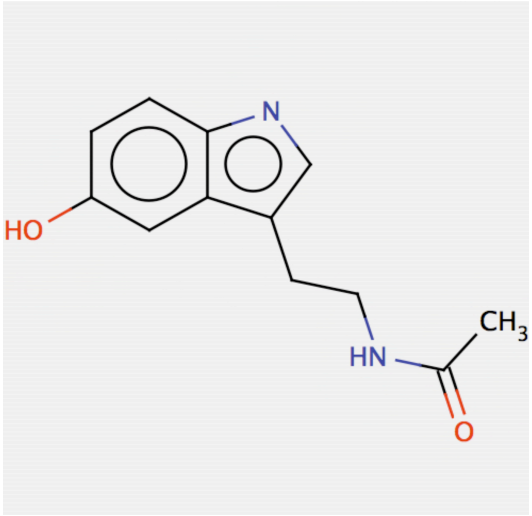


Image courtesy of DrugBank [www.drugbank.ca]

$C_{12}H_{14}N_2O_2$ *(Serotonin)*

(2008)

for piccolo and computer

William Kleinsasser

Duration 8.5 minutes

Composed for Elizabeth McNutt

$C_{12}H_{14}N_2O_2$ (Serotonin) (2008)

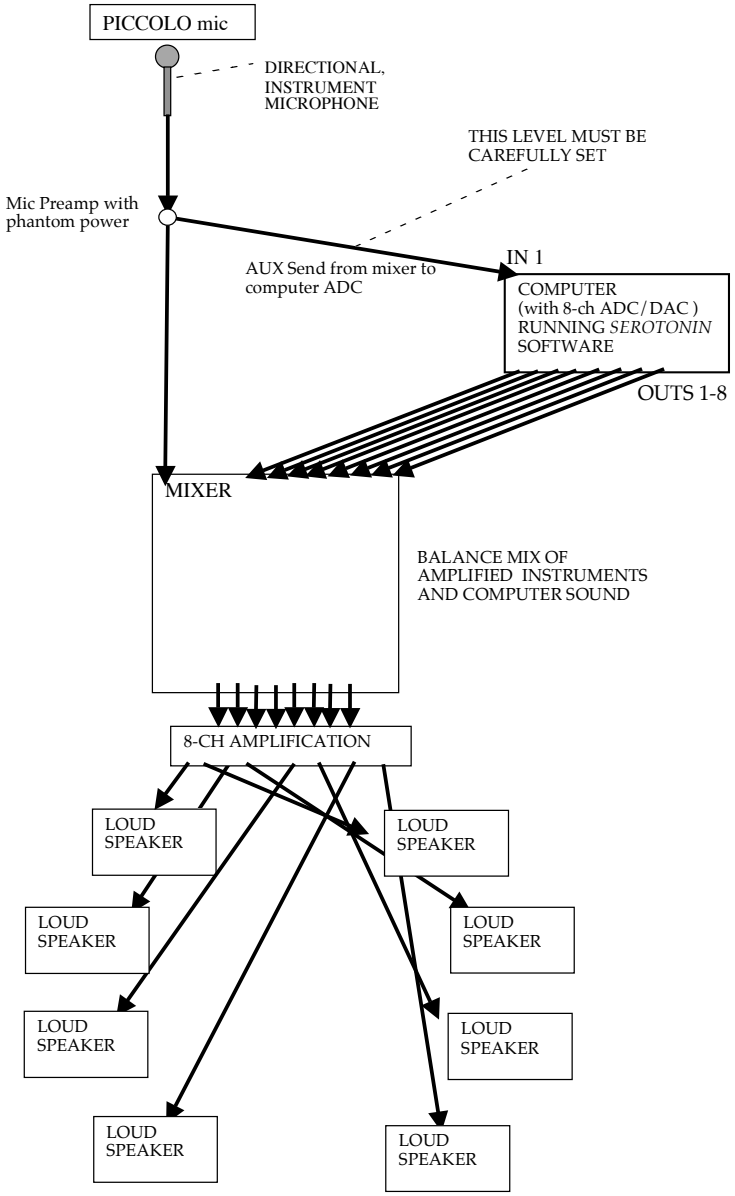
for piccolo and computer

$C_{12}H_{14}N_2O_2$ (Serotonin) for piccolo and computer is the second of a set of works that engage the influence of humanly-produced chemical compounds on extraordinary experience. Influenced by Paul Klee's notion of 'taking a line for a walk', the piece is essentially melodic, presenting a linear discourse which divides into four parts, each developing and expanding on the section that precedes it. The computer music in *Serotonin,* (developed Max/MSP), results from real-time processing of the live piccolo performance. The computer music adds a dimensional perspective on the piccolo line projecting an expanded presentation of the line's immediate past as an afterglow memory of the piccolo discourse. Combined, the two parts offer fleeting line and residual memory.

As with many uses of Max/MSP, this piece uses standard-issue Max/MSP objects and also owes much to other developers including Richard Dudas' for the Newverb~ object, and Miller Puckette, Ted Apel and David Zicarelli for the fiddle~ object used for pitch and amplitude tracking. The granular synthesis approach used in the piece was developed from the granular sampling example offered in the Max/MSP distribution by Les Stuck and xoaz. FFT-based spectral filtering is done with a modification of the Forbidden Planet example patch by Zack Settel, Cort Lippe and Zoax. Thanks are also owed to Erik Oña, Cort Lippe, and Miller Puckette who offered the model for the cross-bar mixing method using menu-driven routing and the matrix~ object that is the basis of the structure of the processor and thanks to Chris Dobrian for the windowed buffer recording methods used in the piece.

