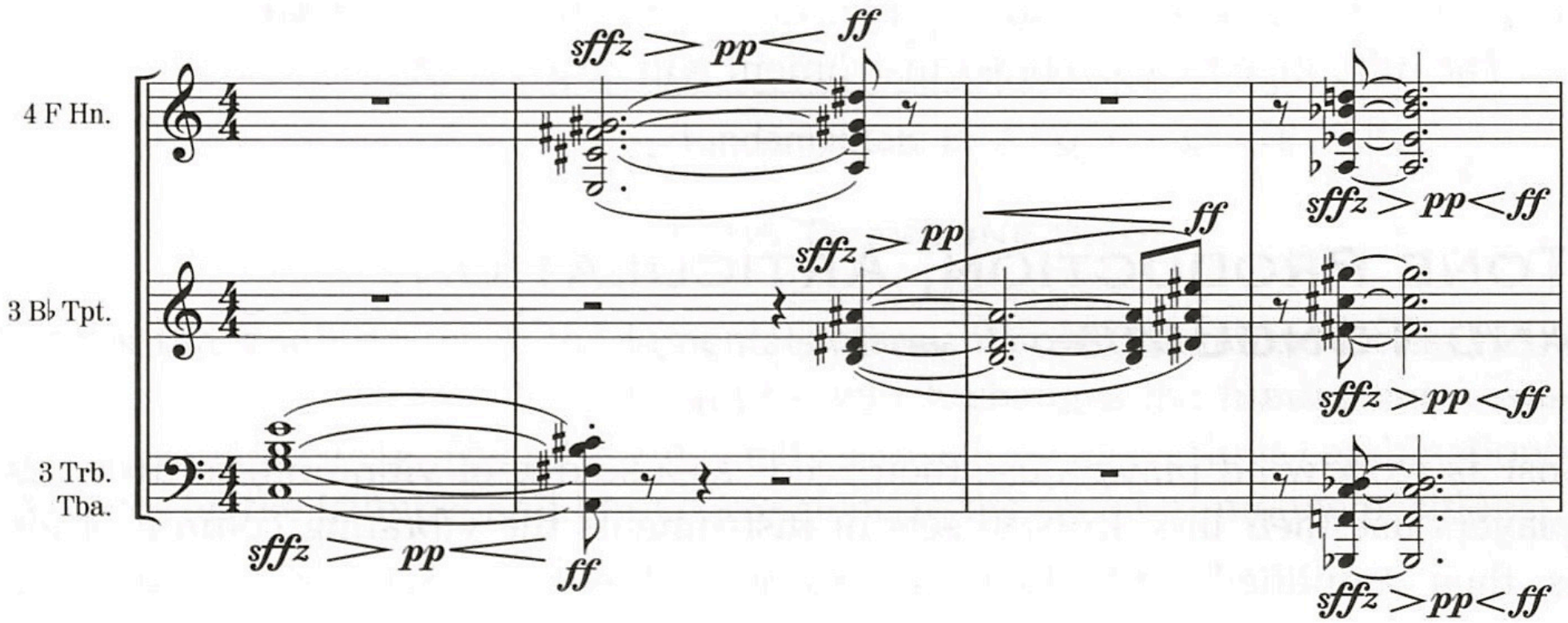
EXAMPLE 9-6. Mozart, Symphony No. 40, third movement, mm. 74–78



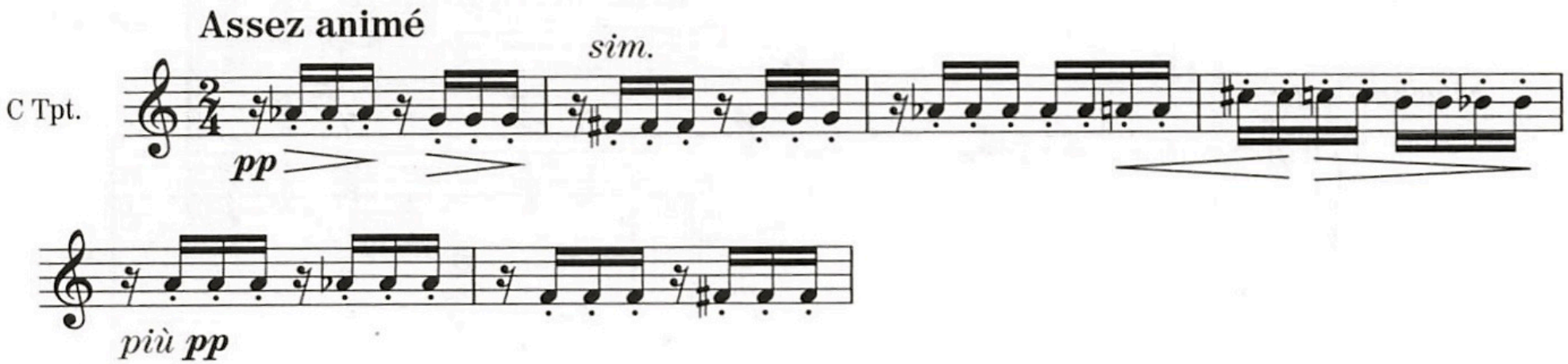
EXAMPLE 9-7. Beethoven, Piano Concerto No. 5, first movement, mm. 43–47



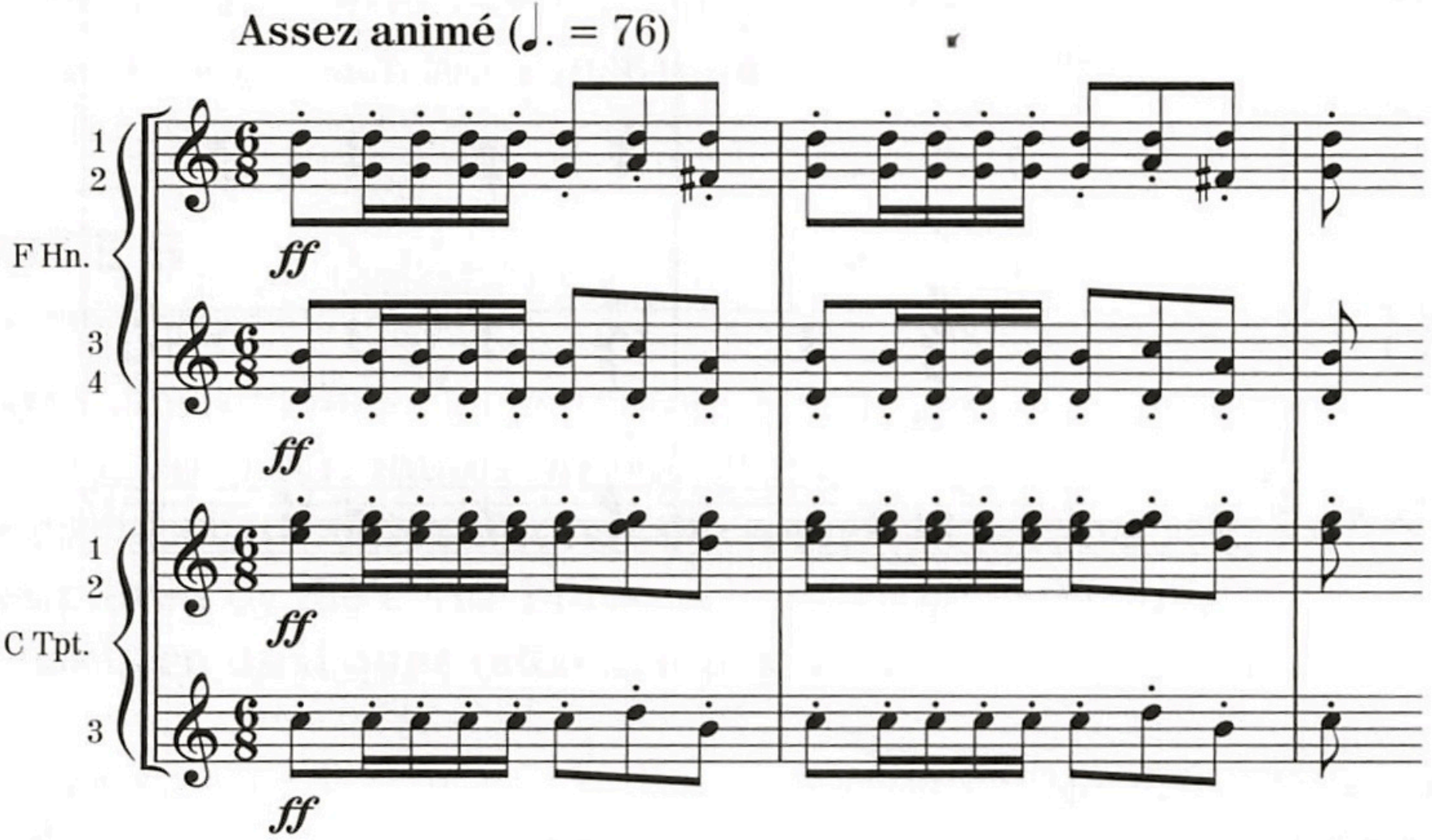
EXAMPLE 9-10. *Sforzando*



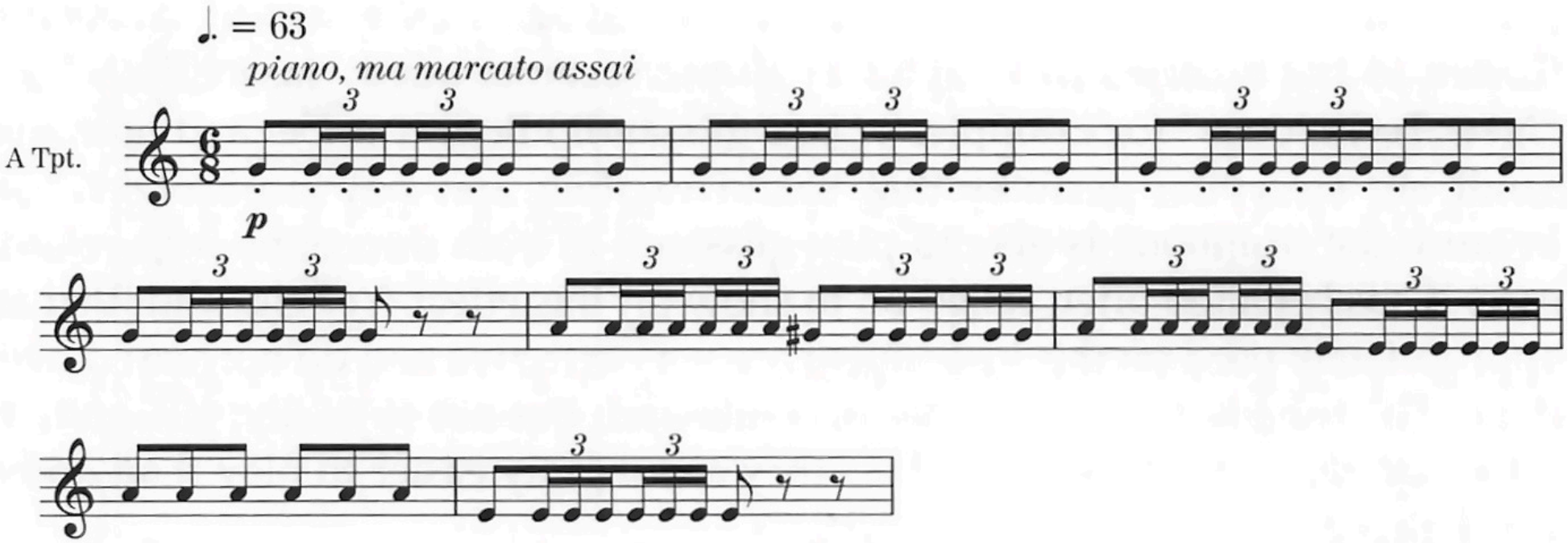
EXAMPLE 9-11. Debussy, *Jeux*, 7 mm. after 35



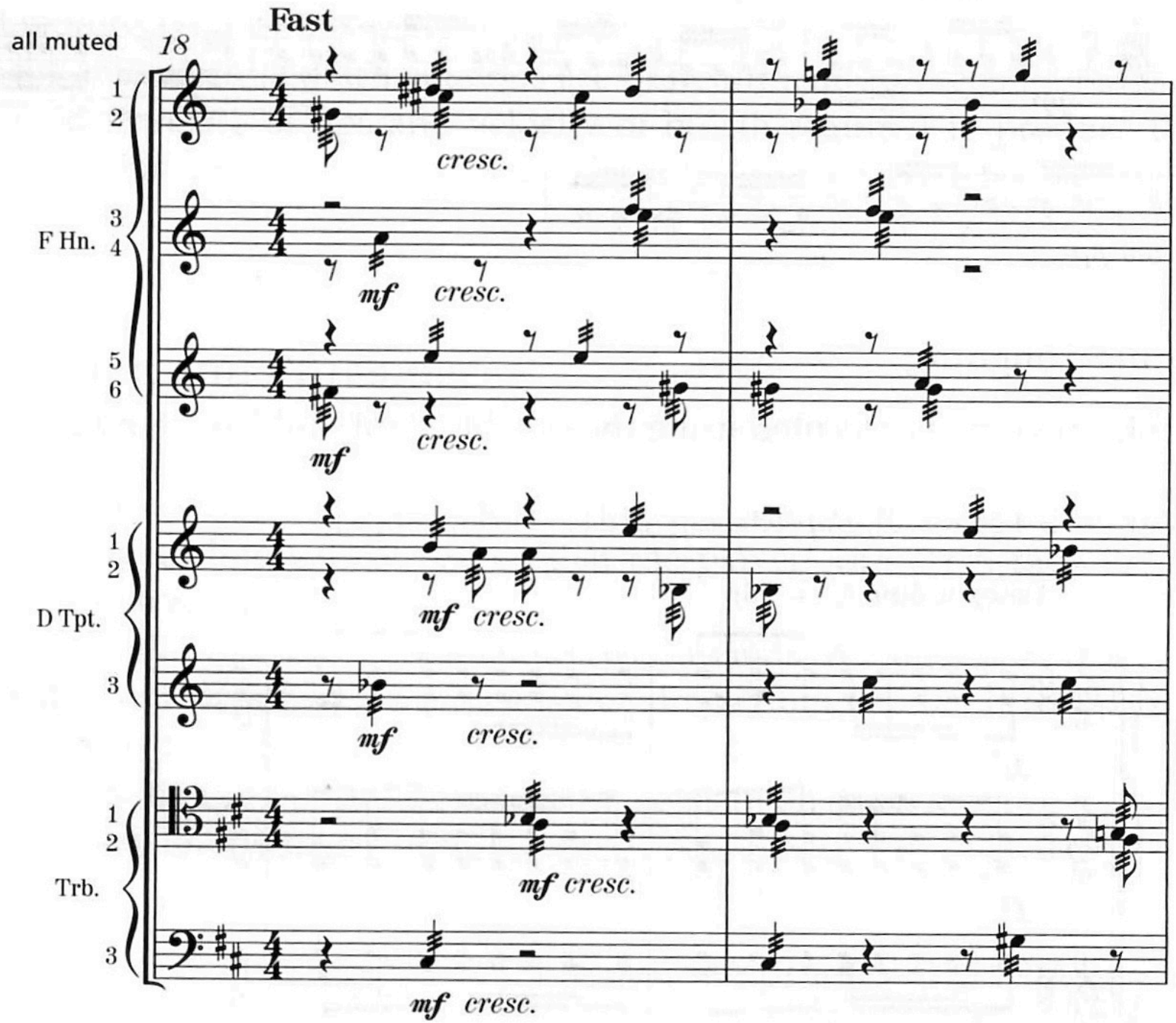
EXAMPLE 9-12. Ravel, *Rapsodie espagnole*, "Feria," at 6



EXAMPLE 9-13. Rimsky-Korsakov, *Sheherazade*, third movement, at G



EXAMPLE 9-14. R. Strauss, *Don Quixote*, Variation II, mm. 18–19



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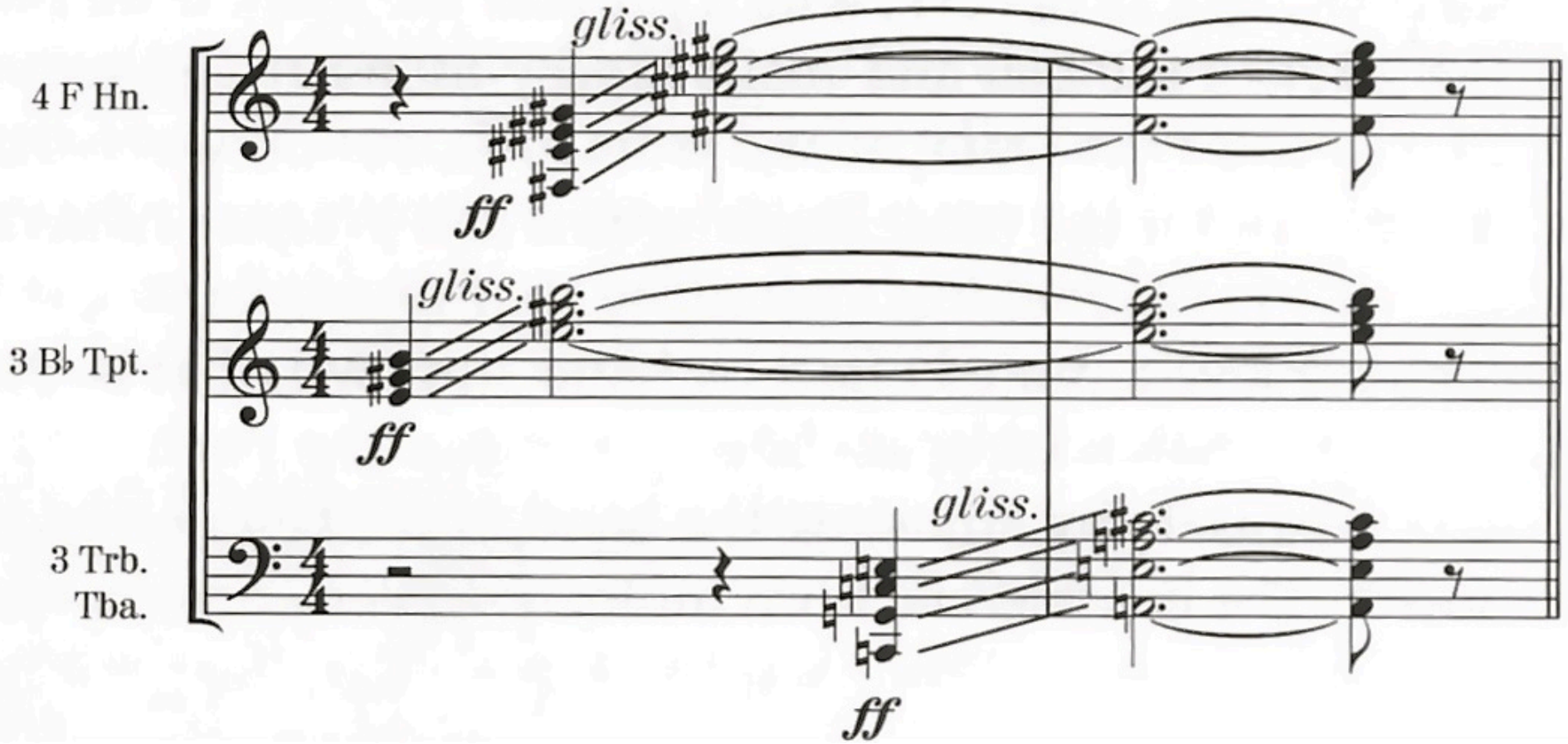
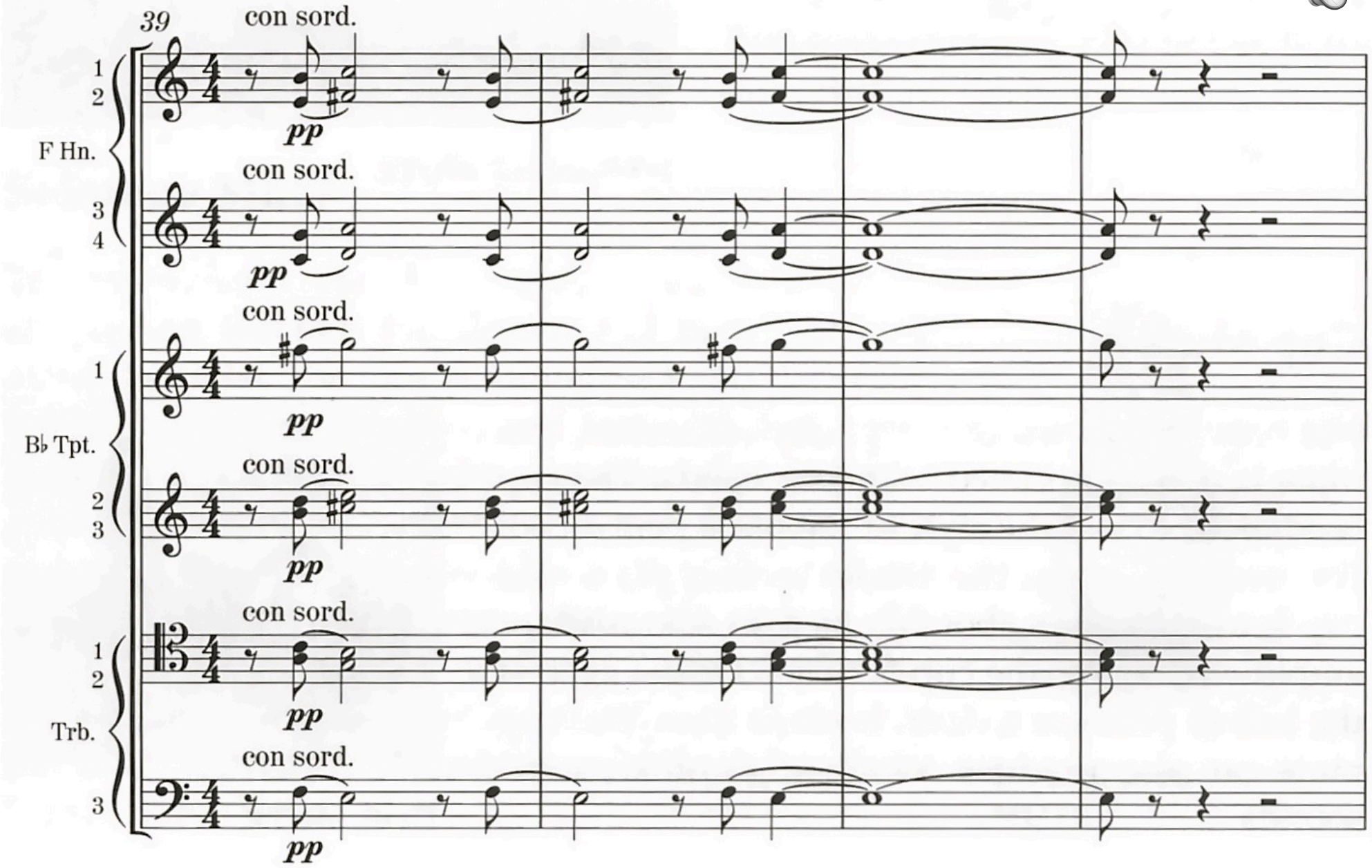
EXAMPLE 9-15. Brass Glissandi

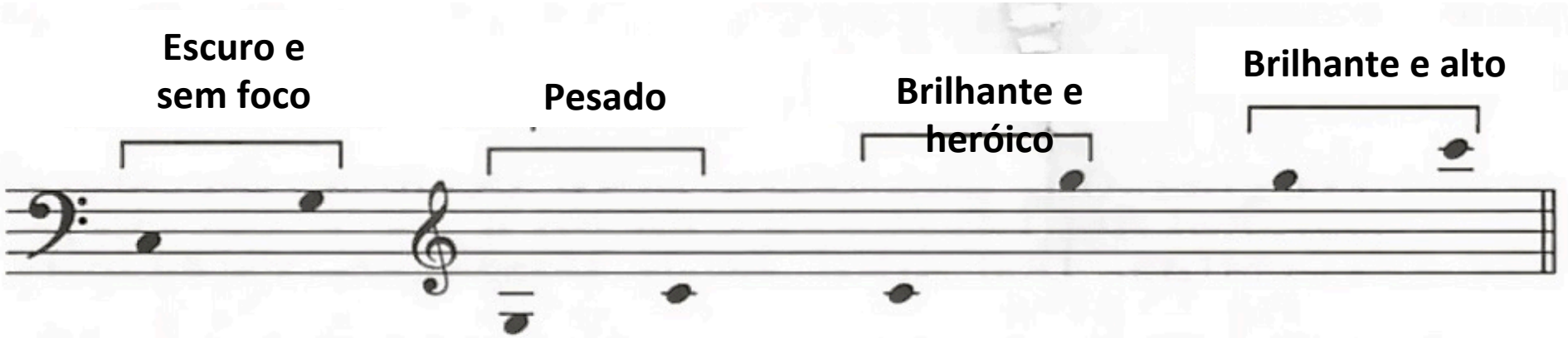


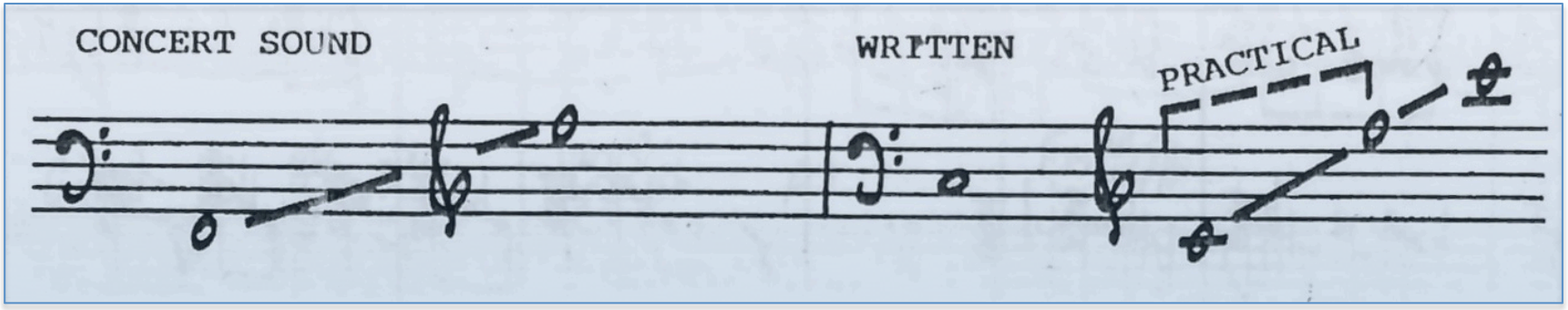
EXAMPLE 9-16. Vaughan Williams, Symphony No. 6, fourth movement, mm. 39–42



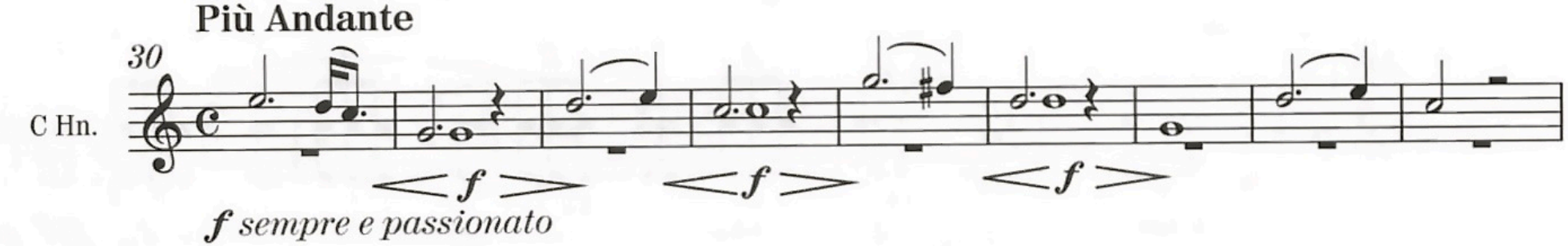
Trompa

- Transpositor em F (compositores antigos escreveram para trompas em outros tons);
- Utiliza clave de sol (tpa. 1 e 2) e fá (3 e 4);
- Algumas notas são especialmente difíceis de serem produzidas (extremos);
- Os ataques nem sempre são precisos;

