INSTRUMENTAÇÃO: MADEIRAS

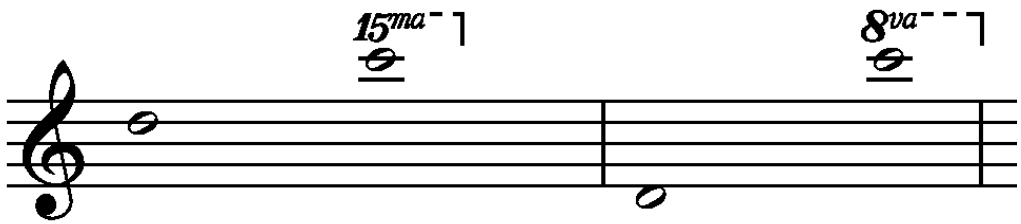
MARCOS FILHO

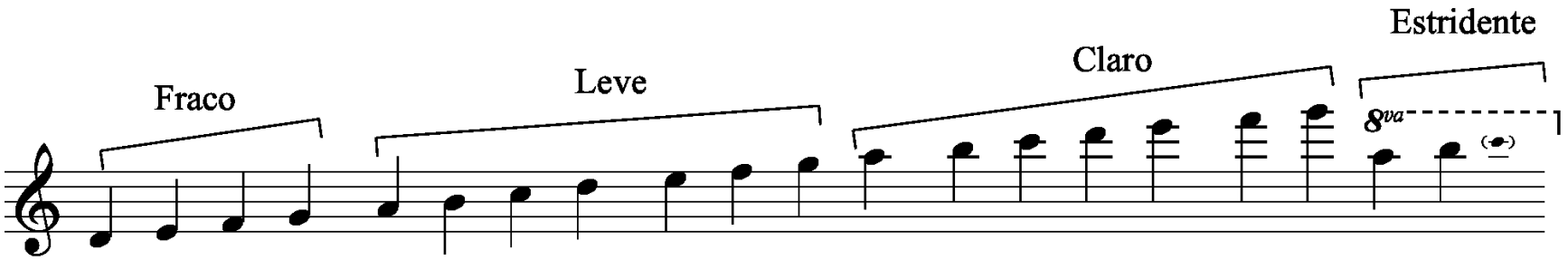
Universidade Federal de São João del-Rei
Departamento de Música

Piccolo (Flautim)

- Transpositor de oitava;
- Tem som penetrante e pode ser ouvido perfeitamente dentro de um tutti;
- Usado em escalas rápidas, trinados e para aumentar o brilho no registro agudo das madeiras;
- Usado em passagens percussivas, sobretudo com metais ou dobrado com xilofone;
- É o instrumento mais ágil na orquestra ou banda.

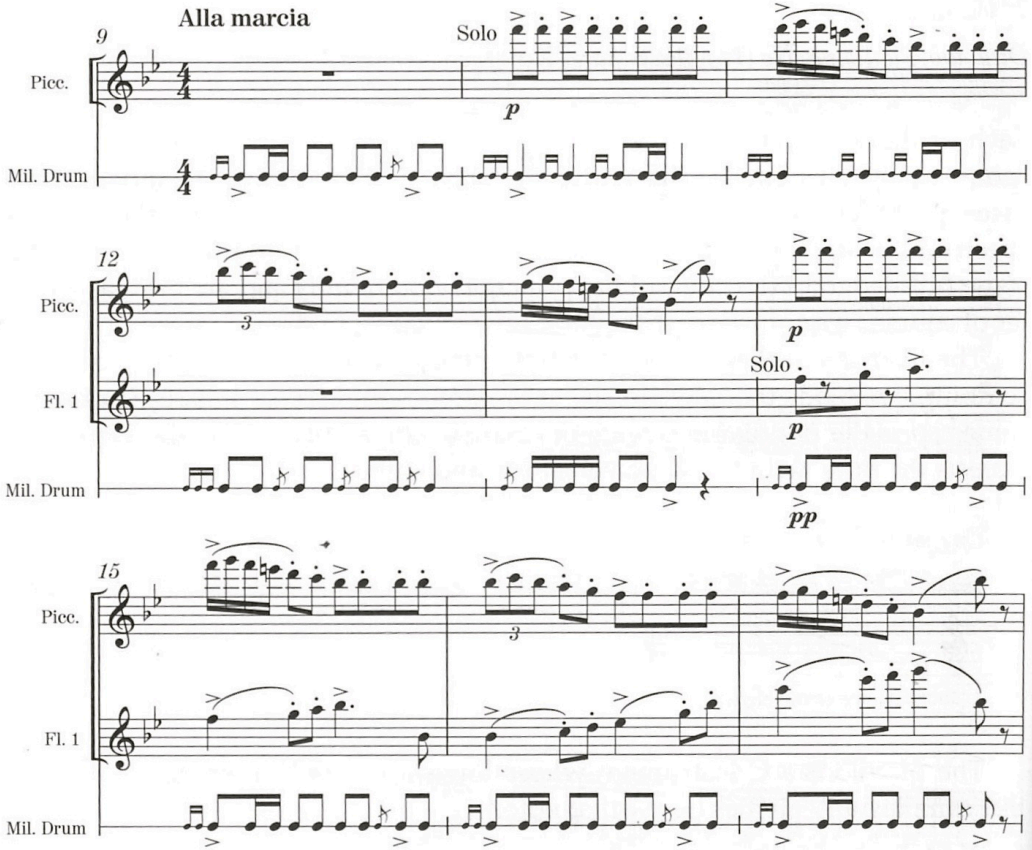
SOM: ESCRITA:



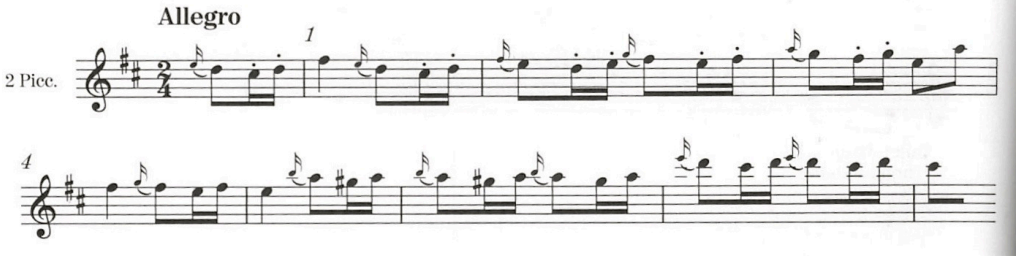


EXAMPLE 7-22. Mozart, *Die Zauberflöte*, Act II, "Alles fühlt der Liebe Freuden," mm. 5–9

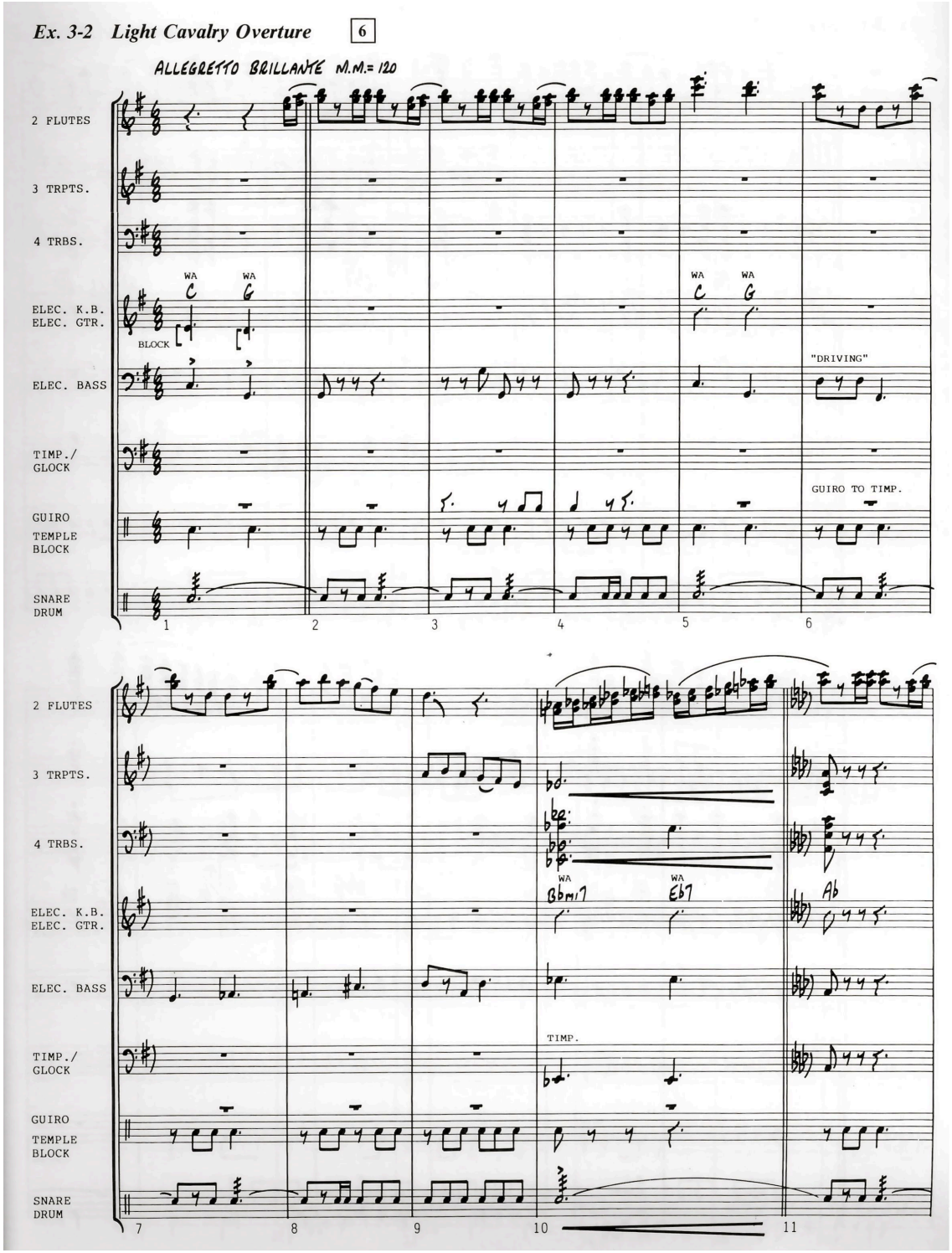
EXAMPLE 7-23. Prokofiev, *Lieutenant Kijé*, first movement, mm. 9–17



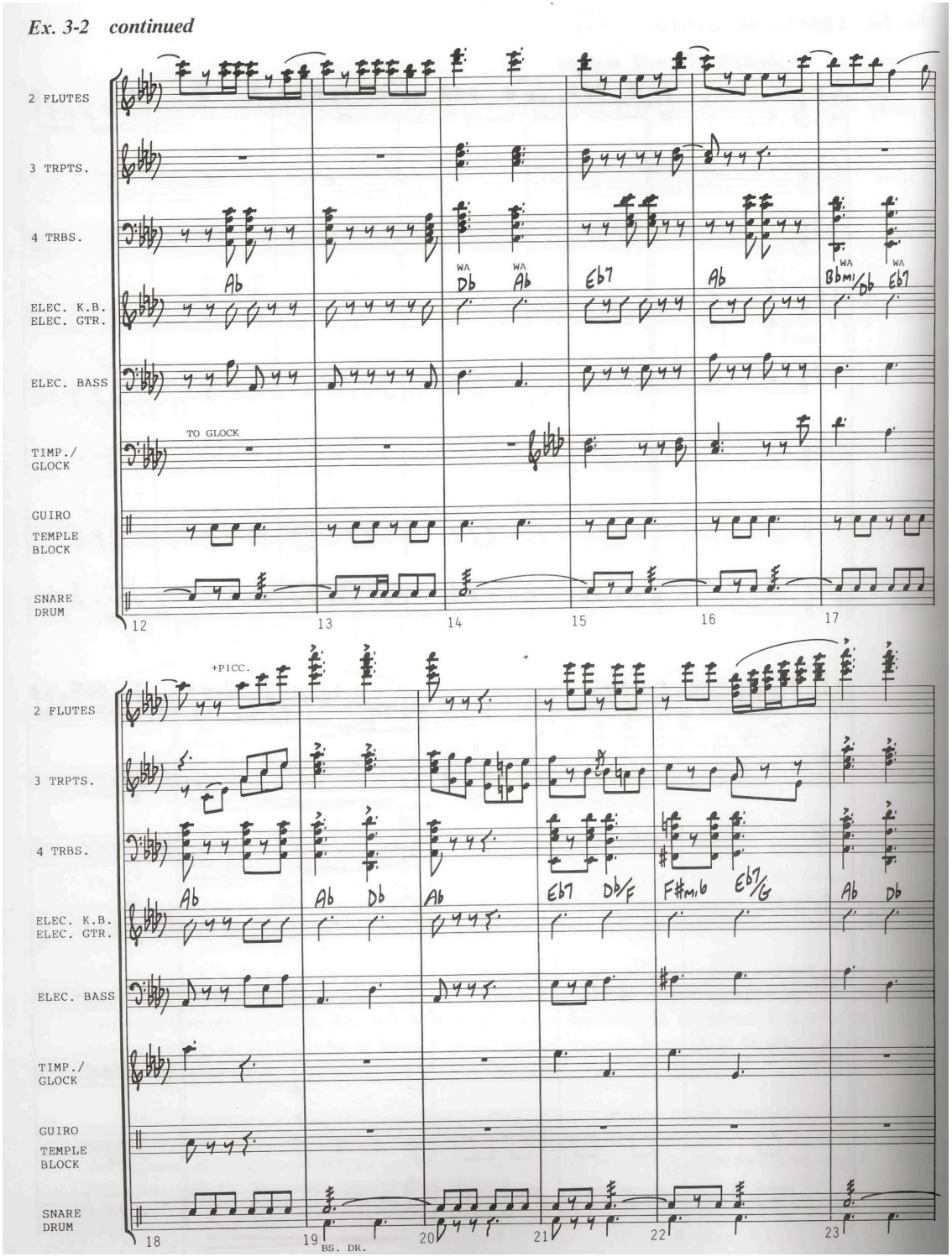
EXAMPLE 7-24. Gluck, *Iphigénie en Tauride*, Act I, Scene 3, mm. 1–8



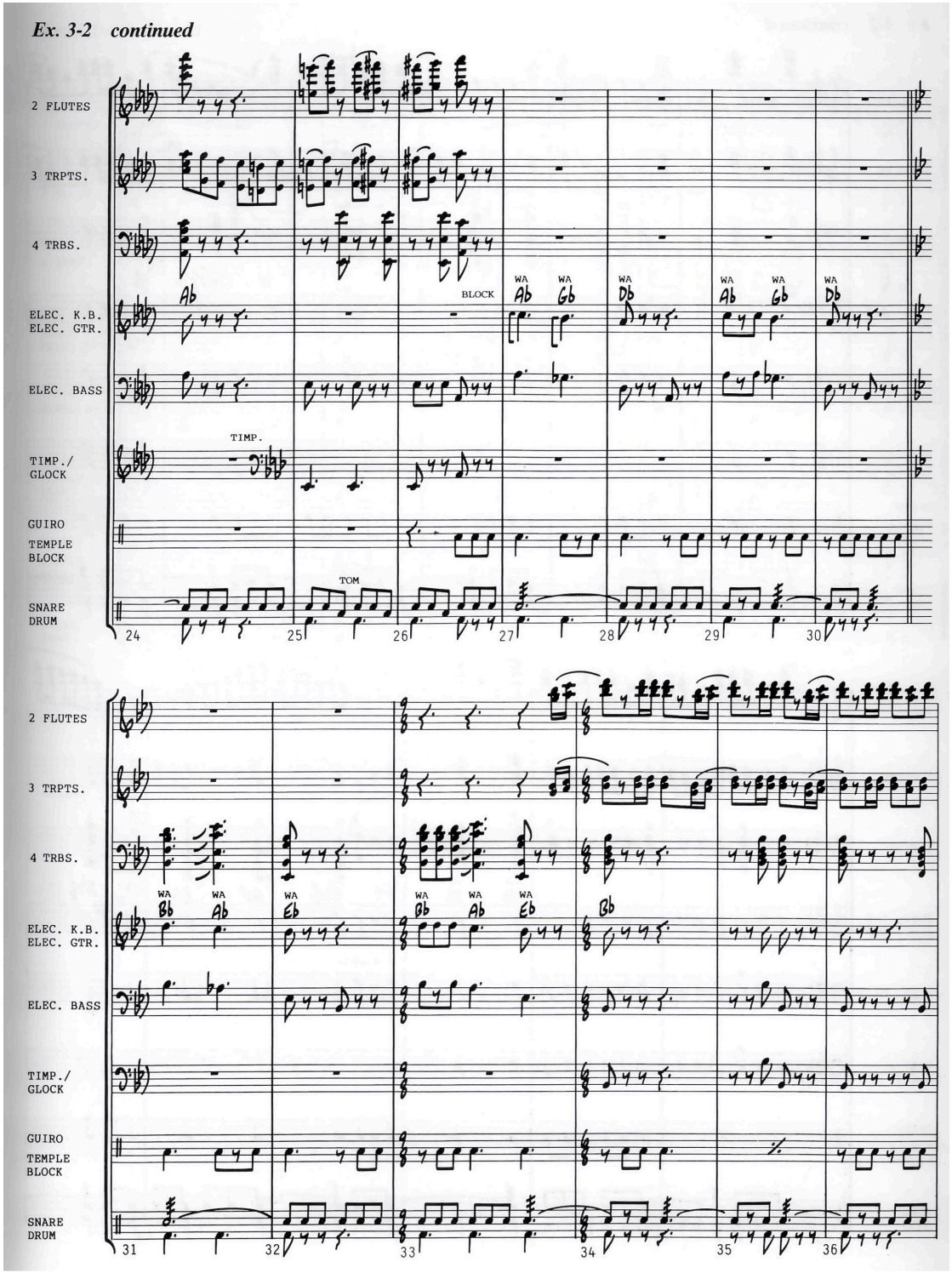
PROF. MARCOS FILHO


Ex. 3-2 Light Cavalry Overture
6
ALLEGRETTO BRILLANTE M.M.= 120
2 FLUTES
3 TRPTS.
4 TRBS.
ELEC. K.B.
ELEC. GTR.
ELEC. BASS
TIMP./
GLOCK
GUIRO
TEMPLE
BLOCK
SNARE
DRUM
WA
C
G
BLOCK
"DRIVING"
GUIRO TO TIMP.
1
2
3
4
5
6
Bbmi7
Eb7
Ab
TIMP.
7
8
9
10
11

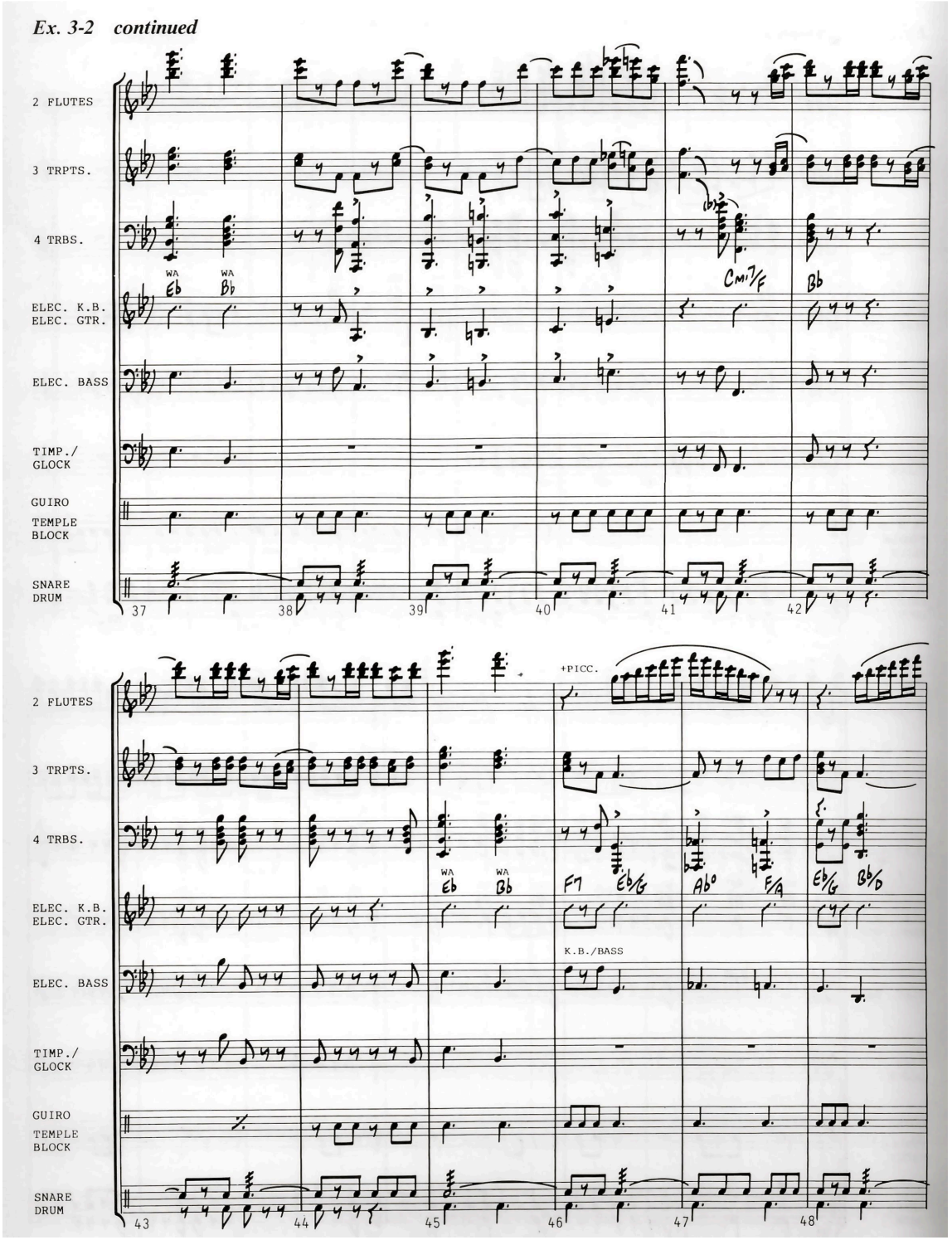
Ex. 3-2 continued



Ex. 3-2 continued

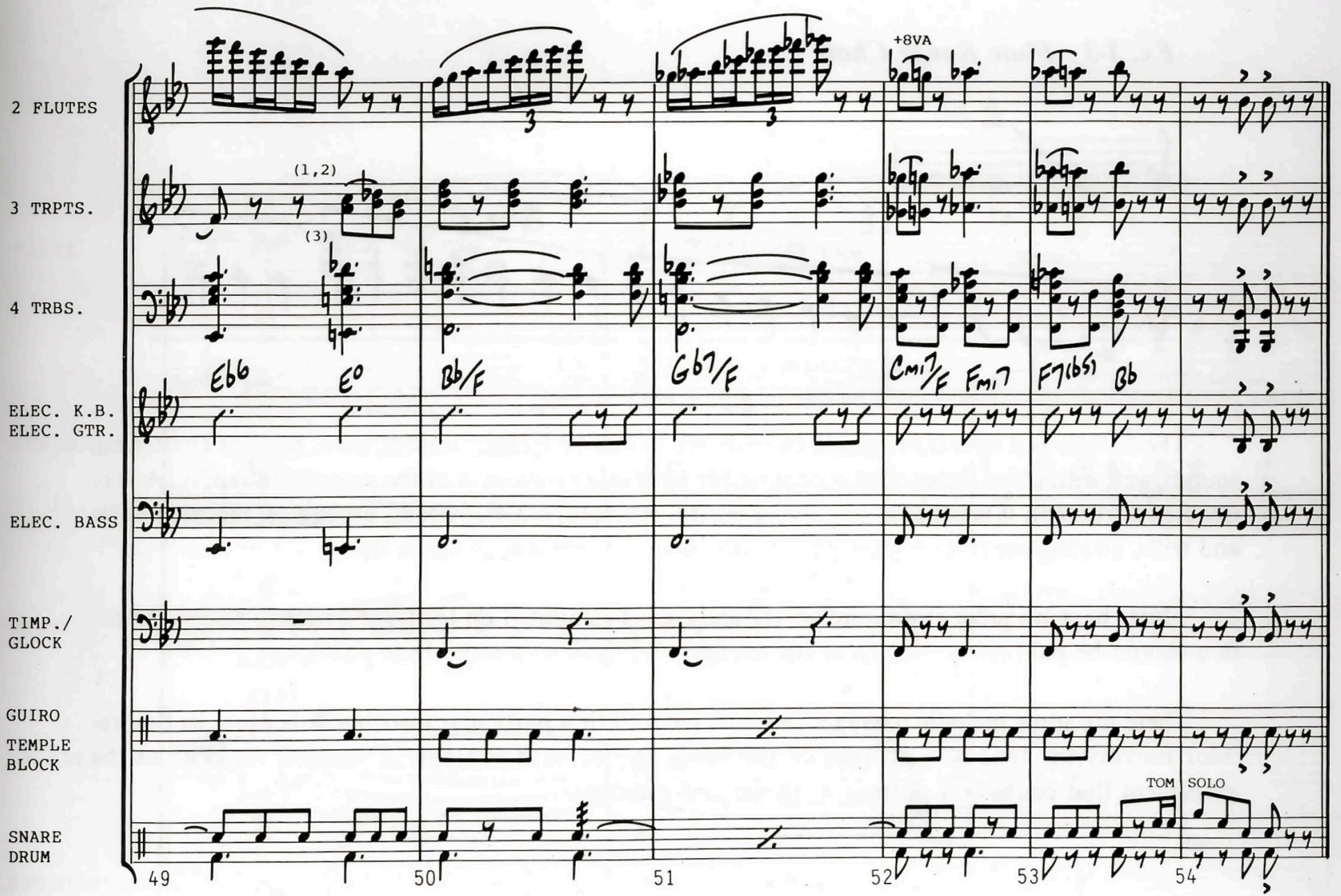


Ex. 3-2 continued



PROF. MARCOS FILHO

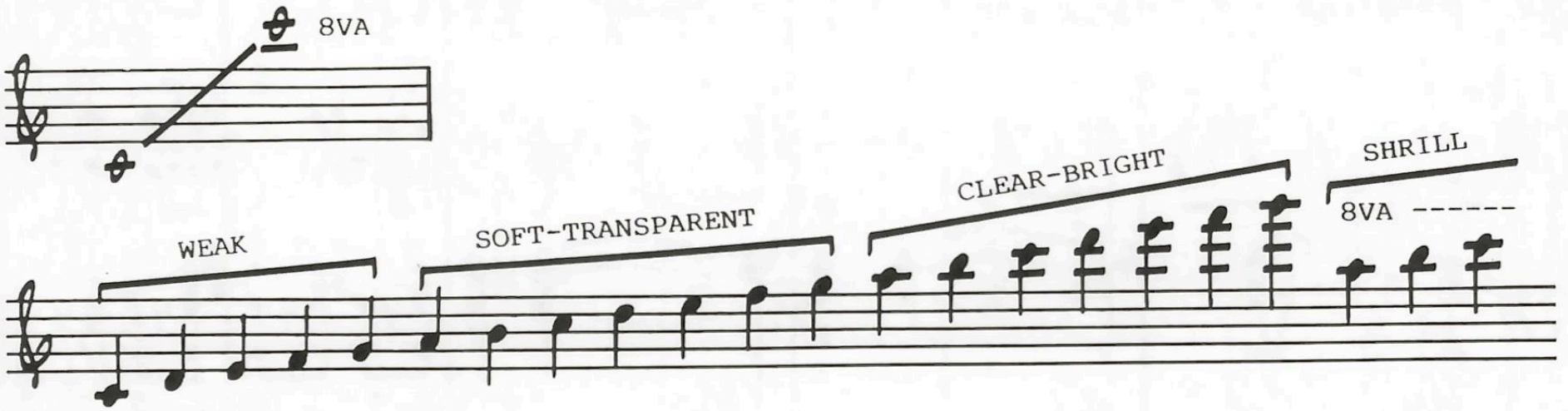
Ex. 3-2 continued



Flauta em C

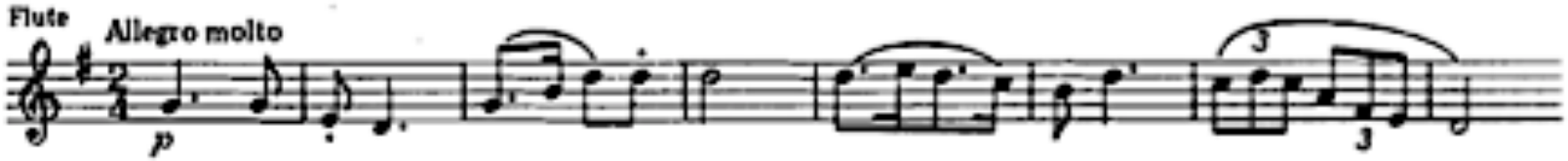
- Usado em escalas, legato, staccato, arpeggios, notas repetidas e trinados;
- Não possui um grande poder de sustentação e a faixa dinâmica é relativamente curta;
- Deve-se ter atenção ao “background” nas passagens de flauta solo;
- Grande potencial expressivo em solos;

Ex. 3-3 Flute Range Chart

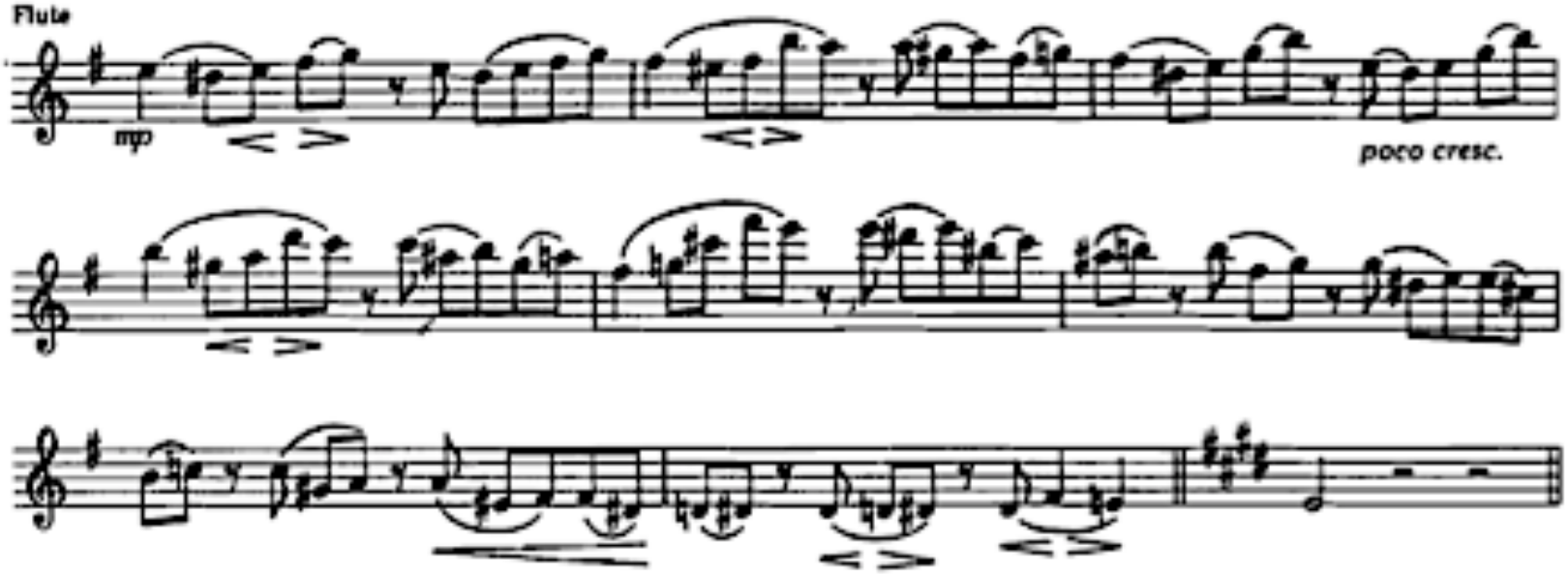


Flauta: registro grave

Example VII–3. Dvořák, *New World Symphony*, first movement, mm. 149–56.

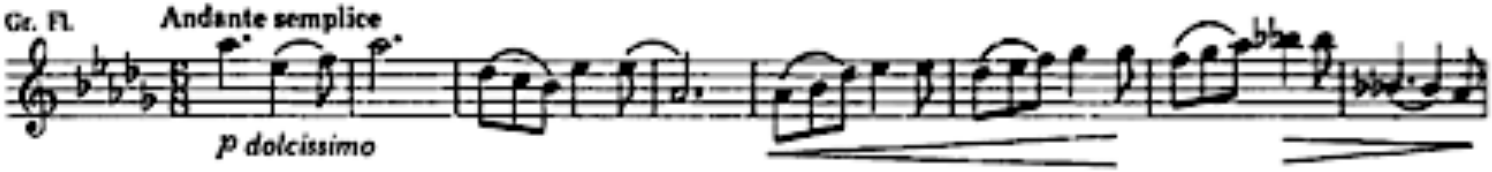


Example VII–4. Brahms, *Symphony No. 4*, fourth movement, mm. 97–104.

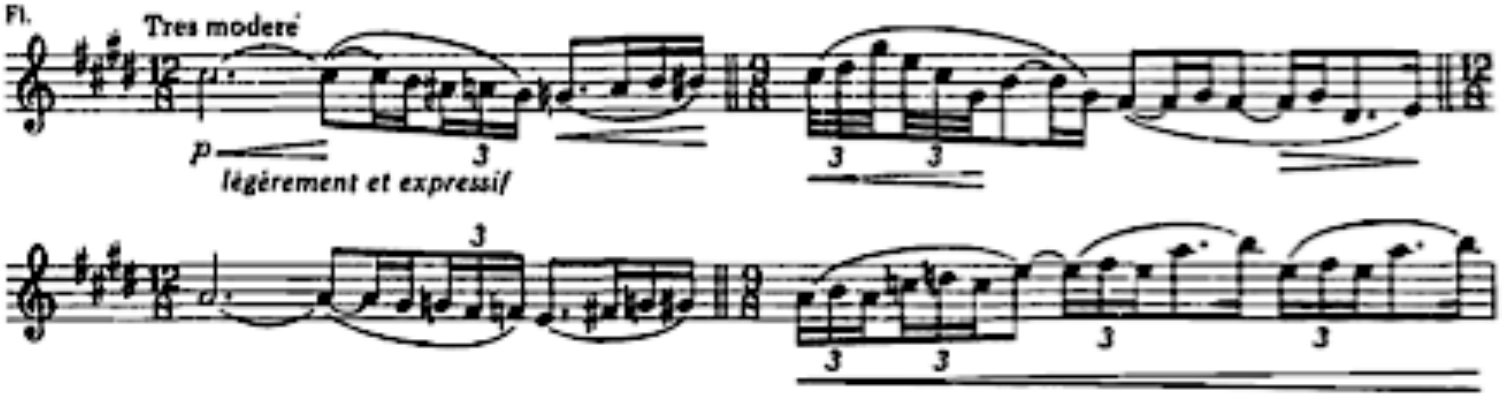


Flauta: registros diversos, grave com fundo equilibrado.

Example VII–5. Tchaikovsky, *Piano Concerto No. 1*, second movement, mm. 5–12

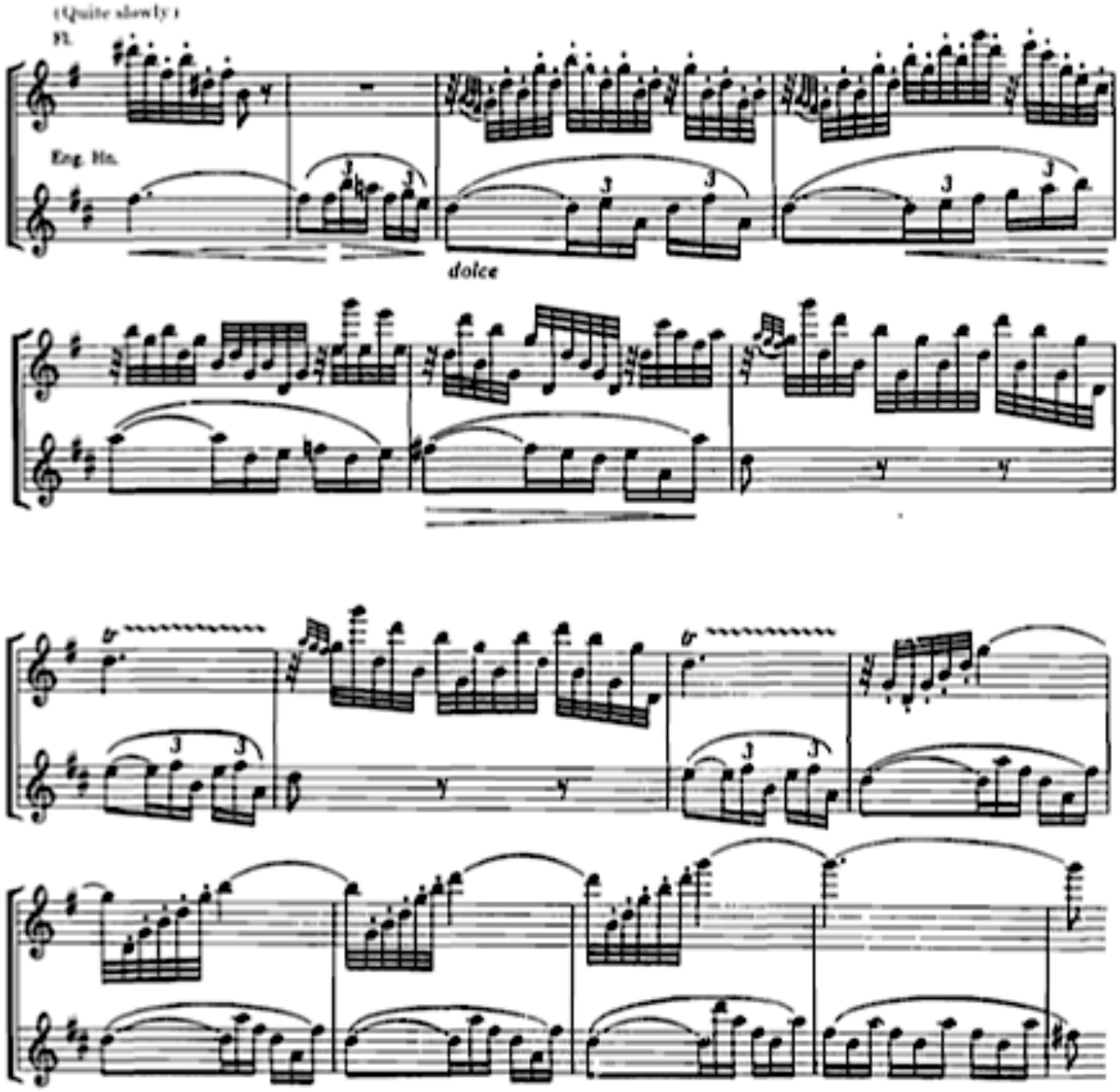


Example VII–6. Debussy, *Prélude à l'après-midi d'un faune*, mm. 21–24

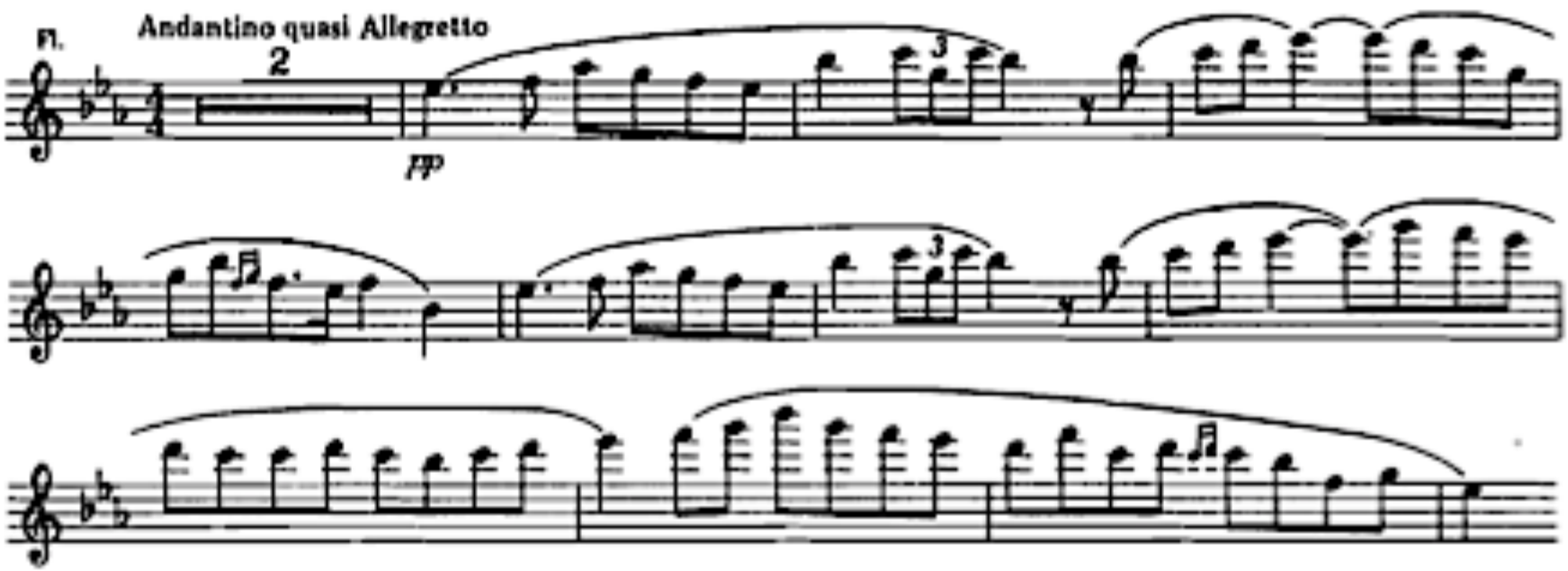


Brilho e articulação:
Staccato e legato

Example VII–7. Rossini, Overture to *William Tell*, mm. 209–24



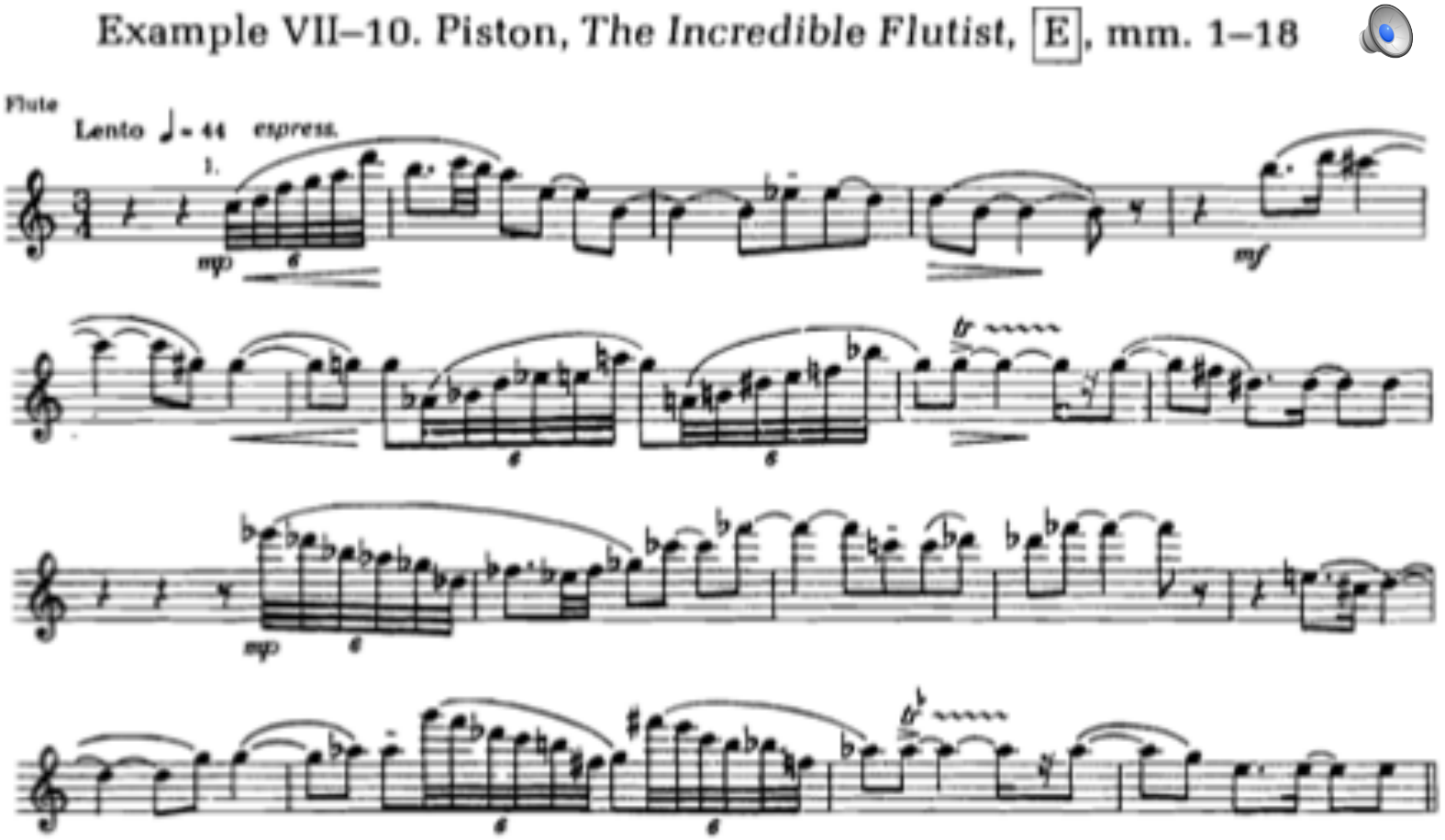
Example VII–8. Bizet, *Carmen*, Prelude to Act III, mm. 1–13



Sustentação em notas longas, exige tempo para respirar.

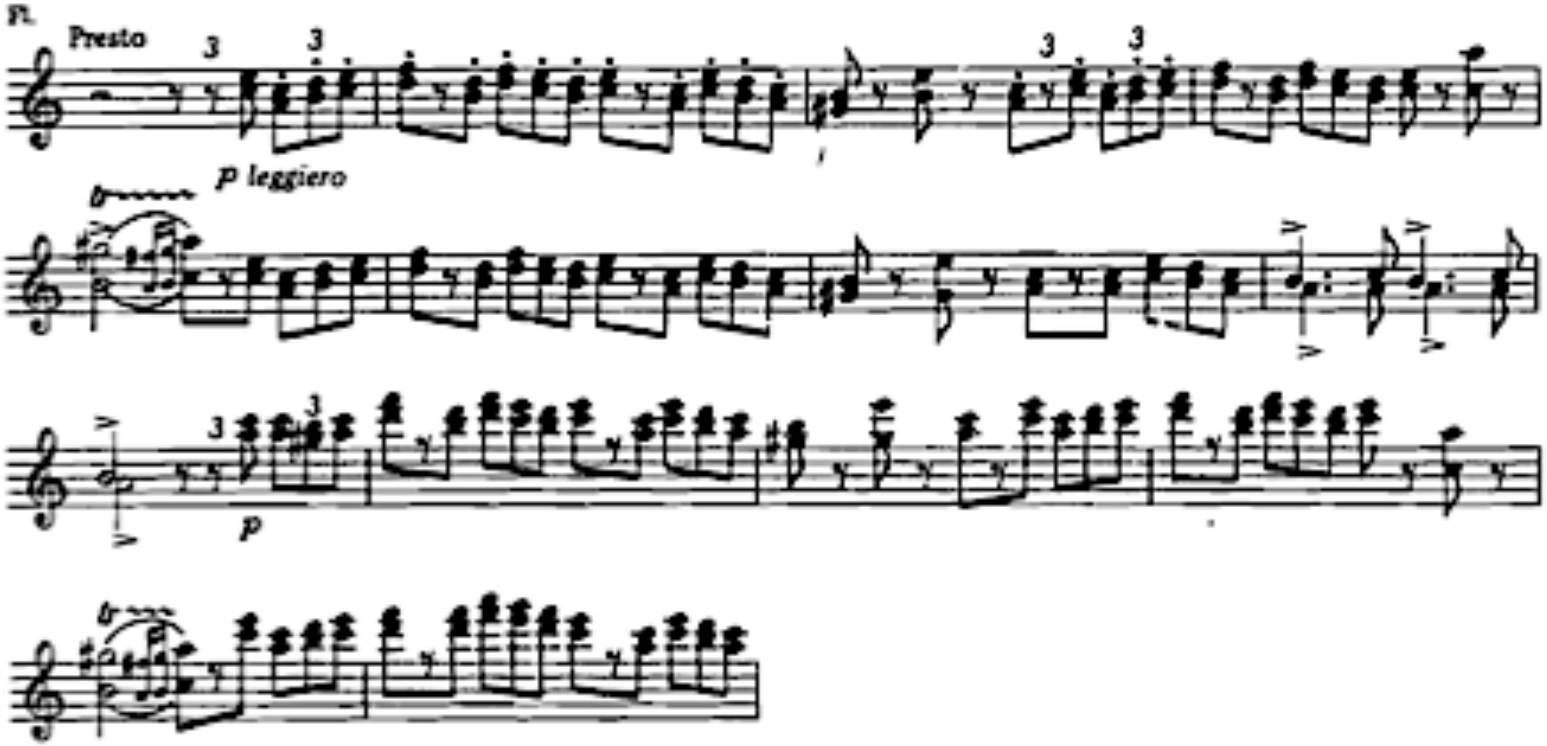
Example VII–9. Brahms, *Symphony No. 1*, fourth movement, mm. 38–46

Duas flautas



Staccattos: duplo, triplo e simples

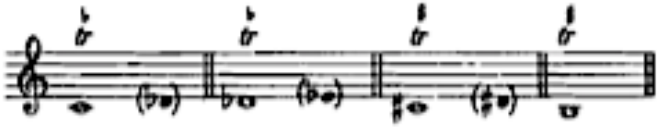
Example VII–11. Mendelssohn, *Symphony No. 4*, fourth movement, mm. 6–19 (triple-tonguing)



Example VII–12. Rimsky-Korsakov, *Capriccio espagnol*, mm. 6–11 (double-tonguing)

Evitar esses trinados:

Example VII–13

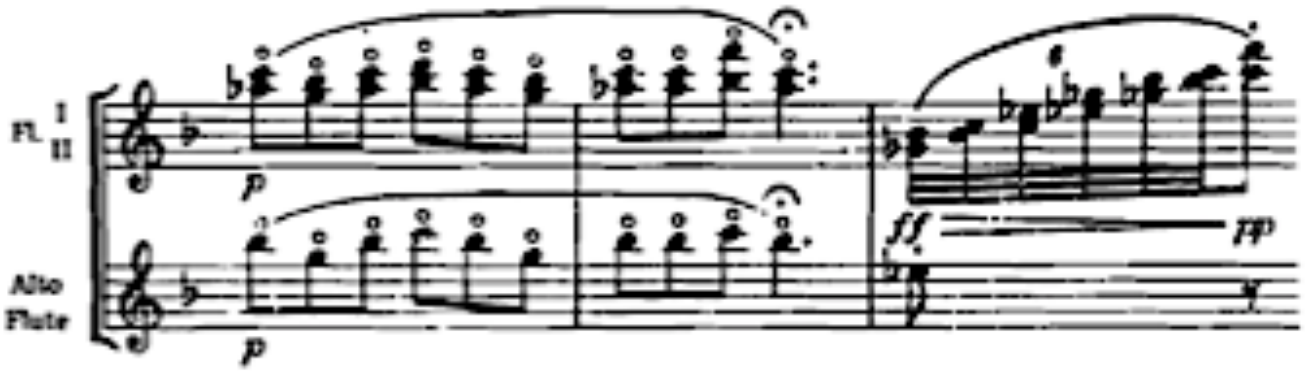


and the tremolo

Harmônicos

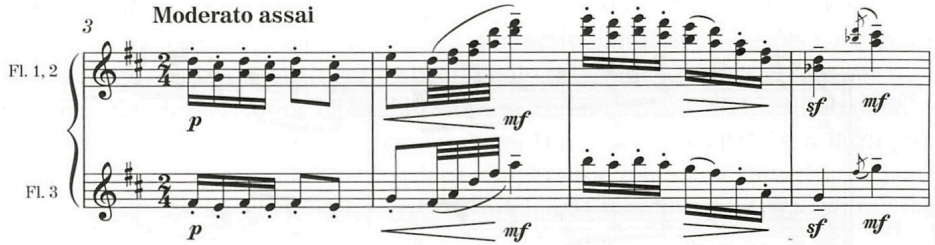
Example VII–14. Ravel, *Daphnis et Chloé*, Nocturne, mm. 5–11

Example VII–15. Ravel, *Daphnis et Chloé*, 49, mm. 1–2.