$C_{12}H_{14}N_2O_2$ (Serotonin) was commissioned by Elizabeth McNutt.

SYSTEM CONFIGURATION FOR $C_{12}H_{14}N_2O_2$ *(Serotonin)*



NOTES AND NEEDED EQUIPMENT

- 1 instrument mic with cable from stage into preamp or mixer
  Piccolo is slightly amplified to mix and balance with computer outputs through mixer and piccolo signal is processed live in computer

- 1 Mixer with at least 9 inputs: 1 mic preamp input with phantom power and 8 computer line inputs all inputs bussing to speaker outputs. 2- and 4-channel versions are available if 8-channel output cannot be supported

- 1 Pre-Fader Aux send from mixer to computer into ADC interface for computer processing of piccolo

- Computer outputs (8 channels) from 1/4" TRS jacks computer DAC interface to 8 mixer channels with fader control routed to 8-channel concert hall system loudspeakers. 2- and 4-channel distribution is also supported

* A small table for computer, ADC/DAC interface, music, and a small light to read score during performance for the computer operator/mixer

* Four power outlets for equipment near mixer

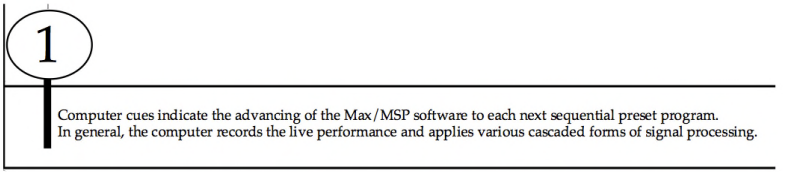
* A computer operator mixes the piece in performance and controls the progress through the computer cues so that person will need to be able to reach the mixer faders and computer at the same time

Notation Details

Accidentals are given for each note regardless of octave with the exception of repeated notes and naturals and are cancelled by bar lines.

Grace-notes should be played immediately prior to the metrical timing of the note that they ornament.

Following a fermata, the tempo should immediately revert to the last indicated unless a new tempo is indicated.



