New Aunts

(Tuning Study No. 9)

for retuned keyboard sampler

by
Kyle Gann
2008

New Aunts is a work for retuned keyboard sampler. The score is given here in two versions: first with actual pitches in Ben Johnston's just-intonation notation, and then as a performance score indicating merely what keys are to be played. The timbre can be any sound with a slow, gradual decay, such as a piano, electric piano, vibraphone, or so on.

The requisite tuning is given on the next page. In Johnston's notation, F-A-C, C-E-G, and G-B-D are assumed to be pure triads at ratios of 4:5:6. A sharp (#) multiplies a pitch by 25/24, a flat (b) by 24/25 (70 cents one direction or the other). A plus (+) multiplies by 81/80 and raises by 20.5 cents, a minus (-) multiplies by 80/81 and lowers by 20.5 cents. A seven (7) multiplies by 35/36 and lowers by 49 cents, an upside-down seven (*L*) multiplies by 36/35 and raises by 49 cents. An upward arrow (^) multiplies by 33/32 and raises by 53 cents

The title *New Aunts* appealed to me because the relation among "new aunts" (British/New England pronunciation), "new ants" (Midwestern pronunciation), and "naunce" is analogous to the slight melodic changes the piece is based around. I googled "nuance," and the most common noncommercial uses had to do with the need for more nuance in our political discourse, so perhaps listening to this piece will encourage that. Or perhaps not. There are 27 pitches to the octave here, in an 11-limit just-intonation system, though the entire melody takes place within barely more than a perfect fifth.

Duration: 5 minutes

Keyboard Tuning:

Key:	Pitch:	Ratio*:	Tuning (relative to normal 12tet):
A#1	F7	14/9	F2 - 35.1 cents
B1	E*L*	45/28	F2 + 21.4 cents
C2	F	8/5	F2 + 13.7 cents
C#2	F#	5/3	F#2 - 15.6 cents
D2	F#+	27/16	F#2 + 5.9 cents
D#2	G7	7/4	G2 - 31.2 cents
E2	G#	15/8	G#2 - 11.7 cents
F2	C7	7/3	C3 - 33.1 cents
F#2	C	12/5	C + 15.6 cents
G2	C#	5/2	C#3 - 13.7 cents
G#2	C#*L*	18/7	C#3 + 35.1 cents
A2	D7-	140/27	C#3 + 49.3 cents
A#2	D#	45/16	D#3 - 9.8 cents
B2	E	3/1	E3 + 2 cents
C3	G#L	27/7	G#3 + 37 cents
C#3	A7	35/9	A3 - 48.8 cents
D3	A7+	63/16	A3 - 27.3 cents
D#3	A	4/1	A3 + 0 cents
E3	A^	33/8	A#3 - 46.7 cents
F3	Bb^-	22/5	B3 - 35 cents
F#3	B-	40/9	B3 - 17.6 cents
G3	B	9/2	B3 + 3.9 cents
G#3	C7	14/3	C4 - 33.1 cents
A3	C	24/5	C4 + 15.6 cents
A#3	C#	5/1	C#4 - 13.7 cents
B3	C#+	81/16	C#4 + 7.8 cents
C4	C#*L*	36/7	C#4 + 35.1 cents
C#4	D7-	140/27	C#4 + 49.3 cents
D4	D-	16/3	D4 - 2 cents
D#4	D^-	11/2	D#4 - 48.7 cents
E4	D#	45/8	D#4 - 9.8 cents
F4	D#*L*	81/14	D#4 + 39 cents
F#4	E7	35/6	E4 - 46.8 cents