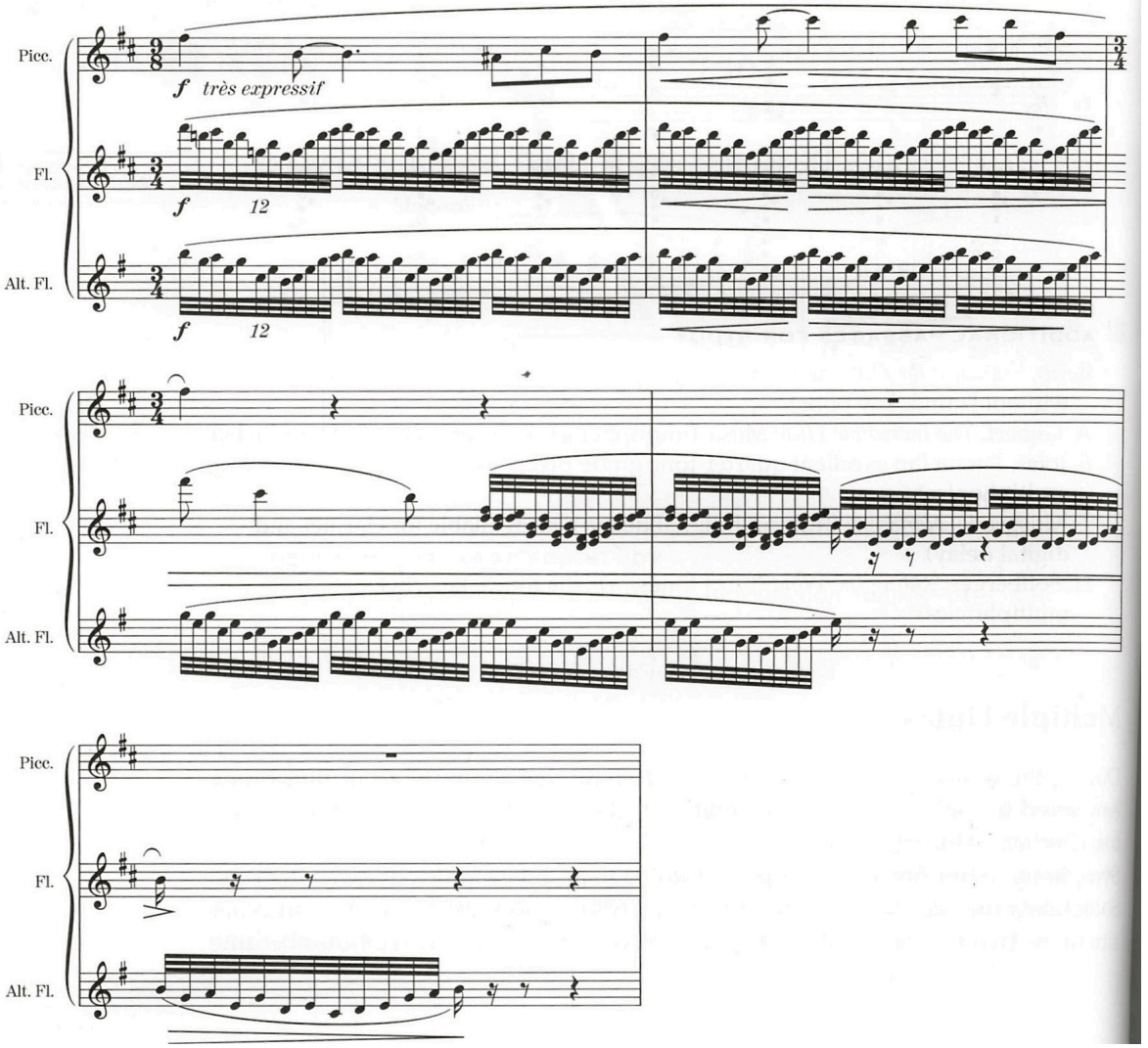


Múltiplas flautas

EXAMPLE 7-18. Tchaikovsky, *Nutcracker* Suite, "Dance of the Toy Flutes," mm. 3–6 (parallel flute parts)



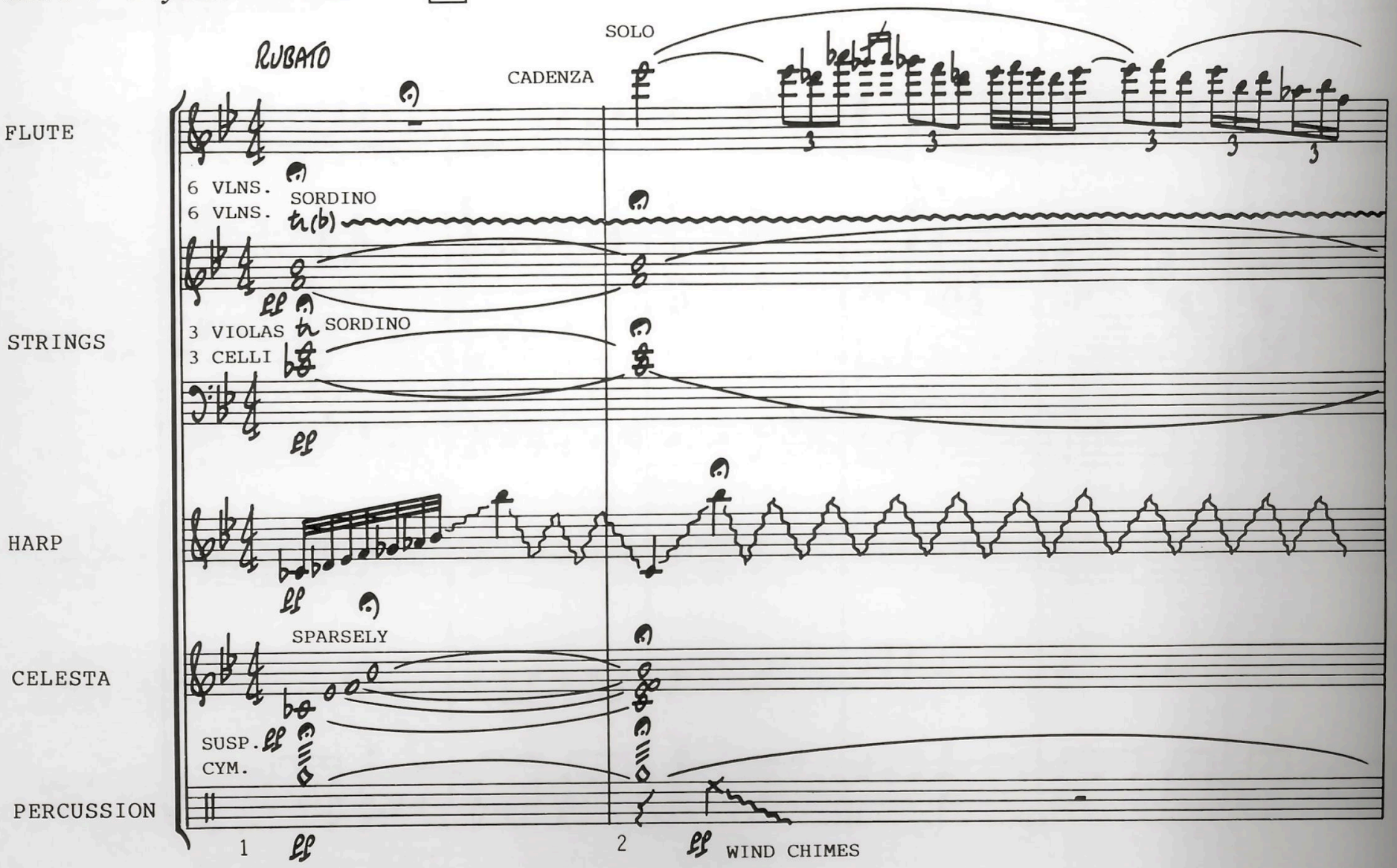
EXAMPLE 7-19. Ravel, *Daphnis et Chloé* ballet, at 165 (independent and parallel flute parts)



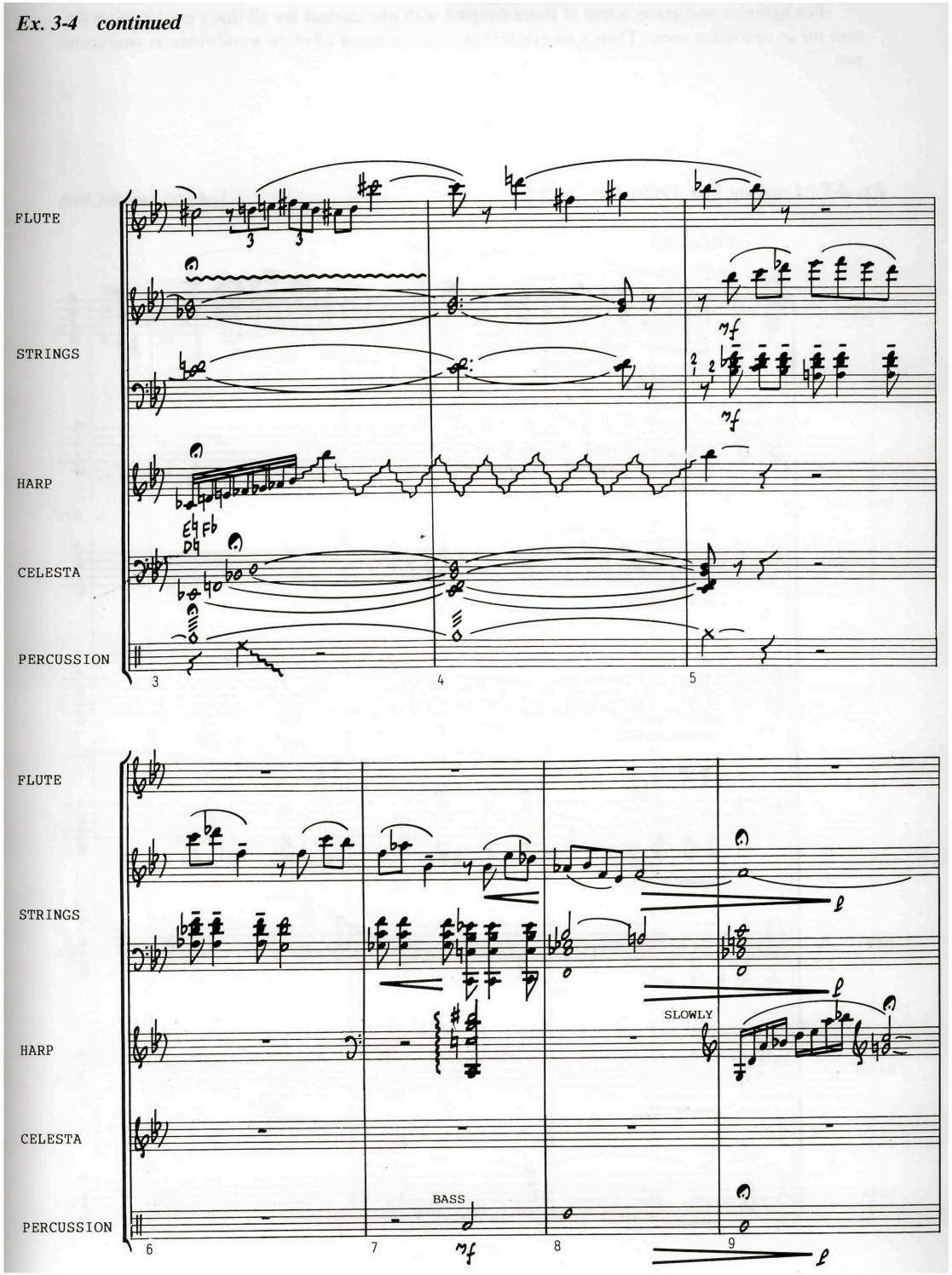
PROF. MARCOS FILHO

Ex. 3-4 Beyond The Stars 7

© 1993 Fenwood Music

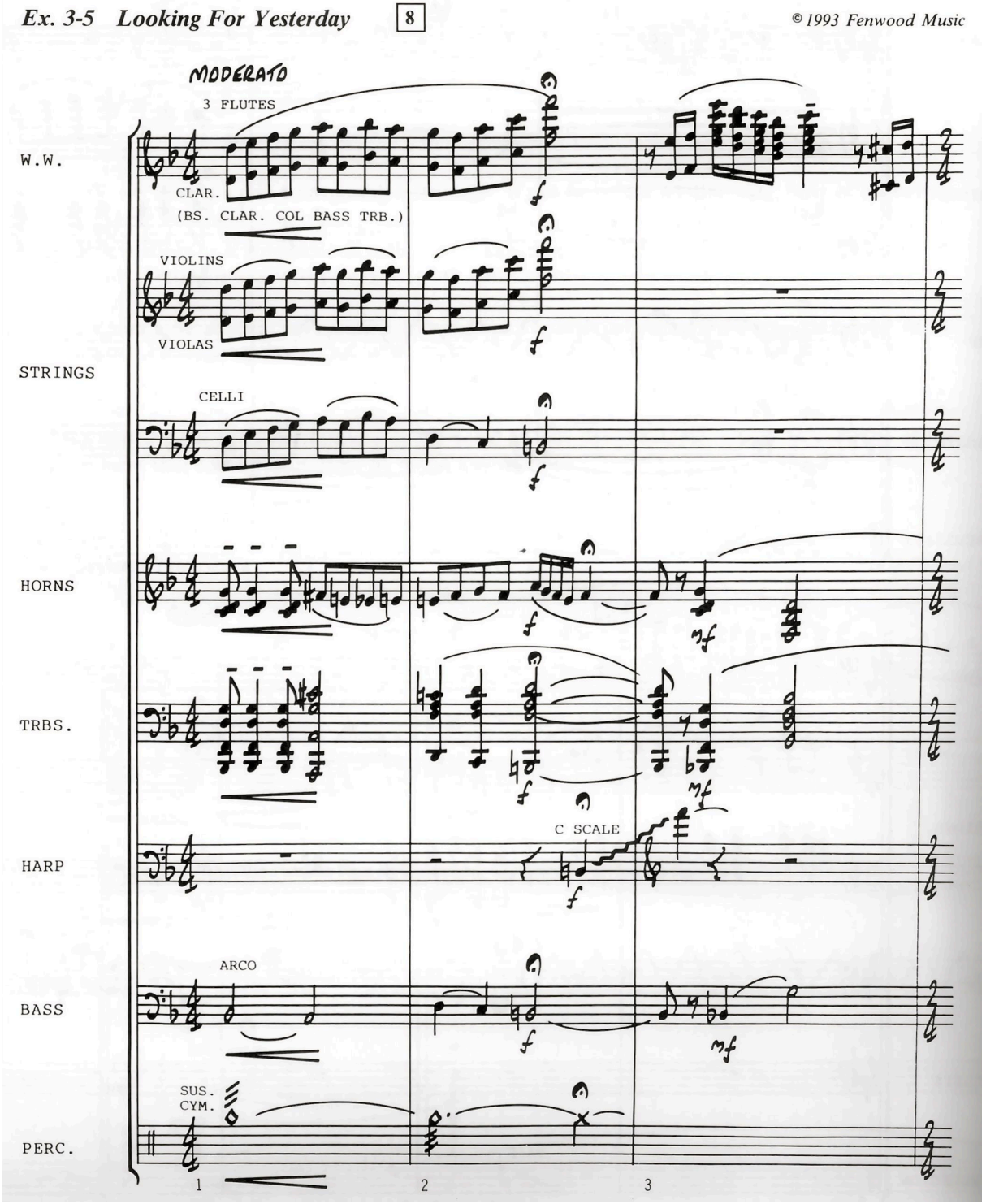


Ex. 3-4 continued

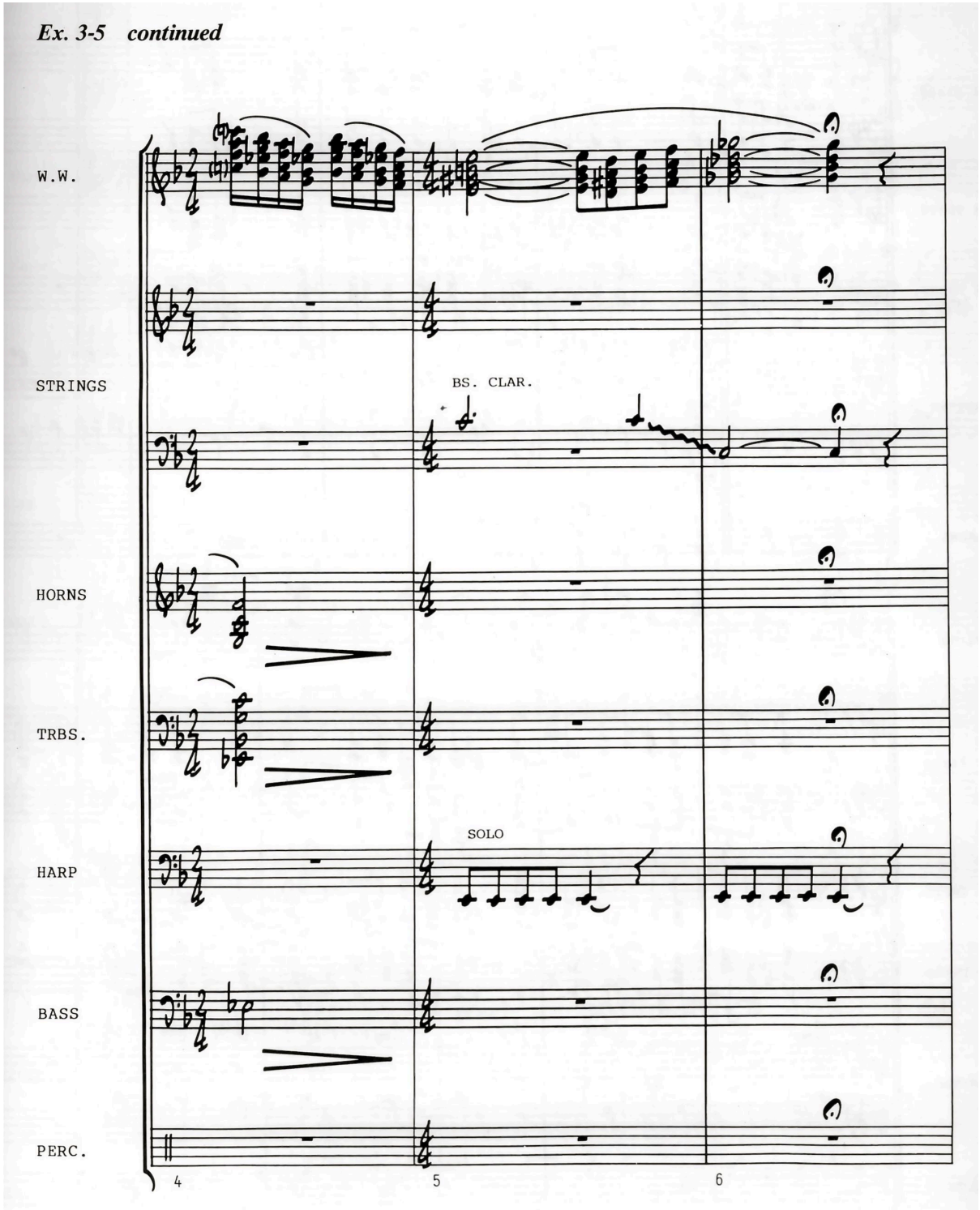


PROF. MARCOS FILHO

Trio de flautas e clarineta

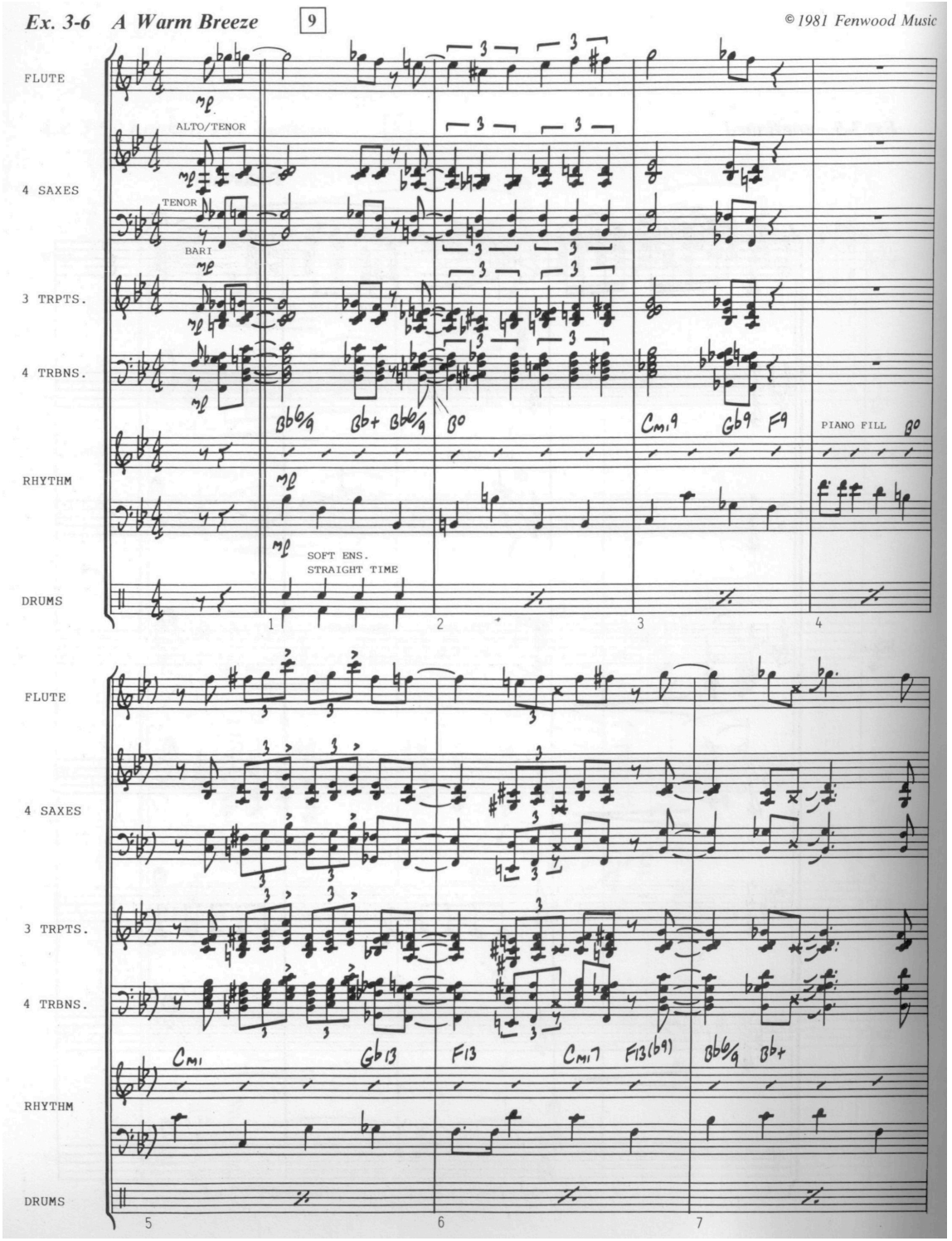


Ex. 3-5 continued

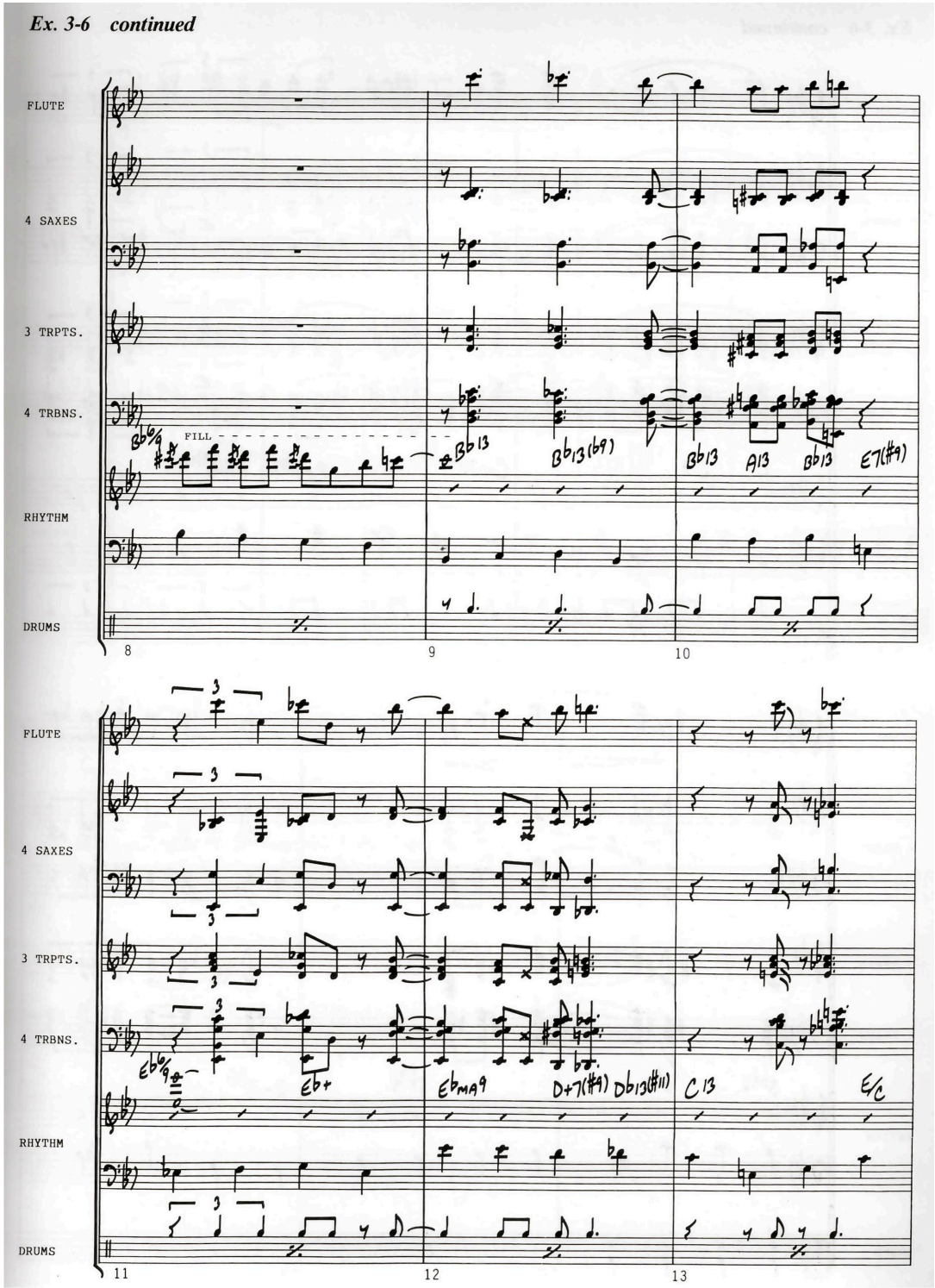


PROF. MARCOS FILHO

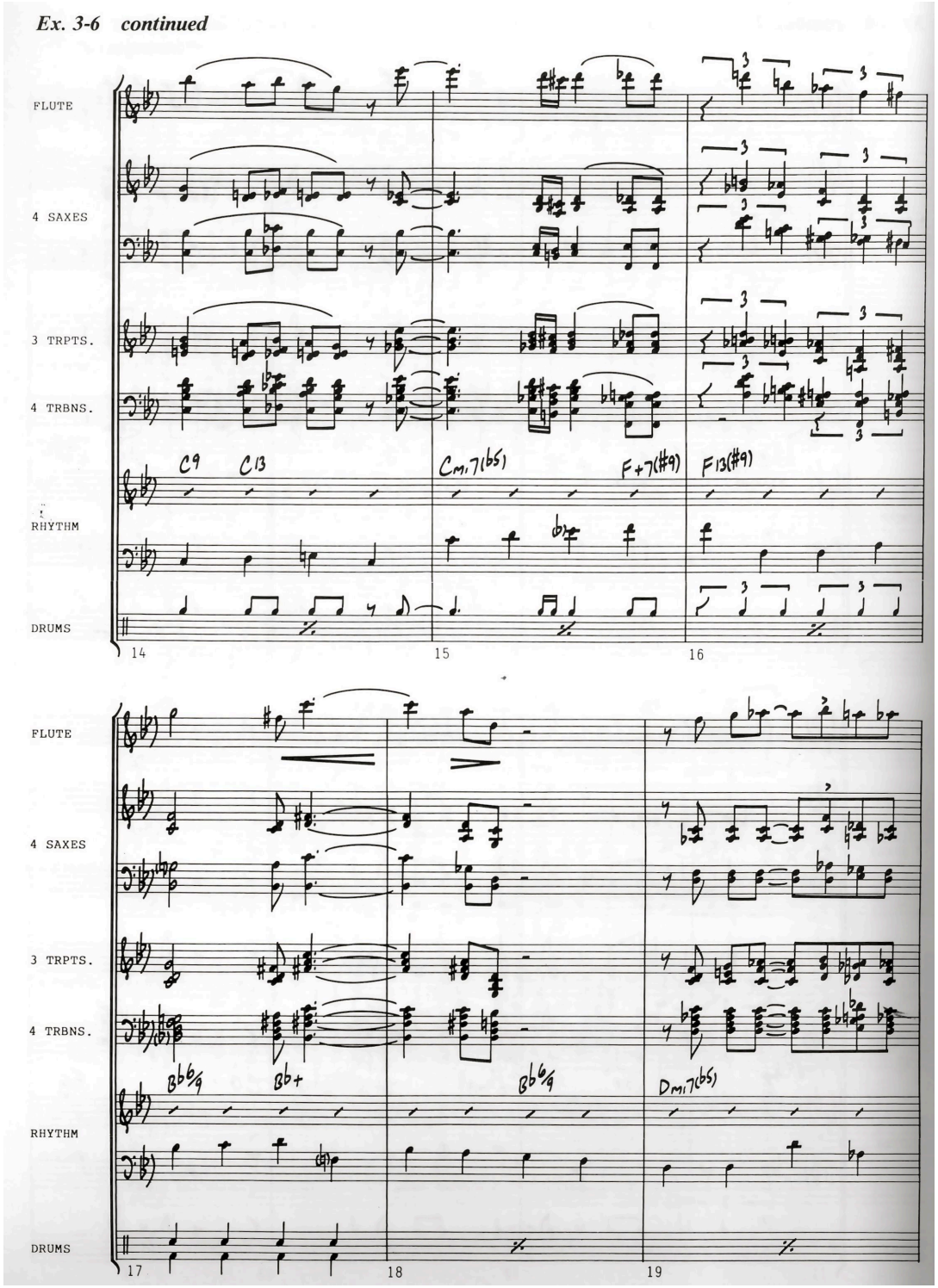
Flauta dobrando melodia em oitava acima da sonoridade de Metais (amplia a dimensão sonora do arranjo)



Ex. 3-6 continued

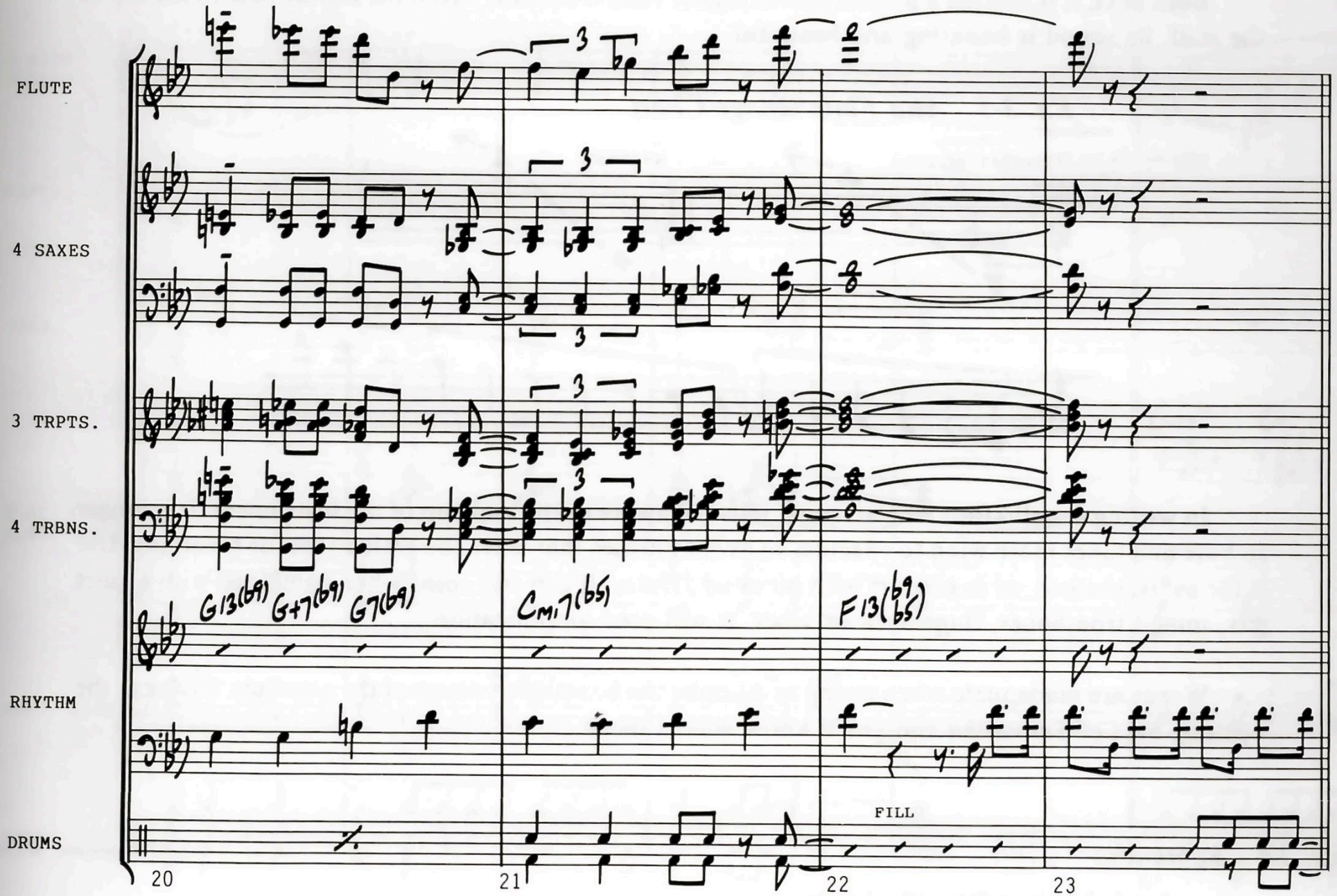


Ex. 3-6 continued



PROF. MARCOS FILHO

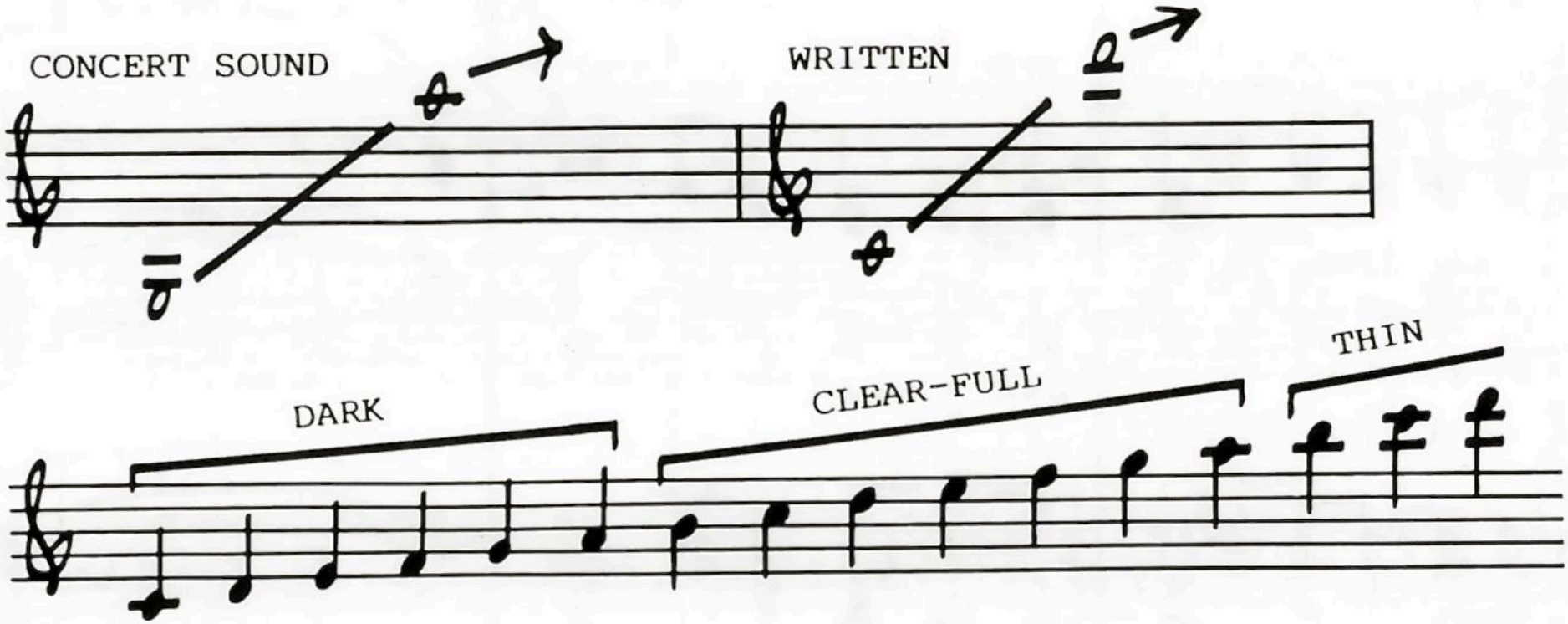
Ex. 3-6 continued



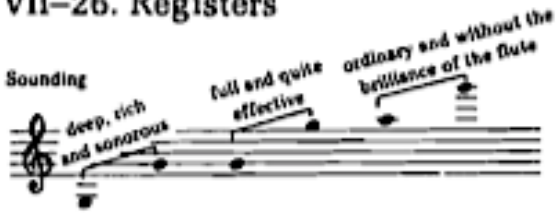
Flauta em G

- Construída em Sol;
- Escreve-se uma quarta justa acima do que realmente soa;
- Grande poder sonoro e expressivo na região grave;
- Funciona muito bem em corais e grupos de flautas;
- Muitas vezes necessita de amplificação;

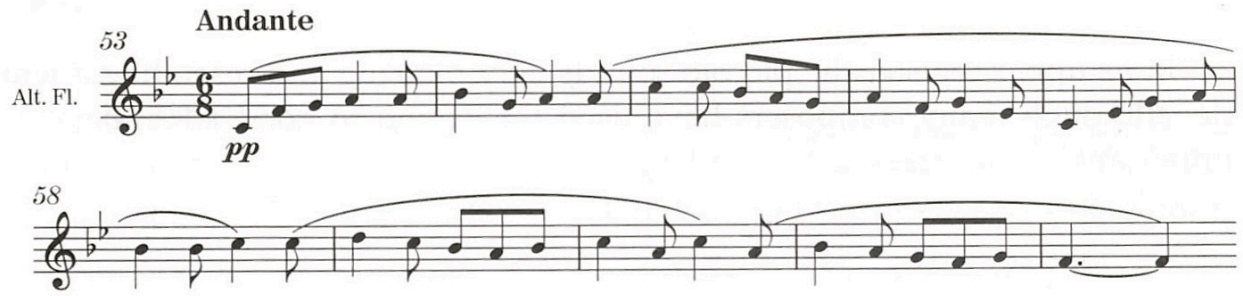
Ex. 3-7 Alto Flute Range Chart



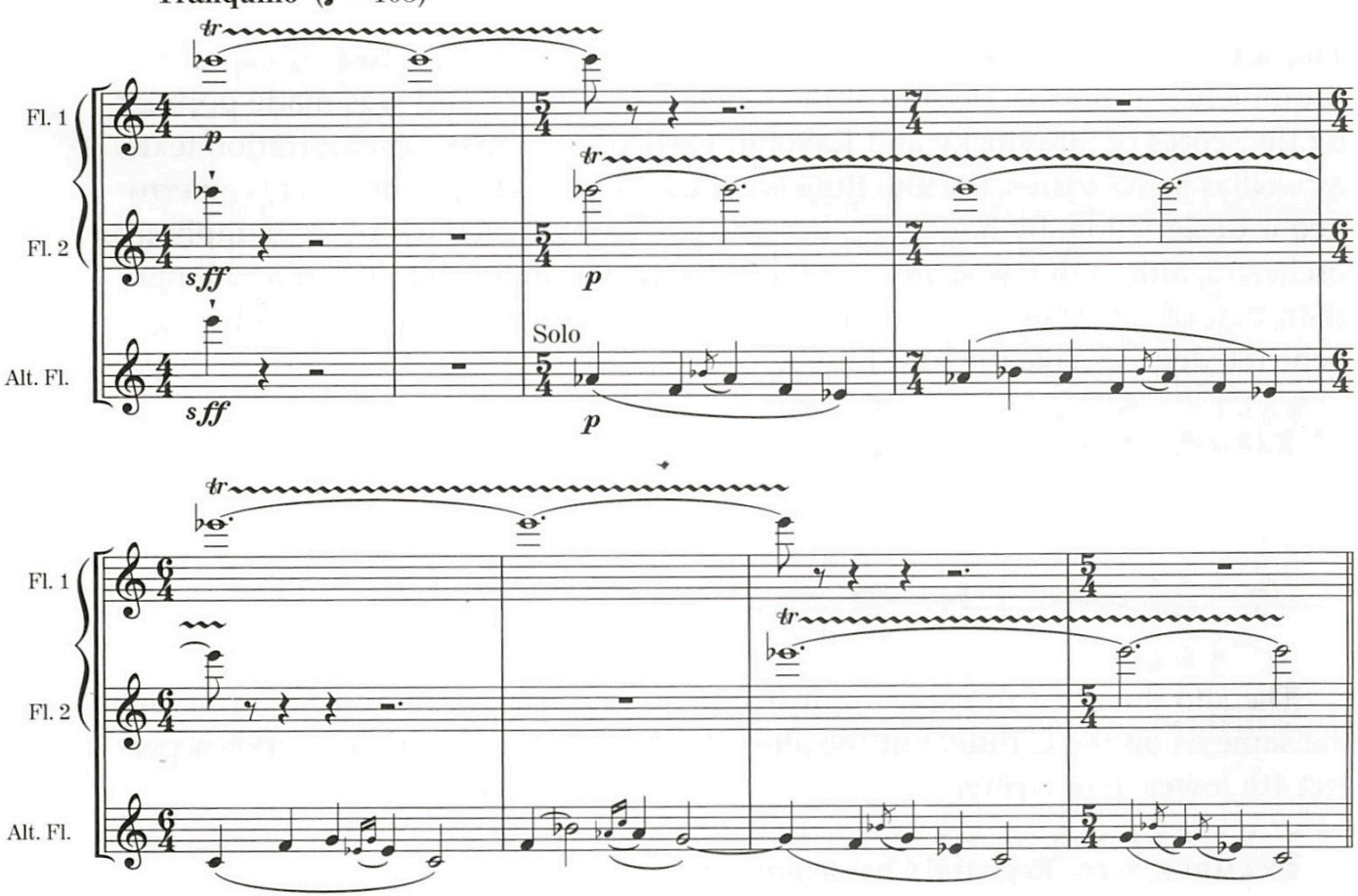
Example VII–26. Registers



EXAMPLE 7-27. Holst, *The Planets*, "Saturn," mm. 53–62

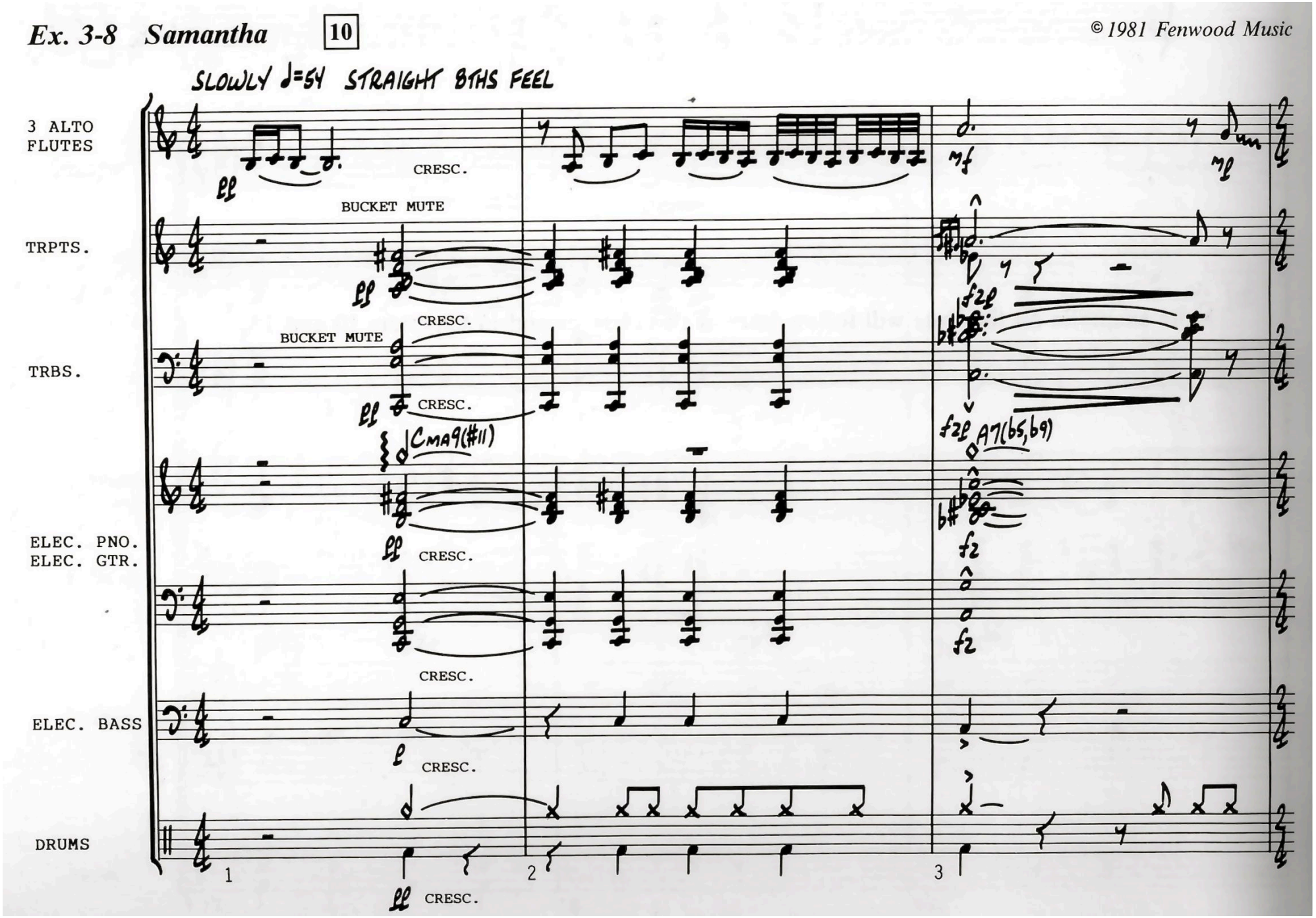


EXAMPLE 7-28. Stravinsky, *Le Sacre du printemps*, Part I, "Rondes printanières," at 56

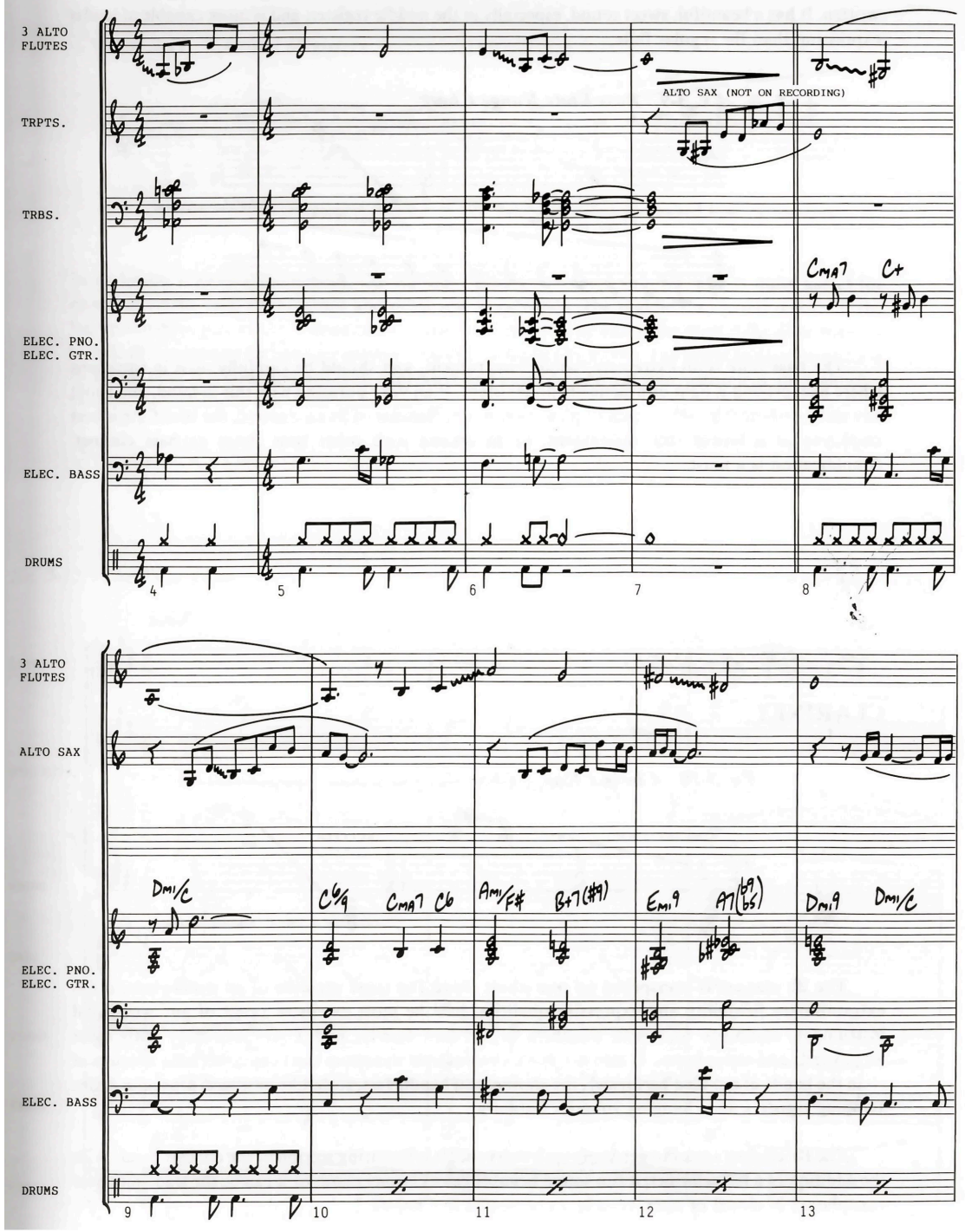


Ex. 3-8 Samantha 10

© 1981 Fenwood Music

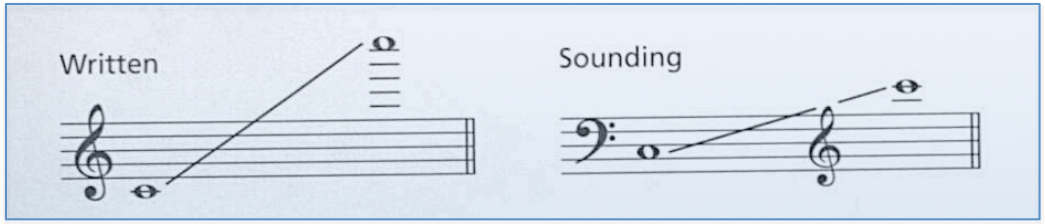


Ex. 3-8 continued

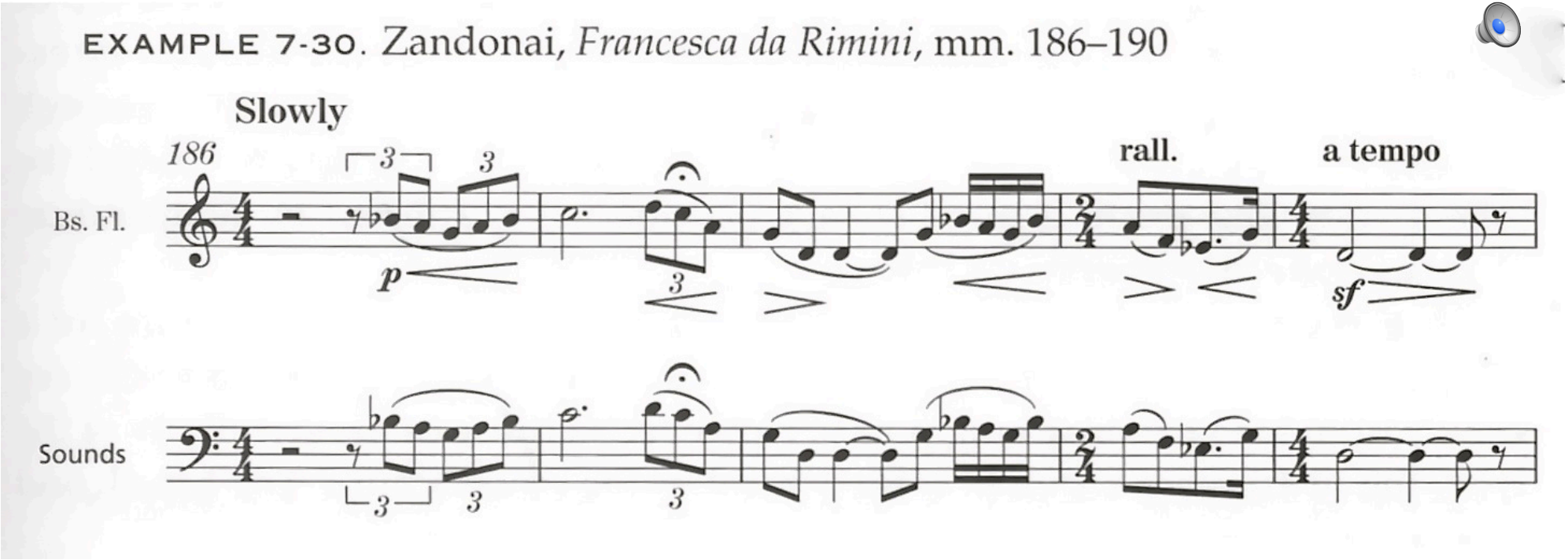


PROF. MARCOS FILHO

Flauta Baixo

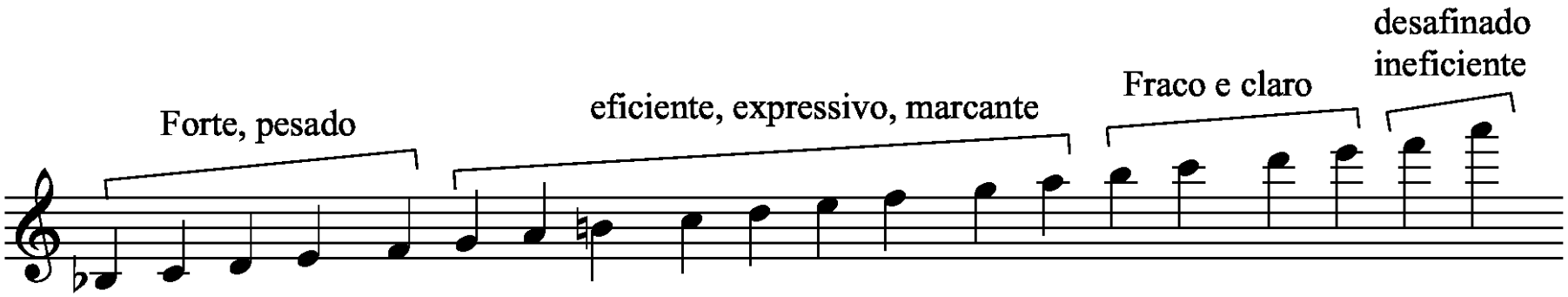


EXAMPLE 7-30. Zandonai, *Francesca da Rimini*, mm. 186–190

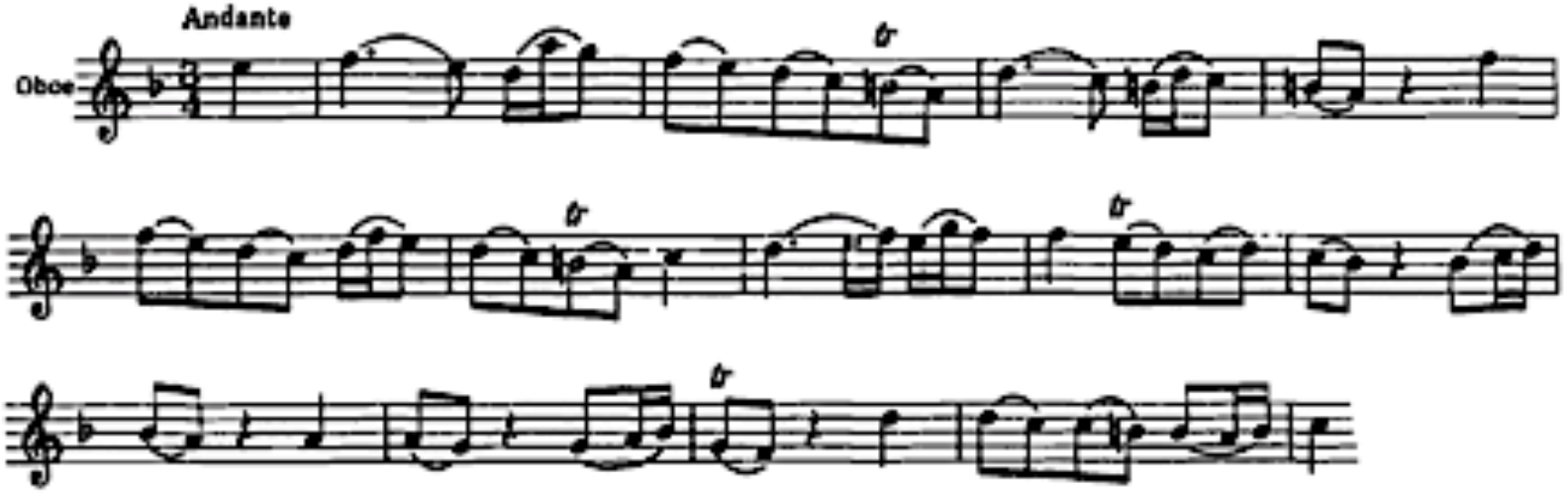


Oboé

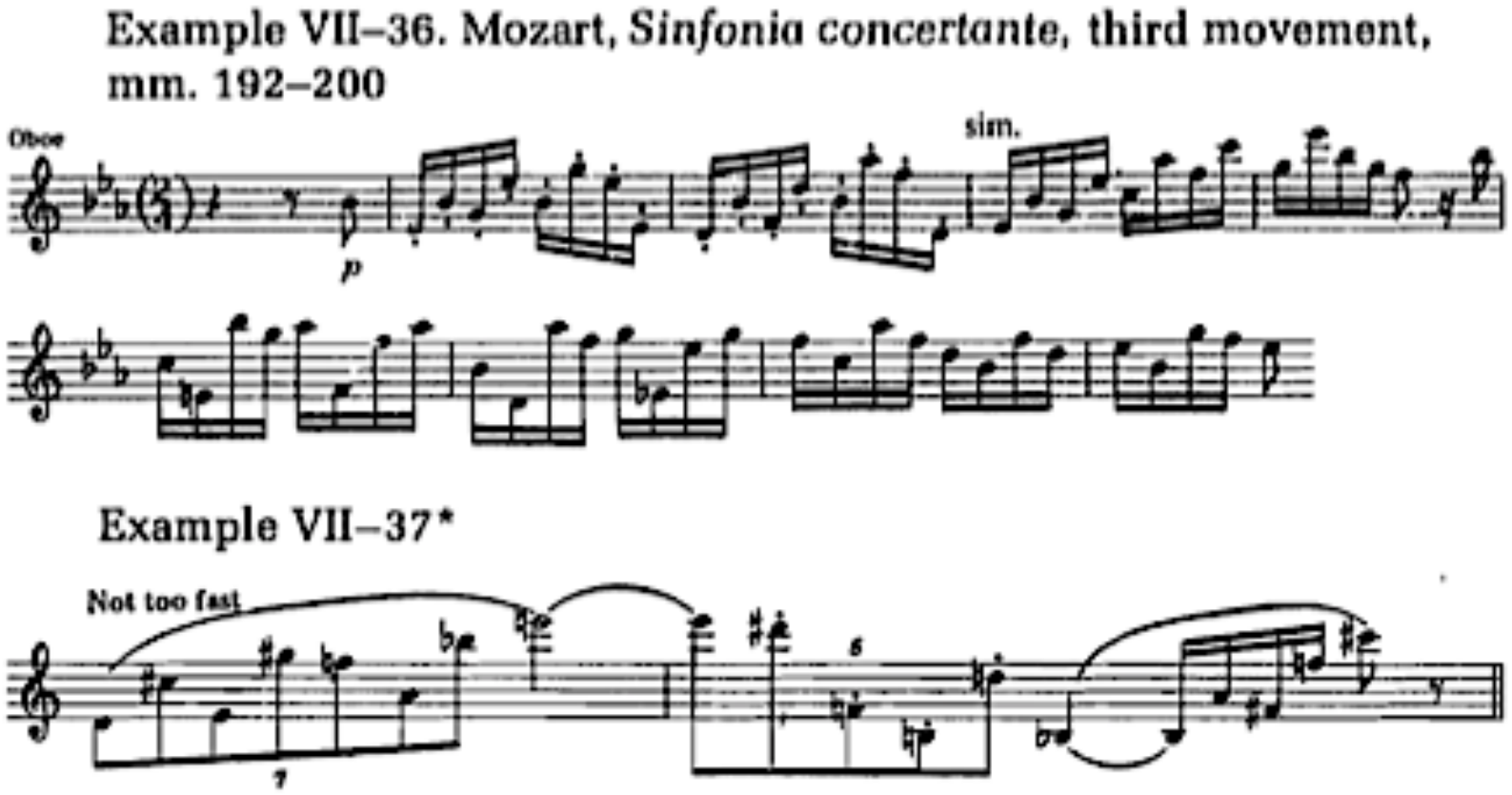
- Não transpositor;
- Grande potencial expressivo em solos;
- Soa muito bem quando utilizado em terças e sextas e em combinação com flautas ou clarinetes;
- É importante evitar os extremos registros do oboé e também trinados entre o Bb e o B, e entre o C e o C#
- Palheta dupla.


