

Timberline

by Lois V Vierk

***Commissioned for the Relâche Ensemble of Philadelphia by
Kobrand, Inc., importer of Champagne Taittinger***

***Special thanks to the Foundation for Contemporary Arts
for additional support***

for chamber ensemble, featuring piano

flute/piccolo
clarinet
bassoon
viola
contrabass
piano/synthesizer
percussion

Timberline

for chamber ensemble, featuring piano

Timberline requires close miking of all instruments, including without fail close-miking of piano with at least 2 microphones. Also active participation of sound engineer to mix.

Bring out piano - entire piece. Bring out all piano glissandi.

Grace notes are to be played before the beat.

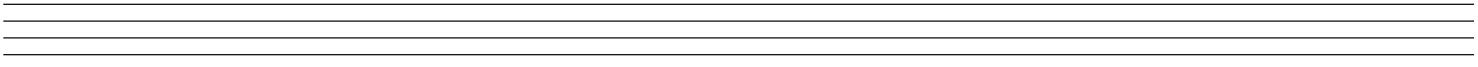
All instruments -- dynamics are very important to the structure and expression of this piece. Play dynamcis strongly and clearly, and exactly where written.

Timberline

for chamber ensemble, featuring piano

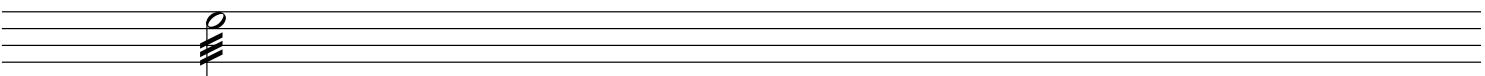
All instruments **NON VIBRATO**, entire piece.

Use entire note value for each glissando.

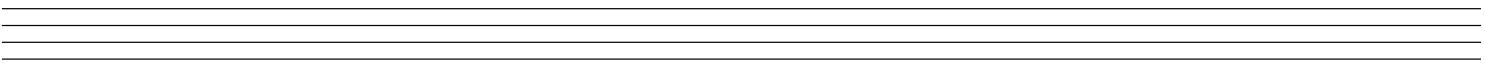


All tremolos and trills are measured 32nd notes.

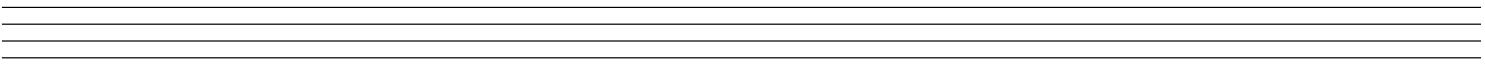
All instruments:



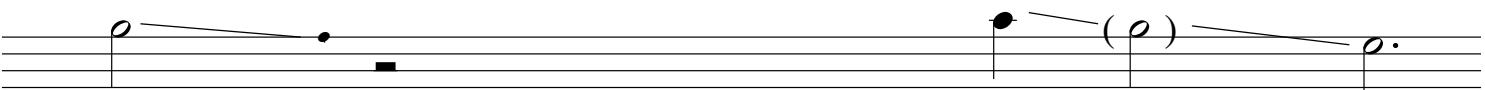
means reiterated 32nd notes (no woodwind flutter tongue)



Grace notes are to be played before the beat, fast as possible.



Strings and bassoon:

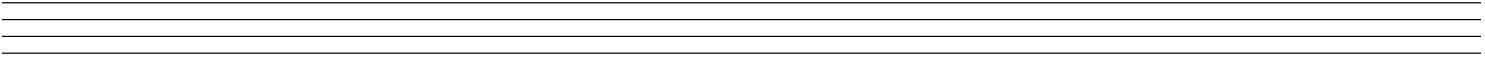


Use 2 full beats to gliss down to
small note. Do not articulate
small note in any way.

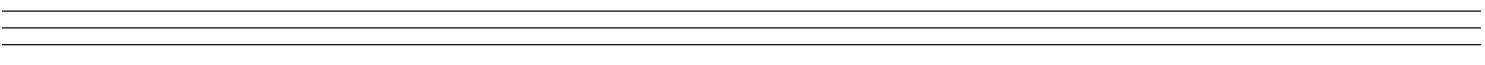
Strings:



The note in parenthesis is a
"place marker" of the pitch.
Do not change bow or articulate
note in parenthesis in any way.



All instruments -- dynamics are very important to the structure and expression of this piece. Play dynamics strongly and clearly, and exactly where written.

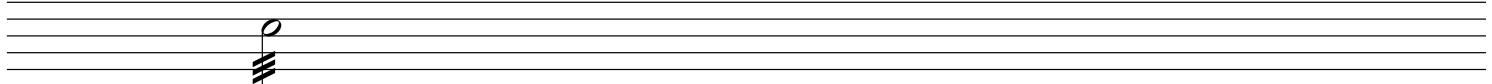


Timberline
for chamber ensemble, featuring piano

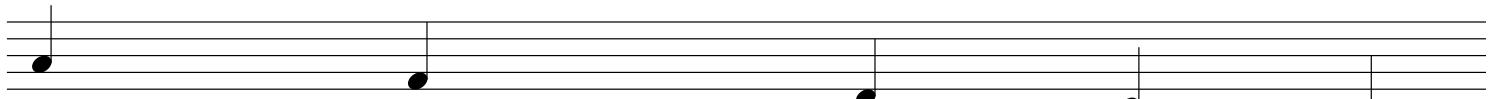
Percussion

Let all notes ring unless marked to damp.

All skin drums should sound dry and be damped:



measured 32nd notes, NOT roll



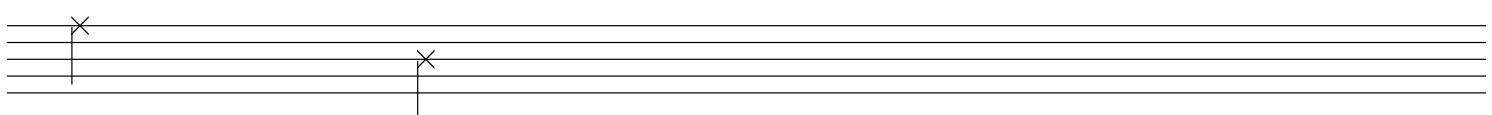
High pitched bongo
(played with sticks)

Medium pitched bongo
(played with sticks)

Small tom tom
Dry and damped

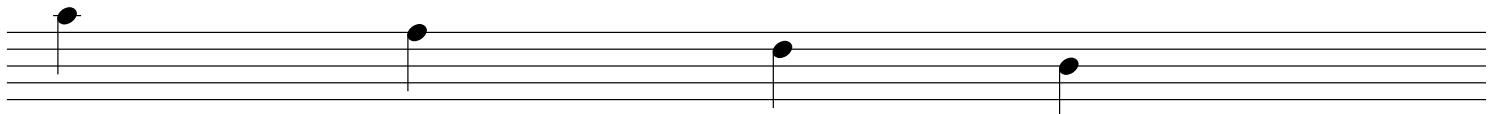
Medium tom tom
Dry and damped

Large tom tom
Dry and damped



small woodblock

large woodblock



All instruments -- dynamics are very important to the structure and expression of this piece. Play dynamics strongly and clearly, and exactly where written.

Timberline -- performance notes
for conductor and sound engineer

Timberline requires sound reinforcement, with each instrument close-miked. The piano requires 2 microphones.

This music is very dense, yet each instrument must be clearly heard in order for the music to make sense. **The piano must be prominent and sound strong and clear throughout the piece.**

The piece must be mixed carefully by the sound engineer.

As for the performers, dynamics are very important. Play all crescendos and decrescendos strongly, exactly as written.

Timberline

Piano/synth

The piano part should be prominent, and should be strong and clear throughout the piece. Dynamics are extremely important. Play dynamics strongly, exactly as written.

The synth part (m. 114-205) is not prominent.

Use a synth voice with **NO VIBRATO**. It should be sustained and not have a sharp attack. It should be similar to a string sound.

Timberline requires sound reinforcement, with each instrument close-miked. The piano requires 2 microphones.

Timberline
(1991)

by Lois V Vierk

Hiking a trail to high altitudes takes you through an ever changing landscape. The dark closeness of the forest gradually gives way to increasing spaciousness. Light shimmers in as hints of the grandeur ahead draw you up the mountain. Arriving at the timberline and then at the mountain top gives you a spectacular view of the land below and the sky all around you.

This work is in two continuous sections. The first section begins with winds and strings in the mid range, playing held notes and slow glissandi. Simple grace notes are added. Little by little a dense texture is built as grace notes are transformed into ascending pentatonic scale passages in winds and strings. This is overlaid contrapuntally with a piano texture of ornate grace notes, tremolos and trills, gradually moving up over the full range of the keyboard. Cymbals roll at the climax.

The second section begins under the ringing cymbals with slow, open fifths in the lowest register of the winds and strings. The sounds are dark and languid, with many sliding tones. Very gradually more percussive sounds are added. Phrases are becoming shorter, notes are getting faster, shifting from whole notes to half notes to quarters. The piano begins a bright and rhythmic punctuation of the phrase, introducing 16th notes. The development of this rhythmic and harmonic figure gradually moves the piece to its climactic conclusion. Finally all the instruments combine to form one texture--dynamic, rhythmic, covering the entire instrumental range.

Timberline was commissioned for the Relâche Ensemble of Philadelphia by Kobrand, Inc., importer of Champagne Taittinger. A CD recording was released on New World Records -- Lois V Vierk: Words Fail Me, New World 80766.

Analytical material on *Timberline* can be found at the very end of this document, following the score.

Timberline

Lois V Vierk

Timberline requires close miking of all instruments, including without fail close-miking of piano with at least 2 microphones. Also active participation of sound engineer to mix.

1

Flute $\text{♩} = 60$

NON VIBRATO - all instruments, entire piece

Musical score for Flute, Clarinet in B-flat (score in C), Bassoon, and Viola. The score consists of four staves. The Flute staff starts with a note followed by a rest. The Clarinet staff has dynamics pp, mp, and pp. The Bassoon staff has a dynamic pp. The Viola staff follows a similar pattern with dynamics pp, mp, and pp. Measures are separated by vertical bar lines.

Viola

Musical score for Viola and Contrabass. The Viola staff continues with dynamics pp, mp, and pp. The Contrabass staff follows a similar pattern with dynamics pp. Measures are separated by vertical bar lines.

Piano should be heard clearly - entire piece.
Mike with at least 2 microphones.

Musical score for Piano. The piano part is indicated by a brace and two staves. The top staff shows a dynamic p and the bottom staff is silent. Measures are separated by vertical bar lines.

Perc.

Musical score for Percussion. The staff shows a series of short dashes representing percussive notes. Measures are separated by vertical bar lines.

Fl.

Cl.

Bsn.

Vla.

Cb.

Pno.

Perc.

Fl. $\frac{4}{4}$ o mp o — $\frac{2}{4}$

Cl. $\frac{4}{4}$ o mp o — pp $\frac{2}{4}$

Bsn. $\frac{15}{4}$ o o o — $\frac{2}{4}$
 pp — mp — pp $\frac{2}{4}$

Vla. $\frac{4}{4}$ — — — $\frac{2}{4}$
 — — — — pp $\frac{2}{4}$

Cb. $\frac{15}{4}$ — — — $\frac{2}{4}$

Pno. $\frac{4}{4}$ — — — $\frac{2}{4}$
 — — — — $\frac{2}{4}$
 — — — — $\frac{2}{4}$

Perc. $\frac{4}{4}$ — — — $\frac{2}{4}$

A

Fl.

Cl.

Bsn.

Vla.

Cb.

Pno.

Perc.

Fl. $\begin{array}{c} \text{3} \\ \text{4} \end{array}$ $\begin{array}{c} p < mp \\ \text{2} \\ \text{4} \end{array}$ $\begin{array}{c} \text{3} \\ \text{4} \end{array}$ $\begin{array}{c} \text{3} \\ \text{4} \end{array}$ $\begin{array}{c} \text{3} \\ \text{4} \end{array}$

Cl. $\begin{array}{c} \text{3} \\ \text{4} \end{array}$ $\begin{array}{c} pp \\ \text{2} \\ \text{4} \end{array}$ $\begin{array}{c} \text{3} \\ \text{4} \end{array}$ $\begin{array}{c} \text{3} \\ \text{4} \end{array}$ $\begin{array}{c} \text{3} \\ \text{4} \end{array}$

Bsn. $\begin{array}{c} \text{2} \\ \text{3} \\ \text{4} \end{array}$ - $\begin{array}{c} \text{2} \\ \text{4} \end{array}$ - $\begin{array}{c} \text{3} \\ \text{4} \end{array}$ $\begin{array}{c} \text{3} \\ \text{4} \end{array}$ $\begin{array}{c} \text{3} \\ \text{4} \end{array}$

Vla. $\begin{array}{c} \text{3} \\ \text{4} \end{array}$ $\begin{array}{c} pp < mp \\ \text{2} \\ \text{4} \end{array}$ $\begin{array}{c} \text{3} \\ \text{4} \end{array}$ $\begin{array}{c} pp < mp \\ \text{4} \end{array}$ $\begin{array}{c} \text{3} \\ \text{4} \end{array}$

Cb. $\begin{array}{c} \text{2} \\ \text{3} \\ \text{4} \end{array}$ - $\begin{array}{c} \text{2} \\ \text{4} \end{array}$ - $\begin{array}{c} \text{3} \\ \text{4} \end{array}$ - $\begin{array}{c} \text{4} \\ \text{4} \end{array}$ - $\begin{array}{c} \text{3} \\ \text{4} \end{array}$

Pno. $\begin{array}{c} \text{3} \\ \text{4} \end{array}$ - $\begin{array}{c} \text{2} \\ \text{4} \end{array}$ - $\begin{array}{c} \text{3} \\ \text{4} \end{array}$ - $\begin{array}{c} \text{4} \\ \text{4} \end{array}$ $\begin{array}{c} \text{3} \\ \text{4} \end{array}$

Perc. $\begin{array}{c} \text{3} \\ \text{4} \end{array}$ - $\begin{array}{c} \text{2} \\ \text{4} \end{array}$ - $\begin{array}{c} \text{3} \\ \text{4} \end{array}$ - $\begin{array}{c} \text{4} \\ \text{4} \end{array}$ $\begin{array}{c} \text{3} \\ \text{4} \end{array}$

B

Fl.

Cl.

Bsn.

Vla.

Cb.

Pno.

Perc.

Fl. $\begin{array}{c} \text{Flute} \\ \text{G clef} \\ \text{4/4 time} \end{array}$

Cl. $\begin{array}{c} \text{Clarinet} \\ \text{G clef} \\ \text{4/4 time} \end{array}$

Bsn. $\begin{array}{c} \text{Bassoon} \\ \text{F clef} \\ \text{2/4 time} \end{array}$

Vla. $\begin{array}{c} \text{Violin} \\ \text{G clef} \\ \text{4/4 time} \end{array}$

Cb. $\begin{array}{c} \text{Cello} \\ \text{C clef} \\ \text{2/4 time} \end{array}$

Pno. $\begin{array}{c} \text{Piano} \\ \text{G clef} \\ \text{4/4 time} \end{array}$

Perc. $\begin{array}{c} \text{Percussion} \\ \text{F clef} \\ \text{4/4 time} \end{array}$

Dynamics and markings:

- Flute: p , mp (sub p), mp
- Clarinet: $>p$, mp
- Violin: p , mp , pp
- Cello: p
- Piano: mp
- Percussion: p

C

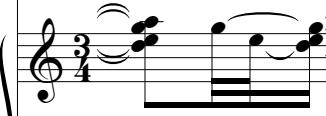
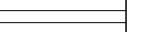
Fl. $\frac{3}{4}$ - | $\frac{2}{4}$ *p* | $\frac{2}{4}$ *pp* | 

Cl. $\frac{3}{4}$ - | $\frac{2}{4}$ *d* | $\frac{2}{4}$ *pp* | 

Bsn. $\frac{15}{4}$ $\frac{3}{4}$ - | $\frac{2}{4}$ - | $\frac{2}{4}$ - | 

Vla. $\frac{3}{4}$ *e* | *f* *y* | $\frac{2}{4}$ - | 
mp — *pp*

Cb. $\frac{15}{4}$ $\frac{3}{4}$ - | $\frac{2}{4}$ - | 

Pno. { $\frac{3}{4}$  | $\frac{2}{4}$  | $\frac{2}{4}$  | 
 $\frac{3}{4}$ - | $\frac{2}{4}$ - | 

Perc. $\frac{3}{4}$ - | $\frac{2}{4}$ *p* | 

Fl.

Cl.

Bsn.

Vla.

Cb.

Pno.

Perc.

Hold as long as sound rings

*Gliss as far as possible toward G with embouchure only (not fingers),
then change to G fingering on m. 36, beat 1.