*Ratios are given with respect to A 110 hz = 1/1

to Dragana Stojanovic-Novicic

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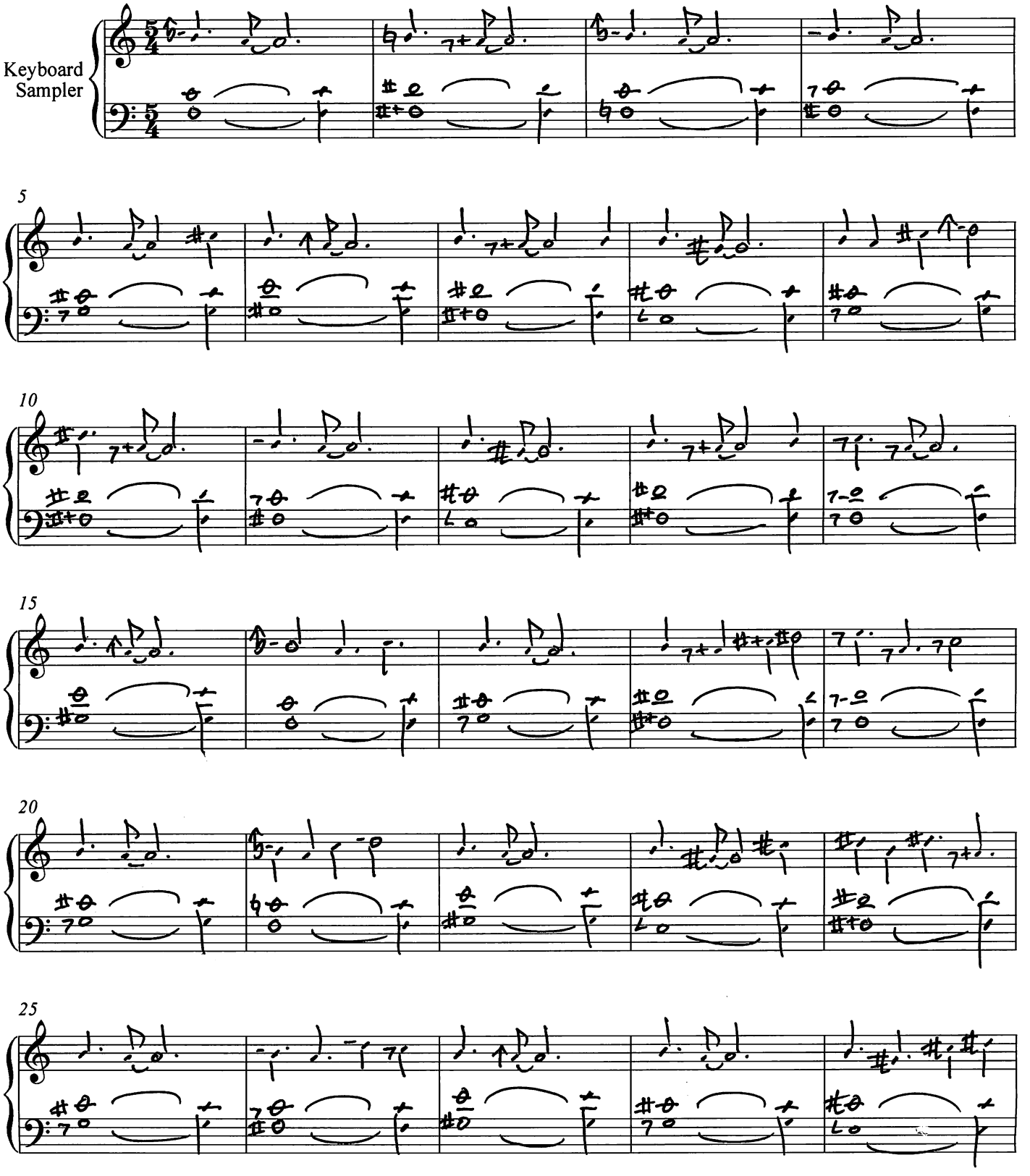
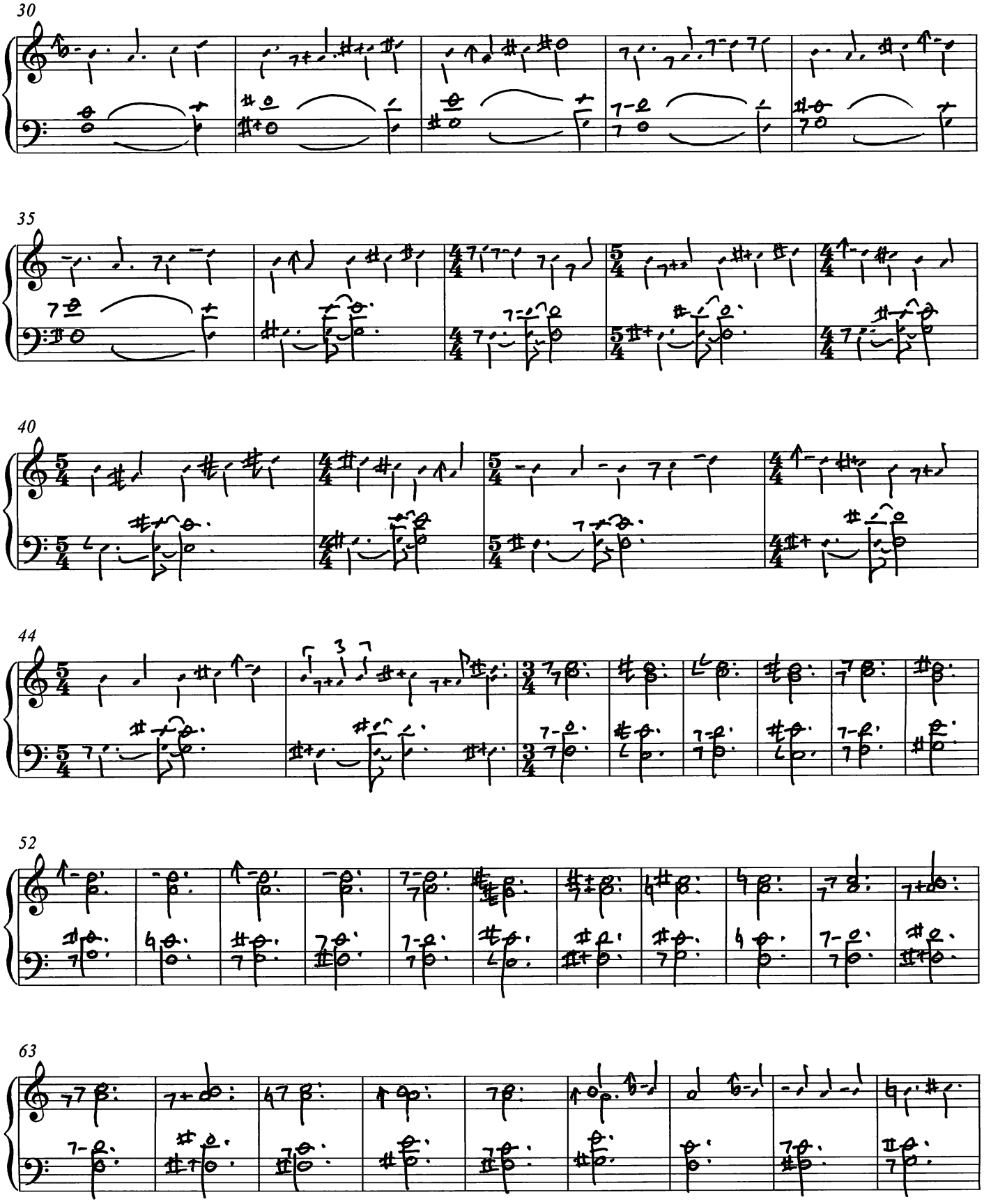
♩ = 88, with rhythmic freedom