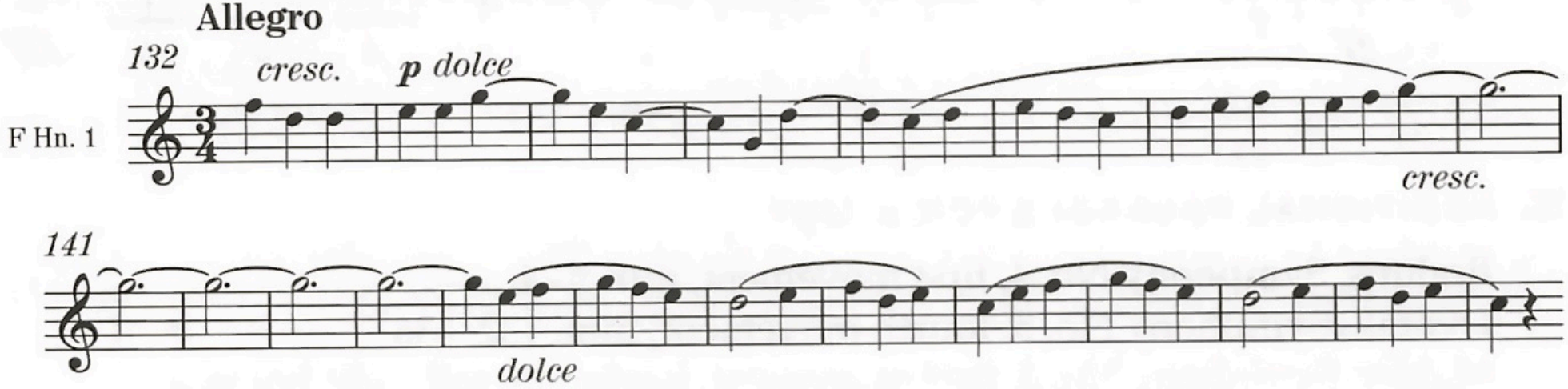

Escuro e sem foco
Pesado
Brilhante e heróico
Brilhante e alto


CONCERT SOUND
WRITTEN
PRACTICAL

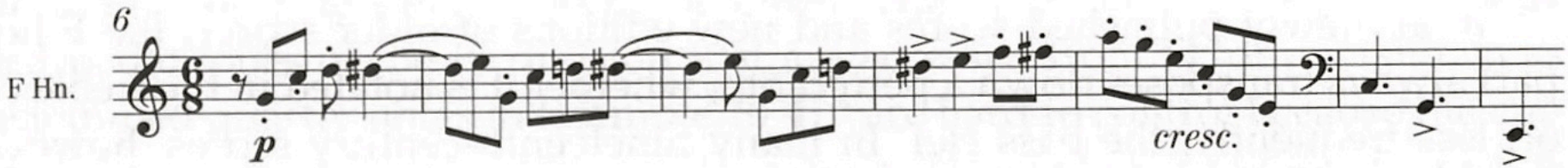
EXAMPLE 10-8. Brahms, Symphony No. 1, fourth movement, mm. 30–38



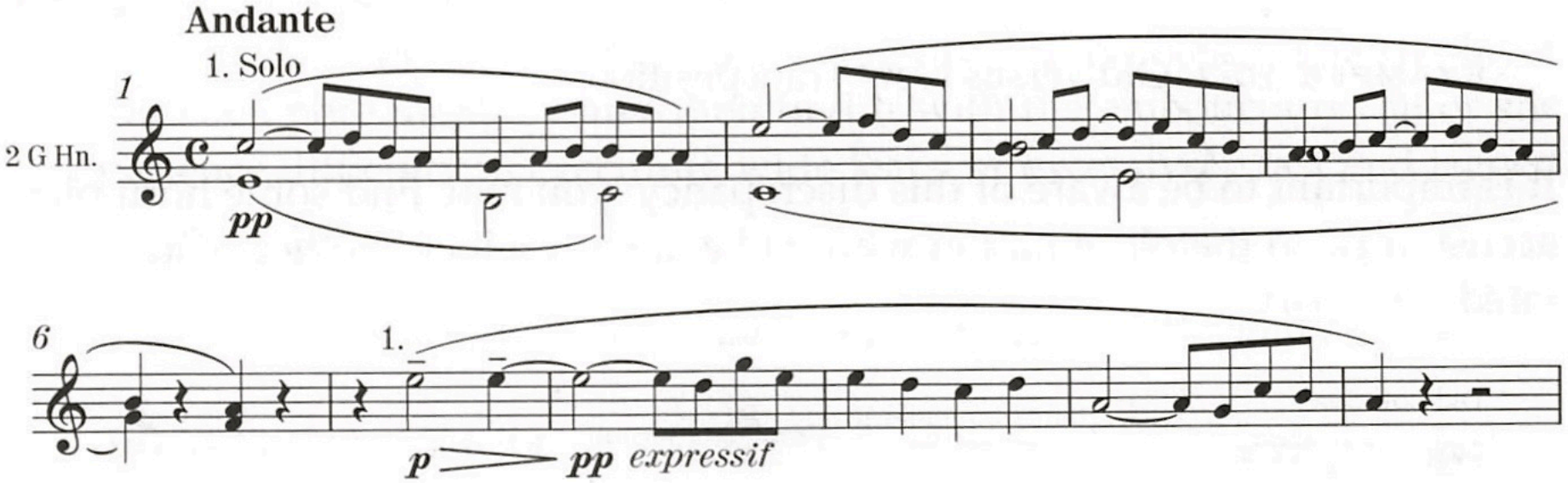
EXAMPLE 10-9. Beethoven, Symphony No. 6, third movement, mm. 132–153



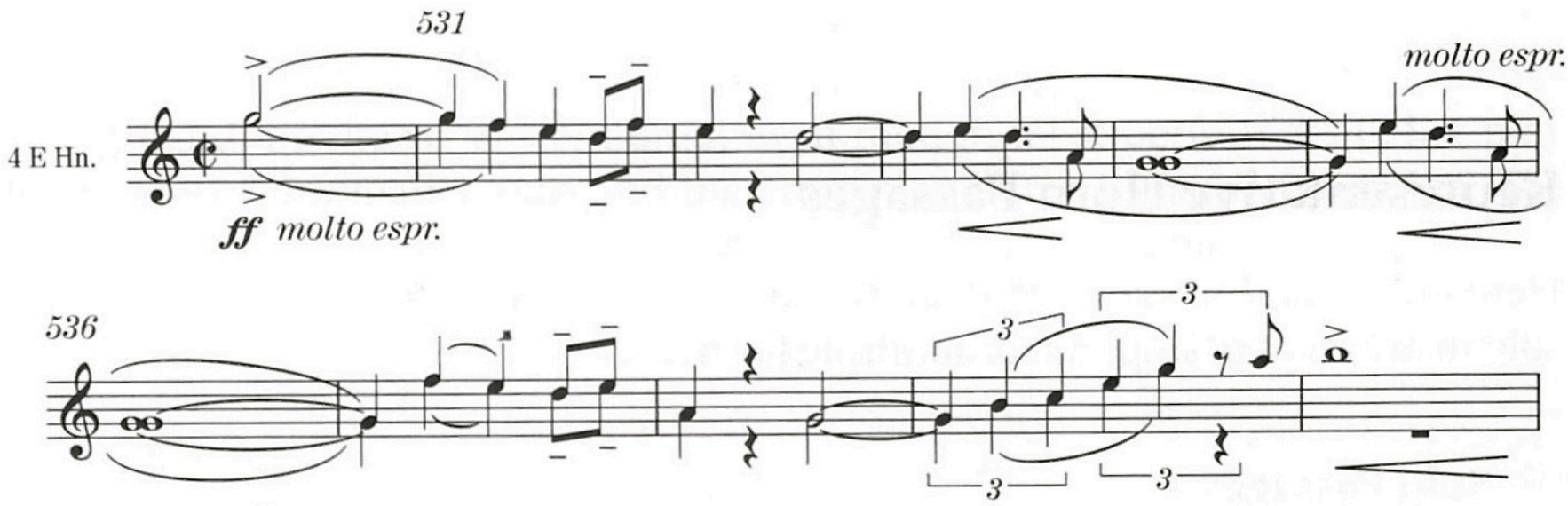
EXAMPLE 10-10. R. Strauss, *Till Eulenspiegel*, mm. 6–12



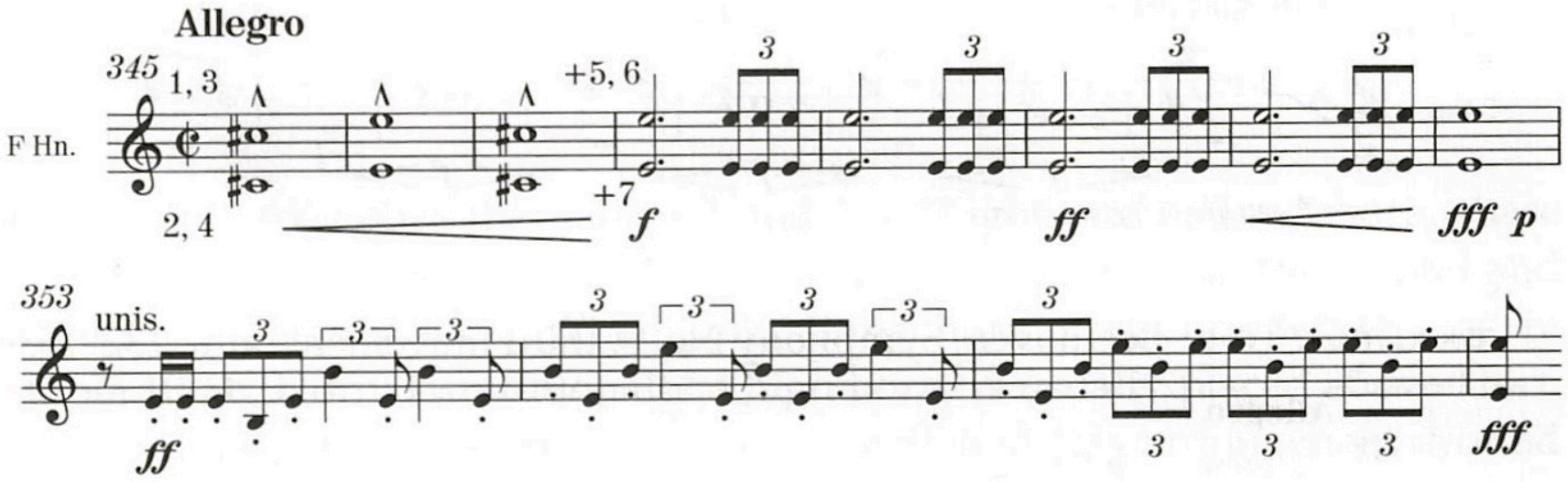
EXAMPLE 10-11. Ravel, *Pavane pour une infante défunte*, mm. 1–11



EXAMPLE 10-12. R. Strauss, *Don Juan*, mm. 530–540



EXAMPLE 10-13. Mahler, Symphony No. 1, first movement, mm. 345–356



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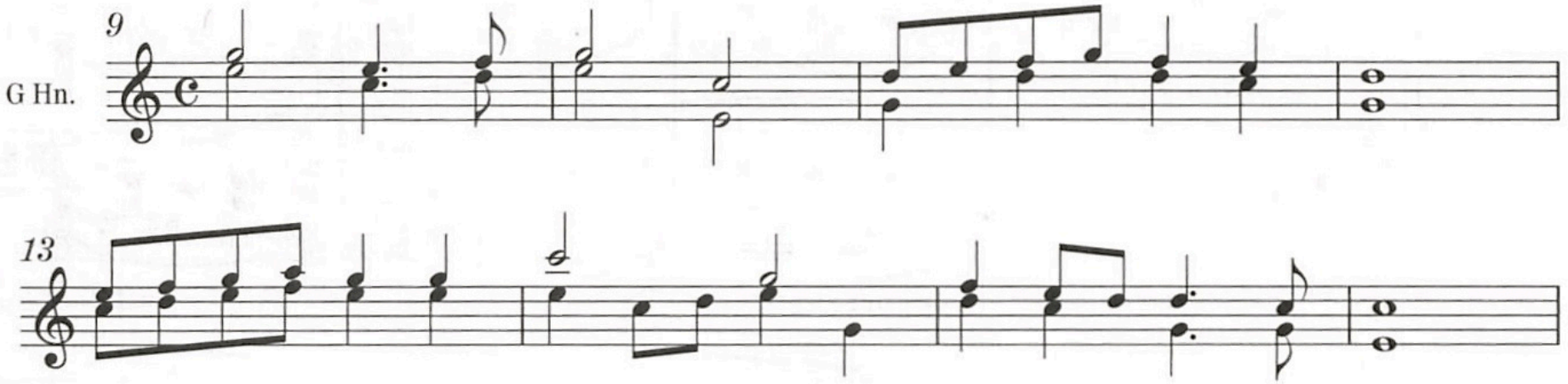
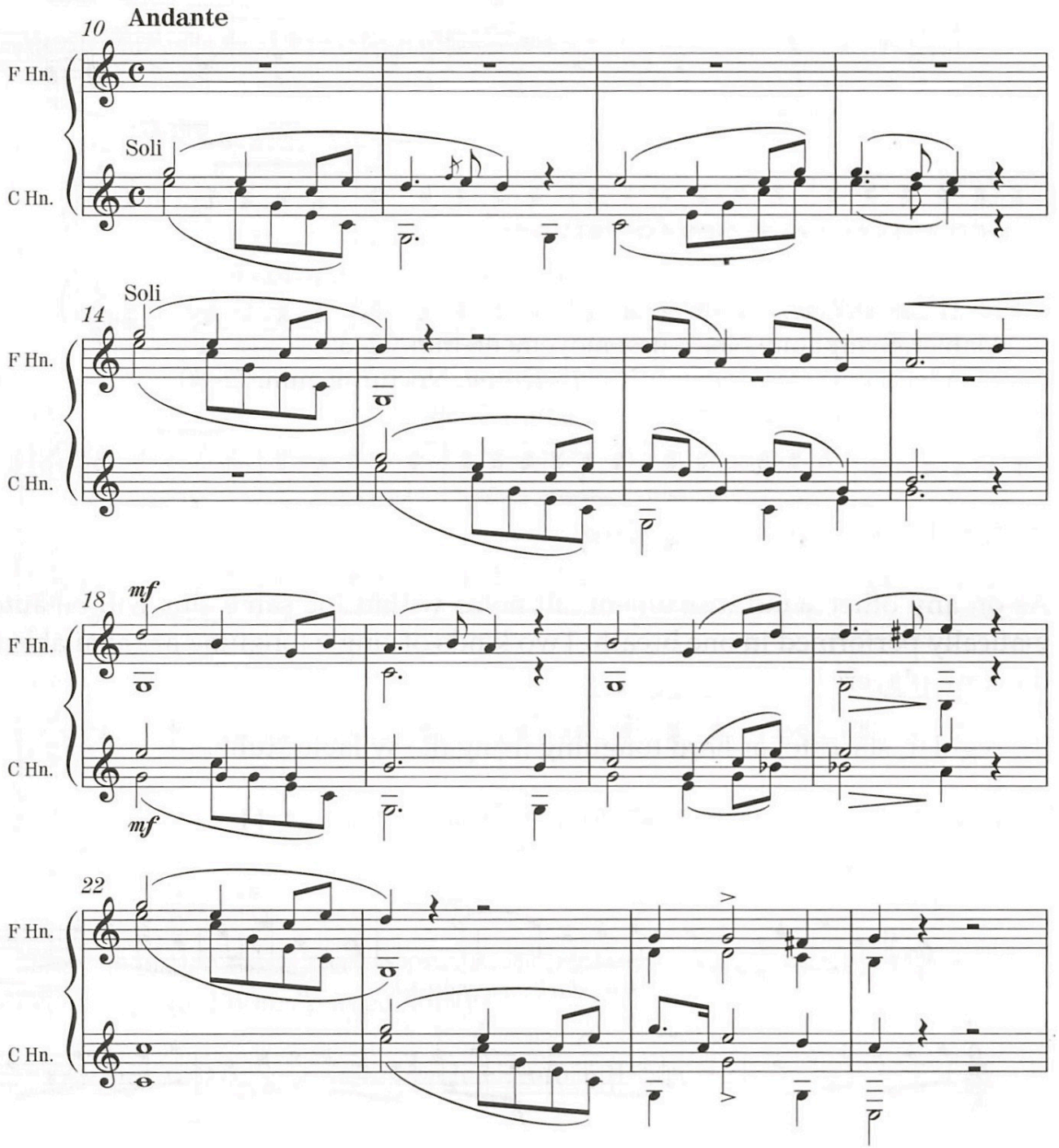
EXAMPLE 10-14. Handel, *Judas Maccabaeus*, "See the Conquering Hero," mm. 9–16



EXAMPLE 10-15. Weber, *Der Freischütz*, Overture, mm. 10–25



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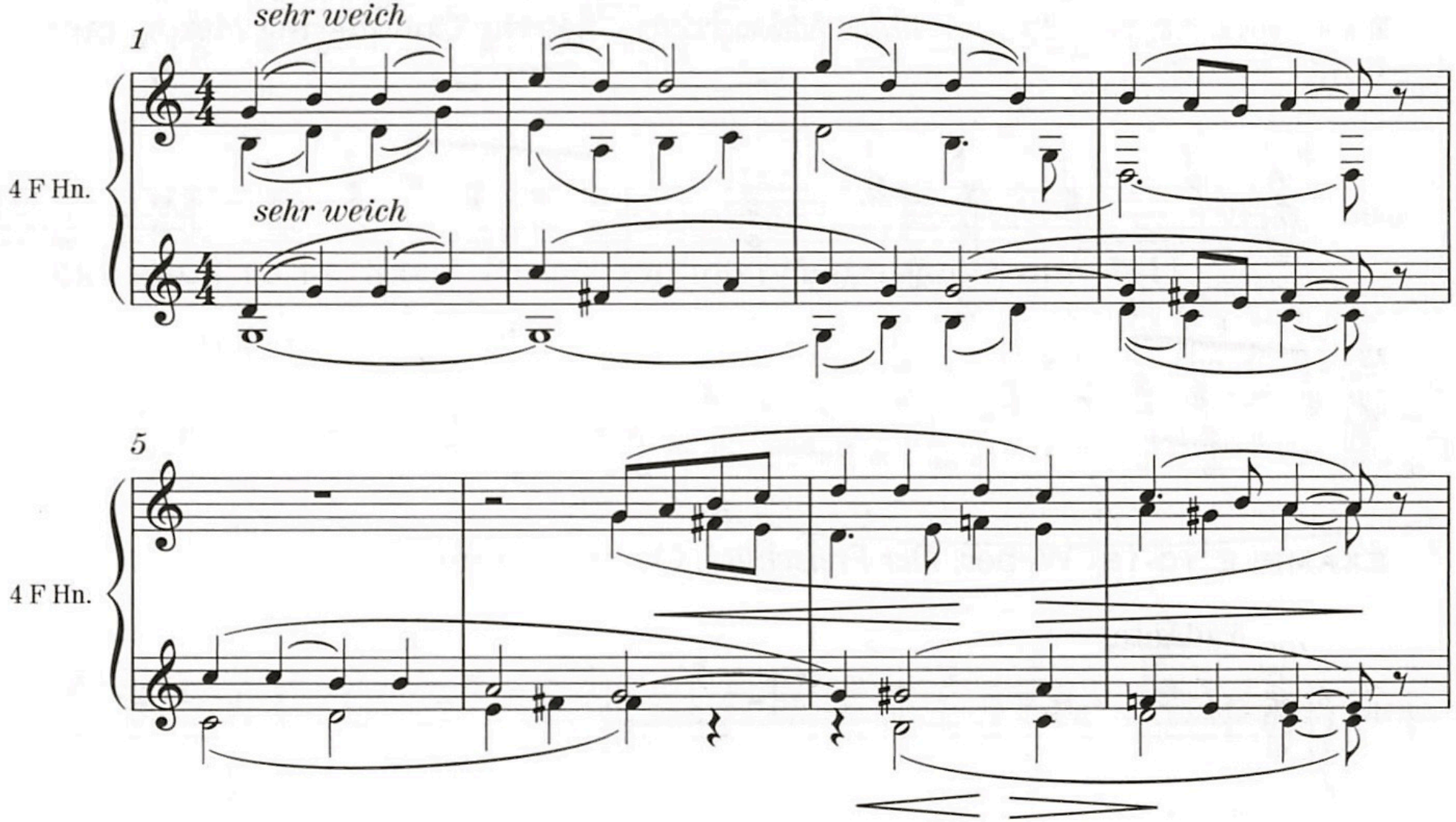
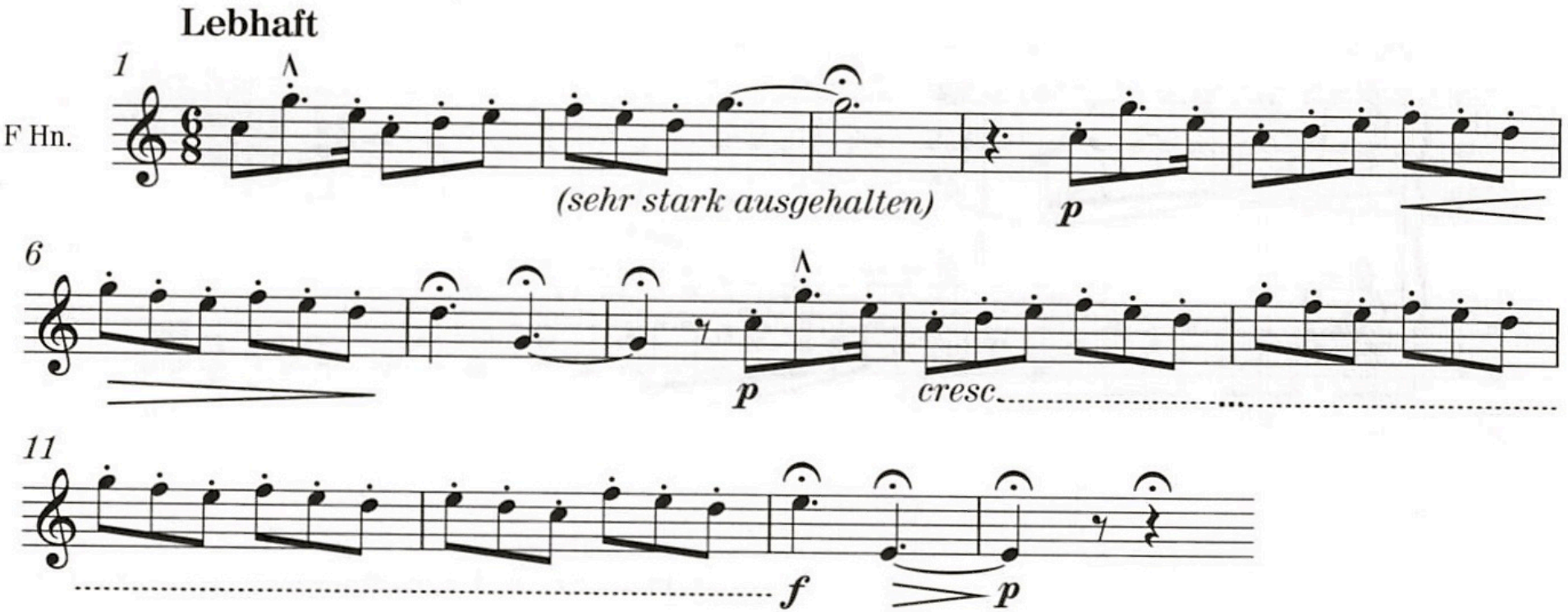
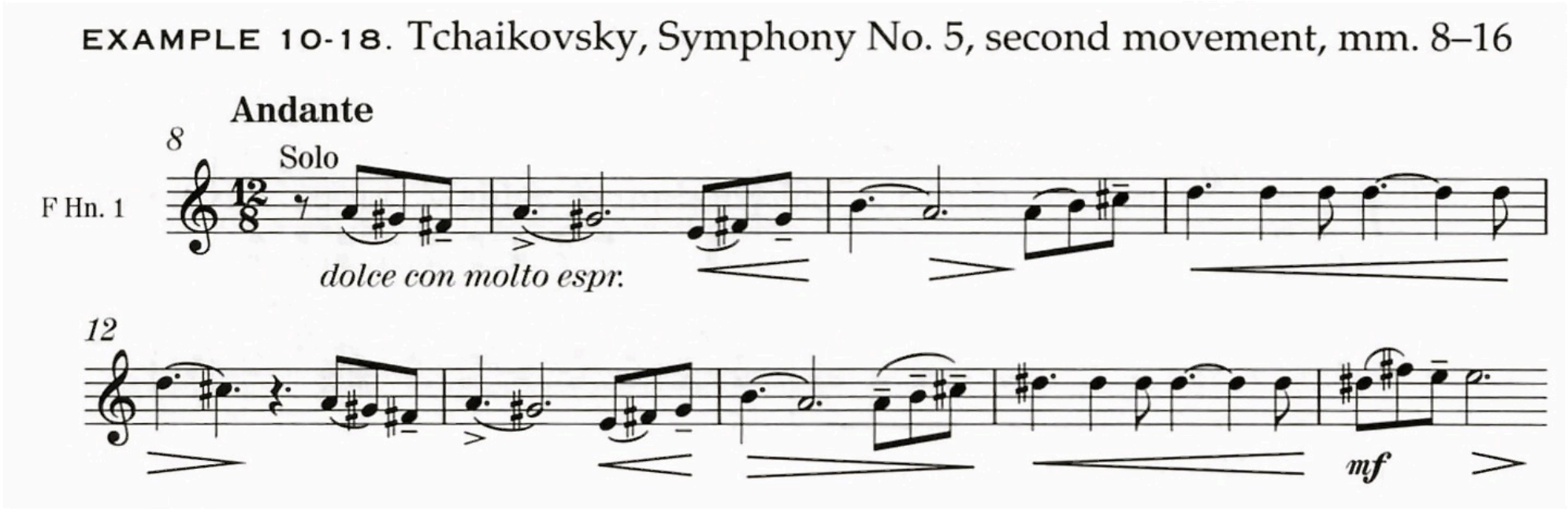
EXAMPLE 10-16. Humperdinck, *Hänsel und Gretel*, Overture, mm. 1–8

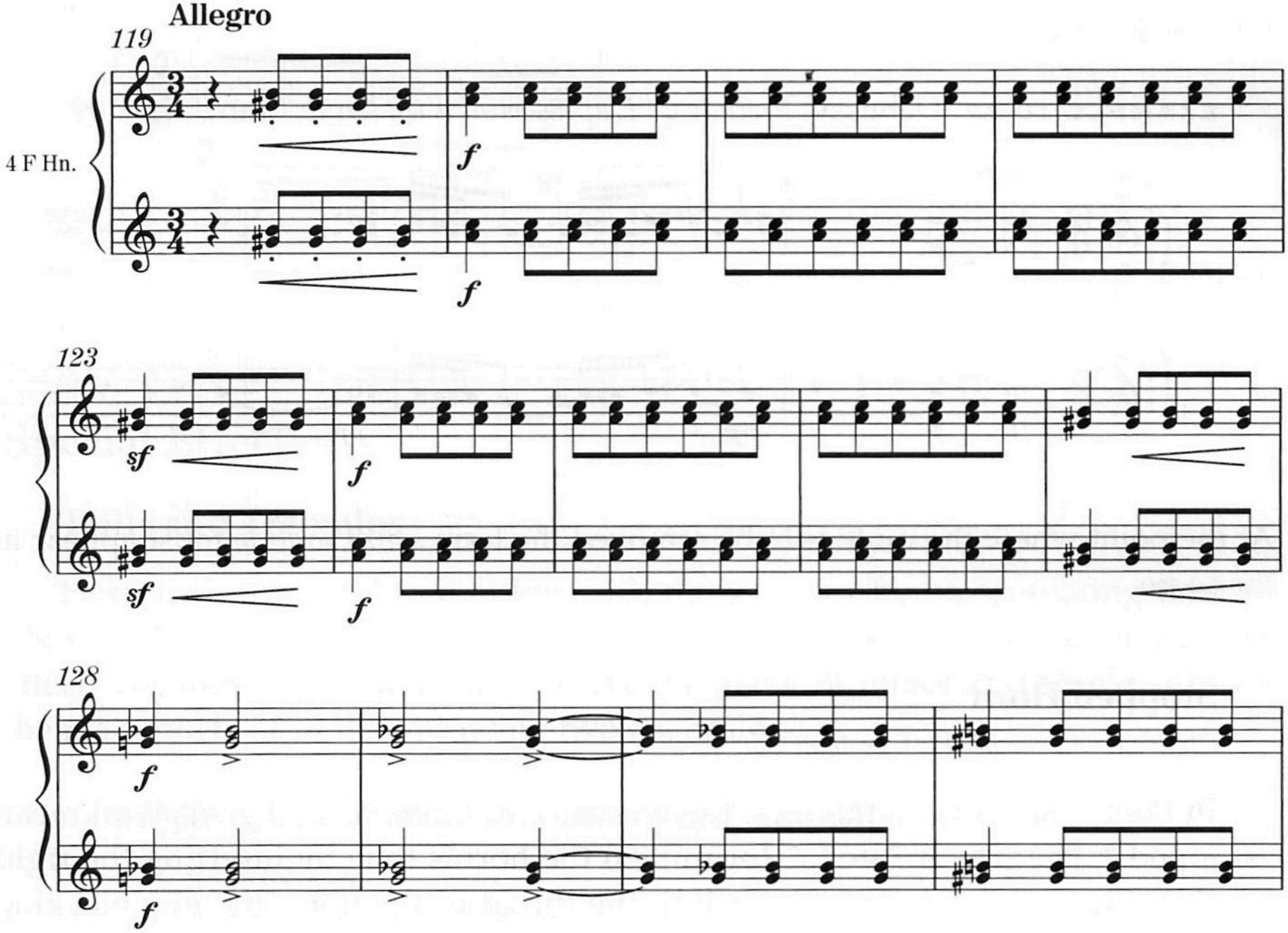


EXAMPLE 10-17. Wagner, *Siegfried*, Act I, scene 2, mm. 1–14

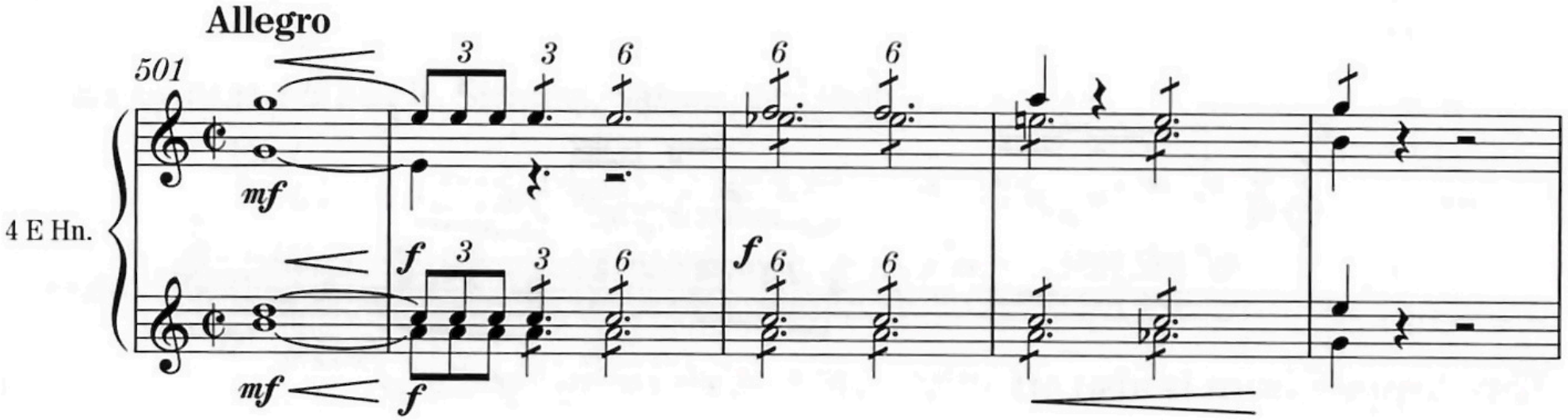



EXAMPLE 10-18. Tchaikovsky, Symphony No. 5, second movement, mm. 8–16
Andante
8
Solo
F Hn. 1
dolce con molto espr.
12
mf