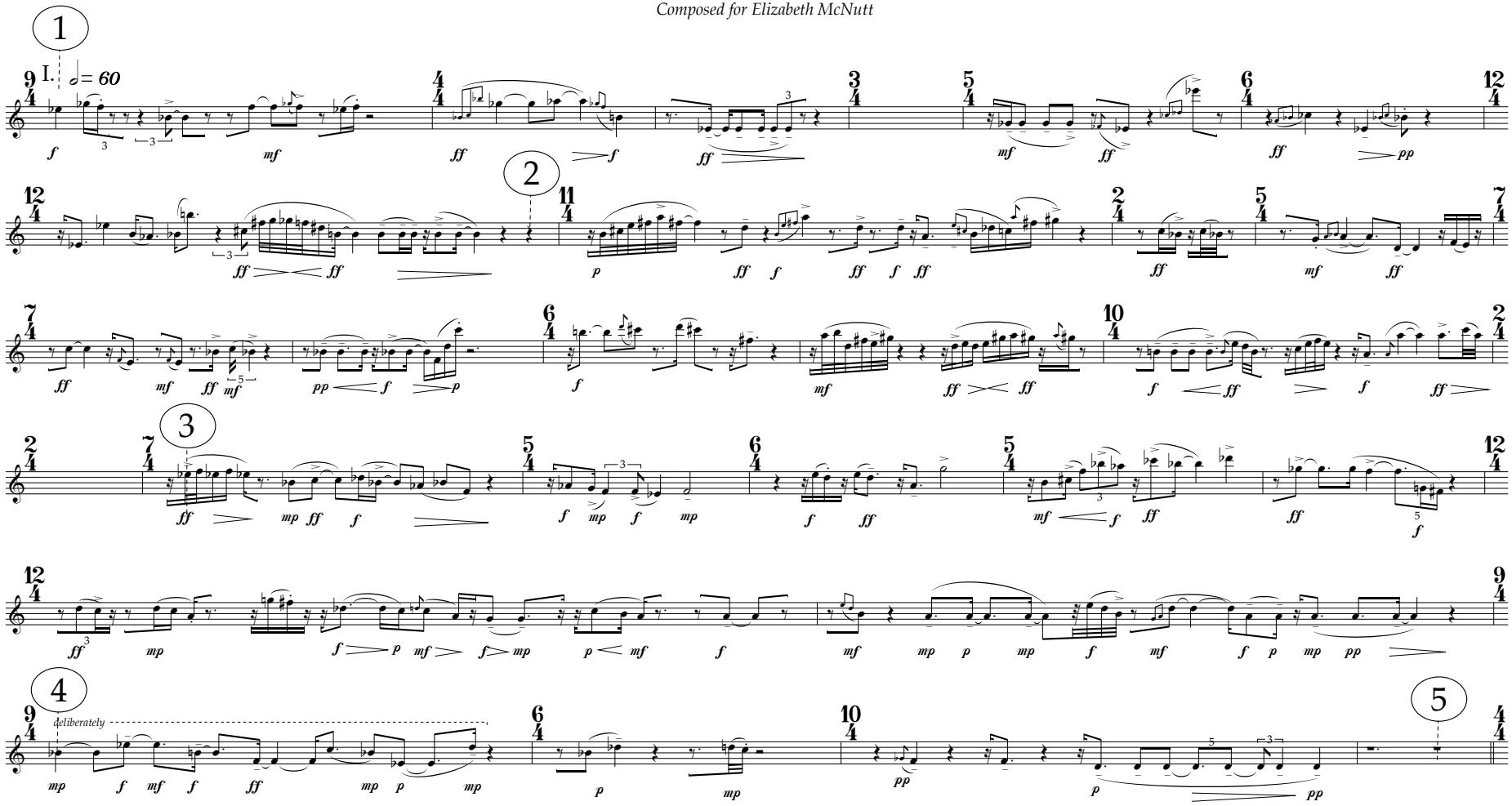
$C_{12}H_{14}N_2O_2$ *(Serotonin)*

for piccolo and computer

Composed for Elizabeth McNutt

William Kleinsasser
(2008)