Keyboard Sampler

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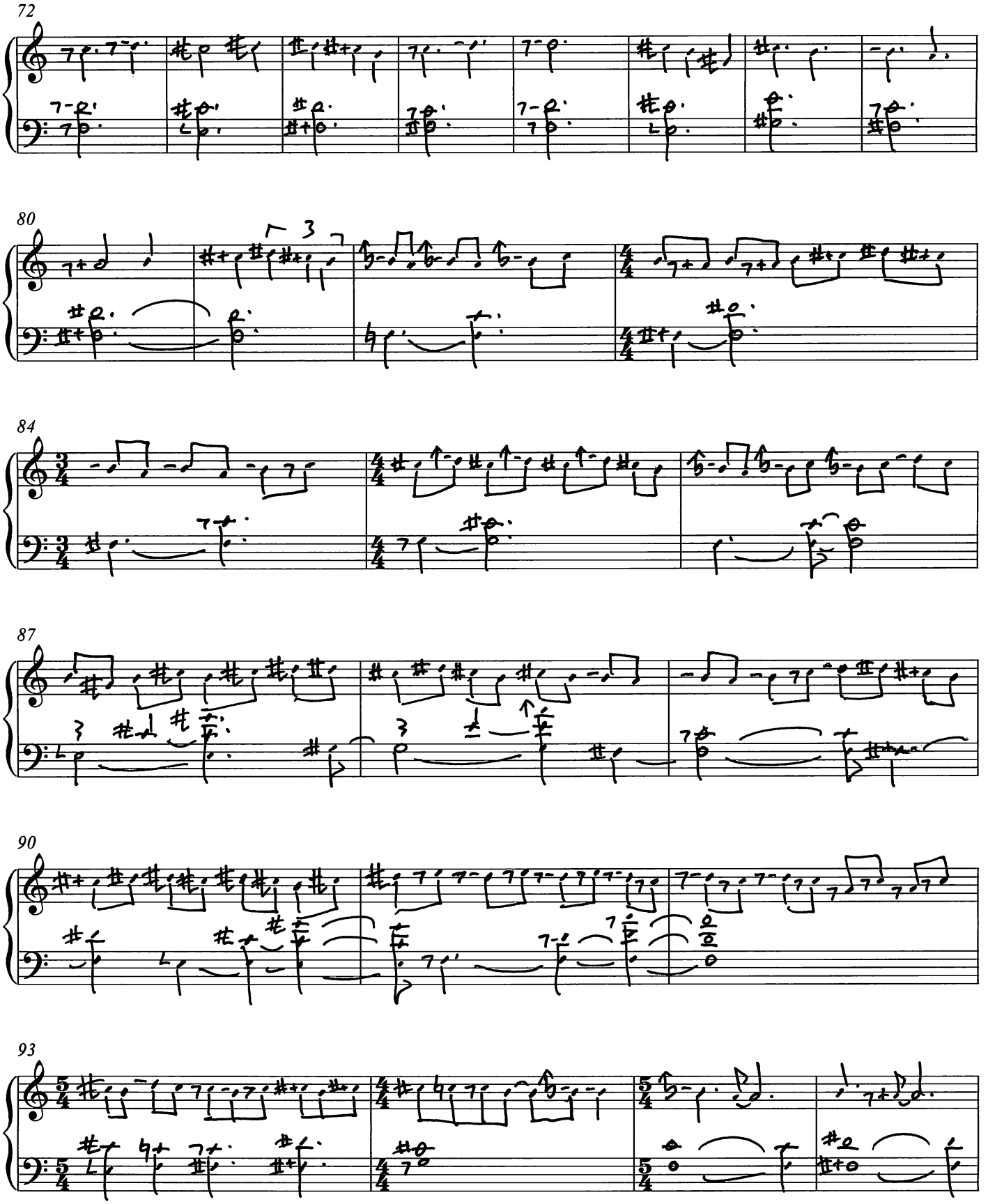
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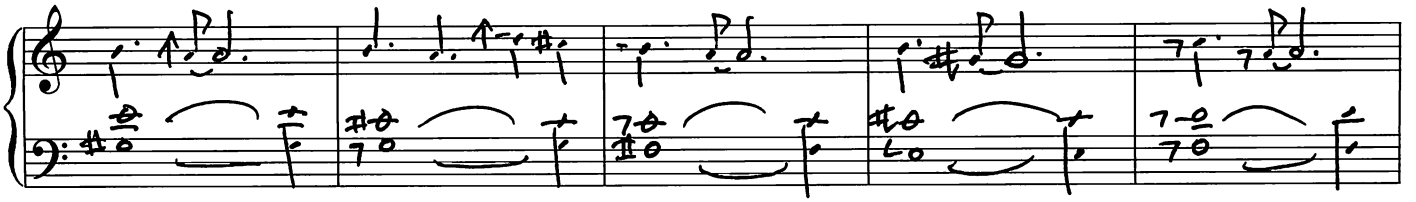

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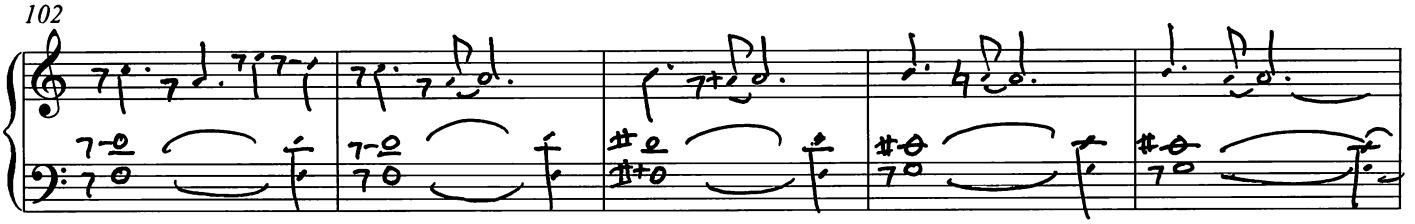