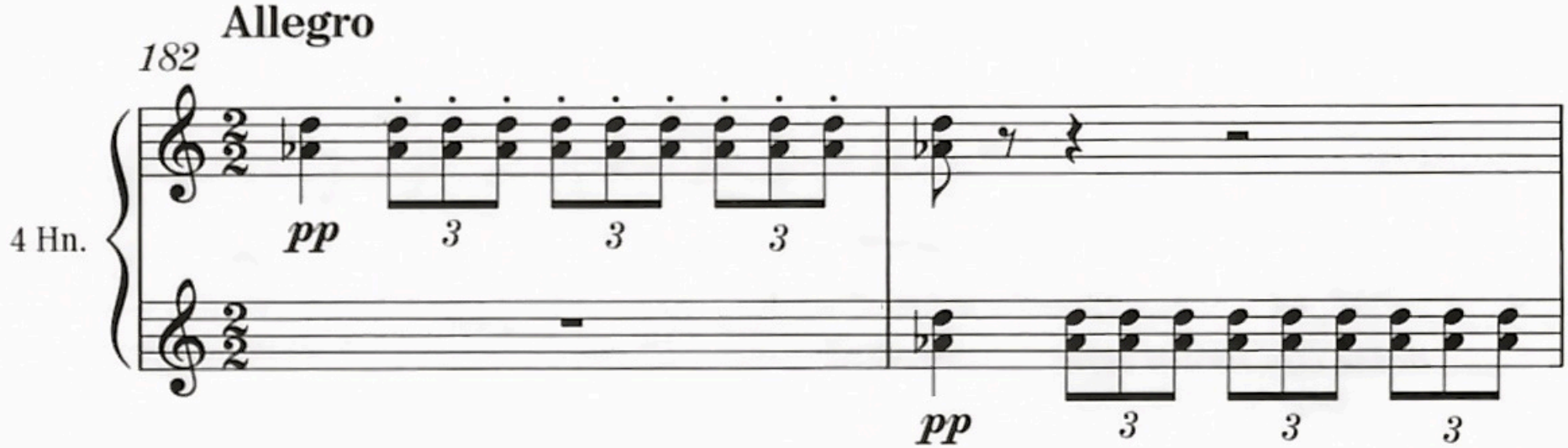
EXAMPLE 10-19. Rimsky-Korsakov, *Capriccio espagnol*, fifth movement, mm. 119–131

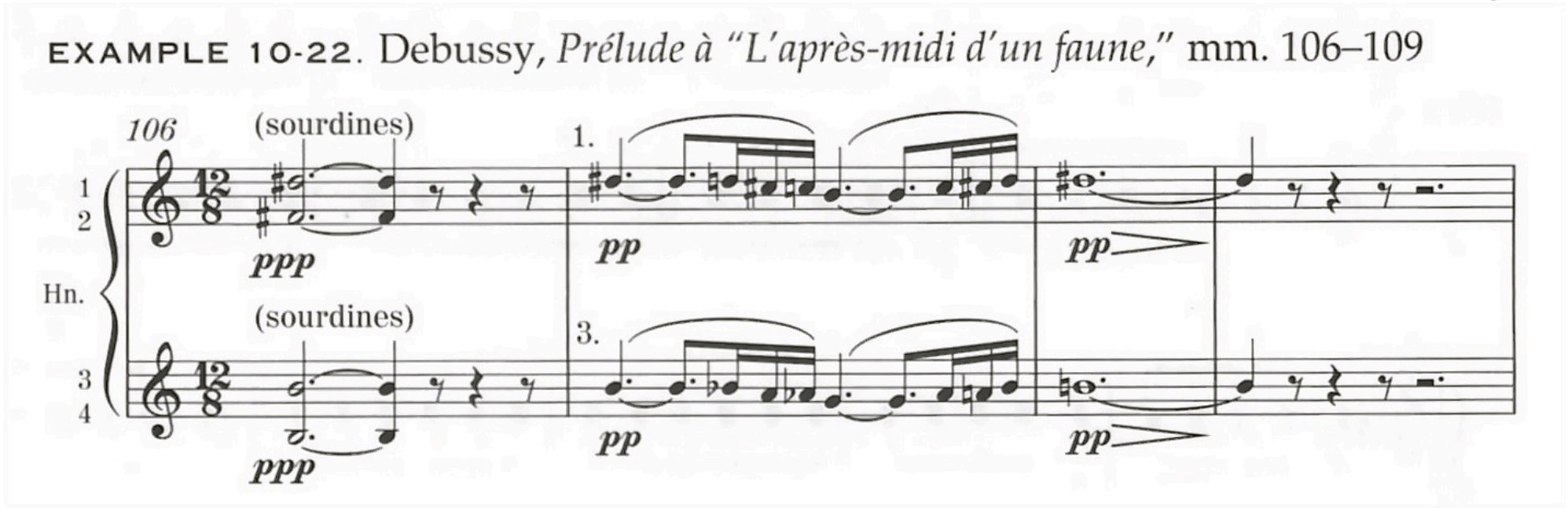


EXAMPLE 10-20. R. Strauss, *Don Juan*, mm. 501–505

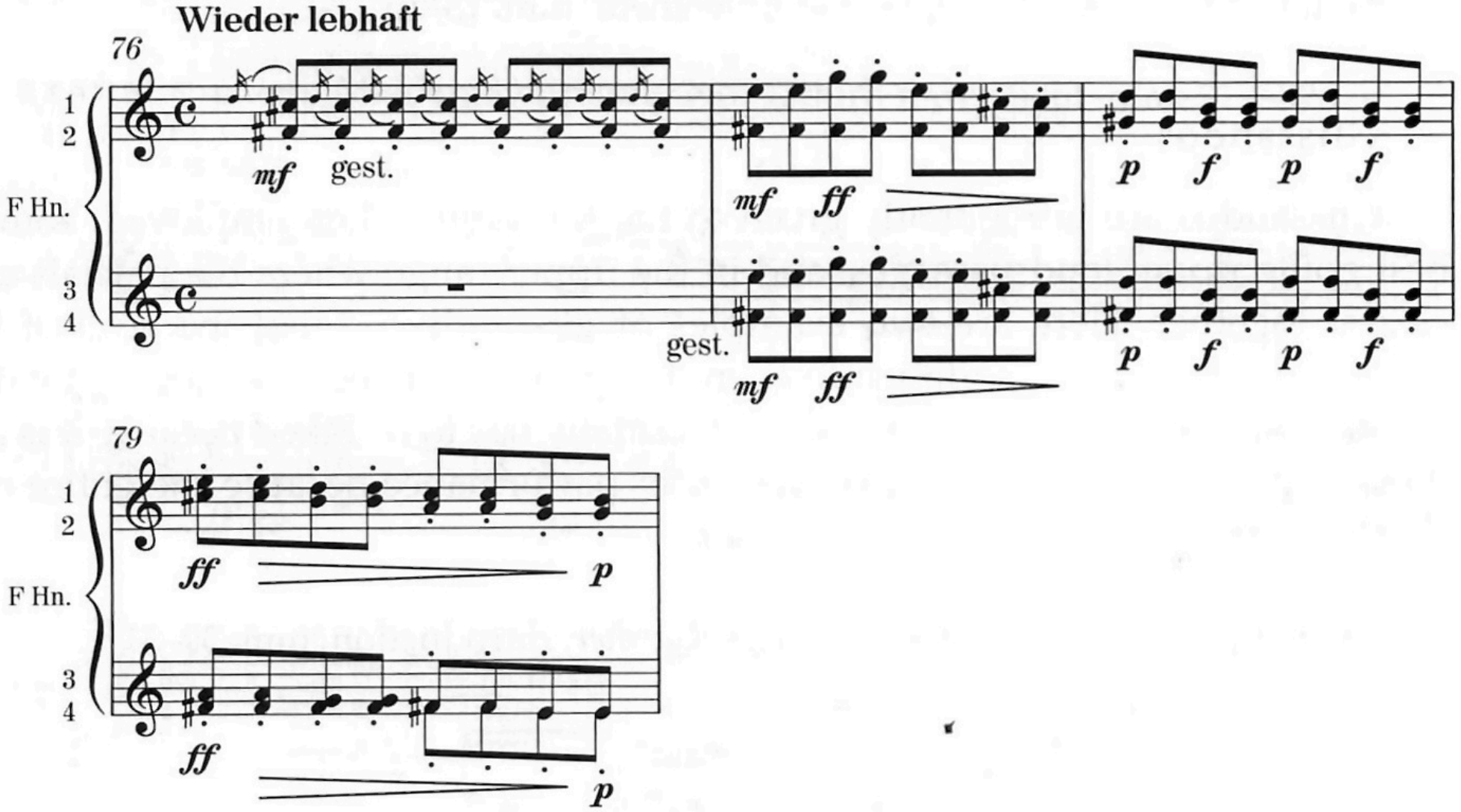


EXAMPLE 10-21. Scriabin, *Poem of Ecstasy*, mm. 182–183

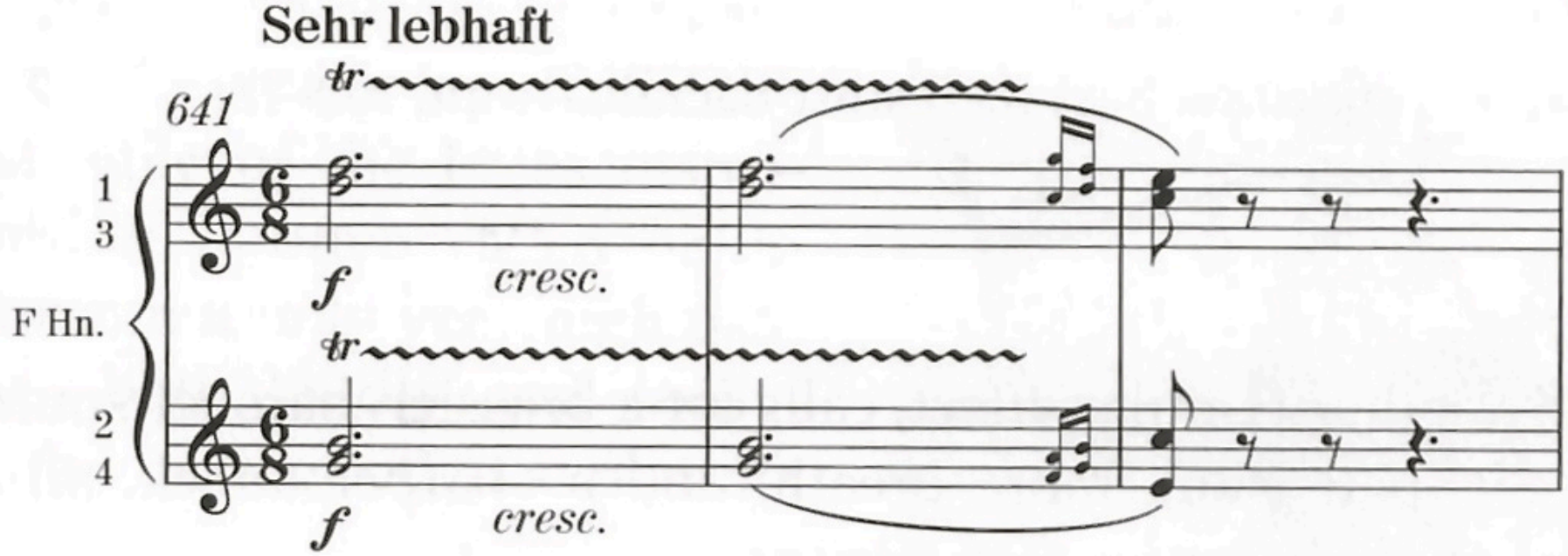



EXAMPLE 10-22. Debussy, Prélude à "L'après-midi d'un faune," mm. 106–109
106
(sourdines)
1.
Hn.
1
2
3
4
ppp
pp
pp
(sourdines)
3.
ppp
pp
pp

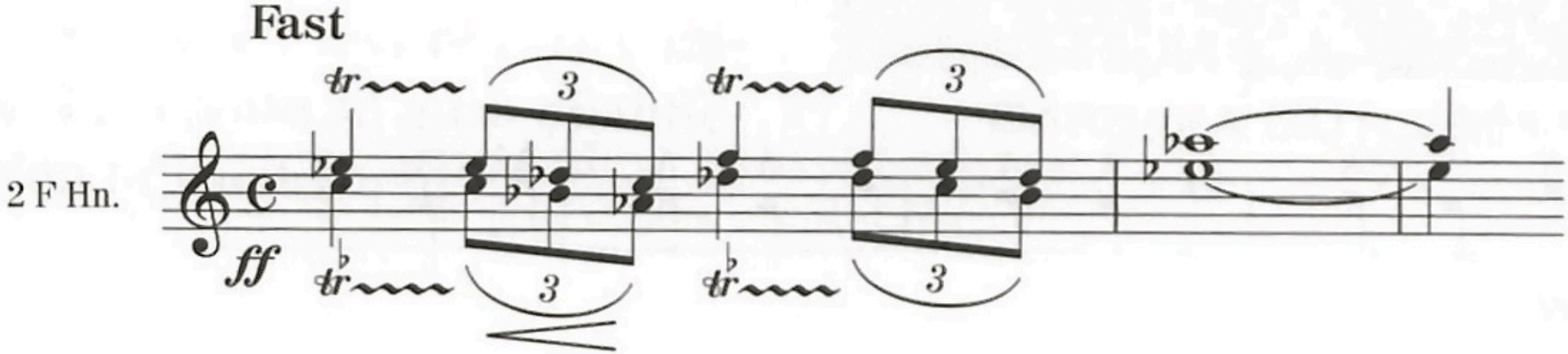
EXAMPLE 10-24. Mahler, Symphony No. 4, fourth movement, mm. 76–79



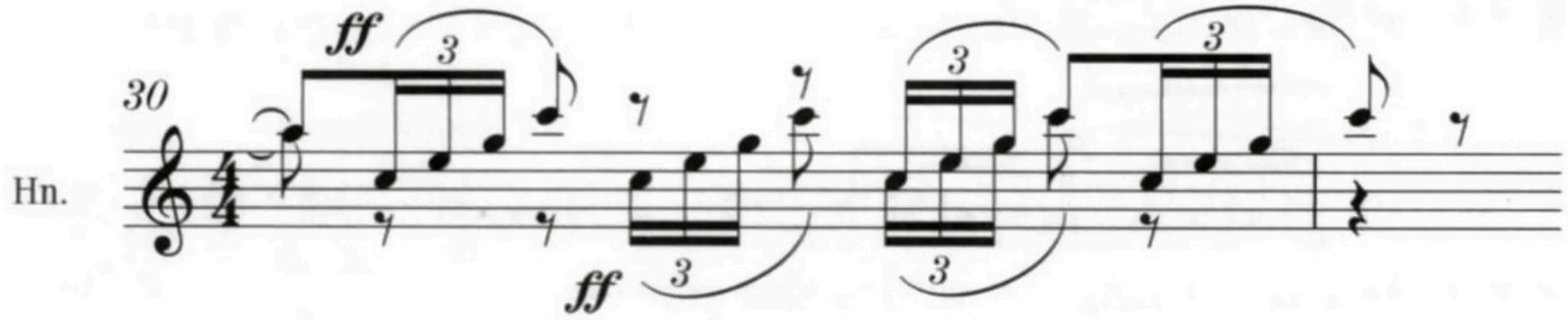
EXAMPLE 10-25. R. Strauss, *Till Eulenspiegel*, mm. 641–643



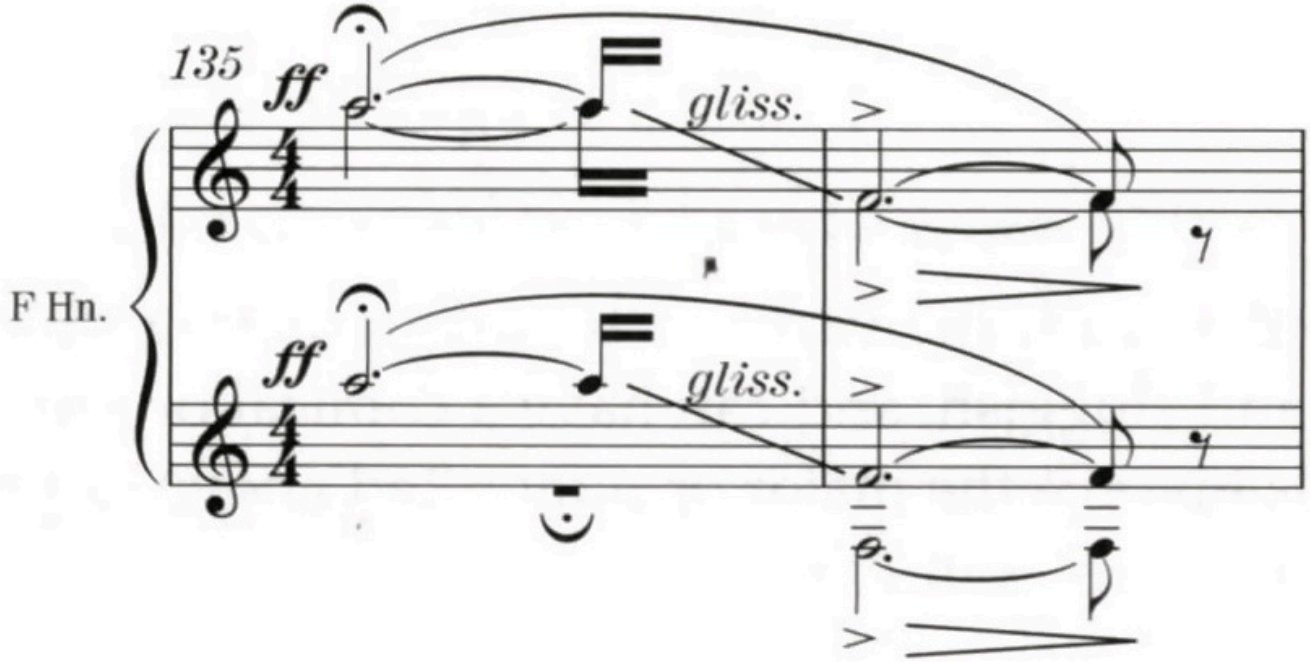
EXAMPLE 10-26. R. Strauss, *Salome*, at 360



EXAMPLE 10-27. R. Strauss, *Der Rosenkavalier*, Introduction, mm. 30–31

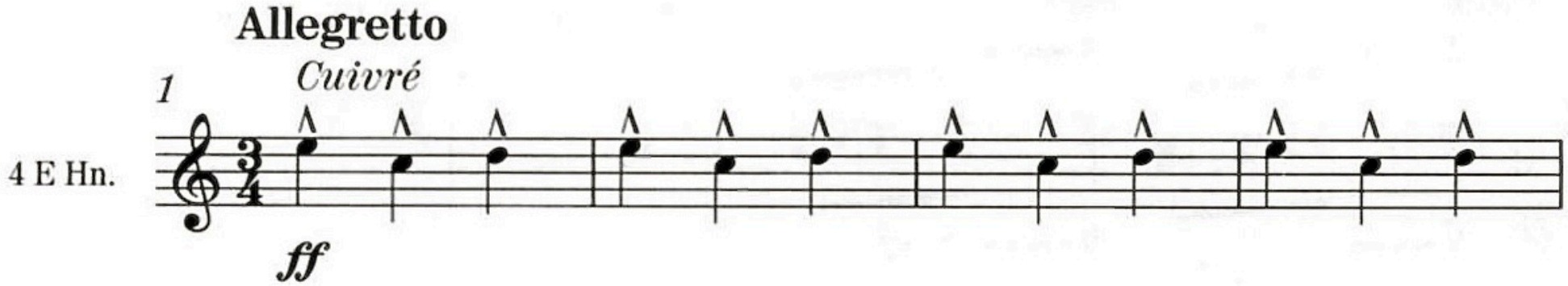


EXAMPLE 10-28. Barber, Symphony No. 1, mm. 135–136



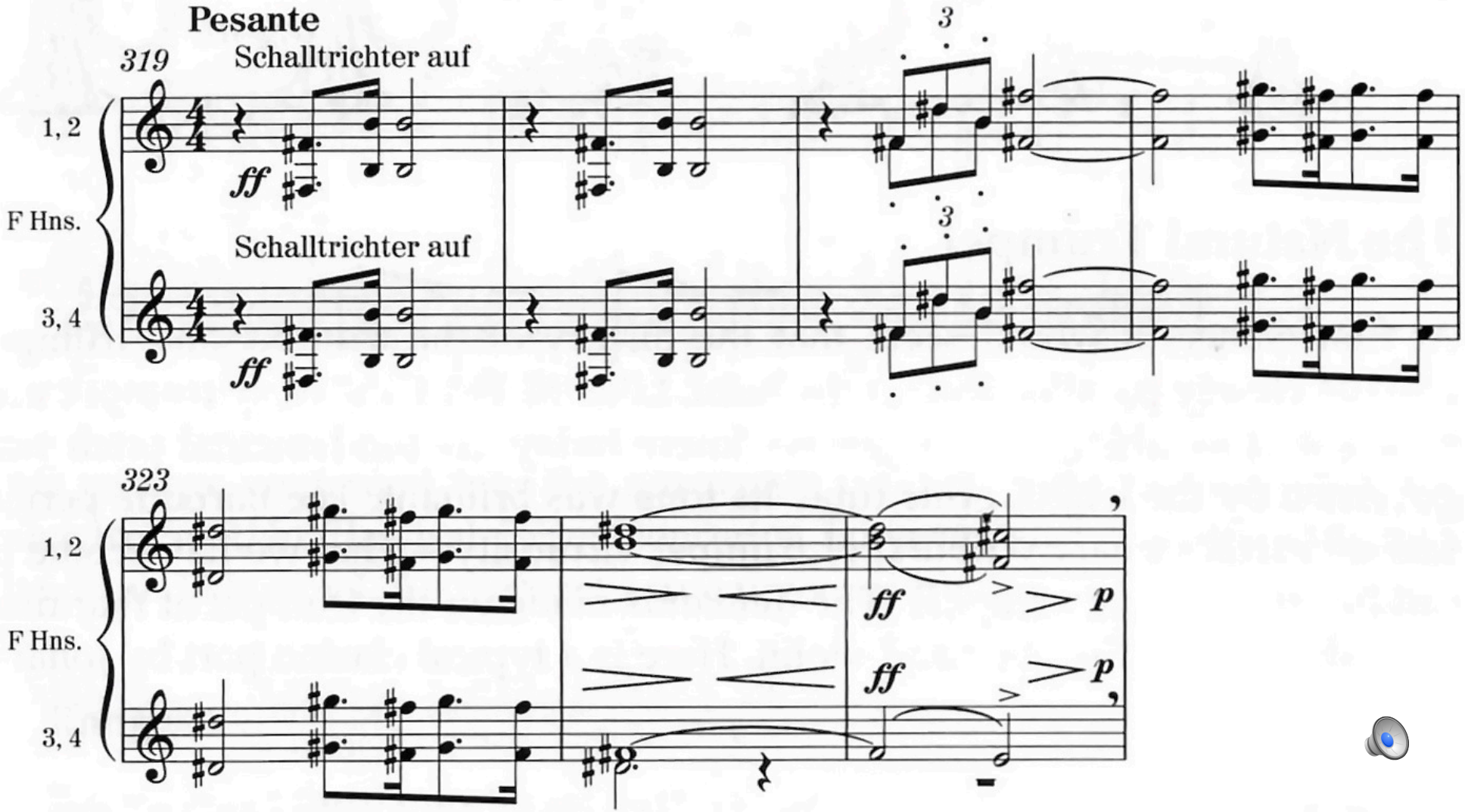
Cuivré

EXAMPLE 10-29. Bizet, *L'Arlésienne* Suite No. 1, "Carillon," mm. 1–4



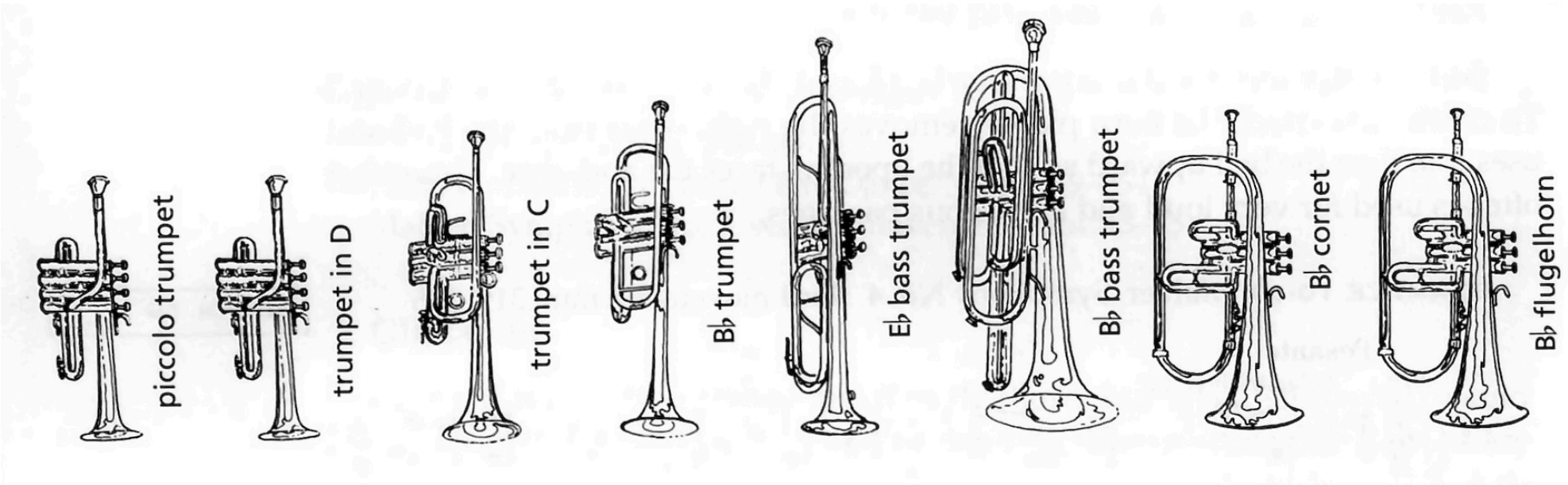
Campanas para cima

EXAMPLE 10-30. Mahler, Symphony No. 4, third movement, mm. 319–326

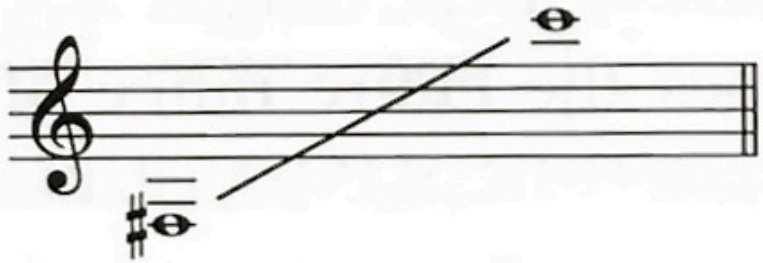


Trompete

- Basicamente afinado em C e Bb;
- Utiliza clave de sol;
- É o instrumento soprano da família dos metais;
- Tem som penetrante e flexível;
- Usado em solos, conjuntos, uníssonos, oitavas (dois no registro agudos e dois no grave) ou no topo do conjunto de metais;
- Funciona bem tocando em uníssonos com outros instrumentos (sax alto ou guitarra elétrica) ou em oitavas com o trombone ou sax tenor;
- Sons fortes são mais fáceis de serem produzidos;