Forte, pesado
eficiente, expressivo, marcante
Fraco e claro
desafinado
ineficiente

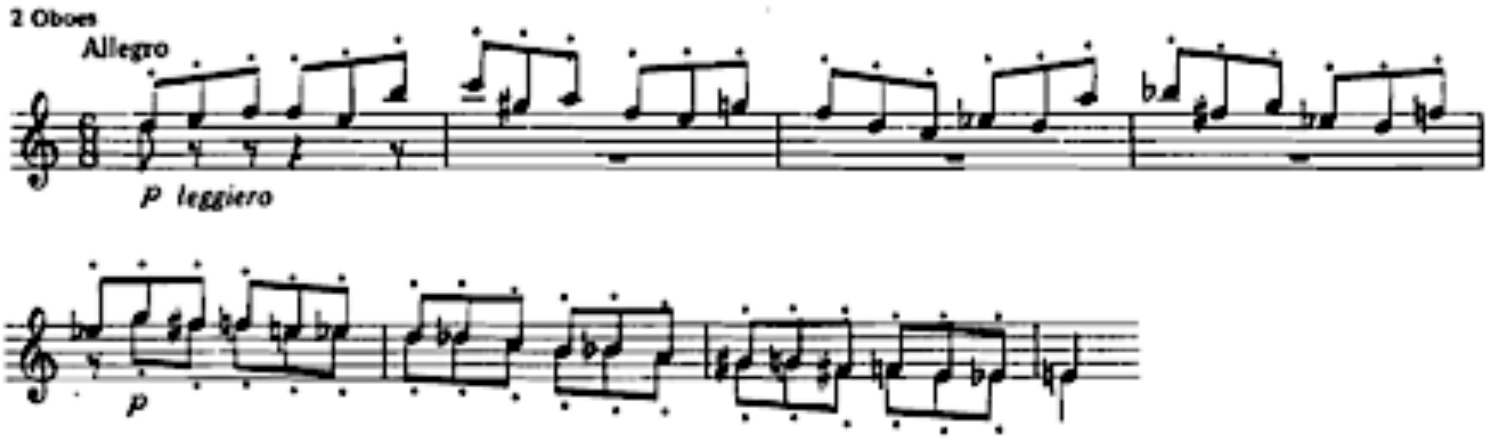
Example VII–33. Bach, *Brandenburg Concerto No. 2*, second movement, mm. 9–23



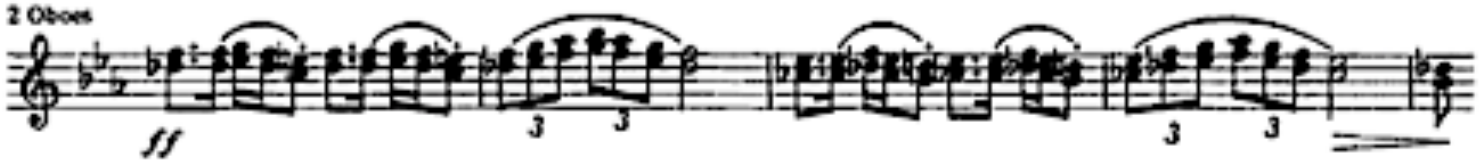
Staccatos duplos



Example VII–38. Berlioz, *Symphonie fantastique*, fifth movement, mm. 460–67



Example VII–39. Kodály, *Háry János*, second movement, mm. 47–51

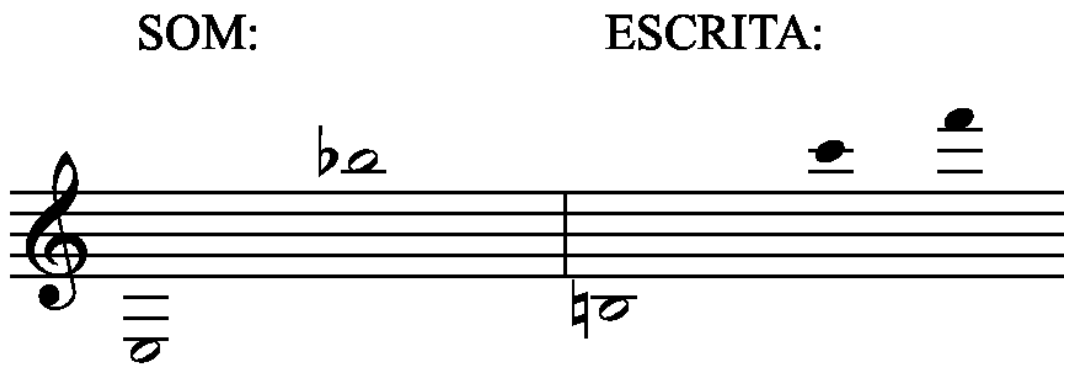


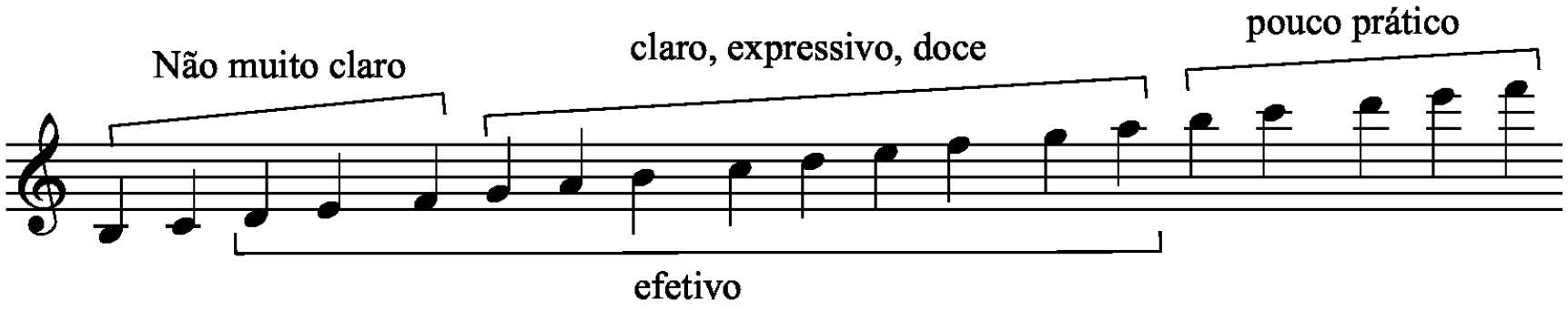
Kodály. *Háry János* © 1927 by Universal Edition; © assigned 1952 to Universal Edition (London) Ltd., London; © renewed; Used by permission of European American Music Distributors Corporation, sole U.S. and Canadian agent for Universal Edition, London.

Example VII–40. Bartók, *Concerto for Orchestra*, fifth movement, mm. 249–54

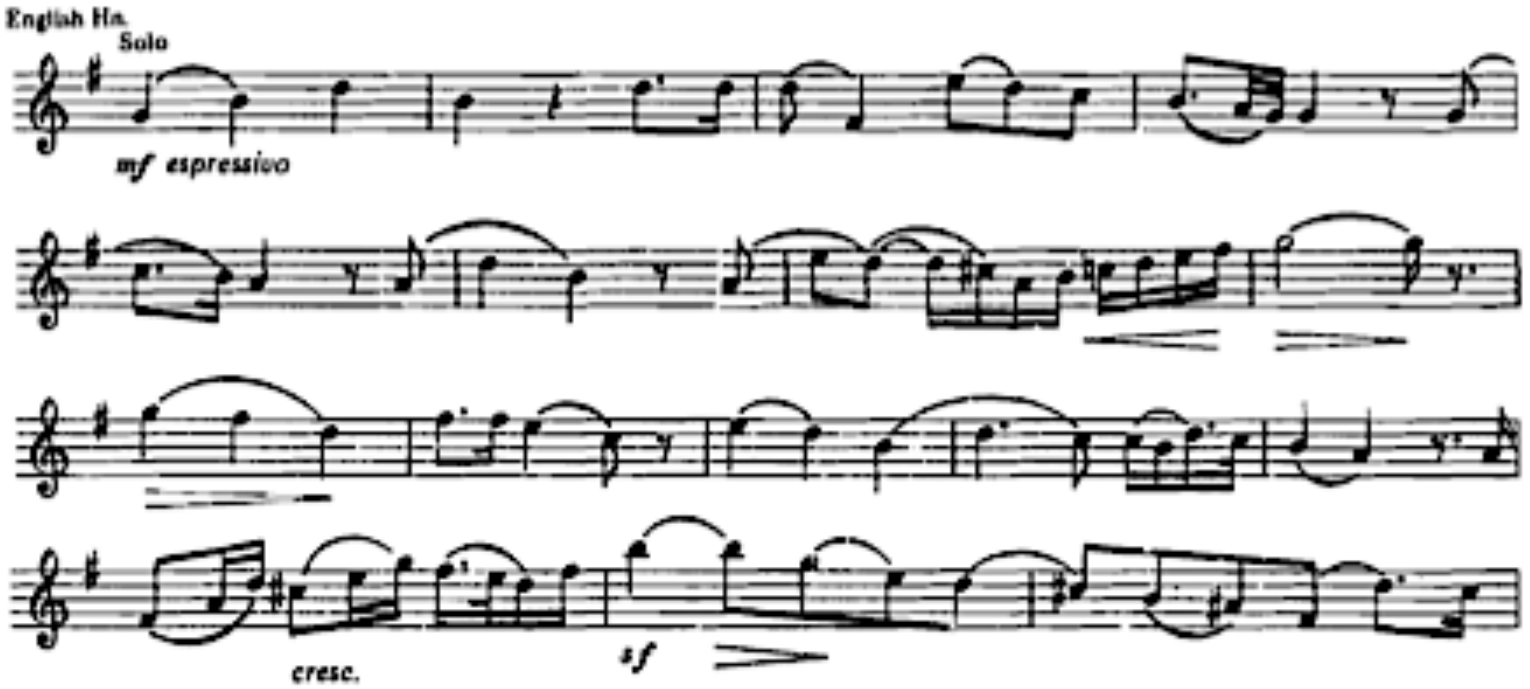
Corne Inglês

- Transpositor: construído em F (é escrito uma 5ª. acima do que ele realmente soa);
- Seu timbre escuro é especialmente utilizado para tratamentos melódicos expressivos no registro grave;
- Funciona muito bem dobrando com violas e cellos;
- É ágil como o oboé, porém tem problemas em alguns trêmulos e trinados;
- Palheta dupla.


SOM:
ESCRITA:

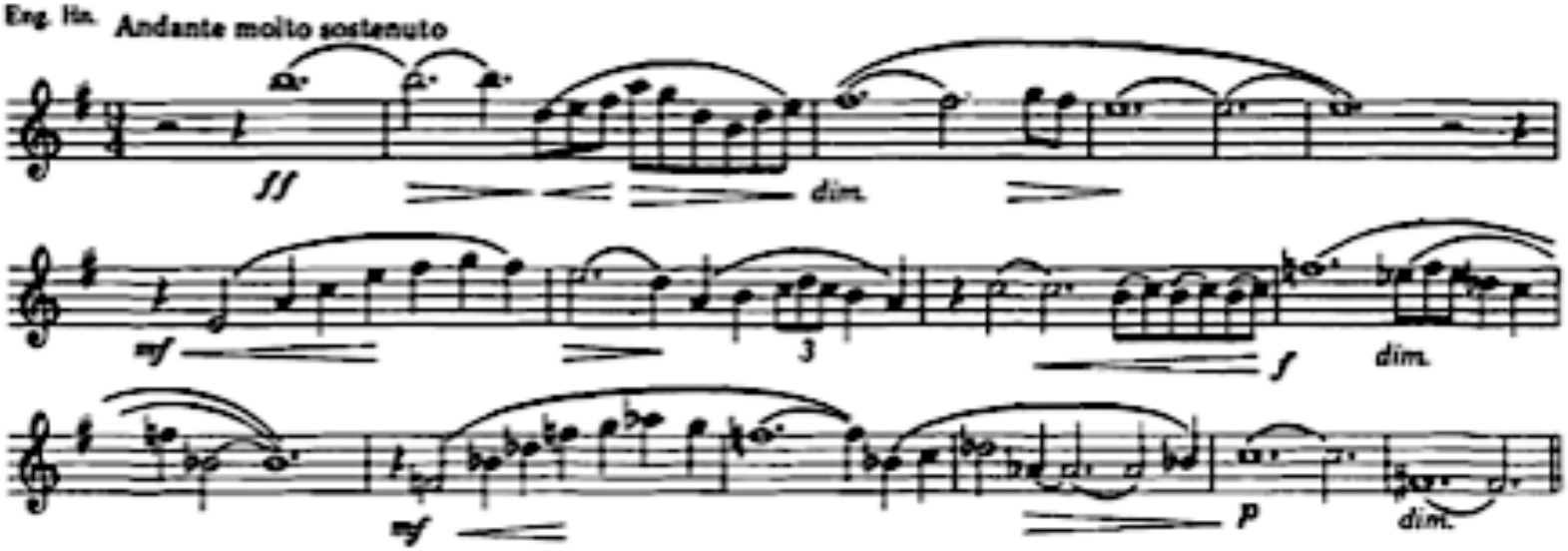

Não muito claro
claro, expressivo, doce
pouco prático
efetivo

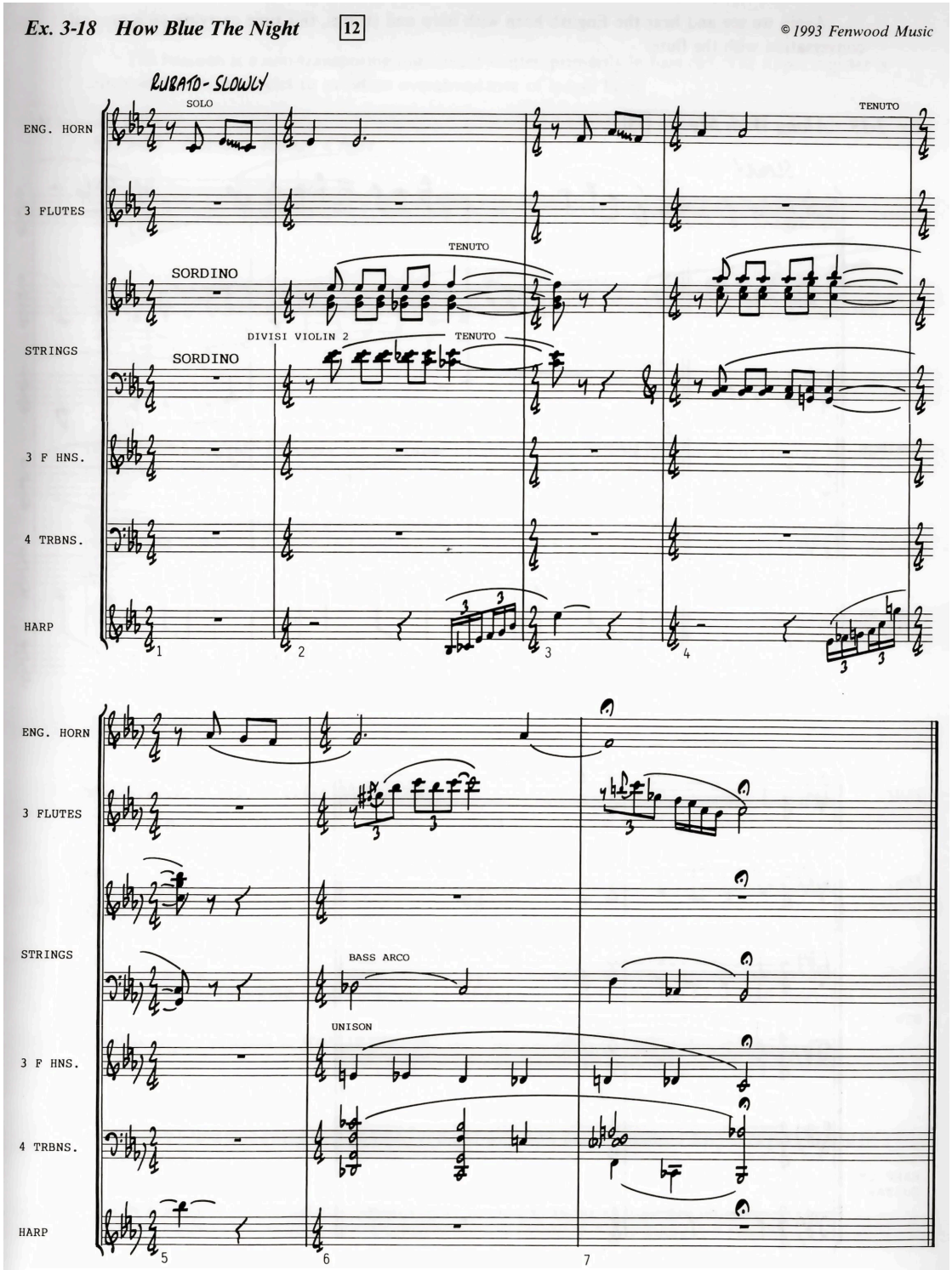
Example VII–48. Berlioz, *Roman Carnival Overture*, mm. 21–36



Example VII–49. Wagner, *Tristan und Isolde*, Act III, scene 1, mm. 5–11

Example VII–50. Sibelius, *The Swan of Tuonela*, mm. 18–32

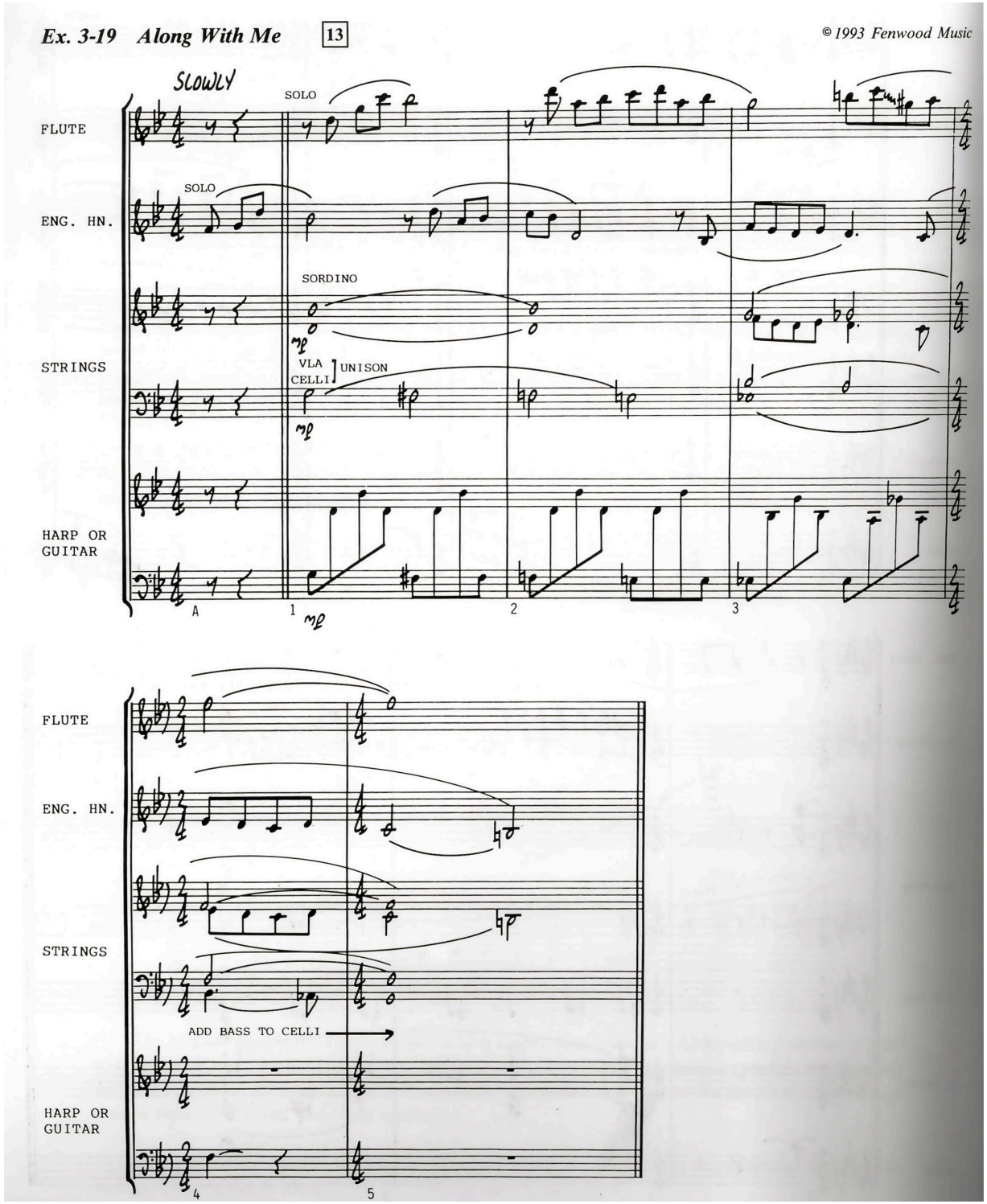




PROF. MARCOS FILHO

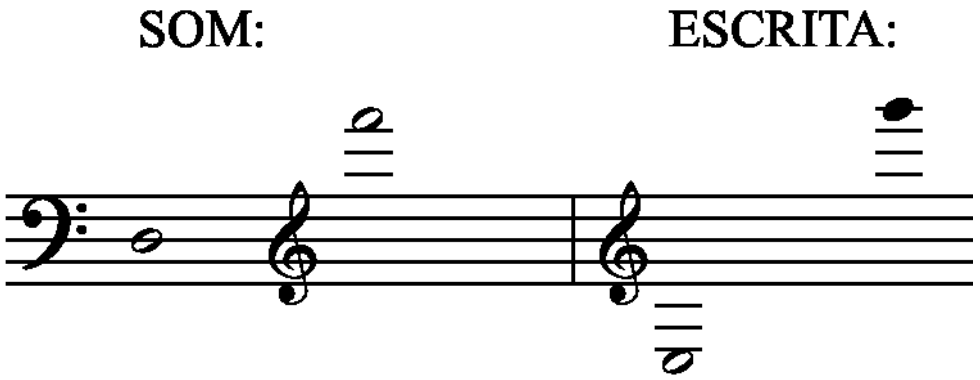
Ex. 3-19 Along With Me 13

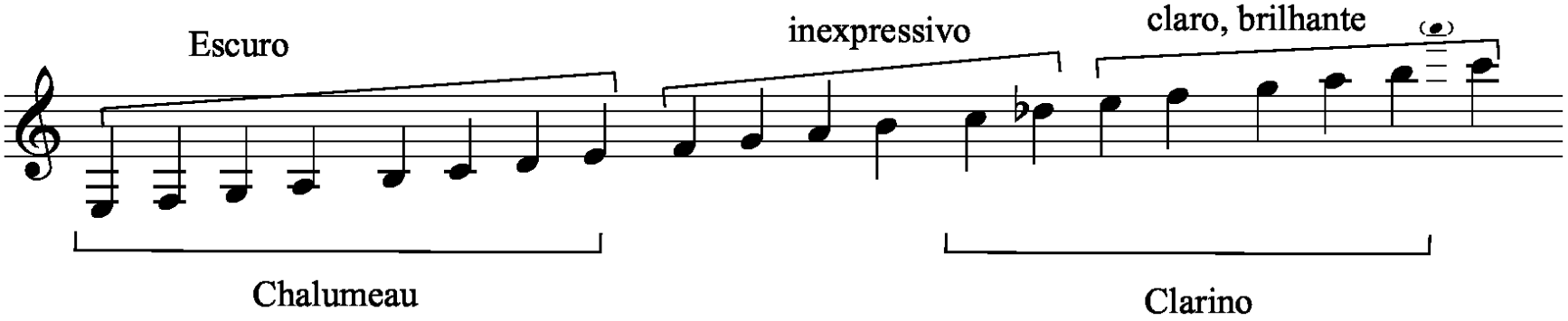
© 1993 Fenwood Music



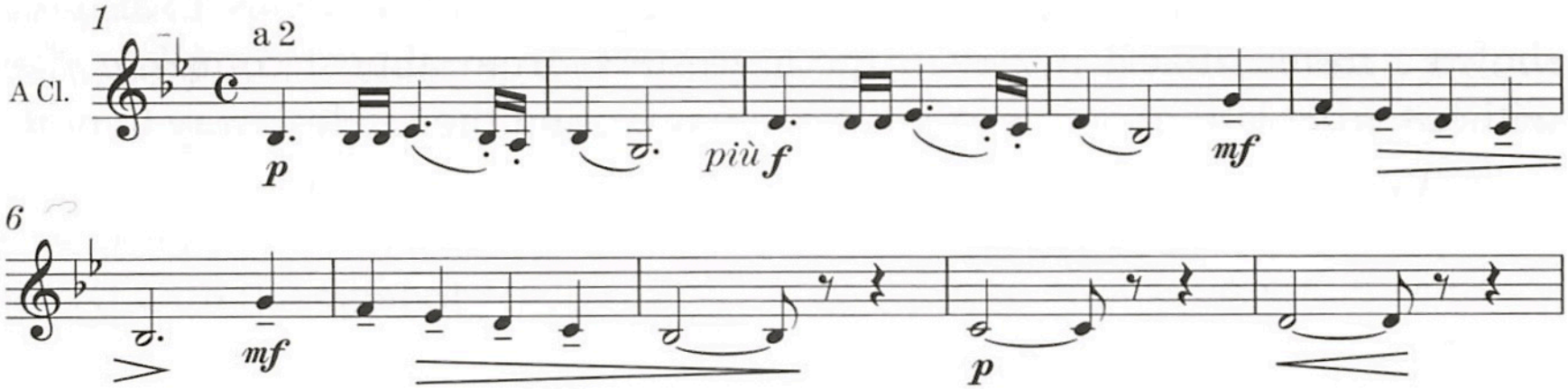
Clarineta em Bb

- É transpositor de um tom;
- É o mais versátil instrumento entre as madeiras com extraordinária flexibilidade, qualidade expressivas e de maior tessitura;
- Combina muito com os membros da sua família (coral) e com as outras madeiras e saxofones;
- Permite muito controle da dinâmica;
- Pode tocar rápido escalas, arpeggios e trinados.

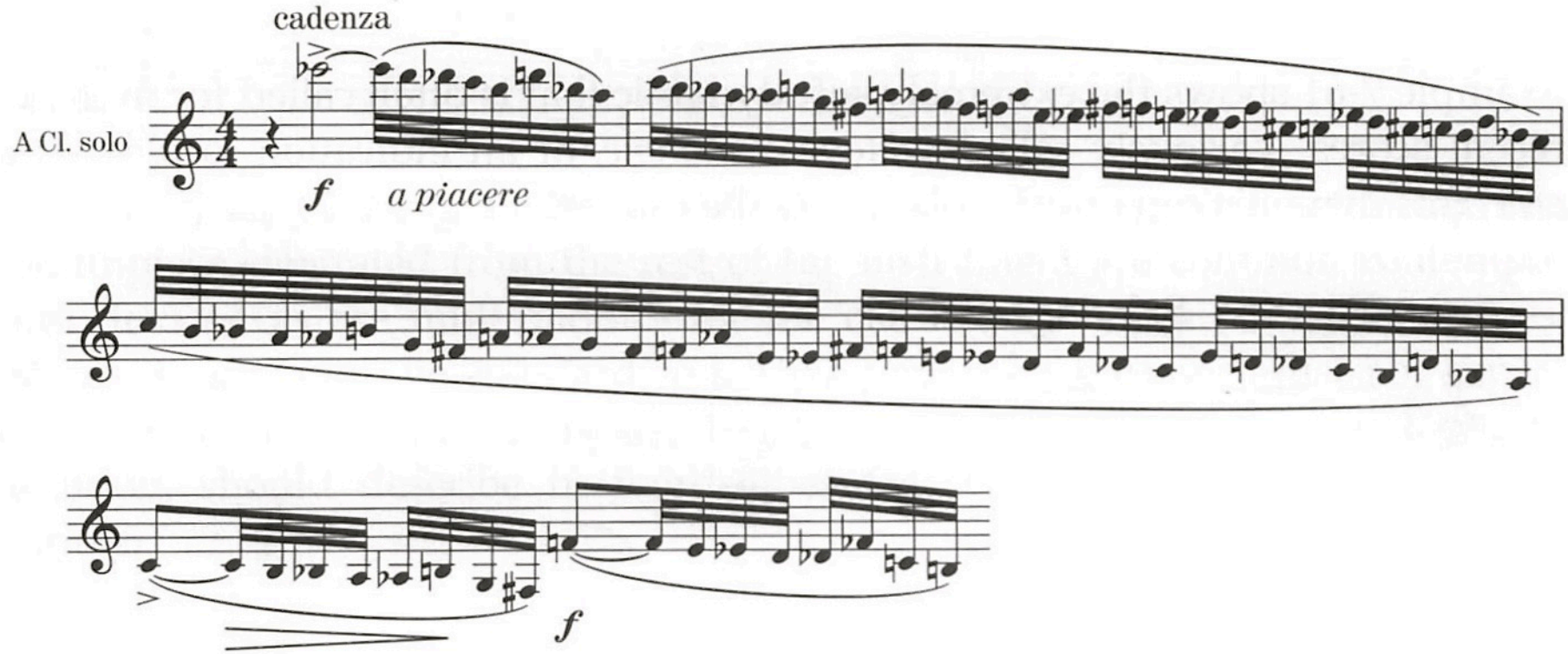

SOM:
ESCRITA:


Escuro
inexpressivo
claro, brilhante
Chalumeau
Clarino

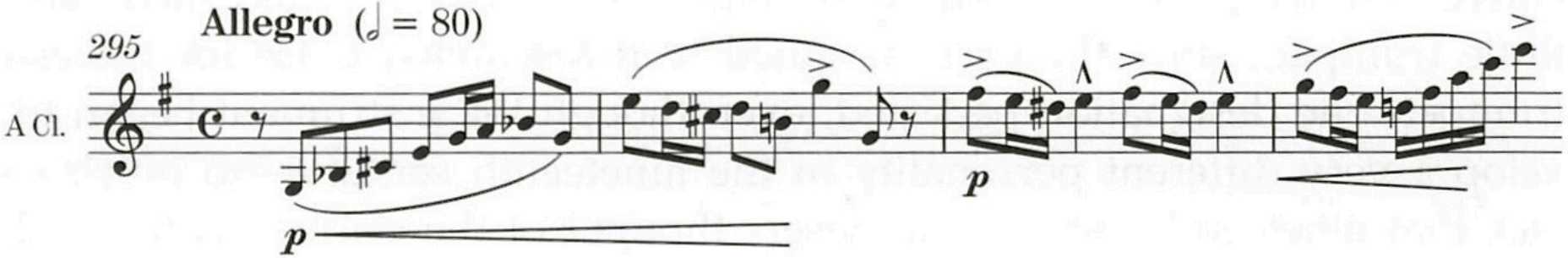
EXAMPLE 7-56. Tchaikovsky, Symphony No. 5, first movement, mm. 1–10



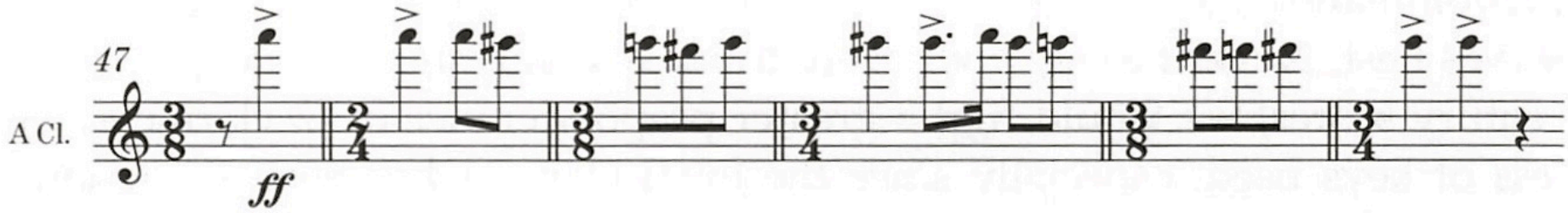
EXAMPLE 7-57. Rimsky-Korsakov, *Le Coq d'or* Suite, 33–36 mm. after 4



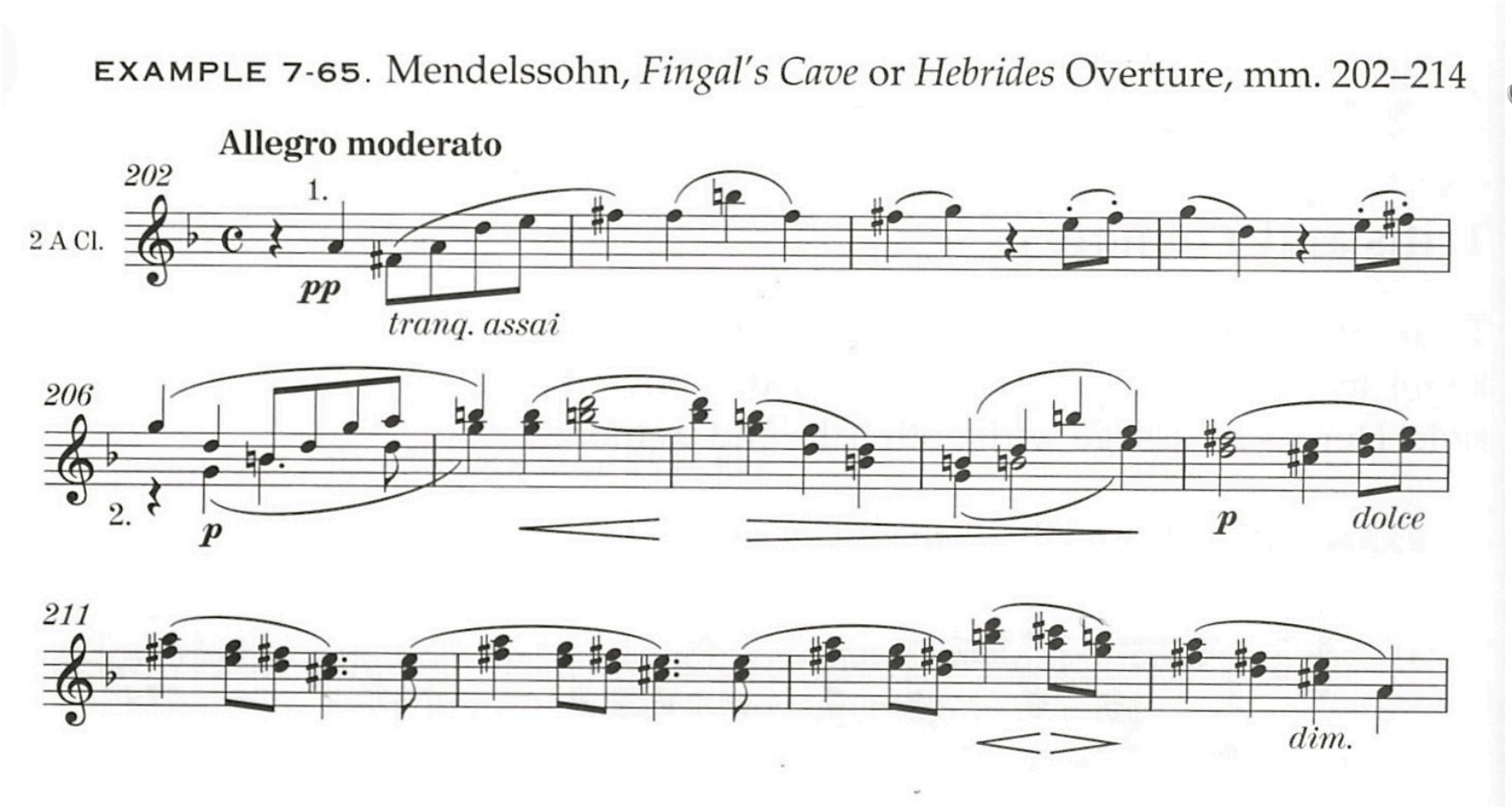
EXAMPLE 7-58. Wagner, *Tannhäuser*, Overture, mm. 295–298



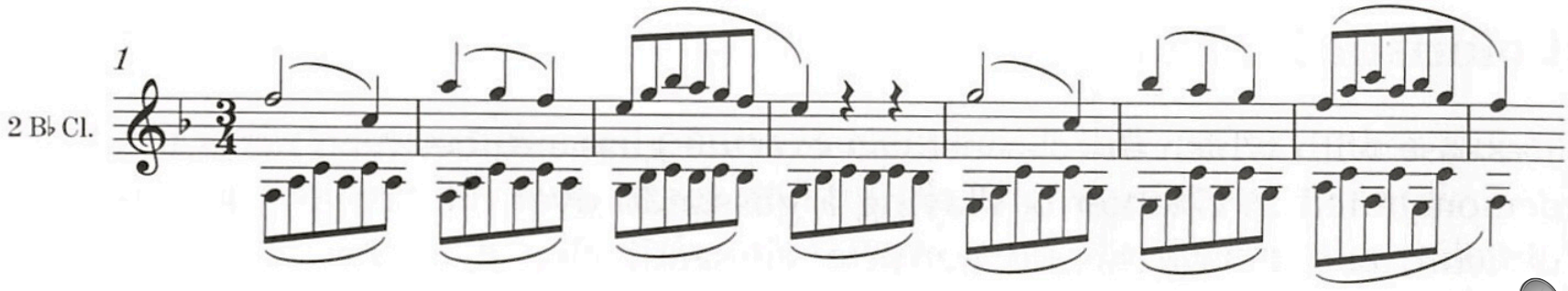
EXAMPLE 7-59. Stravinsky, *L'Histoire du soldat*, "The Soldier's March," mm. 47–52



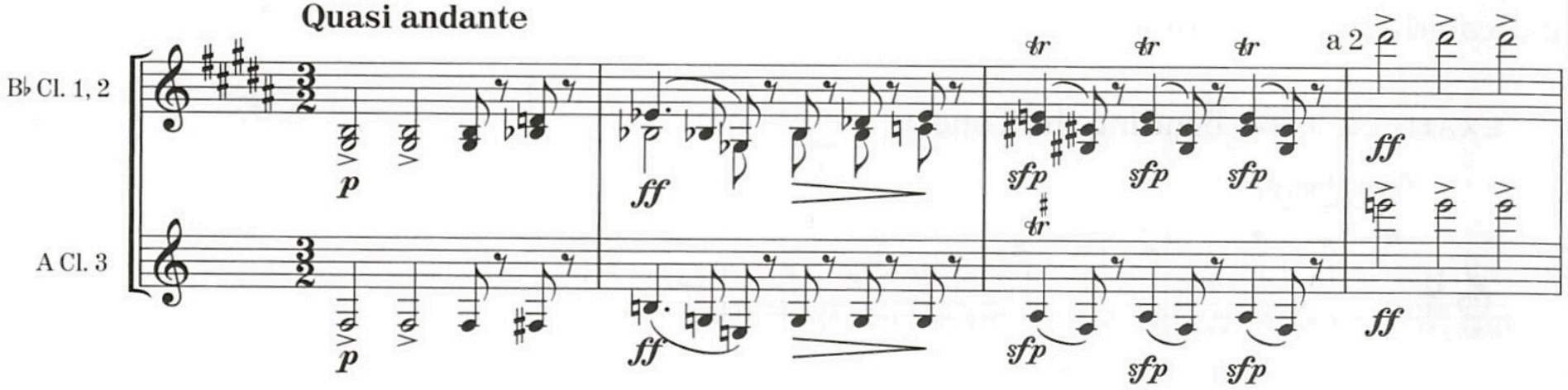
Múltiplas clarinetas



EXAMPLE 7-66. Mozart, Symphony No. 39, third movement, Trio, mm. 1–8

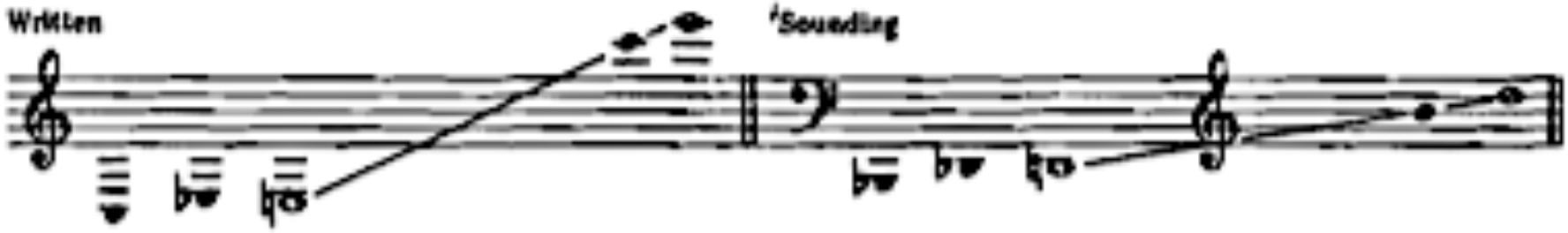


EXAMPLE 7-67. Mahler, Symphony No. 7, fifth movement, 6–9 mm. after 252

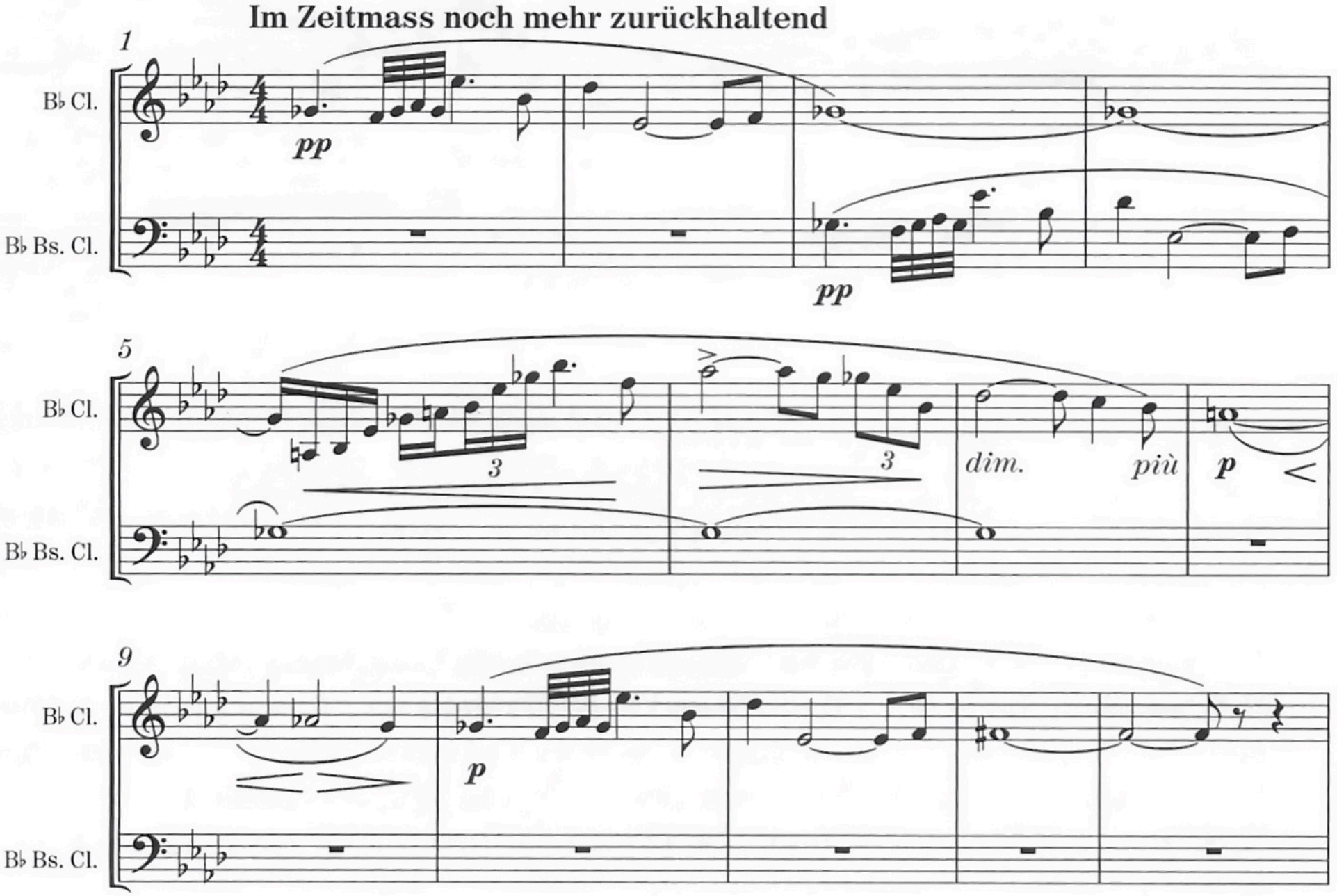


Clarinete Baixo (clarone)

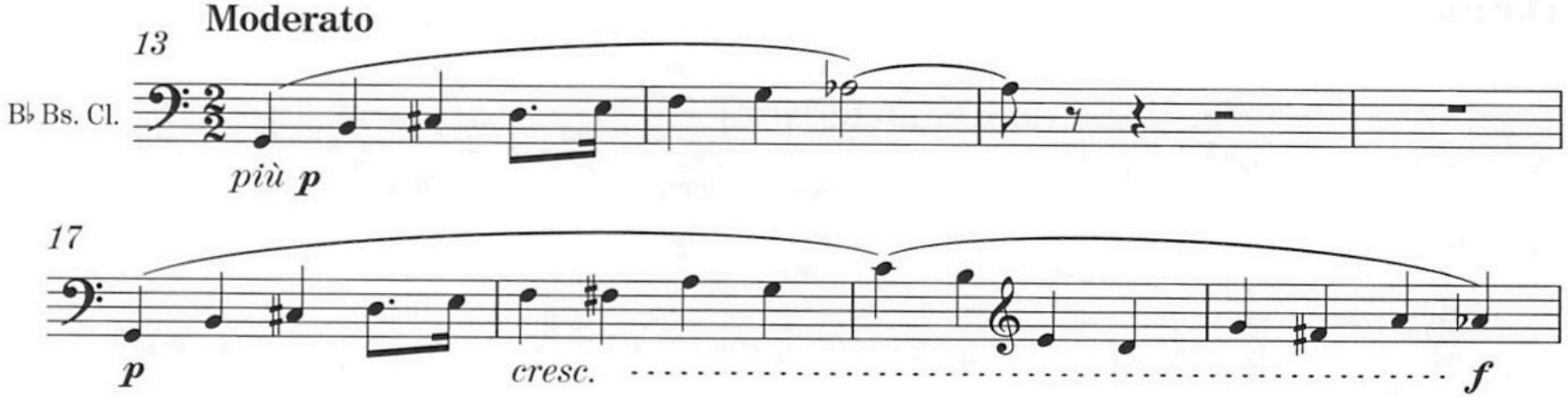
- É afinado em Bb e soa uma oitava abaixo da clarineta;
- Escreve-se na clave de Sol, mas soa uma nona abaixo do que está escrito;
- Combina muito com os membros da sua família (coral) e com as outras madeiras e saxofones;
- Permite muito controle da dinâmica;


Written
Sounding

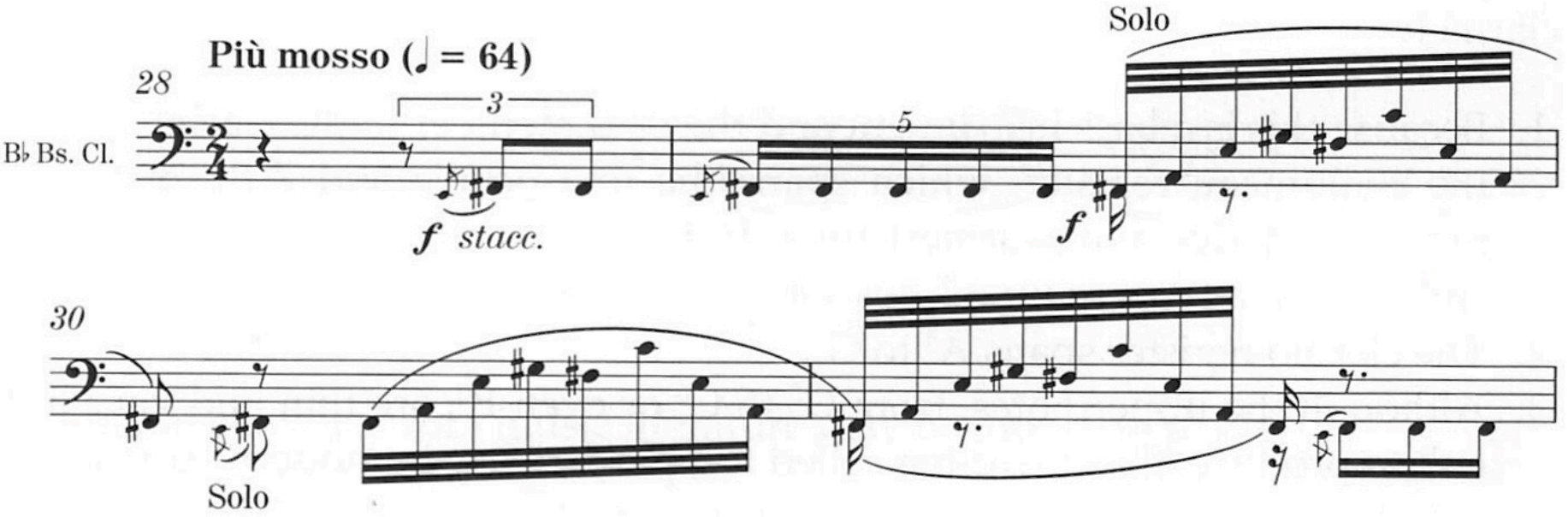
EXAMPLE 7-74. Wagner, *Die Götterdämmerung*, Act I, Scene 3, mm. 1–13