Notation is one octave
lower than sounding pitch



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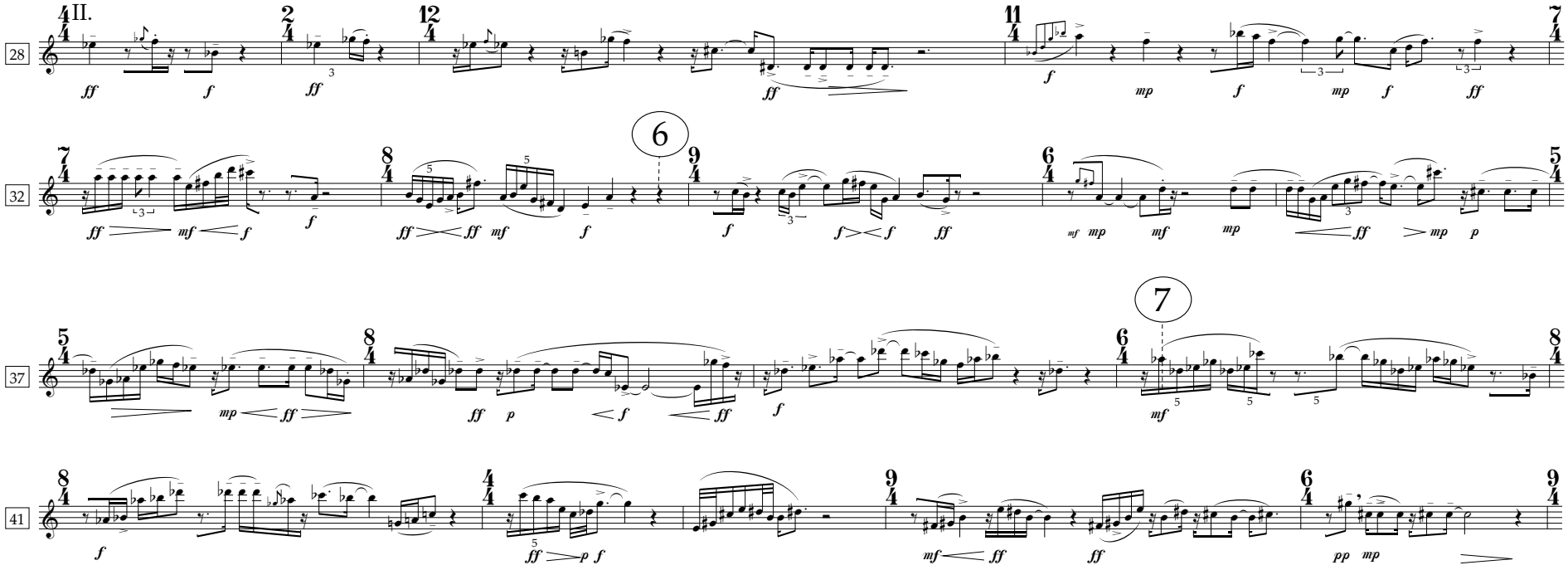
II.