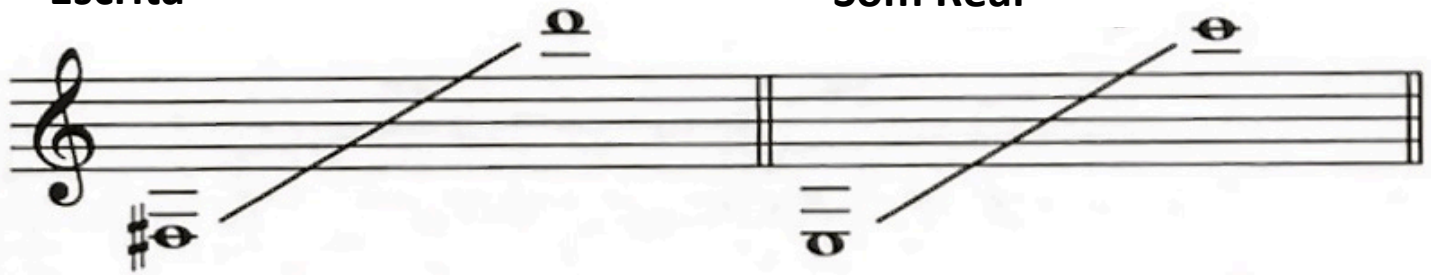

piccolo trumpet
trumpet in D
trumpet in C
B♭ trumpet
E♭ bass trumpet
B♭ bass trumpet
B♭ cornet
B♭ flugelhorn

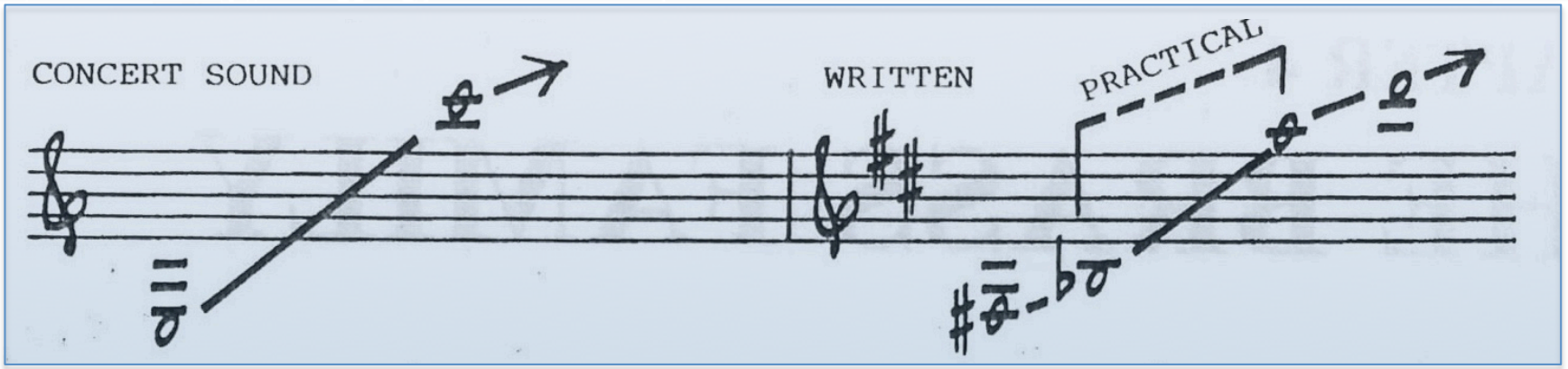
C Trumpet*



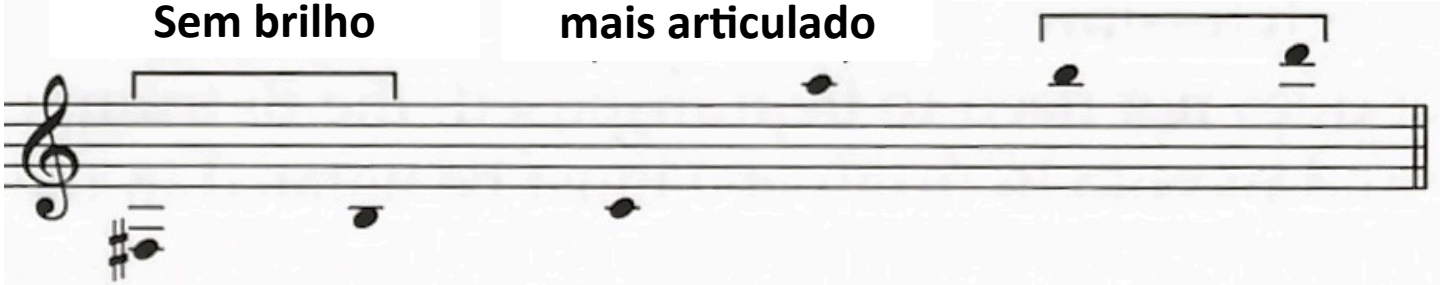
Escrita **Som Real**

B♭ Trumpet

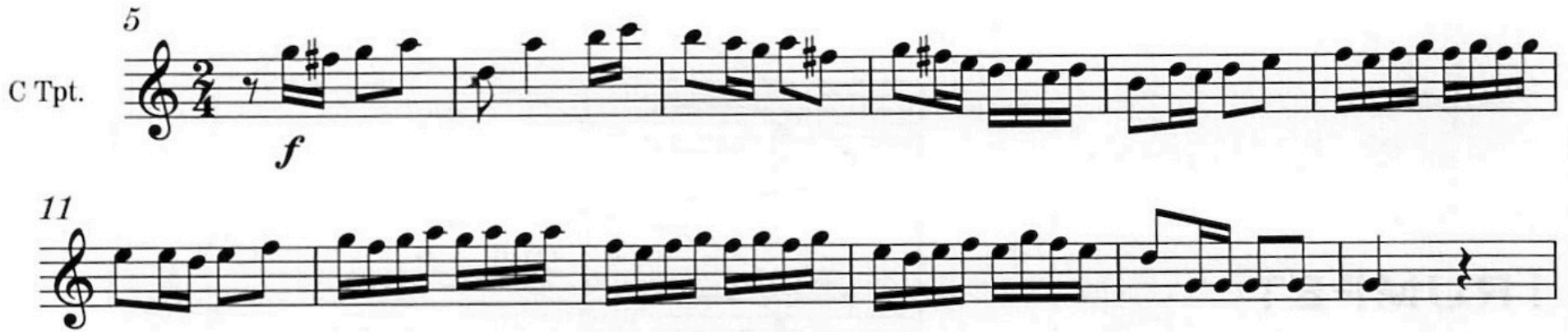




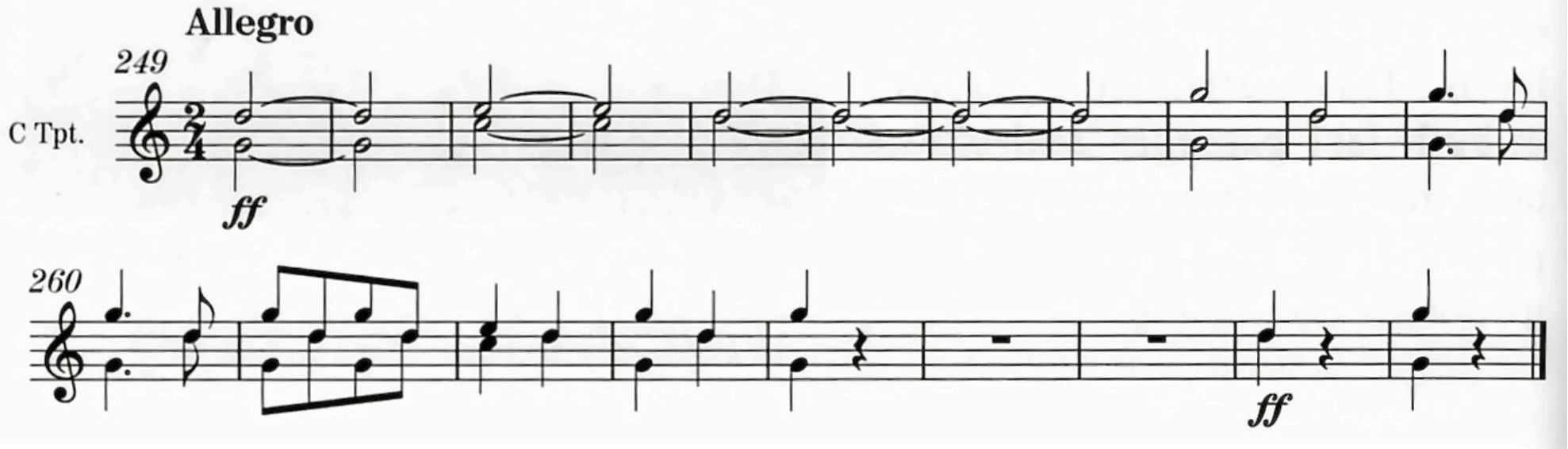
Sem brilho **Claro, brilhante e mais articulado** **Brilhante, mas estridente**



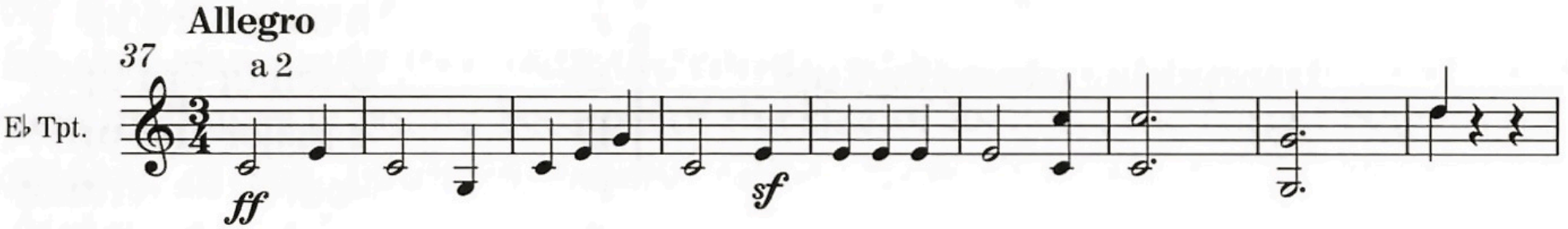
EXAMPLE 10-31. Bach, Cantata No. 51, "Jauchzet Gott in allen Landen," last movement, "Alleluja," mm. 5–16



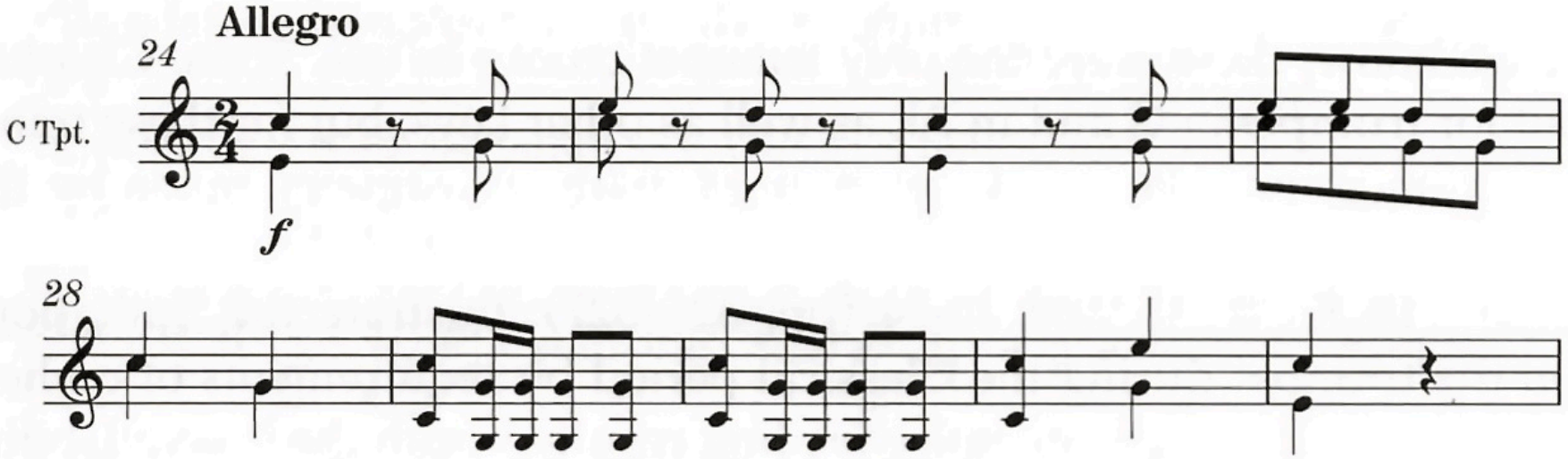
EXAMPLE 10-32. Haydn, Symphony No. 94 ("Surprise"), fourth movement, mm. 249–268



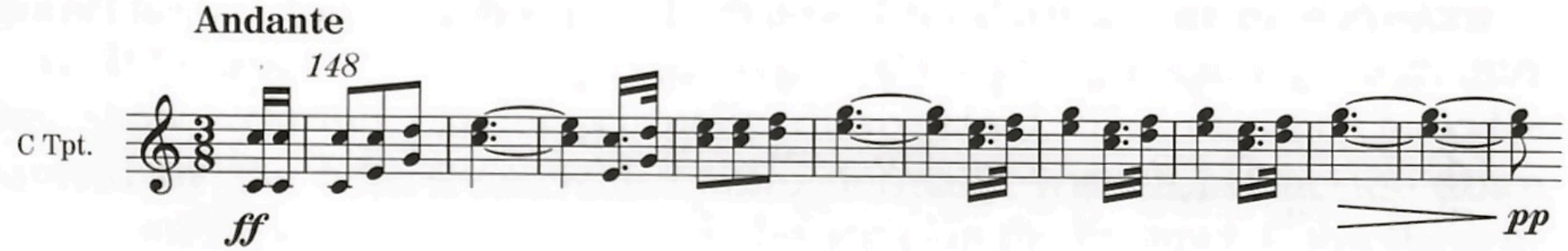
EXAMPLE 10-33. Beethoven, Symphony No. 3 ("Eroica"), first movement, mm. 37–45



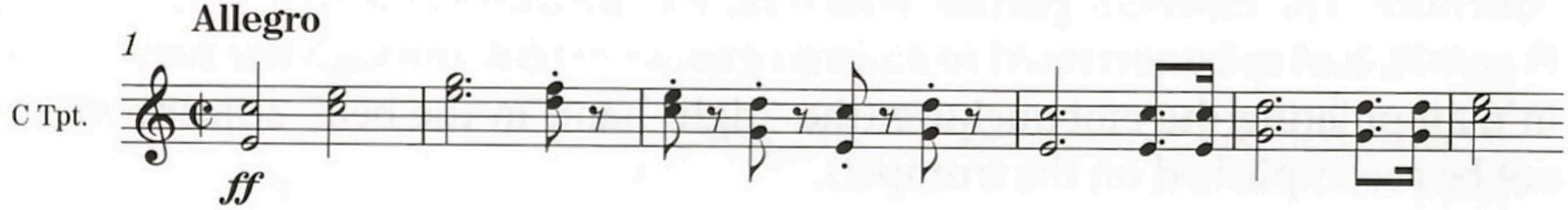
EXAMPLE 10-34. Mozart, Piano Concerto K. 503, third movement, mm. 24–32



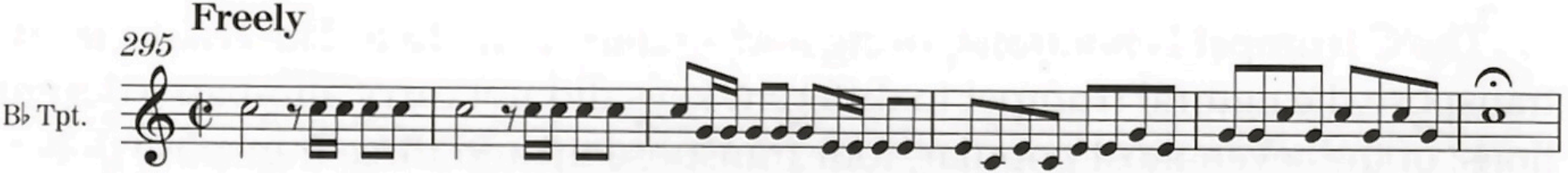
EXAMPLE 10-37. Beethoven, Symphony No. 5, second movement, mm. 147–158



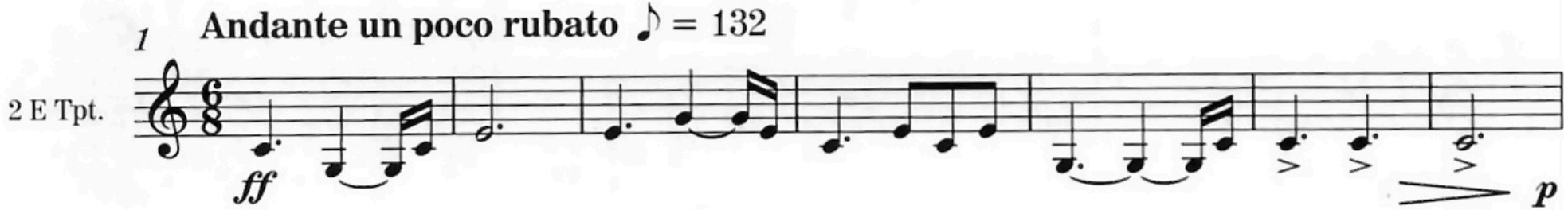
EXAMPLE 10-38. Beethoven, Symphony No. 5, fourth movement, mm. 1–6



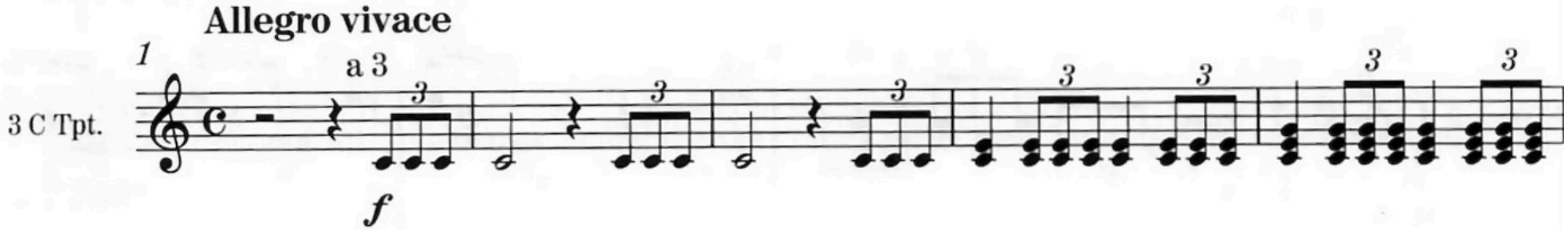
EXAMPLE 10-39. Beethoven, *Leonore* Overture No. 3, mm. 295–300



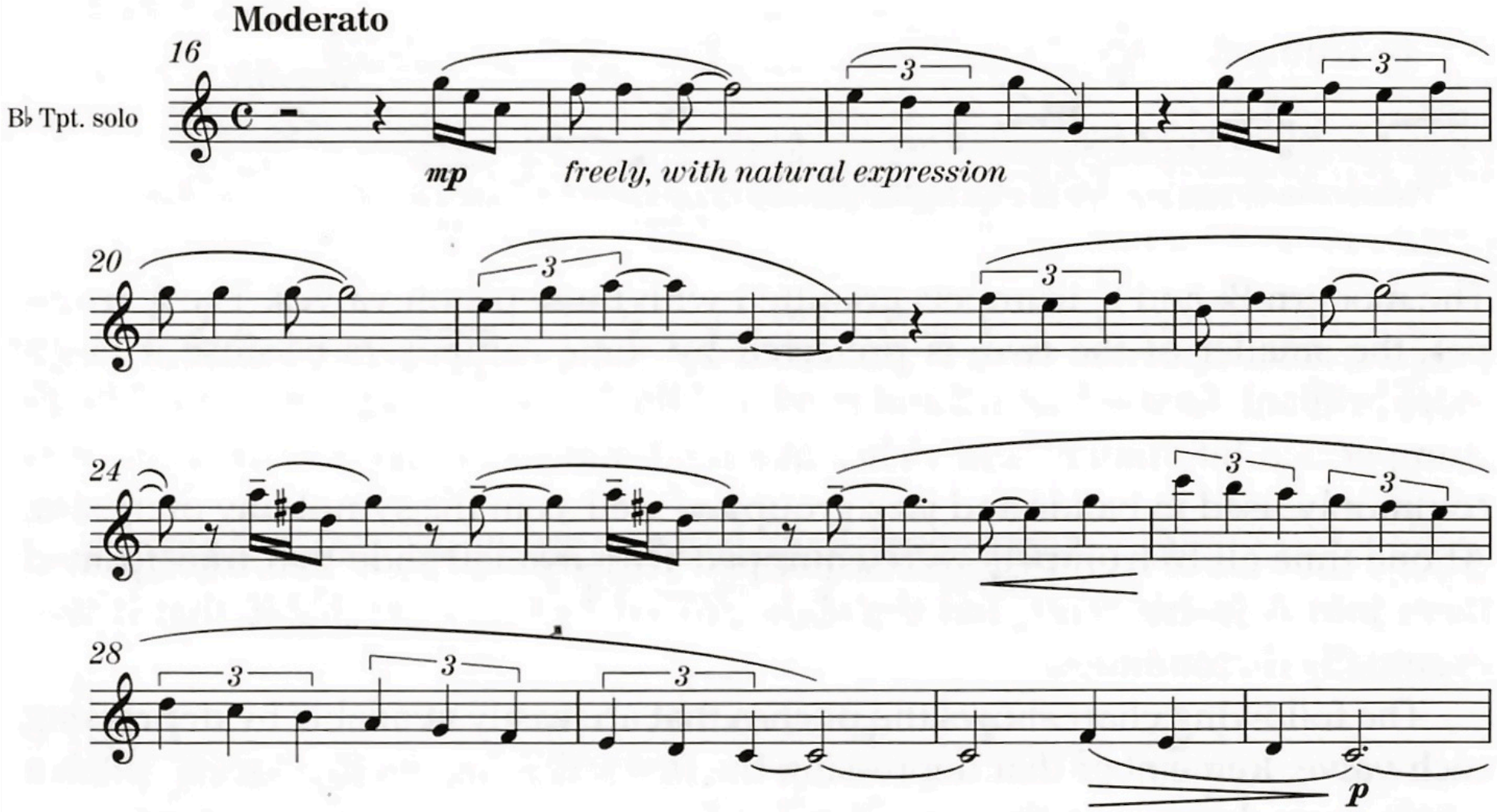
EXAMPLE 10-40. Tchaikovsky, *Capriccio italien*, mm. 1–7



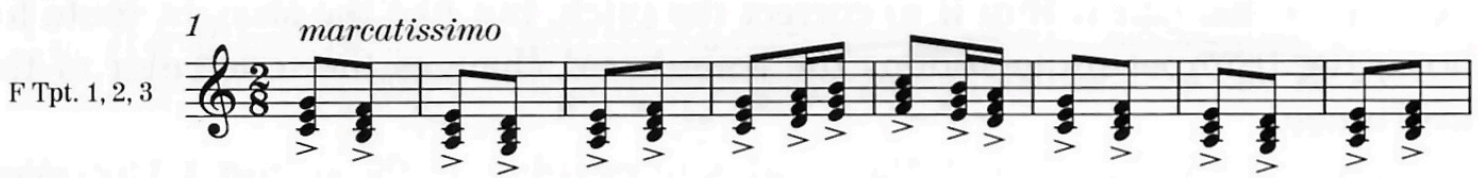
EXAMPLE 10-41. Mendelssohn, *A Midsummer Night's Dream*, "Wedding March," mm. 1–5



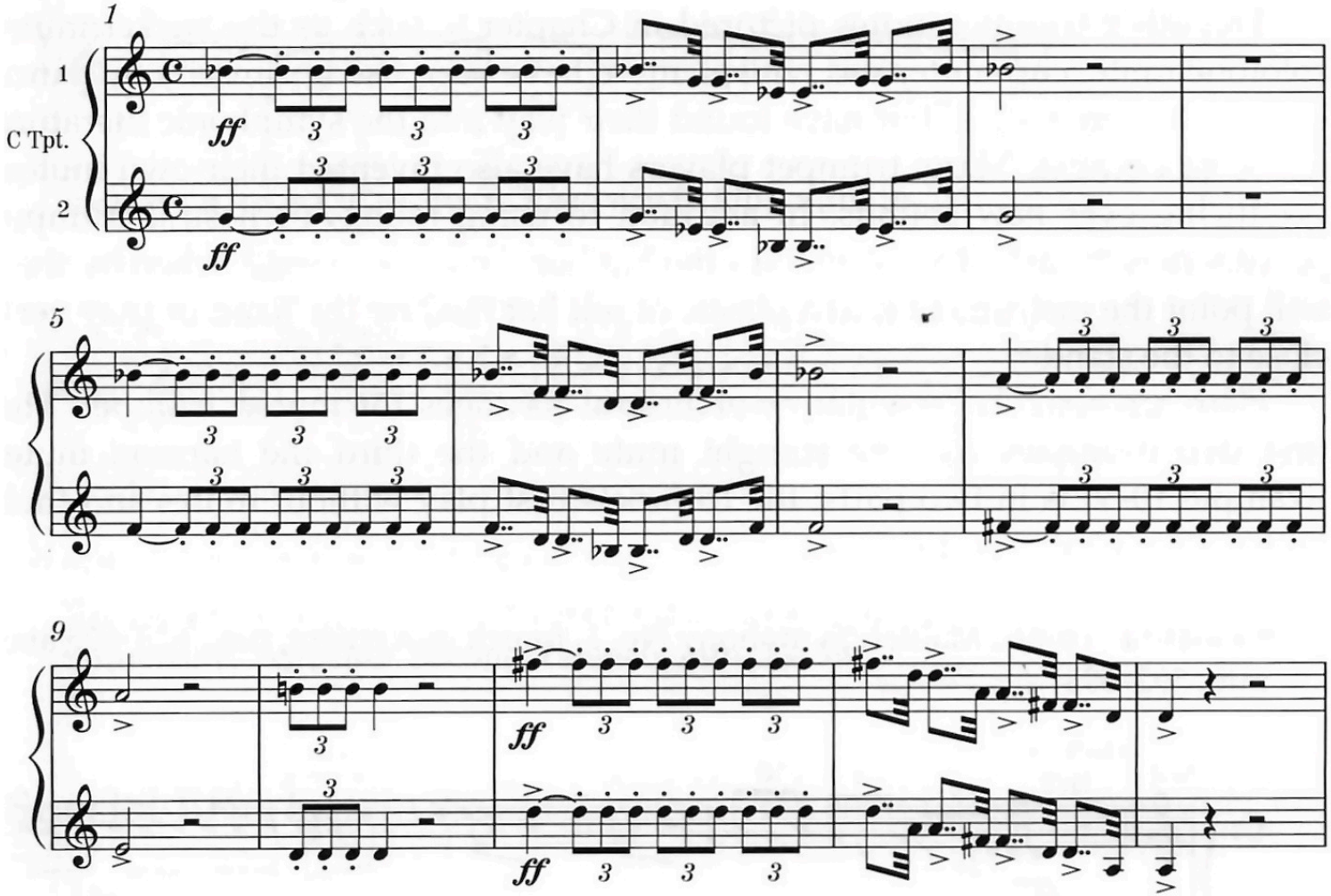
EXAMPLE 10-47. Copland, *Outdoor Overture*, mm. 16–31



EXAMPLE 10-48. Puccini, *La Bohème*, Act II, opening (double tonguing on only)



EXAMPLE 10-49. Verdi, *Aïda*, Act I, "Celesta Aïda," mm. 1–13 (triple tonguing)



PROF. MARCOS FILHO

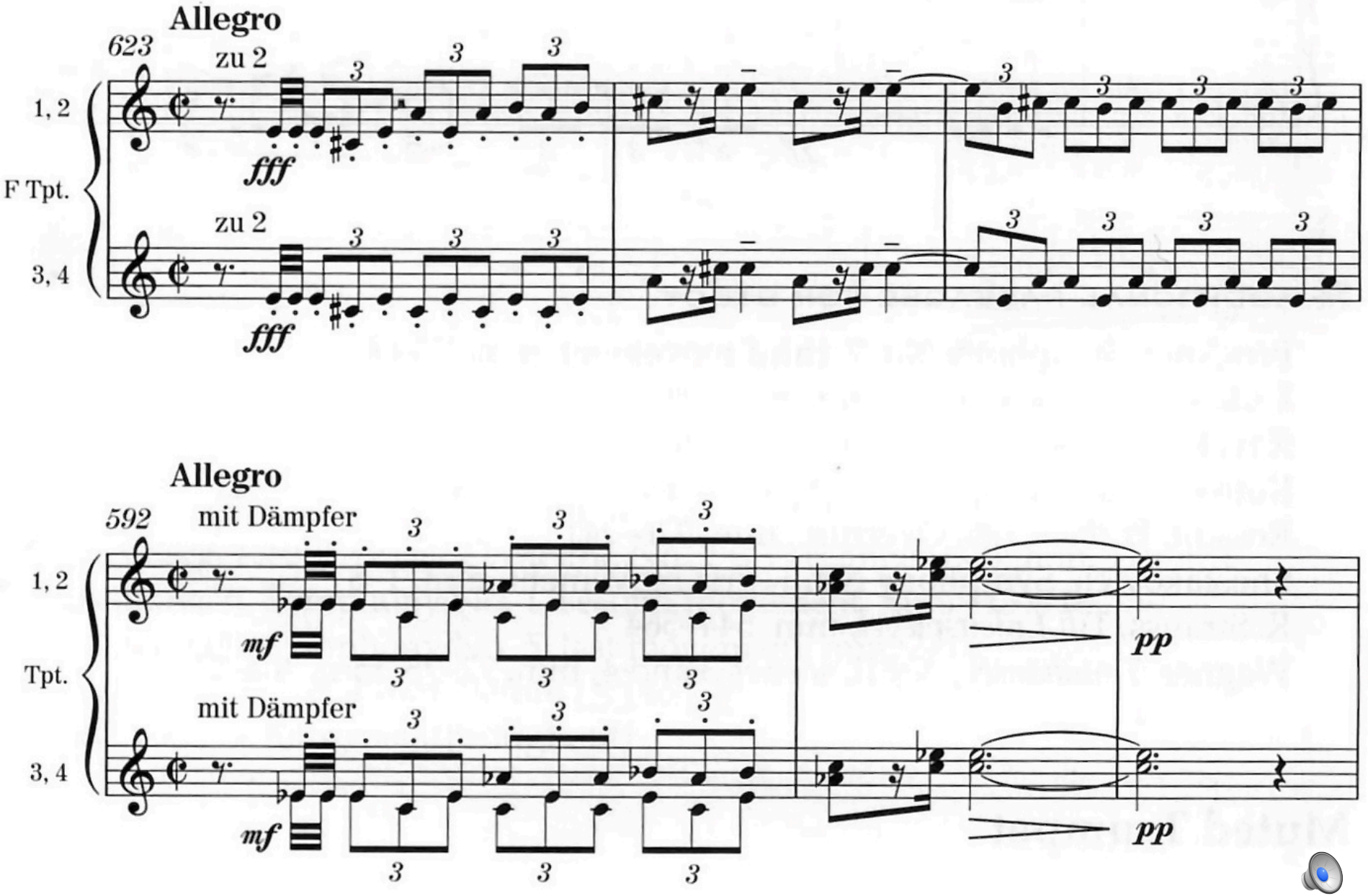
Surdina

Pode-se indicar *con sordino* para adicionar e *senza sordino* para retirar.