Fl. $\begin{array}{c} \text{4} \\ \text{3} \\ \text{2} \\ \text{3} \end{array}$ $\begin{array}{c} \text{p} \\ \text{mp} \geqslant \text{p} \\ \text{pp} \end{array}$ $\begin{array}{c} \text{p} \\ \text{pp} \end{array}$ $\begin{array}{c} \text{p} \\ \text{mp} \geqslant \text{mp} \end{array}$

Cl. $\begin{array}{c} \text{4} \\ \text{3} \\ \text{2} \\ \text{3} \end{array}$ $\begin{array}{c} \text{p} \\ \text{mp} \geqslant \text{pp} \end{array}$ $\begin{array}{c} \text{p} \\ \text{pp} \end{array}$ $\begin{array}{c} \text{p} \\ \text{mp} \text{ sub } \text{p} \end{array}$

Bsn. $\begin{array}{c} \text{2} \\ \text{4} \end{array}$ $\begin{array}{c} \text{p} \\ \text{pp} \end{array}$ $\begin{array}{c} \text{p} \\ \text{mp} \geqslant \text{p} \end{array}$ $\begin{array}{c} \text{p} \\ \text{pp} \end{array}$

Vla. $\begin{array}{c} \text{4} \\ \text{3} \\ \text{2} \\ \text{3} \end{array}$ $\begin{array}{c} \text{p} \\ \text{mp} \geqslant \text{pp} \end{array}$

Cb. $\begin{array}{c} \text{2} \\ \text{4} \end{array}$ $\begin{array}{c} \text{p} \\ \text{pp} \end{array}$ $\begin{array}{c} \text{p} \\ \text{pp} \end{array}$ $\begin{array}{c} \text{p} \\ \text{pp} \end{array}$

Pno. $\begin{array}{c} \text{4} \\ \text{3} \\ \text{2} \\ \text{3} \end{array}$ $\begin{array}{c} \text{p} \\ \text{pp} \end{array}$ $\begin{array}{c} \text{p} \\ \text{pp} \end{array}$ $\begin{array}{c} \text{p} \\ \text{pp} \end{array}$

Perc. $\begin{array}{c} \text{4} \\ \text{3} \\ \text{2} \\ \text{3} \end{array}$ $\begin{array}{c} \text{p} \\ \text{pp} \end{array}$ $\begin{array}{c} \text{p} \\ \text{pp} \end{array}$ $\begin{array}{c} \text{p} \\ \text{pp} \end{array}$

Fl. *mp* *pp* $\frac{2}{4}$

Cl. *mp* *pp* $\frac{2}{4}$

Bsn. $\frac{2}{4}$
mp *pp* $\frac{2}{4}$

Vla. *mp* *pp* $\frac{2}{4}$

Cb. $\frac{2}{4}$

Pno. *mp* $\frac{2}{4}$

Perc. $\frac{2}{4}$ *mp*

45

D

F1. $\frac{2}{4}$ pp mp pp

Cl. $\frac{2}{4}$ pp mp pp

Bsn. $\frac{2}{4}$ f mp pp pp mp pp

Vla. $\frac{2}{4}$ mp pp pp pp mp pp

Cb. $\frac{2}{4}$ f pp pp pp pp

Pno. $\frac{2}{4}$ f pp pp pp pp pp

Perc. $\frac{2}{4}$ x f pp

Fl.

Cl.

Bsn.

Vla.

Cb.

Pno.

Perc.

Fl. $\frac{2}{4}$ $\frac{3}{4}$ $\frac{2}{4}$ $\frac{3}{4}$

Cl. $\frac{2}{4}$ $\frac{3}{4}$ $\frac{2}{4}$ $\frac{3}{4}$

Bsn. $\frac{2}{4}$ $\frac{3}{4}$ $\frac{2}{4}$ $\frac{3}{4}$

Vla. $\frac{2}{4}$ $\frac{3}{4}$ $\frac{2}{4}$ $\frac{3}{4}$

Cb. $\frac{2}{4}$ $\frac{3}{4}$ $\frac{2}{4}$ $\frac{3}{4}$

Pno. $\frac{2}{4}$ $\frac{3}{4}$ $\frac{2}{4}$ $\frac{3}{4}$

Perc. $\frac{2}{4}$ $\frac{3}{4}$ $\frac{2}{4}$ $\frac{3}{4}$

E

Fl.

Cl. *mp*

Bsn.

Vla. *pp* *mp* *pp* *mp* *pp*

Cb.

Pno.

Perc. *mp*

Fl.

Cl. *v*
mp

Bsn. *mp* > *pp* < *mp* > *p* *mp*

Vla. *mp* > *pp* < *mp* > *pp* < *mp*

Cb. *pp* < *mp*

Pno.

Perc.

Fl.

Cl.

Bsn.

Vla.

Cb.

Pno.

Perc.

The musical score consists of seven staves. The first four staves (Flute, Clarinet, Bassoon, Violin) are in common time (indicated by a '4'). The Bassoon has a melodic line with eighth-note patterns. The Violin has sixteenth-note patterns. The Cello (Cb.) has eighth-note patterns. The Piano (Pno.) staff is grouped with a brace and includes a dynamic marking *mp*. The final two staves (Piano and Percussion) are in 2/4 time (indicated by a '2'). The Percussion staff includes dynamic markings *mp* at the beginning and end. There are also accents labeled 'accent E' over the piano's 2/4 section. Measure lines divide the music into measures, and vertical bar lines indicate measure boundaries.

F

Fl. $\text{G} \frac{4}{4}$ - $\text{A} \frac{2}{4}$ - $\text{B} \frac{3}{4}$ - $\text{C} \frac{2}{4}$

Cl. $\text{G} \frac{4}{4}$ - $\text{A} \frac{2}{4}$ - $\text{B} \frac{3}{4}$ - $\text{C} \frac{2}{4}$

Bsn. $\text{B} \frac{4}{4}$ - $\text{A} \frac{2}{4}$ - $\text{B} \frac{3}{4}$ - $\text{C} \frac{2}{4}$

Vla. $\text{B} \frac{4}{4}$ - $\text{A} \frac{2}{4}$ - $\text{B} \frac{3}{4}$ - $\text{C} \frac{2}{4}$

Cb. $\text{B} \frac{4}{4}$ - $\text{A} \frac{2}{4}$ - $\text{B} \frac{3}{4}$ - $\text{C} \frac{2}{4}$

no. $\text{G} \frac{4}{4}$ - $\text{A} \frac{2}{4}$ - $\text{B} \frac{3}{4}$ - $\text{C} \frac{2}{4}$

Perc. $\text{G} \frac{4}{4}$ - $\text{A} \frac{2}{4}$ - $\text{B} \frac{3}{4}$ - $\text{C} \frac{2}{4}$

Fl.

Cl.

Bsn.

Vla.

Cb.

Pno.

Perc.

This musical score page contains seven staves, each representing a different instrument or section of the orchestra. The instruments listed from top to bottom are Flute (Fl.), Clarinet (Cl.), Bassoon (Bsn.), Violin (Vla.), Cello (Cb.), Piano (Pno.), and Percussion (Perc.). The score is divided into measures by vertical bar lines. Measure 1 consists of two measures in 2/4 time, followed by one measure in 3/4 time. Measure 2 starts with a single note for Flute in 2/4 time, followed by a measure in 3/4 time where Flute and Clarinet play eighth-note patterns. Measure 3 begins with Bassoon and Violin playing eighth-note patterns in 2/4 time, followed by a measure in 3/4 time where Bassoon and Violin continue their patterns. Measure 4 starts with Cello playing eighth-note patterns in 2/4 time, followed by a measure in 3/4 time where Cello continues its pattern. Measure 5 begins with a piano dynamic marking 'mf' over two measures in 2/4 time, followed by a measure in 3/4 time where the piano plays eighth-note chords. Measure 6 starts with Percussion playing eighth-note patterns in 2/4 time, followed by a measure in 3/4 time where Percussion continues its pattern. The score concludes with a final measure in 3/4 time.

Musical score for orchestra and piano, page 10, measures 1-2.

Flute (Fl.): Rests throughout both measures.

Clarinet (Cl.): Measures 1-2. Measure 1: Four eighth-note chords (F major). Measure 2: Sixteenth-note patterns.

Bassoon (Bsn.): Measure 1: Eighth-note chords. Measure 2: Sixteenth-note patterns. Dynamics: *mf*.

Violin (Vla.): Measure 1: Rest. Measure 2: Sixteenth-note patterns. Dynamics: *mf*.

Cello (Cb.): Measure 1: Rest. Measure 2: Sixteenth-note patterns. Dynamics: *mf*.

Piano (no.): Measures 1-2. Measure 1: Bass notes (D, A) with a fermata over the second note. Measure 2: Bass notes (G, C, E) with a fermata over the second note.

Percussion (Perc.): Measures 1-2. Measure 1: Rest. Measure 2: X marks on the first and third beats. Dynamics: *pp* followed by *p*.

Musical score page 78 featuring seven staves of music for Flute (Fl.), Clarinet (Cl.), Bassoon (Bsn.), Violin (Vla.), Cello (Cb.), Piano (Pno.), and Percussion (Perc.). The score is in common time (indicated by '4') throughout.

- Flute (Fl.):** Playing a single note on the first staff.
- Clarinet (Cl.):** Playing eighth-note pairs with grace notes on the second staff.
- Bassoon (Bsn.):** Playing eighth-note pairs on the third staff.
- Violin (Vla.):** Playing eighth-note pairs on the fourth staff.
- Cello (Cb.):** Playing eighth-note pairs on the fifth staff.
- Piano (Pno.):** Playing sixteenth-note patterns on the sixth staff. The piano part is bracketed and includes dynamic markings *p* (pianissimo) and *sub.* (subito).
- Percussion (Perc.):** Playing eighth-note pairs on the seventh staff.

The score concludes with a final measure of rests at the end of the page.

79

G

Fl.

Cl.

Bsn.

Vla.

Cb.

Pno.

Perc.

p

sub. *mf*

p *mf*

sub. *mf* *sub.* *mf* *sub.* *mf*

p *mf* *sub.* *mf* *sub.* *mf*

expansive

mf

p

pp

Fl.

Cl.

Bsn.

Vla.

Cb.

Pno.

Perc.

p → *mf*

p → *mf*

mf

p → *mf*

mf

mp

p → *mp*

Fl.

Cl.

Bsn.

Vla.

Cb.

Pno.

Perc.

mf

p

cresc. - - - - -

p < *mp*

p < *mp*

Fl. *mf*

Cl.

Bsn.

Vla.

Cb.

Pno. (cresc) -

Perc. *p* < *mp* *p* < *mp* sub. *p*

The musical score consists of seven staves. The top five staves represent woodwind instruments: Flute (Fl.), Clarinet (Cl.), Bassoon (Bsn.), Violin (Vla.), and Cello (Cb.). The bottom two staves represent piano (Pno.) and percussion (Perc.). The score is divided into measures by vertical bar lines. Measure 1 starts with Flute and Clarinet. Measure 2 begins with Bassoon. Measures 3 and 4 begin with Violin. Measures 5 and 6 begin with Cello. Measures 7 and 8 begin with Piano. Measures 9 and 10 begin with Percussion. Various dynamic markings are present, such as *mf* for Flute in measure 1, crescendo for Piano in measure 7, and specific dynamics for Percussion in measures 9 and 10. Measure 10 concludes with a dynamic marking for sub. *p*.

H

F1

Cl.

Bsn.

Vla.

Cb.

Pno.

Perc.

p *mf* *sub. p* *mf*

sub. p *mf*

sub. p *mf*

sub. p *mf*

expansive

p *mf*

mp

Fl.

Cl.

Bsn.

Vla.

Cb.

Pno.

Perc.

This musical score page contains seven staves, each representing a different instrument or section of the orchestra. The instruments are: Flute (Fl.), Clarinet (Cl.), Bassoon (Bsn.), Violin (Vla.), Cello (Cb.), Piano (Pno.), and Percussion (Perc.). The score is divided into measures by vertical bar lines. Measure 1 starts with a single note for Flute in 5/8 time. Measures 2 and 3 show the Flute and Clarinet in 5/8 time. Measures 4 and 5 show the Bassoon and Violin in 4/4 time, with the Bassoon playing eighth-note patterns and the Violin providing harmonic support. Measures 6 and 7 show the Cello and Piano in 5/8 time. The Piano part is bracketed under 'Pno.' and includes dynamics 'p' and 'mf'. Measures 8 and 9 show the Percussion in 5/8 time, with a dynamic 'p' at the end. The score concludes with a measure in 3/4 time.

Fl. $\frac{3}{4}$

Cl. $\frac{3}{4}$

Bsn. $\frac{3}{4}$

Vla. $\frac{3}{4}$

Cb. $\frac{3}{4}$

Pno. $\frac{3}{4}$

Perc. $\frac{3}{4}$

f

p — *mf* — *p* — *mf* — *p* — *mf* cresc. — - - - - .

mp

Fl.

Cl.

Bsn.

Vla.

Cb.

Pno.

(cresc)

Perc.

This musical score page contains six staves of music. From top to bottom, the instruments are Flute (Fl.), Clarinet (Cl.), Bassoon (Bsn.), Violin (Vla.), Cello (Cb.), and Piano (Pno.). The piano part includes a dynamic instruction '(cresc)' with a dashed line indicating a crescendo. The percussion part (Perc.) at the bottom uses a unique notation system with vertical strokes and crosses. Measure numbers 1 through 4 are indicated above the staves. Measures 1-2 are in common time (indicated by a '4'). Measures 3-4 are in 3/4 time. Measures 1-2 have a tempo marking of $p < mp$. Measures 3-4 have a tempo marking of $p - mp$.

I

Musical score page 10, measures 11-12.

Flute (Fl.): Rest in measure 11. In measure 12, dynamic *f*.

Clarinet (Cl.): In measure 11, eighth-note patterns with dynamics *mp*, *f*, and *mp*. In measure 12, eighth-note patterns with dynamics *f* and *f*.

Bassoon (Bsn.): In measure 11, eighth-note patterns with dynamics *mp* and *f*. In measure 12, eighth-note patterns with dynamics *f* and *f*.

Violin (Vla.): In measure 11, eighth-note patterns with dynamics *f* and *f*. In measure 12, eighth-note patterns with dynamics *sub. p* and *f*.

Cello (Cb.): In measure 11, sixteenth-note patterns with dynamics *f* and *f*. In measure 12, sixteenth-note patterns with dynamics *(f)* and *f*.

Piano (Pno.): In measure 11, eighth-note patterns with dynamic *f*. In measure 12, sixteenth-note patterns with dynamics *mp*, *f*, *mp*, *f*, and *f*.

Percussion (Perc.): In measure 11, eighth-note patterns with dynamics *mp* and *mp*. In measure 12, eighth-note patterns with dynamics *p* and *f*.

Fl.

Cl.

Bsn.

Vla.

Cb.

Pno.

Perc.

The musical score consists of seven staves. The first four staves (Flute, Clarinet, Bassoon, Violin) are in 2/4 time. The last three staves (Cello, Piano, Percussion) are in 3/4 time. The piano staff is grouped by a brace. Dynamic markings include *f*, *mp*, and *f*. Time signatures change from 2/4 to 3/4 and back. The score features various note heads, stems, and rests.

Fl.

Cl.

Bsn.

Vla.

Cb.

Pno.

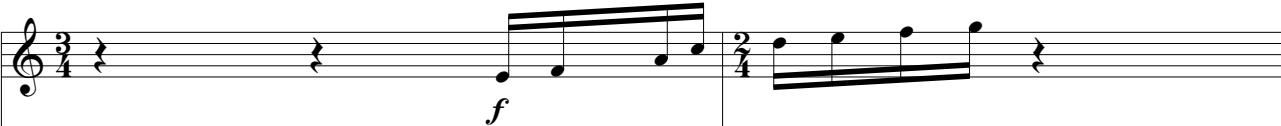
Perc.

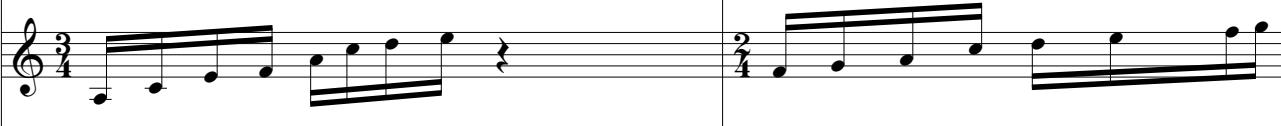
sub.
mp

f

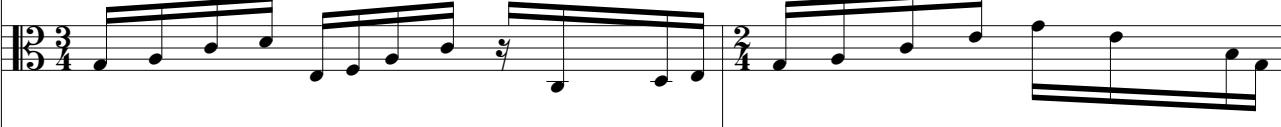
mp *cresc.*

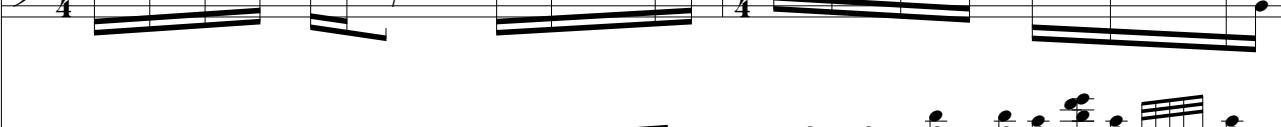
p *mp*

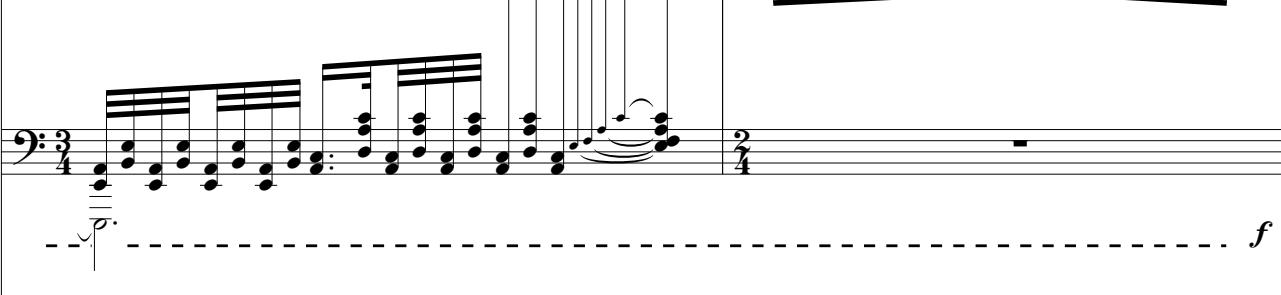
Fl. 