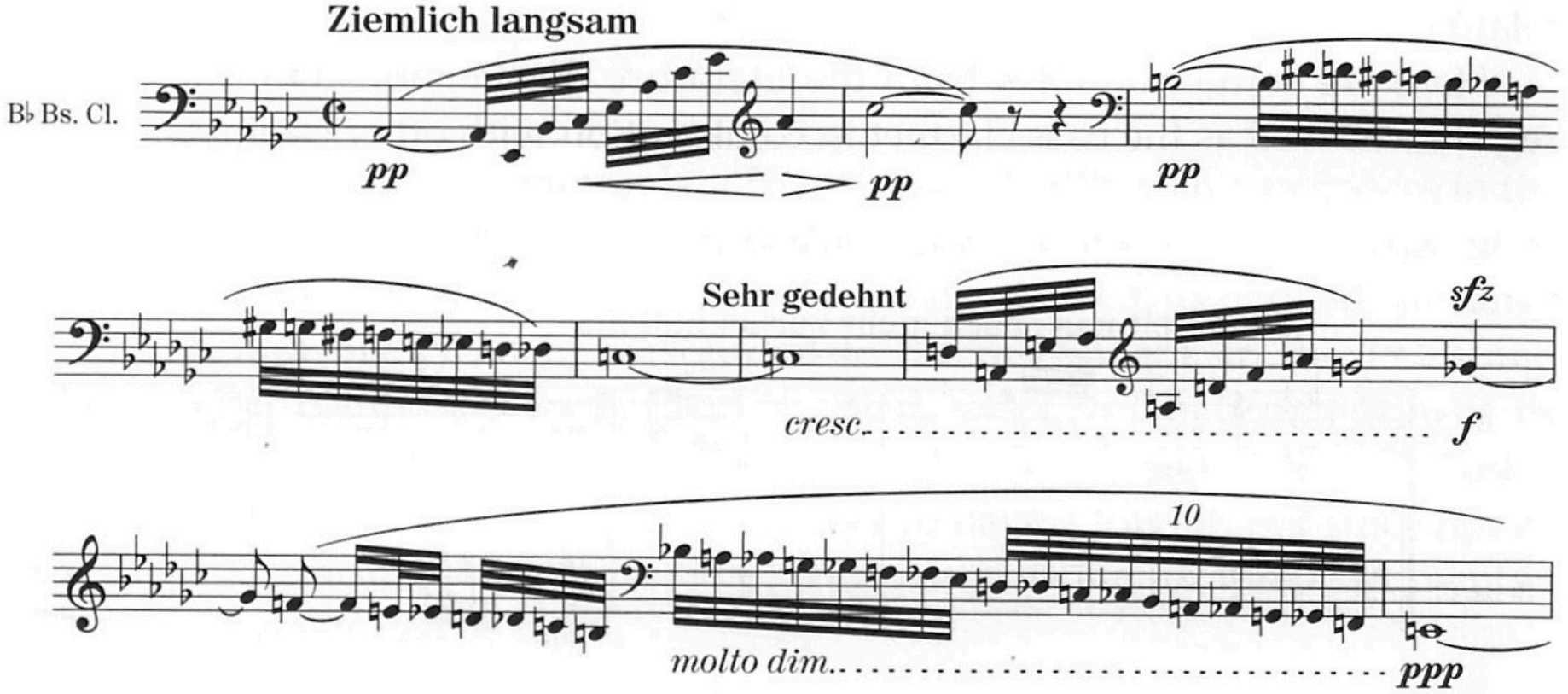
EXAMPLE 7-75. Wagner, *Tristan und Isolde*, Prelude to Act II, mm. 13–20



EXAMPLE 7-76. Stravinsky, *Le Sacre du printemps*, Part I, "L'Adoration de la terre," mm. 28–31

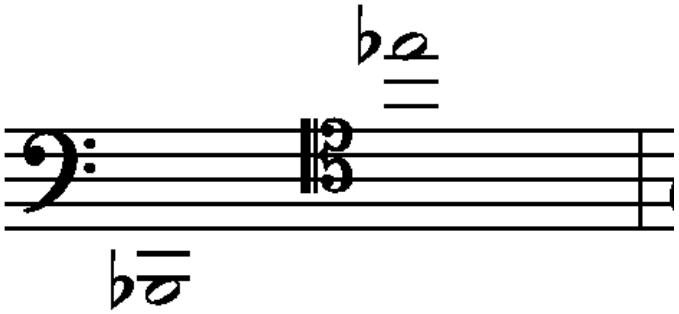


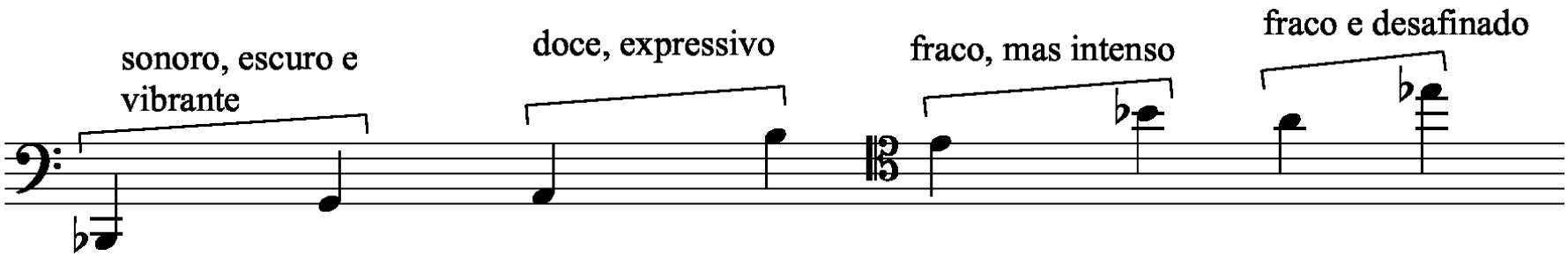
EXAMPLE 7-77. R. Strauss, *Salome*, at 320



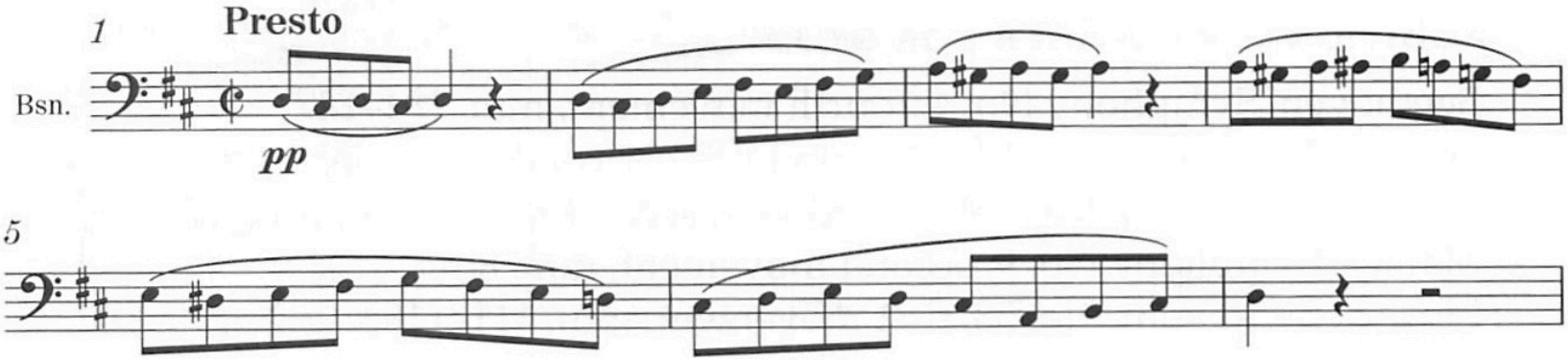
Fagote

- Não transpositor e é grafado nas claves de Fá e de Dó na quarta linha;
- Expressivos e efetivo em staccatos e fraseados legatos;
- Ágil ritmicamente;
- Permite muito controle da dinâmica;
- Trêmulos podem se tornar problemáticos sobretudo acima de uma quarta.

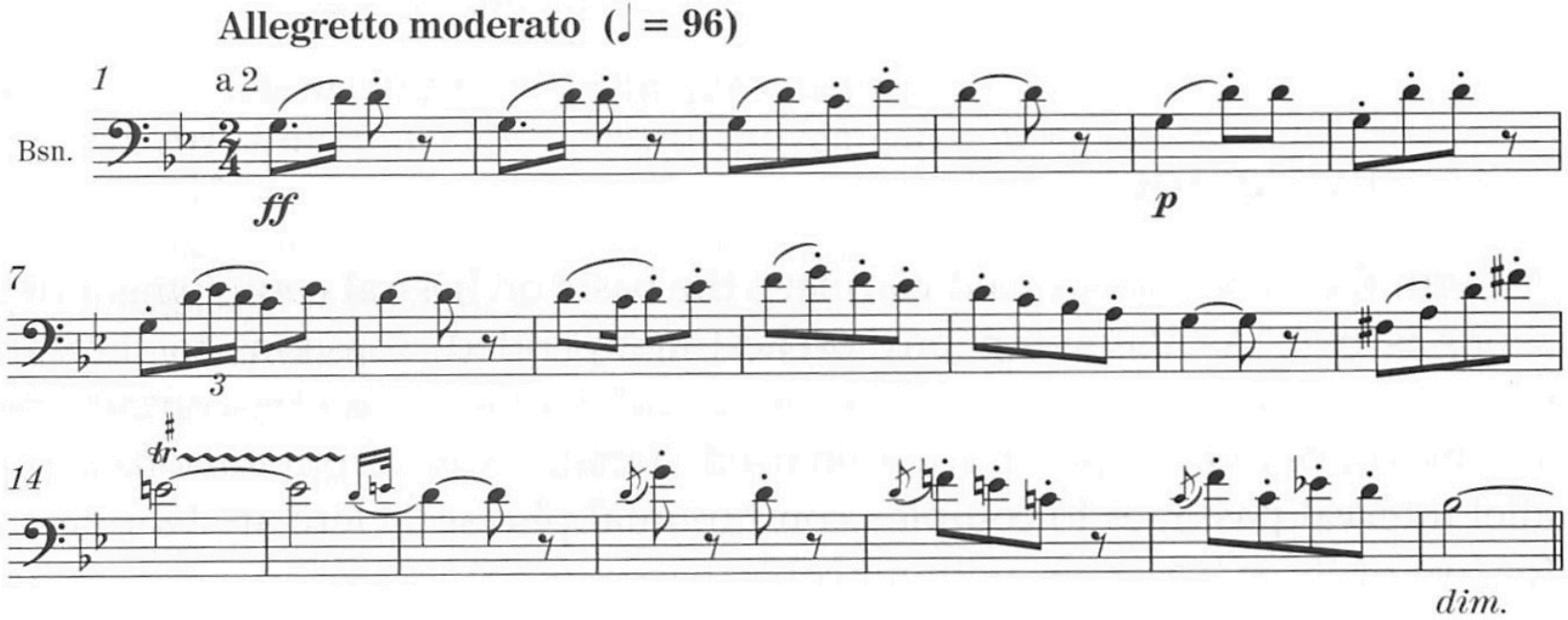



sonoro, escuro e
vibrante
doce, expressivo
fraco, mas intenso
fraco e desafinado

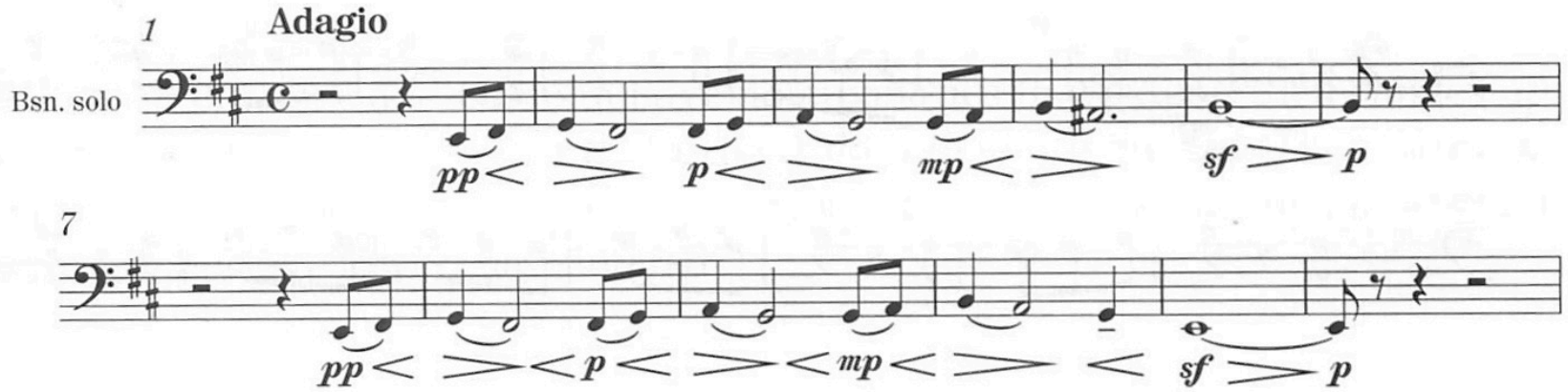
EXAMPLE 7-91. Mozart, *Le Nozze di Figaro*, Overture, mm. 1–7



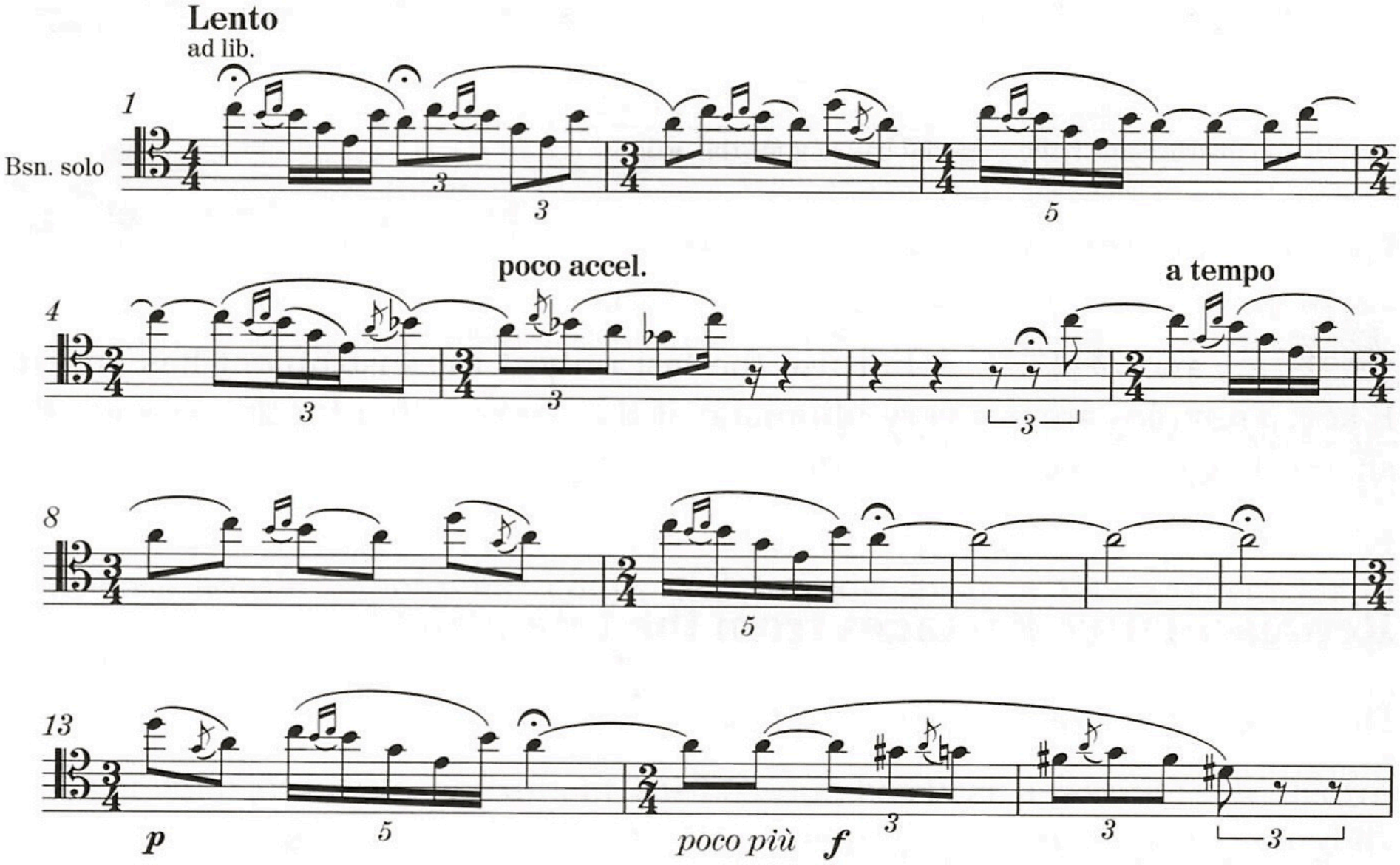
EXAMPLE 7-92. Bizet, *Carmen*, Entr'acte before Act II, mm. 1–20



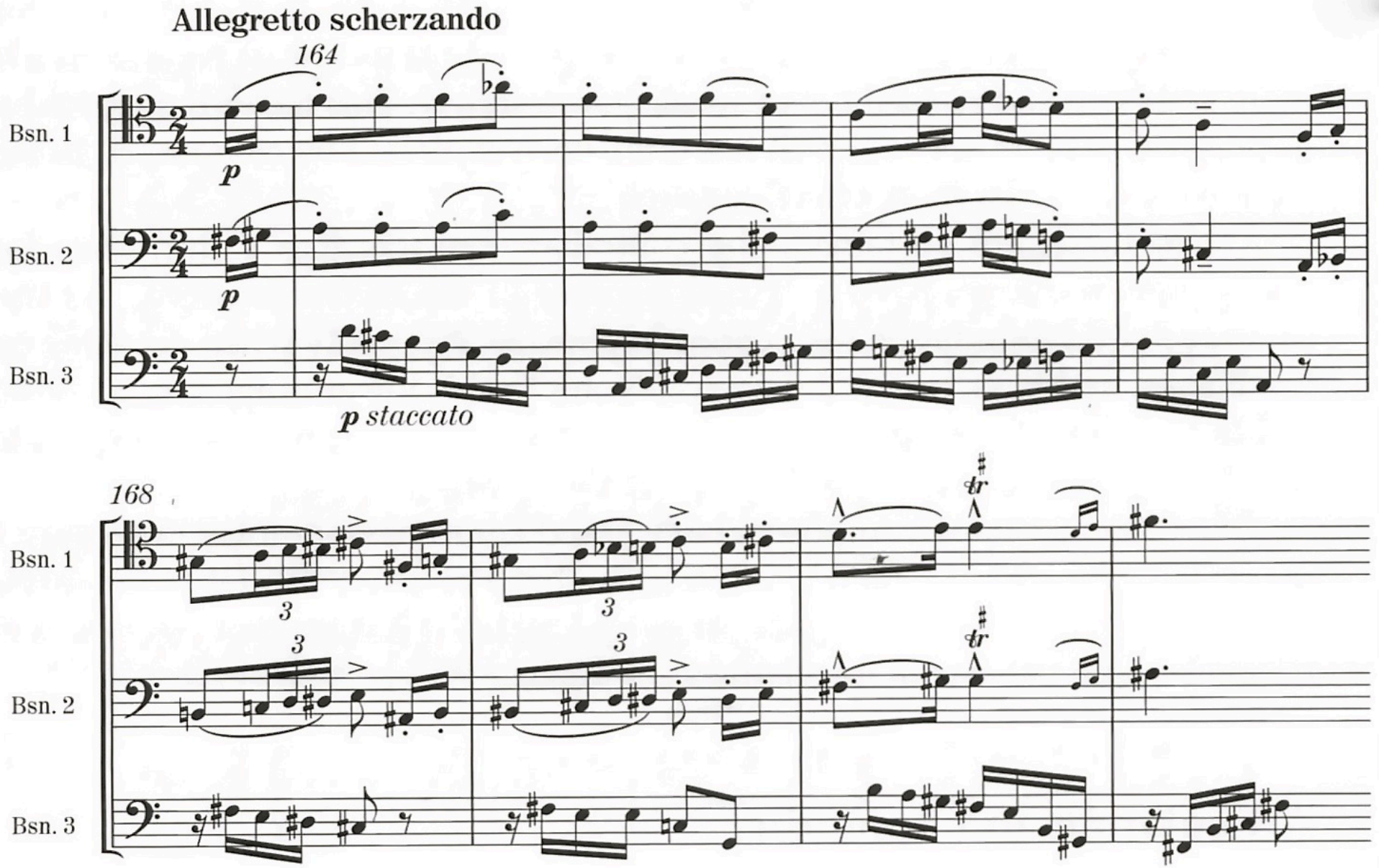
EXAMPLE 7-93. Tchaikovsky, Symphony No. 6, first movement, mm. 1–12



EXAMPLE 7-94. Stravinsky, *Le Sacre du printemps*, Part I, "L'Adoration de la terre," mm. 1–15

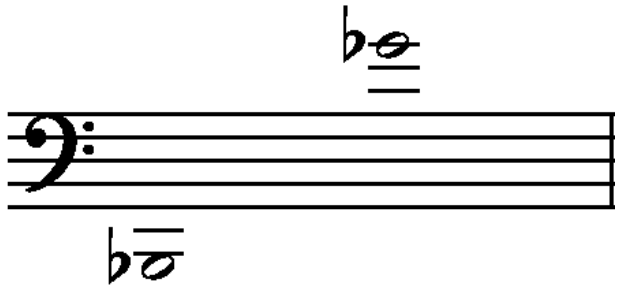


EXAMPLE 7-96. Bartók, *Concerto for Orchestra*, second movement, mm. 164–171

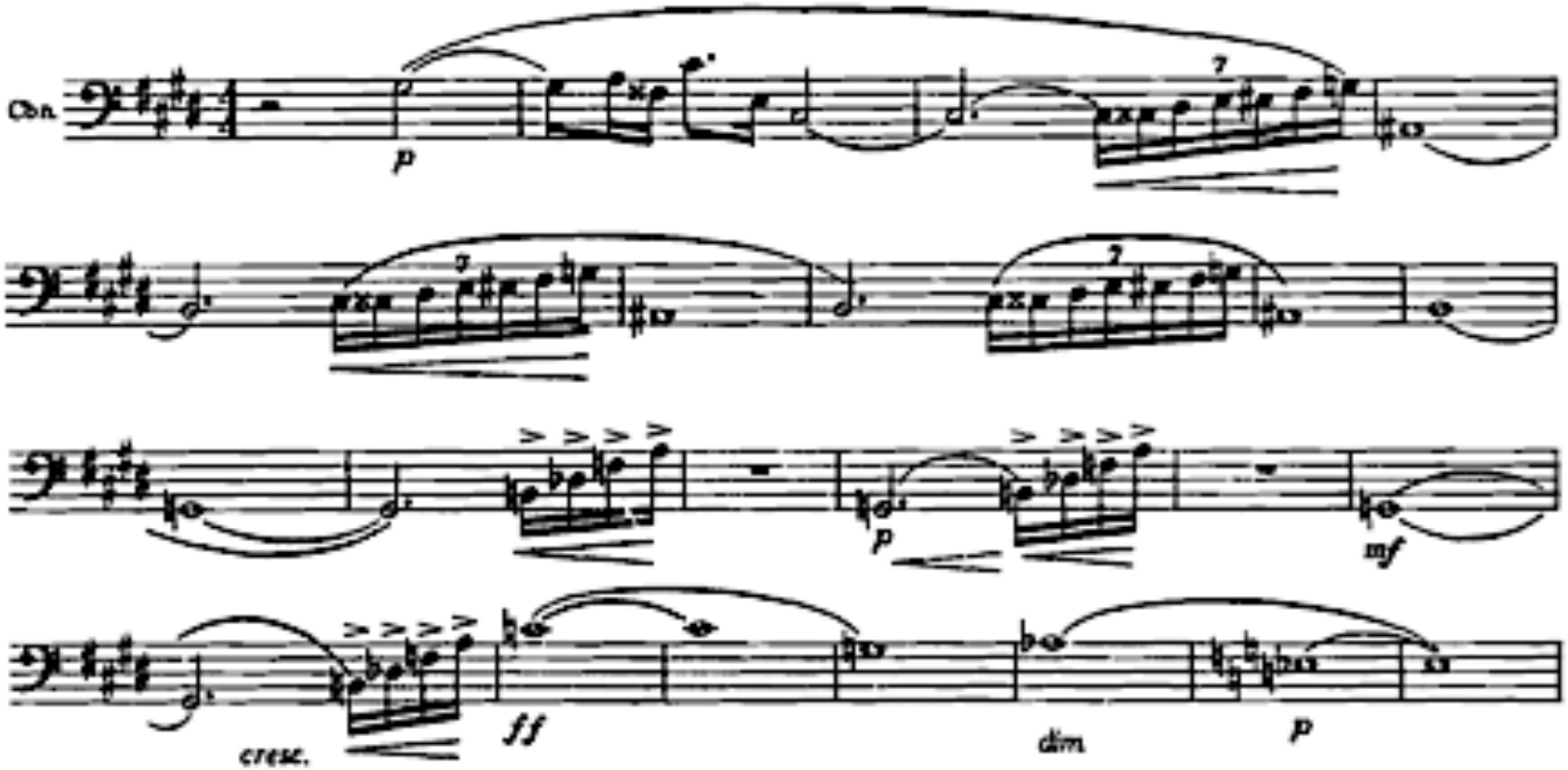


Contrafagote

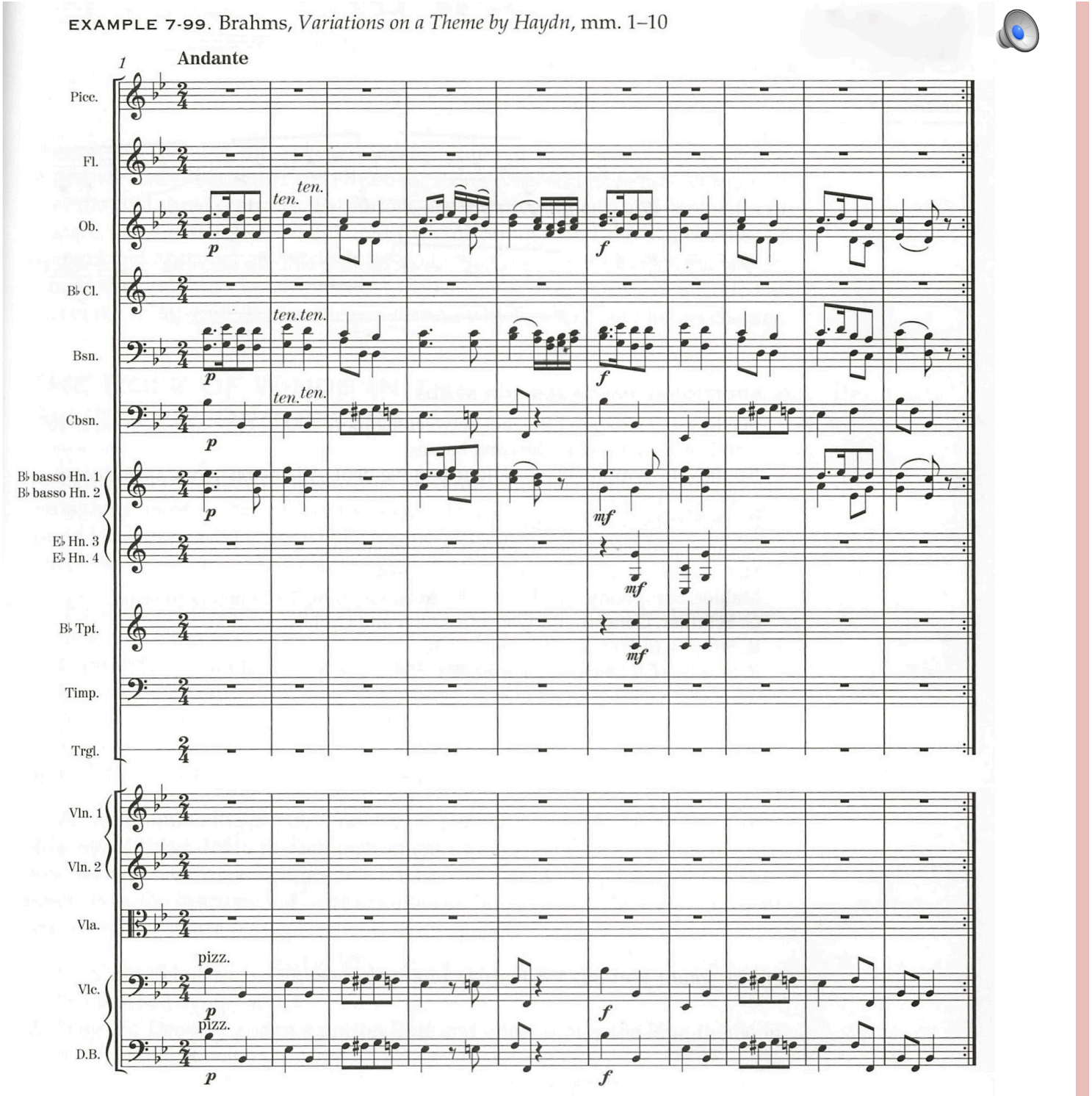
- Transpositor de oitava;



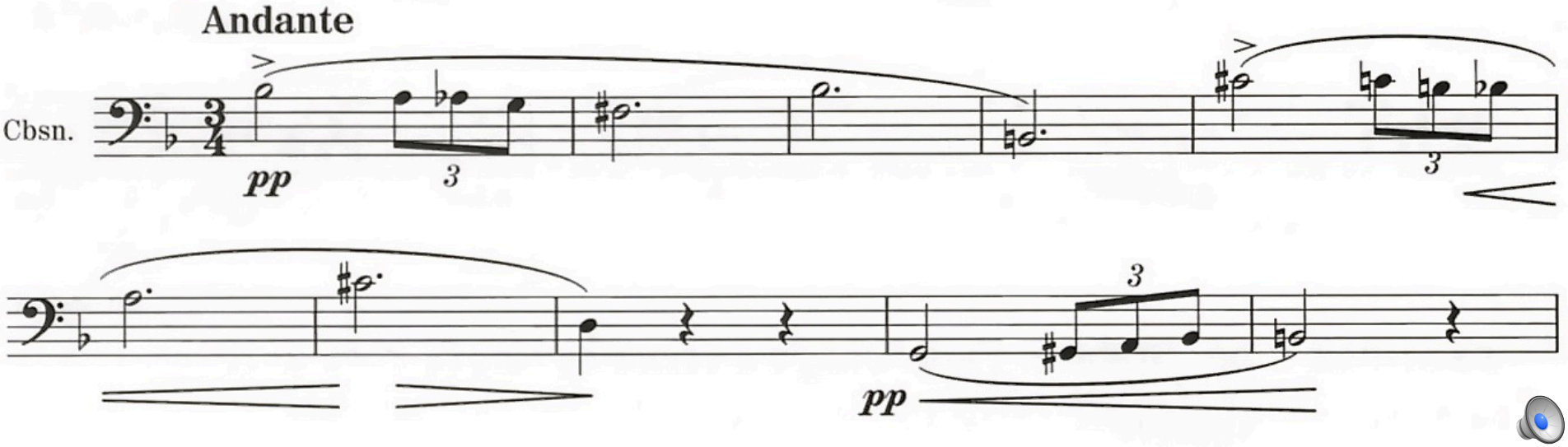
Example VII–98. Strauss, *Salome*, Act I, scene 3, 151, mm. 6–27



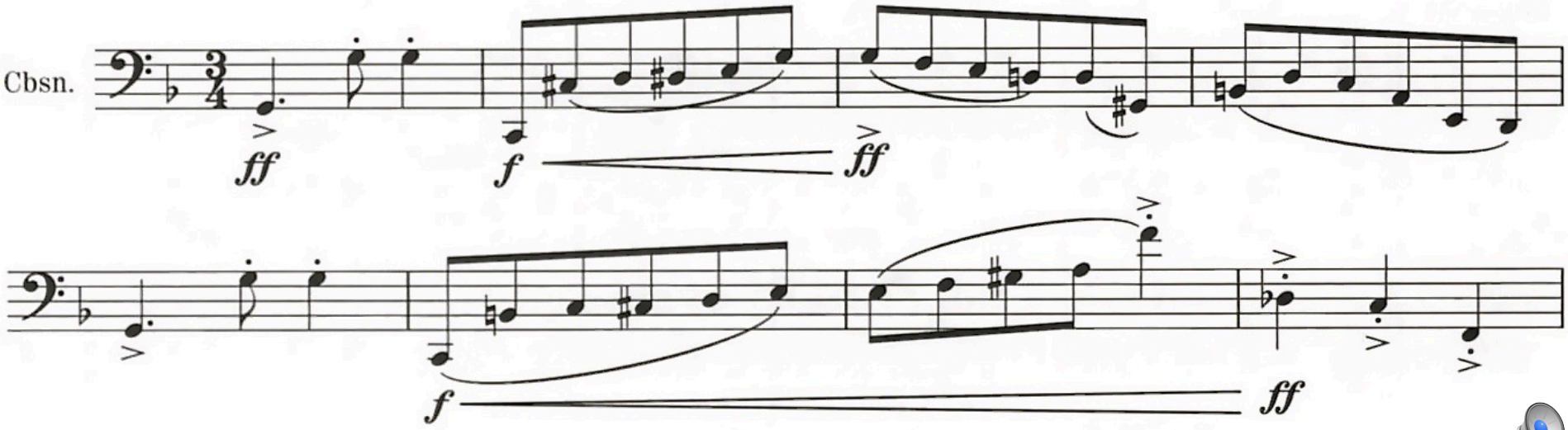
Passagens Representativas na literatura



EXAMPLE 7-100. Ravel, *Ma mère l'oye*, "Les entretiens de la belle et la bête," mm. 114–123

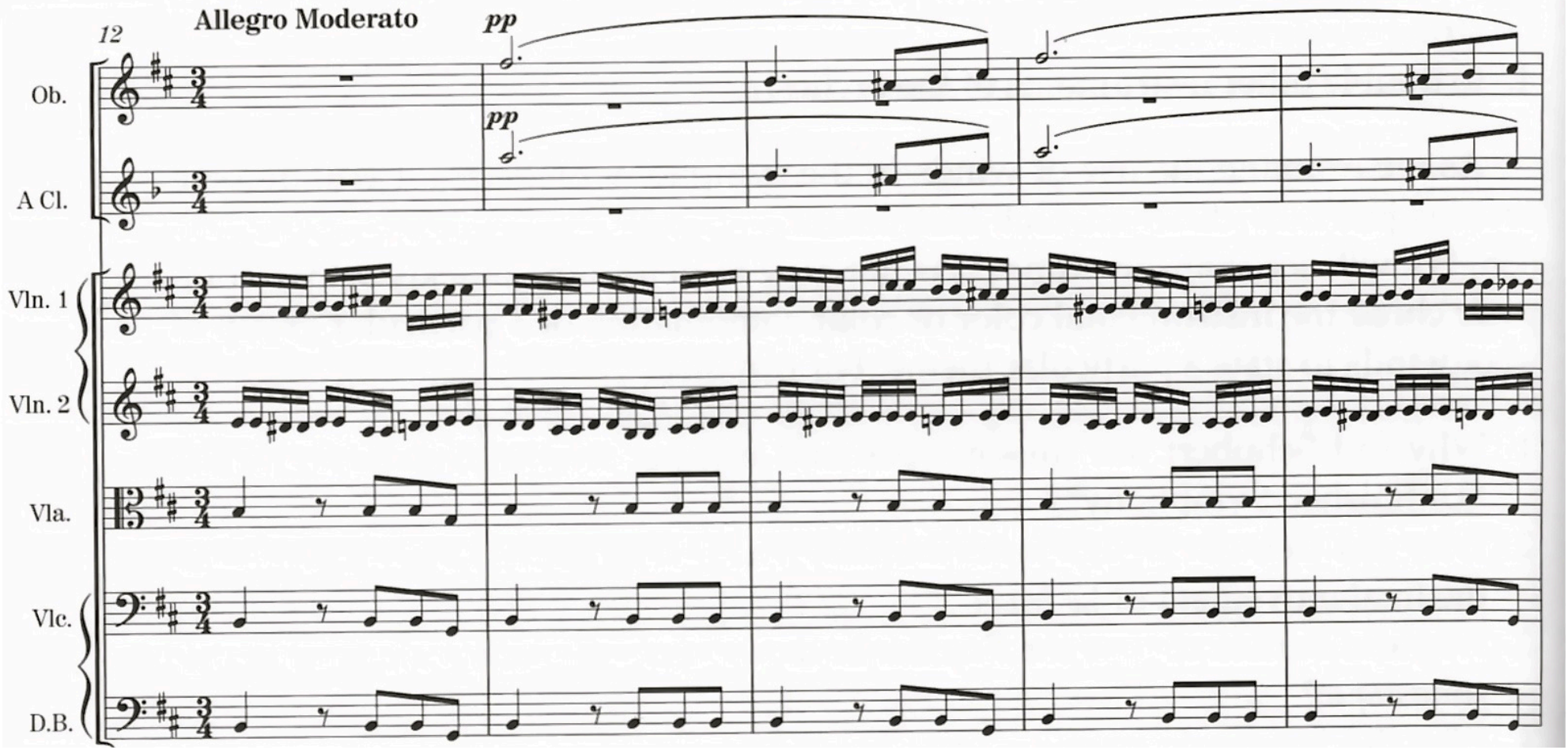


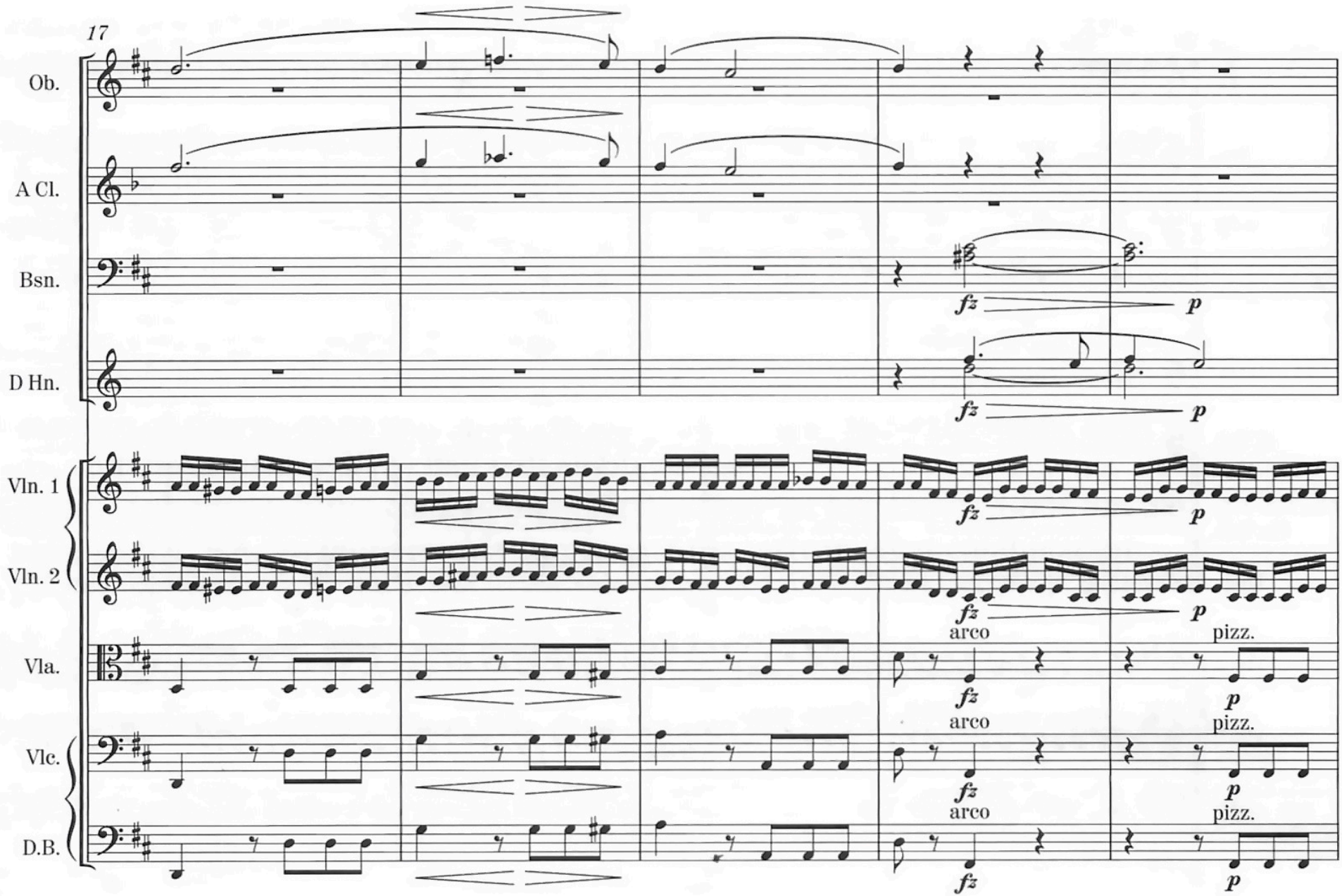
EXAMPLE 7-101. Ravel, *La Valse*, 37–38

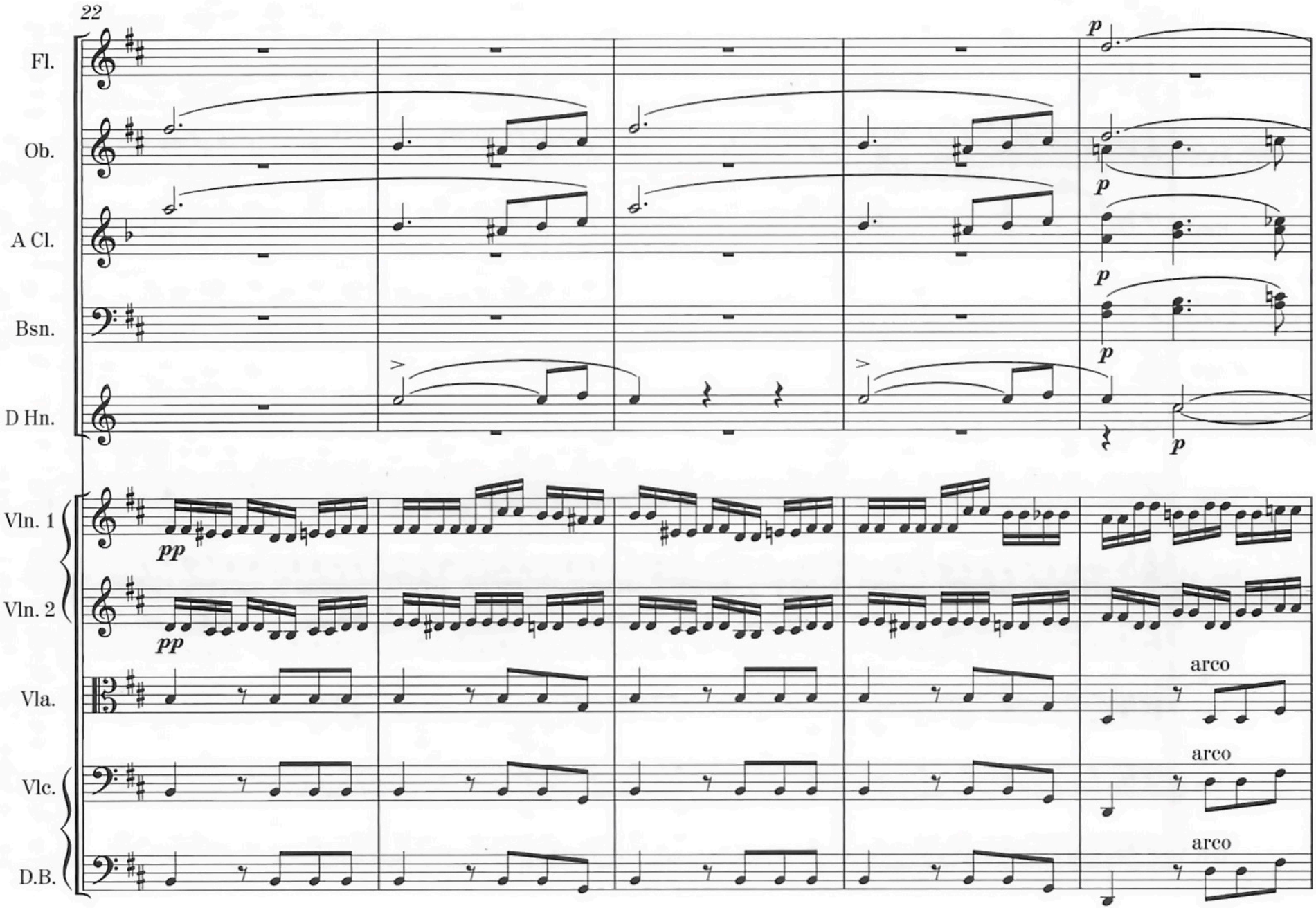


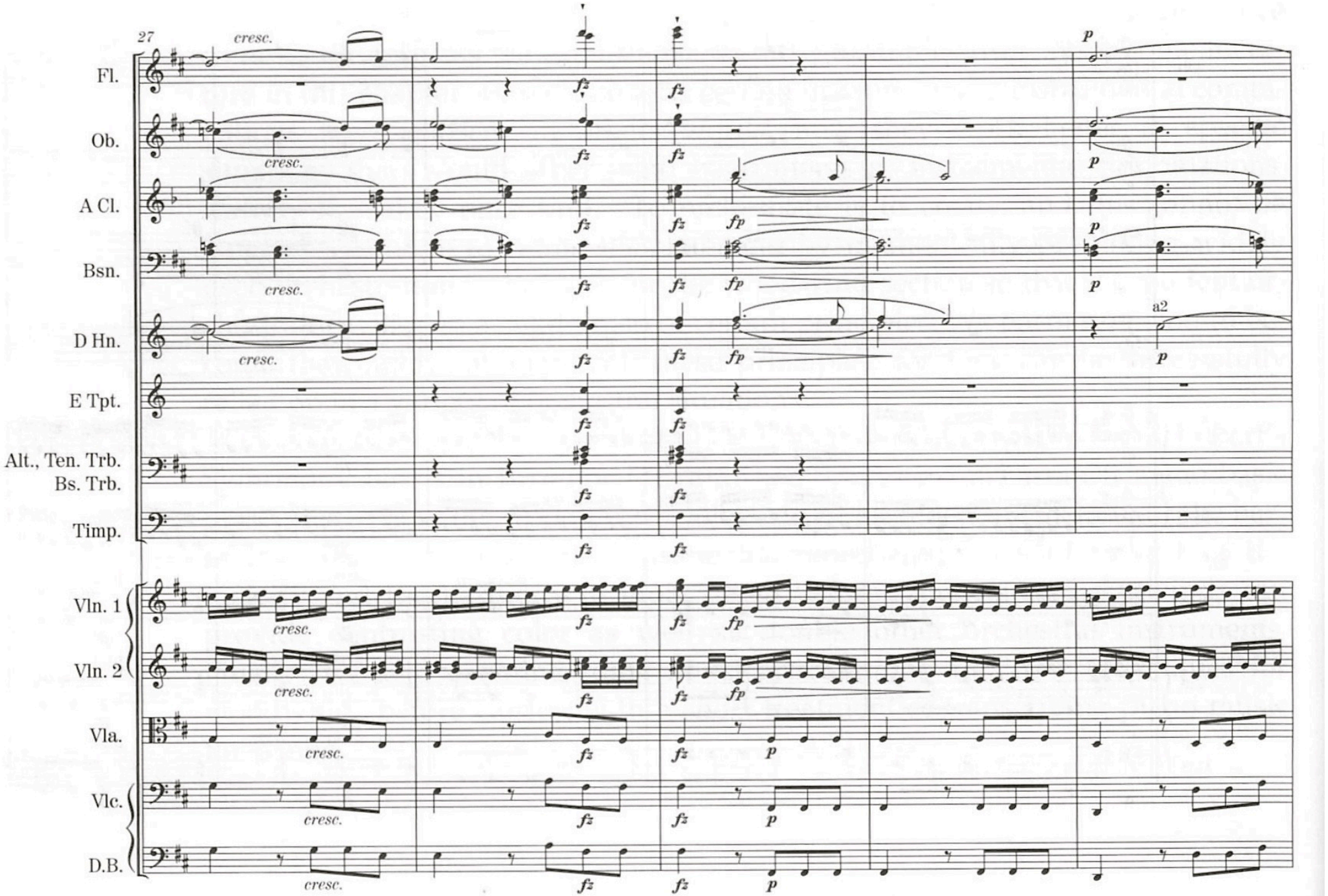
Combinando os sons das madeiras

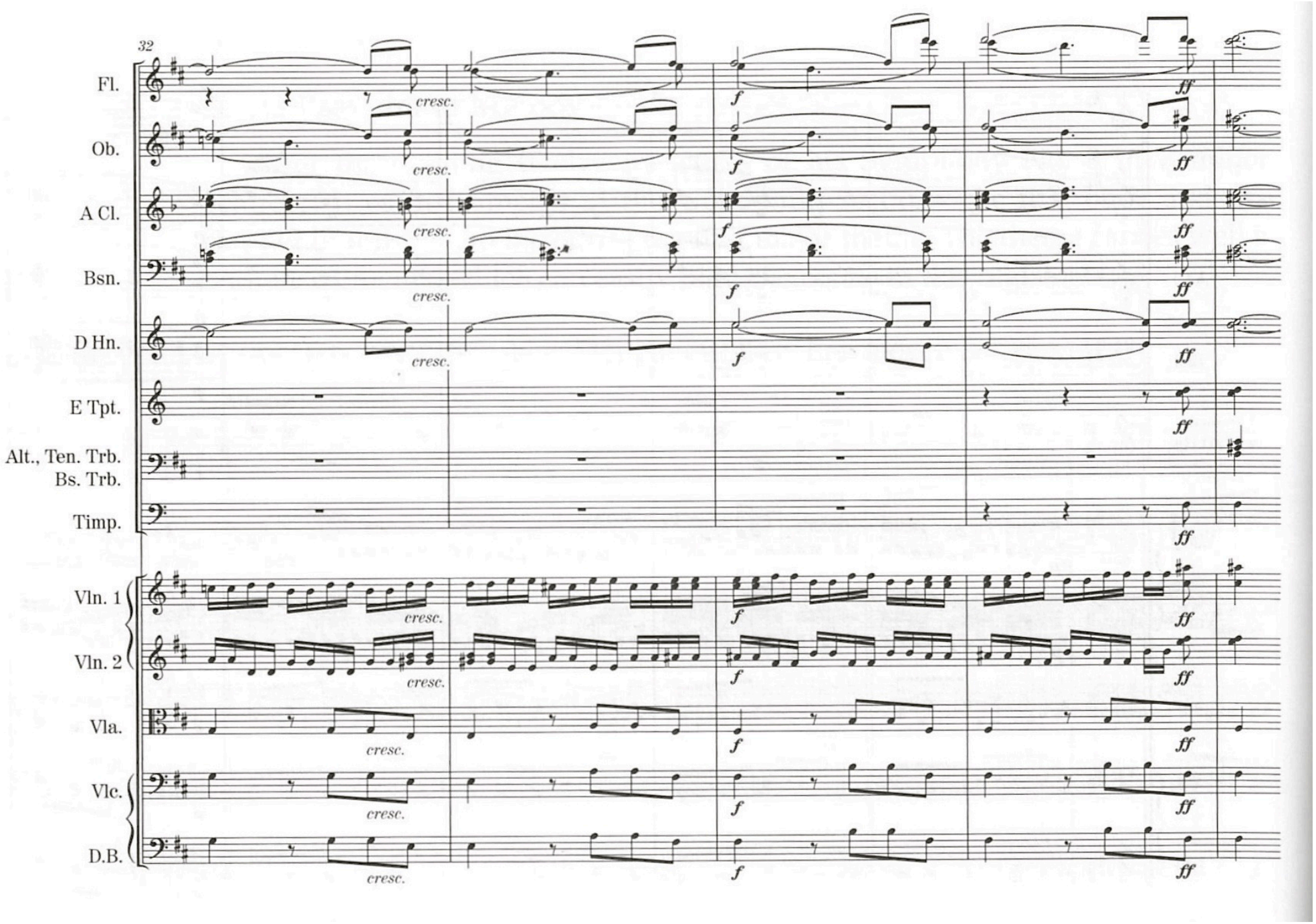
EXAMPLE 8-1. Schubert, Symphony No. 8, first movement, mm. 12–36