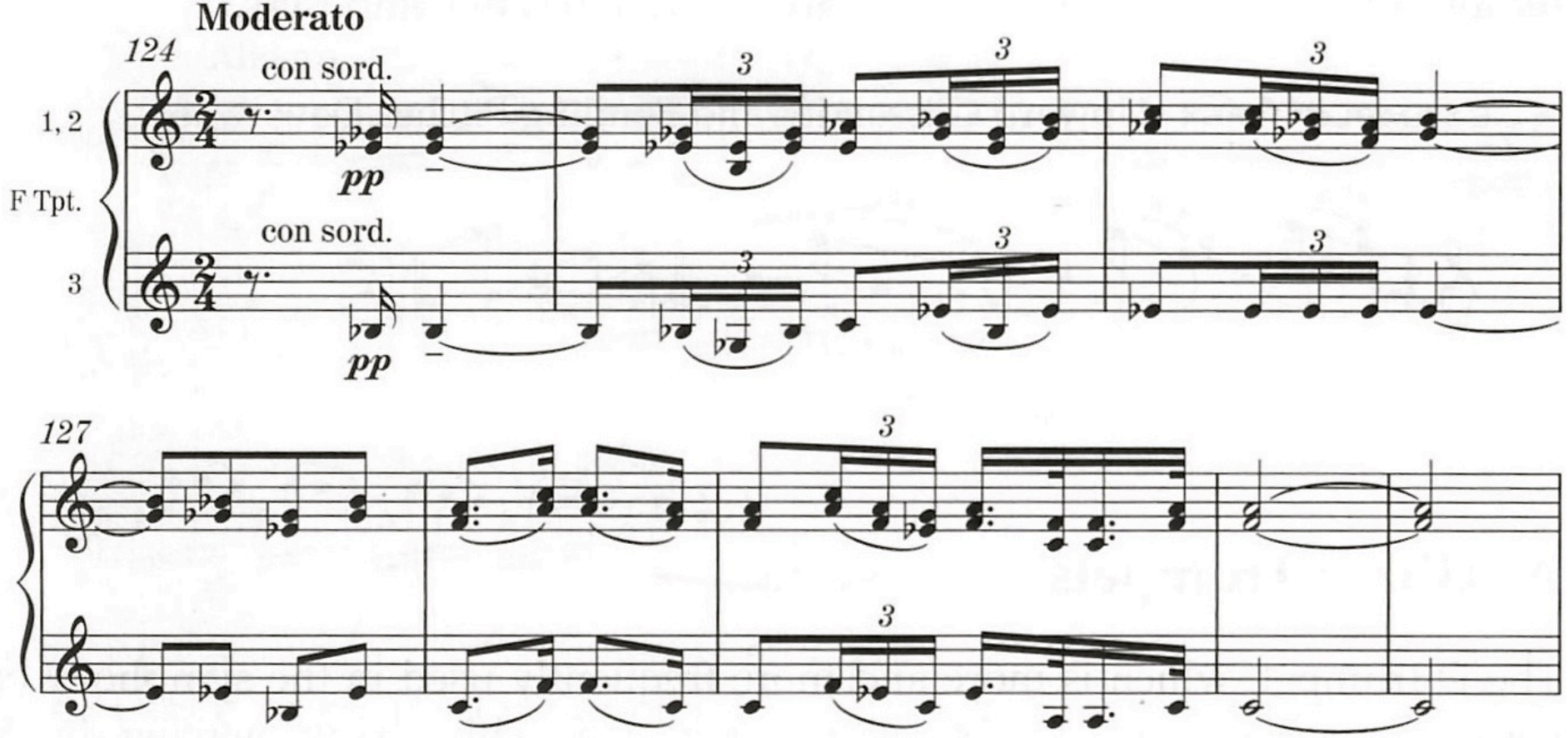
Em inglês utiliza-se também *open* para indicar sem surdina.

No século XIX era comum utilizar a palavra alemã *gestopft* para adicionar a surdina e *offen* para retirar a surdina.

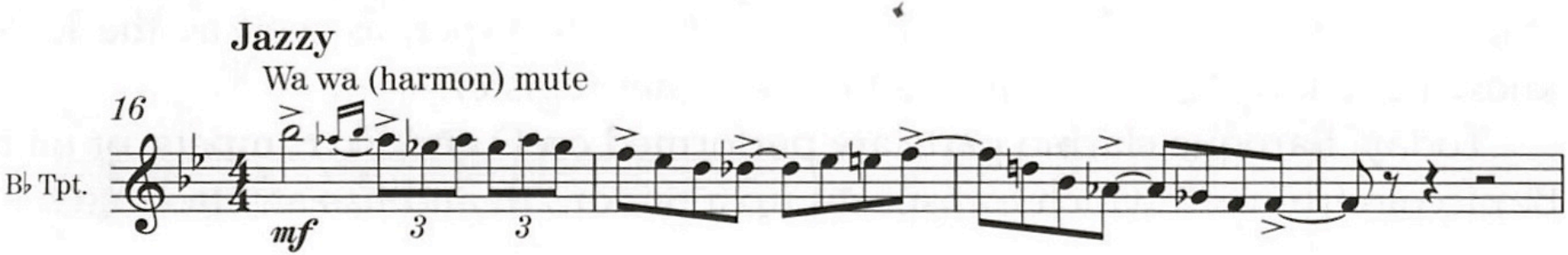
EXAMPLE 10-50. Mahler, Symphony No. 1, fourth movement, mm. 623–625 and mm. 592–594



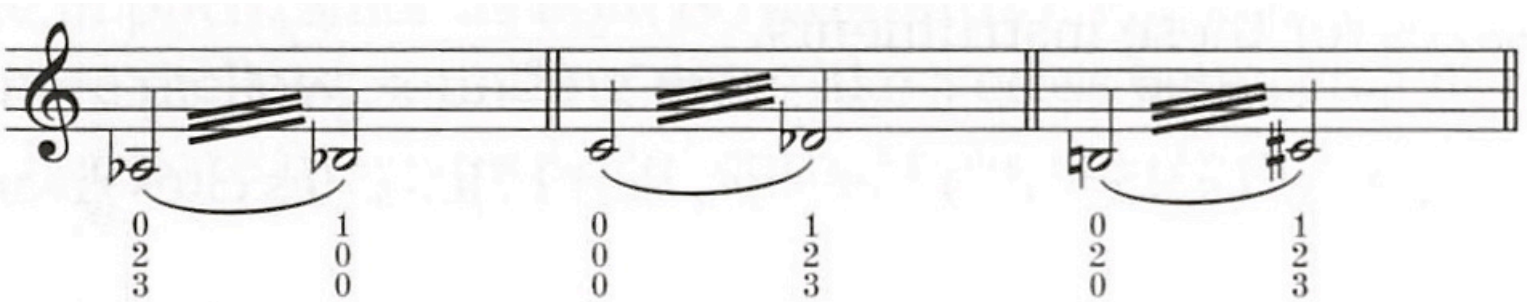
EXAMPLE 10-51. Debussy, *Nocturnes*, "Fêtes," mm. 124–131



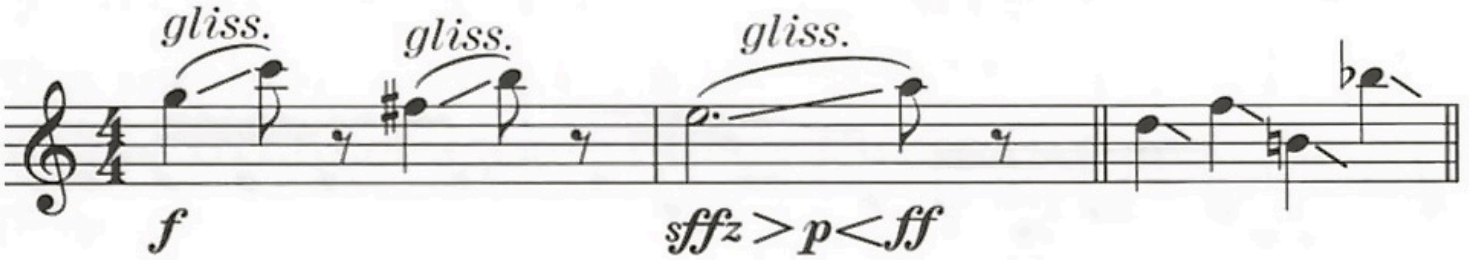
EXAMPLE 10-52. Gershwin, *Rhapsody in Blue*, mm. 16–19



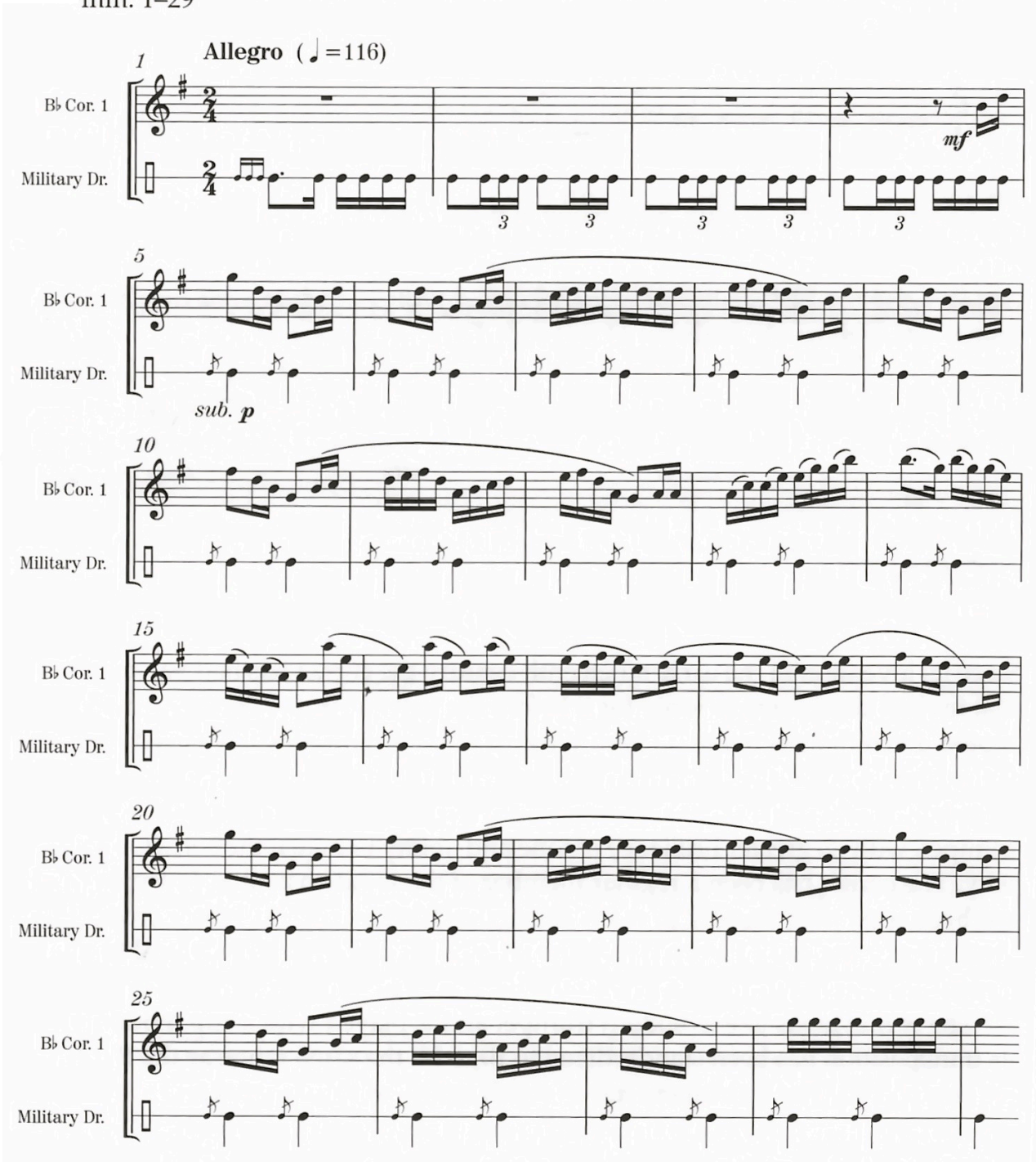
Trinados para serem evitados:



EXAMPLE 10-54. Upward Glissandos and Bending Pitches Downward

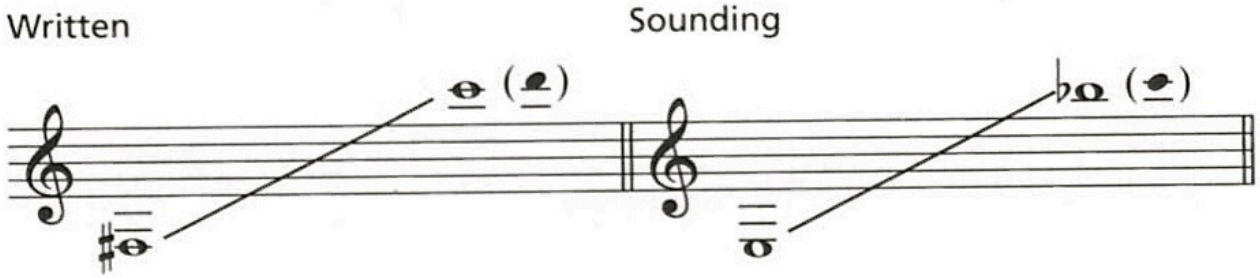


EXAMPLE 10-60. Stravinsky, *Petrushka*, Second Tableau, "Ballerina's Dance," mm. 1–29

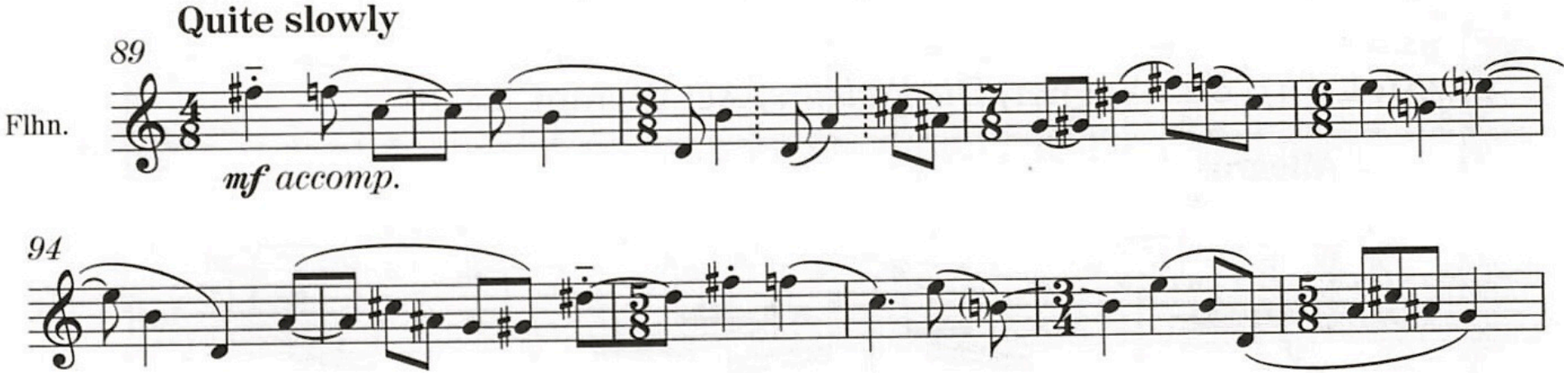


PROF. MARCOS FILHO

Flugelhorn



EXAMPLE 10-65. Stravinsky, *Threni*, mm. 89–99



Ex. 4-3 Satin 'n Glass 16

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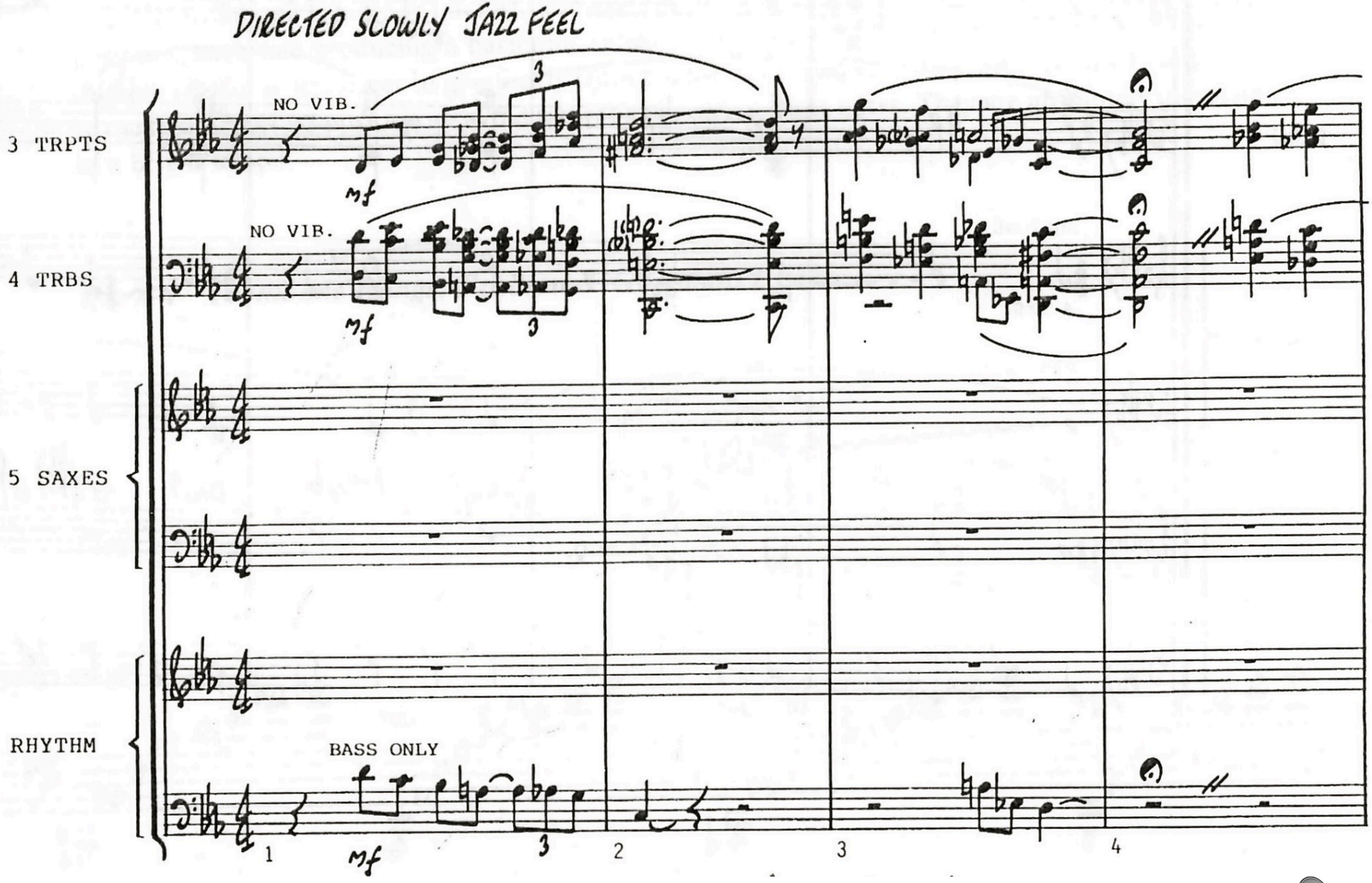
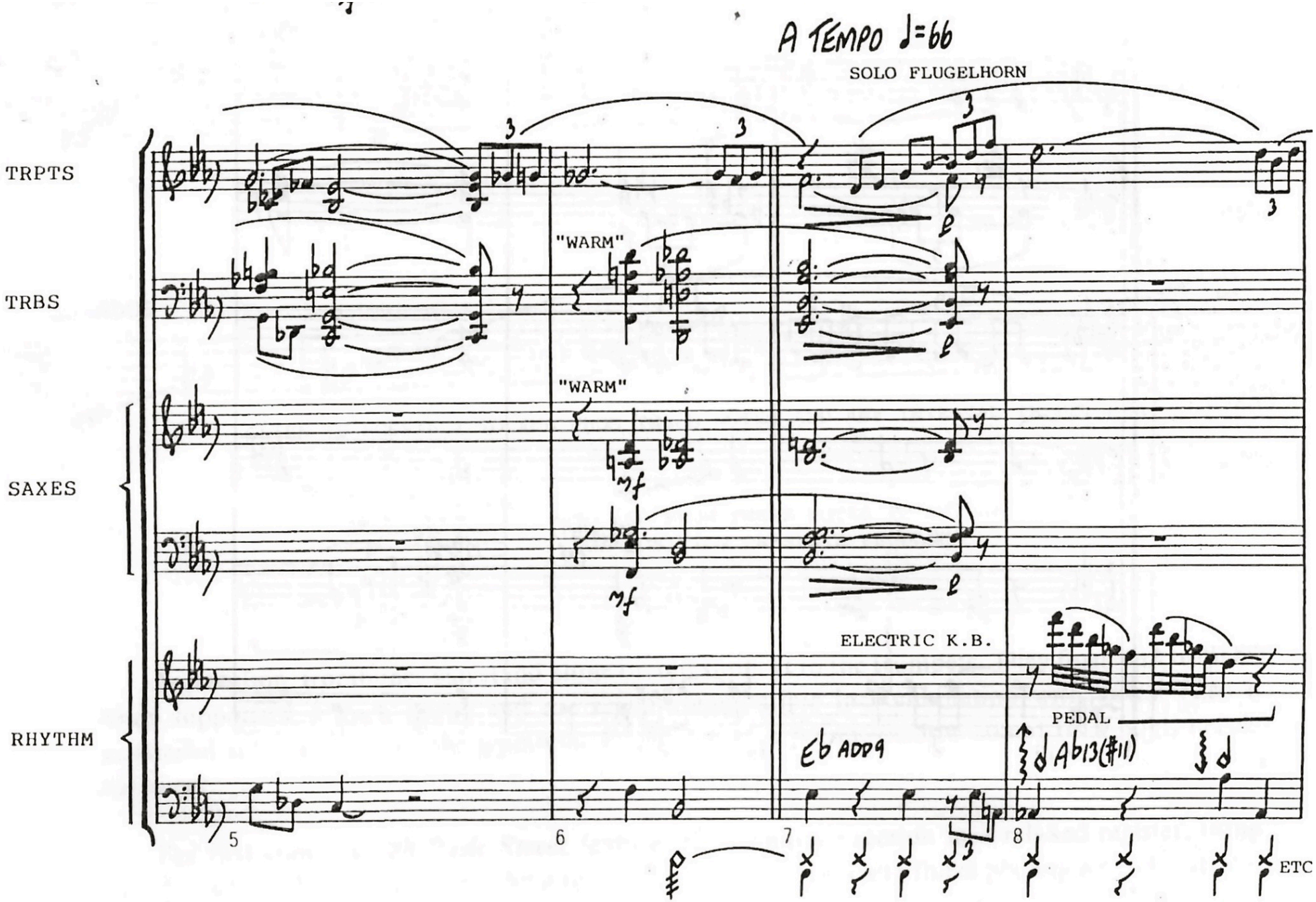
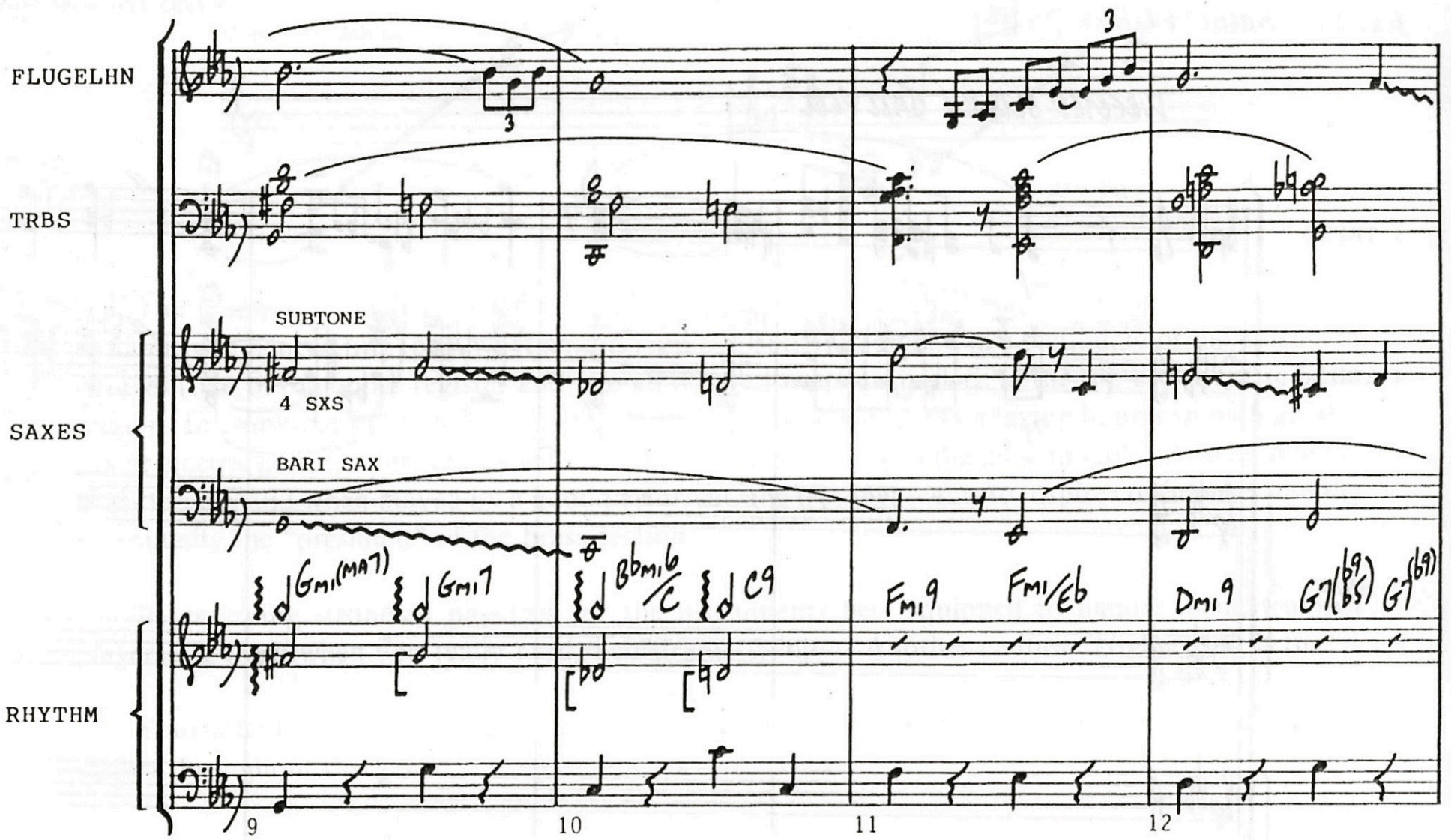
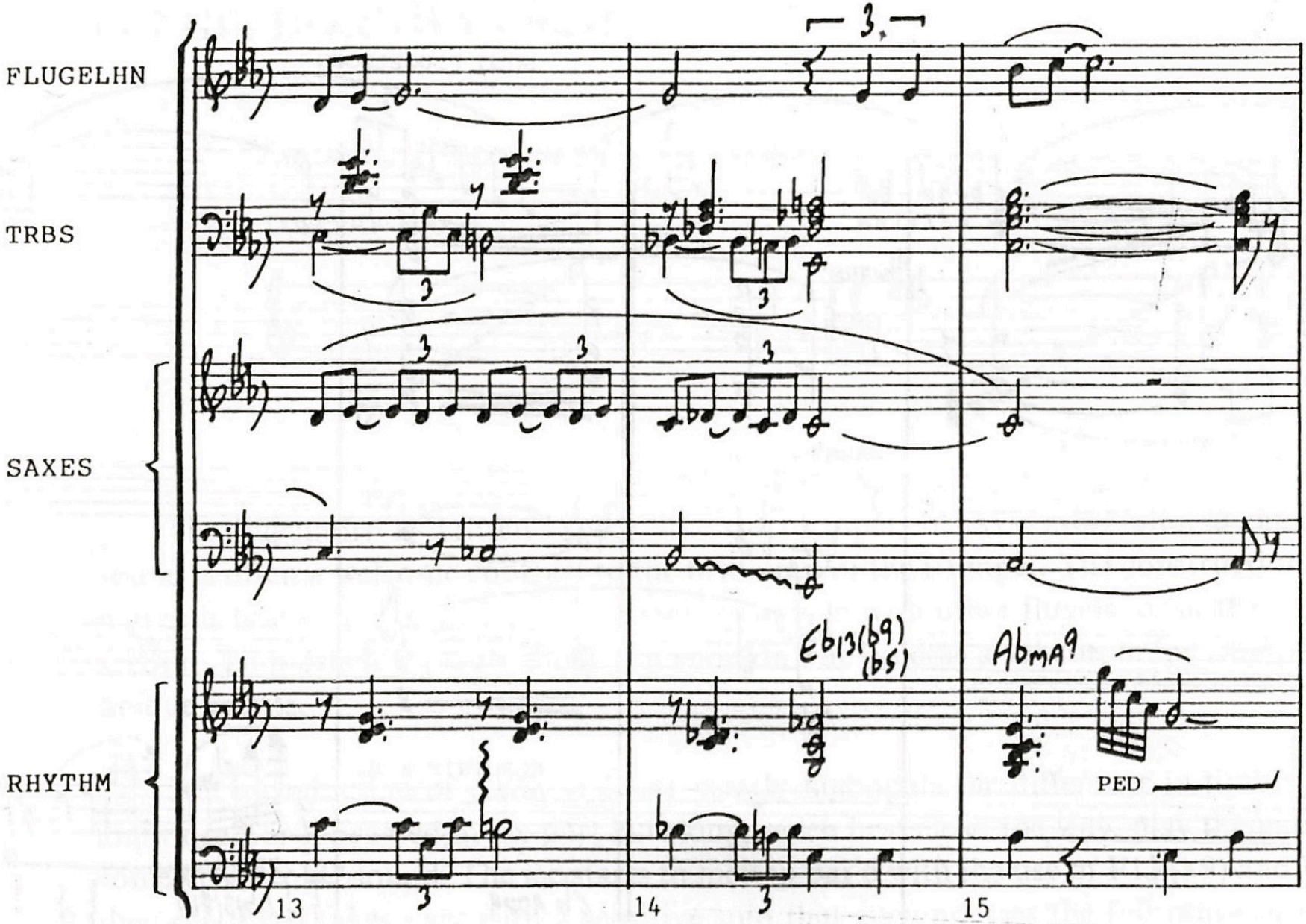