Cl. 

Bsn. 

Vla. 

Cb. 

Pno. 

Perc. 

p < < *mp* *p* ————— *mp*

J

Fl.

Cl.

Bsn.

Vla.

Cb.

Pno.

Perc.

The musical score consists of seven staves. The first four staves represent the orchestra: Flute (F1), Clarinet (Cl.), Bassoon (Bsn.), and Violin (Vla.). The fifth staff represents the Cello (Cb.). The sixth staff, which includes a brace, represents the Piano (Pno.) and includes dynamics such as *f*, *mp*, and *p*. The seventh staff represents the Percussion (Perc.). Measures are numbered 1 through 3. The piano part features complex rhythmic patterns and dynamic markings, including a crescendo from *mp* to *f*.

Fl. *f*

Cl. *f*

Bsn.

Vla.

Cb. *f*

Pno.

Perc. *mf* *p* *mf* *p*

This musical score page contains six staves of music for Flute (Fl.), Clarinet (Cl.), Bassoon (Bsn.), Violin (Vla.), Cello (Cb.), and Piano (Pno.). The piano part is bracketed and includes a dynamic section at the bottom. The percussion part (Perc.) is at the bottom. The score is in 3/4 time. Various dynamics are indicated throughout, including *f*, *ff*, *mp*, and *mf*. Performance techniques such as slurs and grace notes are also present.

Fl.

Cl.

Bsn.

Vla.

Cb.

Pno.

Perc.

The musical score page 108 features six staves of music. The top four staves (Flute, Clarinet, Bassoon, Violin) play eighth-note patterns primarily on the first and third beats of each measure. The Cello staff has eighth-note patterns on the first and third beats. The Piano staff consists of two systems. The first system shows a treble clef piano part with a dynamic marking of *mp* and a bass clef piano part with a dynamic marking of *cresc.*. The second system shows a treble clef piano part with a dynamic marking of *f* and a bass clef piano part with a dynamic marking of *mp*, followed by a *cresc.* The Percussion staff at the bottom provides rhythmic support with eighth-note patterns.

K

Fl.

Cl.

Bsn.

Vla. $\frac{15}{8}$

Cb.

Pno.

Synth.

Perc.

f

decresc

Fl.

Cl.

Bsn.

Vla.

Cb.

Pno.

Synth.

Perc.

The musical score consists of eight staves. The top four staves (Flute, Clarinet, Bassoon, Violin) are grouped by a brace and play mostly eighth-note patterns. The Violin has a melodic line with grace notes and slurs. The bottom four staves (Cello, Piano, Synthesizer, Percussion) are also grouped by a brace. The Piano and Synthesizer provide harmonic support with sustained notes and eighth-note patterns. The Percussion part features rhythmic patterns with grace notes. Dynamic markings such as *p*, *mp*, and *pp* are used throughout the score.

Fl.

Cl.

Bsn.

Vla. $\frac{15}{8}$

Cb.

Pno.

Synth.

Perc.

Fl.

Cl.

Bsn.

Vla.

Cb.

Pno.

Synth.

Perc.

This musical score page contains eight staves of music. The top four staves are for Flute (Fl.), Clarinet (Cl.), Bassoon (Bsn.), and Violin (Vla.). The bottom four staves are grouped by a brace and include Cello (Cb.), Piano (Pno.), Synthesizer (Synth.), and Percussion (Perc.). The score is divided into measures by vertical bar lines. Dynamics are indicated by text such as *p*, *pp*, and *mp*. Articulation marks like dots and dashes are placed above and below the notes. Measure 1: Flute has a single note at the beginning. Measures 2-4: Clarinet has eighth-note pairs. Bassoon has sustained notes with dynamics *pp* and *mp*. Violin has sustained notes with dynamics *pp* and *mp*. Cello has sustained notes with dynamics *pp* and *mp*. Measures 5-7: Piano has sustained notes with dynamics *pp* and *mp*. Measures 8-10: Synthesizer has sustained notes with dynamics *pp* and *mp*. Measures 11-13: Percussion has sustained notes with dynamics *pp* and *mp*.

Poco accel - - - - - $\bullet = 63$

Fl.

Cl.

Bsn. *pp*

Vla. *pp*

Cb. *pp* \leftarrow *mp* \rightarrow *pp* \leftarrow *mp* \rightarrow *pp* \leftarrow *pp* \leftarrow *mp* \rightarrow *pp*

Pno.

Synth.

Perc.

Fl.

Cl.

Bsn.

Vla.

Cb.

Pno.

Synth.

Perc.

The musical score page 139 consists of eight staves. The top four staves (Flute, Clarinet, Bassoon, Violin) are grouped by a brace and play eighth-note patterns with dynamics pp, mp, and pp. The bottom four staves (Cello, Piano, Synthesizer, Percussion) are also grouped by a brace and play eighth-note patterns with dynamics mp, pp, and pp. The Violin staff has a tempo marking of 115 BPM. The Synthesizer staff shows sustained notes with slight pitch variations. The Percussion staff features a rhythmic pattern with grace notes and dynamic markings pp, mp, and pp.

Fl.

Cl.

Bsn.

Vla.

Cb.

Pno.

Synth.

Perc.

The musical score page 145 consists of eight staves. The top four staves (Flute, Clarinet, Bassoon, Violin) have treble clefs and are in common time (indicated by 'C'). The bottom four staves (Piano, Cello, Synthesizer, Percussion) have bass clefs and are in common time. The score features various dynamics such as *p*, *pp*, *mp*, and *<mp>*. Performance techniques include slurs, grace notes, and specific markings like '(o)' and '(pp)'.

Fl.

Cl.

Bsn.

Vla.

Cb.

Pno.

Synth.

Perc.

The musical score consists of eight staves. The top four staves (Flute, Clarinet, Bassoon, Violin) are in common time (indicated by 'C') and the bottom four (Piano, Cello, Synthesizer, Percussion) are in 2/4 time (indicated by '2/4'). The Flute, Clarinet, and Bassoon play eighth-note patterns with slurs and grace notes. The Violin and Cello provide harmonic support with sustained notes and eighth-note patterns. The Piano part is mostly silent. The Synthesizer provides a rhythmic foundation with eighth-note patterns. The Percussion part includes a prominent bass drum and cymbal at the end of the measure. Dynamics include *p* (pianissimo), *mp* (mezzo-pianissimo), and *pp* (pianississimo). Performance instructions like slurs and grace notes are also present.

Musical score page 10, measures 11-12. The score includes parts for Flute (Fl.), Clarinet (Cl.), Bassoon (Bsn.), Violin (Vla.), Cello (Cb.), Piano (Pno.), Synthesizer (Synth.), and Percussion (Perc.).

Measure 11:

- Flute (Fl.):** Rests.
- Clarinet (Cl.):** Rests.
- Bassoon (Bsn.):** Dynamics: p . Measures end with a fermata.
- Violin (Vla.):** Dynamics: p .
- Cello (Cb.):** Dynamics: p .
- Piano (Pno.):** Rests.
- Synthesizer (Synth.):** Dynamics: p .
- Percussion (Perc.):** Dynamics: p .

Measure 12:

- Flute (Fl.):** Rests.
- Clarinet (Cl.):** Rests.
- Bassoon (Bsn.):** Dynamics: p .
- Violin (Vla.):** Dynamics: p .
- Cello (Cb.):** Dynamics: p .
- Piano (Pno.):** Rests.
- Synthesizer (Synth.):** Dynamics: p .
- Percussion (Perc.):** Dynamics: p .

Fl.

Cl.

Bsn.

Vla.

Cb.

Pno.

Synth.

Perc.

This musical score page contains eight staves, each representing a different instrument or group of instruments. The instruments listed from top to bottom are Flute (Fl.), Clarinet (Cl.), Bassoon (Bsn.), Violin (Vla.), Cello (Cb.), Piano (Pno.), Synthesizer (Synth.), and Percussion (Perc.). The score is divided into measures by vertical bar lines. Dynamic markings such as *p* (piano), *pp* (pianissimo), and *mp* (mezzo-piano) are placed above certain notes or groups of notes. Measure 1 shows the Flute, Clarinet, Bassoon, and Violin playing sustained notes. Measure 2 features the Clarinet and Bassoon with sixteenth-note patterns. Measures 3 and 4 show the Bassoon and Violin with eighth-note patterns. Measures 5 and 6 show the Violin and Cello with sustained notes. Measures 7 and 8 show the Cello and Piano with sustained notes. Measures 9 and 10 show the Piano and Synthesizer with sustained notes. Measures 11 and 12 show the Synthesizer and Percussion with sustained notes. Measures 13 and 14 show the Percussion and Piano with sustained notes. Measures 15 and 16 show the Piano and Synthesizer with sustained notes. Measures 17 and 18 show the Synthesizer and Percussion with sustained notes. Measures 19 and 20 show the Percussion and Piano with sustained notes. Measures 21 and 22 show the Piano and Synthesizer with sustained notes. Measures 23 and 24 show the Synthesizer and Percussion with sustained notes. Measures 25 and 26 show the Percussion and Piano with sustained notes. Measures 27 and 28 show the Piano and Synthesizer with sustained notes. Measures 29 and 30 show the Synthesizer and Percussion with sustained notes. Measures 31 and 32 show the Percussion and Piano with sustained notes. Measures 33 and 34 show the Piano and Synthesizer with sustained notes. Measures 35 and 36 show the Synthesizer and Percussion with sustained notes. Measures 37 and 38 show the Percussion and Piano with sustained notes. Measures 39 and 40 show the Piano and Synthesizer with sustained notes. Measures 41 and 42 show the Synthesizer and Percussion with sustained notes. Measures 43 and 44 show the Percussion and Piano with sustained notes. Measures 45 and 46 show the Piano and Synthesizer with sustained notes. Measures 47 and 48 show the Synthesizer and Percussion with sustained notes. Measures 49 and 50 show the Percussion and Piano with sustained notes. Measures 51 and 52 show the Piano and Synthesizer with sustained notes. Measures 53 and 54 show the Synthesizer and Percussion with sustained notes. Measures 55 and 56 show the Percussion and Piano with sustained notes. Measures 57 and 58 show the Piano and Synthesizer with sustained notes. Measures 59 and 60 show the Synthesizer and Percussion with sustained notes. Measures 61 and 62 show the Percussion and Piano with sustained notes. Measures 63 and 64 show the Piano and Synthesizer with sustained notes. Measures 65 and 66 show the Synthesizer and Percussion with sustained notes. Measures 67 and 68 show the Percussion and Piano with sustained notes. Measures 69 and 70 show the Piano and Synthesizer with sustained notes. Measures 71 and 72 show the Synthesizer and Percussion with sustained notes. Measures 73 and 74 show the Percussion and Piano with sustained notes. Measures 75 and 76 show the Piano and Synthesizer with sustained notes. Measures 77 and 78 show the Synthesizer and Percussion with sustained notes. Measures 79 and 80 show the Percussion and Piano with sustained notes. Measures 81 and 82 show the Piano and Synthesizer with sustained notes. Measures 83 and 84 show the Synthesizer and Percussion with sustained notes. Measures 85 and 86 show the Percussion and Piano with sustained notes. Measures 87 and 88 show the Piano and Synthesizer with sustained notes. Measures 89 and 90 show the Synthesizer and Percussion with sustained notes. Measures 91 and 92 show the Percussion and Piano with sustained notes. Measures 93 and 94 show the Piano and Synthesizer with sustained notes. Measures 95 and 96 show the Synthesizer and Percussion with sustained notes. Measures 97 and 98 show the Percussion and Piano with sustained notes. Measures 99 and 100 show the Piano and Synthesizer with sustained notes.

L

Fl. *mf*

Cl. *mf* > *p*

Bsn. *mf* *mf* > *p* *mf* > *p*

Vla. *p* *mf* *p* *mf* sub. *p* *mf* *p* *mf*

Cb. *p* *mf* *p* *mf* *p*

Pno.

Synth. *p*

Perc. *mf* *pp* *mp*

Fl.

Cl. $\geq p$

Bsn.

Vla. $\geq p$

Cb. $\geq p$

Pno.

Synth.

Perc. pp

$mf > p$

p

$mf > p$

$mf \geq p$

mf

mf

mf

mf

mf

pp

Fl.

Cl.

Bsn.

Vla.

Cb.

Pno.

Synth.

Perc.

The musical score page 176 consists of eight staves. The top four staves (Flute, Clarinet, Bassoon, Violin) are grouped by a brace and play eighth-note patterns. The Clarinet has a dynamic marking of *p* followed by *mf*, and the Bassoon has *p* followed by *mf*. The Violin has *p* followed by *mf*, and the Cello has *mf* followed by *p*. The bottom four staves (Piano, Synthesizer, and Percussion) are grouped by another brace. The Piano and Synthesizer staves are mostly blank. The Percussion staff shows a pattern of eighth notes with dynamics: *mp*, *pp*, and *p*.

Fl.

Cl. *p* *mf*

Bsn. *<mf>p* *<mf>p* *<mf>p*

Vla. *mf* *p*

Cb. *p* *mf* *p* *<mf>p* *<mf>p*

Pno.

Synth.

Perc. *pp* *mp* *pp*

Fl.

Cl. $\begin{array}{c} \text{mf} \\ \swarrow \searrow \end{array}$ $\begin{array}{c} p \\ \nearrow \searrow \end{array}$

Bsn. p

Vla. $\begin{array}{c} \text{mf} \\ \nearrow \searrow \end{array}$ $\begin{array}{c} p \\ \nearrow \searrow \end{array}$ $\begin{array}{c} \text{mf} \\ \nearrow \searrow \end{array}$ $\begin{array}{c} p \\ \nearrow \searrow \end{array}$ $\begin{array}{c} \text{mf} \\ \nearrow \searrow \end{array}$ $\begin{array}{c} \text{sub.} \\ p \end{array}$

Cb. $\begin{array}{c} \text{mf} \\ \nearrow \searrow \end{array}$ $\begin{array}{c} p \\ \nearrow \searrow \end{array}$ $\begin{array}{c} \text{mf} \\ \nearrow \searrow \end{array}$ $\begin{array}{c} p \\ \nearrow \searrow \end{array}$ $\begin{array}{c} \text{mf} \\ \nearrow \searrow \end{array}$ $\begin{array}{c} \text{sub.} \\ p \end{array}$

Pno. {

Synth. $\begin{array}{c} \text{mf} \\ \nearrow \searrow \end{array}$ $\begin{array}{c} p \\ \nearrow \searrow \end{array}$ $\begin{array}{c} \text{mf} \\ \nearrow \searrow \end{array}$ $\begin{array}{c} p \\ \nearrow \searrow \end{array}$ $\begin{array}{c} \text{mf} \\ \nearrow \searrow \end{array}$ $\begin{array}{c} p \\ \nearrow \searrow \end{array}$

Perc. p $\begin{array}{c} \text{mf} \\ \nearrow \searrow \end{array}$

Fl.

Cl. *p* *mp*

Bsn. *p* *mp* *p*

Vla. *mf* *sub. p* *mf*

Cb.

Pno.

Synth.

Perc. *pp* *mp*

This musical score page contains eight staves. From top to bottom: Flute (Fl.), Clarinet (Cl.), Bassoon (Bsn.), Violin (Vla.), Cello (Cb.), Piano (Pno.), Synthesizer (Synth.), and Percussion (Perc.). The score is divided into two sections by a vertical bar line. In the first section, the Flute has a single note, the Clarinet plays eighth-note pairs, the Bassoon plays eighth-note pairs, the Violin plays eighth-note pairs, the Cello has a sustained note, the Piano is silent, and the Synthesizer has a sustained note. Dynamic markings include *p*, *mp*, *mf*, and *sub. p*. In the second section, the Flute has a sixteenth-note pattern, the Clarinet has a sixteenth-note pattern, the Bassoon has a sixteenth-note pattern, the Violin has a sixteenth-note pattern, the Cello has a sustained note, the Piano is silent, and the Synthesizer has a sustained note. Dynamic markings include *p*, *mp*, and *pp*.

Fl. *f*

Cl. *mf* $\geqslant p$

Bsn. *p* *mf* *p*

Vla. *p* *mf* *p* *mf* *p* *mf* *p*

Cb. *p* *mf* *p* *mf* *p* *mf* *p*

Pno.

Synth. G^{\cdot} G^{\cdot} G^{\cdot} G^{\cdot} G^{\cdot}

Perc. G^{\cdot} G^{\cdot} *pp* *p*

Fl. *f*

Cl. *mp* *f* *mf*

Bsn. *mf* *sub.* *p* *mf* *sub.* *p*

Vla. *mf* *p* *mf* *sub.* *p* *mf*

Cb.