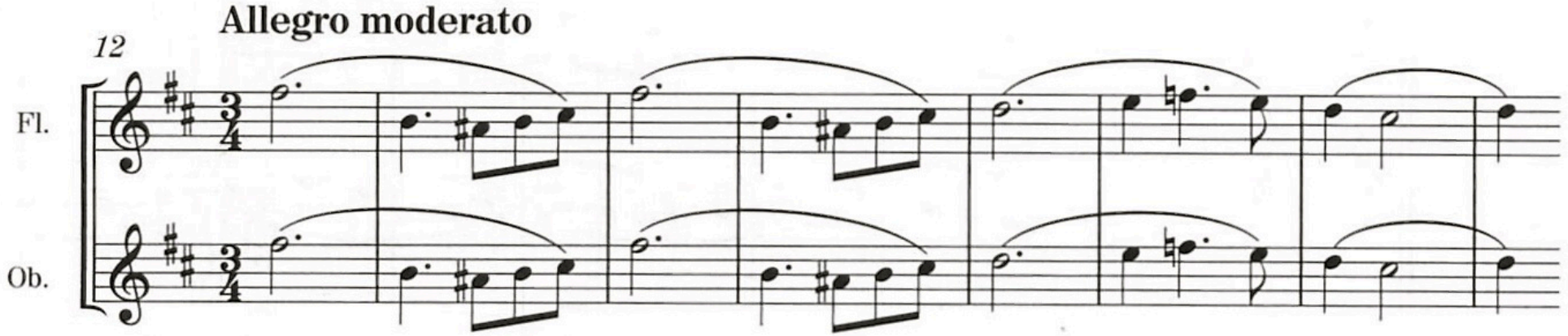

17
Ob.
A Cl.
Bsn.
D Hn.
Vln. 1
Vln. 2
Vla.
Vlc.
D.B.
fz
p
arco
pizz.


22
Fl.
Ob.
A Cl.
Bsn.
D Hn.
Vln. 1
Vln. 2
Vla.
Vlc.
D.B.
p
pp
arco

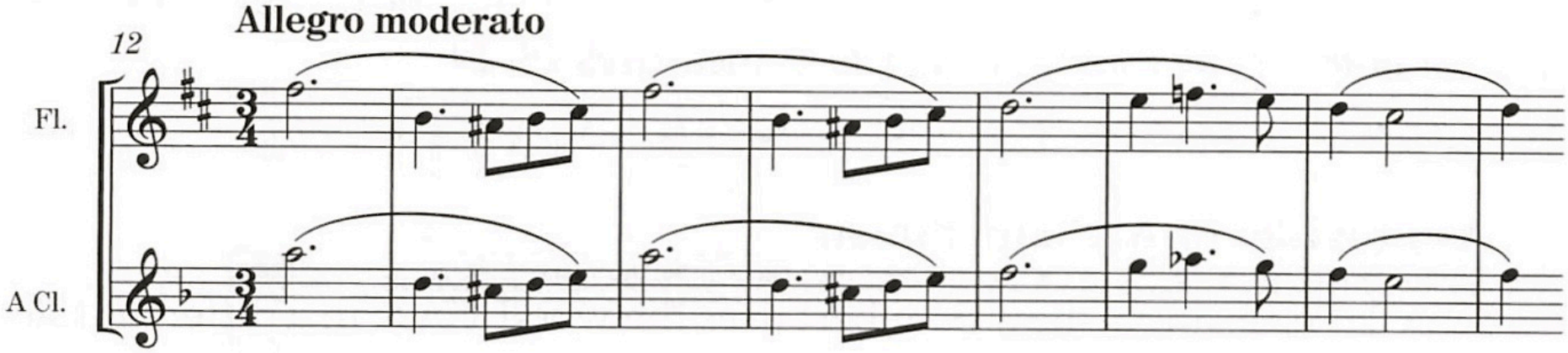

27
Fl.
Ob.
A Cl.
Bsn.
D Hn.
E Tpt.
Alt., Ten. Trb.
Bs. Trb.
Timp.
Vln. 1
Vln. 2
Vla.
Vlc.
D.B.
cresc.
fz
fp
p
a2


32
Fl.
Ob.
A Cl.
Bsn.
D Hn.
E Tpt.
Alt., Ten. Trb.
Bs. Trb.
Timp.
Vln. 1
Vln. 2
Vla.
Vlc.
D.B.
cresc.
f
ff

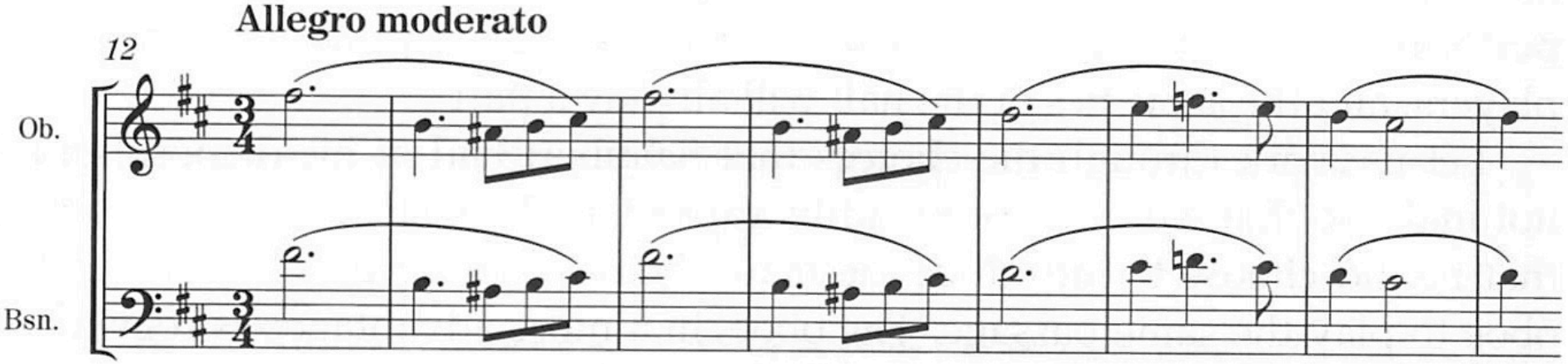
EXAMPLE 8-2. Schubert, Symphony No. 8, first movement, first theme scored for flute and oboe



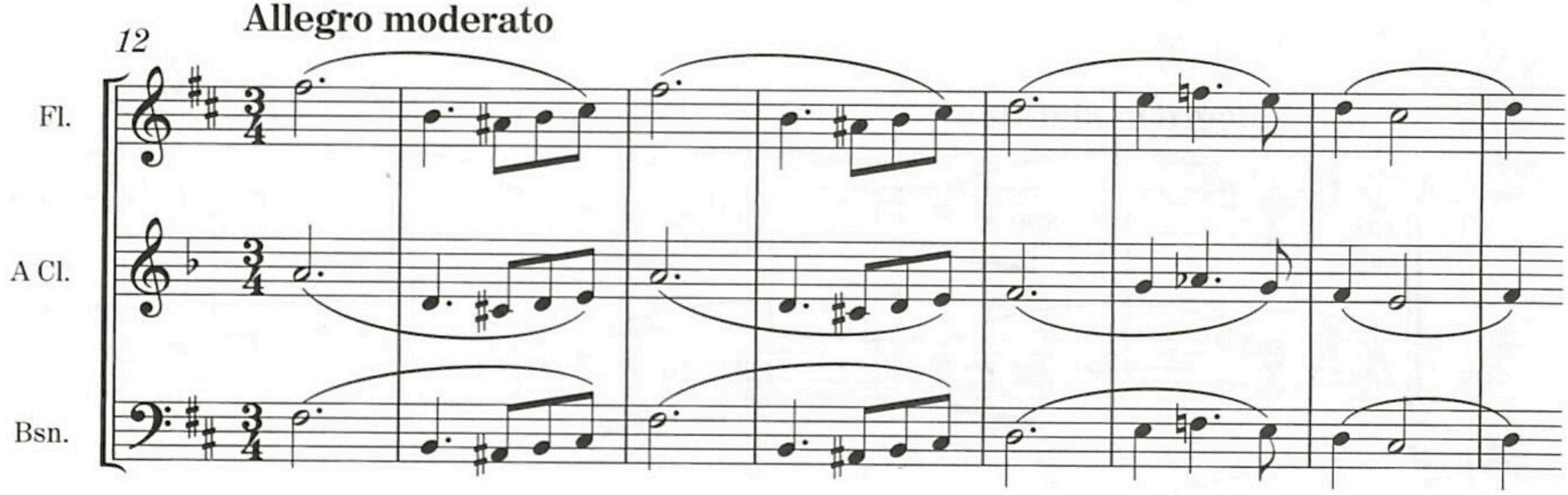
EXAMPLE 8-3. Schubert, Symphony No. 8, first movement, first theme scored for flute and clarinet



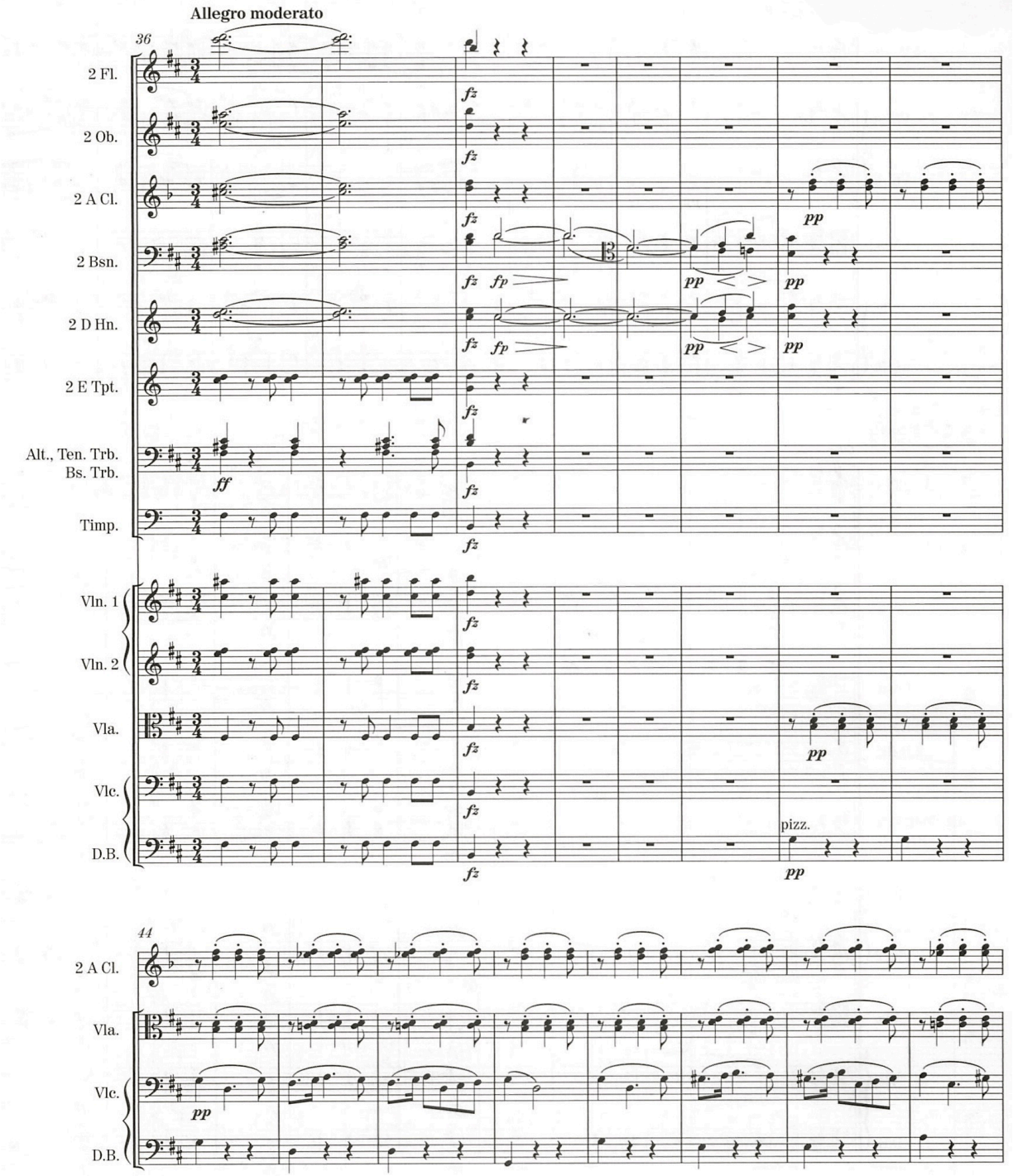
EXAMPLE 8-4. Schubert, Symphony No. 8, first movement, first theme scored for oboe and bassoon



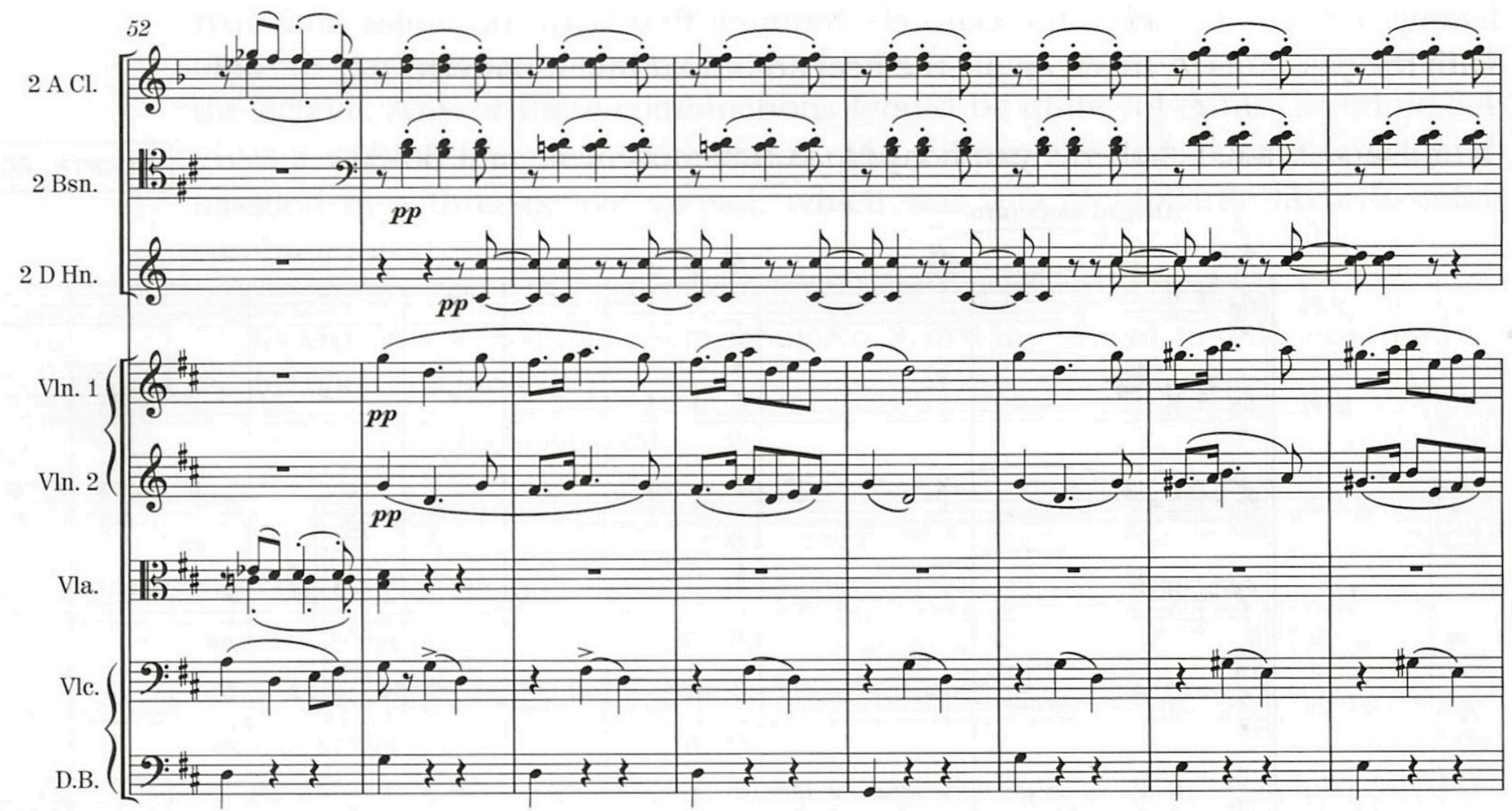
EXAMPLE 8-5. Schubert, Symphony No. 8, first movement, first theme scored for flute, clarinet, and bassoon

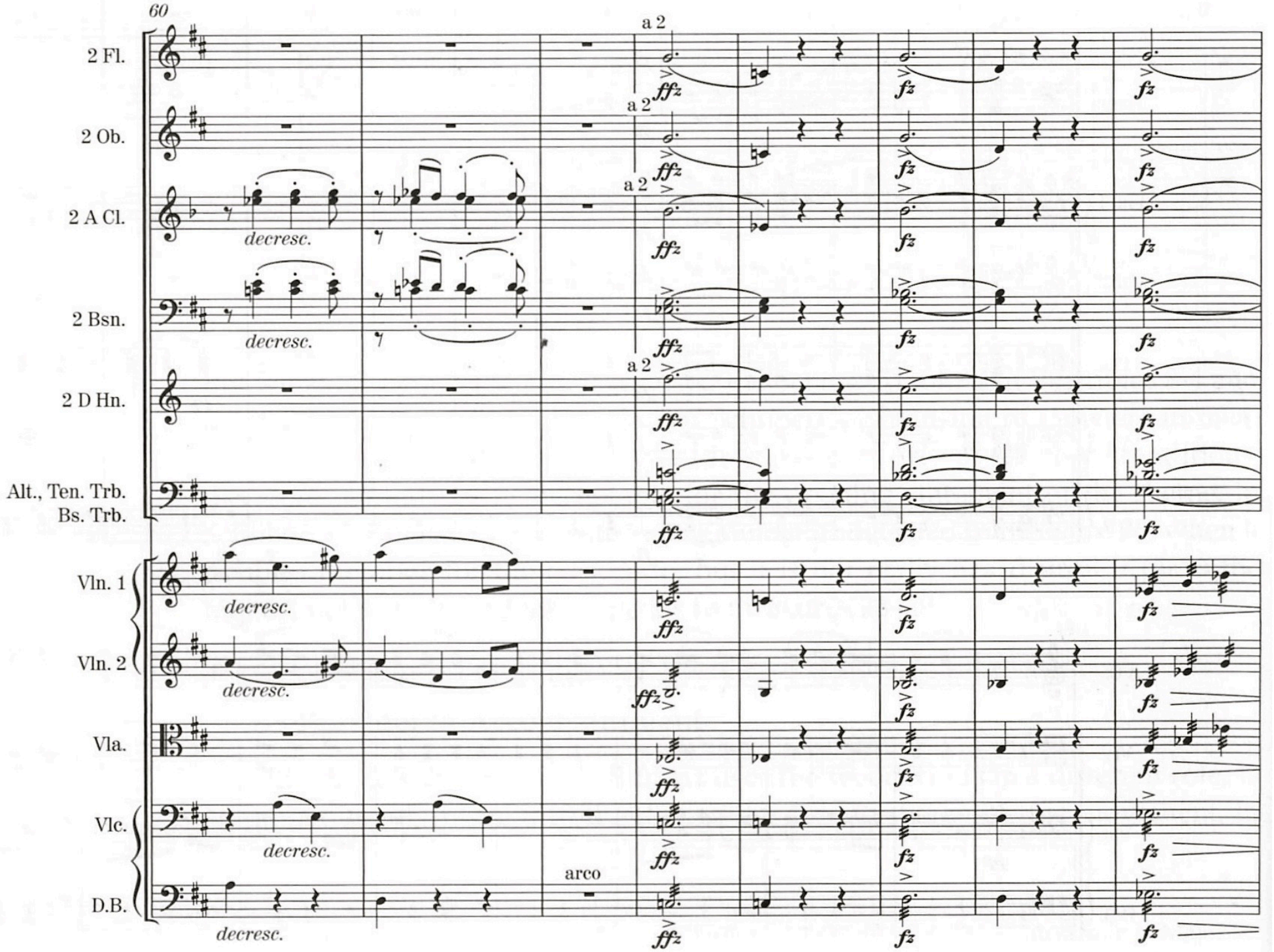


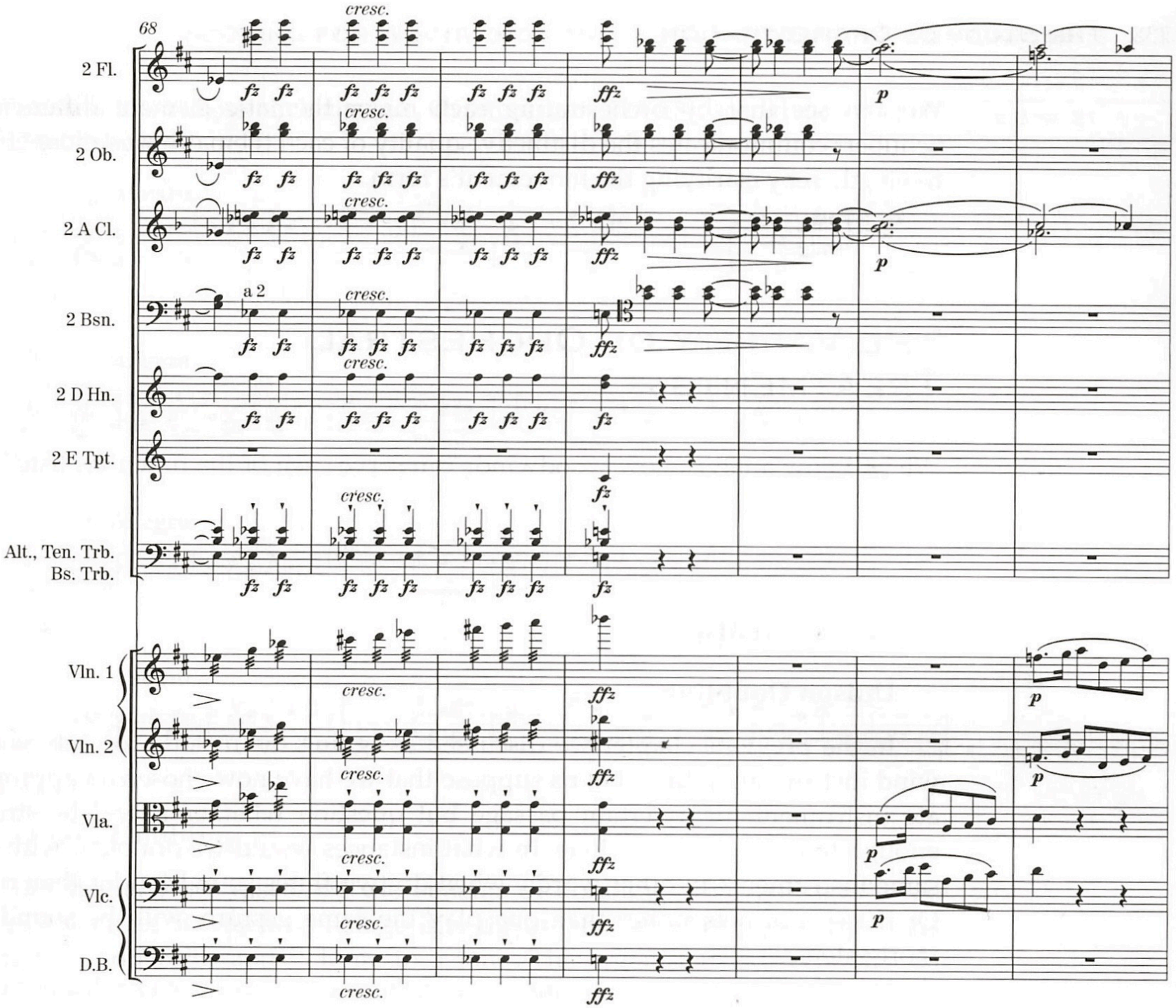
EXAMPLE 8-6. Schubert, Symphony No. 8, first movement, mm. 36–80



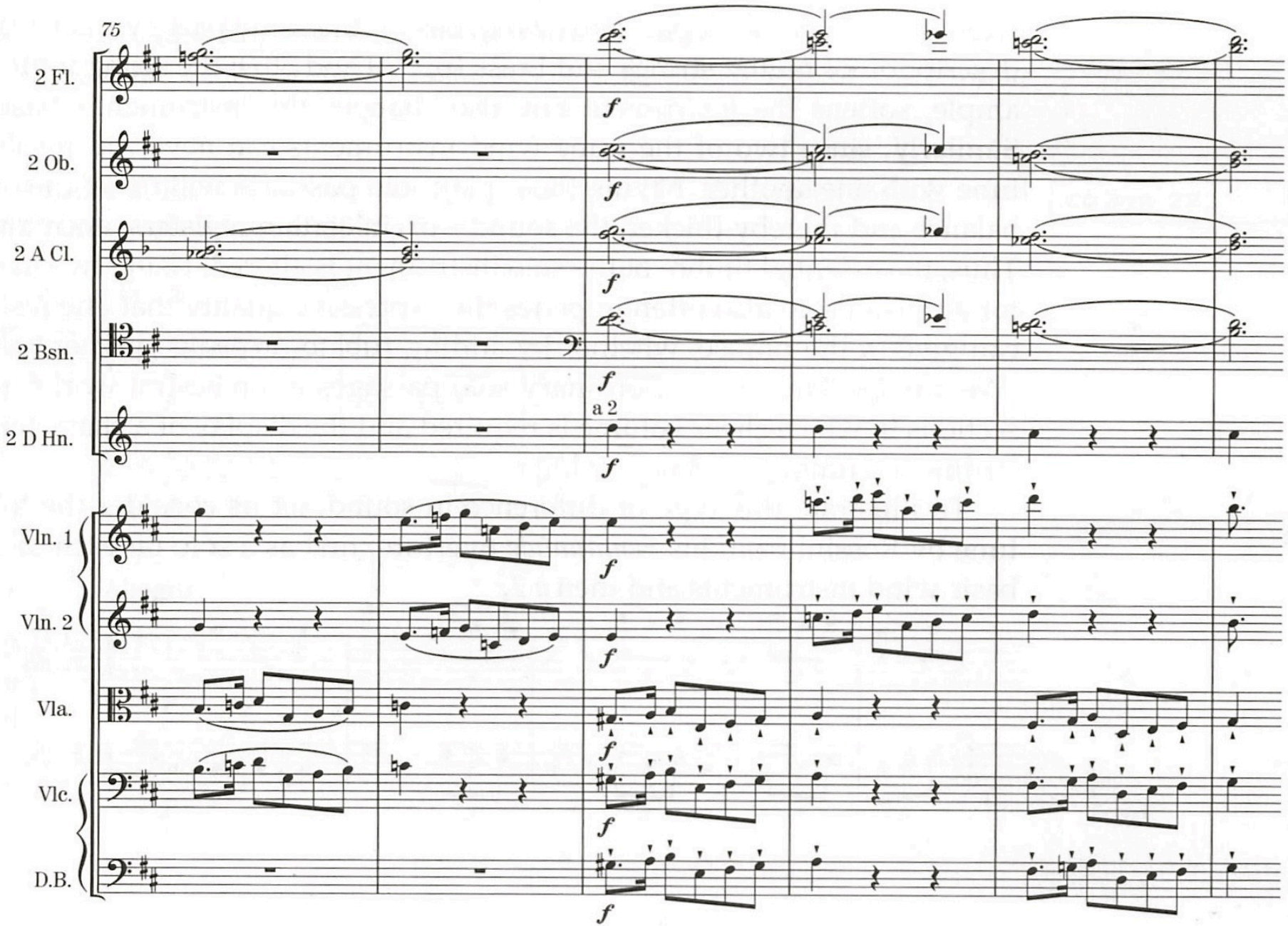
PROF. MARCOS FILHO


52
2 A Cl.
2 Bsn.
pp
2 D Hn.
pp
Vln. 1
pp
Vln. 2
pp
Vla.
Vlc.
D.B.

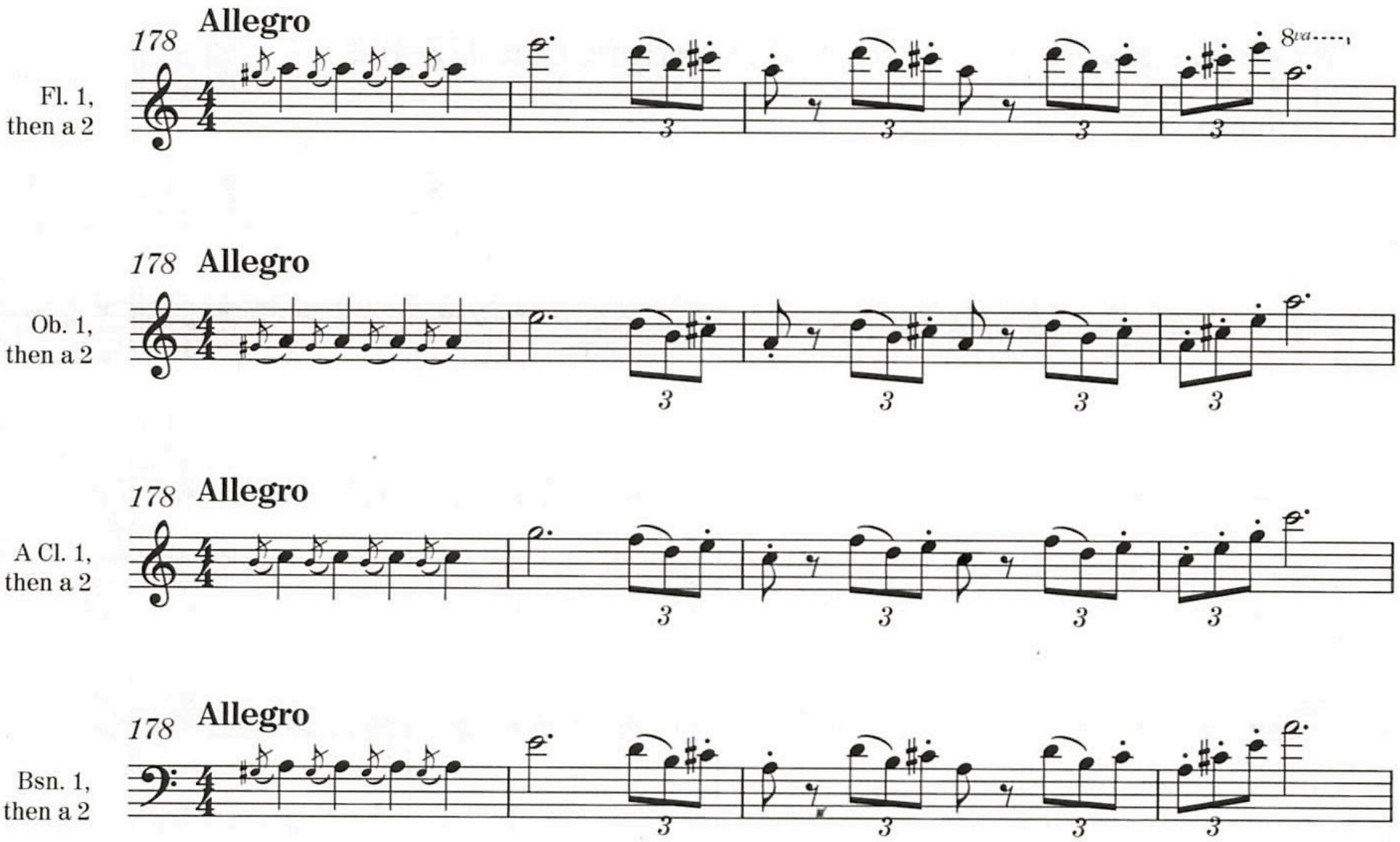

60
2 Fl.
2 Ob.
2 A Cl.
2 Bsn.
2 D Hn.
Alt., Ten. Trb.
Bs. Trb.
Vln. 1
Vln. 2
Vla.
Vlc.
D.B.
a 2
decresc.
arco
ffz
fz



PROF. MARCOS FILHO

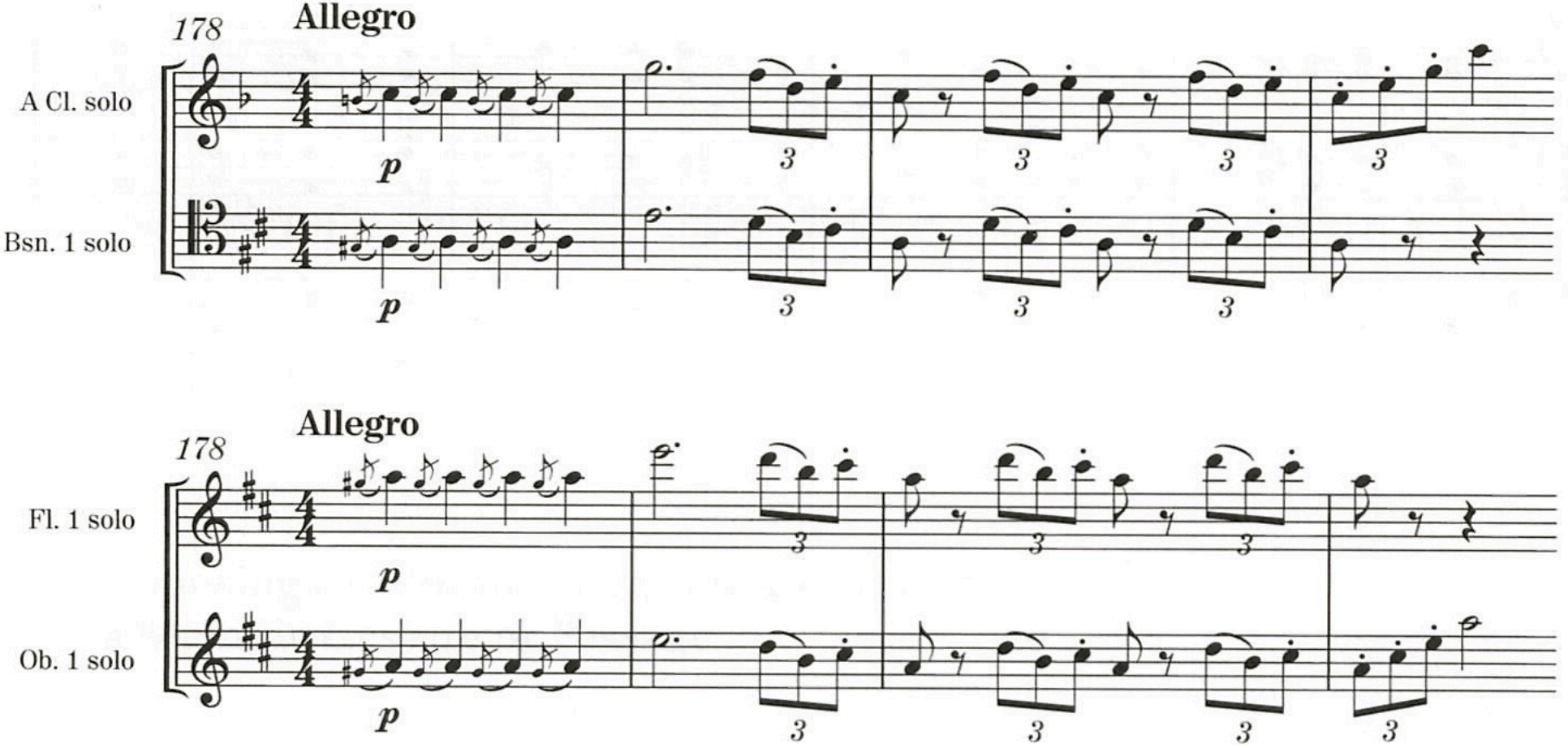

75
2 Fl.
2 Ob.
2 A Cl.
2 Bsn.
2 D Hn.
a 2
Vln. 1
Vln. 2
Vla.
Vlc.
D.B.
f

EXAMPLE 8-7. Rossini, *Semiramide*, Overture, mm. 178–181, scored for solo and doubled winds



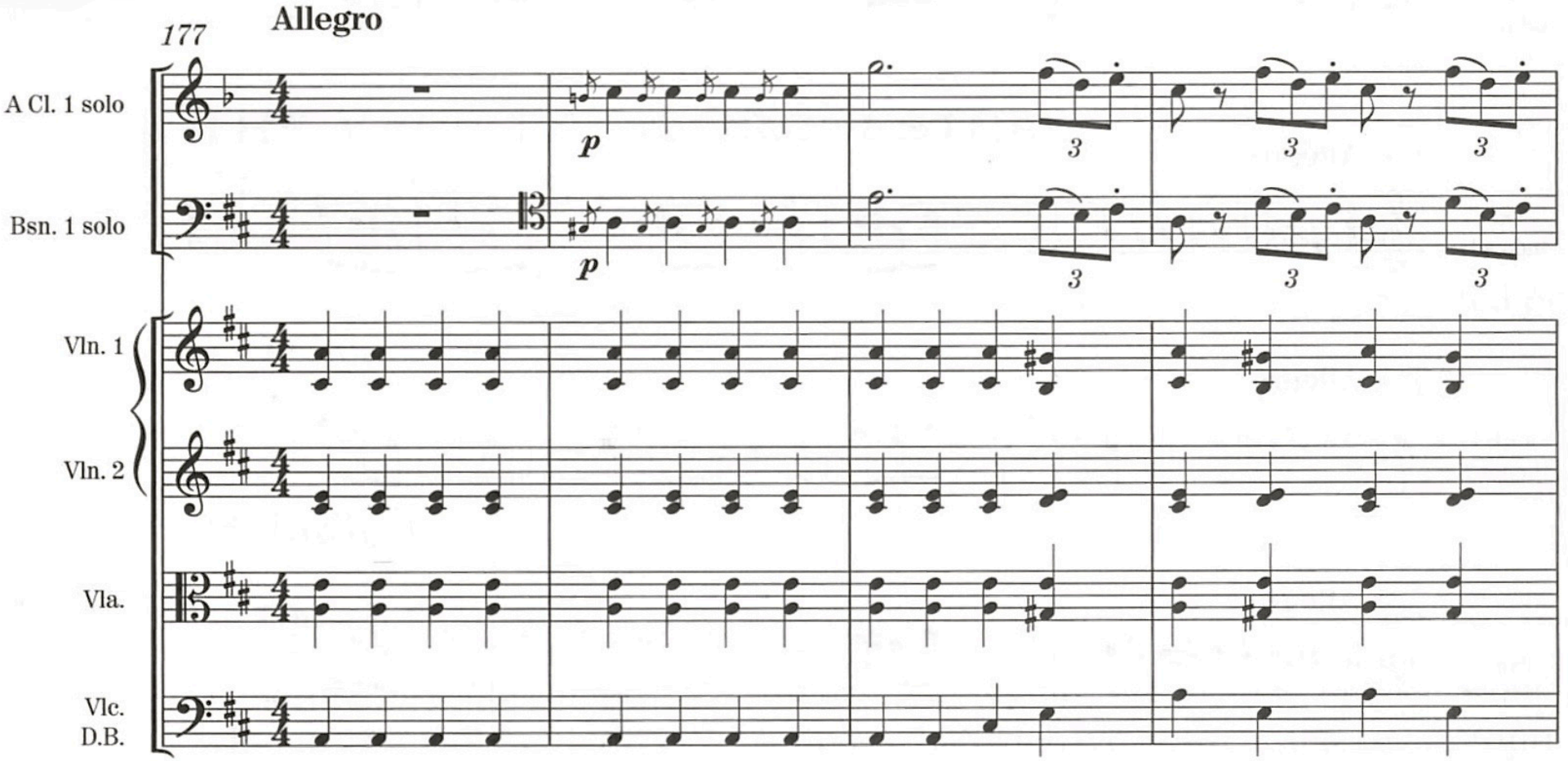
Tratamento melódico: dobramento de uníssono

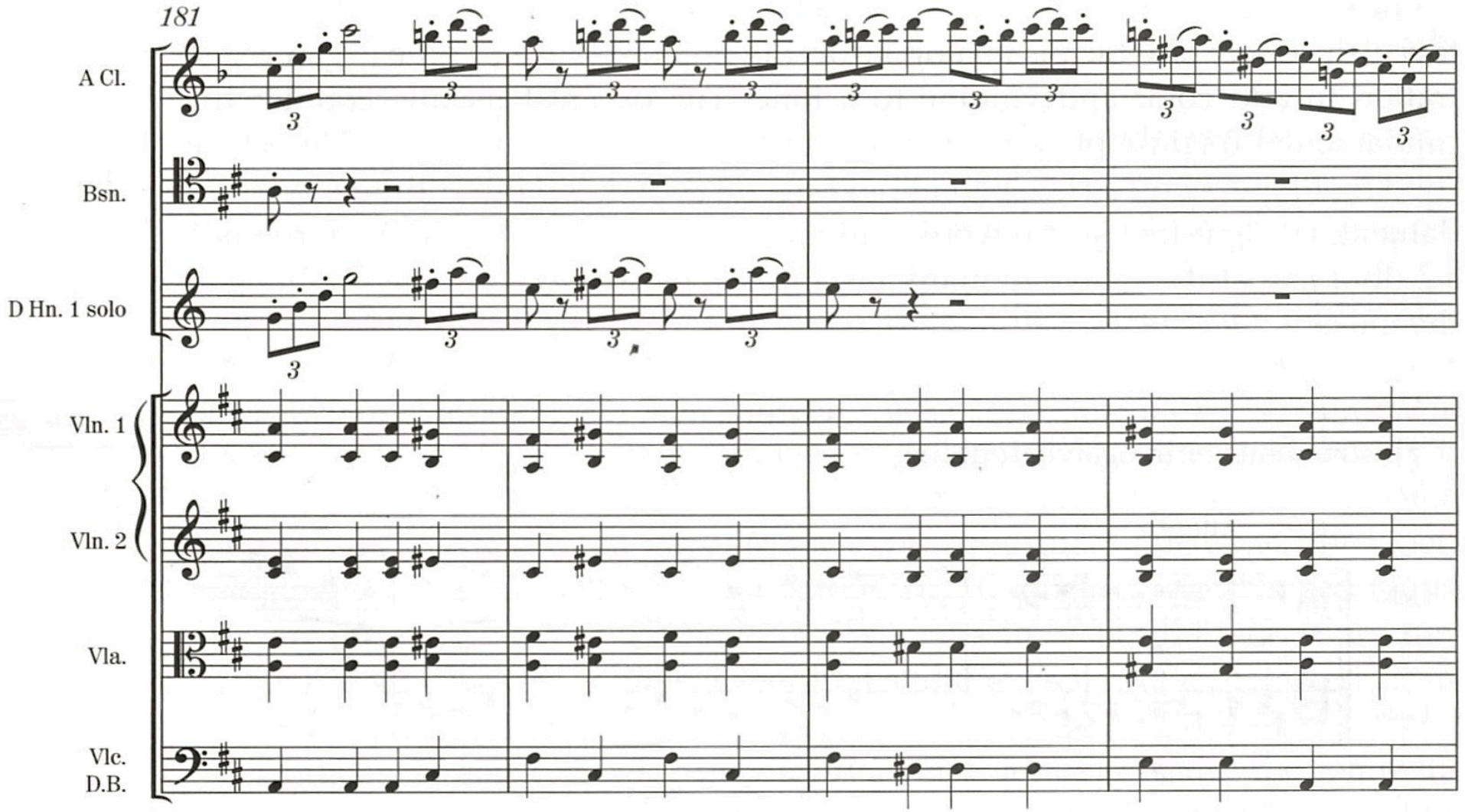
EXAMPLE 8-8. Rossini, *Semiramide*, Overture, mm. 178–181, scored for solo wind instruments with octave doubling

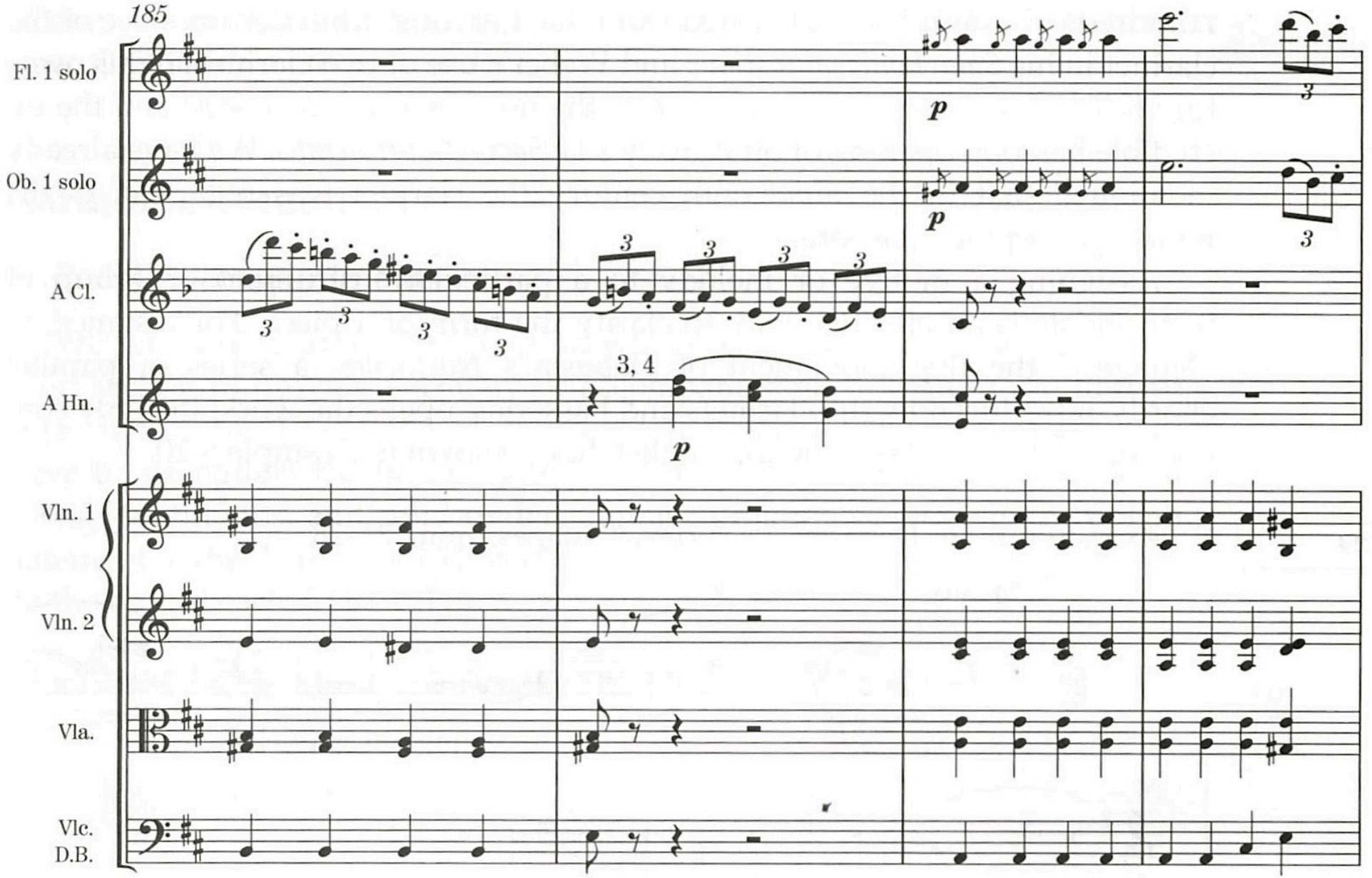


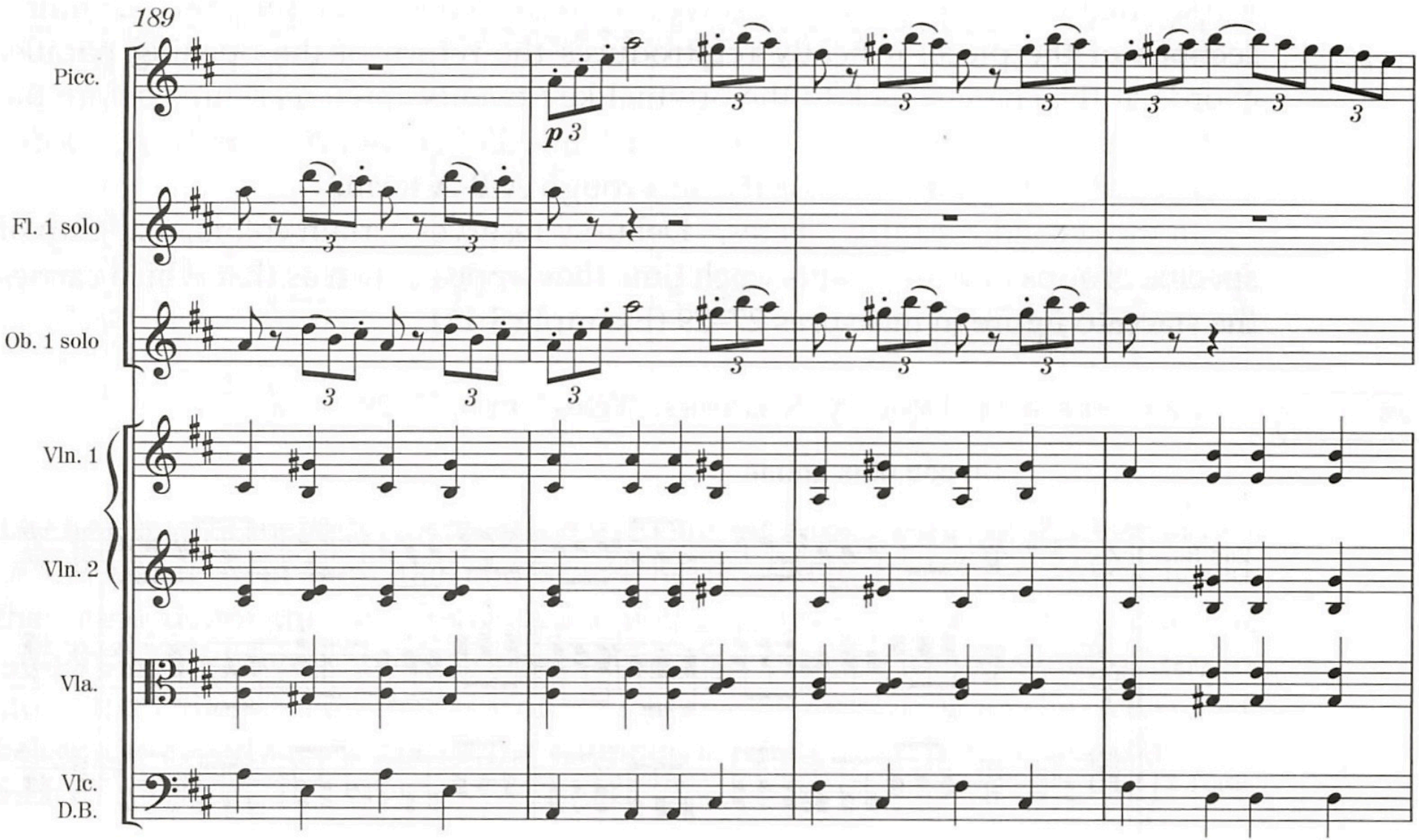
Tratamento melódico: dobramento de oitava

EXAMPLE 8-9. Rossini, *Semiramide*, Overture, mm. 177–192

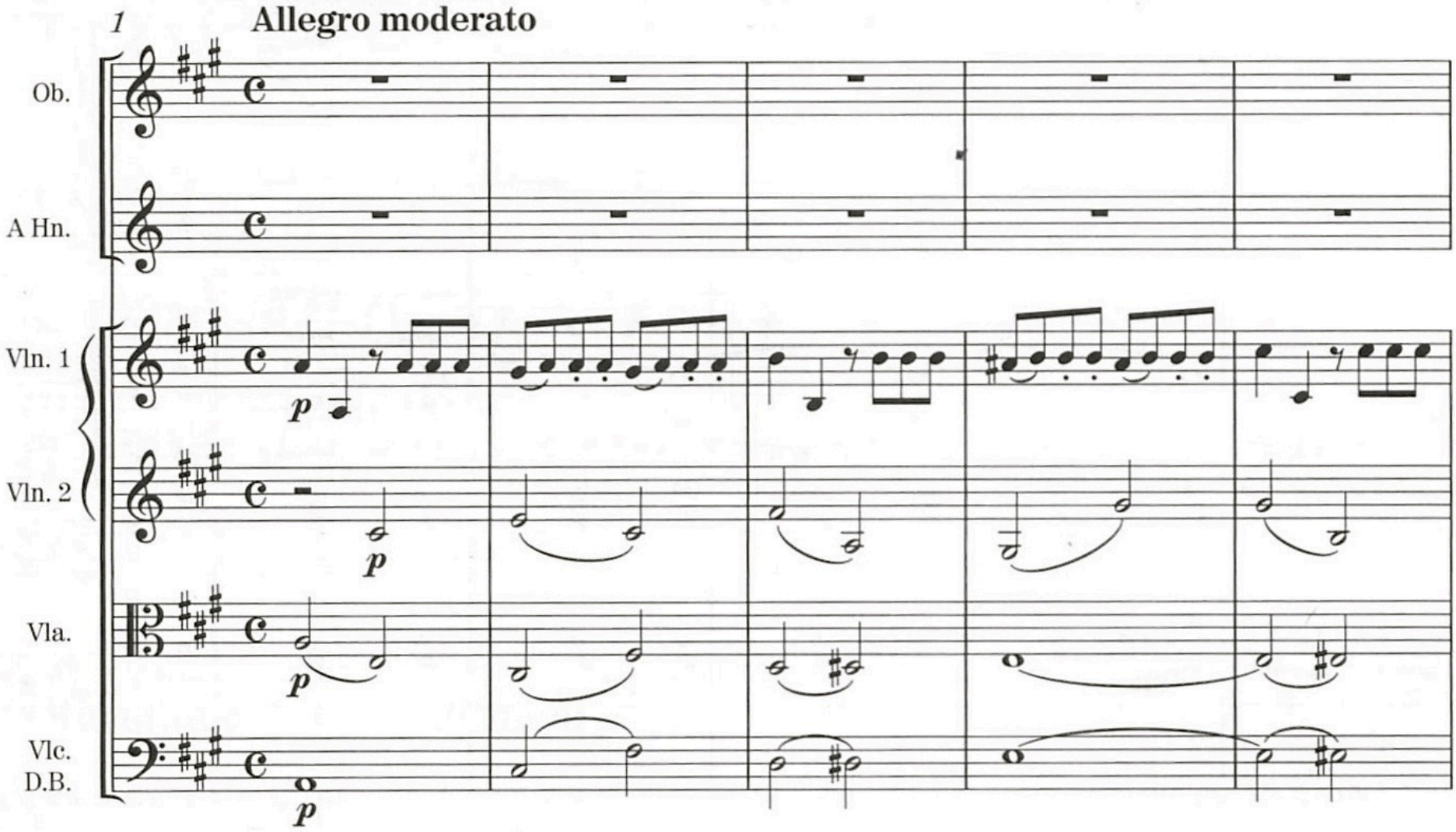



181
A Cl.
Bsn.
D Hn. 1 solo
Vln. 1
Vln. 2
Vla.
Vlc.
D.B.


185
Fl. 1 solo
Ob. 1 solo
A Cl.
A Hn.
Vln. 1
Vln. 2
Vla.
Vlc.
D.B.
p
3, 4


189
Picc.
Fl. 1 solo
Ob. 1 solo
Vln. 1
Vln. 2
Vla.
Vlc.
D.B.
p 3

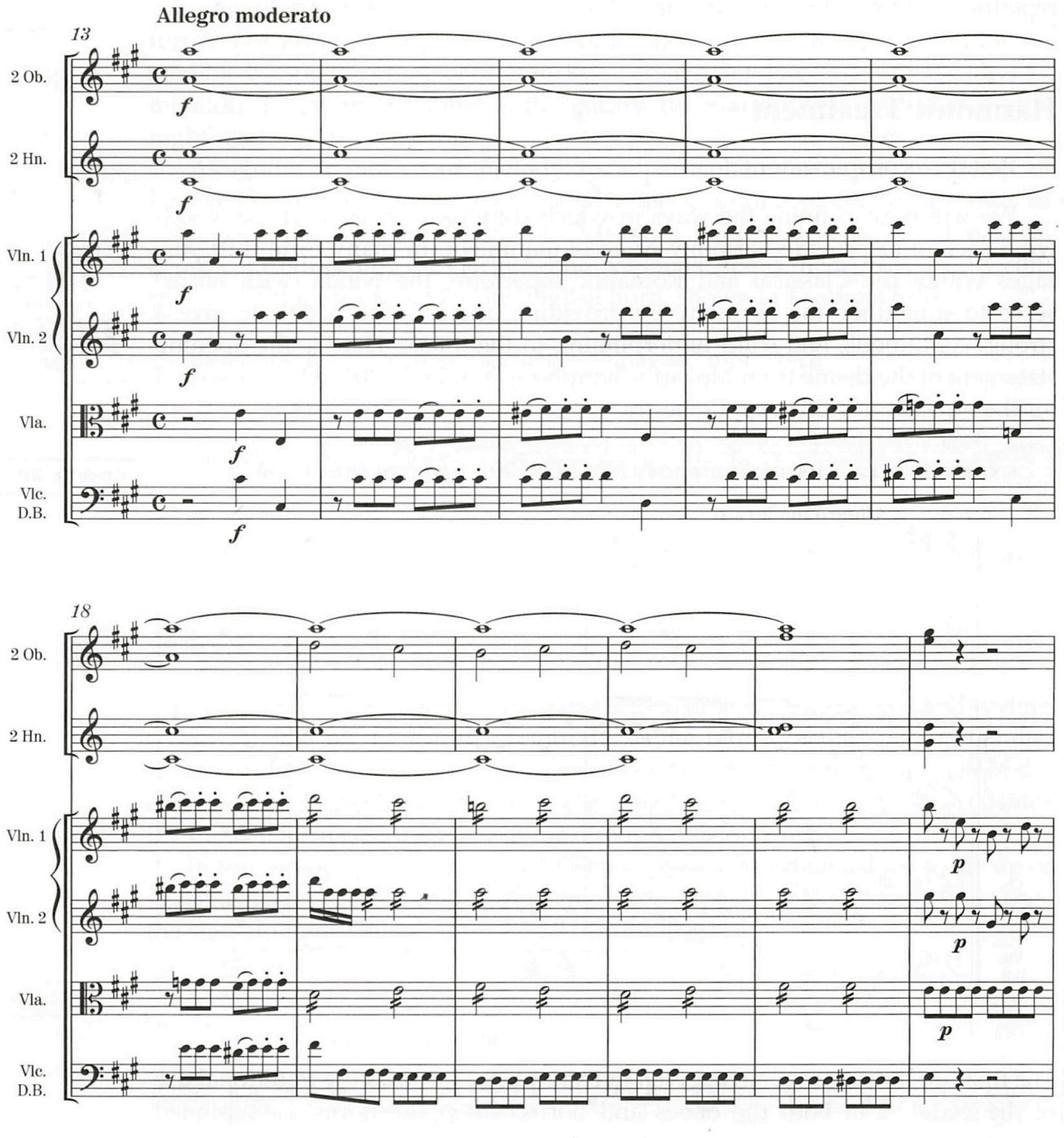
EXAMPLE 8-12. Mozart, Symphony No. 29, K. 201, first movement, mm. 1–5