A TEMPO ♩=66
SOLO FLUGELHORN
TRPTS
TRBS
SAXES
RHYTHM
"WARM"
"WARM"
mf
mf
ELECTRIC K.B.
PEDAL
Eb ADD9
Ab13(#11)
5
6
7
8
ETC

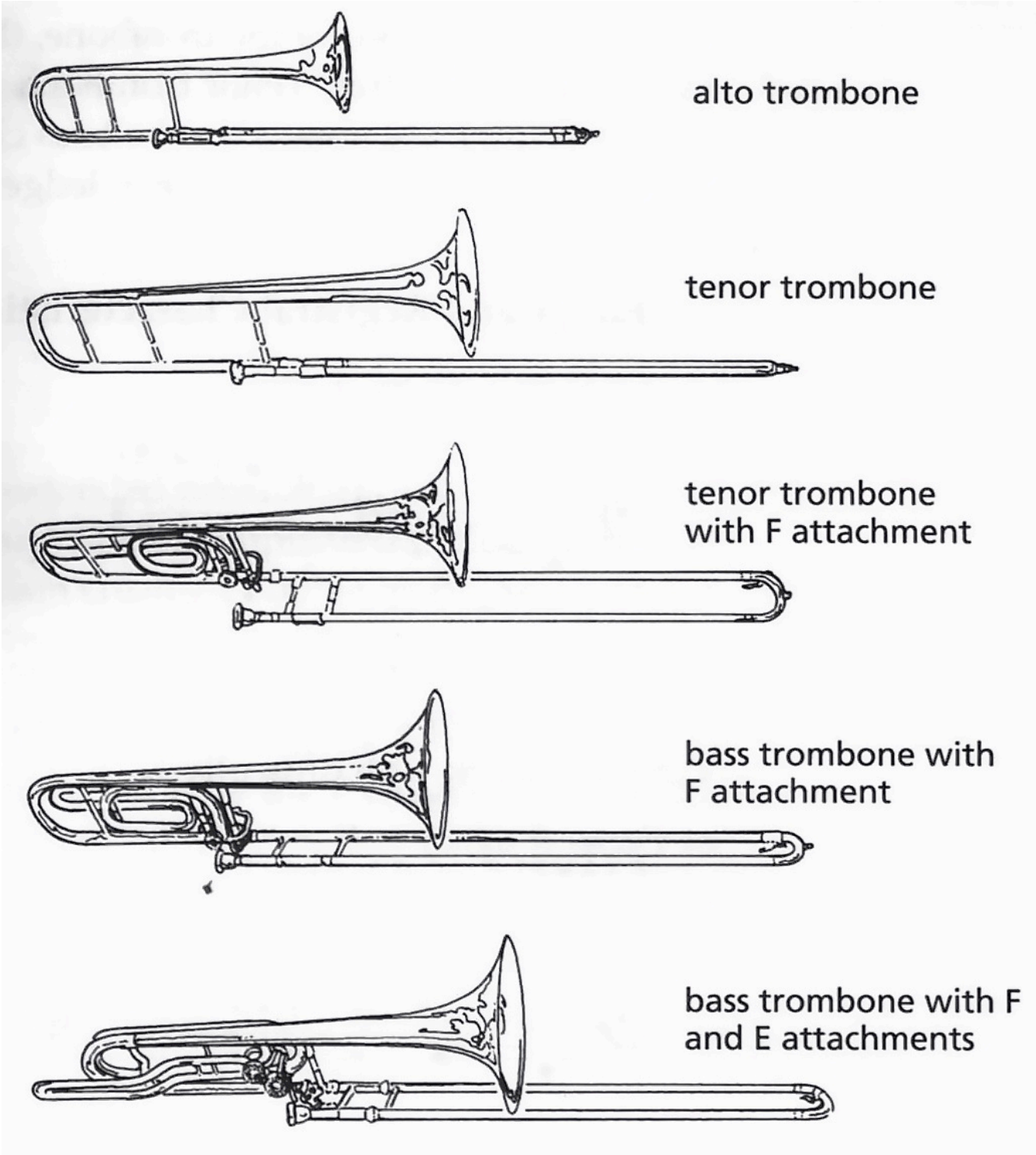
Ex. 4-3 continued

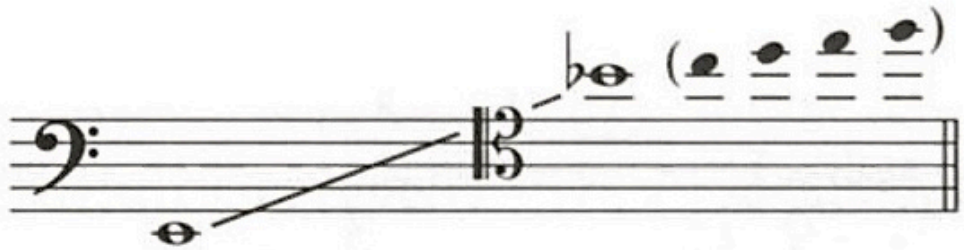


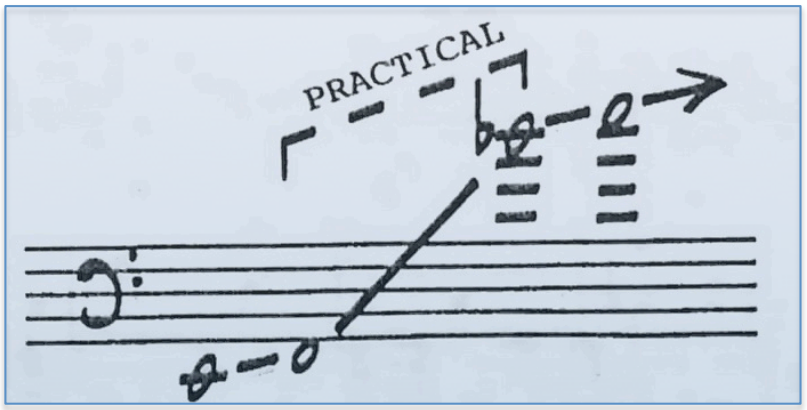

FLUGELHN
TRBS
SAXES
RHYTHM
3
Eb13(b9)
(b5)
AbmA9
PED
13
14
15

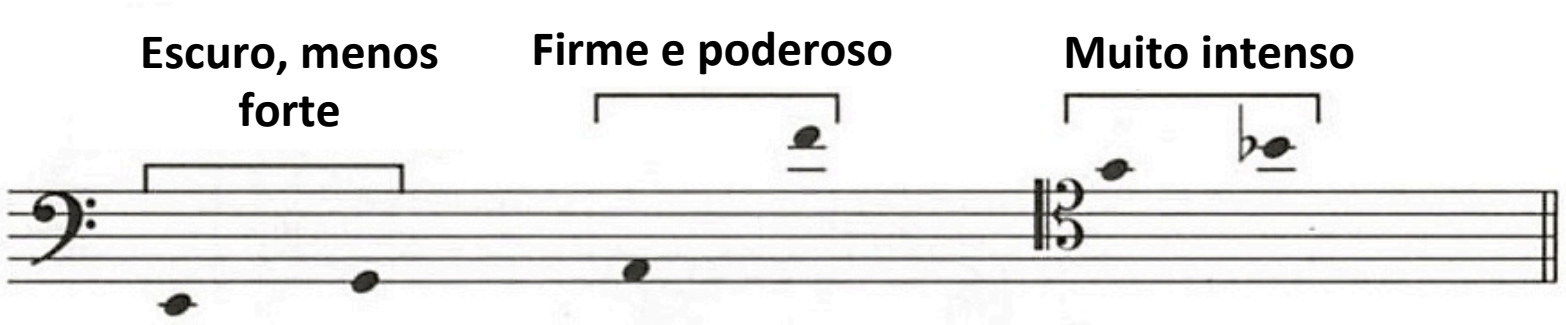
Trombone (Tenor)

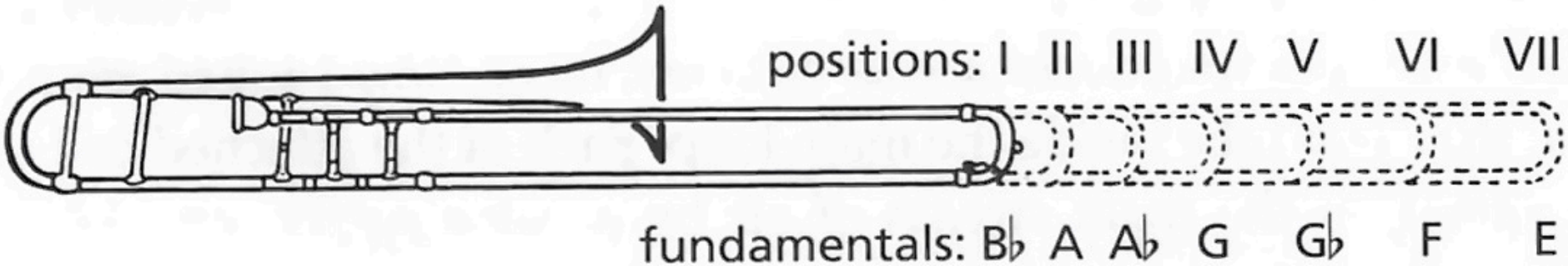
- Não transpositor;
- É notado na clave de Fá e de Dó na quarta linha;
- Possui sete posições cada uma produzindo uma série harmônica específica;
- É versátil e pode ser usados em solos, fundos harmônicos e blocos (como solista é dinâmico e efetivo em melodias leves ou sonoras – som heróico);
- Dentro de um grupo, o trombone pode funcionar sozinho ou como suporte aos trompetes, trompas e saxofones (pad);


alto trombone
tenor trombone
tenor trombone
with F attachment
bass trombone with
F attachment
bass trombone with F
and E attachments

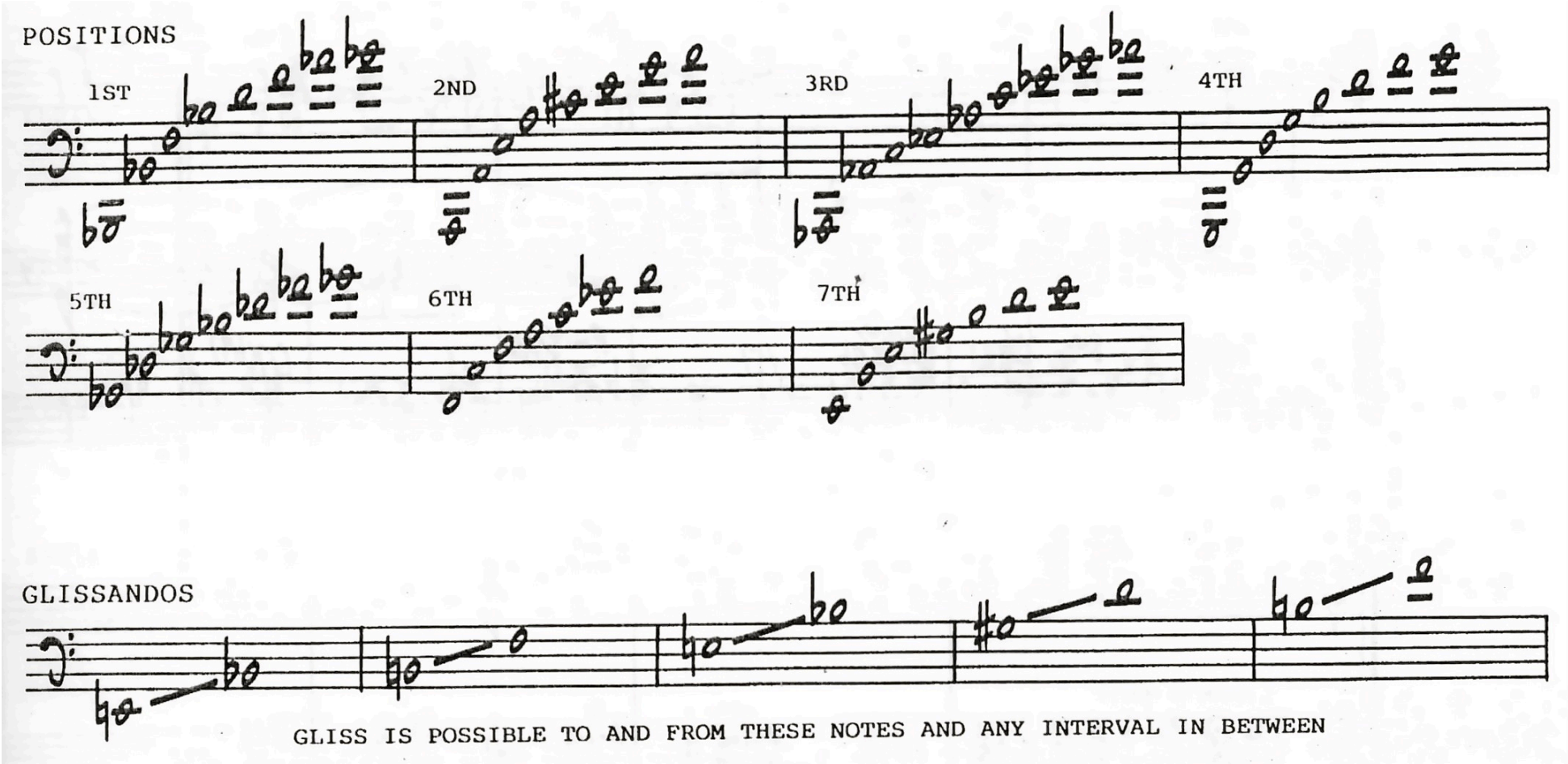



PRACTICAL

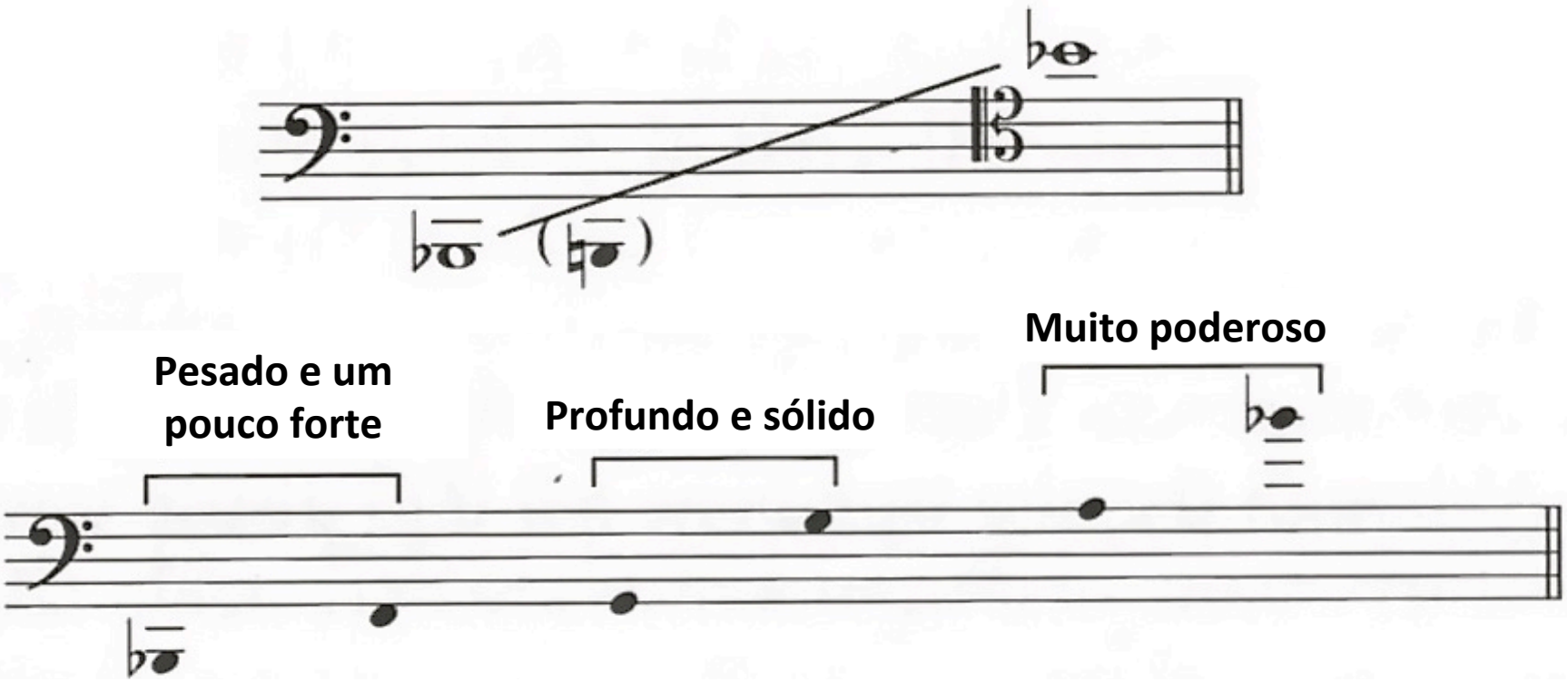

Escuro, menos forte
Firme e poderoso
Muito intenso



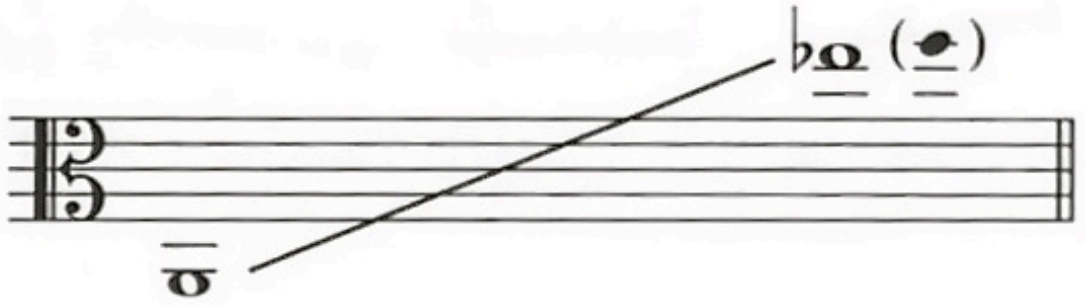
POSITIONS OF THE TROMBONE SLIDE


POSITIONS
1ST
2ND
3RD
4TH
5TH
6TH
7TH
GLISSANDOS
GLISS IS POSSIBLE TO AND FROM THESE NOTES AND ANY INTERVAL IN BETWEEN

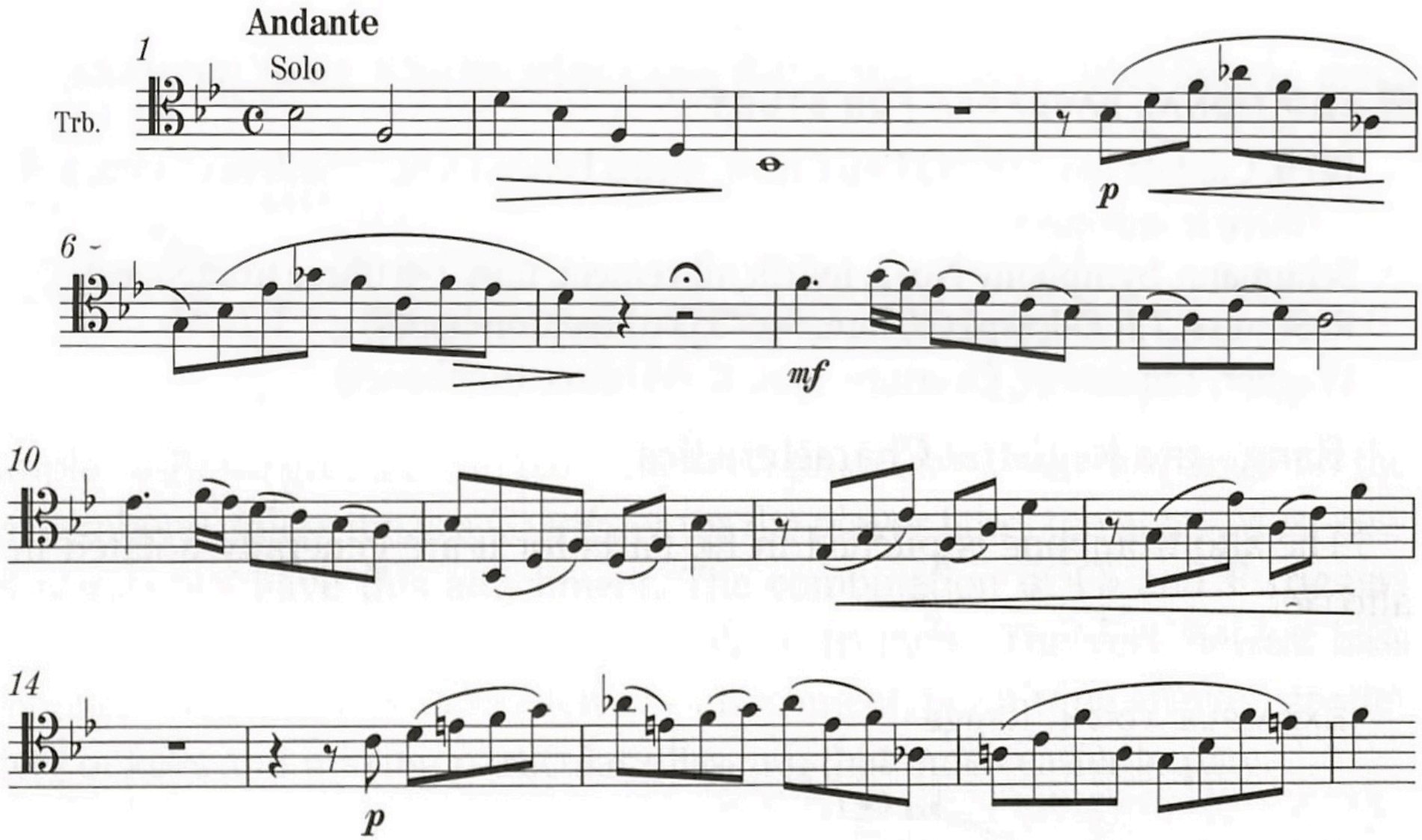
Trombone Baixo



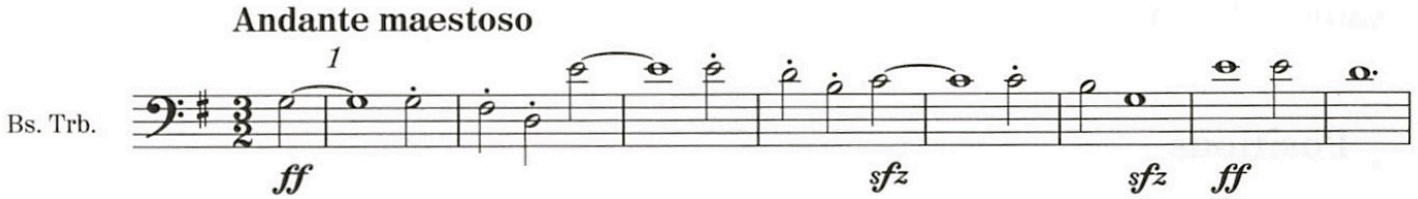
Trombone Alto



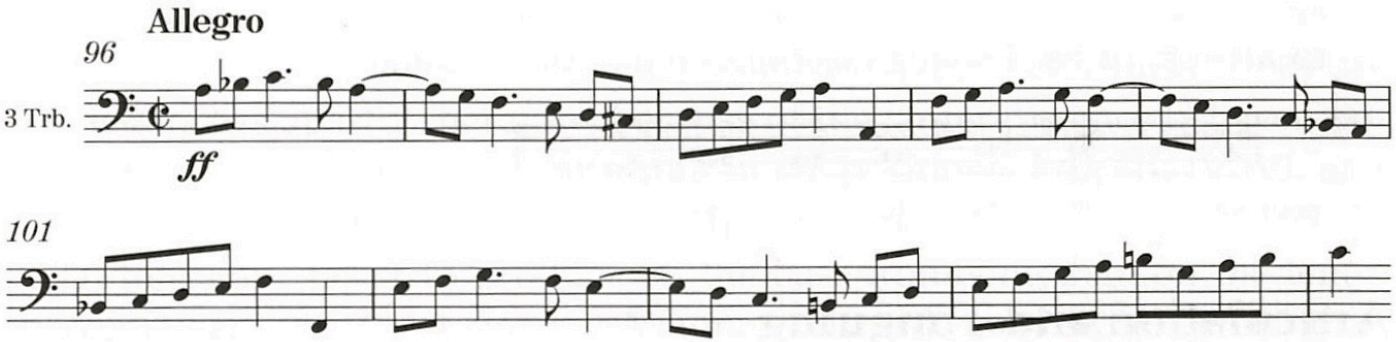
EXAMPLE 10-76. Mozart, Requiem, "Tuba mirum," mm. 1–18



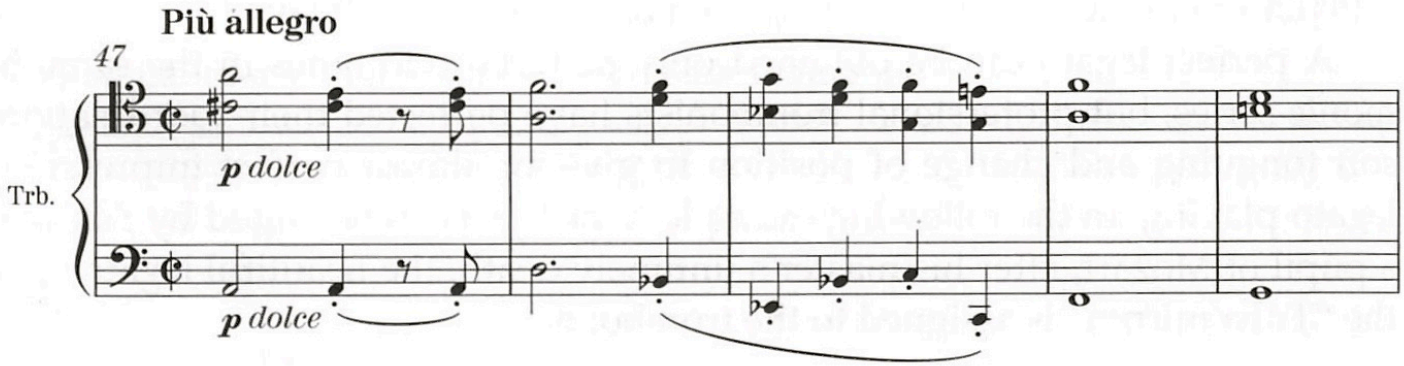
EXAMPLE 10-77. Beethoven, Symphony No. 9, fourth movement, "Seid umschlungen," mm. 1–8 (one trombone)