Pno.

Synth.

Perc. *pp*

M

Fl. *f*

Cl. *mf*

Bsn. *p* — *mf* — *p*

Vla. *p*

Cb. *p* — *mf* — *>p*

Pno.

Synth. To piano

Perc. *mf*

Fl.

Cl. mf p

Bsn. mf p mf p

Vla. p mf p

Cb. mf p mf p mf p

Pno. p mp mf mp

Synth.

Perc. pp mp

Fl.

Cl.

Bsn.

Vla.

Cb.

Pno.

Perc.

mf > p <mf> p mf > p <mf> p sub. <=

p p

Fl.

Cl.

Bsn.

Vla.

Cb.

Pno.

Perc.

This musical score page contains six staves of music. The top three staves are for Flute (Fl.), Clarinet (Cl.), and Bassoon (Bsn.). The Flute has a single note followed by a rest, then a dynamic *f* over a sixteenth-note pattern. The Clarinet plays eighth-note pairs, starting at *p*, transitioning to *mf*, then *p*, and finally *p* again. The Bassoon has a single note followed by a rest. The bottom three staves are for Violin (Vla.), Cello (Cb.), and Piano (Pno.). The Violin and Cello play eighth-note patterns, with dynamics *mf*, *p*, *mf*, *p*, and *mf*. The Piano staff is grouped by a brace and shows bass notes and treble notes, with dynamics *mf*, *p*, and *mf*. The Percussion staff shows a sustained note at *pp*, followed by a sixteenth-note pattern at *mf*, and a final eighth-note pattern at *p*.

Fl. $f \gg mp$

Cl. $mf \gg p$

Bsn. $mf \gg p$

Vla. p

Cb. $mf \gg p$

Pno.

Synth.

Perc. p

Fl.

Cl.

Bsn.

Vla.

Cb.

Pno.

Perc.

This musical score page contains six staves of music. The instruments are Flute (Fl.), Clarinet (Cl.), Bassoon (Bsn.), Violin (Vla.), Cello (Cb.), and Piano (Pno.). The score is divided into measures by vertical bar lines. Dynamics and performance instructions are included in the score:

- Flute (Fl.):** The first measure has a single note. The second measure is silent. The third measure has a single note. The fourth measure has a single note.
- Clarinet (Cl.):** The first measure has a single note. The second measure has a single note. The third measure has a dynamic *mf*. The fourth measure has a dynamic *p*.
- Bassoon (Bsn.):** The first measure has a dynamic *sub. p*. The second measure has a dynamic *mf*. The third measure has a dynamic *> p*. The fourth measure has a dynamic *mf* followed by a dynamic *p*.
- Violin (Vla.):** The first measure has a dynamic *> p*. The second measure has a dynamic *mf* followed by a dynamic *p*.
- Cello (Cb.):** The first measure has a dynamic *> p*. The second measure has a dynamic *mf*. The third measure has a dynamic *p*. The fourth measure has a dynamic *mf*.
- Piano (Pno.):** The first measure is silent. The second measure has a dynamic *mf*. The third measure has a dynamic *sub. p*. The fourth measure has a dynamic *p*.
- Percussion (Perc.):** The first measure is silent. The second measure has a dynamic *pp*. The third measure has a dynamic *mp*. The fourth measure has a dynamic *p*.

Fl.

Cl.

Bsn.

Vla.

Cb.

Pno.

Perc.

Flute part: Starts with a single note. Measures 2-5: Measure 2 (2/4), Measure 3 (3/4), Measure 4 (3/4), Measure 5 (2/4).

Clarinet part: Measures 2-5: Measure 2 (2/4), Measure 3 (3/4), Measure 4 (3/4), Measure 5 (2/4).

Bassoon part: Measure 1: Bassoon note. Measures 2-5: Measure 2 (2/4), Measure 3 (3/4), Measure 4 (3/4), Measure 5 (2/4). Dynamics: 'mf' at the start of Measure 2.

Violin part: Measures 2-5: Measure 2 (2/4), Measure 3 (3/4), Measure 4 (3/4), Measure 5 (2/4).

Cello part: Measures 2-5: Measure 2 (2/4), Measure 3 (3/4), Measure 4 (3/4), Measure 5 (2/4). Dynamics: 'p' at the start of Measure 2, 'mf' at the start of Measure 4, 'p' at the start of Measure 5.

Piano part: Measures 2-5: Measure 2 (2/4), Measure 3 (3/4), Measure 4 (3/4), Measure 5 (2/4). Dynamics: 'mf' at the start of Measure 2, 'p' at the start of Measure 4, 'p' at the start of Measure 5.

Percussion part: Measures 2-5: Measure 2 (2/4), Measure 3 (3/4), Measure 4 (3/4), Measure 5 (2/4). Dynamics: 'mf' at the start of Measure 2, 'p' at the start of Measure 4.

Fl.

Cl.

Bsn.

Vla.

Cb.

Pno.

Perc.

mf p sub. mf

sub. p mf

p

mf sub. mf sub. p mf

p

mf sub. mf sub. p

p

mf

p

pp mf p mf sub. p

Fl. *mp* *f* *p* *mf*

Cl. *mf* *p* *mf* *sub. p* *mf* *sub. p* *mf*

Bsn. *mf* *p*

Vla. *mf* *sub. p* *mf* *p*

Cb.

Pno. *mf* *p* *cresc.* - - -

Perc. *mf* *p* *mp*

N

Poco accel - - - - - $\bullet = 66$

Fl.

Cl.

Bsn.

Vla.

Cb.

Pno. (cresc) - - - - - mf To Synthesizer

Synth. mf Synthesizer p

Perc. p mf sub. p mf

Fl.

Cl.

Bsn.

Vla.

Cb.

Pno.

Synth.

Perc.

Detailed description: This is a page from a musical score. It features eight staves, each representing a different instrument or group of instruments. From top to bottom, the staves are: Flute (Fl.), Clarinet (Cl.), Bassoon (Bsn.), Violin (Vla.), Cello (Cb.), Piano (Pno.), Synthesizer (Synth.), and Percussion (Perc.). The score is divided into measures by vertical bar lines. Some measures have a single time signature (2/4 or 3/4), while others switch between them. Dynamic markings such as *p* (piano), *mf* (mezzo-forte), and *mp* (mezzo-piano) are placed above the staves. In the middle section, there is a bracket under the piano and synthesizer staves, indicating they play together. The piano staff shows a melodic line with eighth-note patterns, while the synthesizer staff provides harmonic support with sustained notes.

Fl.

Cl. $\begin{array}{c} \text{G} \\ \text{C} \end{array} 3/4$

Bsn. $\begin{array}{c} \text{F} \\ \text{B} \\ \text{A} \end{array} 3/4$

Vla. $\begin{array}{c} \text{E} \\ \text{D} \\ \text{C} \end{array} 3/4$

Cb. $\begin{array}{c} \text{B} \\ \text{A} \\ \text{G} \end{array} 3/4$

Pno. $\begin{array}{c} \text{F} \\ \text{E} \\ \text{D} \end{array} 3/4$

Perc. $\begin{array}{c} \text{F} \\ \text{E} \\ \text{D} \end{array} 3/4$

Fl.

Cl. p mf p

Bsn. mf p mf p

Vla. p mf p

Cb. mf p mf p

Pno. p mf p

Perc. p mf

Fl. *p* *mf* *p* *p*

Cl. *mf* *p* *mf*

Bsn. *p* *mf* *p*

Vla. *mf* *p* *p* *mf*

Cb.

Pno. *pp* *sub.* *p*

Perc. *p* *mf* *sub.* *p*

Fl. $\frac{2}{4}$ $b\flat$ mf

Cl. $\frac{2}{4}$ p

Bsn. $\frac{2}{4} \frac{3}{4}$ $b\flat$ mf p

Vla. $\frac{2}{4} \frac{3}{4}$ p

Cb. $\frac{2}{4} \frac{3}{4}$

Pno. $\frac{2}{4}$ mf p

Perc. $\frac{2}{4}$ mf mp

Fl. $\begin{smallmatrix} \text{3} \\ \text{4} \end{smallmatrix}$ p mf

Cl. $\begin{smallmatrix} \text{3} \\ \text{4} \end{smallmatrix}$ p sub. mf

Bsn. $\begin{smallmatrix} \text{2} \\ \text{3} \end{smallmatrix} \begin{smallmatrix} \text{3} \\ \text{4} \end{smallmatrix}$ p

Vla. $\begin{smallmatrix} \text{3} \\ \text{4} \end{smallmatrix}$ mf p mf

Cb. $\begin{smallmatrix} \text{2} \\ \text{3} \end{smallmatrix} \begin{smallmatrix} \text{3} \\ \text{4} \end{smallmatrix}$ p

Pno. $\begin{smallmatrix} \text{3} \\ \text{4} \end{smallmatrix}$ mf $8va$ p sub. p

Perc. $\begin{smallmatrix} \text{3} \\ \text{4} \end{smallmatrix}$ mf p

Fl.

Cl.

Bsn.

Vla.

Cb.

Pno.

Synth.

Perc.

This musical score page contains eight staves, each representing a different instrument or group of instruments. The instruments listed from top to bottom are Flute (Fl.), Clarinet (Cl.), Bassoon (Bsn.), Violin (Vla.), Cello (Cb.), Piano (Pno.), Synthesizer (Synth.), and Percussion (Perc.). The score is divided into measures by vertical bar lines. Measure 1 consists of two measures of rests. Measure 2 starts with a measure of rests followed by a measure where the Flute and Clarinet play eighth-note patterns. Measure 3 begins with a measure of rests, followed by a measure where the Bassoon and Violin play eighth-note patterns. Measure 4 starts with a measure of rests, followed by a measure where the Cello and Piano play eighth-note patterns. Measure 5 begins with a measure of rests, followed by a measure where the Synthesizer plays sustained notes. Measure 6 starts with a measure of rests, followed by a measure where the Percussion instrument plays eighth-note patterns. Various dynamics are indicated throughout the score, including *p* (pianissimo), *mf* (mezzo-forte), and *pp* (pianississimo). Performance techniques such as slurs, grace notes, and dynamic markings like *p*, *mf*, and *pp* are also present.

Musical score page 258 featuring seven staves of music. The instruments and their dynamics are as follows:

- Fl.**: Dynamics p , mp , pp .
- Cl.**: Dynamics p , mp .
- Bsn.**: Dynamics p , $\sharp p$.
- Vla.**: Dynamics p .
- Cb.**: Dynamics p , mp , pp .
- Pno.**: Dynamics mp , pp , mp .
- Perc.**: Dynamics mf .

The score includes measure numbers 3 and 4 at the end of each staff.

Fl.

Cl. p mf

Bsn. mf p mf

Vla. mf p mf p

Cb. p mf mf

Pno. pp mf

Perc. p mf

Fl. *p*

Cl. *mp* *f* *p*

Bsn. *p* *mf* *p*

Vla. *mf* *p* *mf*

Cb.

Pno. *pp*

Perc. *p*

Fl. $\begin{cases} \text{2} \\ \text{4} \end{cases}$ $\begin{cases} \text{3} \\ \text{4} \end{cases}$

Cl. $\begin{cases} \text{2} \\ \text{4} \end{cases}$ $\begin{cases} \text{3} \\ \text{4} \end{cases}$

Bsn. $\begin{cases} \text{2} \\ \text{4} \end{cases}$ $\begin{cases} \text{3} \\ \text{4} \end{cases}$

Vla. $\begin{cases} \text{2} \\ \text{4} \end{cases}$ $\begin{cases} \text{3} \\ \text{4} \end{cases}$

Cb. $\begin{cases} \text{2} \\ \text{4} \end{cases}$ $\begin{cases} \text{3} \\ \text{4} \end{cases}$

Pno. $\begin{cases} \text{2} \\ \text{4} \end{cases}$ $\begin{cases} \text{3} \\ \text{4} \end{cases}$

Perc. $\begin{cases} \text{2} \\ \text{4} \end{cases}$ $\begin{cases} \text{3} \\ \text{4} \end{cases}$

Dynamics and markings:

- Flute: mf , p , mf
- Clarinet: p , mf
- Bassoon: p , mf , p
- Violin: p , pp
- Cello: p , mf , p
- Piano: mf , p
- Percussion: mf , mf , p , sub.

Fl. $\text{F} \frac{3}{4}$ $p \longrightarrow f$

Cl. $\text{G} \frac{3}{4}$ $b\cdot \quad \gamma$

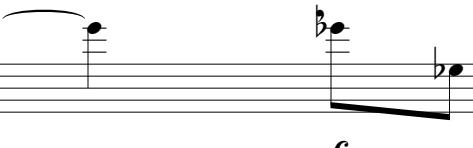
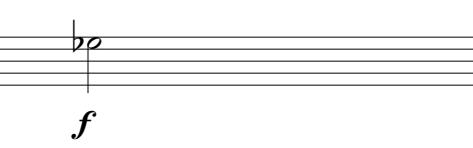
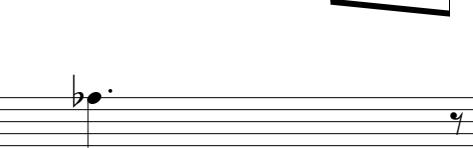
Bsn. $\text{B} \frac{3}{4}$ $- \quad \text{mf} \quad -$

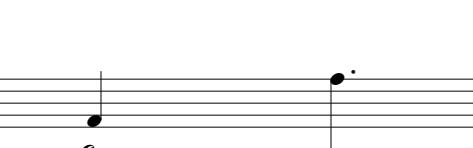
Vla. $\text{A} \frac{3}{4}$ $b\cdot \quad p \longrightarrow f$

Cb. $\text{C} \frac{3}{4}$ $- \quad f$

Pno. $\left\{ \begin{array}{l} \text{G} \frac{3}{4} \\ \text{F} \frac{3}{4} \end{array} \right.$ $mf \quad \text{mf}$

Perc. $\text{E} \frac{3}{4}$ $mf \quad mf \quad - \quad p \longrightarrow$

Fl. $\begin{smallmatrix} 2 \\ 4 \end{smallmatrix}$ 
 $\begin{smallmatrix} 3 \\ 4 \end{smallmatrix}$
 Cl. $\begin{smallmatrix} 2 \\ 4 \end{smallmatrix}$ 
 Bsn. $\begin{smallmatrix} 2 \\ 4 \end{smallmatrix}$ 
 Vla. $\begin{smallmatrix} 2 \\ 4 \end{smallmatrix}$ 
 Cb. $\begin{smallmatrix} 2 \\ 4 \end{smallmatrix}$ 

 Pno. $\begin{smallmatrix} 2 \\ 4 \end{smallmatrix}$ 
 $\begin{smallmatrix} 2 \\ 4 \end{smallmatrix}$ 
 $\begin{smallmatrix} 3 \\ 4 \end{smallmatrix}$ 

 Perc. $\begin{smallmatrix} 2 \\ 4 \end{smallmatrix}$ 
 $\begin{smallmatrix} 3 \\ 4 \end{smallmatrix}$ 

O

F1. $\frac{3}{4}$ - $\frac{4}{4}$ - $\frac{3}{4}$ - $\frac{2}{4}$

Cl. $\frac{3}{4}$ - $\frac{3}{4}$ - $\frac{2}{4}$

Bsn. $\frac{3}{4}$ - $\frac{4}{4}$ - $\frac{3}{4}$ - $\frac{2}{4}$
 $f \text{ } \overbrace{\hspace{1cm}}^{\text{mp}} \text{ } f$

Vla. $\frac{3}{4}$ - $\frac{2}{4}$ - $\frac{4}{4}$ - $\frac{3}{4}$ - $\frac{3}{4}$ - $\frac{2}{4}$
 $\gg p \text{ } \overbrace{\hspace{1cm}}^{f} \text{ } > p \text{ } < f$

Cb. $\frac{3}{4}$ - $\frac{4}{4}$ - $\frac{2}{4}$ - $\frac{3}{4}$ - $\frac{2}{4}$
 $f \text{ } \overbrace{\hspace{1cm}}^{p} \text{ } f \text{ } \overbrace{\hspace{1cm}}^{p} \text{ } \overbrace{\hspace{1cm}}^{f}$

Pno. $\frac{3}{4}$ - $\frac{4}{4}$ - $\frac{3}{4}$ - $\frac{2}{4}$
 $f \text{ } \overbrace{\hspace{1cm}}^{f}$

Synth. $\frac{3}{4}$ - $\frac{4}{4}$ - $\frac{3}{4}$ - $\frac{2}{4}$
 $\text{Synthesizer} \text{ } mp$

Perc. $\frac{3}{4}$ - $\frac{4}{4}$ - $\frac{3}{4}$ - $\frac{2}{4}$
 $mf \text{ } \overbrace{\hspace{1cm}}^{p < mf} \text{ } p \text{ } \overbrace{\hspace{1cm}}^{mf} \text{ } p$

Fl.

Cl.

Bsn.

Vla.

Cb.

Pno.

Perc.

The musical score is divided into two systems by a vertical bar. The first system starts with a single note on the first staff (Flute), followed by a dynamic 'p' on the second staff (Clarinet). The third staff (Bassoon) has a dynamic 'f' with a crescendo line. The fourth staff (Violin) has a dynamic 'p' with a decrescendo line. The fifth staff (Cello) has a dynamic 'p' with a decrescendo line. The sixth staff (Piano) shows a dynamic 'p' with a decrescendo line. The second system begins with a dynamic 'f' on the second staff (Clarinet), followed by a dynamic 'p' on the third staff (Bassoon). The fourth staff (Violin) has a dynamic 'f' with a crescendo line. The fifth staff (Cello) has a dynamic 'p' with a decrescendo line. The sixth staff (Piano) shows a dynamic 'p' with a decrescendo line. The piano part also includes a dynamic 'mf' and a dynamic 'p' with a decrescendo line.