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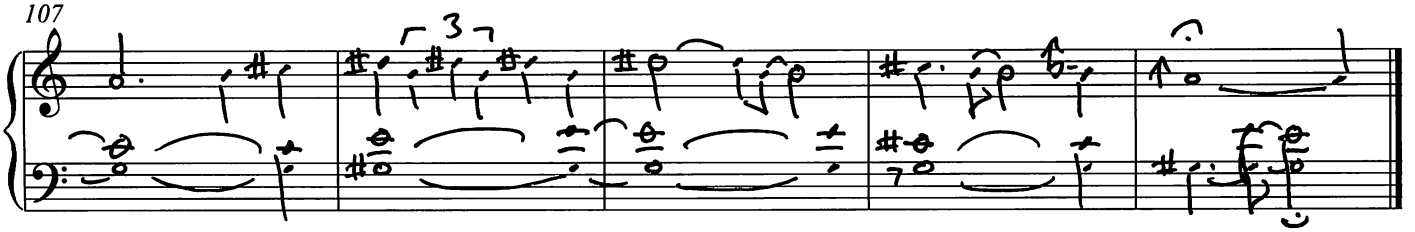

August 9-10, 2008
Germantown, NY

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PERFORMANCE SCORE

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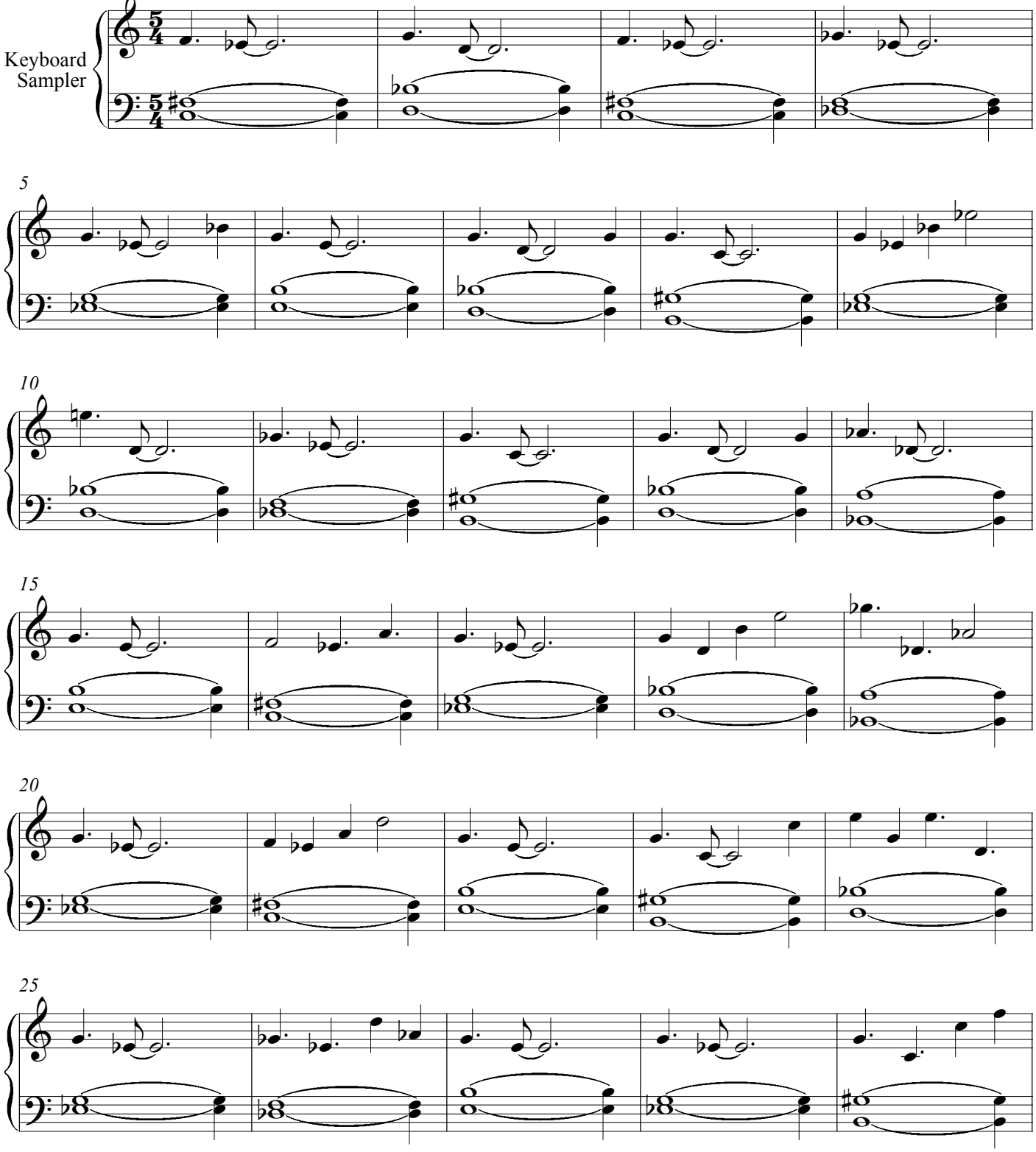