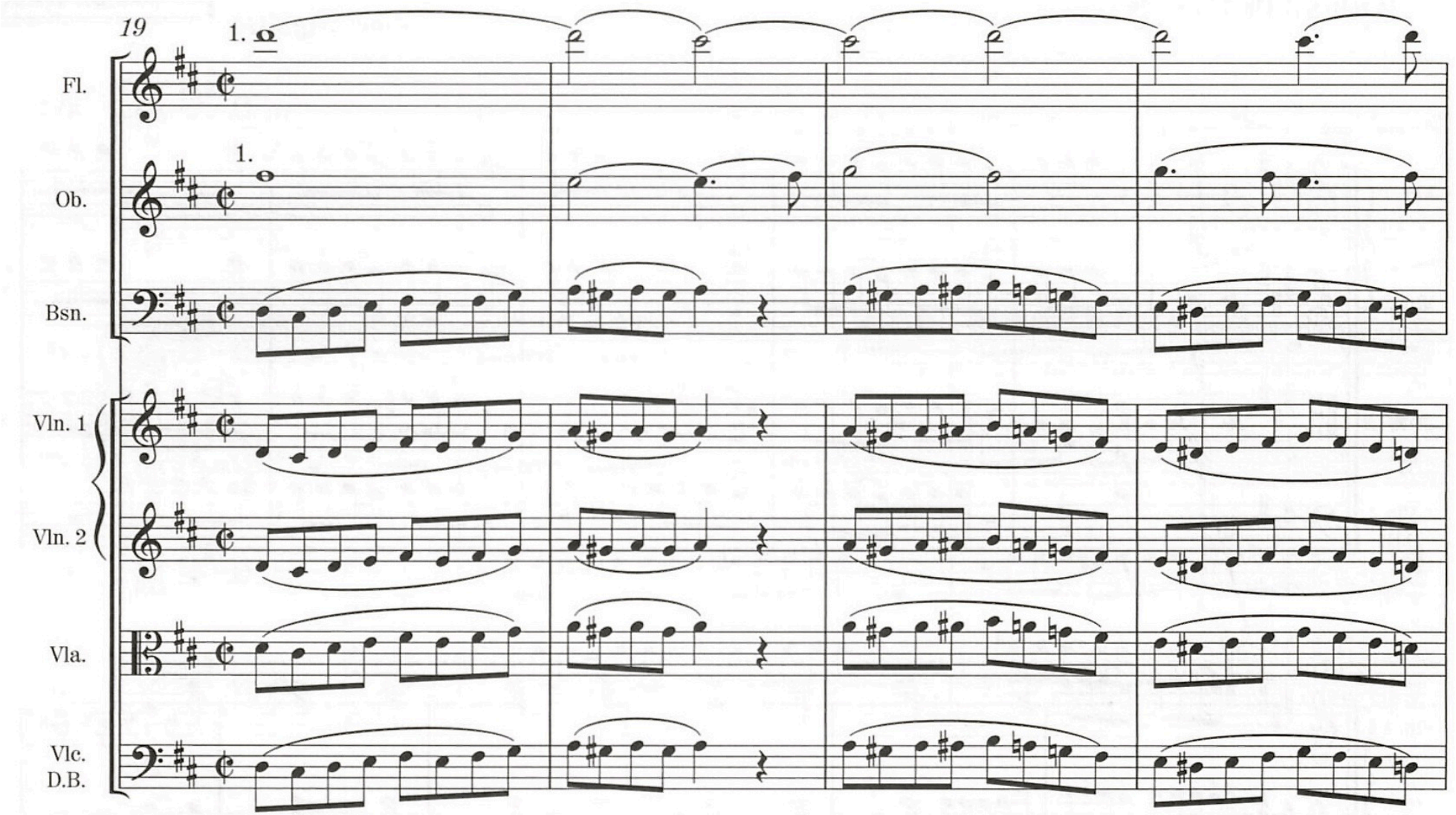
Tratamento harmônico: pedal (orquestra clássica)

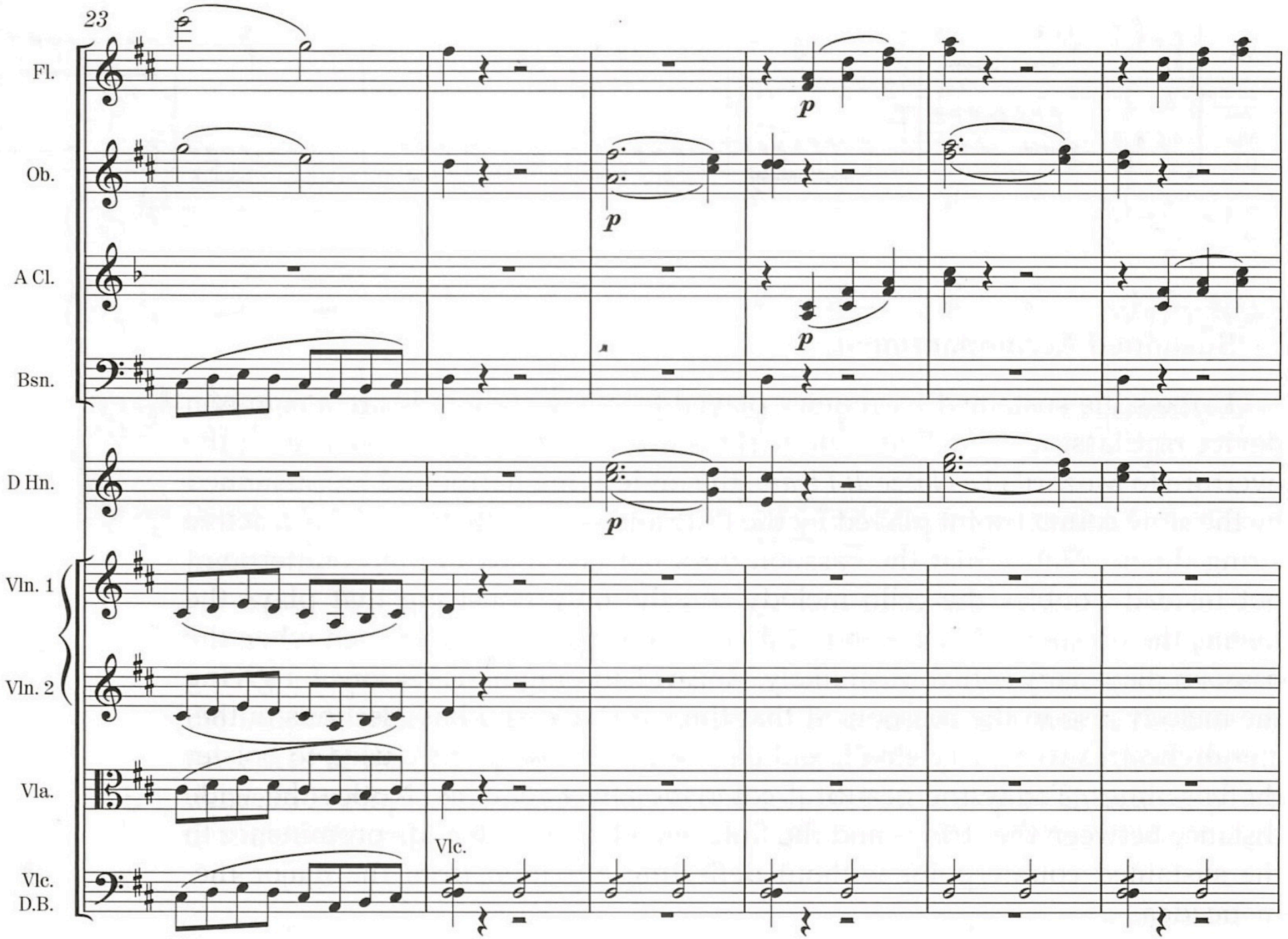
Pedal de tônica

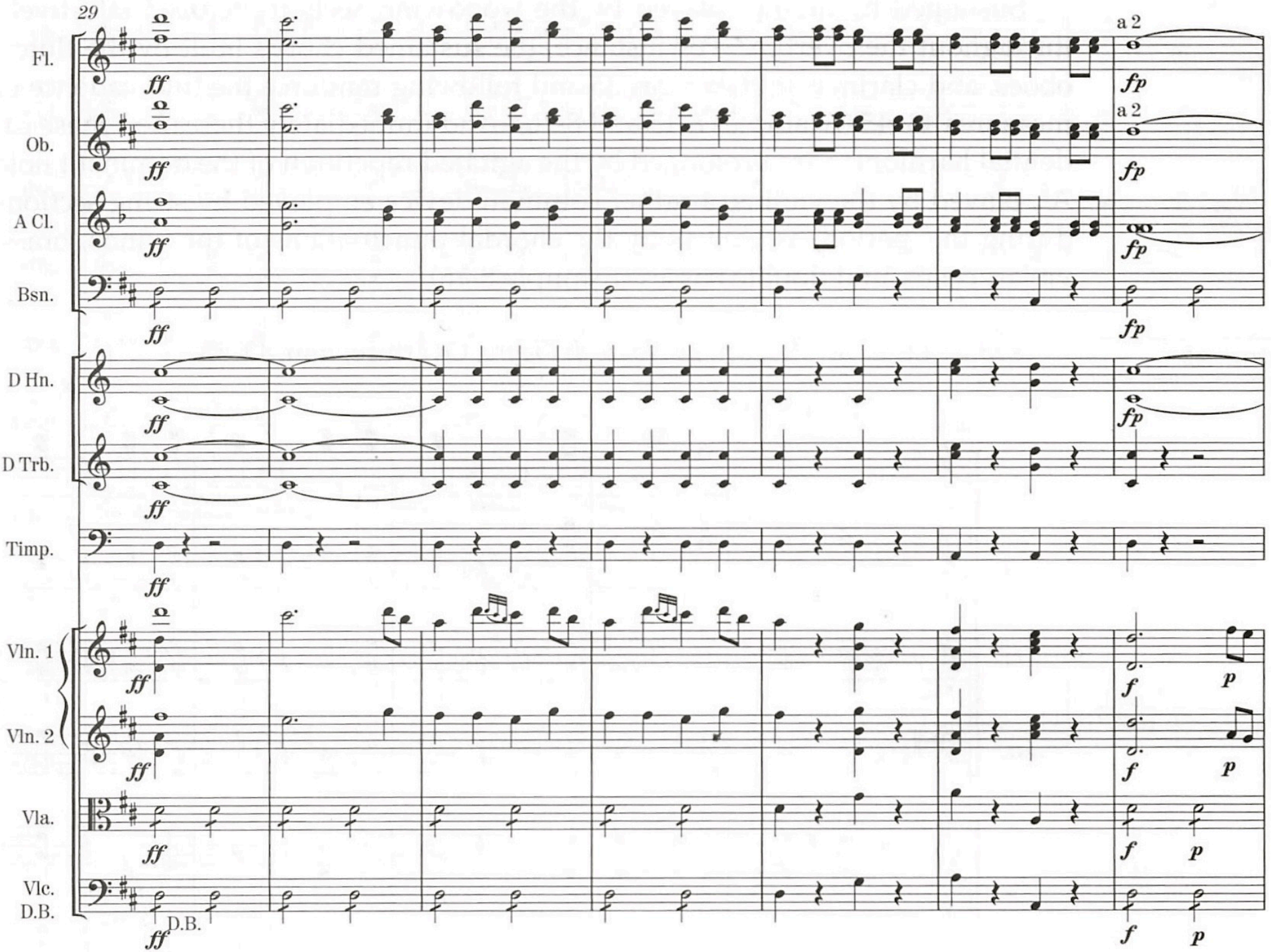
EXAMPLE 8-13. Mozart, Symphony No. 29, K. 201, first movement, mm. 13–23

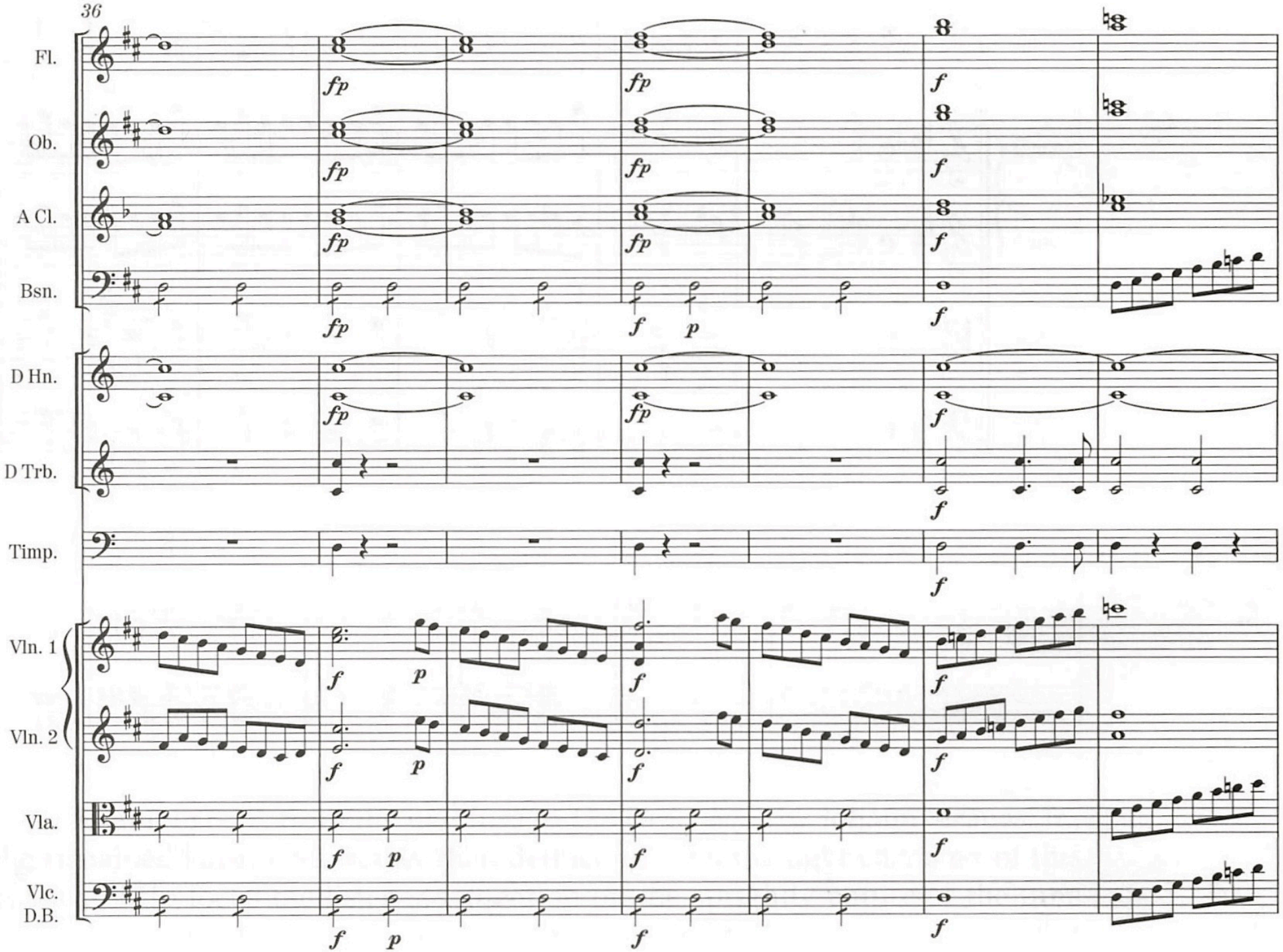


EXAMPLE 8-15. Mozart, *Le Nozze di Figaro*, Overture, mm. 19–42

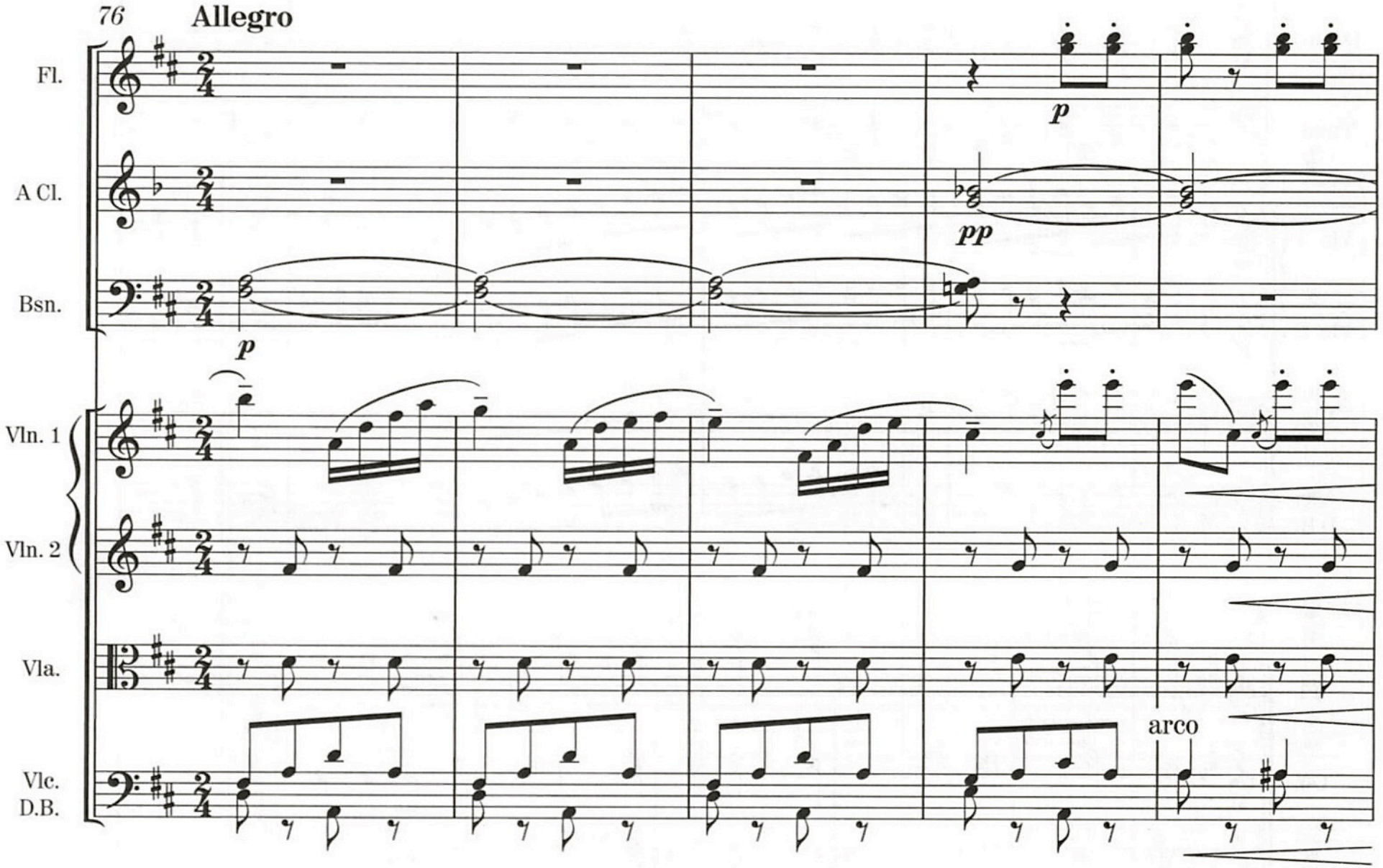


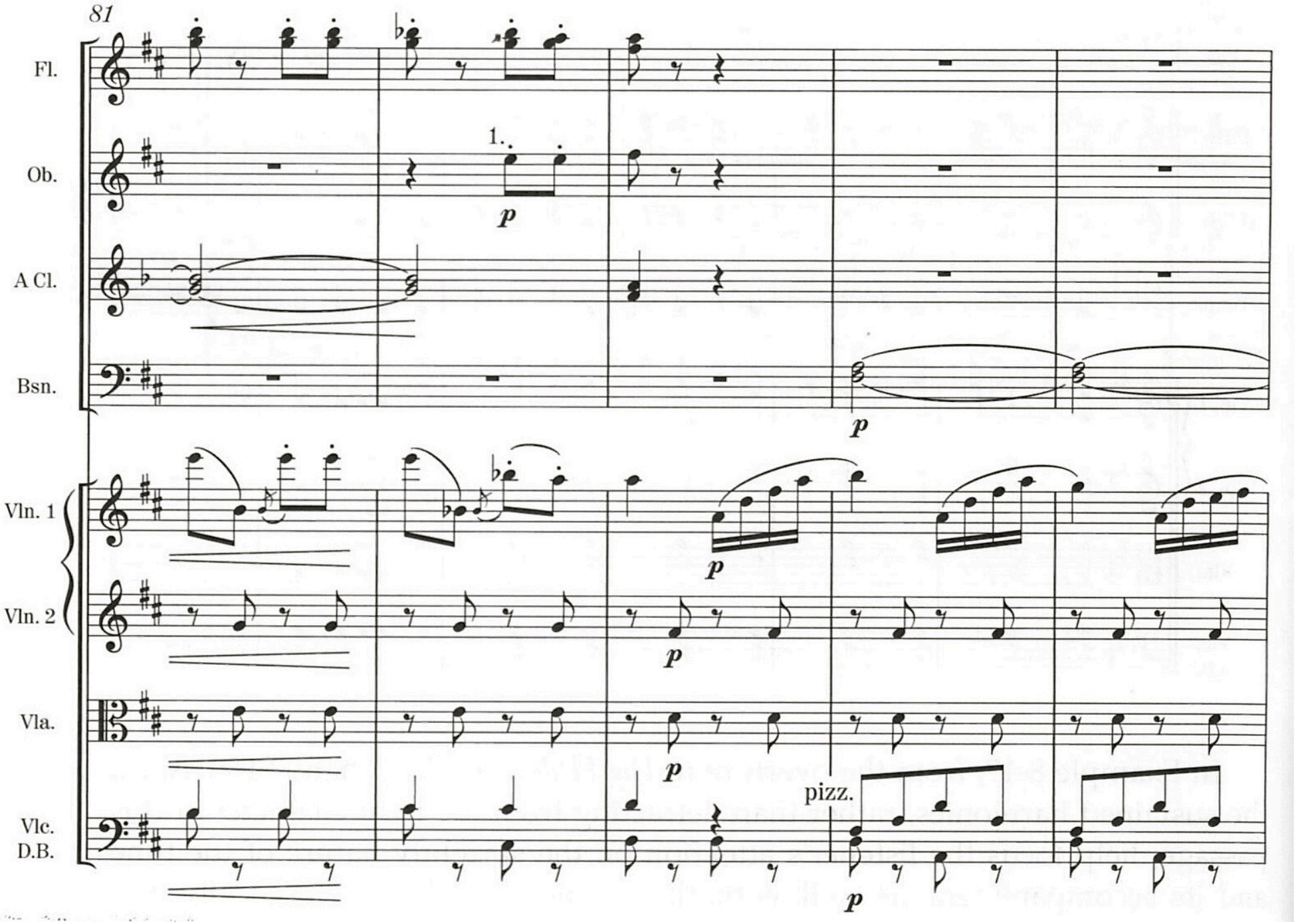

23
Fl.
Ob.
A Cl.
Bsn.
D Hn.
Vln. 1
Vln. 2
Vla.
Vlc.
D.B.
p
p
p
p
Vlc.

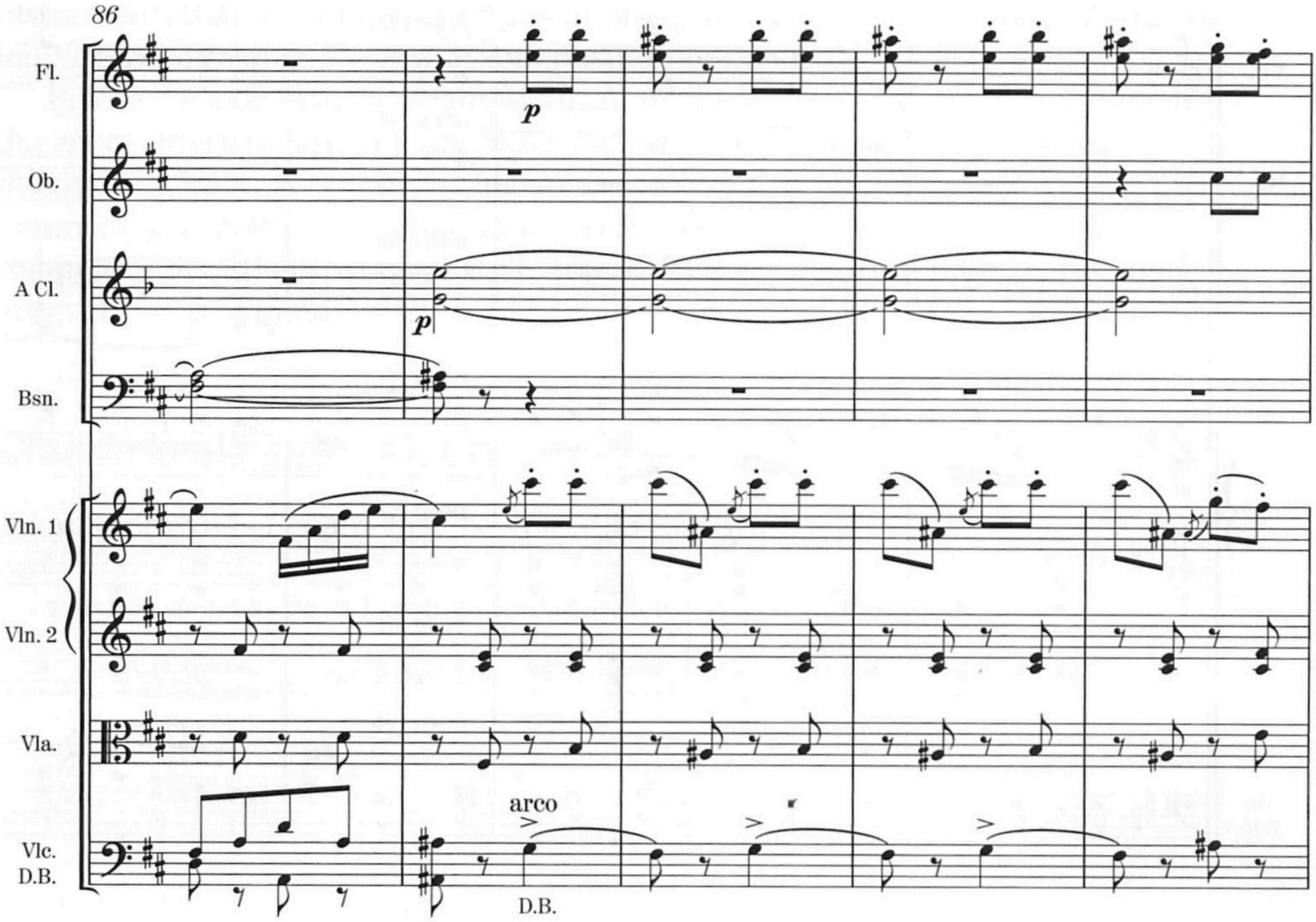

29
Fl.
Ob.
A Cl.
Bsn.
D Hn.
D Trb.
Timp.
Vln. 1
Vln. 2
Vla.
Vlc.
D.B.
a 2
a 2
D.B.

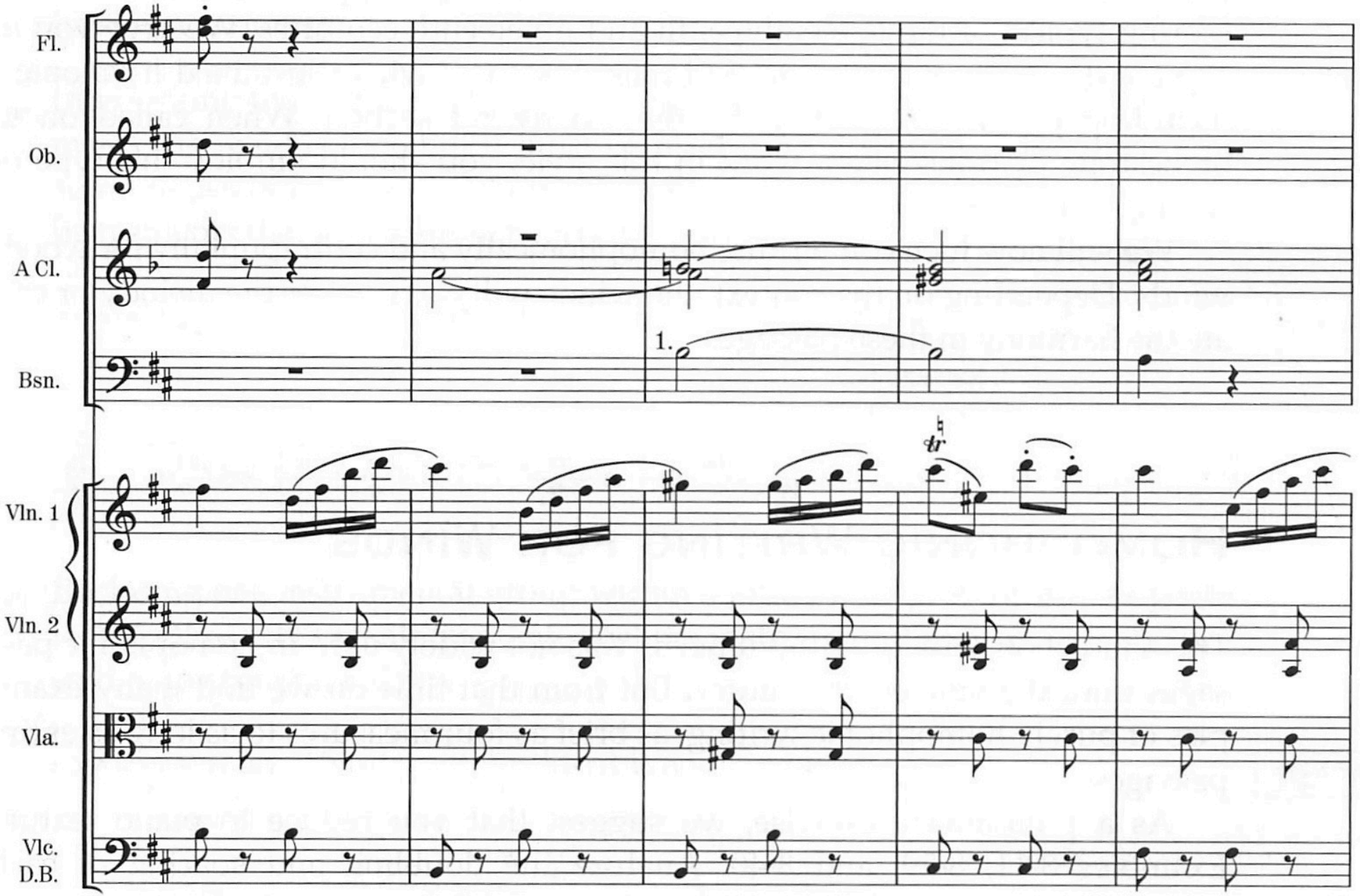

Fl.
Ob.
A Cl.
Bsn.
D Hn.
D Trb.
Timp.
Vln. 1
Vln. 2
Vla.
Vlc.
D.B.

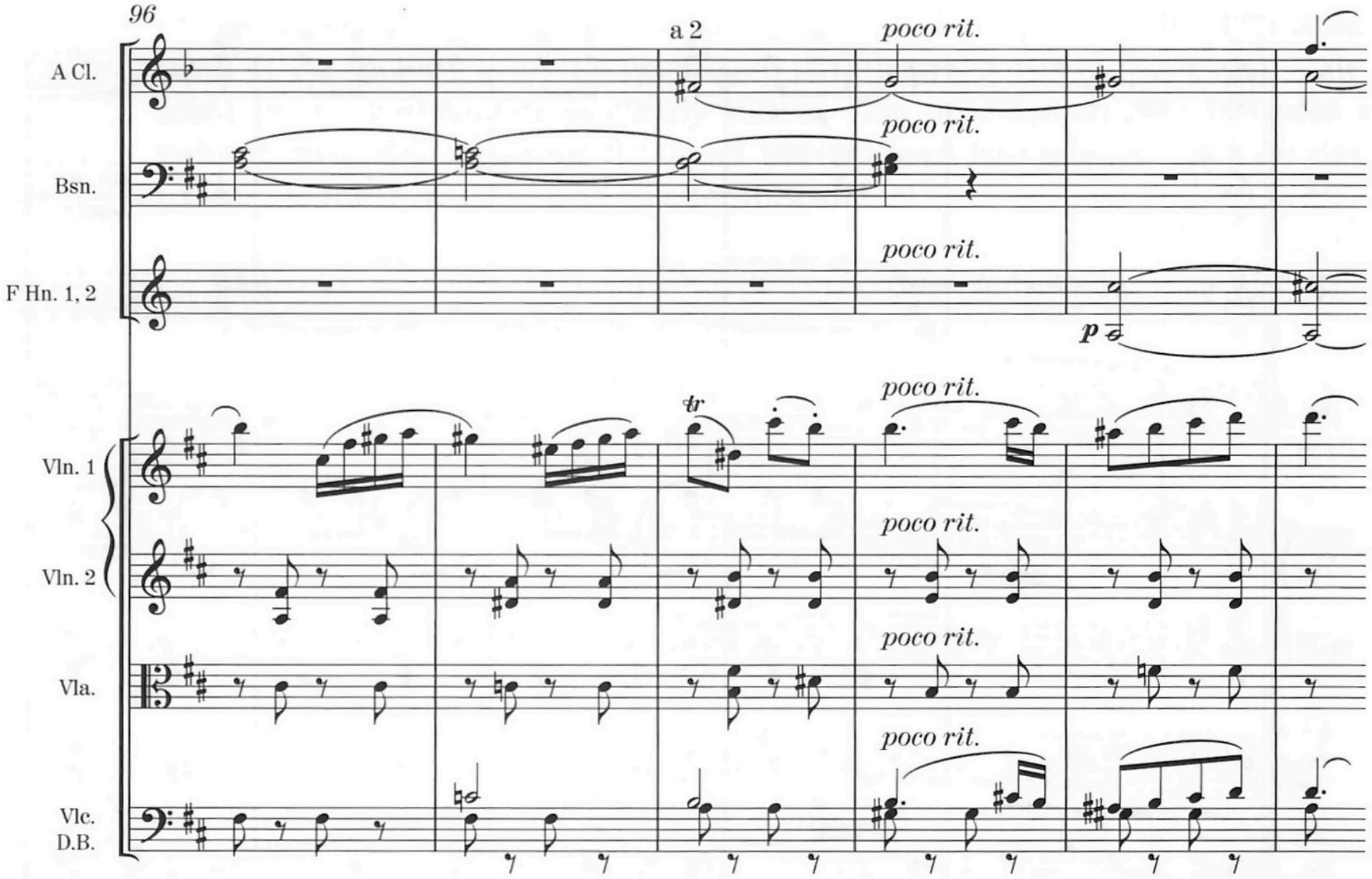
EXAMPLE 8-17. J. Strauss, *Die Fledermaus*, Overture, mm. 76–101 (anacrusis to first statement of theme in m. 76 omitted)




81
Fl.
Ob.
A Cl.
Bsn.
Vln. 1
Vln. 2
Vla.
Vlc.
D.B.
1.
p
pizz.


Fl.
Ob.
A Cl.
Bsn.
Vln. 1
Vln. 2
Vla.
Vlc.
D.B.
p
p
arco
D.B.

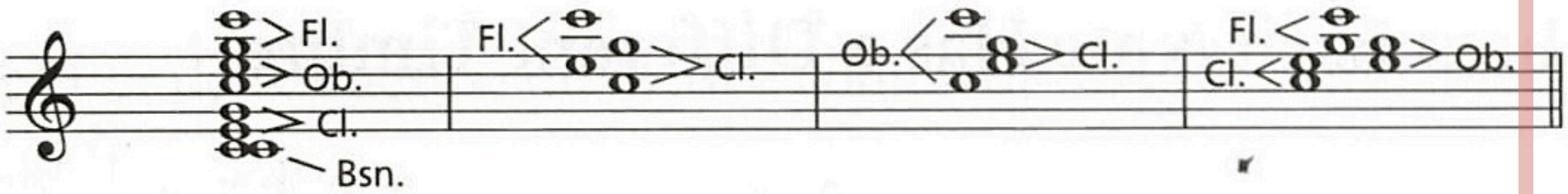

Fl.
Ob.
A Cl.
Bsn.
1.
Vln. 1
Vln. 2
Vla.
Vlc.
D.B.
tr


96
A Cl.
Bsn.
F Hn. 1, 2
Vln. 1
Vln. 2
Vla.
Vlc.
D.B.
a 2
poco rit.
poco rit.
poco rit.
p
tr
poco rit.
poco rit.
poco rit.
poco rit.

Escrita homofônica: acordes em pares

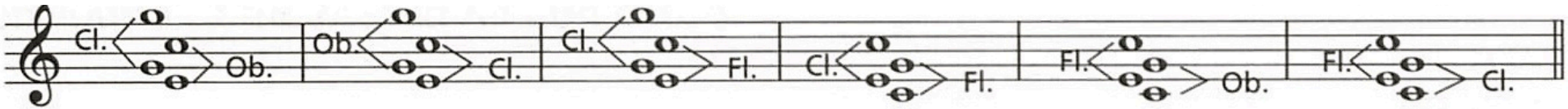
Acordes para sopros em pares podem ser distribuídos em quatro maneiras:

1. Justaposição
2. Cruzamento
3. Inclusão
4. Imbricação



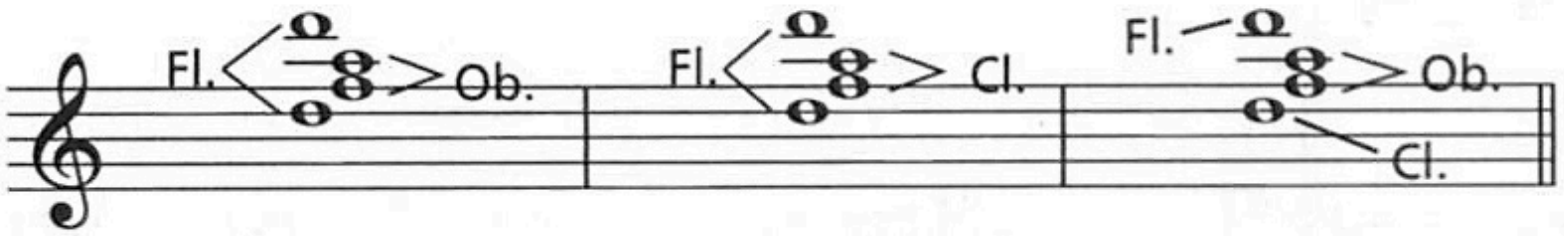
Madeiras em pares formando acordes cruzados:

bom	bom	fraco	fraco	ruim, especialmente se a dinâmica for ***pp***	Melhor para ***p*** ou ***pp***



Madeiras em pares formando acordes por inclusão:

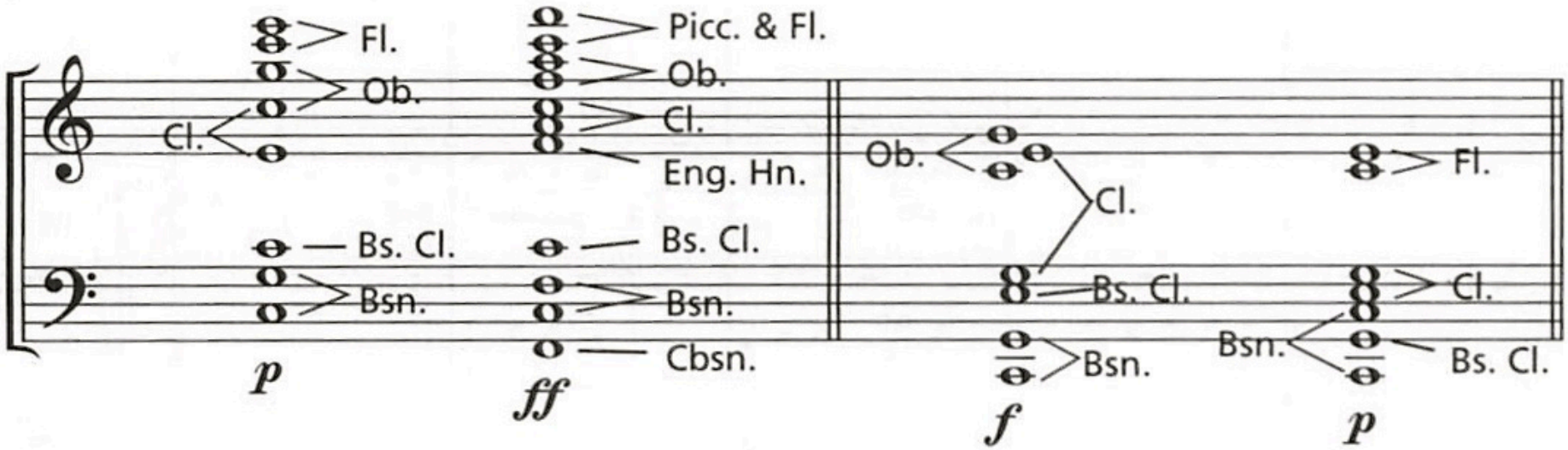
ruim bom equilibrado



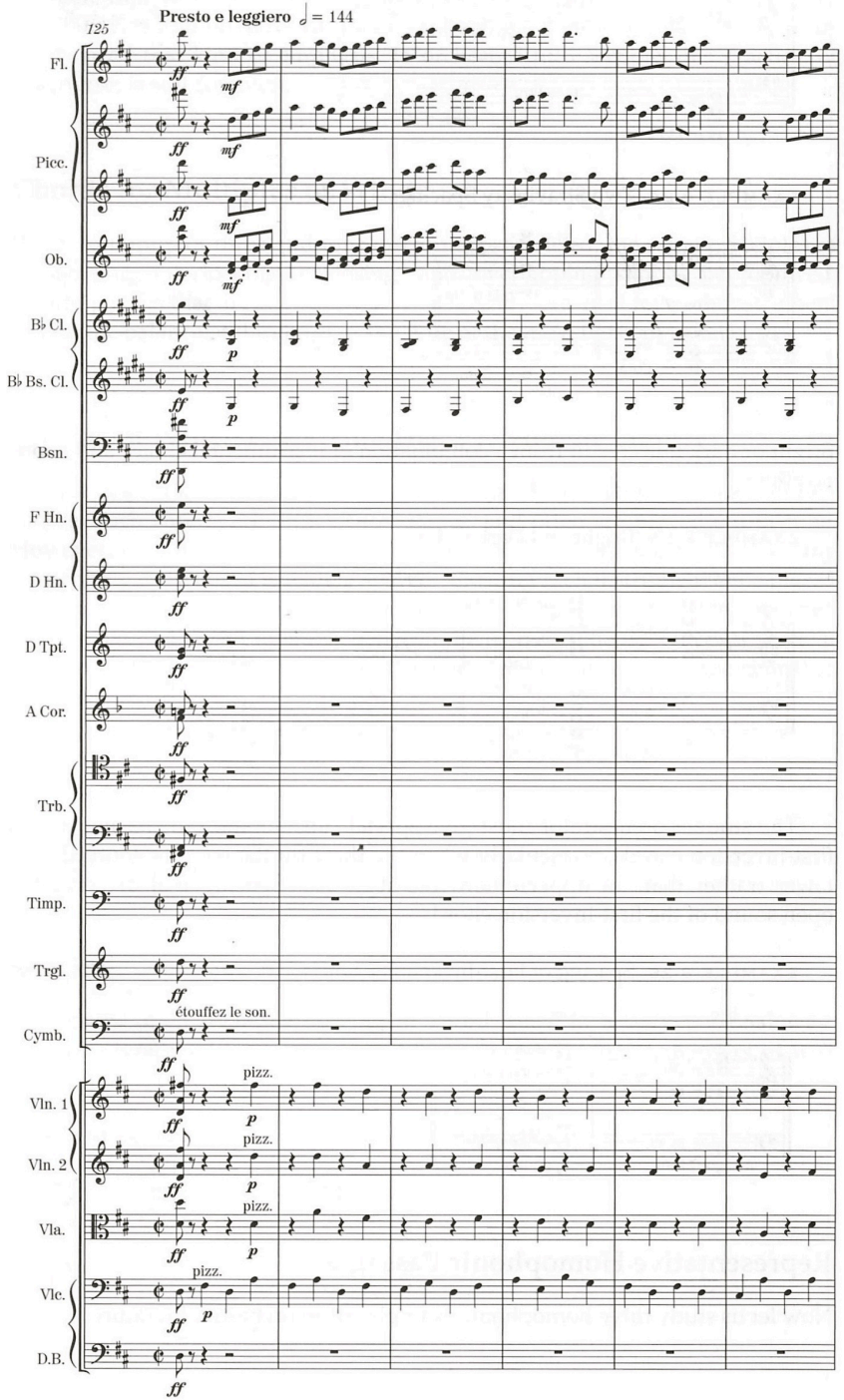
Colorido brilhante e escuro

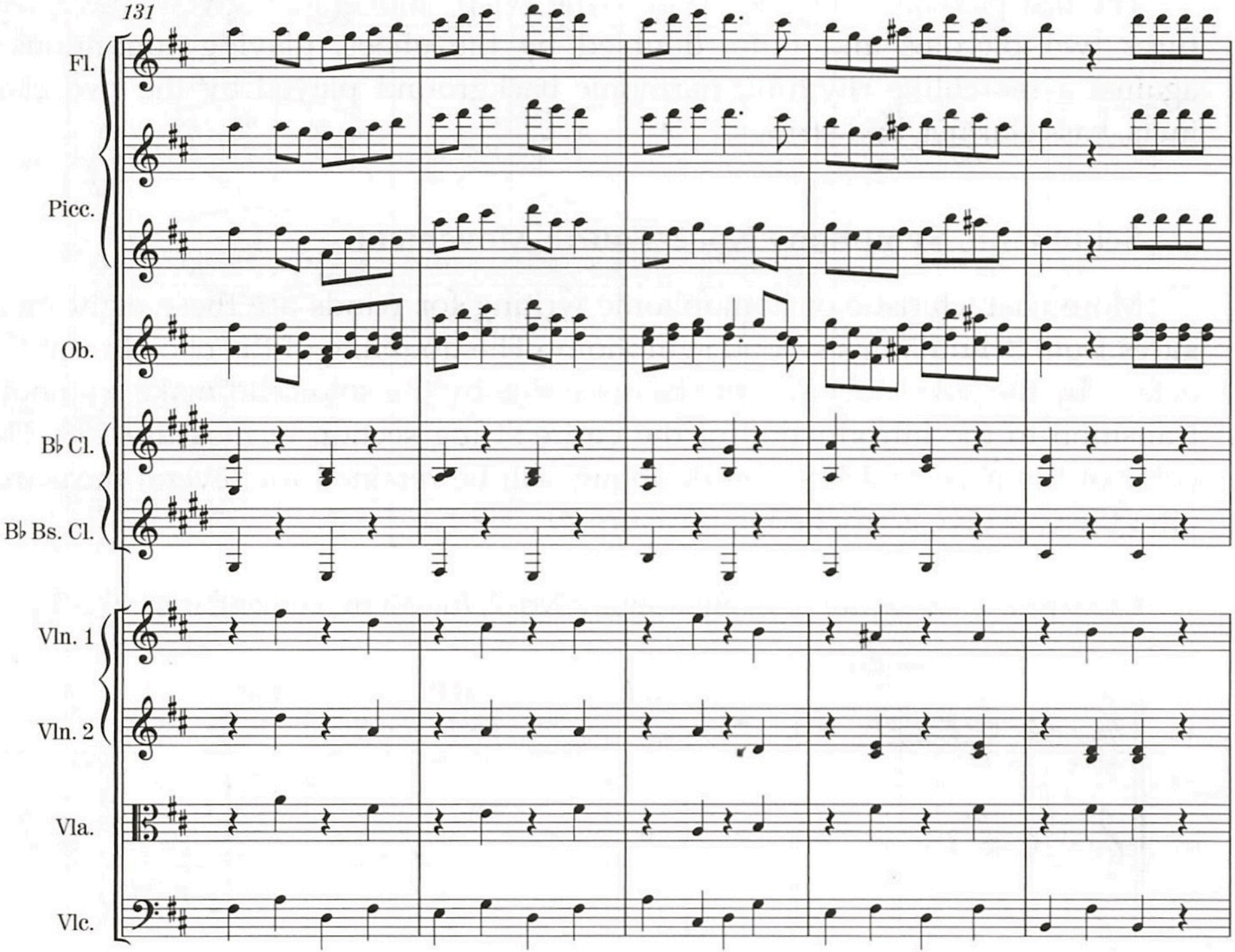
brilhante

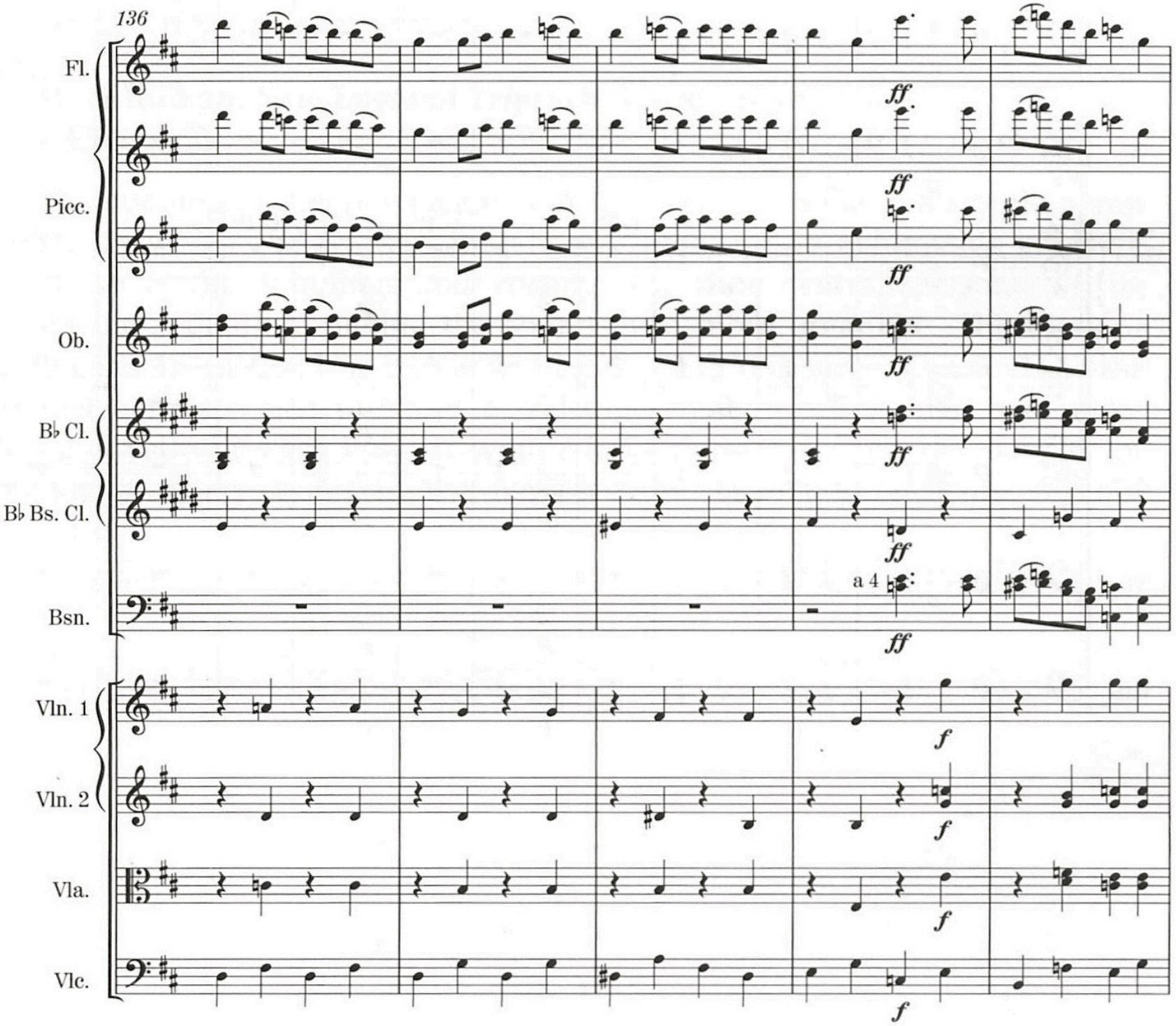
escuro



EXAMPLE 8-27. Berlioz, *The Damnation of Faust*, "Minuet of the Will-o'-the-Wisps," mm. 125–140