Fl. *p* *f*

Cl. *p* *f*

Bsn. *f* *p*

Vla. *f* *p*

Cb. *p* *f* *p*

Pno. *f* *p*

Perc. *mf* *p* *mf* *p*

Fl.

Cl. *f* *p*

Bsn. *f* *p* *f*

Vla. *mp*

Cb.

Pno. *mf* *8va* - - -

Perc. *mf* *p*

Fl. *f*

Cl. *f*

Bsn. *f*

Vla. *f*

Cb.

Pno. *f*

(8va) *f*

Perc. *mf* — *p* — *mf* — *p* — *mf*

This musical score page contains six staves of music for Flute (Fl.), Clarinet (Cl.), Bassoon (Bsn.), Violin (Vla.), Cello (Cb.), and Piano (Pno.). The piano part is divided into two systems. The first system shows the upper staff in treble clef and the lower staff in bass clef, both in common time (indicated by '3/4'). The second system begins with a dynamic of *sub. p*, followed by *f*. The piano part includes a dynamic marking of *f* in parentheses above the staff, indicating a forte dynamic. The percussion part (Perc.) consists of a single staff with a dynamic range from *mf* to *p*.

Fl.

Cl. *f*

Bsn. *f*

Vla.

Cb.

Pno. *f*

Synth.

Perc. *p* *mf*

This musical score page contains eight staves, each representing a different instrument or group of instruments. The instruments listed from top to bottom are Flute (Fl.), Clarinet (Cl.), Bassoon (Bsn.), Violin (Vla.), Cello (Cb.), Piano (Pno.), Synthesizer (Synth.), and Percussion (Perc.). The score is set in common time (indicated by a '4' at the end of each measure). Various dynamics are indicated throughout the measures, such as *f* (fortissimo), *p* (pianissimo), and *mf* (mezzo-forte). The piano part (Pno.) is grouped together with its lower octave notes. The synthesizer part (Synth.) includes a dynamic marking *mp* (mezzo-pianissimo) near the end of its staff. The percussion part (Perc.) features a rhythmic pattern with dynamic *p* and *mf*.

Fl.

Cl.

Bsn.

Vla.

Cb.

Pno.

Synth.

Perc.

p < *mf*

p < *mf*

p

Fl. $\frac{2}{4}$

Cl. $\frac{2}{4}$

Bsn. $\frac{2}{4}$

Vla. $\frac{2}{4}$

Cb. $\frac{2}{4}$

Pno. $\frac{2}{4}$

Perc. $\frac{2}{4}$

Flute: Dynamics: p , $f \searrow p$, $f \searrow p$, $p \searrow f$. Measure 1: p . Measures 2-3: $f \searrow p$, $f \searrow p$. Measure 4: $p \searrow f$.

Clarinet: Dynamics: $f \searrow p$, p , $f \searrow p$, $p \searrow f$. Measure 1: $f \searrow p$. Measures 2-3: p . Measure 4: $p \searrow f$.

Bassoon: Dynamics: f , p , p , $f \searrow p$. Measure 1: f . Measures 2-3: p . Measure 4: $f \searrow p$.

Violin: Dynamics: p , p , $f \searrow p$. Measure 1: p . Measures 2-3: p . Measure 4: $f \searrow p$.

Cello: Dynamics: p , p , p , p . Measure 1: p . Measures 2-3: p . Measure 4: p .

Piano: Dynamics: mf , p , mf , $sub. p$, f , mf , $sub. p$. Measure 1: mf . Measures 2-3: p . Measure 4: mf . Measures 5-6: $sub. p$.

Percussion: Dynamics: mf , p , mf , $sub. p$. Measure 1: mf . Measures 2-3: p . Measure 4: mf . Measures 5-6: $sub. p$.

Fl. p

Cl. p

Bsn. p

Vla. f

Cb. p

Pno. p

Perc. mf

Fl. *f*

Cl. *f*

Bsn. *f* sub. *f*

Vla. *f* *f*

Cb. *f*

Pno. (8va) *f* *mp* *f* *mp* sub.

Perc. *mf* *p* *mf* *p* *mf* *p*

P

Fl. $\begin{array}{c} \text{G clef} \\ \text{2/4} \end{array}$ $\begin{array}{c} \text{G clef} \\ \text{4/4} \end{array}$ - $\begin{array}{c} \text{G clef} \\ \text{2/4} \end{array}$ $\begin{array}{c} \text{F clef} \\ \text{4/4} \end{array}$ $\begin{array}{c} \text{F clef} \\ \text{2/4} \end{array}$

Cl. $\begin{array}{c} \text{G clef} \\ \text{2/4} \end{array}$ $\begin{array}{c} \text{G clef} \\ \text{4/4} \end{array}$ - $\begin{array}{c} \text{G clef} \\ \text{2/4} \end{array}$ $\begin{array}{c} \text{F clef} \\ \text{4/4} \end{array}$ $\begin{array}{c} \text{F clef} \\ \text{2/4} \end{array}$

Bsn. $\begin{array}{c} \text{Bass clef} \\ \text{2/4} \end{array}$ $\begin{array}{c} \text{Bass clef} \\ \text{4/4} \end{math>$

Vla. $\begin{array}{c} \text{C clef} \\ \text{2/4} \end{math>$

Cb. $\begin{array}{c} \text{C clef} \\ \text{2/4} \end{math>$

Pno. $\begin{array}{c} \text{G clef} \\ \text{2/4} \end{math>$

Synth. $\begin{array}{c} \text{Bass clef} \\ \text{2/4} \end{math>$

Perc. $\begin{array}{c} \text{Common clef} \\ \text{2/4} \end{math>$

Dynamics and performance instructions:

- Flute: p , f , mp (with a dynamic bracket labeled "sub.")
- Clarinet: p , $mf < f >$
- Bassoon: p , $mf < f > mp$
- Violin: f , p , f , f
- Cello: p , f , p , f
- Piano: f , mp , f
- Synthesizer: mp
- Percussion: f , p , mf , $p < mf$, p

Fl.

Cl.

Bsn.

Vla.

Cb.

Pno.

Synth.

Perc.

The musical score consists of eight staves, each representing a different instrument or group of instruments. The instruments are: Flute (Fl.), Clarinet (Cl.), Bassoon (Bsn.), Violin (Vla.), Cello (Cb.), Piano (Pno.), Synthesizer (Synth.), and Percussion (Perc.). The score is divided into measures by vertical bar lines. Some measures have a single time signature (2/4, 3/4), while others switch between 2/4 and 3/4. Dynamic markings include *f*, *p*, $\geqslant p$, and *mp*. The piano staff has a brace under it, indicating it represents two voices. The synthesizer staff uses a bass clef. The percussion staff shows a continuous line of eighth notes.

Fl. $\frac{3}{4}$: f mp f mp

Cl. $\frac{3}{4}$: f

Bsn. $\frac{2}{4} \frac{3}{4}$: f

Vla. $\frac{2}{4} \frac{3}{4}$: mp f mp

Cb. $\frac{3}{4}$: f

Pno. $\frac{3}{4}$: f sub. mp f $8va$

Perc. $\frac{3}{4}$: f p f mp

Fl. *f* sub. *mp* *f* sub. *p*

Cl. - *mp* *f* sub. *p*

Bsn. *mp* *f* *f*

Vla. *f* sub. *mp* *f*

Cb. -

Pno. (8va) - *sub.* *f mp* *f*

Perc. *f* *mp*

This musical score page contains six staves of music. The top five staves are for Flute (Fl.), Clarinet (Cl.), Bassoon (Bsn.), Violin (Vla.), and Cello (Cb.). The bottom staff is for Piano (Pno.) and Percussion (Perc.). The music is in common time (indicated by '4') throughout. The piano part is grouped by a brace and includes dynamics like 'f' and 'mp', and performance instructions like '(8va)' and 'sub.'. The percussion part includes dynamics like 'f' and 'mp'. Measure numbers 1 through 7 are present above the staves.

Fl. *f* $\swarrow \searrow$ *p*

Cl. *f* $\swarrow \searrow$ *p* *mf* $\swarrow \searrow$ *mp*

Bsn. $\frac{2}{4}$ $\frac{2}{4}$ *p* $\swarrow \searrow$ *mf* $\swarrow \searrow$ *mp*

Vla. $\frac{2}{4}$ *sub.* *p* *f* $\swarrow \searrow$ *p* *f* *f*

Cb. $\frac{2}{4}$ *p* *f* $\swarrow \searrow$ *p* $\swarrow \searrow$ *f*

Pno. *f* *mp* *f*

Synth. *mp*

Perc. *f* *p* $\swarrow \searrow$ *mf* \geq *p* $\swarrow \searrow$ *mf* *p* $\swarrow \searrow$

Fl.

Cl.

Bsn.

Vla.

Cb.

Pno.

Synth.

Perc.

Fl. $\frac{3}{4}$: $\frac{2}{4}$: $\frac{3}{4}$

Cl. $\frac{3}{4}$: $\frac{2}{4}$: $\frac{3}{4}$

Bsn. $\frac{2}{4}$: $\frac{3}{4}$: $\frac{3}{4}$

Vla. $\frac{2}{4}$: $\frac{3}{4}$: $\frac{3}{4}$

Cb. $\frac{3}{4}$: $\frac{2}{4}$: $\frac{3}{4}$

Pno. $\frac{3}{4}$: $\frac{2}{4}$: $\frac{3}{4}$

Perc. $\frac{3}{4}$: $\frac{2}{4}$: $\frac{3}{4}$

mp — *f*

mp — *f*

mp — *f*

8va

f

f

mp

Fl. *f*

Cl. *mp* *f*

Bsn. *mp* *f* *f*

Vla. *f* *f* *f*

Cb.

Pno. *(8va)* *f* *f*

Perc. *f* *mp* *f*

Q

Fl.

Cl.

Bsn.

Vla.

Cb.

Pno.

(Bring out piano - entire piece)

(f) mp

Perc.

The musical score page 320 features six staves of music. The first three staves (Flute, Clarinet, Bassoon) are in common time (2/4). The next three staves (Violin, Cello, Piano) are in 3/4 time. The piano staff is grouped by a brace and includes dynamic markings '(f)' and 'mp'. The percussion staff at the bottom uses a different time signature scheme. The score concludes with a section instruction '(Bring out piano - entire piece)'.

Fl.

Cl.

Bsn.

Vla.

Cb.

Pno.

Perc.

The musical score consists of six staves. The top four staves (Flute, Clarinet, Bassoon, Violin) are in common time (indicated by a '4'). The bottom two staves (Cello and Piano) are in common time. The piano staff is grouped under a brace. The score begins with a dynamic of *f*. The flute has a melodic line with slurs and grace notes. The clarinet and bassoon provide harmonic support. The violin has a rhythmic pattern of eighth and sixteenth notes. The cello provides a steady bass line. The piano part features chords and eighth-note patterns. The percussion part consists of short, repetitive strokes. The score concludes with a dynamic of *mp*.

Fl.

Cl.

Bsn.

Vla.

Cb.

Pno.

Perc.

f

mf

mp

Fl. $\begin{cases} \text{G clef} \\ \text{3/4 time} \end{cases}$ $\begin{cases} \text{sub. } mp \\ f \end{cases}$

Cl. $\begin{cases} \text{G clef} \\ \text{3/4 time} \end{cases}$

Bsn. $\begin{cases} \text{B clef} \\ \text{3/4 time} \end{cases}$

Vla. $\begin{cases} \text{G clef} \\ \text{3/4 time} \end{cases}$ $\begin{cases} \text{sub. } mp \\ f \end{cases}$

Cb. $\begin{cases} \text{C clef} \\ \text{3/4 time} \end{cases}$

Pno. $\begin{cases} \text{Bass clef} \\ \text{3/4 time} \end{cases}$ f $\begin{cases} \text{sub. } mp \\ \text{3/4 time} \end{cases}$

Perc. $\begin{cases} \text{F clef} \\ \text{3/4 time} \end{cases}$ f mf $\begin{cases} \text{sub. } mp \\ \text{3/4 time} \end{cases}$ f

Musical score for orchestra and piano, page 10, measures 11-12.

Measure 11:

- Flute (Fl.):** Rest.
- Clarinet (Cl.):** Slurs from \flat to \natural , then a eighth note.
- Bassoon (Bsn.):** Slurs from \flat to \natural .
- Violin (Vla.):** Eighth note.
- Cello (Cb.):** Slurs from \flat to \natural .
- Piano (Pno.):** Chords: $\text{C}^{\flat}\text{E}^{\flat}\text{G}$, $\text{A}^{\flat}\text{C}^{\flat}\text{E}^{\flat}\text{G}$, $\text{D}^{\flat}\text{F}^{\flat}\text{A}^{\flat}\text{C}$, $\text{G}^{\flat}\text{B}^{\flat}\text{D}^{\flat}\text{F}$. Bass line slurs from \flat to \natural .
- Percussion (Perc.):** Slurs from \flat to \natural .

Measure 12:

- Flute (Fl.):** Rest.
- Clarinet (Cl.):** Rest.
- Bassoon (Bsn.):** Rest.
- Violin (Vla.):** Slur from \flat to \natural .
- Cello (Cb.):** Slur from \flat to \natural .
- Piano (Pno.):** Chords: $\text{C}^{\flat}\text{E}^{\flat}\text{G}$, $\text{A}^{\flat}\text{C}^{\flat}\text{E}^{\flat}\text{G}$, $\text{D}^{\flat}\text{F}^{\flat}\text{A}^{\flat}\text{C}$, $\text{G}^{\flat}\text{B}^{\flat}\text{D}^{\flat}\text{F}$. Bass line slurs from \flat to \natural . Dynamics: (f) .
- Percussion (Perc.):** Slurs from \flat to \natural . Dynamics: mp .

Fl.

Cl.

Bsn.

Vla.

Cb.

Pno.

Perc.

The musical score page contains six staves of music. From top to bottom, the instruments are Flute (Fl.), Clarinet (Cl.), Bassoon (Bsn.), Violin (Vla.), Cello (Cb.), and Piano (Pno.). The piano staff is bracketed together. The score begins with a measure of rest for the Flute, followed by measures for Clarinet, Bassoon, Violin, and Cello. The time signature changes from 2/4 to 3/4. The piano part features a bass line with eighth-note chords and a treble line with eighth-note patterns. The percussion part (Perc.) consists of a single staff with eighth-note patterns. Dynamic markings include *f*, *p*, and *mp*. Measure numbers 331 and 103 are present at the top left and bottom right respectively.

Fl.

Cl.

Bsn.

Vla.

Cb.

Pno.

Perc.

The musical score page 333 consists of six staves. The first four staves (Flute, Clarinet, Bassoon, Violin) have treble clefs. The Cello staff has a bass clef. The Piano staff is grouped by a brace and has two treble clefs. The Percussion staff has a common time signature. The score features several time signature changes: 3/4, 8/8, and 2/4. Dynamic markings include *mp*, *f*, *sub.*, and *mf*. The piano part shows complex chords and eighth-note patterns, while the percussion part provides rhythmic support.

Fl. $\frac{2}{4}$ f $\frac{3}{4}$ $sub.$ mp f $\frac{2}{4}$

Cl. $\frac{2}{4}$ $\frac{3}{4}$ $\frac{2}{4}$

Bsn. $\frac{2}{4}$ $\frac{3}{4}$ $\frac{2}{4}$

Vla. $\frac{2}{4}$ f $\frac{3}{4}$ $sub.$ mp f $\frac{2}{4}$

Cb. $\frac{2}{4}$ $\frac{3}{4}$ $\frac{2}{4}$

Pno. $\frac{2}{4}$ f $\frac{3}{4}$ $\frac{2}{4}$

Perc. $\frac{2}{4}$ mp f mf $\frac{2}{4}$

Fl.

Cl.

Bsn.

Vla.

Cb.

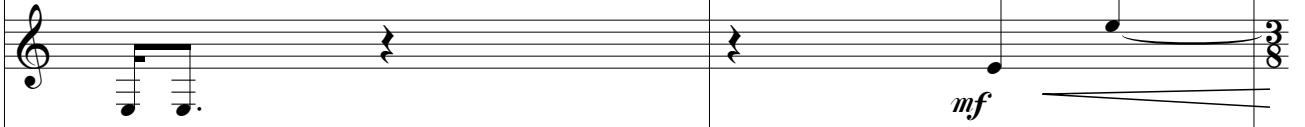
Pno.

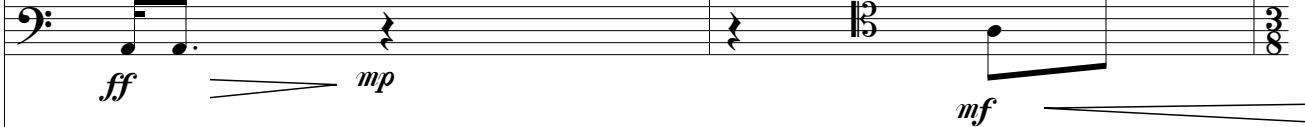
Perc.