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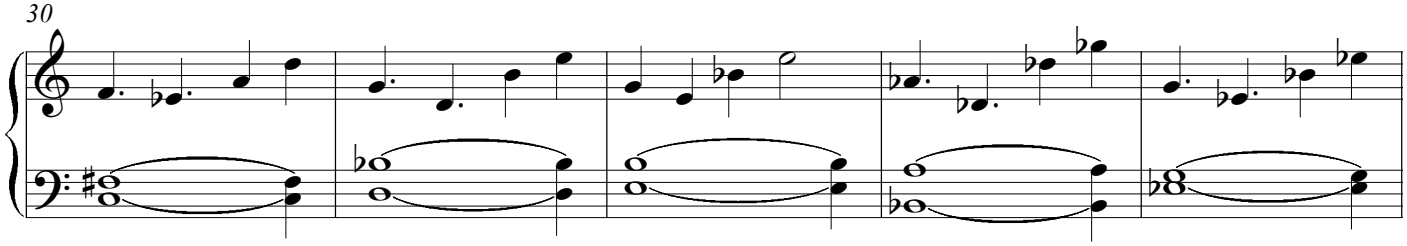

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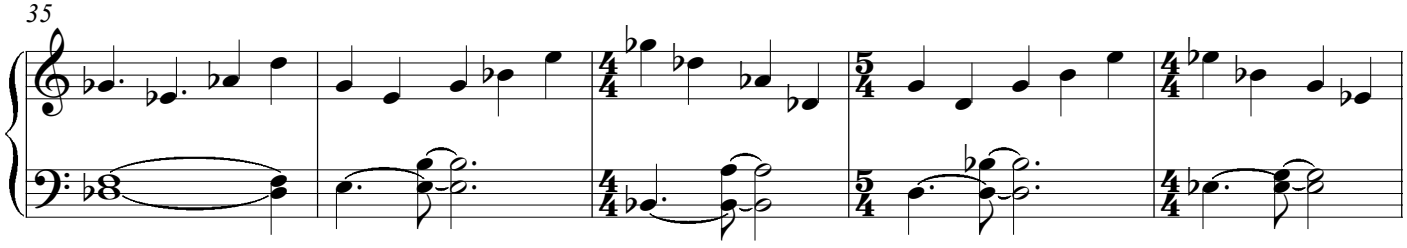

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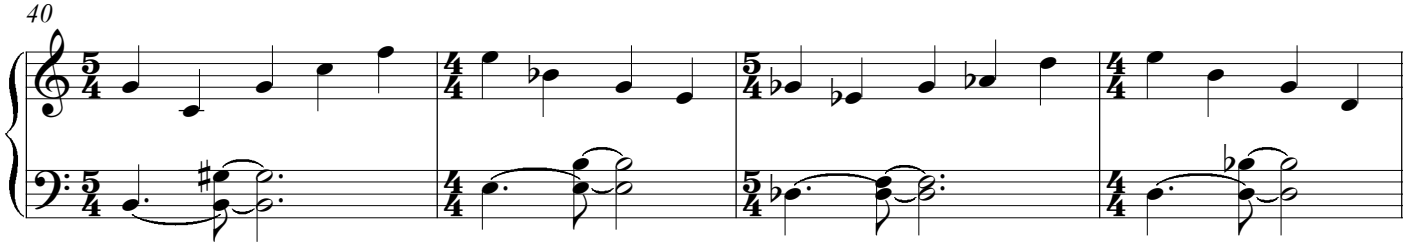

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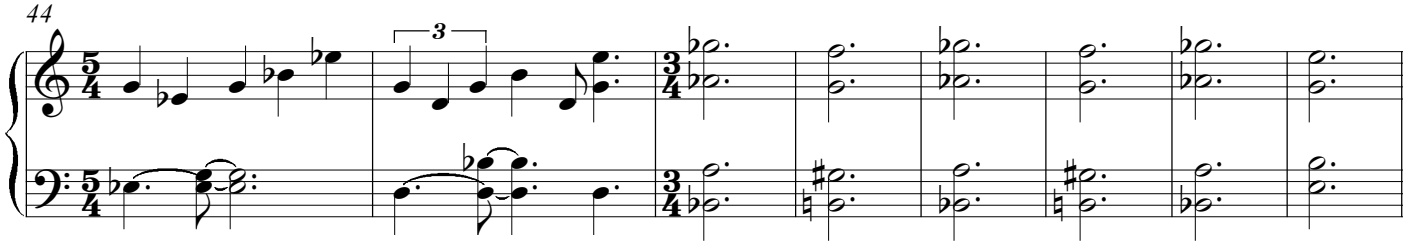