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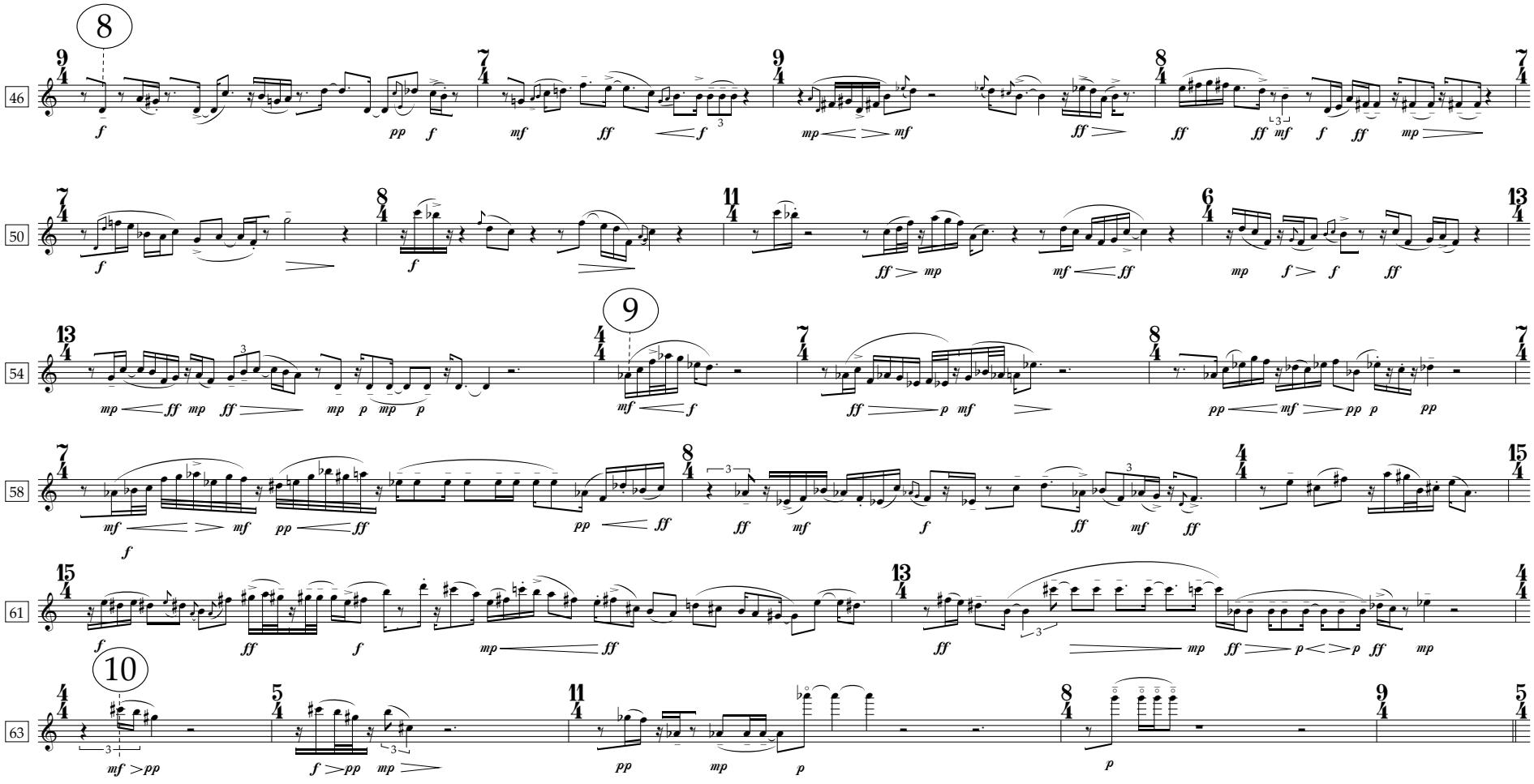
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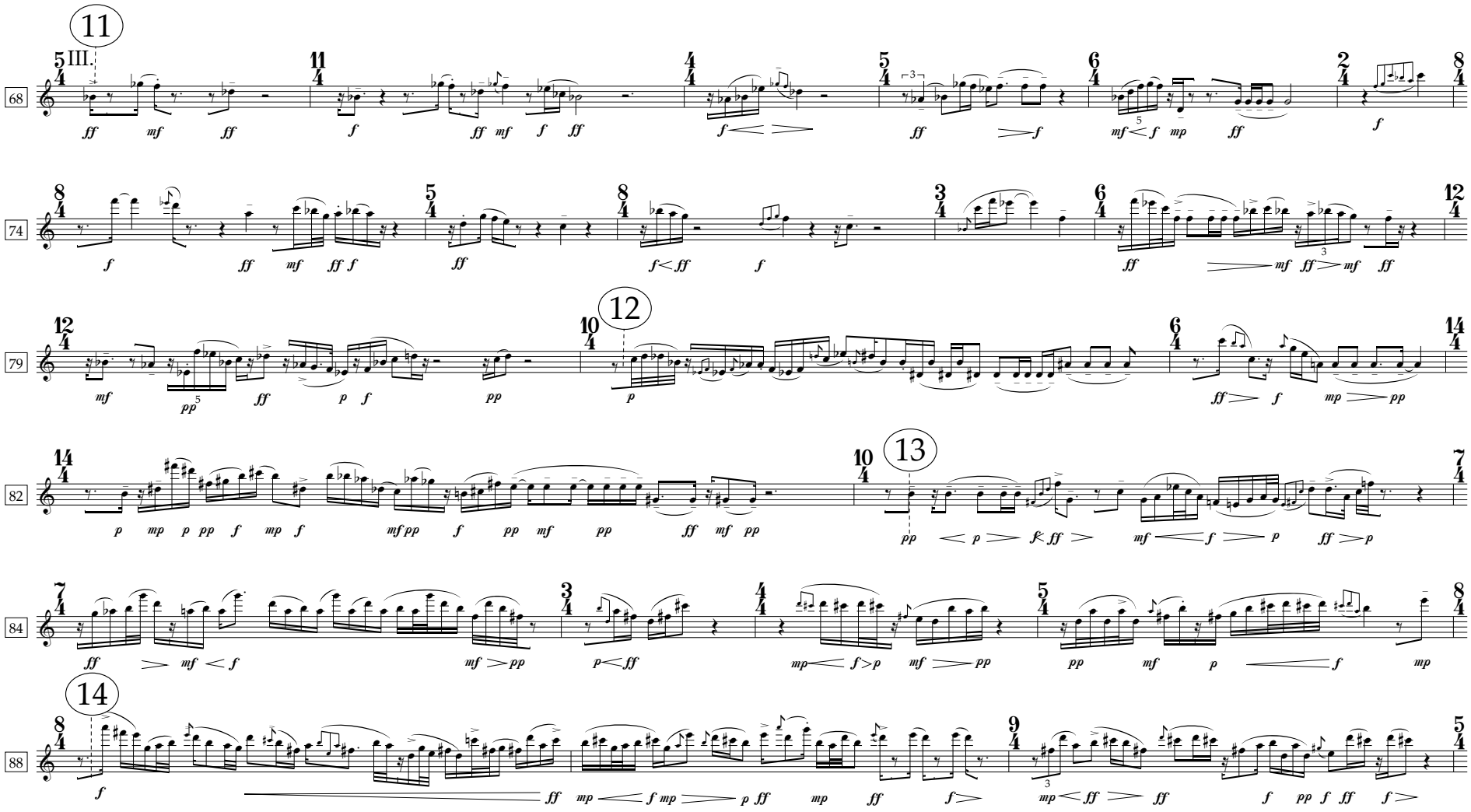