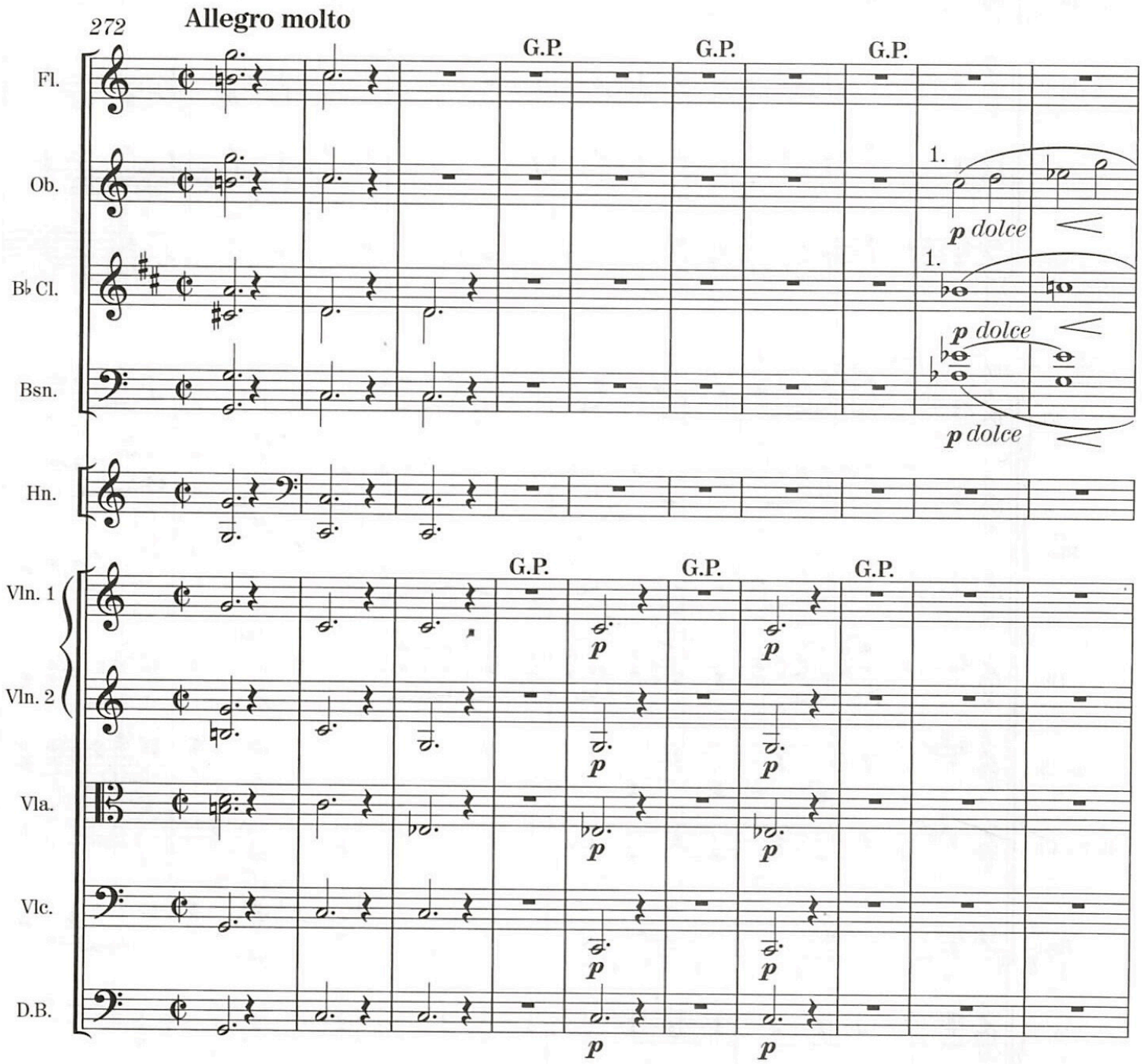



131
Fl.
Picc.
Ob.
B♭ Cl.
B♭ Bs. Cl.
Vln. 1
Vln. 2
Vla.
Vlc.

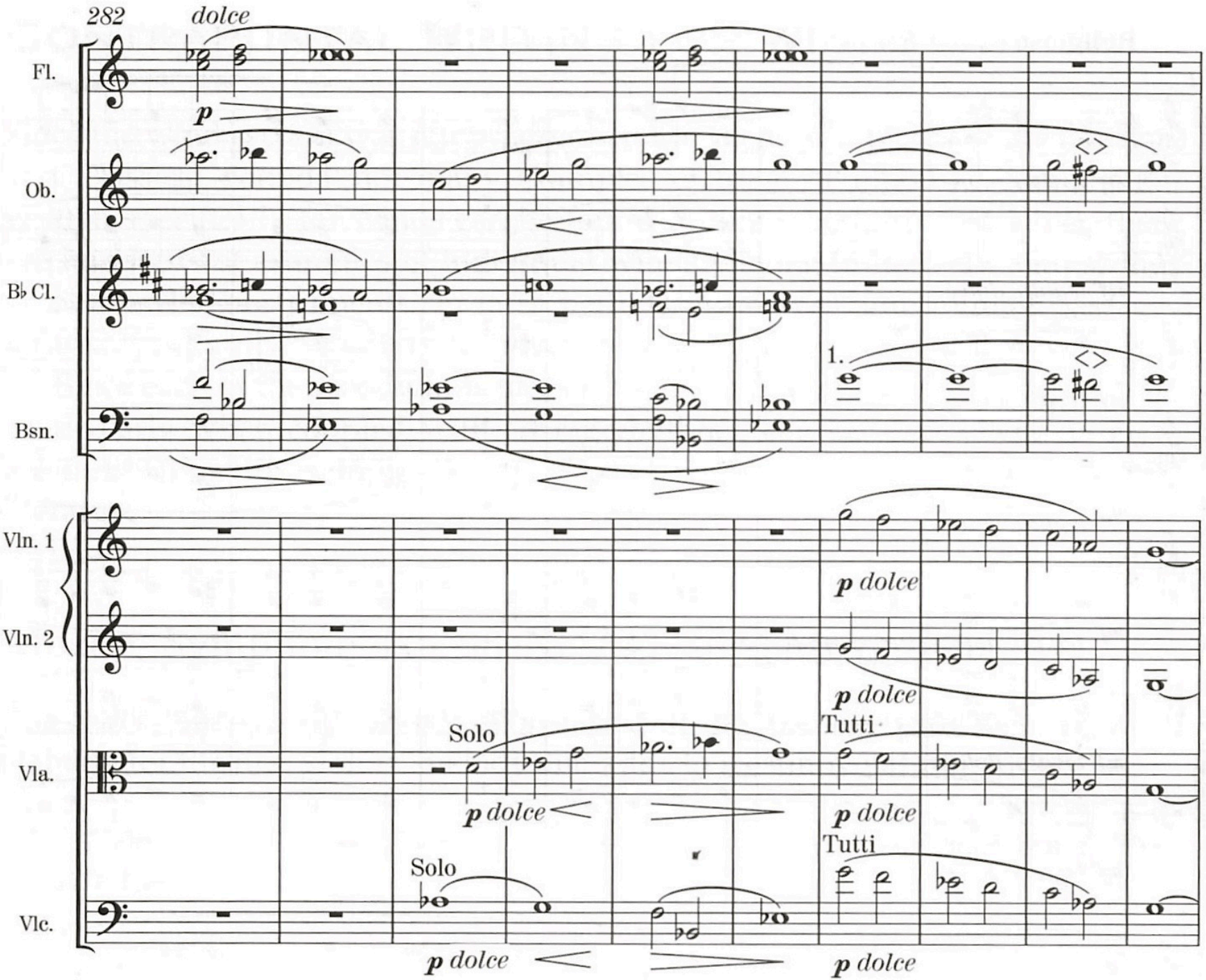


PROF. MARCOS FILHO

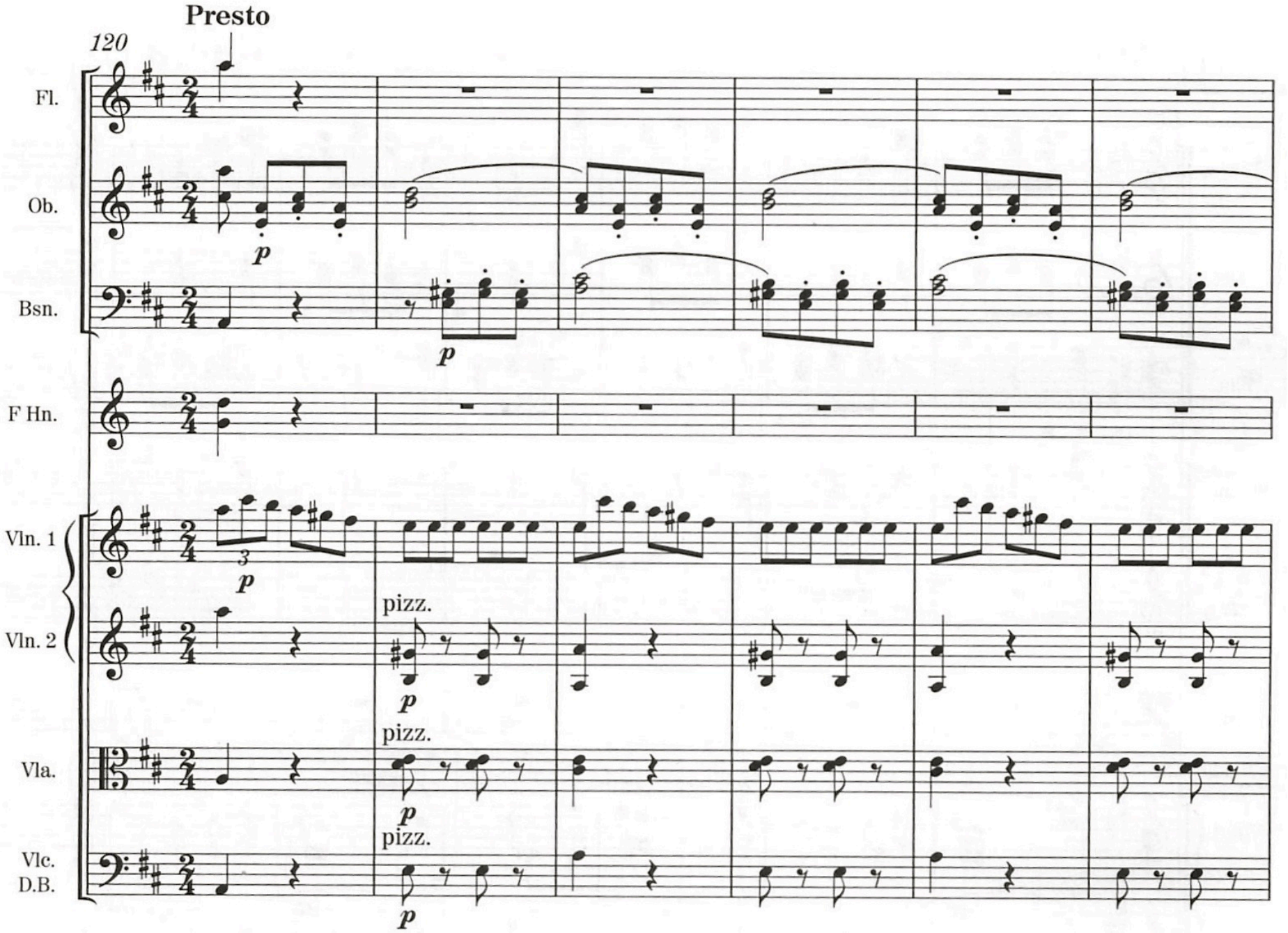
EXAMPLE 8-28. Schumann, Symphony No. 2, fourth movement, mm. 272–291

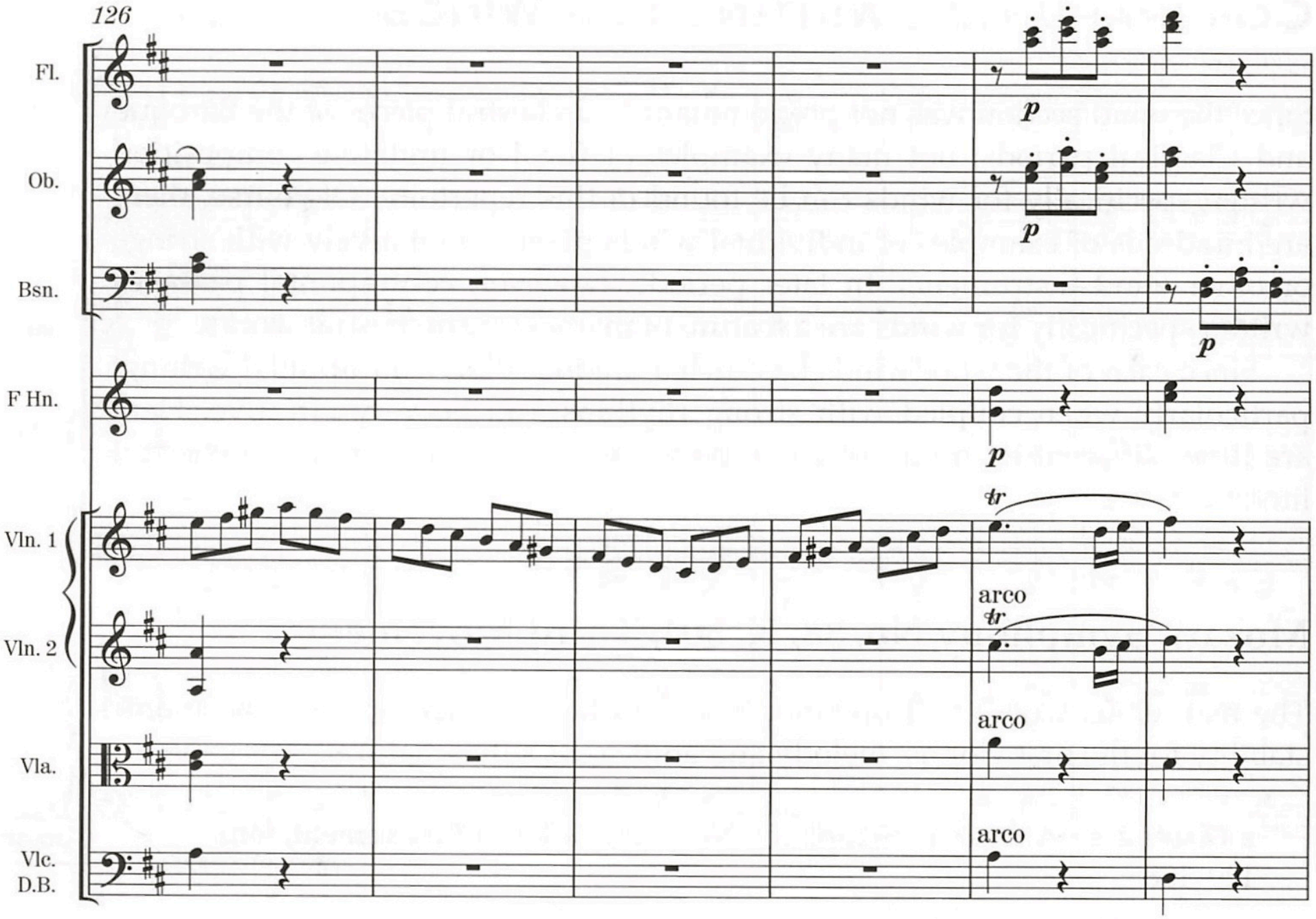


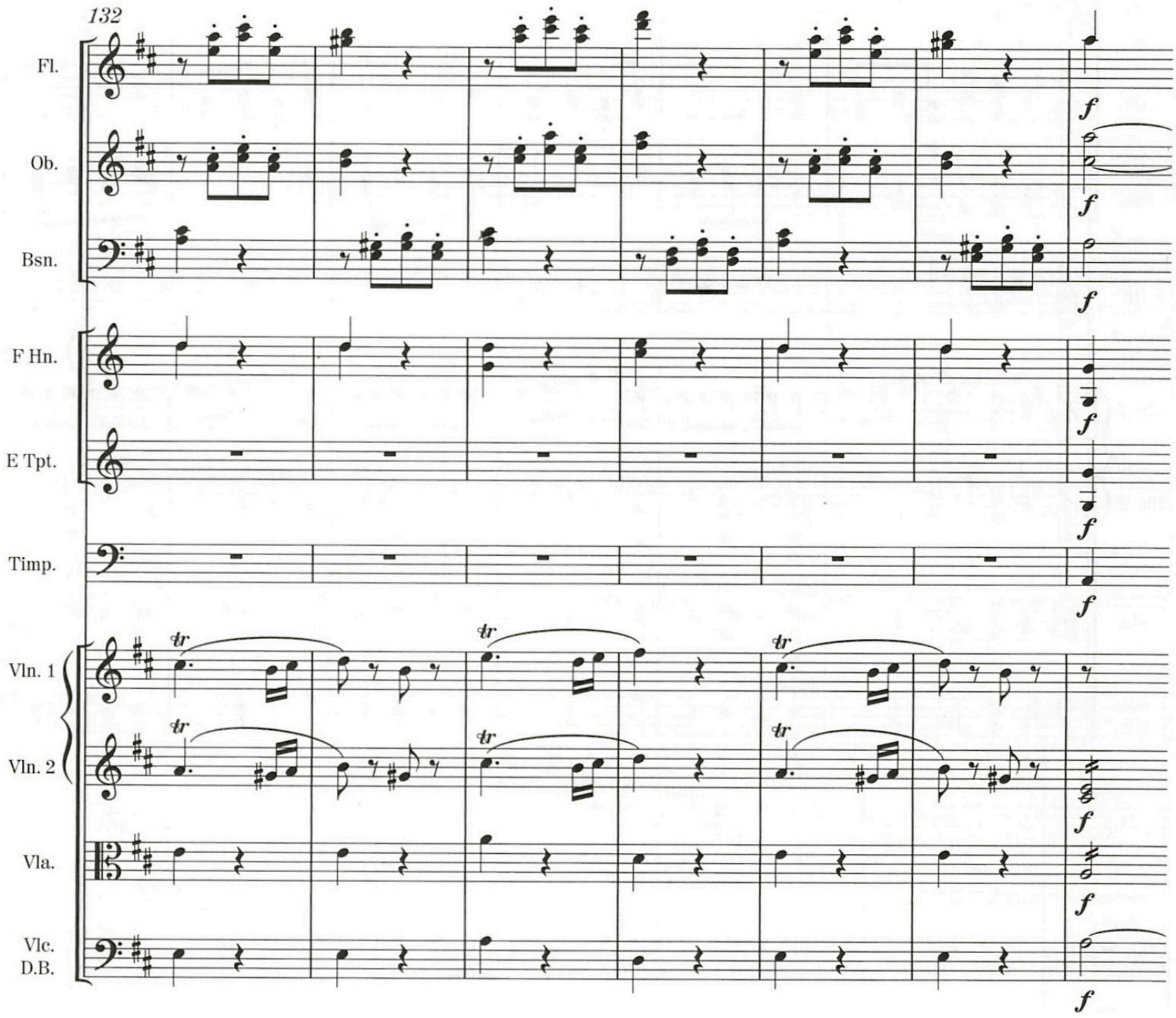
PROF. MARCOS FILHO


282
dolce
Fl.
Ob.
B♭ Cl.
Bsn.
1.
Vln. 1
Vln. 2
Vla.
Vlc.
p
p dolce
Solo
Tutti

EXAMPLE 8-30. Mozart, Symphony No. 38, K. 504, third movement, mm. 120–138

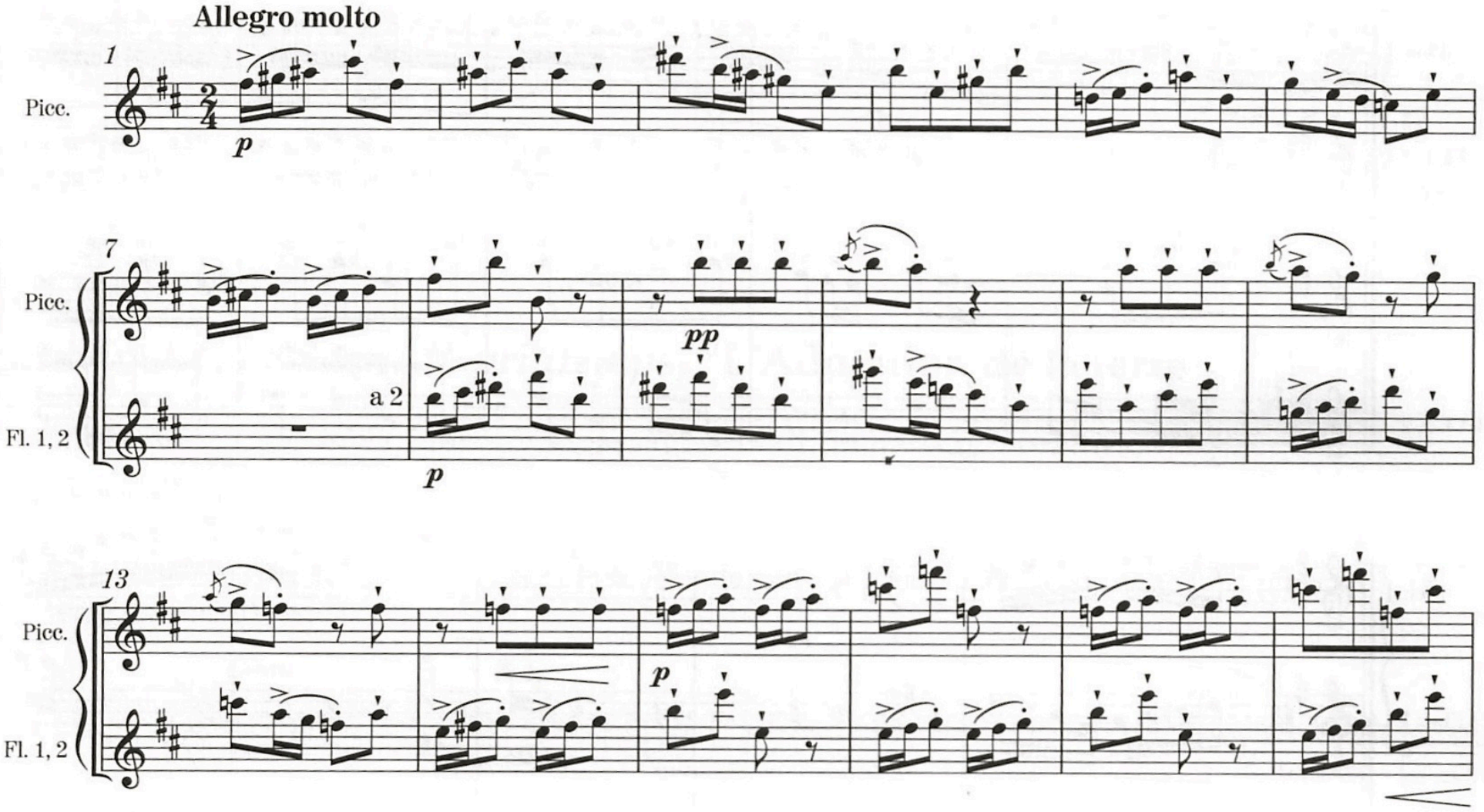


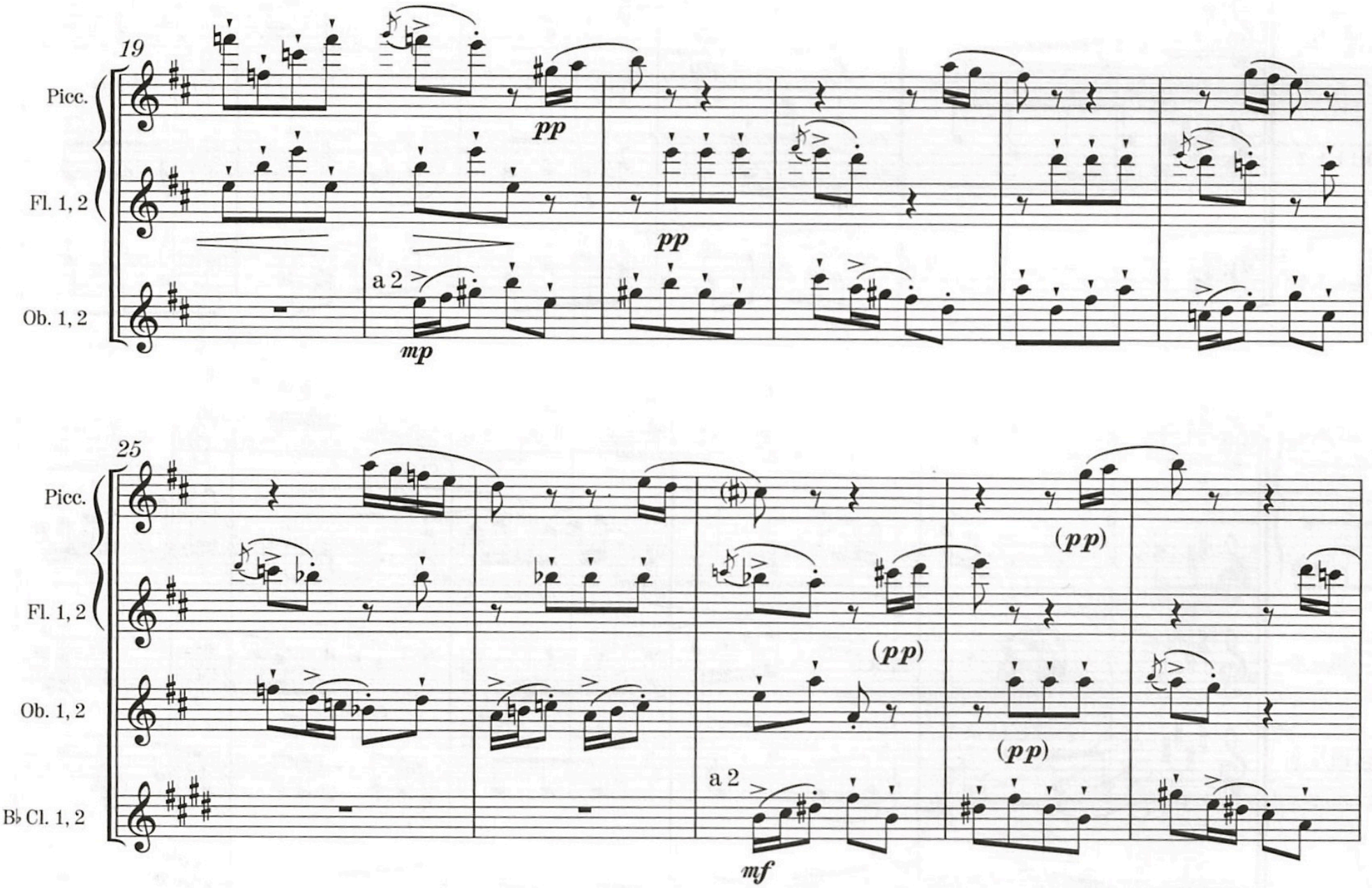

126
Fl.
Ob.
Bsn.
F Hn.
Vln. 1
Vln. 2
Vla.
Vlc.
D.B.
p
tr
arco

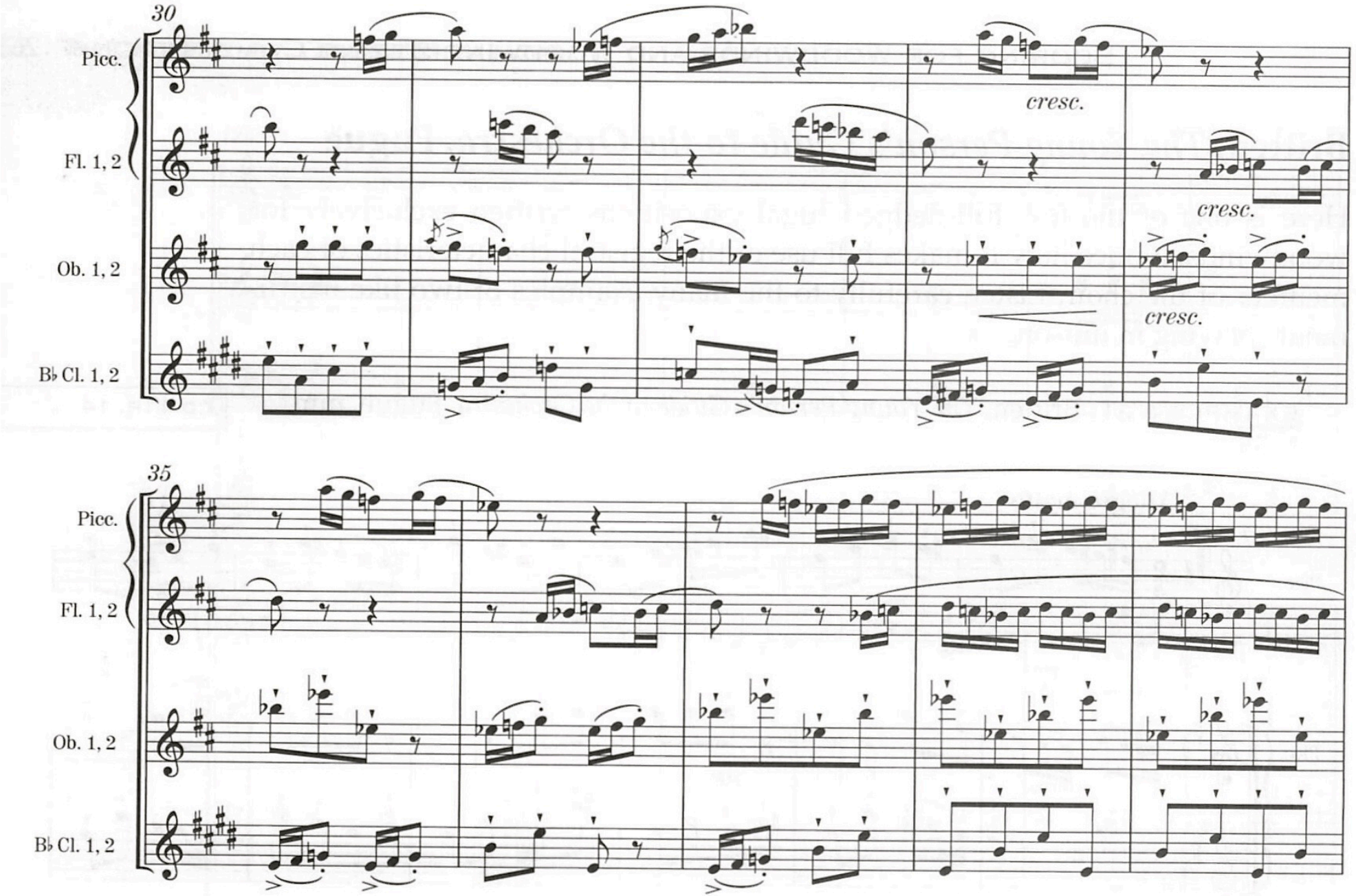


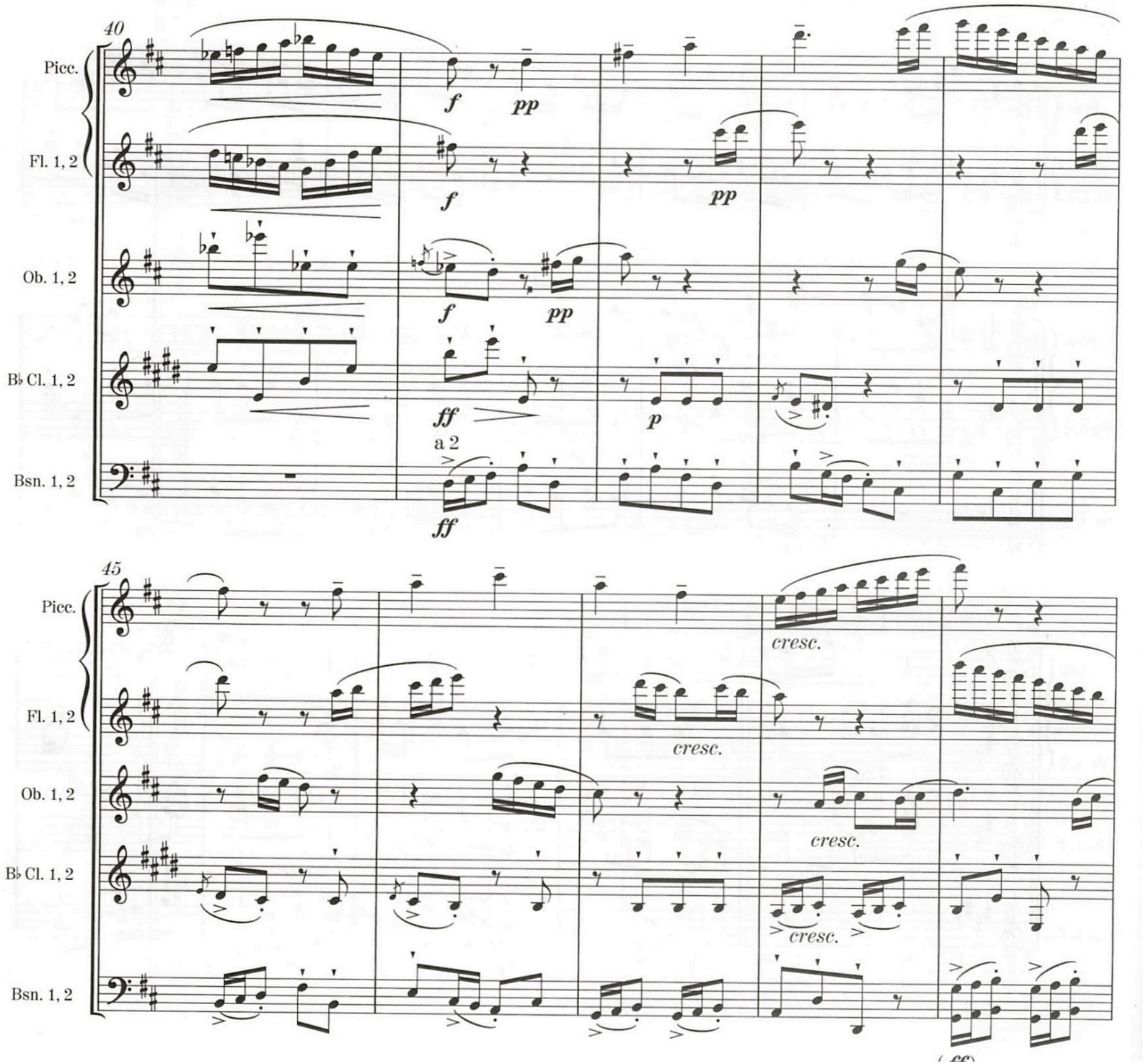
PROF. MARCOS FILHO

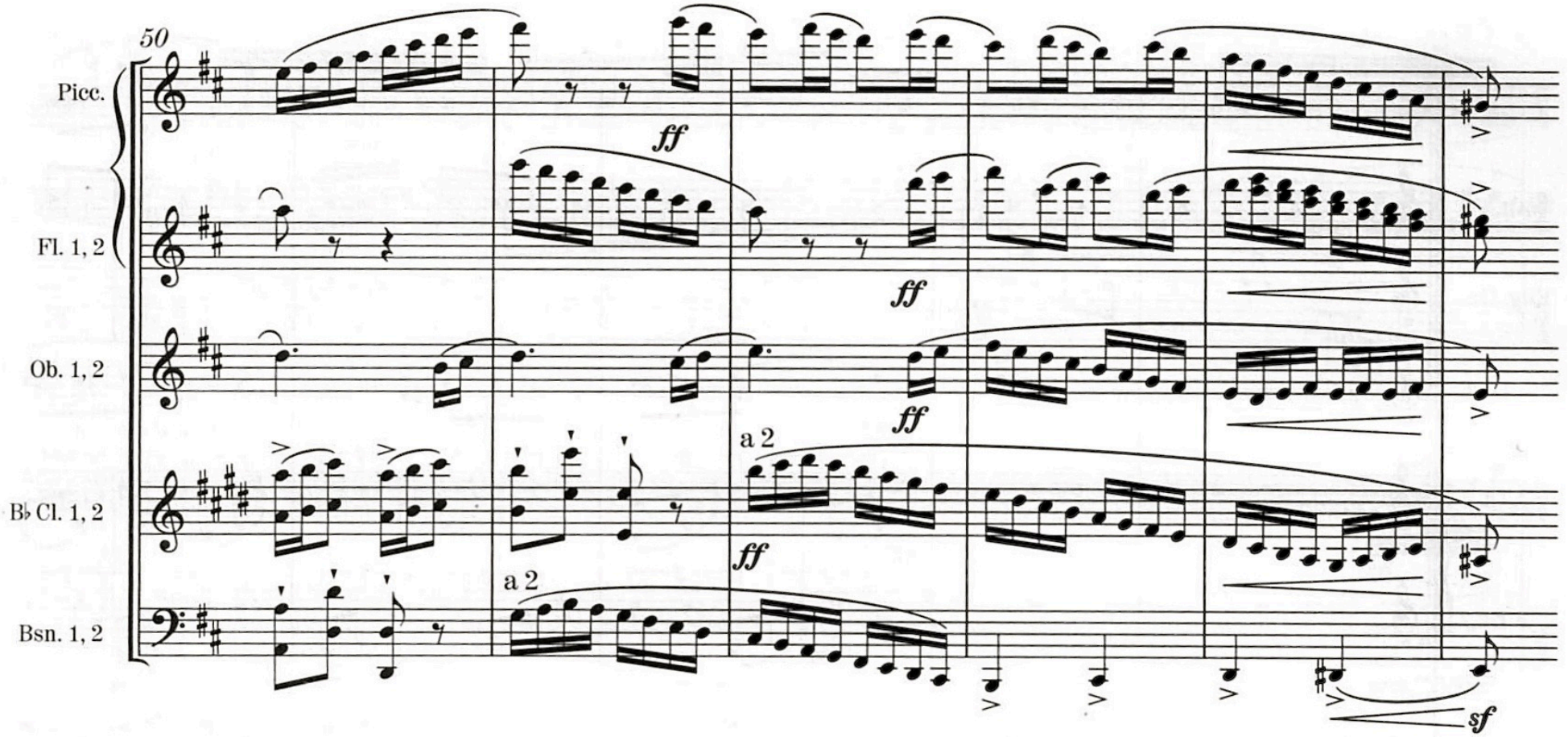
EXAMPLE 8-31. Britten, *The Young Person's Guide to the Orchestra*, Fugue, mm. 1–55



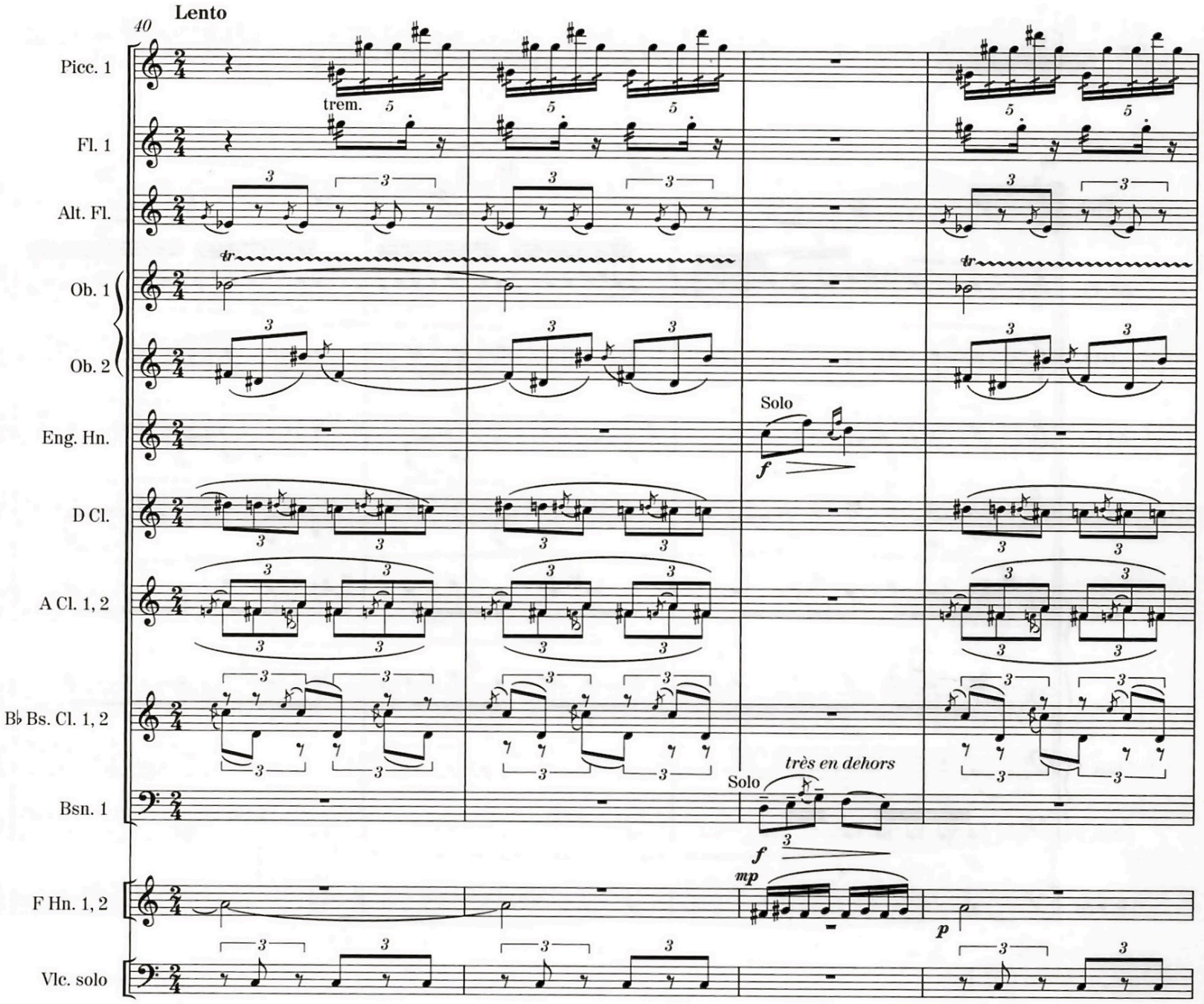

19
Picc.
Fl. 1, 2
Ob. 1, 2
pp
pp
a 2
mp
25
Picc.
Fl. 1, 2
Ob. 1, 2
B♭ Cl. 1, 2
(pp)
(pp)
(pp)
a 2
mf


30
Picc.
Fl. 1, 2
Ob. 1, 2
B♭ Cl. 1, 2
cresc.
cresc.
cresc.
35
Picc.
Fl. 1, 2
Ob. 1, 2
B♭ Cl. 1, 2

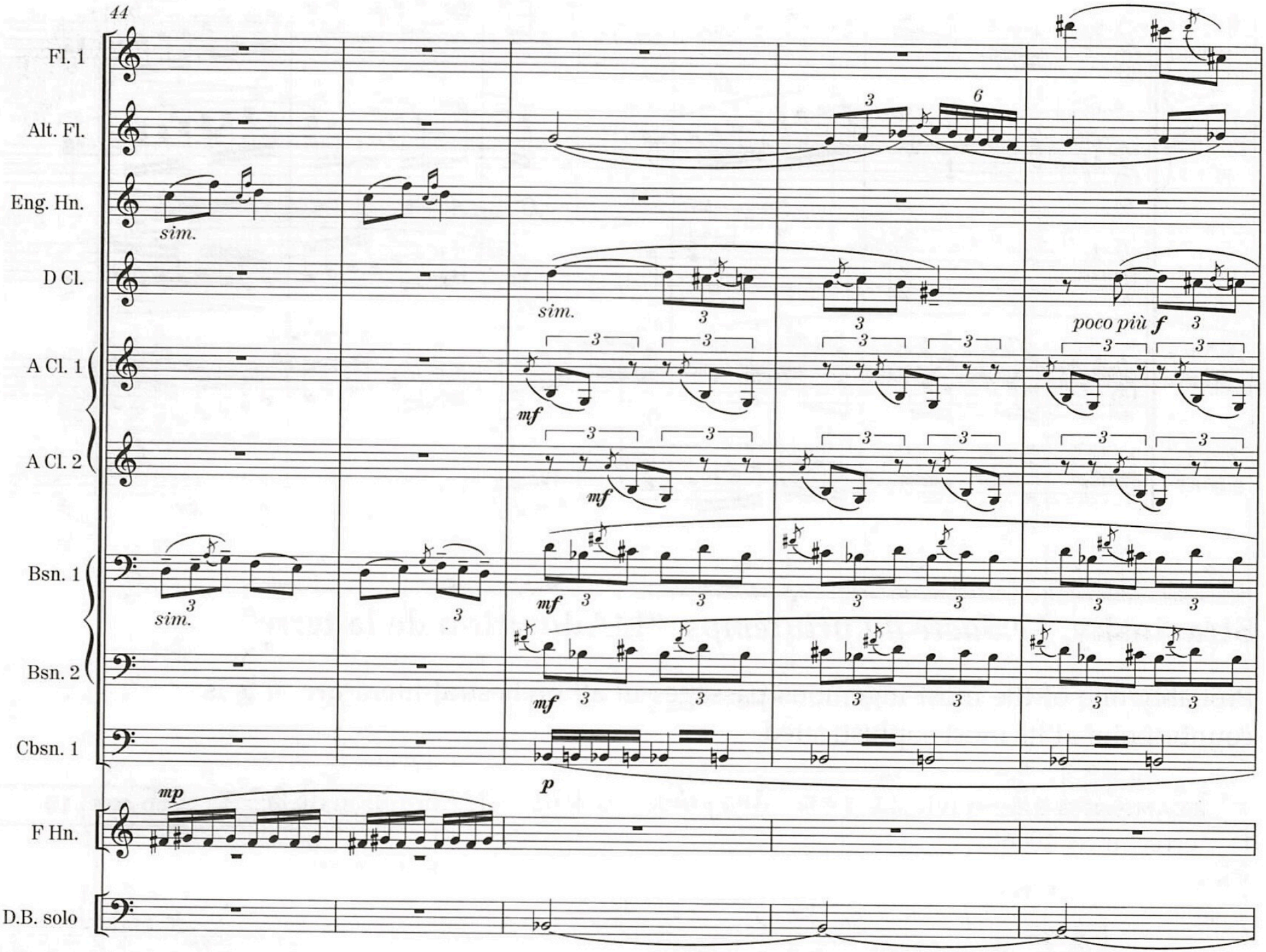

40
Picc.
Fl. 1, 2
Ob. 1, 2
B♭ Cl. 1, 2
Bsn. 1, 2
f
pp
f
pp
f
pp
ff
p
a 2
ff
45
Picc.
Fl. 1, 2
Ob. 1, 2
B♭ Cl. 1, 2
Bsn. 1, 2
cresc.
cresc.
cresc.
cresc.