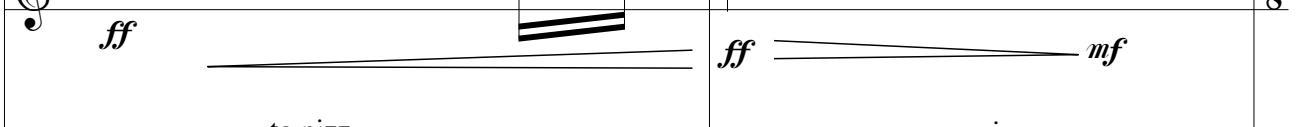
The musical score consists of seven staves. The top four staves represent the orchestra: Flute (F1), Clarinet (Cl.), Bassoon (Bsn.), and Violin (Vla.). The bottom three staves represent the piano (Pno.) and percussion (Perc.). The piano is divided into two staves by a brace. The first staff of the piano has a dynamic marking 'sub. mp'. The second staff of the piano has a dynamic marking 'f'. The percussion staff has a dynamic marking 'sub. mp' followed by 'f'. The score is in 2/4 time throughout. Measures 1 through 4 are shown, separated by a vertical bar line. Measures 5 through 8 follow. The bassoon and violin have sustained notes across the measure lines. The piano and percussion provide harmonic support with chords and rhythmic patterns.

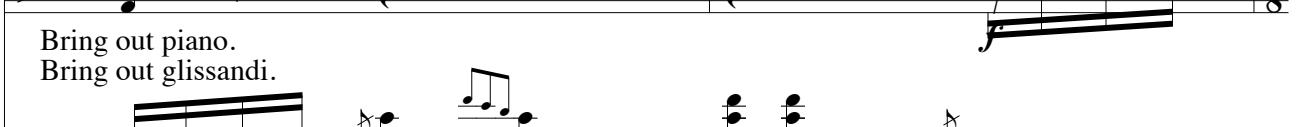
R

Fl. 

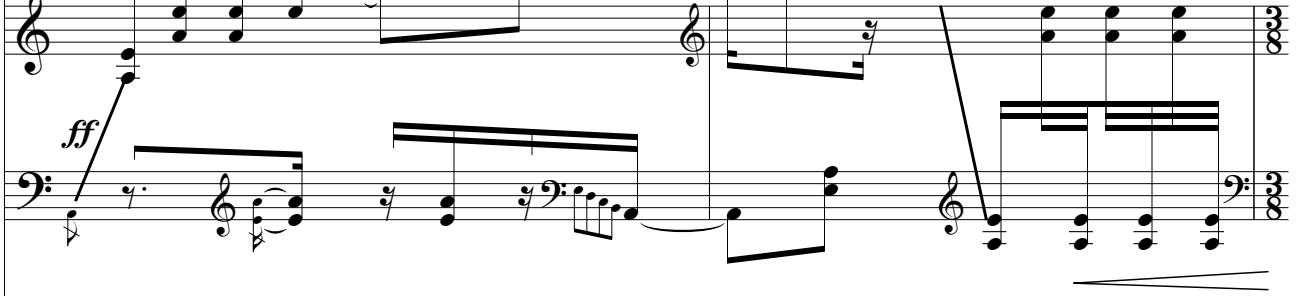
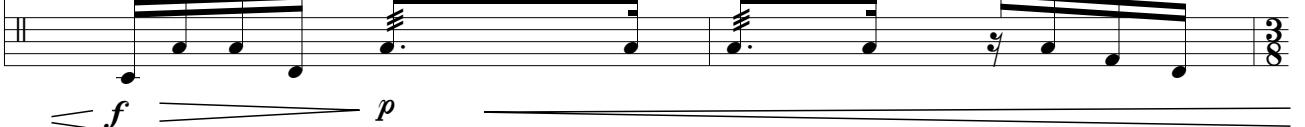
Cl. 

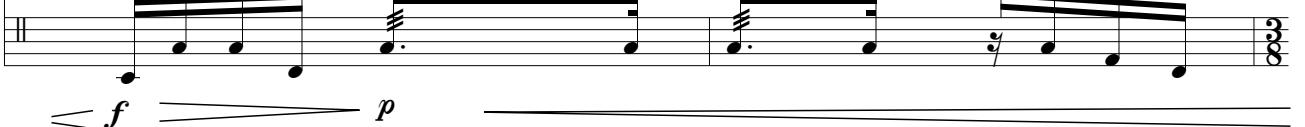
Bsn. 

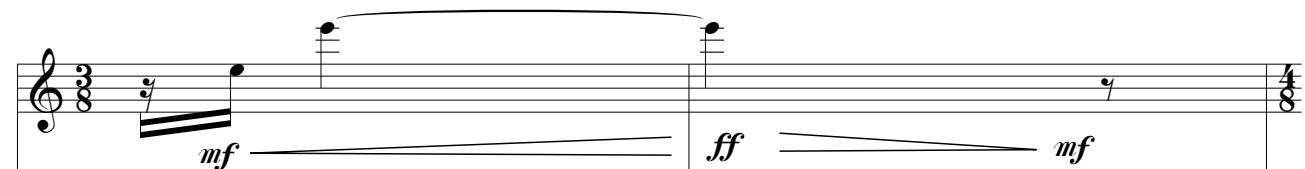
Vla. 

Cb. 

to pizz
Bring out piano.
Bring out glissandi.

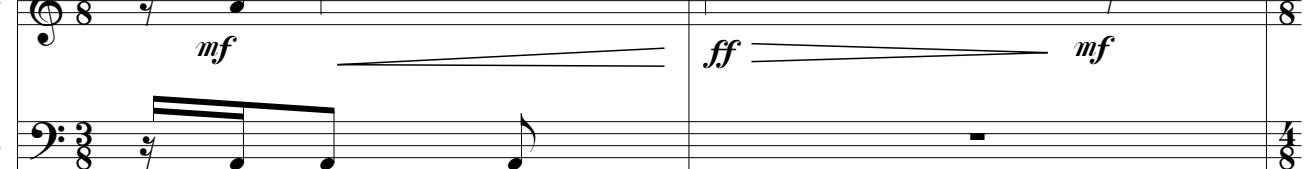
Pno. 


Perc. 

Fl. 

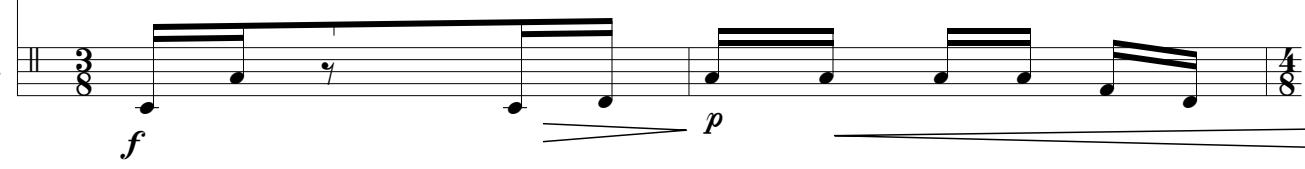
Cl. 

Bsn. 

Vla. 

Cb. 

Pno. 

Perc. 

Fl. *ff*

Cl. *ff* *mf*

Bsn. *ff* *mf*

Vla. *ff*

Cb. *ff*

Pno.

Perc. *f* *mf* *f* *mp*

Fl. *ff*

Cl. *ff*

Bsn. *ff* sub. *mp*

Vla. *ff* sub. *mp*

Cb. *ff* *mf*

Pno.

Perc. *f* sub. *mp*

Fl. *ff* sub. *mf*

Cl. *ff* *mp*

Bsn. *ff* *mp*

Vla. *ff* sub. *mf*

Cb.

Pno. *ff*

Perc. *f* *p*

Fl. $\frac{3}{8}$ mf ff mf $\frac{4}{8}$

Cl. $\frac{3}{8}$ ff mf $\frac{4}{8}$

Bsn. $\frac{3}{8}$ ff mf $\frac{4}{8}$

Vla. $\frac{3}{8}$ mf ff mf $\frac{4}{8}$

Cb. $\frac{3}{8}$ ff $\frac{4}{8}$

Pno. $\frac{3}{8}$ $\frac{4}{8}$
 $\frac{3}{8}$ ff $sub.$ mf ff $\frac{4}{8}$

Perc. $\frac{3}{8}$ f p $\frac{4}{8}$

Musical score for orchestra and piano, page 10, measures 11-12.

Measure 11:

- Flute (Fl.):** Playing eighth-note chords at ***ff***.
- Clarinet (Cl.):** Playing eighth-note chords at ***ff***, followed by eighth-note chords at ***mf***.
- Bassoon (Bsn.):** Playing eighth-note chords at ***ff***, followed by eighth-note chords at ***mf***.
- Cello (Cb.):** Playing eighth-note chords at ***ff***.
- Piano (no.):** Playing eighth-note chords. The right hand has sixteenth-note patterns above the eighth-note chords.
- Percussion (Perc.):** Playing eighth-note chords at ***f***.

Measure 12:

- Flute (Fl.):** Playing eighth-note chords at ***ff***.
- Clarinet (Cl.):** Playing eighth-note chords at ***mf***.
- Bassoon (Bsn.):** Playing eighth-note chords at ***mf***.
- Cello (Cb.):** Playing eighth-note chords at ***mf***.
- Piano (no.):** Playing eighth-note chords. The right hand has sixteenth-note patterns above the eighth-note chords. The left hand has eighth-note chords. A dynamic marking **sub. *mf*** is shown.
- Percussion (Perc.):** Playing eighth-note chords at ***mf***, followed by eighth-note chords at ***f***, then eighth-note chords at ***mp***.

Fl. *ff*

Cl. *ff*

Bsn. *ff*

Vla. *ff*

Cb.

Pno.

Perc. *f*

356

S

F1 *ff* *ff* *mf*

Cl. *ff* *mp* *mf*

Bsn. *ff* *mp* *mf*

Vla. *ff* *ff* *mf*

Cb. *ff*

Pno. *ff*

Perc. *f* *mp*

Fl. *mf* *ff*

Cl. *ff* *mf*

Bsn. *ff* *mf*

Vla. *mf* *ff*

Cb.

Pno.

Perc. *f* *mp*

Fl. *ff*

Cl. *ff*

Bsn. *ff*

Vla. *ff*

Cb. *ff*

Pno.

Perc. *f*

Measure 1: Flute (3/8), Clarinet (3/8), Bassoon (2/3), Violin (3/8), Cello (3/8), Piano (2/3), Percussion (3/8). Dynamics: ff (Flute, Clarinet, Bassoon, Violin), mf (Piano).

Measure 2: Flute (3/8), Clarinet (3/8), Bassoon (2/3), Violin (3/8), Cello (3/8), Piano (2/3), Percussion (3/8). Dynamics: ff (Flute, Clarinet, Bassoon, Violin), ff (Cello, Piano).

Measure 3: Clarinet (3/8), Bassoon (2/3), Violin (3/8), Cello (3/8), Piano (2/3), Percussion (3/8). Dynamics: mf (Piano), ff (Cello, Piano).

Measure 4: Bassoon (2/3), Violin (3/8), Cello (3/8), Piano (2/3), Percussion (3/8). Dynamics: mf (Piano), ff (Cello, Piano).

Measure 5: Violin (3/8), Cello (3/8), Piano (2/3), Percussion (3/8). Dynamics: ff (Violin, Cello, Piano).

Measure 6: Violin (3/8), Cello (3/8), Piano (2/3), Percussion (3/8). Dynamics: ff (Violin, Cello, Piano).

Measure 7: Violin (3/8), Cello (3/8), Piano (2/3), Percussion (3/8). Dynamics: sub. mf (Piano), ff (Percussion).

Measure 8: Violin (3/8), Cello (3/8), Piano (2/3), Percussion (3/8). Dynamics: sub. mf (Piano), ff (Percussion).

Fl. *ff*

Cl. *ff*

Bsn.

Vla. *ff*

Cb.

Pno.

Perc. *f*

The musical score consists of seven staves. From top to bottom: Flute (Fl.), Clarinet (Cl.), Bassoon (Bsn.), Violin (Vla.), Cello (Cb.), Piano (Pno.), and Percussion (Perc.). The Flute, Clarinet, Bassoon, Violin, and Cello staves are in treble clef, while the Piano and Percussion staves are in bass clef. The time signature is mostly common time (4/4). Dynamics include *ff*, *mf*, and *f*. Performance instructions like 'v' (vibrato) and 'sub.' (substitution) are also present. The piano part is bracketed under 'Pno.'.

Fl. *ff*

Cl. *ff*

Bsn. *ff*

Vla. *ff*

Cb.

Pno.

Perc. *f*

Fl. *ff*

Cl. *ff*

Bsn. *ff*

Vla. *ff*

Cb. *ff*

Pno.

Perc. *f*

Fl. *ff* sub. *mf*

Cl. *ff* *mp*

Bsn. *ff* *mp*

Vla. *ff* sub. *mf*

Cb.

Pno. *ff*

Perc. *f* *mp*

This musical score page contains six staves of music. From top to bottom, the instruments are Flute (F1), Clarinet (Cl.), Bassoon (Bsn.), Violin (Vla.), Cello (Cb.), and a group of instruments including Piano (Pno.) and Percussion (Perc.). The score is in 4/8 time. The first four measures show the Flute, Clarinet, Bassoon, and Violin playing eighth-note patterns. The Flute and Violin have dynamics of *ff* followed by sub. *mf*. The Clarinet and Bassoon have *ff* followed by *mp*. The fifth measure shows the Flute, Clarinet, Bassoon, and Violin again with similar patterns and dynamics. The Cello has a single note in the fourth measure. The Piano and Percussion staves begin in the fifth measure. The Piano staff shows a dynamic of *ff* followed by sixteenth-note patterns. The Percussion staff shows eighth-note patterns. Measure 6 starts with a dynamic of *ff* for the Piano and Percussion, followed by eighth-note patterns for both.

Take piccolo

Fl.

Cl.

Bsn.

Vla.

Cb.

no.

Perc.

mf

ff

ff

ff

mf

ff

ff

mf

ff

ff

mf

ff

ff

mf

f

mp

Take piccolo

Fl.

Cl. *ff*

Bsn. *ff*

Vla. *ff*

Cb. *ff*

Pno. *ff*

Perc. *f*

mf ————— *ff*

mf ————— *ff*

mf ————— *ff*

sub. *mf* ————— *ff*

sub. *mf* ————— *ff*

sub. *mp* —————

T

Piccolo sempre marcato

Pic.

Cl.

Bsn.

Vla.

Cb.

Pno.

Perc.

Pic.

Cl. sub. *mf* 5 *ff*

Bsn. sub. *mf* 5 *ff*

Vla. *ff* 5 *ff*

Cb. 5 *ff*

Pno. 8va - - - - - 1

Perc. *ff* 5 sub. *mf*

Pic. Cl. Bsn. Vla. Cb. Pno. Perc.

The musical score consists of eight staves. The first five staves (Piccolo, Clarinet, Bassoon, Violin, Cello) have dynamics "sub. *mf*" followed by a diagonal line and "ff". The piano staff (Pno.) has dynamics "sub. *mf*" followed by a diagonal line and "ff". The percussion staff (Perc.) has dynamics "ff" followed by a diagonal line and "sub. *mf*". Time signatures change frequently between 4/4, 3/8, and 2/4.

Pic. *ff*

Cl. *ff* sub. *mf* *ff*

Bsn. *ff* sub. *mf* *ff*

Vla. *ff* *ff*

Cb. *ff* *ff*

Pno. *ff* 8va -----
(Piano) *ff*

Perc. *ff* sub. *mf* *ff* sub. *mf*

Pic.

Cl.

Bsn.

Vla.

Cb.

Pno.