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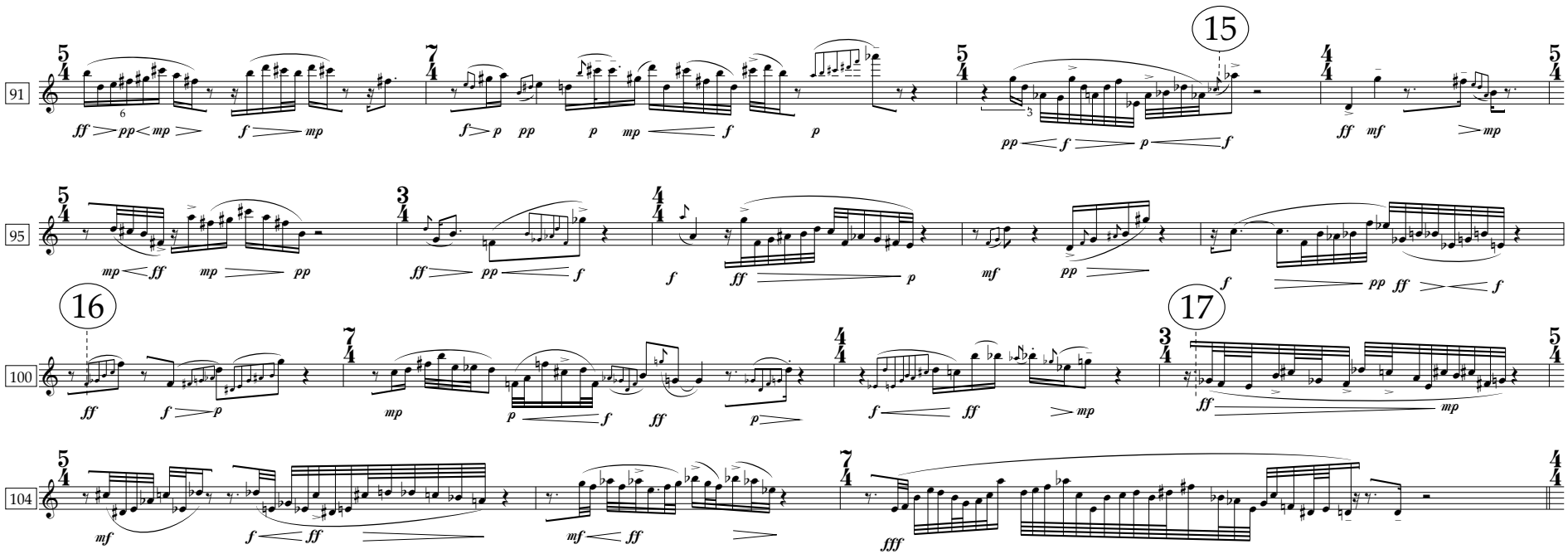
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