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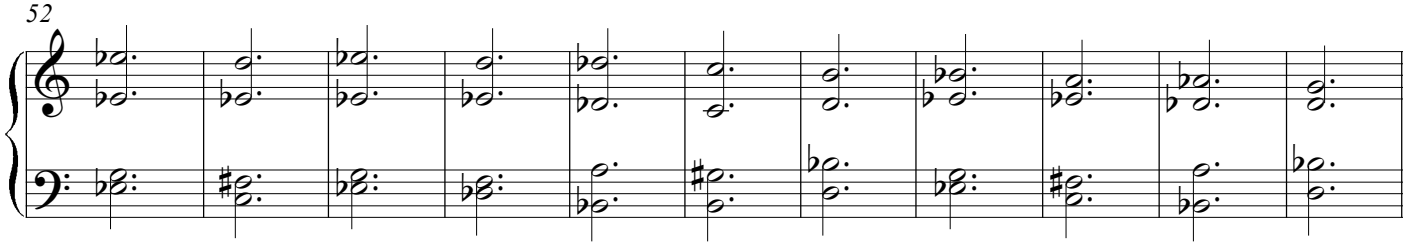

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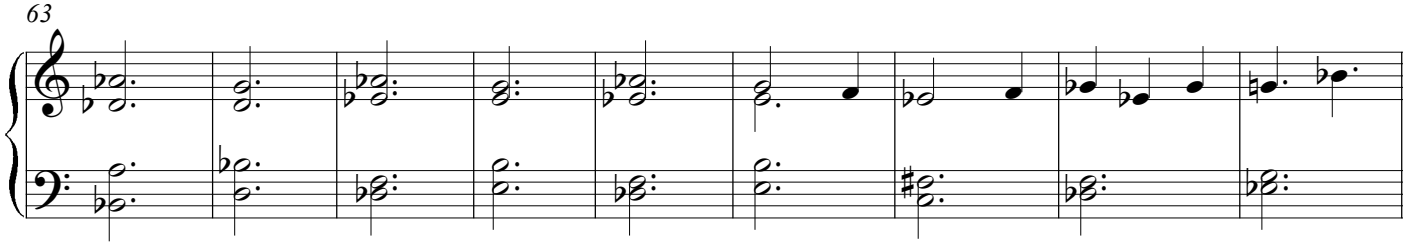