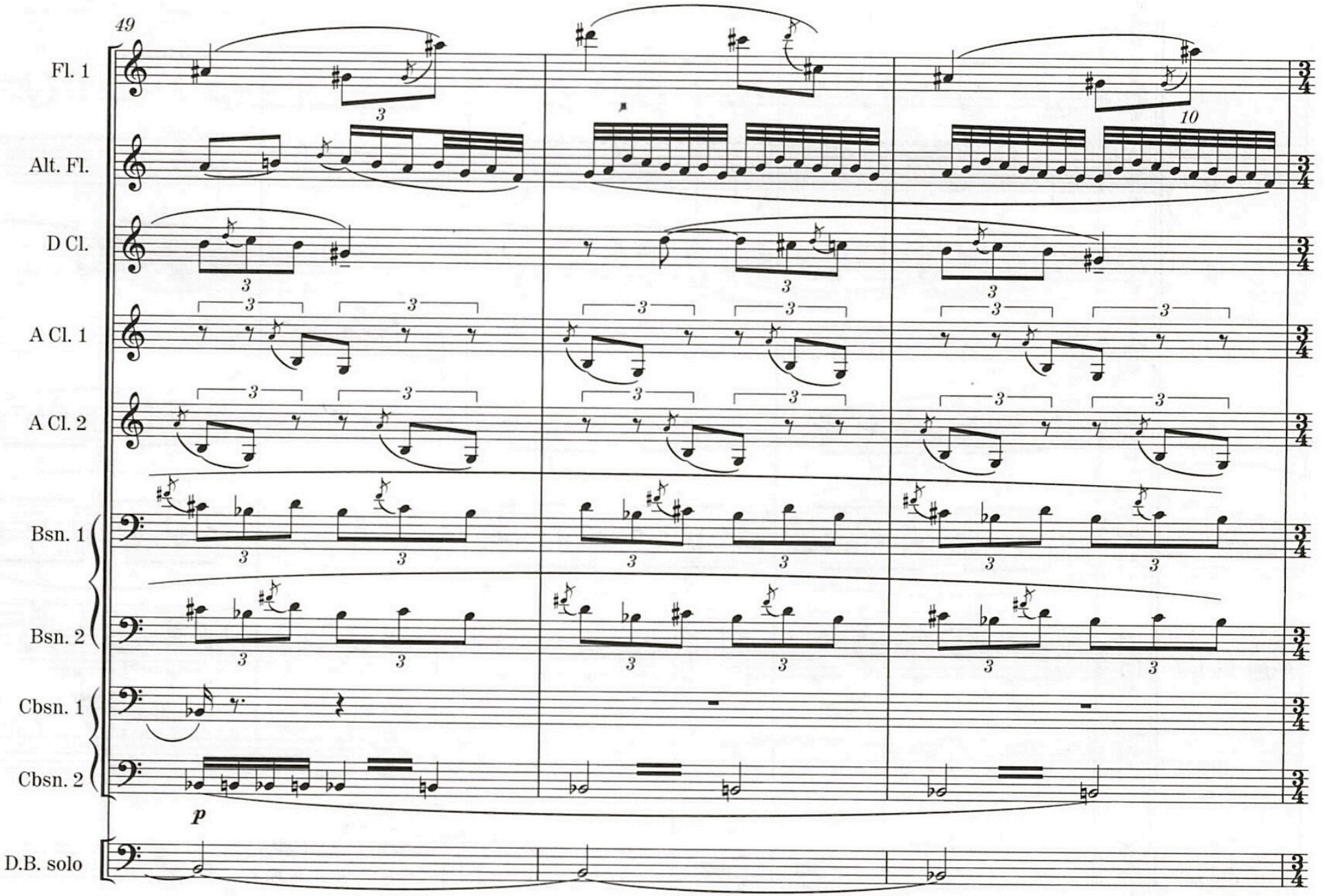

50
Picc.
Fl. 1, 2
Ob. 1, 2
B♭ Cl. 1, 2
Bsn. 1, 2
ff
ff
ff
ff
a 2
a 2
sf

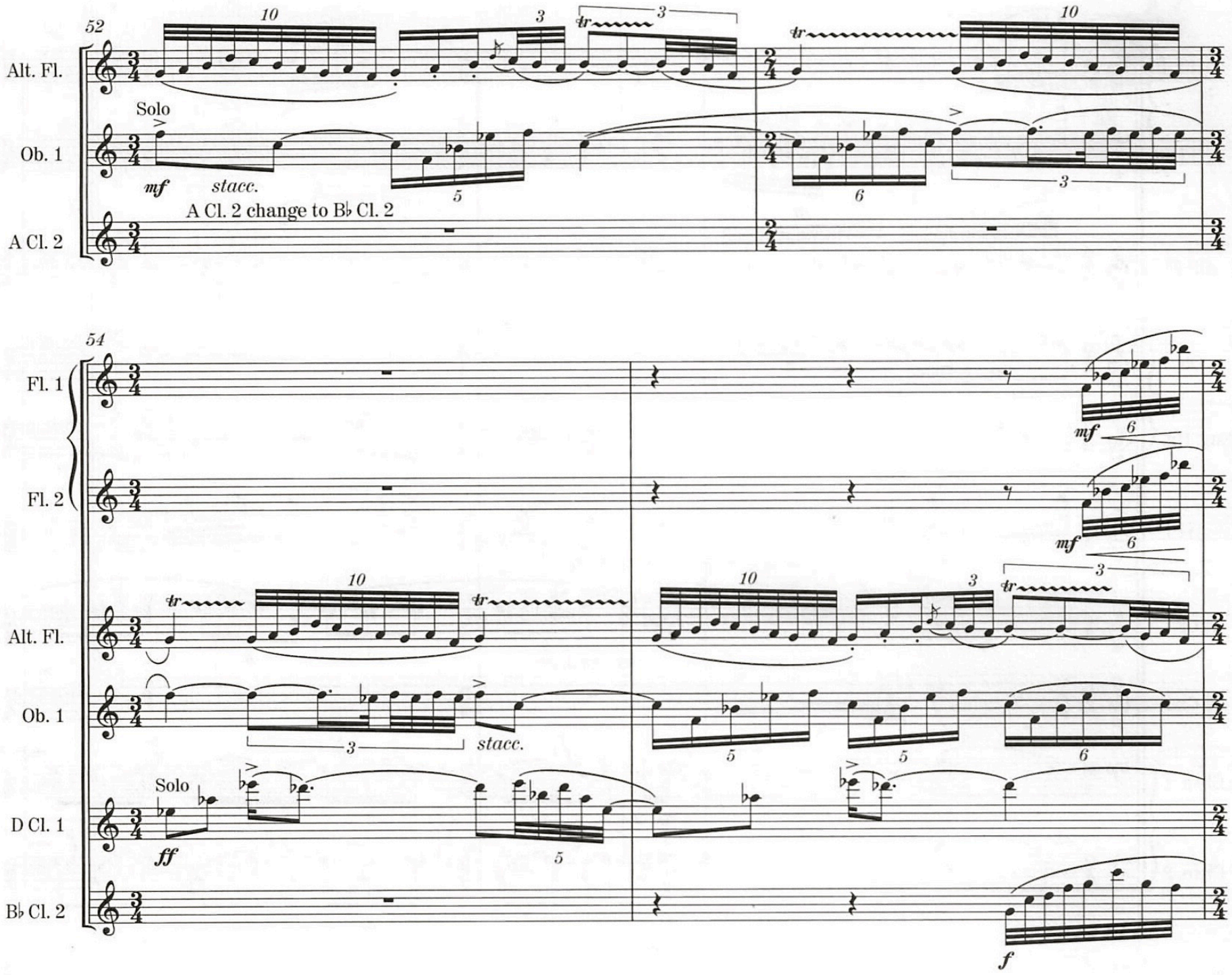
EXAMPLE 8-32. Stravinsky, *Le Sacre du printemps*, Part I, "L'Adoration de la terre," mm. 40–60

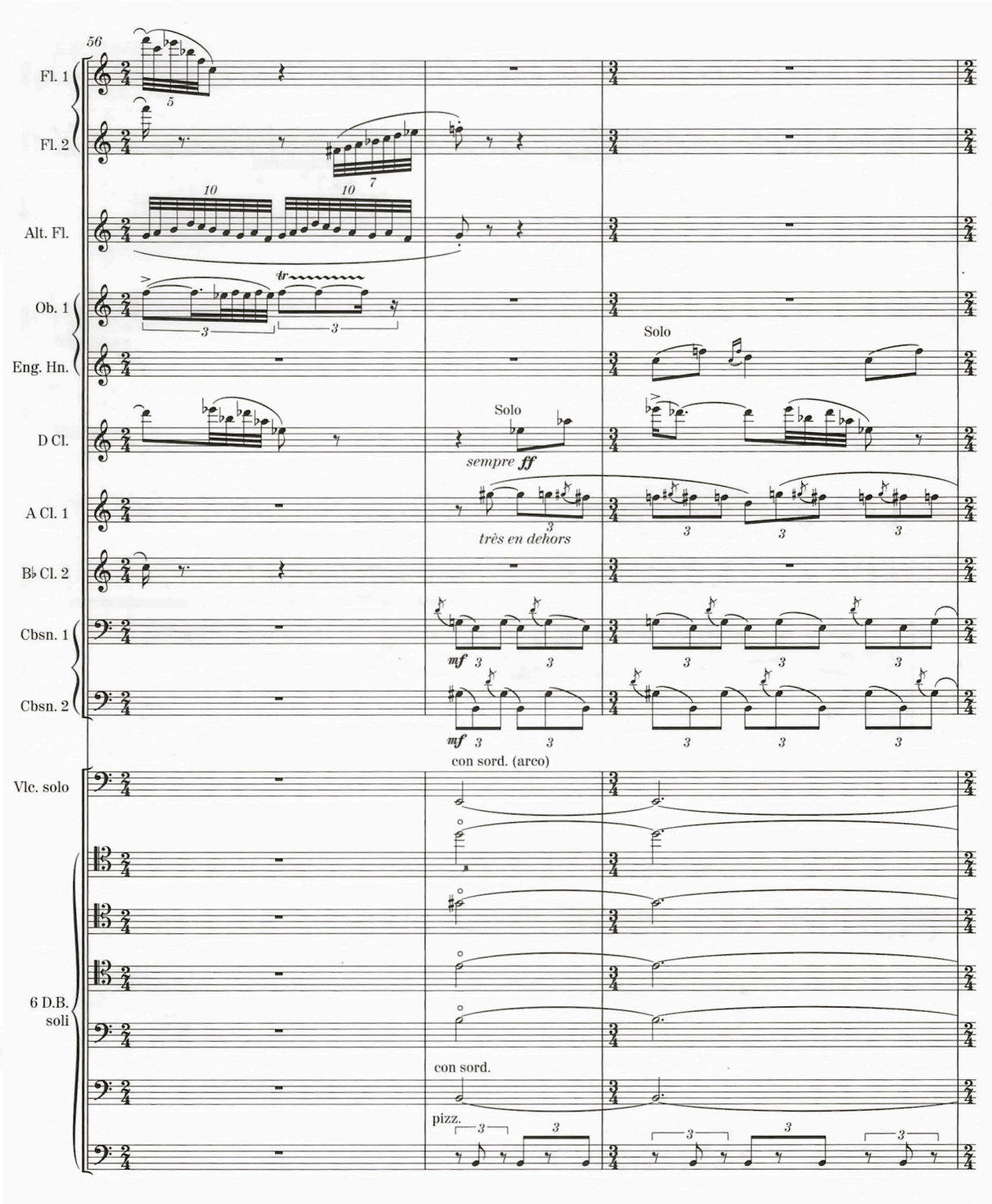


PROF. MARCOS FILHO

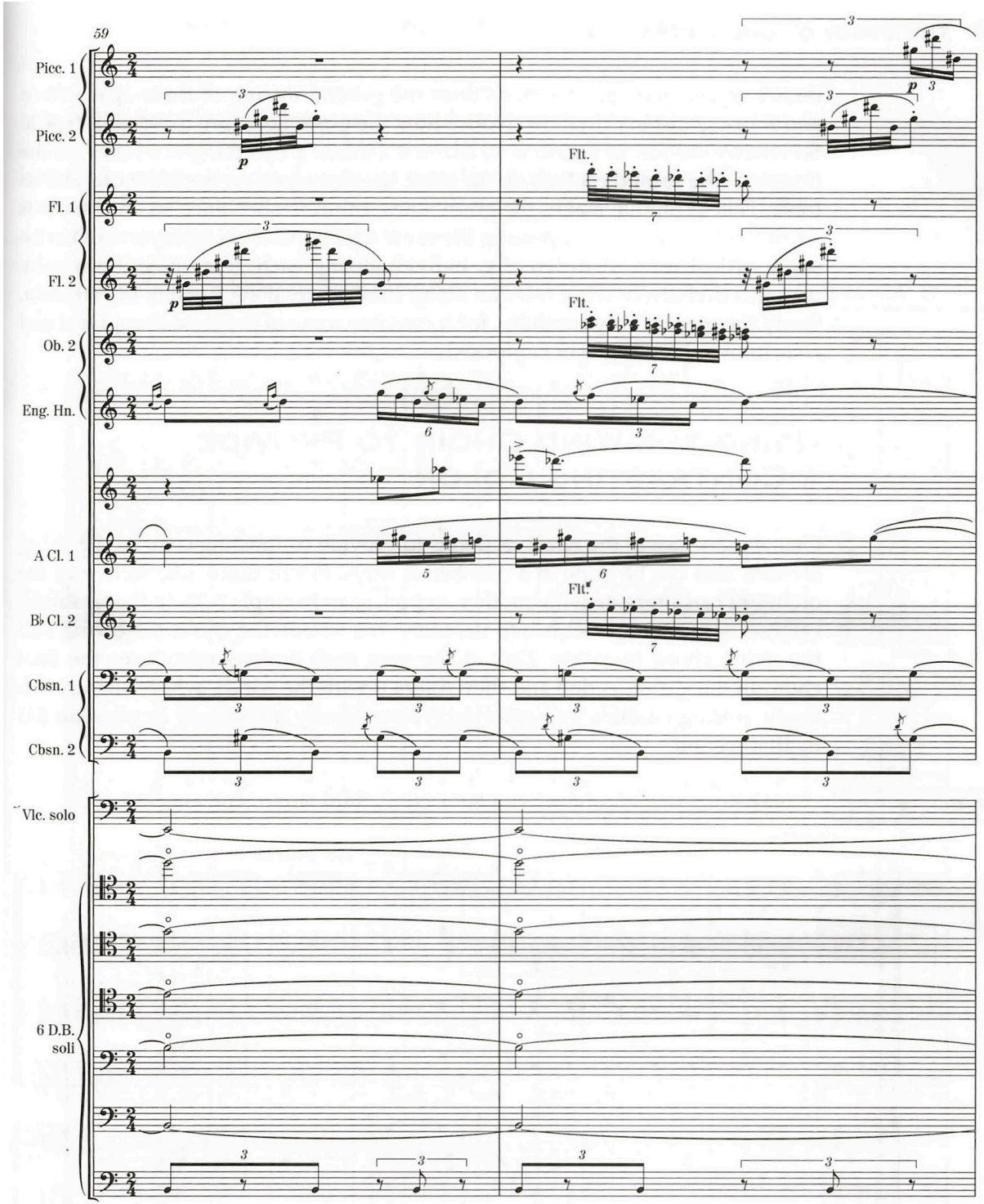

44
Fl. 1
Alt. Fl.
Eng. Hn.
sim.
D Cl.
sim.
poco più f
A Cl. 1
A Cl. 2
mf
Bsn. 1
sim.
Bsn. 2
Cbsn. 1
p
mp
F Hn.
D.B. solo


49
Fl. 1
Alt. Fl.
D Cl.
A Cl. 1
A Cl. 2
Bsn. 1
Bsn. 2
Cbsn. 1
Cbsn. 2
D.B. solo
10
p


52
Alt. Fl.
Solo
Ob. 1
mf
stacc.
A Cl. 2 change to B♭ Cl. 2
A Cl. 2
54
Fl. 1
Fl. 2
Alt. Fl.
Ob. 1
stacc.
Solo
D Cl. 1
ff
B♭ Cl. 2
mf
f



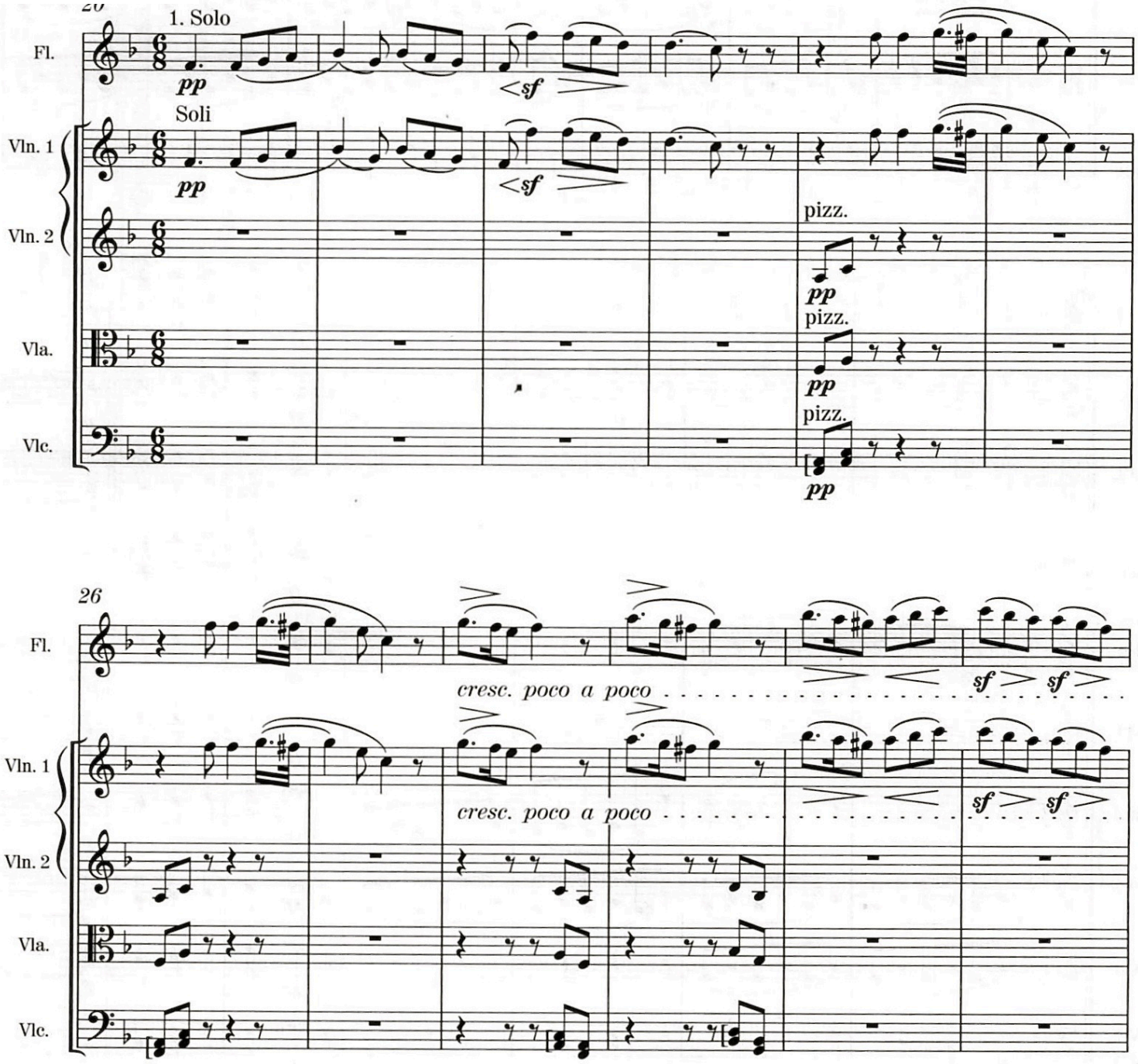
PROF. MARCOS FILHO

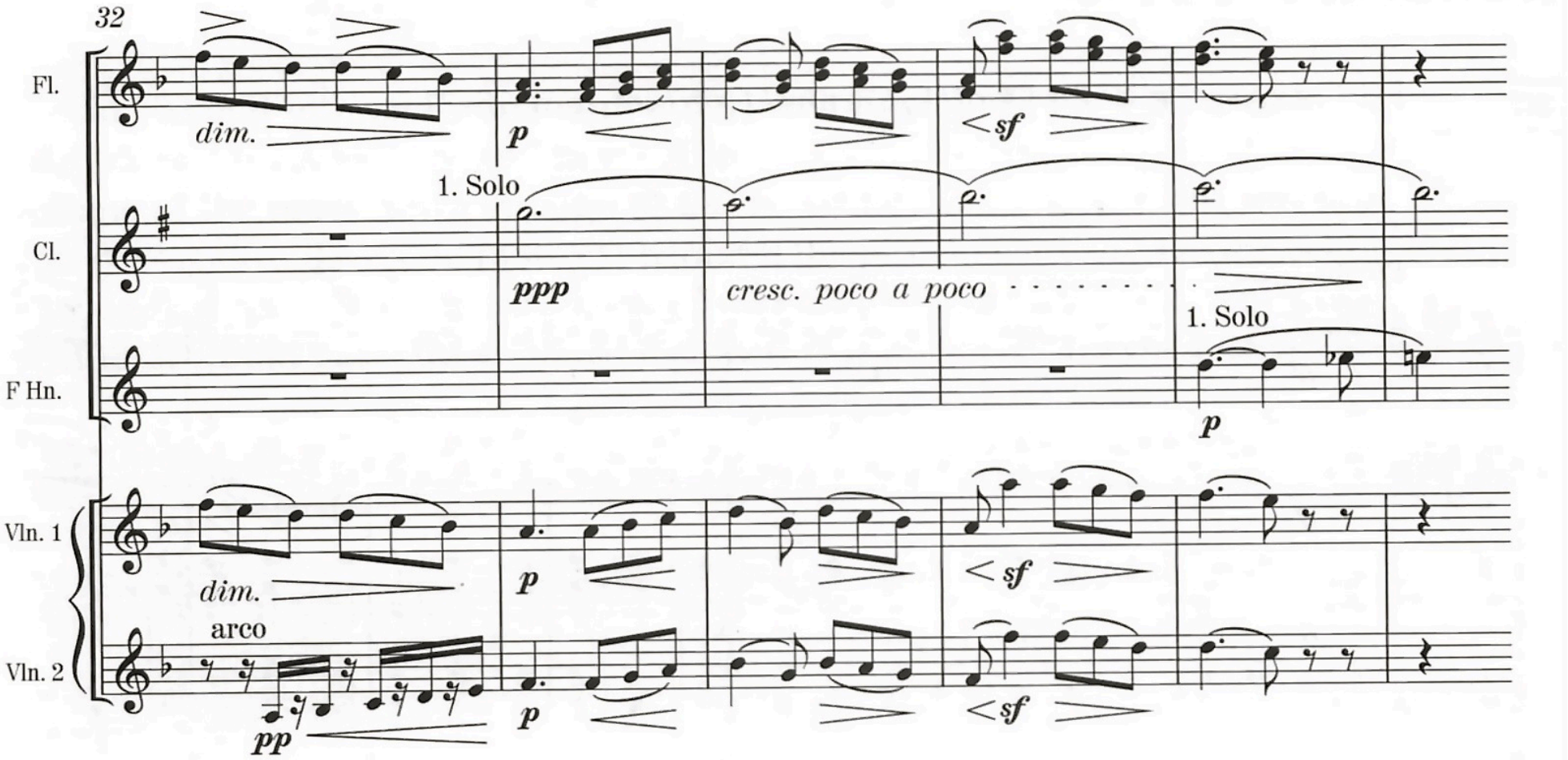


PROF. MARCOS FILHO

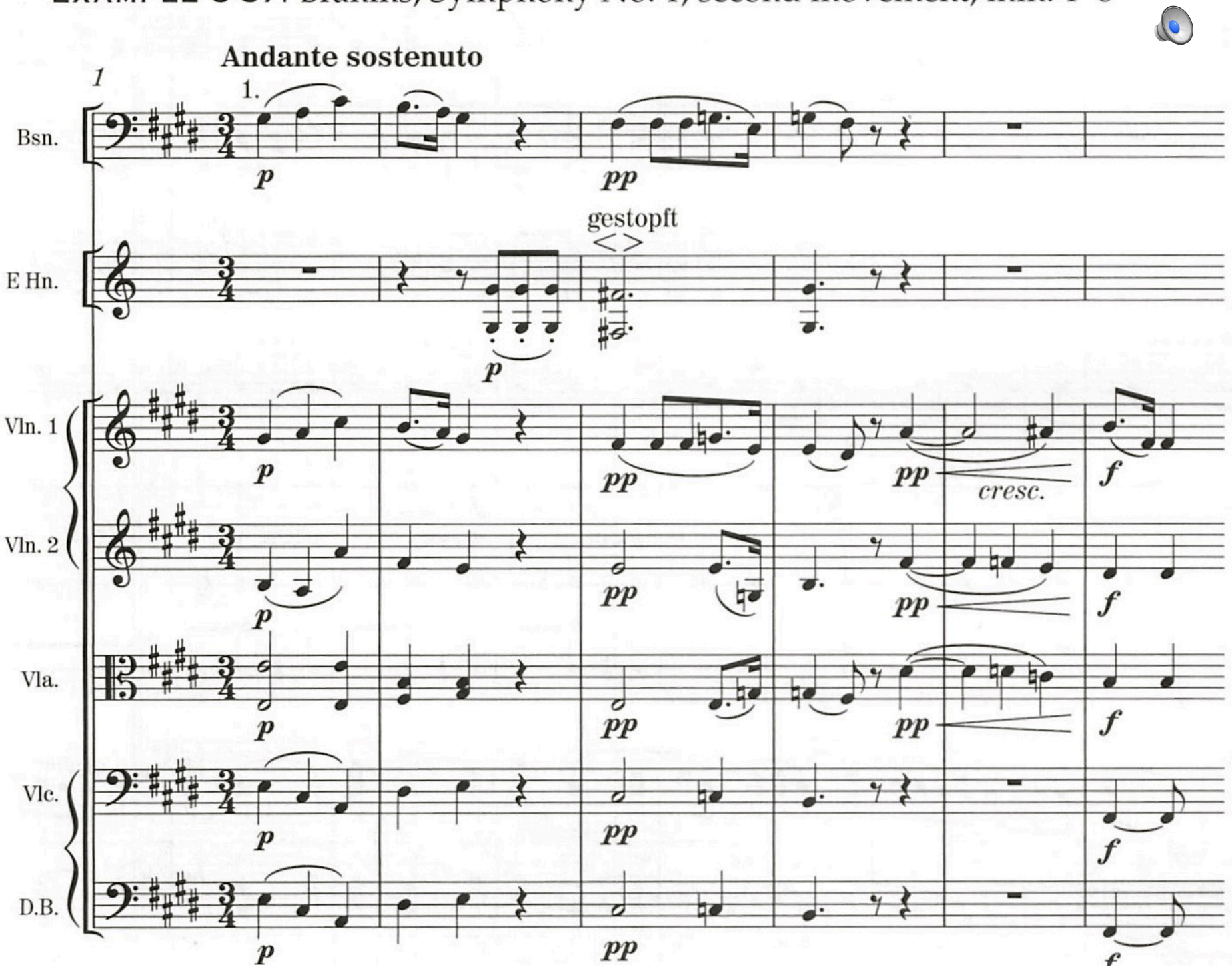
Dobramentos com outros instrumentos da orquestra

EXAMPLE 8-36. Berlioz, *Symphonie fantastique*, third movement, mm. 20–37

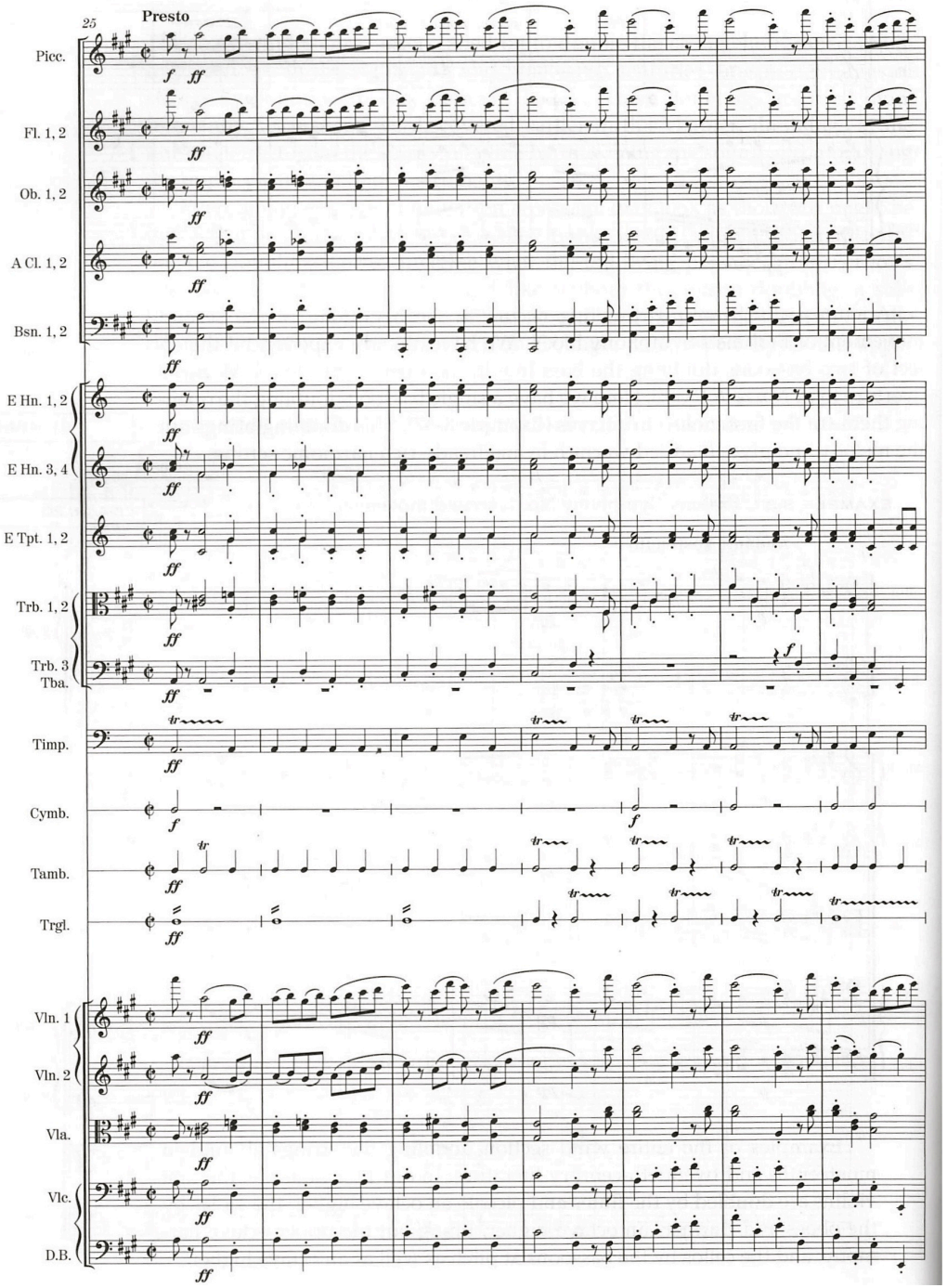



32
Fl.
dim.
p
sf
1. Solo
Cl.
ppp
cresc. poco a poco
1. Solo
F Hn.
p
Vln. 1
dim.
p
sf
arco
Vln. 2
pp
p
sf

EXAMPLE 8-37. Brahms, Symphony No. 1, second movement, mm. 1–6

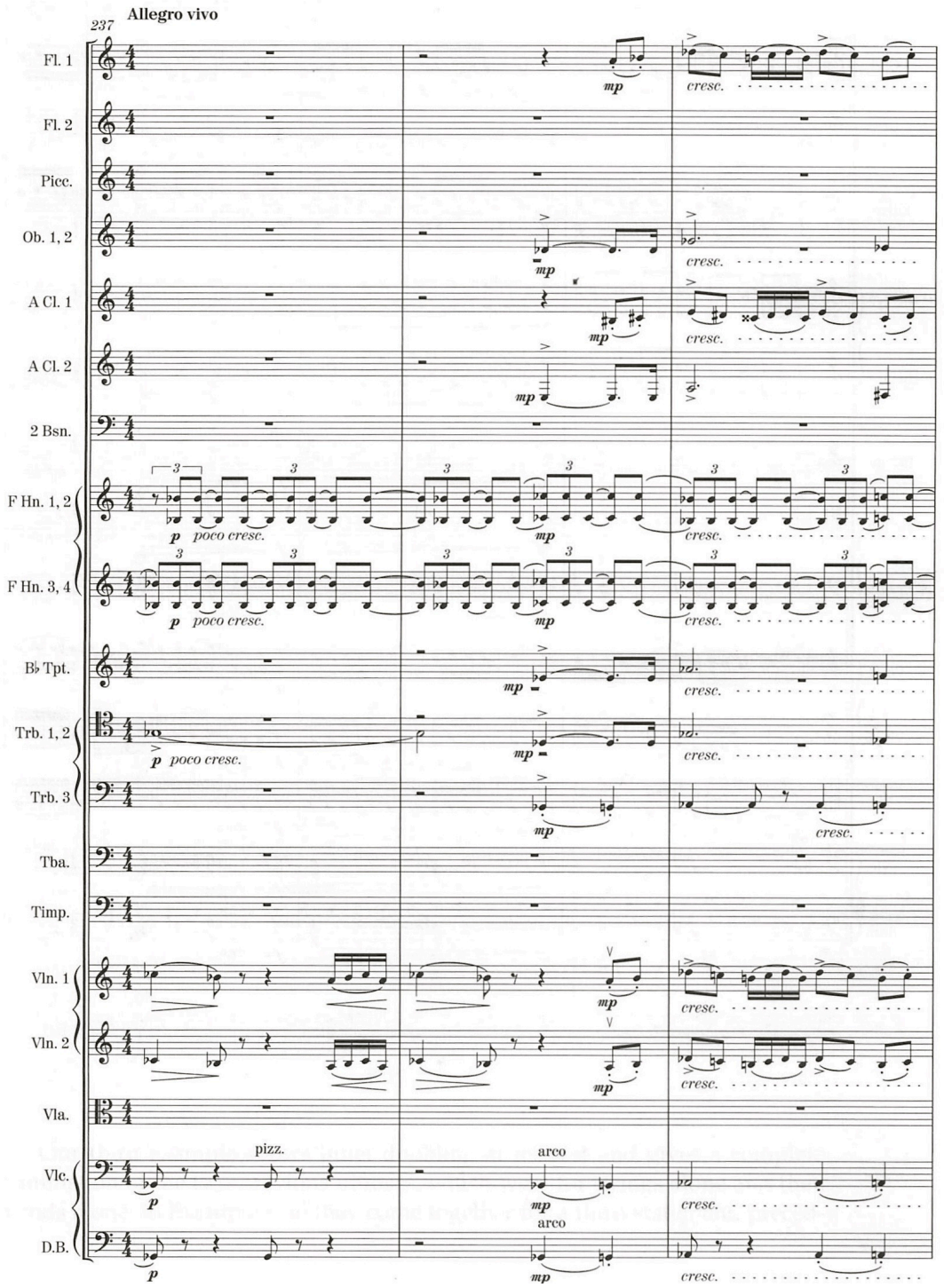


EXAMPLE 8-38. Dvořák, *Carnival Overture*, mm. 25–31

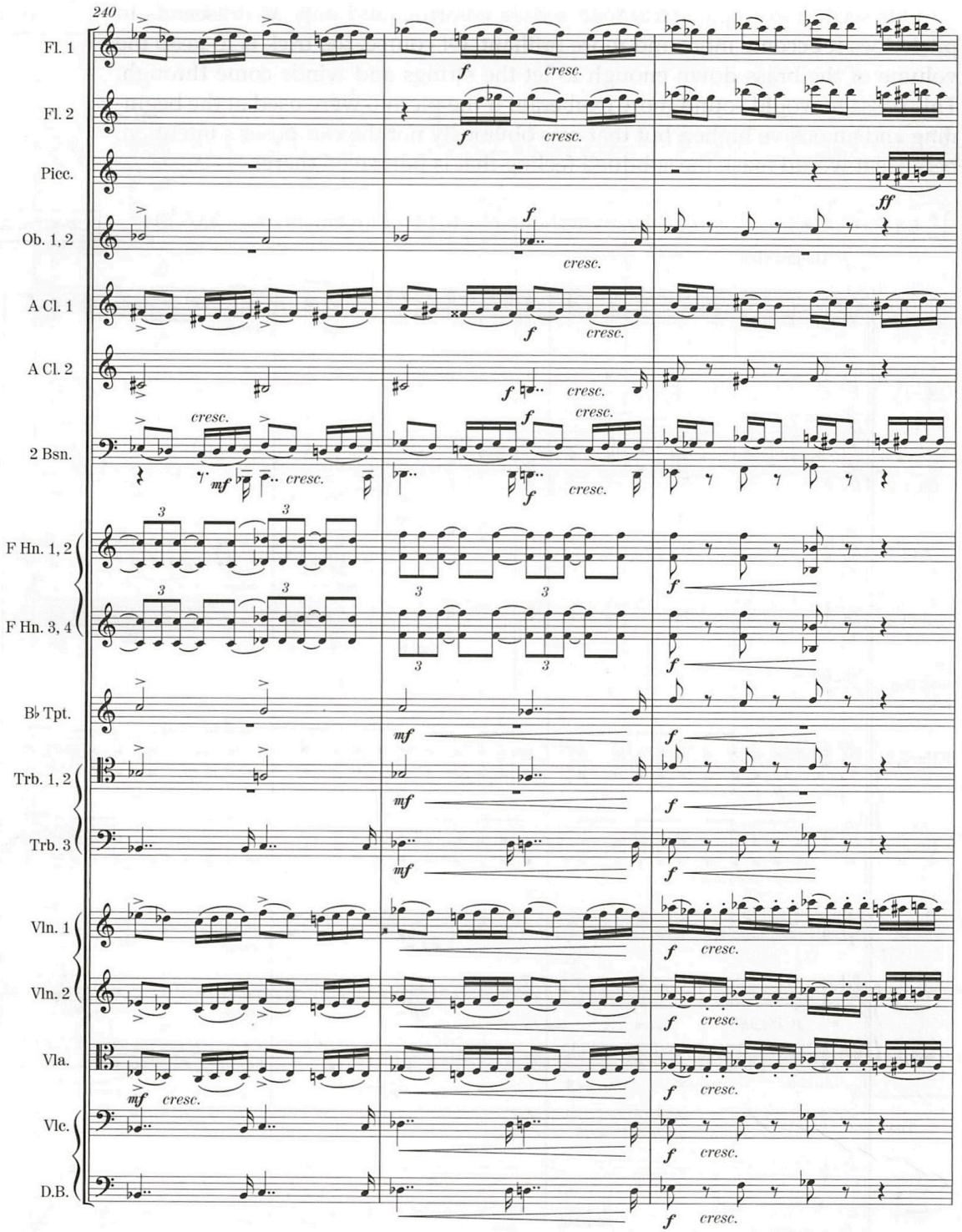


PROF. MARCOS FILHO

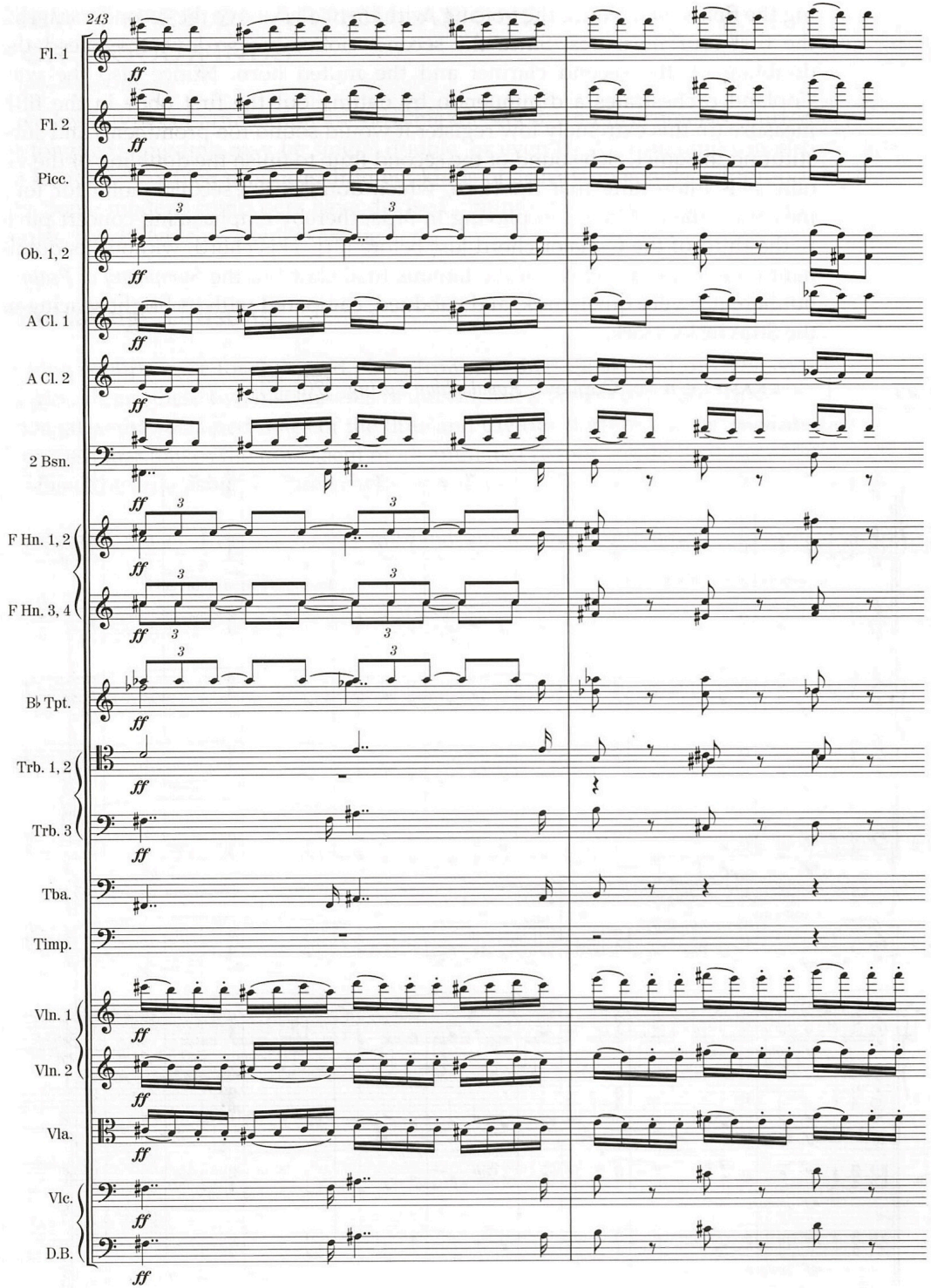
EXAMPLE 8-39. Tchaikovsky, Symphony No. 6, first movement, mm. 237–244



PROF. MARCOS FILHO

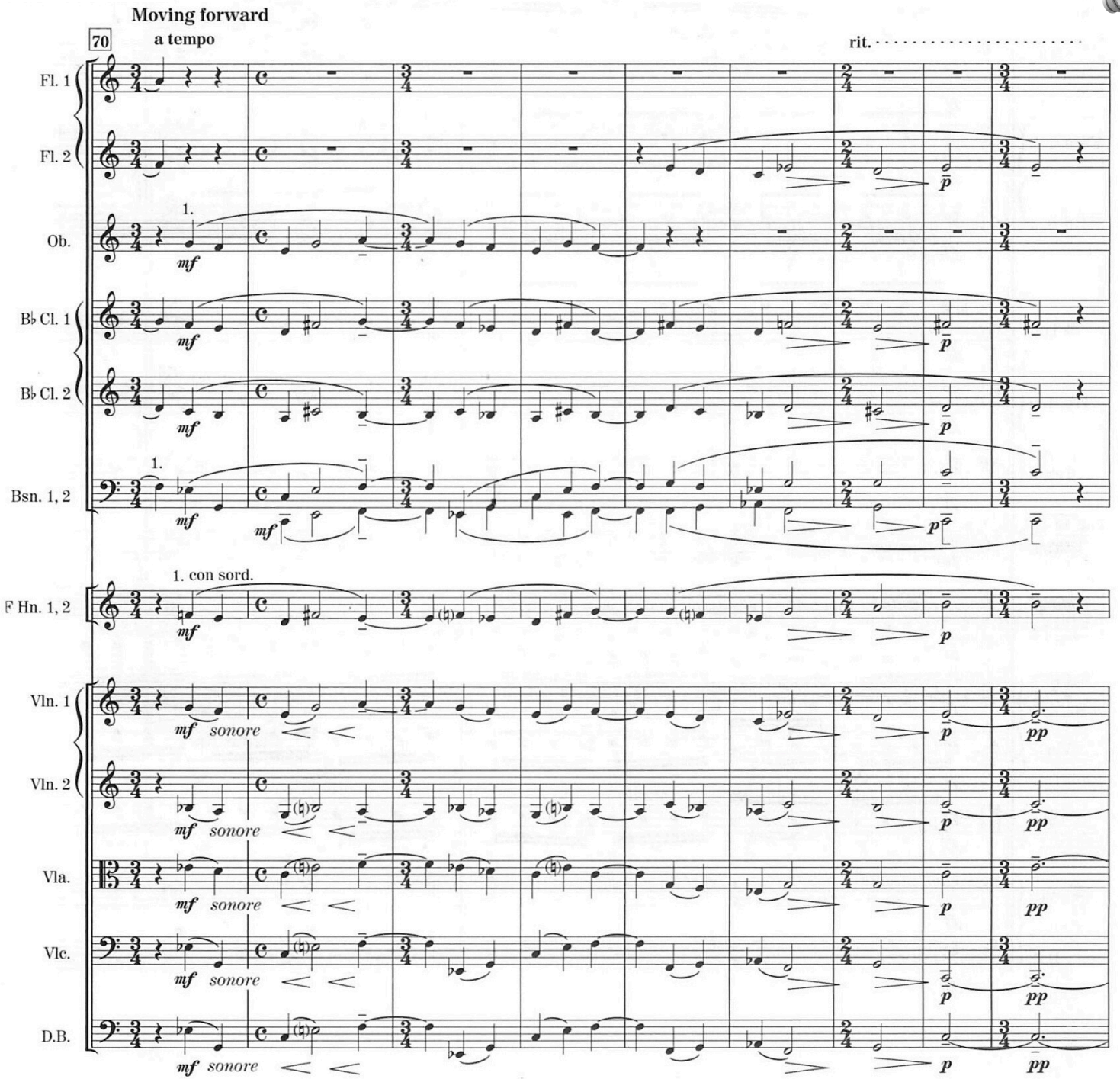


PROF. MARCOS FILHO



PROF. MARCOS FILHO

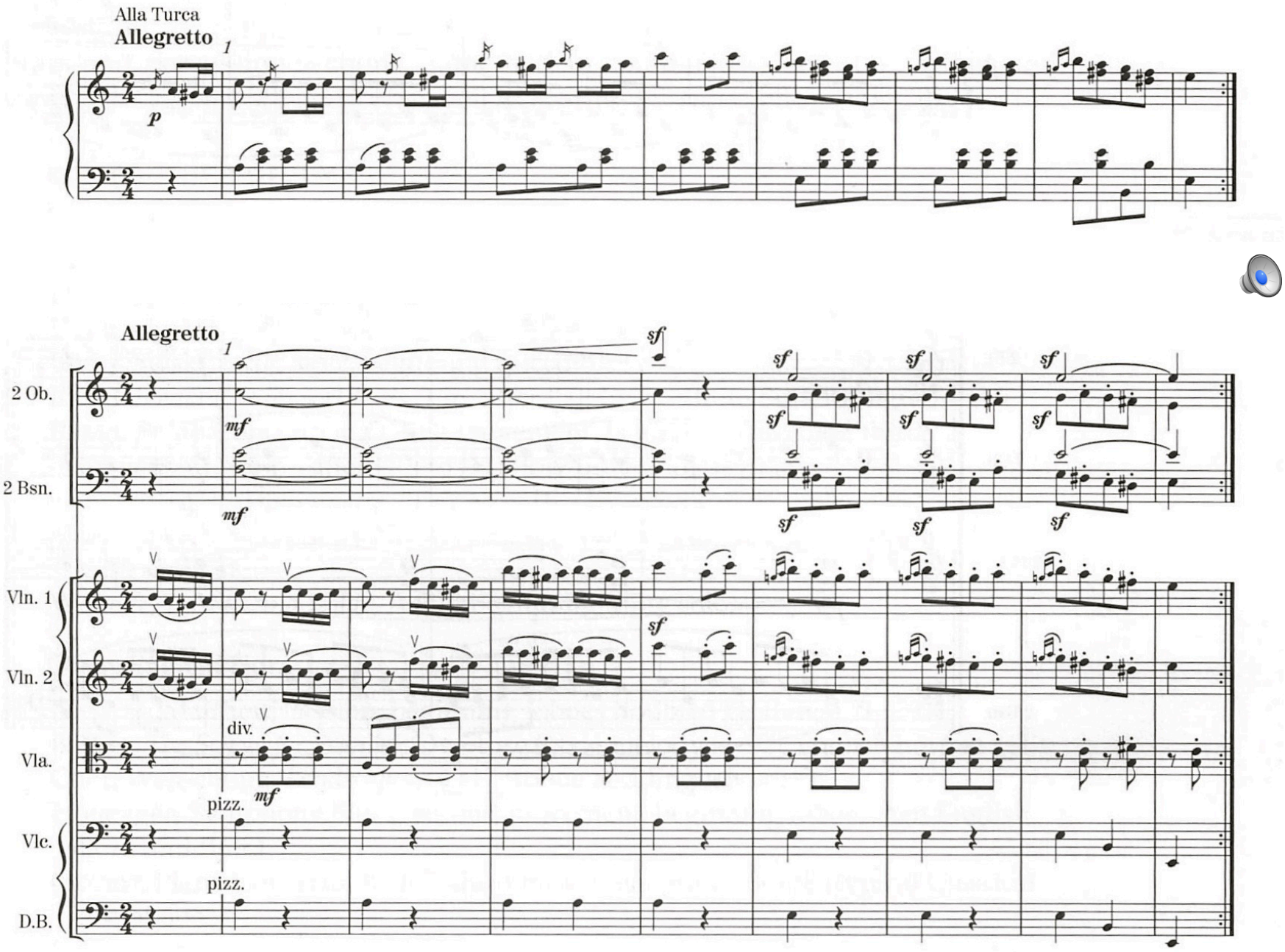
EXAMPLE 8-40. Copland, *Appalachian Spring*, 70–71



PROF. MARCOS FILHO

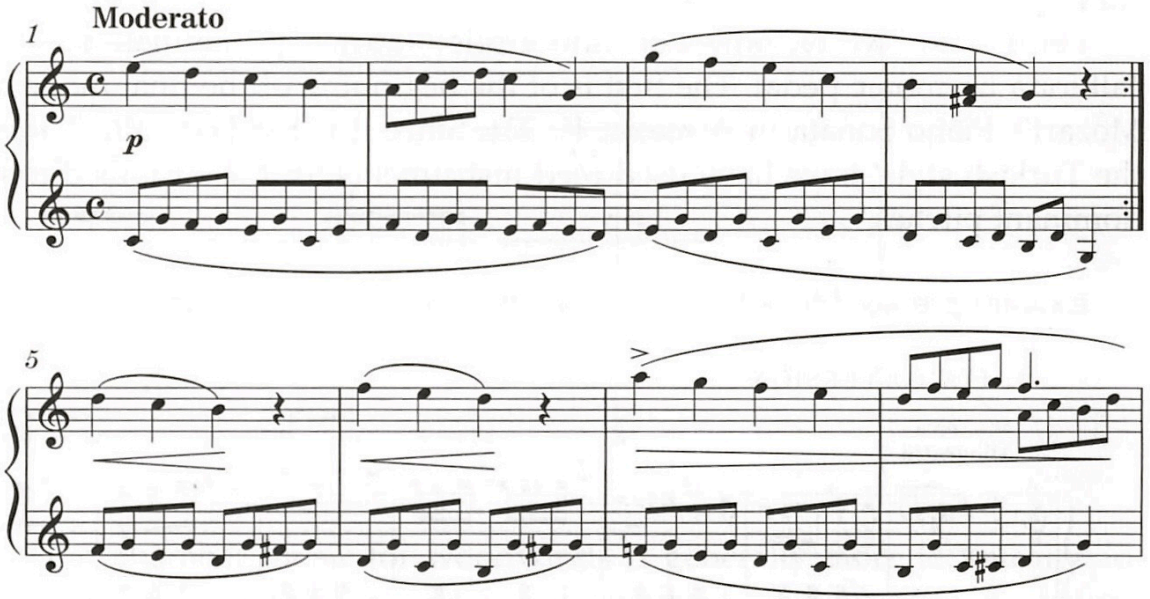
Transcrição do piano

EXAMPLE 8-46. Mozart, Piano Sonata, K. 331, third movement, mm. 1–8

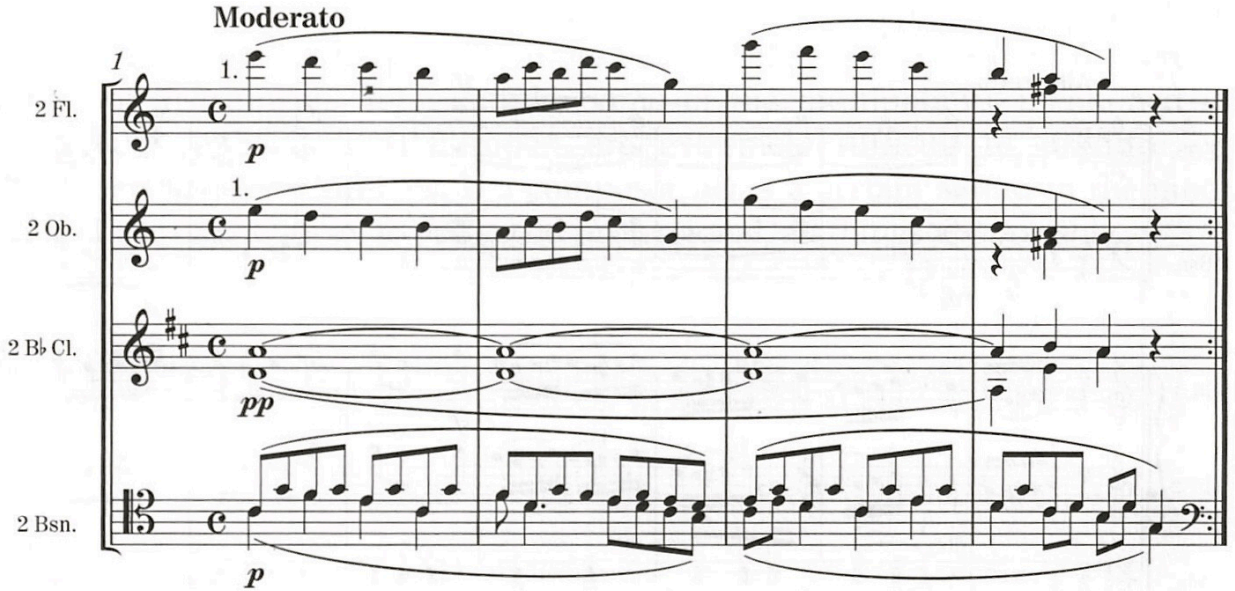


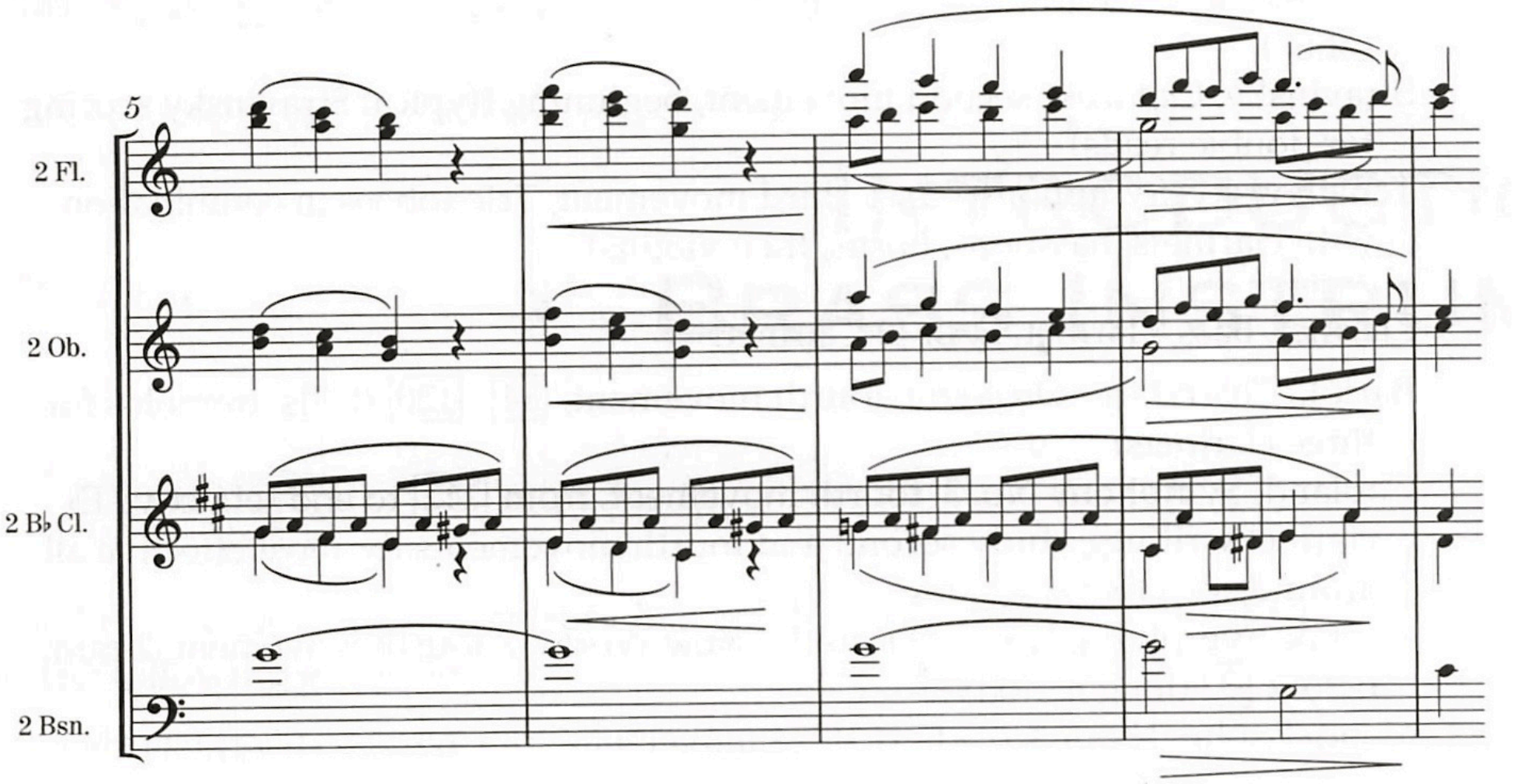
EXAMPLE 8-47. Schumann, "Melody," mm. 1–8

a. PIANO VERSION



b. ORCHESTRAL VERSION




5
2 Fl.
2 Ob.
2 B♭ Cl.
2 Bsn.

Combinações possíveis

- Piccolo/ 2 flautas / 2 oboes / 2 clarinetas, clarinete baixo (fagote);
- Flauta / oboe / 2 clarinetas / clarone;
- Flauta / 2 clarinetas / clarone;
- 2 flautas / 2 clarinetes / clarone;
- 3 flautas / 2 clarinetes / clarone (fagote);
- Oboé / 3 clarinetes / clarone (fagote);
- Corne Inglês / 2 clarinetes / clarone (fagote);
- Flauta / clarineta / Corne Inglês (fagote);

Combinações em uníssono

- Piccolo / oboé;
- Flauta / clarineta;
- Flauta alto / fagote;
- Flauta baixo / clarinete baixo;
- Oboé / clarineta;
- Flauta / oboé / clarineta;
- Clarineta / Corne Inglês;
- Clarineta / Fagote;
- Corne Inglês / Fagote;
- Trompa / Fagote;

Combinações em oitava

- Flauta / oboé;
- Flauta / clarineta;
- Flauta / fagote;
- Oboé / clarineta;
- Oboé / fagote;
- Clarineta / fagote;
- Flauta / oboé / clarineta;
- Clarineta / Corne Inglês;
- Flauta / Clarineta / fagote;
- Flauta / fagote (2 oitavas);
- Piccolo / fagote (3 oitavas).