Perc.

sub. *mf*

sub. *mf*

sub. *ff*

sub. *mf*

sub. *mf*

sub. *ff*

sub. *mf*

ff sub. *mf*

sub. *ff*

sub. *mf*

ff sub. *mf*

ff

sub. *mf*

U

Pic. $\frac{5}{16}$ *ff*

Cl. $\frac{5}{16}$ *ff*

Bsn. $\frac{5}{16}$ *ff*

Vla. $\frac{5}{16}$ *ff*

Cb. $\frac{5}{16}$ *ff*

Pno. $\frac{5}{16}$ *ff*

8va $\frac{5}{16}$ $\frac{3}{16}$

Perc. $\frac{5}{16}$ *ff* $\frac{3}{16}$

sub. $\frac{5}{16}$ *ff* $\frac{3}{16}$

Pic. $\frac{3}{16}$ | $\frac{4}{8}$ | $\frac{3}{8}$ | $\frac{5}{16}$

Cl. $\frac{3}{16}$ | $\frac{4}{8}$ | $\frac{3}{8}$ | $\frac{5}{16}$

Bsn. $\frac{12}{16}$ | $\frac{4}{8}$ | $\frac{3}{8}$ | $\frac{5}{16}$

Vla. $\frac{3}{16}$ | $\frac{4}{8}$ | $\frac{3}{8}$ | $\frac{5}{16}$

Cb. $\frac{3}{16}$ | $\frac{4}{8}$ | $\frac{3}{8}$ | $\frac{5}{16}$

Pno. $\frac{3}{16} \times$ | $\frac{4}{8}$ | $\frac{3}{8}$ | $\frac{5}{16}$

Synth. $\frac{3}{16}$ | $\frac{4}{8}$ | $\frac{3}{8}$ | $\frac{5}{16}$

Perc. $\frac{3}{16} \times$ | $\frac{4}{8}$ | $\frac{3}{8}$ | $\frac{5}{16}$

Pic. $\begin{smallmatrix} 5 \\ 16 \end{smallmatrix}$ ff

Cl. $\begin{smallmatrix} 5 \\ 16 \end{smallmatrix}$ ff

Bsn. $\begin{smallmatrix} 5 \\ 16 \end{smallmatrix}$ ff

Vla. $\begin{smallmatrix} 5 \\ 16 \end{smallmatrix}$ ff

Cb. $\begin{smallmatrix} 5 \\ 16 \end{smallmatrix}$ ff

Pno. $\begin{smallmatrix} 5 \\ 16 \end{smallmatrix}$ ff 8va

Perc. $\begin{smallmatrix} 5 \\ 16 \end{smallmatrix}$ ff sub. $\begin{smallmatrix} 3 \\ 16 \end{smallmatrix}$ sub. $\begin{smallmatrix} 3 \\ 16 \end{smallmatrix}$

Pic. $\frac{3}{16}$ | $\frac{4}{8}$ | $\frac{3}{8}$ | $\frac{2}{8}$

Cl. $\frac{3}{16}$ | $\frac{4}{8}$ | $\frac{3}{8}$ | $\frac{2}{8}$

Bsn. $\frac{2}{16} \frac{3}{16}$ | $\frac{4}{8}$ | $\frac{3}{8}$ | $\frac{2}{8}$

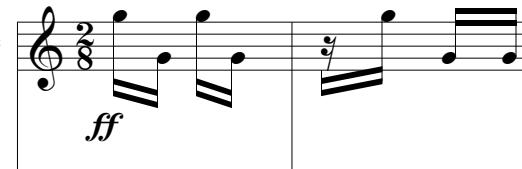
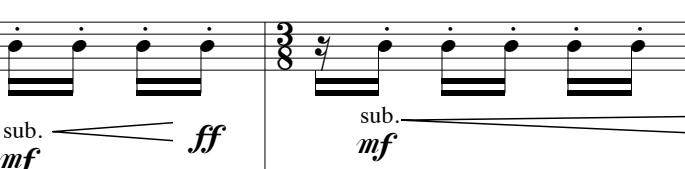
Vla. $\frac{3}{16}$ | $\frac{4}{8}$ | $\frac{3}{8}$ | $\frac{2}{8}$

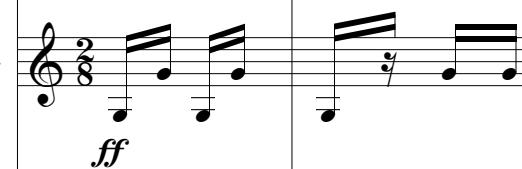
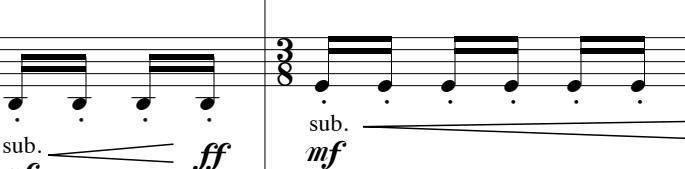
Cb. $\frac{2}{16} \frac{3}{16}$ | $\frac{4}{8}$ | $\frac{3}{8}$ | $\frac{2}{8}$

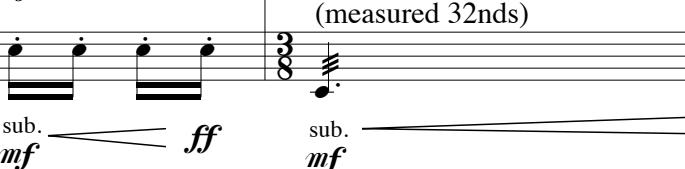
Pno. $\frac{3}{16}$ | $\frac{4}{8}$ | $\frac{3}{8}$ | $\frac{2}{8}$

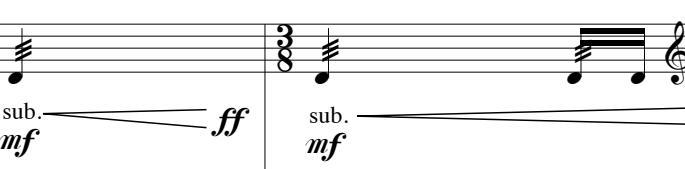
Synth. $\frac{3}{16}$ | $\frac{4}{8}$ | $\frac{3}{8}$ | $\frac{2}{8}$

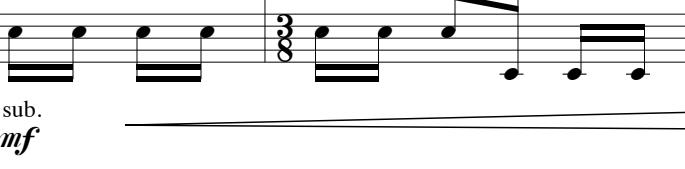
Perc. $\frac{3}{16}$ | $\frac{4}{8}$ | $\frac{3}{8}$ | $\frac{2}{8}$

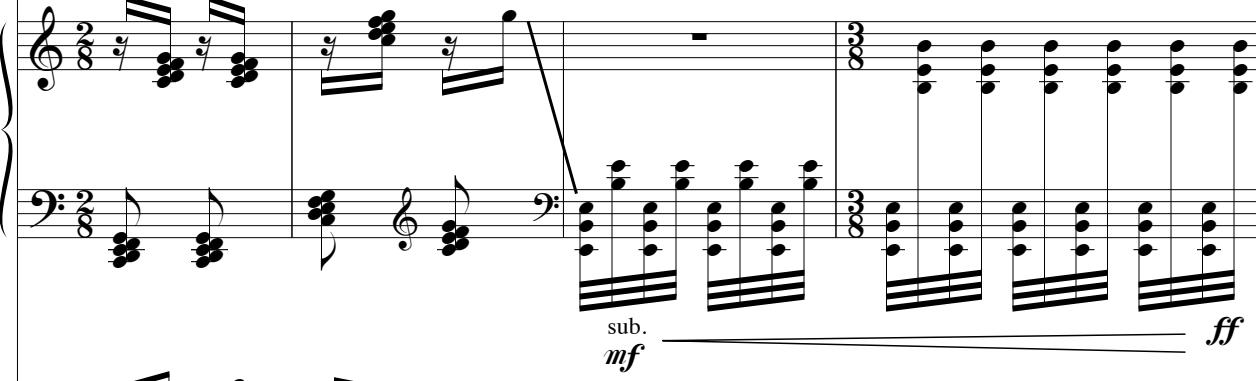
Pic.  

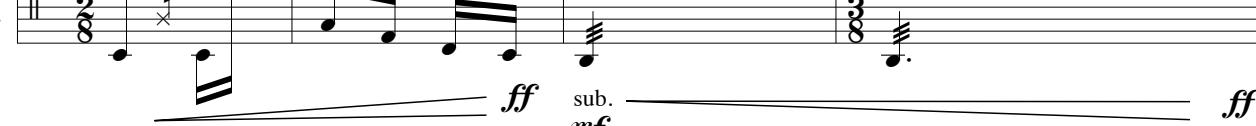
Cl.  

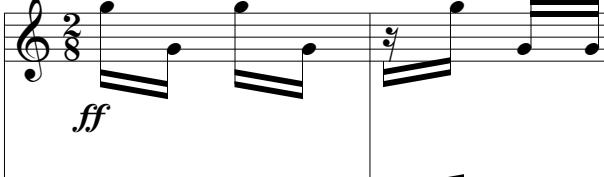
Bsn.  

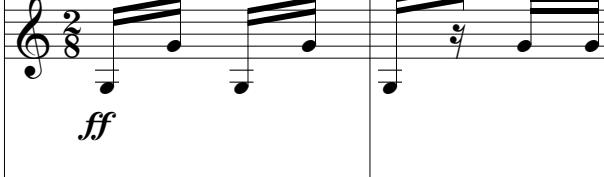
Vla.  

Cb.  

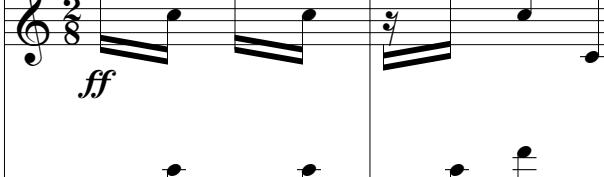
Pno. 

Perc.  

Pic. 

Cl. 

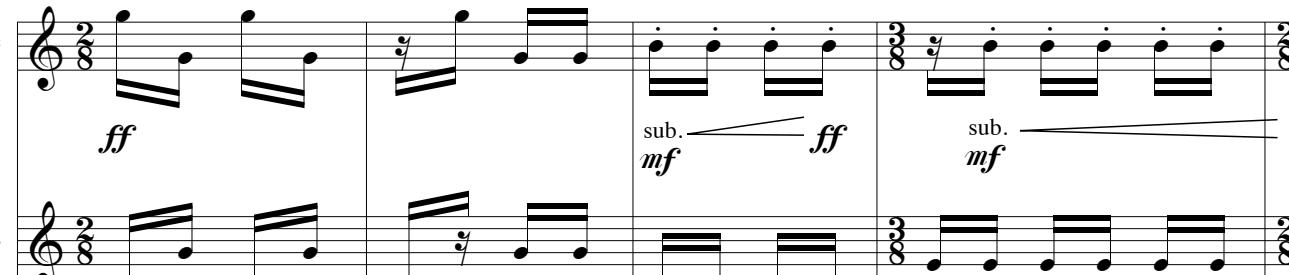
Bsn. 

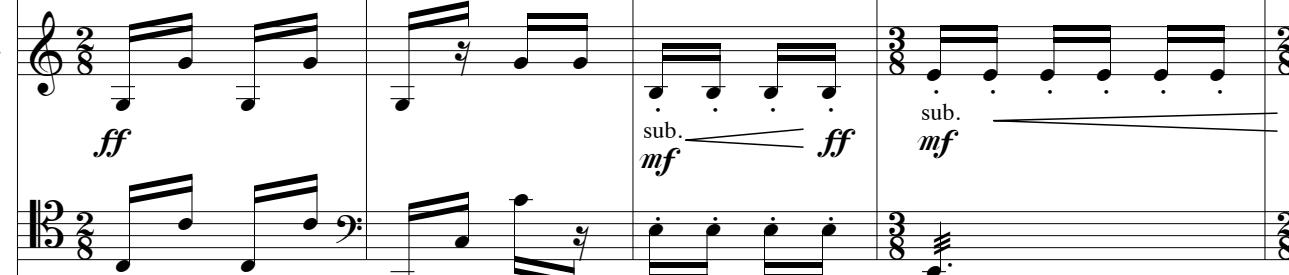
Vla. 

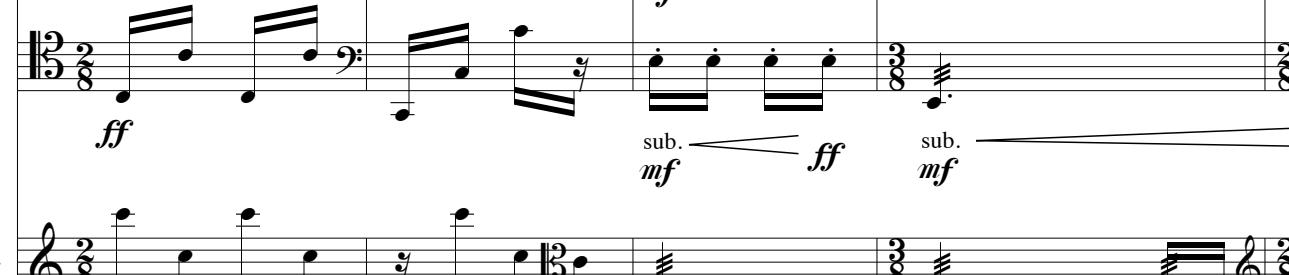
Cb. 

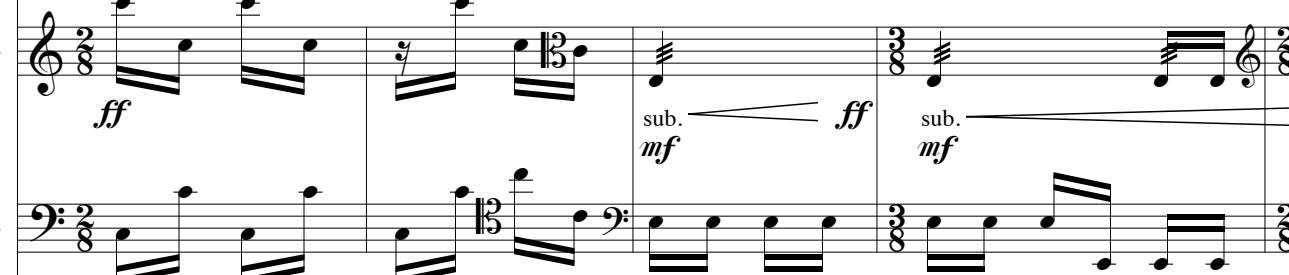
Pno. 

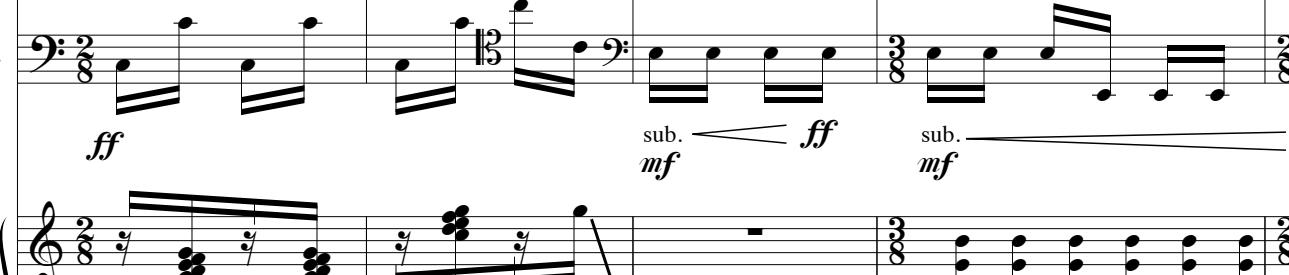
Perc. 

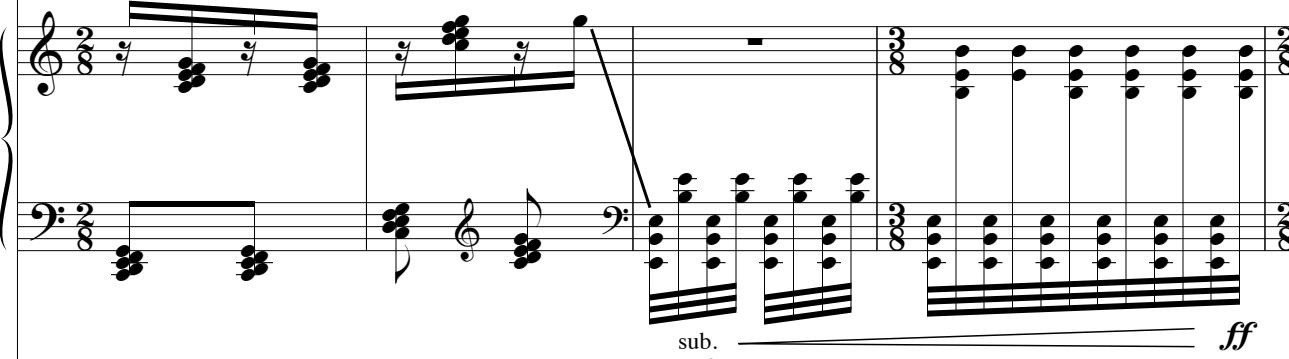
Pic. 

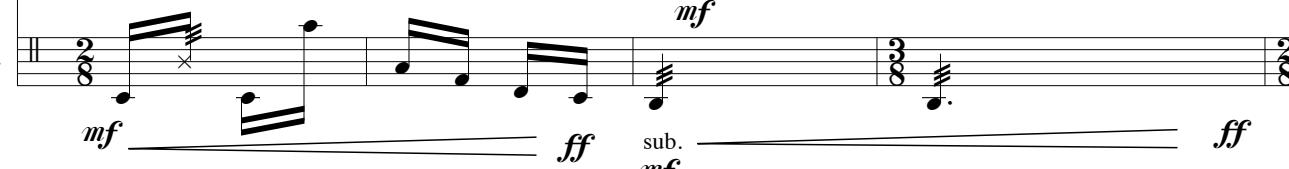
Cl. 

Bsn. 

Vla. 

Cb. 

Pno. 

Perc. 

V

Pic. $\frac{2}{8}$

Cl. $\frac{2}{8}$

Bsn. $\frac{2}{8}$

Vla. $\frac{2}{8}$

Cb. $\frac{2}{8}$

Pno. $\frac{2}{8}$

Perc. $\frac{2}{8}$

Measure 1: Piccolo (fff), Clarinet (fff), Bassoon (fff), Violin (fff), Cello (fff), Piano (fff), Percussion (fff).

Measure 2: Clarinet (sub. *mf*), Bassoon (sub. *mf*), Violin (fff), Cello (fff), Piano (sub. *mf*), Percussion (fff).

Measure 3: Bassoon (sub. *mf*), Violin (fff), Cello (fff), Piano (sub. *mf*), Percussion (fff).

Measure 4: Bassoon (sub. *mf*), Violin (fff), Cello (fff), Piano (sub. *mf*), Percussion (fff).