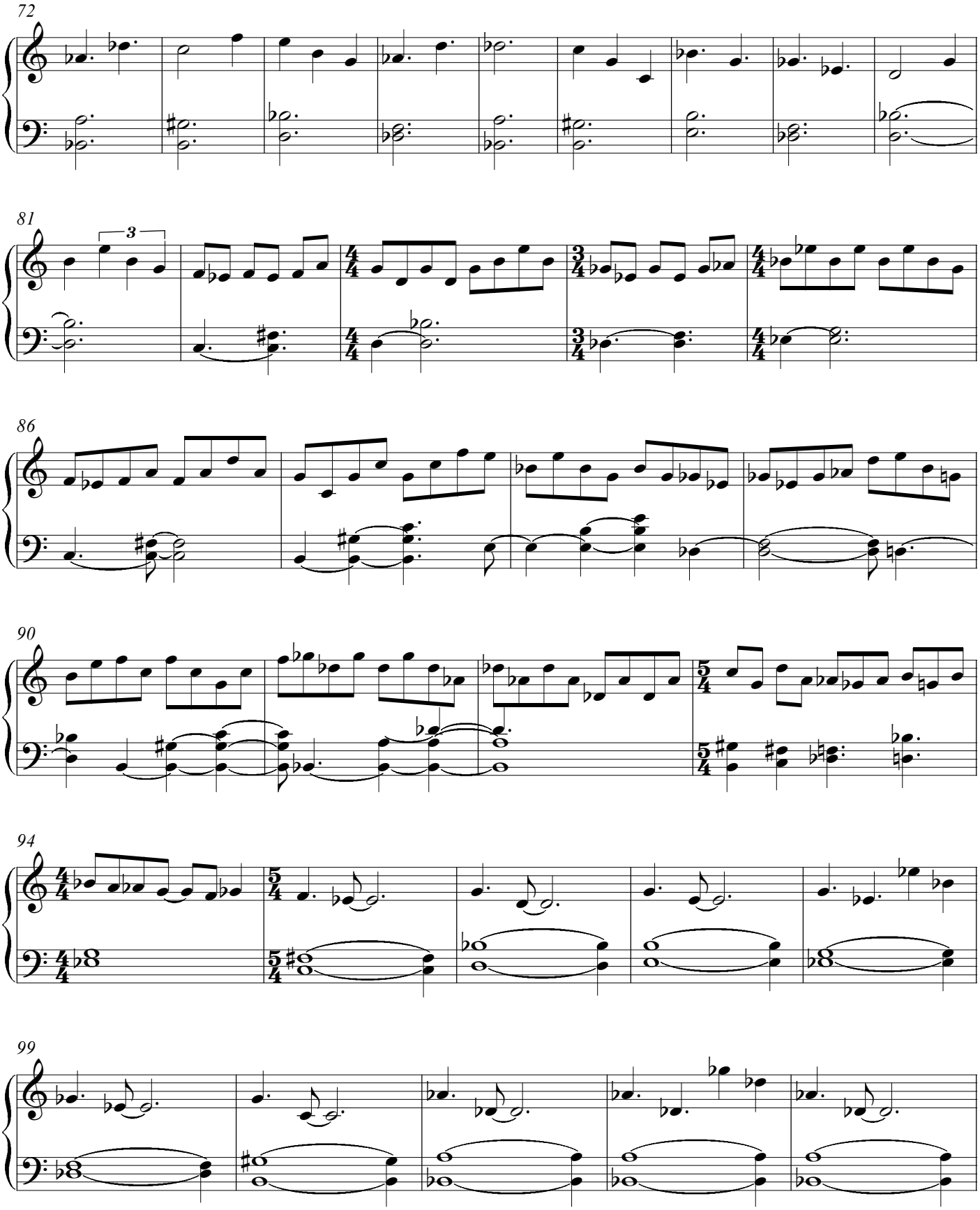
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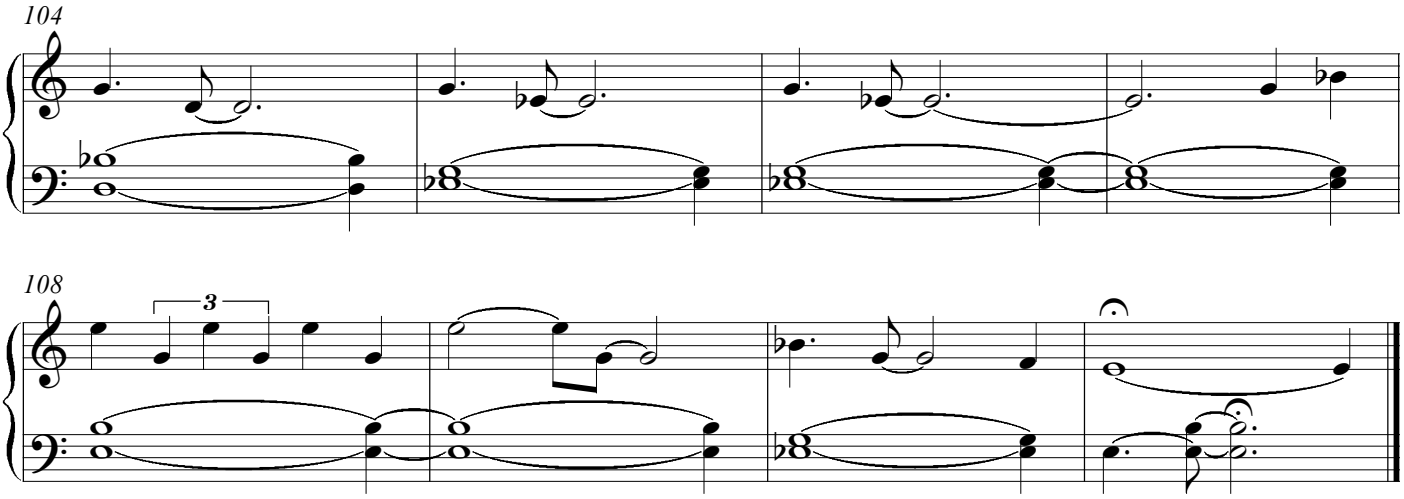

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