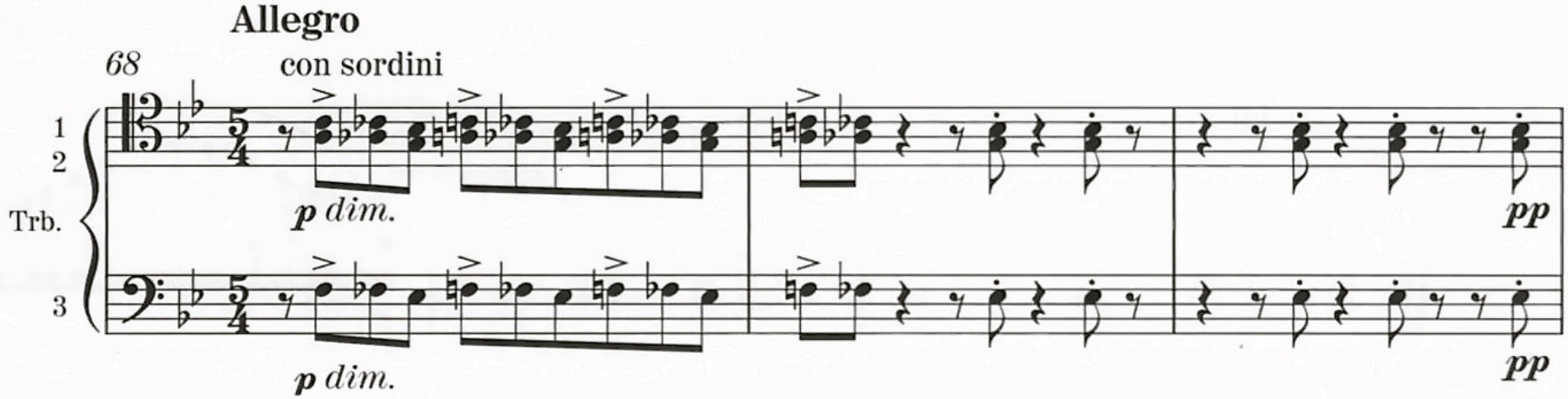
EXAMPLE 10-78. Berlioz, *Rákóczy March*, mm. 96–105 (three trombones)



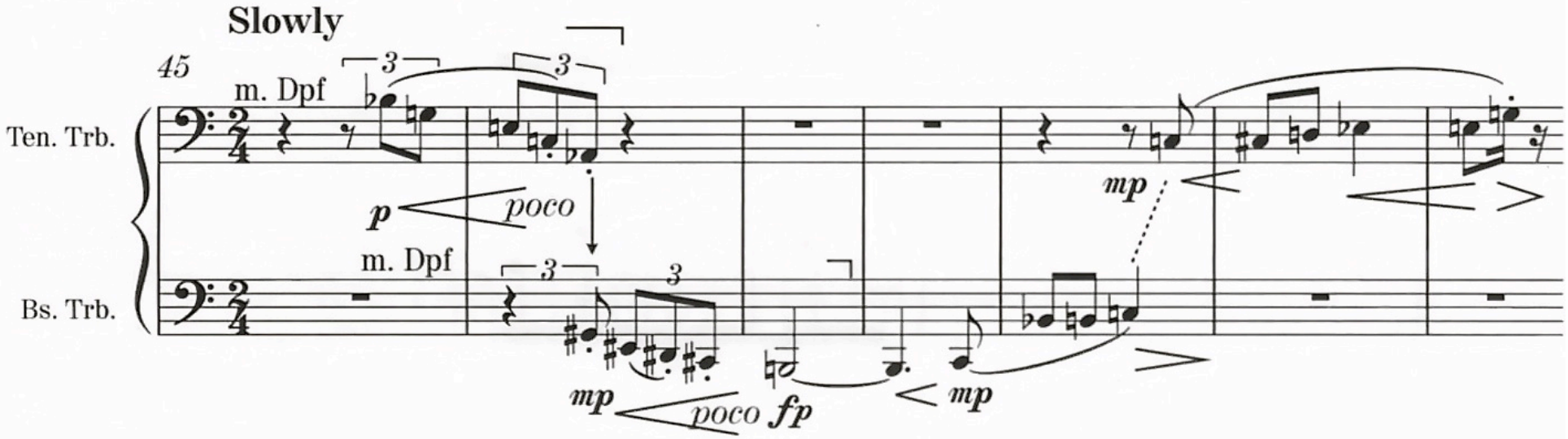
EXAMPLE 10-79. Brahms, Symphony No. 1, fourth movement, mm. 47–51 (three trombones)



EXAMPLE 10-80. Sessions, Symphony No. 2, fourth movement, mm. 68–70

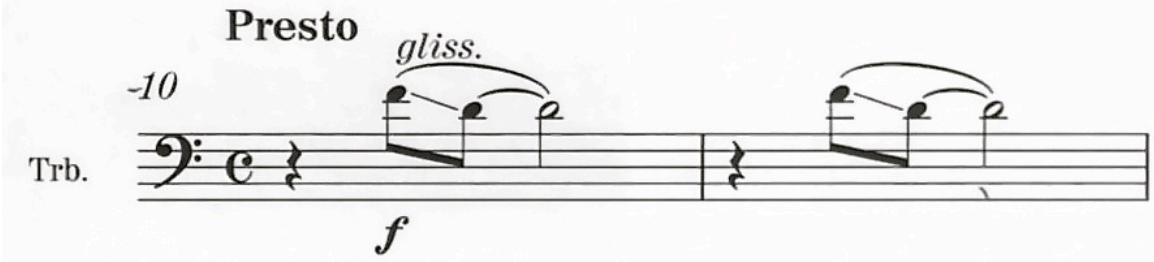


EXAMPLE 10-81. Berg, Violin Concerto, first movement, mm. 45–51

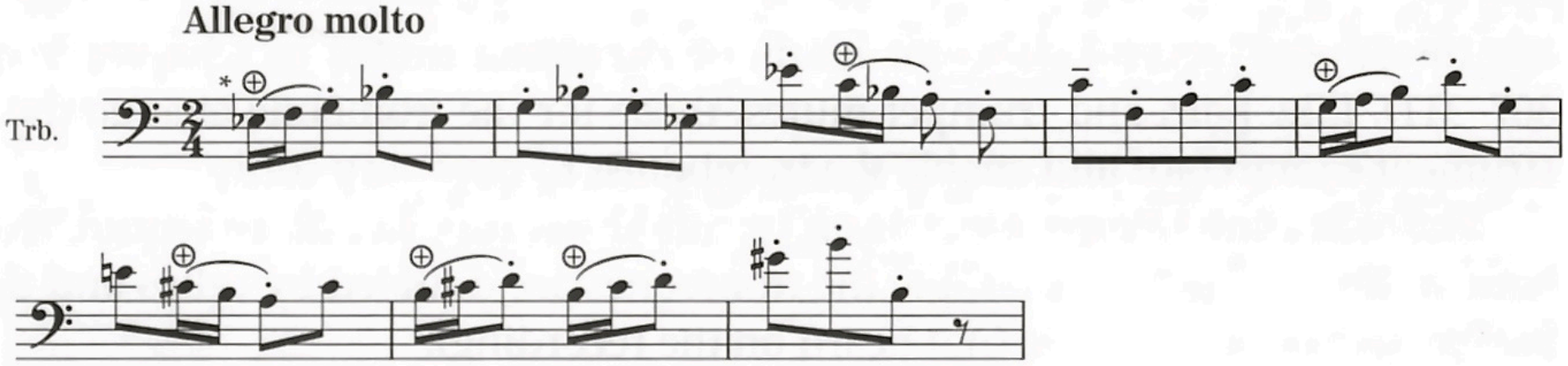


Surdina

EXAMPLE 10-82. Khachaturian, *Gayne* Ballet, Suite No. 1, "Sabre Dance," mm. 10–11



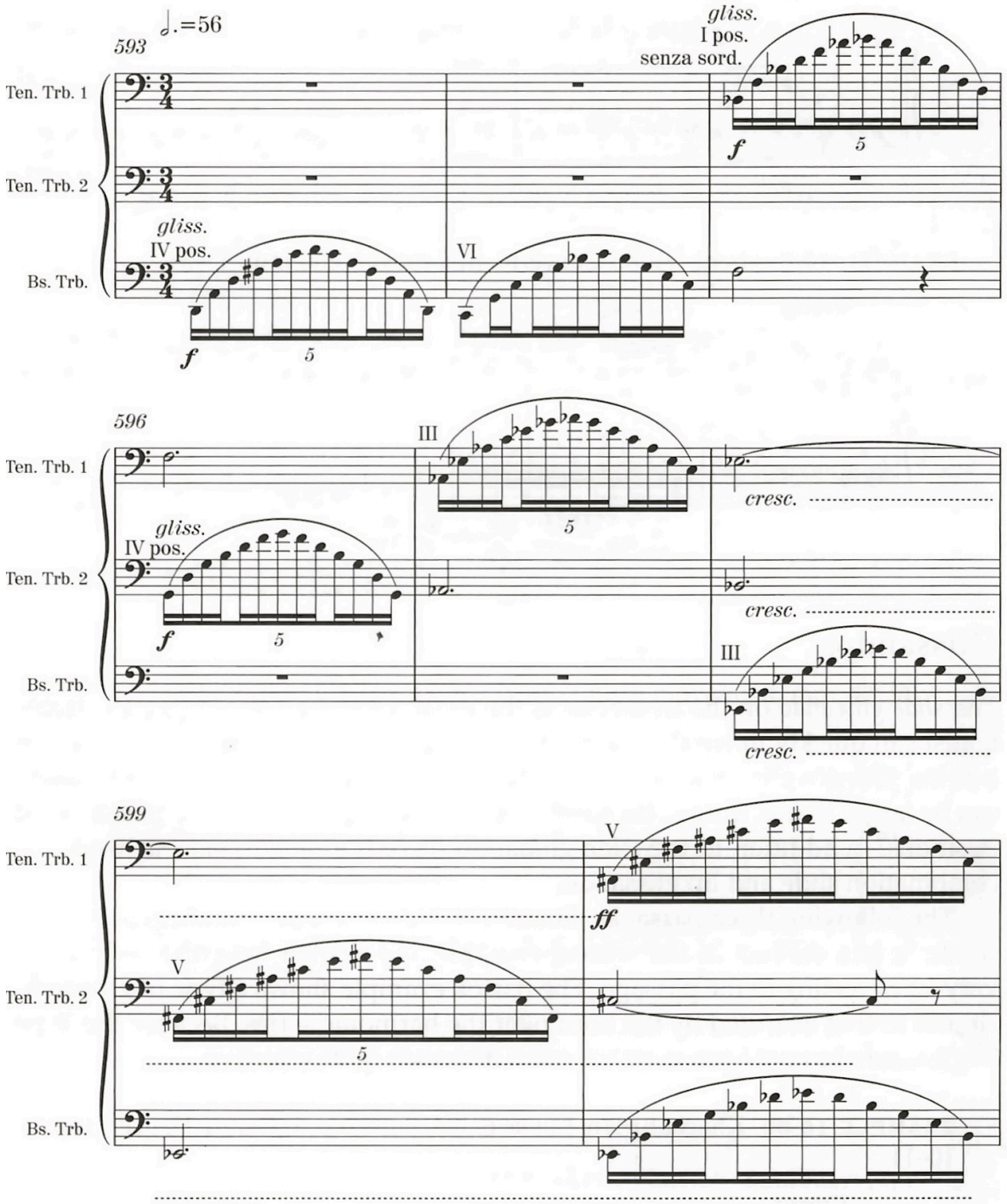
EXAMPLE 10-83. Britten, *The Young Person's Guide to the Orchestra*, Fugue, at L



* ⊕ means to be played quasi glissando

Glissando

EXAMPLE 10-84. Bartók, Violin Concerto No. 2, third movement, mm. 593–600



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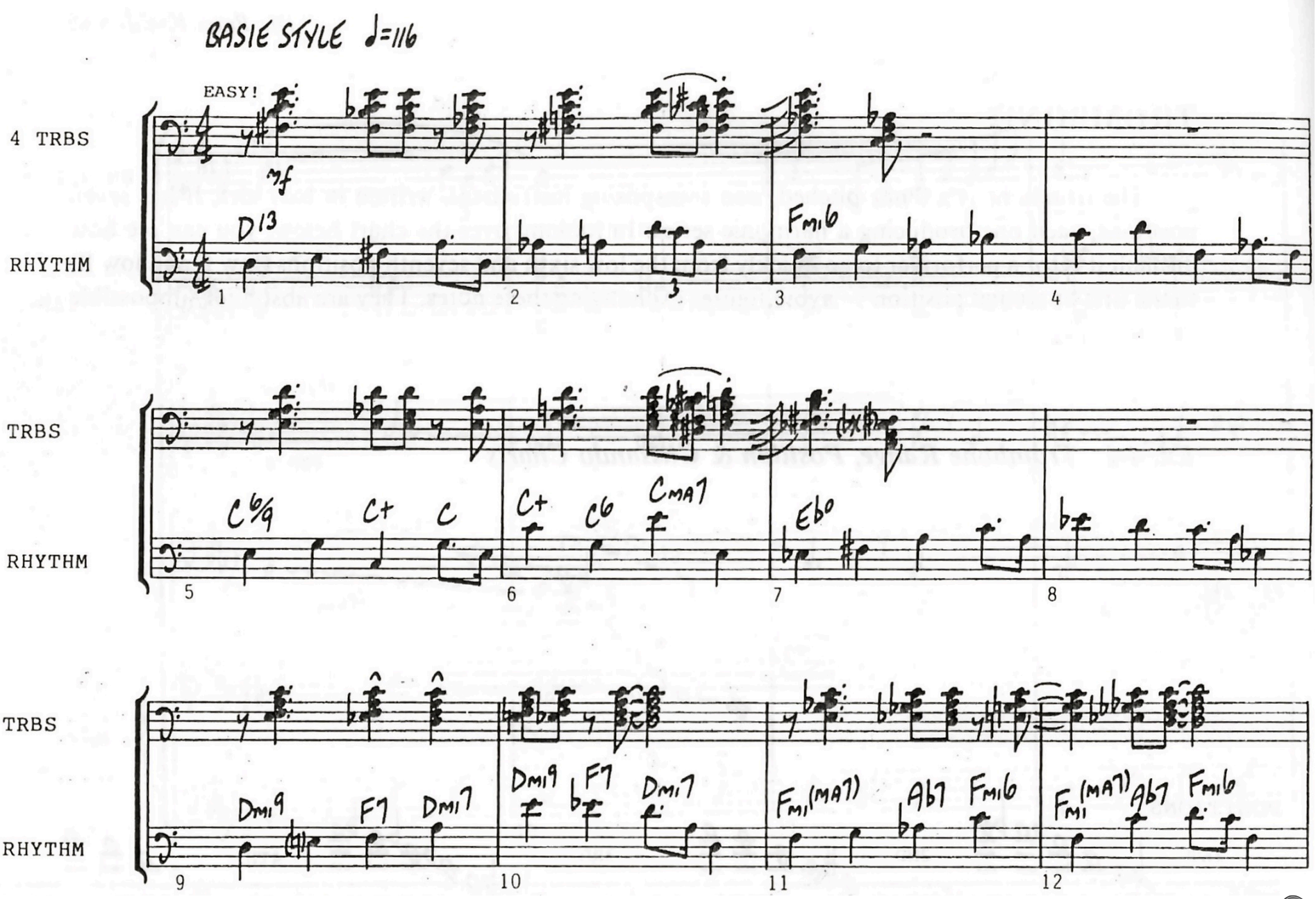
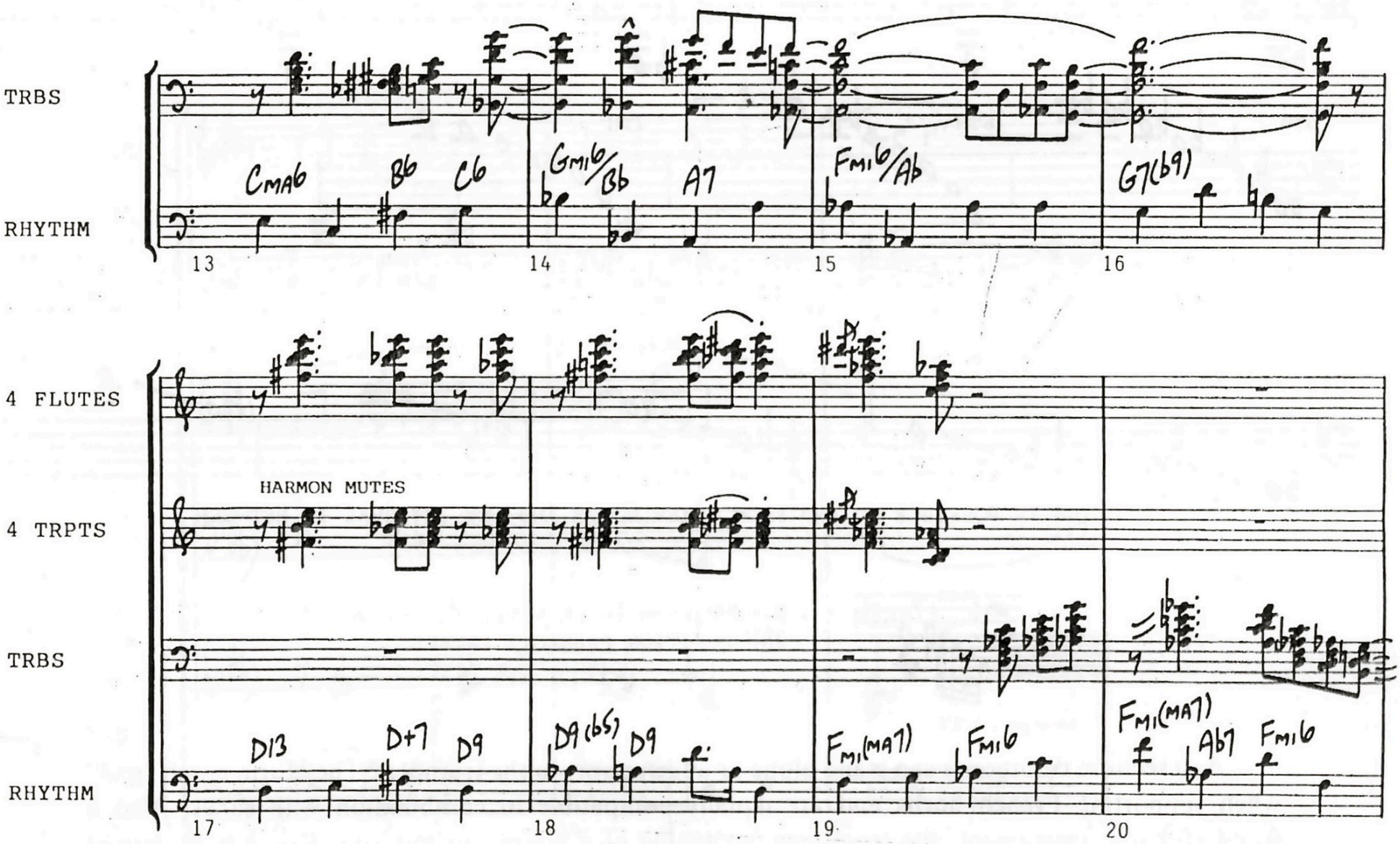
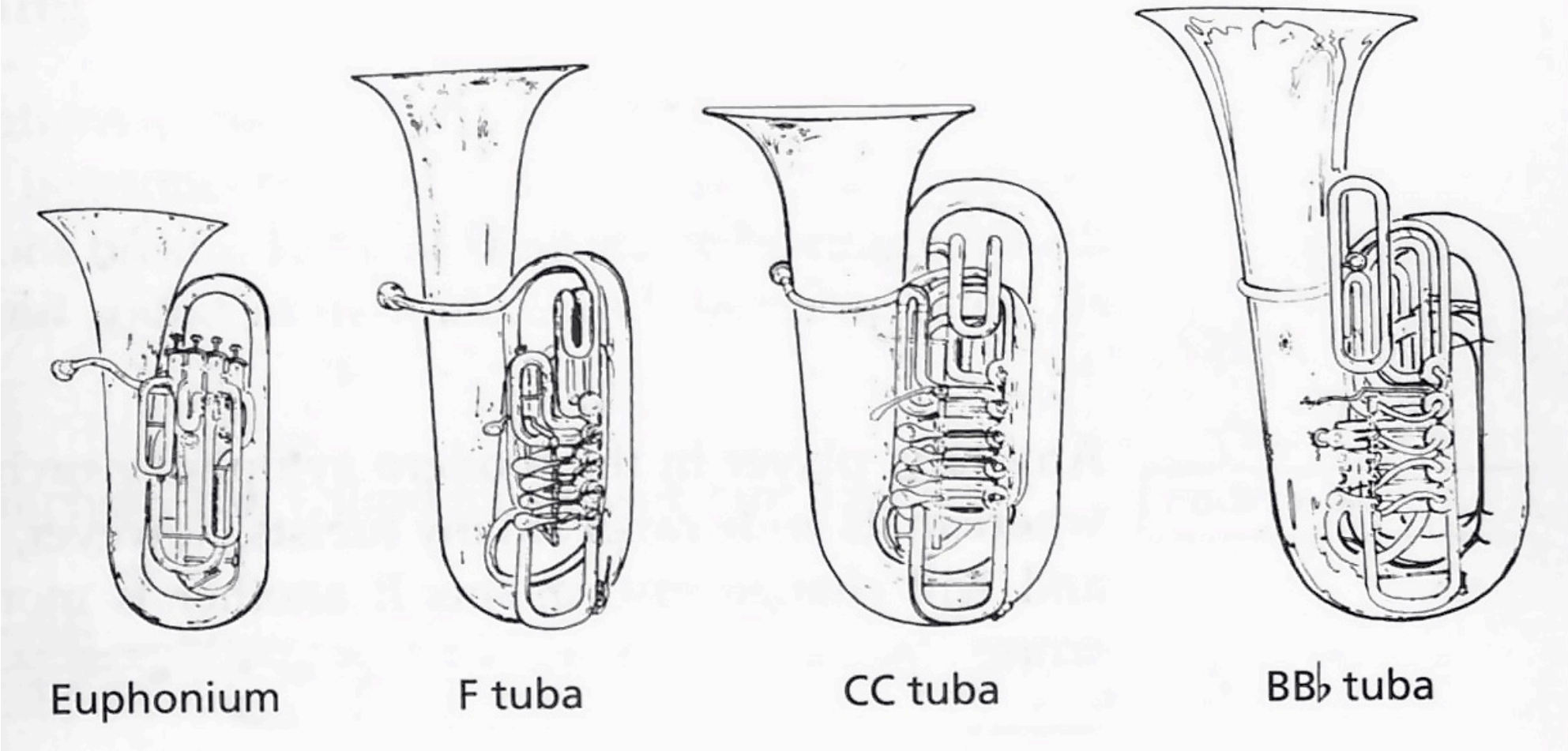
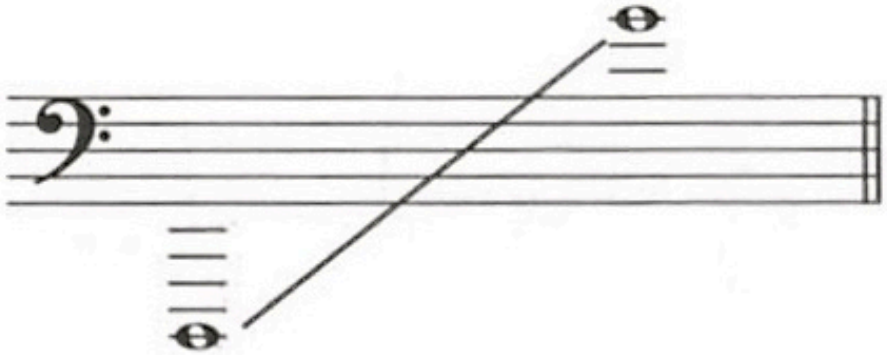


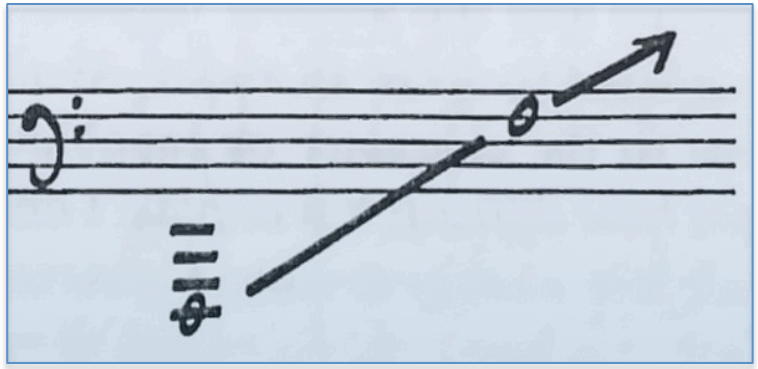

TRBS
RHYTHM
CMA6
B6
C6
GMI6/Bb
A7
FMI6/Ab
G7(b9)
13
14
15
16
4 FLUTES
4 TRPTS
HARMON MUTES
TRBS
RHYTHM
D13
D+7
D9
D9(b5)
D9
FMI(MA7)
FMI6
FMI(MA7)
Ab7
FMI6
17
18
19
20

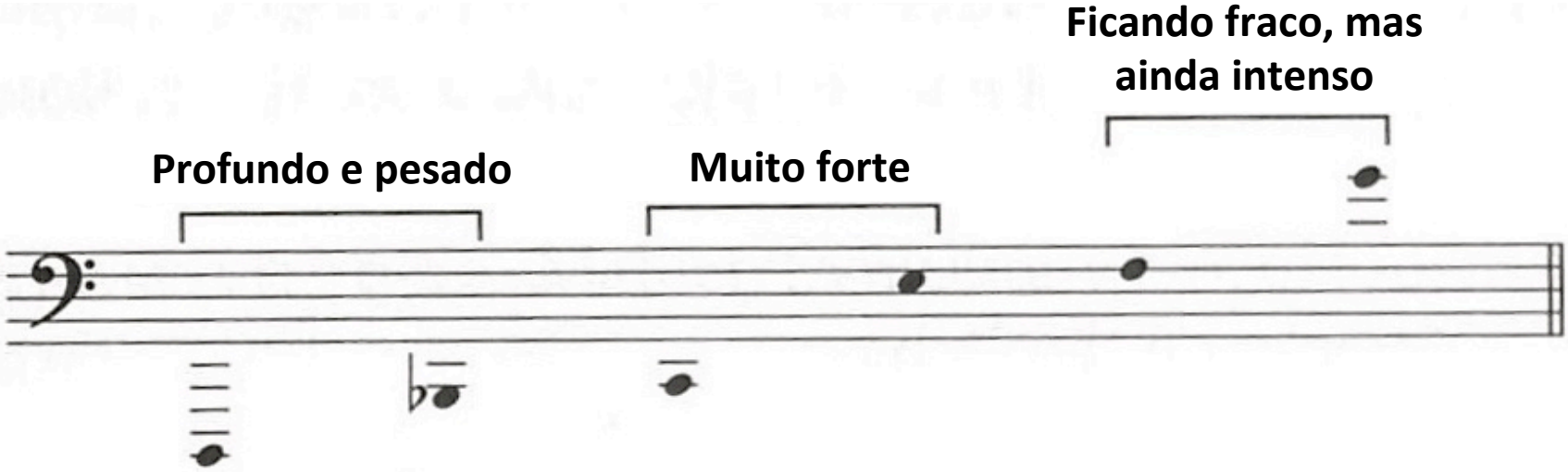
Tuba

- Não transpositor;
- É o mais grave instrumentos entre os metais e é notado na clave de Fá;
- O registro médio é mais ágil e o grave mais fraco;
- Pode funcionar efetivamente entre as dinâmicas ***ff*** e ***pp***;
- Pode ser utilizado como solo ou em combinação com outros instrumentos (funciona bem com um naipe de trombones, grupo de trompetes ou trompas);