Pic. *fff*

Cl. *fff*

Bsn. *fff*

Vla. *fff*

Cb. *fff*

Pno. *fff*

Perc. *f*

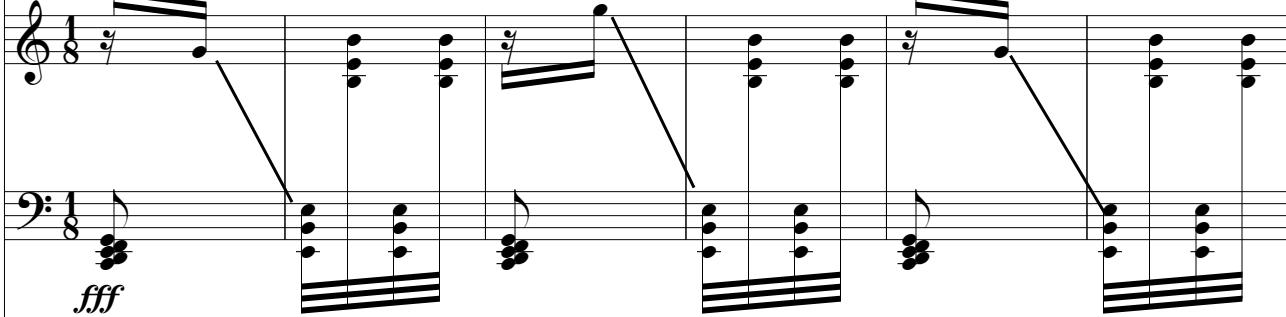
Pic. 

Cl. 

Bsn. 

Vla. 

Cb. 

Pno. 

Perc. 

Pic. Cl. Bsn. Vla. Cb. Pno. Perc.

sempre fff

sempre fff

sempre fff

sempre fff

sempre fff

sempre fff

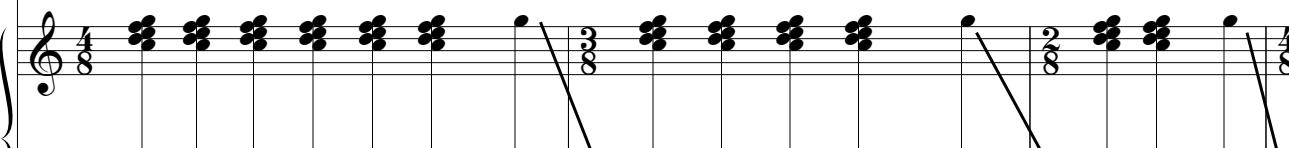
Pic. (measured 32nds) 

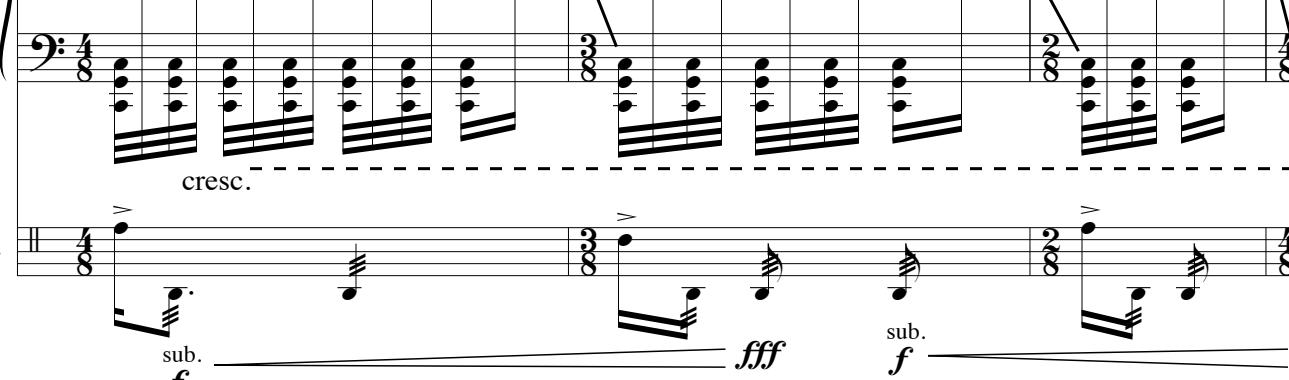
Cl. (measured 32nds) 

Bsn. (measured 32nds) 

Vla. (measured 32nds) 

Cb. Ossia for bass-m. 433 to end, octave up, all measures 

Pno. cresc. 

Perc. 

Pic.

Cl.

Bsn.

Vla.

Cb.

Pno.

Perc.

fffff

fffff

fffff

fffff

fffff

fffff

DAMP!

fffff

Analytical material on *Timberline* follows. First there are five pages of handwritten sketches of pitches, timing, and various gestures important to the structure of the piece. Then there is an explanation of Exponential Structure as used in this work.

VIERK: TIMBERLINE

Windst + strn.

Piano

31 beats

(A) m. 13

3 ascending figures | 2 ascending, going to (A)

30

(B) m. 24

2-asc. | 3 desc. into (B)

29

(C) m. 34

2 asc. | 3 desc into (C)

28

(D) m. 45

2 asc | 2 desc into (D)

27

(E) m. 58

2 asc. | 2 desc.

27

Piano

Piano

pattern gets more complex up + down, + adds tremolos

(F) m. 70

2

26

Piano — more complex, longer phrases, more + tremolo
last one still desc., to (G)

This block contains two staves of handwritten musical notation for piano. The top staff shows a treble clef and the bottom staff shows a bass clef. Measure 26 begins with a series of eighth-note chords. Measure 27 starts with a sixteenth-note pattern, followed by a sustained note with a tremolo, and ends with another sixteenth-note pattern.

(G) m. 79

25

Piano — more (desc. to (H))

This block contains two staves of handwritten musical notation for piano. The top staff shows a treble clef and the bottom staff shows a bass clef. Measure 25 consists of a sixteenth-note pattern. Measure 26 begins with a sustained note and ends with a sixteenth-note pattern, leading down to measure 27.

(H) m. 88

24

Piano — more - now piano is continuous Asc. to highest point + into (I)

This block contains two staves of handwritten musical notation for piano. The top staff shows a treble clef and the bottom staff shows a bass clef. Measure 24 consists of a sixteenth-note pattern. Measure 25 begins with a sustained note and ends with a sixteenth-note pattern, leading up to the highest point and into measure 26.

(I) m. 96

24

Piano
Asc. to highest point, then begins low (J)

This block contains two staves of handwritten musical notation for piano. The top staff shows a treble clef and the bottom staff shows a bass clef. Measure 24 consists of a sixteenth-note pattern. Measure 25 begins with a sustained note and ends with a sixteenth-note pattern, leading up to the highest point and then beginning low, leading into measure 26.

(J)

(J)

m. 104

3

23

Handwritten musical score for section J. The top staff shows measure 104 in G major, 2/4 time, with a tempo of 8va. The bottom staff shows measure 111 in G major, 2/8 time. Measure 111 includes a dynamic of $\text{f} \times 8$. A bracket spans both staves with the handwritten note "Asc. to highest point". To the right, arrows point from "real" to measure 159 (132) and from "correct pattern" to measure 112.

(L) m. 164

112

Handwritten musical score for measure 164. It consists of three vertical bars. The first bar has a dynamic of $\text{f} \times 8$. The second bar has a dynamic of $\text{f} \times 8$. The third bar has a dynamic of $\text{f} \times 8$ and includes a dynamic of $\text{f} \times 8$ above it. An arrow points from the third bar to a circled 'M' with the handwritten note "to M".

(M) m. 202

95

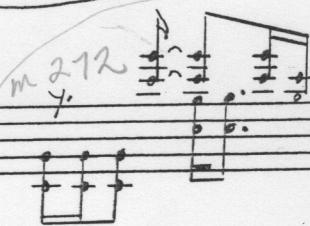
Handwritten musical score for measures 202, 209, 216, 225, 236, and 238. Measure 202 starts with a dynamic of $\text{f} \times 8$ and includes dynamics of pno. , pno. perc. , and 236 . Measure 209 starts with a dynamic of pno. . Measure 216 and 225 start with a dynamic of pno. perc. . Measure 236 starts with a dynamic of pno. . Measure 238 starts with a dynamic of winds . A bracket labeled "variants of this rhythm" points to a rhythmic pattern consisting of vertical strokes. The handwritten note "begin eighth note pattern" is written near the end of the score. The final measure shows a dynamic of B (not $\text{G}^{\#}$) and a dynamic of E .

(N) m. 239

4

m. 246

(O) m. 270



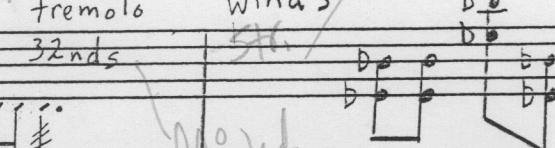
Total 16ths = 28 beats = 40%
 Total 32nds = 8 beats = 11%

tremolo
32nds

winds

m. 297 - last 2 beats

70



(P) m. 298

winds - m. 3198

59

Total 16ths = 27 beats = 45%
 Total 32nds = 8 beats = 13%

piano
pattern continues
of 16ths followed by 32nds, as begun in (O)

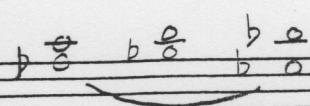
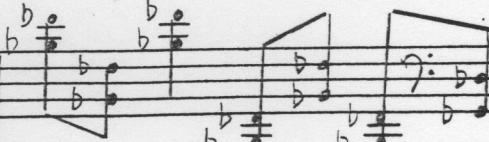
(Q) m. 320

16ths = 25 = 50%

32nds = 8 = 16%

winds
str. - m. 338

50



m. 340

(R)

5.

42

winds, etc.

16ths = 24 beats = 56%
32nds = 8 = 20%

S. m. 356

(m. 350) 372

36

376

16ths = 22 beats = 62%
32nds = 9 = 24%

T. m. 377

a

m. 381

b

30

16ths = 22 beats = 70%
32nds = 8 = 30%

ending:

No of 16ths

No of 16ths

plus

a b

a b

22 - 14

4 - 4

22 - 14

4 - 4

17 - 14

2 - 2

8 - 6

2 - 2

6 - 6

2 - 2

8 - 6

2 - 2

4 - 4

2 - 2

4 - 4

2 - 2

This is an explanation of my Exponential Structure, principles of organization of sound and time which I have used in many of my works. Exponential Structure is clearest in some of my pieces which reach high energy climactic conclusions, such as *Timberline*, *Simoom*, *Manhattan Cascade*, *Red Shift*, *Words Fail Me (2nd movement)*, and *Cirrus* (this last one reaches a high energy conclusion towards the end, then backs down into a lyrical ending). These pieces use Exponential Structure for the entire work or movement. Other compositions, such as *River Beneath the River*, use Exponential Structure for sections of the piece but not for its entirety. Following is a document for people who want to delve just a little into mathematics. I thank David Sulzer PhD, aka Dave Soldier, for helpful comments as I was writing what's below.

2022Aug4

Exponential Structure:
Organizational Principles in some of my Compositions, using *Timberline* as an Example

by Lois V Vierk

In the 1980s I began crafting principles of sound organization using what I call Exponential Structure. The impetus for this came from my interest in sensory perception. I'd been reading about how the body processes sensory stimuli and I had learned that the amount of stimulation that we take in via our senses is measured and described mathematically in exponential terms rather than in arithmetic terms. The one exception is the length of a line: if someone looks at two lines it can easily be judged that one line is, say, about twice as long as the other. The line is perceived as twice as long and it actually is twice as long. However in other situations it is not so simple, as confirmed by many scientific experiments. For example, sensory stimuli (such as loudness of sound, brightness of light, amount of pain, etc.) that are perceived by a human as "twice as much" or "three times as much" or "four times as much" as the reference stimulus, do not have two, three, or four times the amount of energy as the reference. It might rather be some number squared, cubed, to the 4th power, for example, compared with the reference. Explorations of different sensory stimuli have produced a different exponential equation, a different mathematical curve, for each one.

I thought it would be interesting to apply such exponential ideas to time and to rates of development and change of musical material. I did this in various ways in various pieces. The simplest manifestation of Exponential Structure in my music concerns the amount of time in sections of the work as ever-decreasing by a mathematical factor instead of by subtraction. One of my pieces that demonstrates this Exponential Structure is *Timberline*, as discussed below. The result of using such a structural tool in this case is sustained energy over a period of time, with the energy building up gradually to a climactic conclusion as time segments decrease and musical complexity increases. My music, though, does not seek to present an abstract mathematical concept as art. Exponential Structure is one tool of many that I use in the service of composing music.

Timberline was composed in 1991 for the Relâche Ensemble of Philadelphia (flute, clarinet, bassoon, viola, contrabass, piano/synth, percussion). I began work in my usual way, working with players in order to understand as much as I could of the possible instrumental sounds and playing techniques. I made many pages of sketches of musical materials. Based on sketched materials, I determined that the piece would consist of two parts. In the first part, the materials and methods of developing materials would be gentle and lyrical. It would be close to 6 minutes. The second part would be longer, close to 11 minutes, and would be persistent and unrelenting in the way it would unfold. It would gradually develop from simple phrases to a more complex high energy climax. These decisions informed the equations that I then developed.

Timberline uses two different exponential equations to define the two parts of the piece - beginning through Letter J, and then Letter K to the end. The anticipated tempo for the first part

was quarter note = 50 (though later this was changed to quarter note = 60, because the faster tempo worked better with the sounds and phrases). The first part of the piece was imagined to be a little under 6 minutes, actually 353 seconds, or 294 beats at the anticipated tempo. The number of sections in the first part of the piece was defined to be 11, based on my musical materials.

The equation for first section - beginning through Letter J - is below. The mathematical constant for producing the values by which to multiply the number of beats in the previous segment was set at .97, a number which for these purposes can be considered somewhat close to "1". (Setting the constant to "1" itself would produce no change in time of the segments. A number close to "1" would yield a small change.) Solving for "x" in the equation below gives the value 31, the number of beats in the opening section. The time in the rest of the sections, which sections are denoted by Letters and defined by changes of pitch center, are gently decreasing until the end of the first part of the piece.

$$\begin{aligned} x + .97x + .97^2x + .97^3x + .97^4x + .97^5x + .97^6x + .97^7x + .97^8x + .97^9x + .97^{10}x &= 294 \\ x + .97x + .94x + .91x + .89x + .86x + .83x + .80x + .78x + .76x + .73x &= 294 \\ x \approx 31 \end{aligned}$$

So the sequence of numbers for beats in each section is approximately:

$$31, 30, 29, 28, 27, 27, 26, 25, 24, 24, 23$$

As noted before, the actual tempo was set later to quarter note = 60, but the above equation was basically followed. The length of the first part of the piece at this tempo is about 5 minutes.

The second part of the piece was desired to be close to 11 minutes long. Based on the musical materials, the tempo was set at quarter note = 66. The second part was defined to be 708 beats. The number of sections was defined to be 10. A much smaller multiplier was chosen for this second equation (.85 as opposed to .97) with the result being that the ongoing decrease of the time in the sections (again denoted by Letters and defined by pitch center) is more drastic. The musical changes are propelled at a faster rate as the piece rushes to its conclusion. Again, the numbers serve the music, not vice versa. For example, the equation's numbers are followed fairly closely until letter R, when the piece is nearing its arrival point, at Letter T. From letter R to the end the timing of sections is intuitive.

The equation for the second section, Letter K to Letter T, is below.

$$\begin{aligned} x + .85x + .85^2x + .85^3x + .85^4x + .85^5x + .85^6x + .85^7x + .85^8x + .85^9x &= 708 \\ x + .85x + .72x + .61x + .52x + .44x + .38x + .32x + .27x + .23x &= 708 \\ 5.34x &= 708 \\ x \approx 132 \end{aligned}$$

So the sequence of numbers for beats in each section is approximately:

$$132, 112, 95, 81, 70, 59, 50, 42, 36, 31$$

The above equation was basically followed for much of the second part of the piece, with notable exceptions as explained on the next and last page.

<u>equation number of beats</u>	<u>actual number</u>	<u>comments</u>
beginning - 31 beats	33	
Letter A - 30 beats	30	From the beginning through Letter J, differences in timing are mainly due to carrying out lengths of phrases.
Letter B - 29	29	
Letter C - 28	28	
Letter D - 27	27	
Letter E - 27	28	
Letter F - 26	24	
Letter G - 25	25	
Letter H - 24	22.5	
Letter I - 24	21	
Letter J - 23	18	

(So far this is a very gentle decrease in beats from section to section, perhaps not even picked up as ever-decreasing time segments by the human ear/brain. This is in contrast to the second and final part, with time segments decreasing at a faster pace.)

Letter K - 132	159	Musically, Letter K, beginning of 2nd part of the piece, needed to be longer than in equation.
Letter L - 112	114	
Letter M - 95	99	
Letter N - 81	79	
Letter O - 70	70	
Letter P - 59	60	
Letter Q - 50	47	
Letter R - 42	28	The musical arrival, climax of the piece, is reached at Letter T. In preparation, the timings of sections Letter R and Letter S are intuitive and not controlled by the equation. Note that the equation itself ends with Letter T. More time was added at the end in order to carry out the development of musical materials and the piece as a whole.
Letter S - 36	40.5	
Letter T - 31	18	
Letter U - not in equation	29	
Letter V - not in equation	22.5	

Score is available from Frog Peak Music

<http://frogpeak.org/>

For performance questions please contact the composer

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