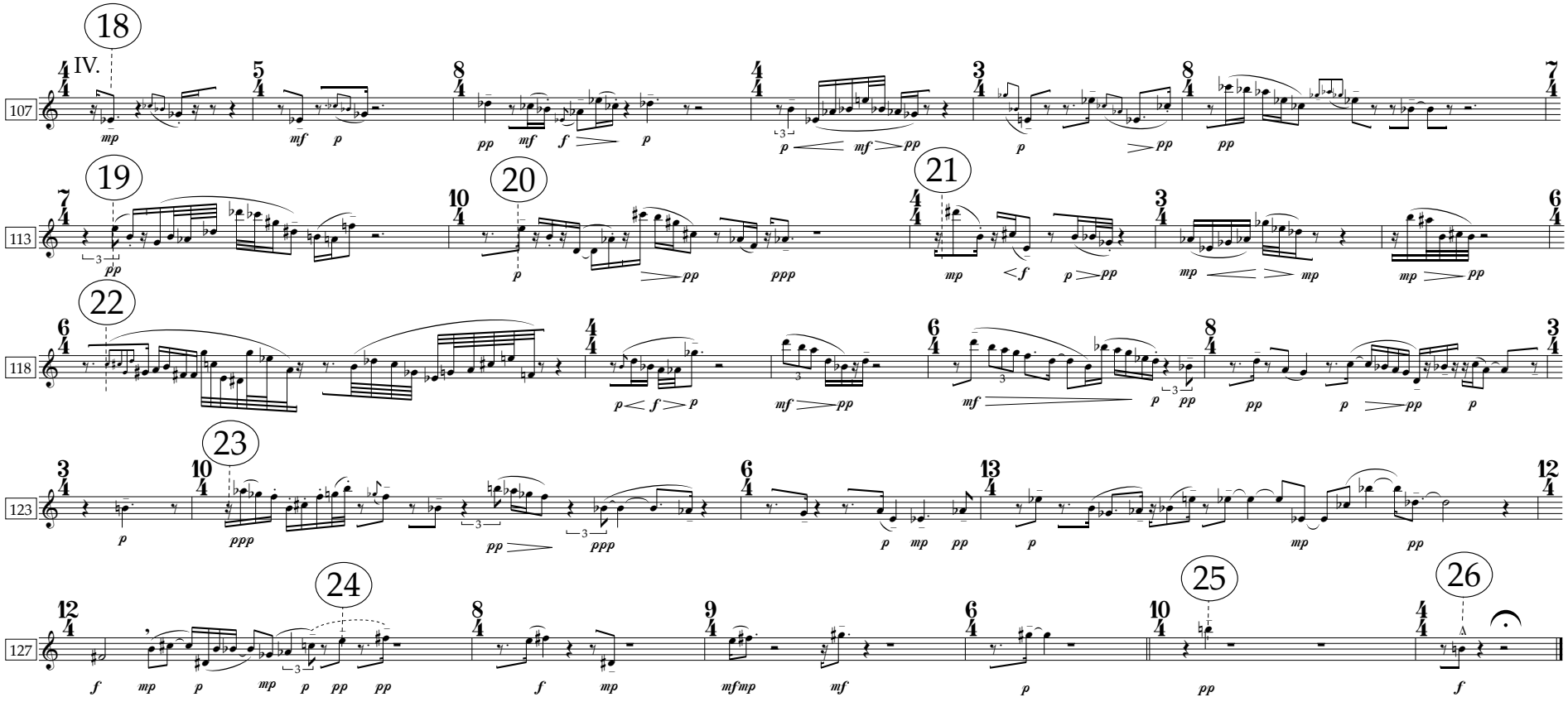
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IV.
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