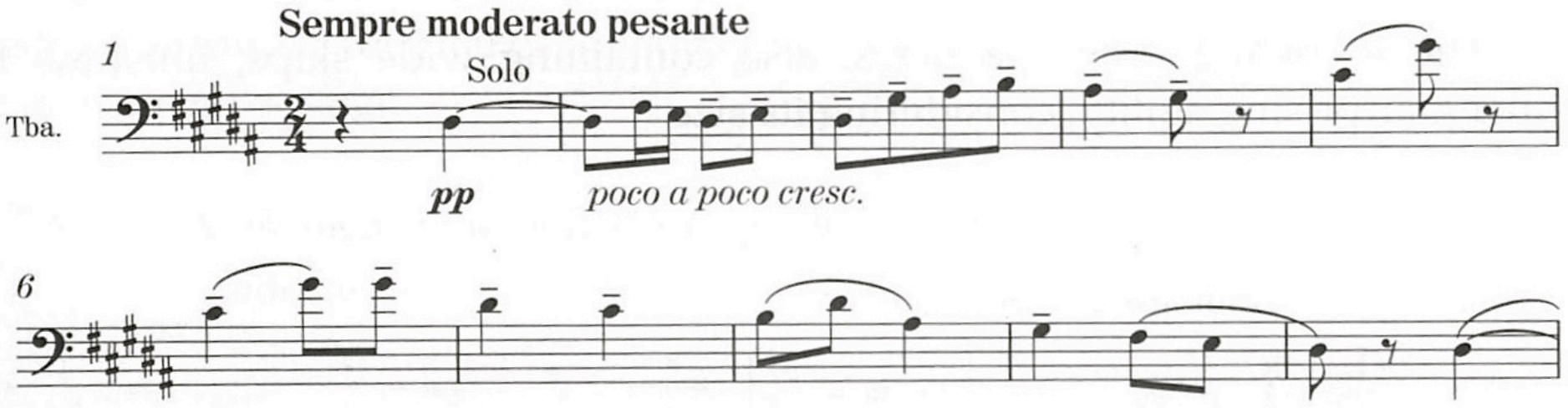

Euphonium
F tuba
CC tuba
BB♭ tuba



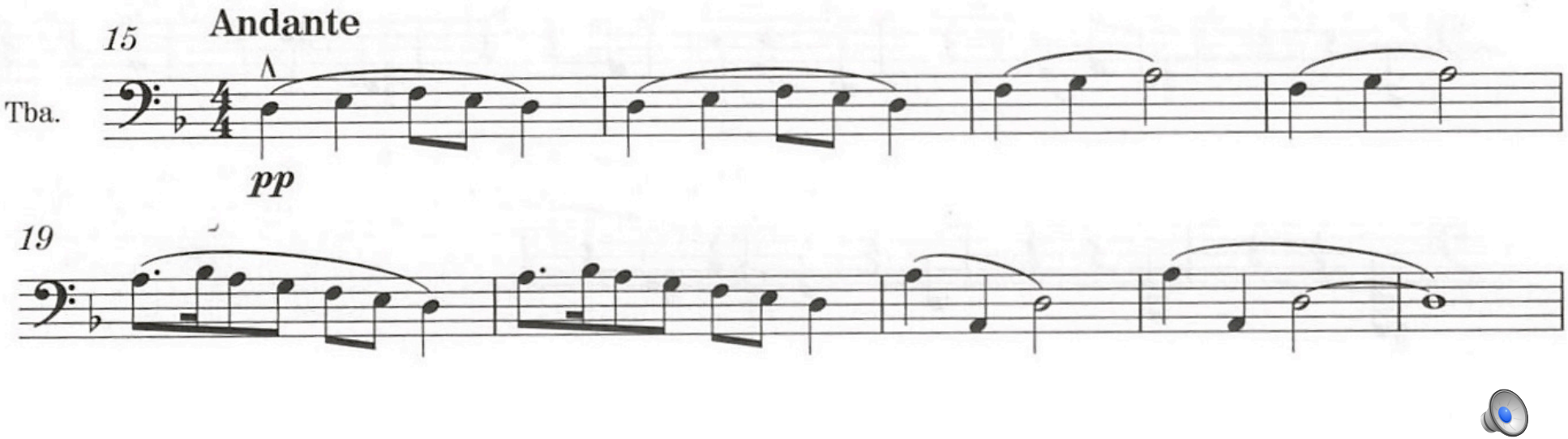



Profundo e pesado
Muito forte
Ficando fraco, mas ainda intenso

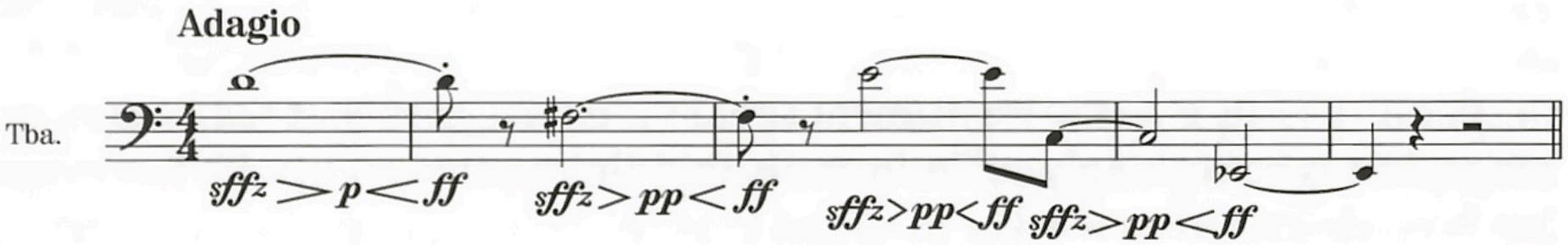
EXAMPLE 10-87. Musorgsky-Ravel, *Pictures at an Exhibition*, "Bydlo," mm. 1–10



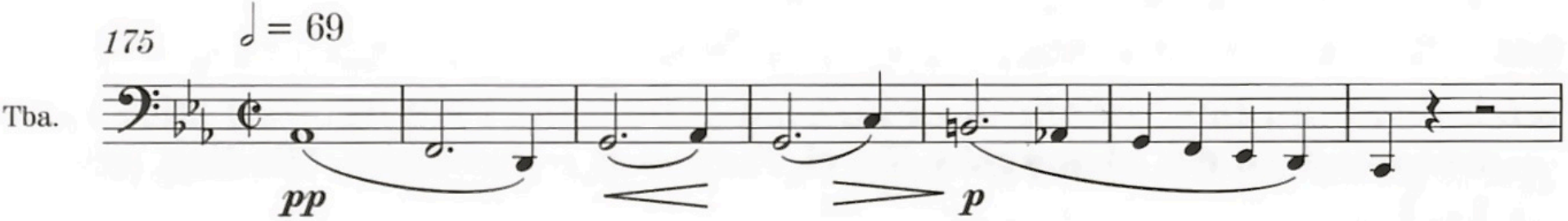
EXAMPLE 10-88. Mahler, Symphony No. 1, third movement, mm. 15–23



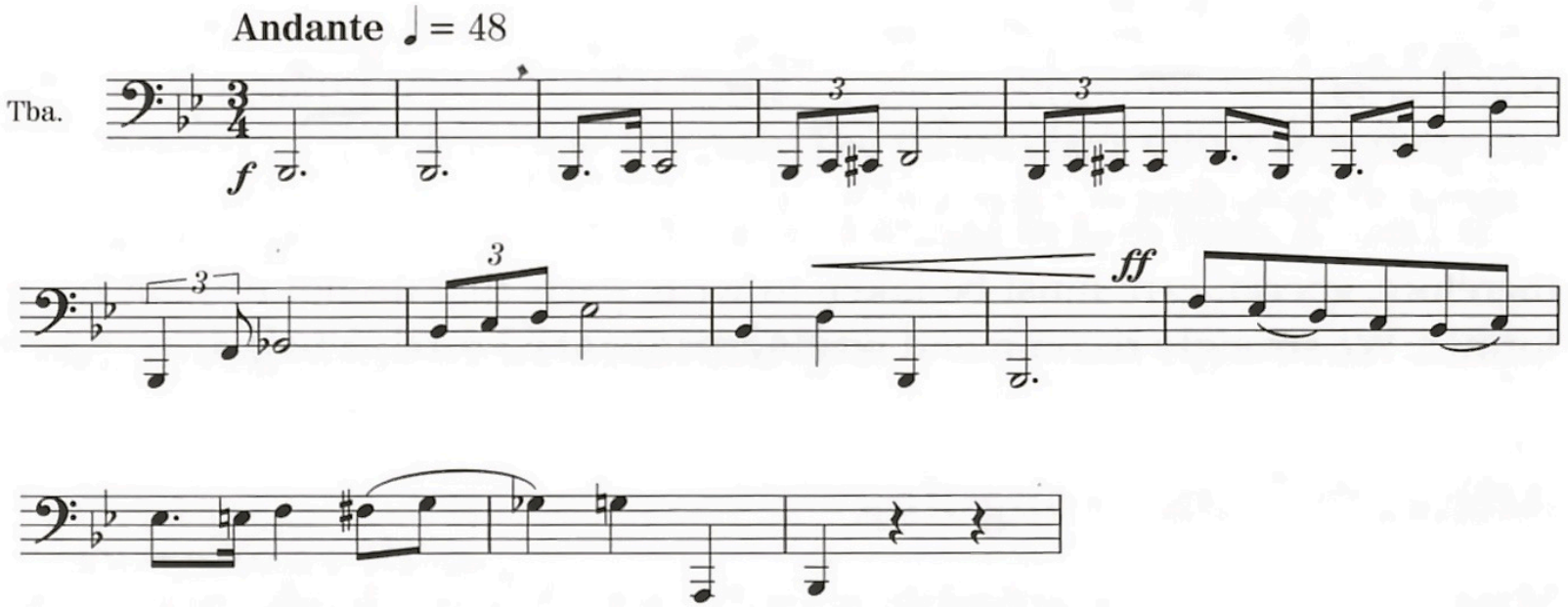
EXAMPLE 10-89. Powerful Attacks on the Tuba



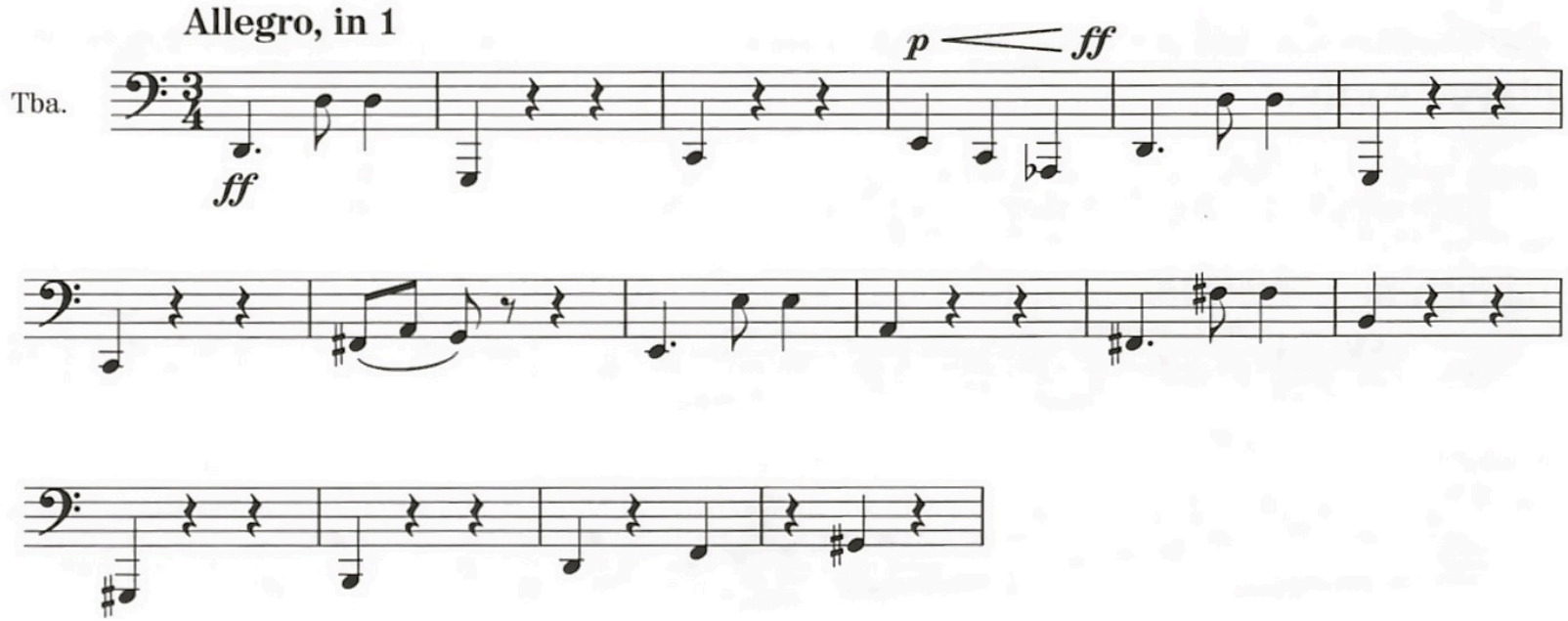
EXAMPLE 10-90. Wagner, *Der fliegende Holländer*, Act I, "Die Frist ist um," mm. 175–181



EXAMPLE 10-91. Prokofiev, Symphony No. 5, first movement, at 23



EXAMPLE 10-92. Ravel, *La Valse*, 5 mm. after 63



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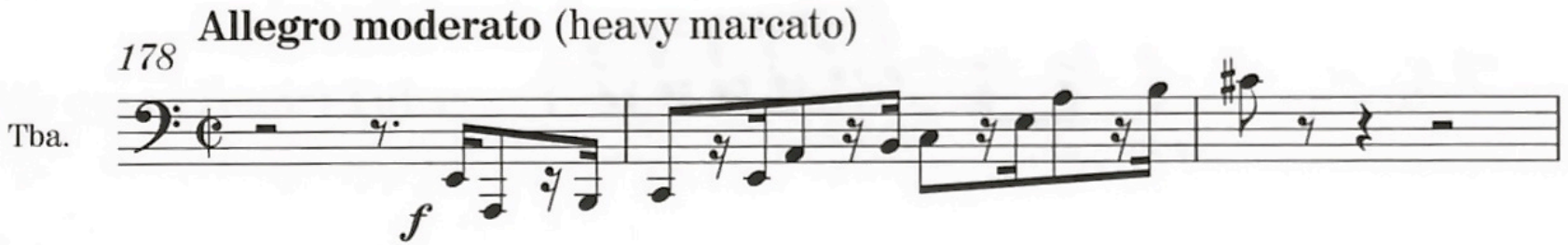
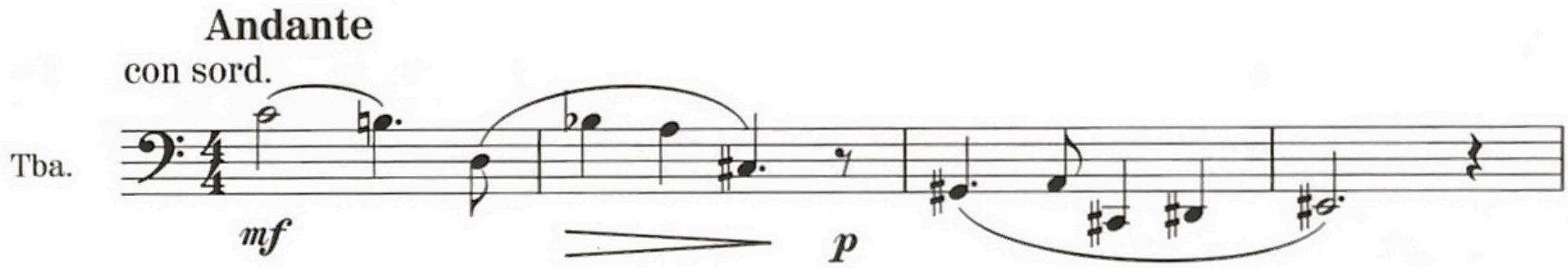
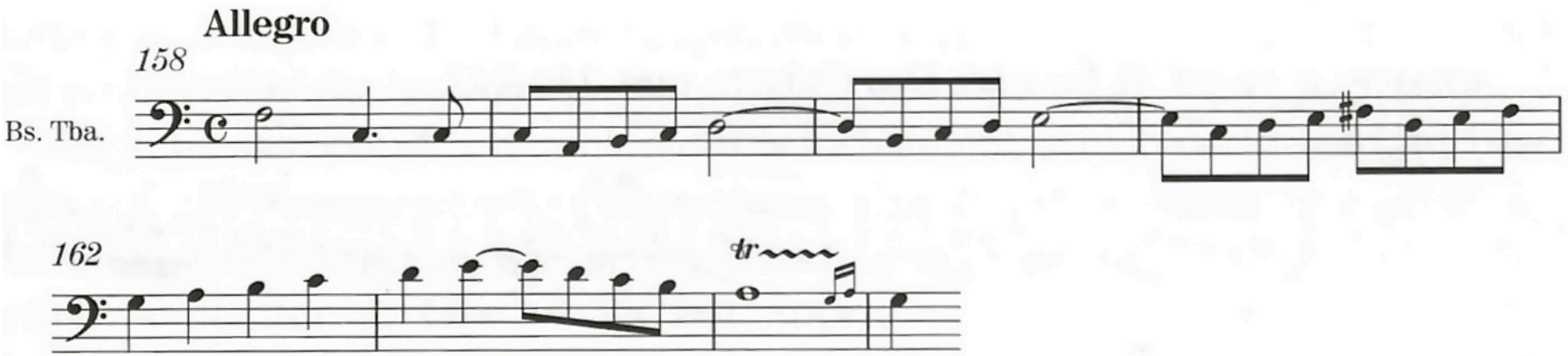
EXAMPLE 10-93. Mahler, Symphony No. 6, fourth movement, mm. 178–180 (tuba only)



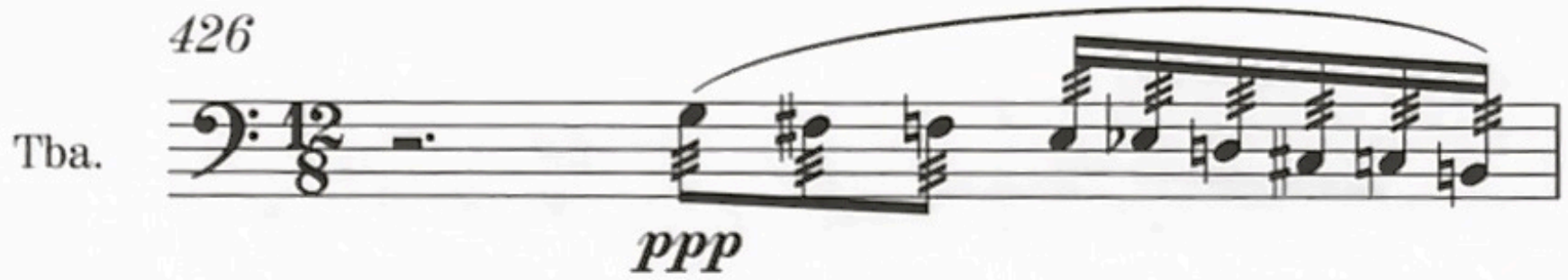
EXAMPLE 10-94. Muted Tuba



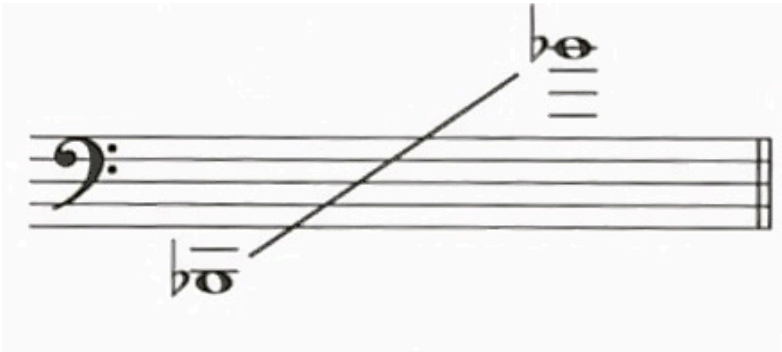
EXAMPLE 10-95. Wagner, *Die Meistersinger*, Prelude, mm. 158–165

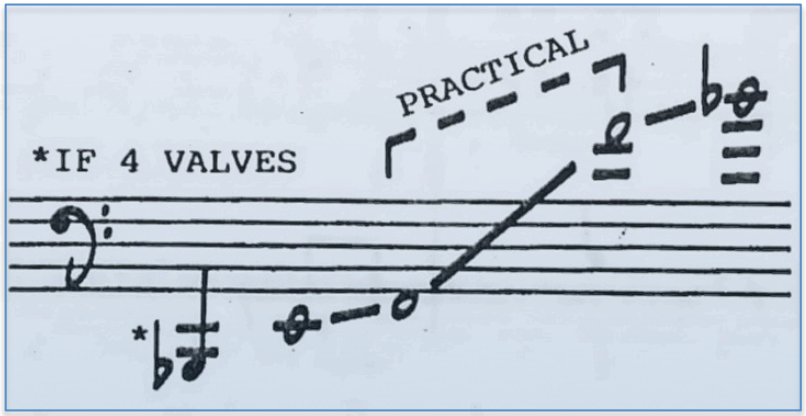


EXAMPLE 10-96. Schoenberg, *Erwartung*, m. 426

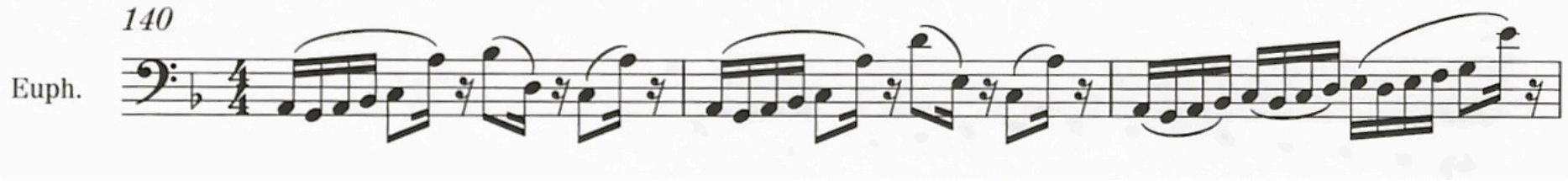


Eufônio (Euphonium)

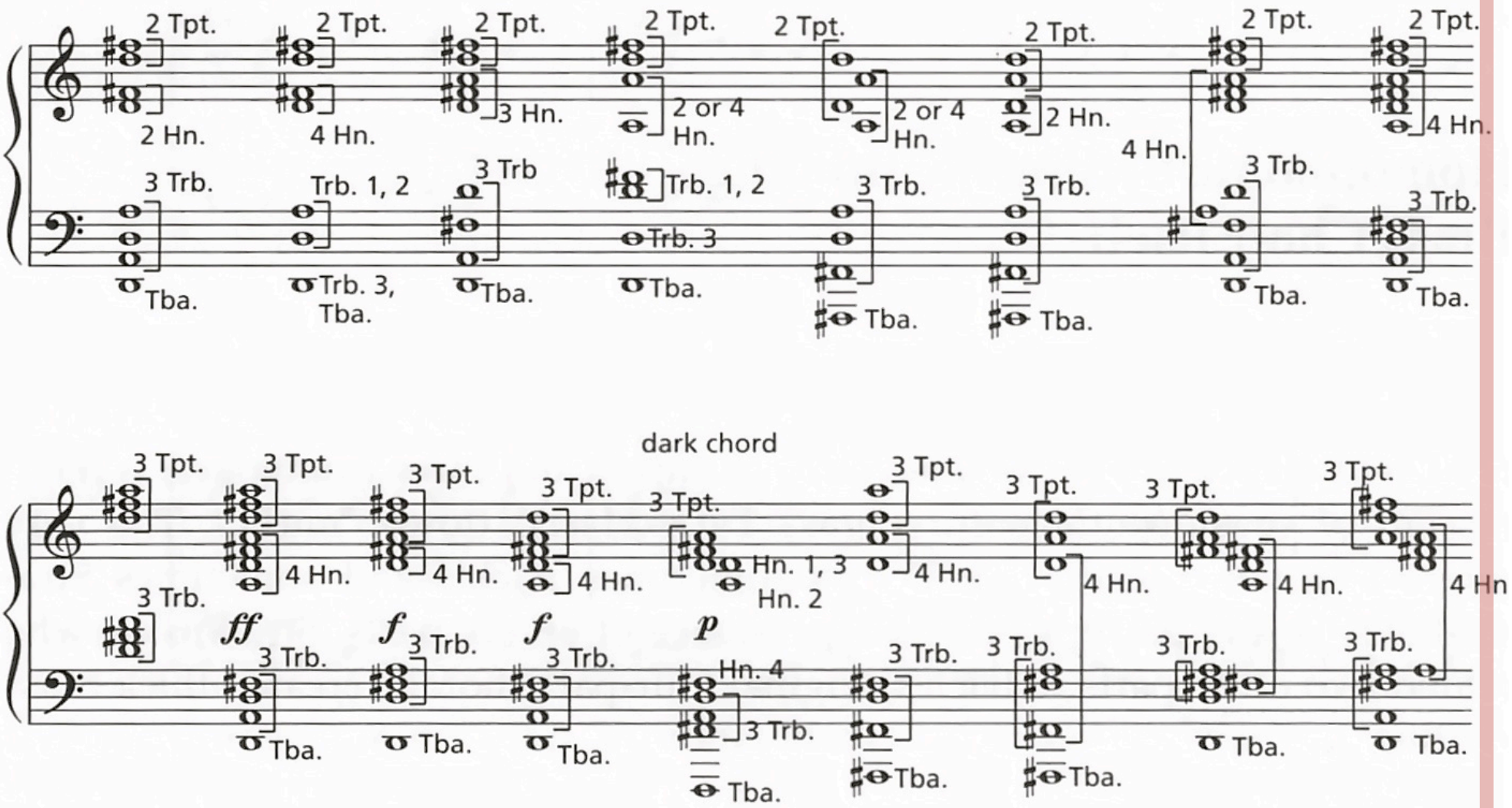




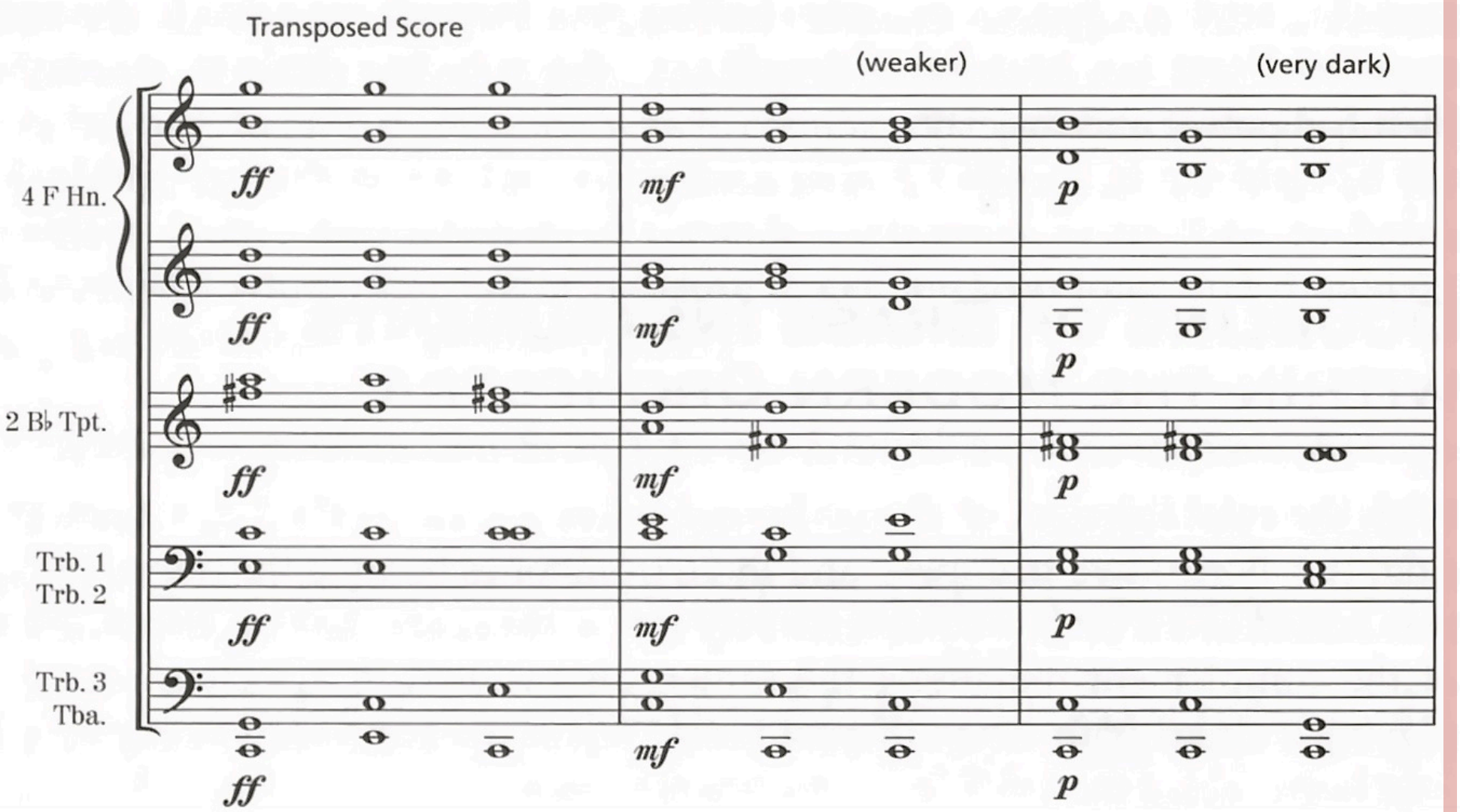
EXAMPLE 10-98. R. Strauss, *Don Quixote*, mm. 140–142



EXAMPLE 11-4. Usual Doublings of the Brass Choir within the Modern Orchestra



EXAMPLE 11-5. How Dynamic Levels Affect Doubling and Spacing



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