Mark Micchelli

Études

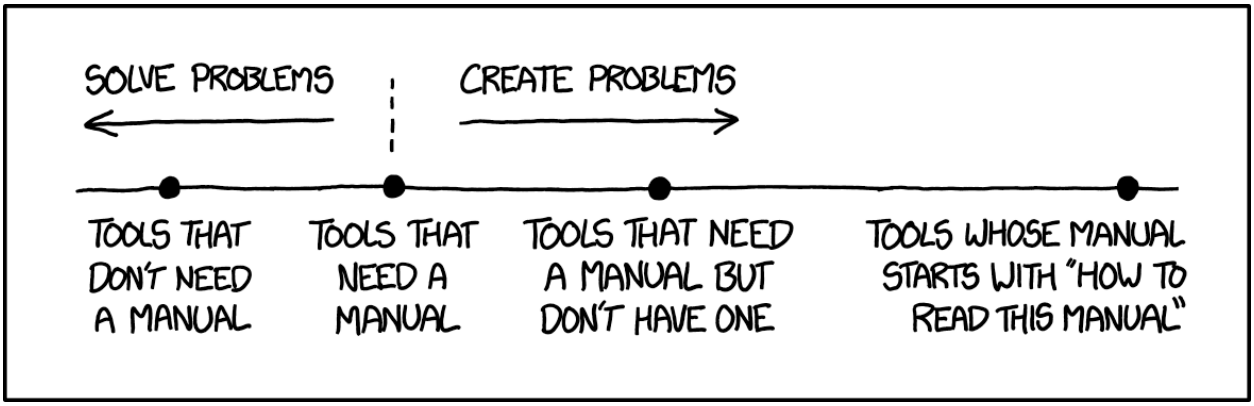
(Book 1)

for solo piano

(2019–2021)

Contents

How to Use This Book



Randall Munroe - https://xkcd.com/1343/
(licensed under CC BY-NC 2.5)

Études can be a mixed bag. Some, like Czerny's, are truly just exercises for beginners, and they bored me almost to the point of quitting piano when I was a child. Others, like Chopin's or Debussy's, are only exercises in the sense that they're wickedly difficult to play, and they represent undisputed masterworks of the solo piano repertoire.

These études are in-between. Some—like **Étude No. 2** or **Étude No. 8**—probably aren't masterworks or anything, but they're much more at home on a concert stage than a practice room. By contrast, **Étude No. 1**, **Étude No. 6**, and to a lesser extent, **Étude No. 3**—are exercises for practice rooms, and practice rooms alone. **Étude No. 4**, **Étude No. 5**, and **Étude No. 7** require various degrees of improvisation, and fall somewhere between practice room and concert stage depending on the performer's confidence and amount of preplanning.

Each étude features a preamble that describes what skill(s) it's meant to highlight, as well as other ways the étude may potentially be approached. Generally speaking, these études highlight three musical themes: 1) non-octavian scales based on fourths and fifths, 2) (02)-based cluster patterns, and 3) algorithmic approaches to polypulses. **Warmup No. 1** and **Warmup No. 2** are included before the études proper and address the first two of these themes directly; the algorithmic approaches to polypulses are addressed in **Étude No. 1** and **Étude No. 6**.

So how to use this book? It's a weird one: part practice manual, part concert piece collection, part music theory text (replete with citations). I guess, contra the cartoon above, just use this book however you'd like. Play it start-to-finish or jump around, read the lengthy étude preambles or discard them entirely, perform the études as written or rewrite them to suit your personal aesthetic. I hope they tickle your brain, challenge your fingers, and provide you with moments of inspiration and joy.

– Mark Micchelli, August 2022

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Warmup No. 1

Non-Octavian Scales

***

"Non-octavian scales" are scales that do not repeat at the octave. A more general term for this phenomenon is "interval cycle", which denotes any series of notes that follows a repeating interval pattern. A common example of an interval cycle is the octatonic scale, which follows a repeating interval pattern of H-W. An octatonic scale is *not* a non-octavian scale, however, since it repeats at the octave (as well as, for that matter, at the m3, d5, M6, m10, etc.).

"Octavian scales" are finite in number, whereas there are infinite non-octavian scales.* This warmup focuses on a handful of non-octavian scales that repeat at the P5 and P4. The two most basic of these are the "Dasian scale" and "Guidonian scale". The terms "Dasian" and "Guidonian" originate in medieval music theory, but have been also employed in the contemporary music theory literature by José Oliveria Martins.† The Dasian scale follows a pattern of W-W-W-H (the lydian pentachord) and repeats at the fifth, while the Guidonian scale follows a pattern of W-W-H (the major tetrachord) and repeats at the fourth. I have also included a handful of other scales that repeat at the fifth and fourth, which are slight modifications of the Dasian and Guidonian. I have given these the names "Dasian Blues," "Dasian Diminished," "Dasian Pentatonic," and "Guidonian Pentatonic" after the more traditional octavian scales they resemble.‡

All of the following scales are notated in C, and span a total of six fifths (for Dasian-based scales) or six fourths (for Guidonian-based ones). I normally take this six fifth/fourth pattern and transpose to all twelve keys—with the understanding that this method of transposition actually repeats significant portions of each scale.§

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* As proof: you can construct a non-octavian scale at any arbitrary interval ≥ m9 by starting with a whole step, then adding consecutive half steps until you get to your desired bounding interval.

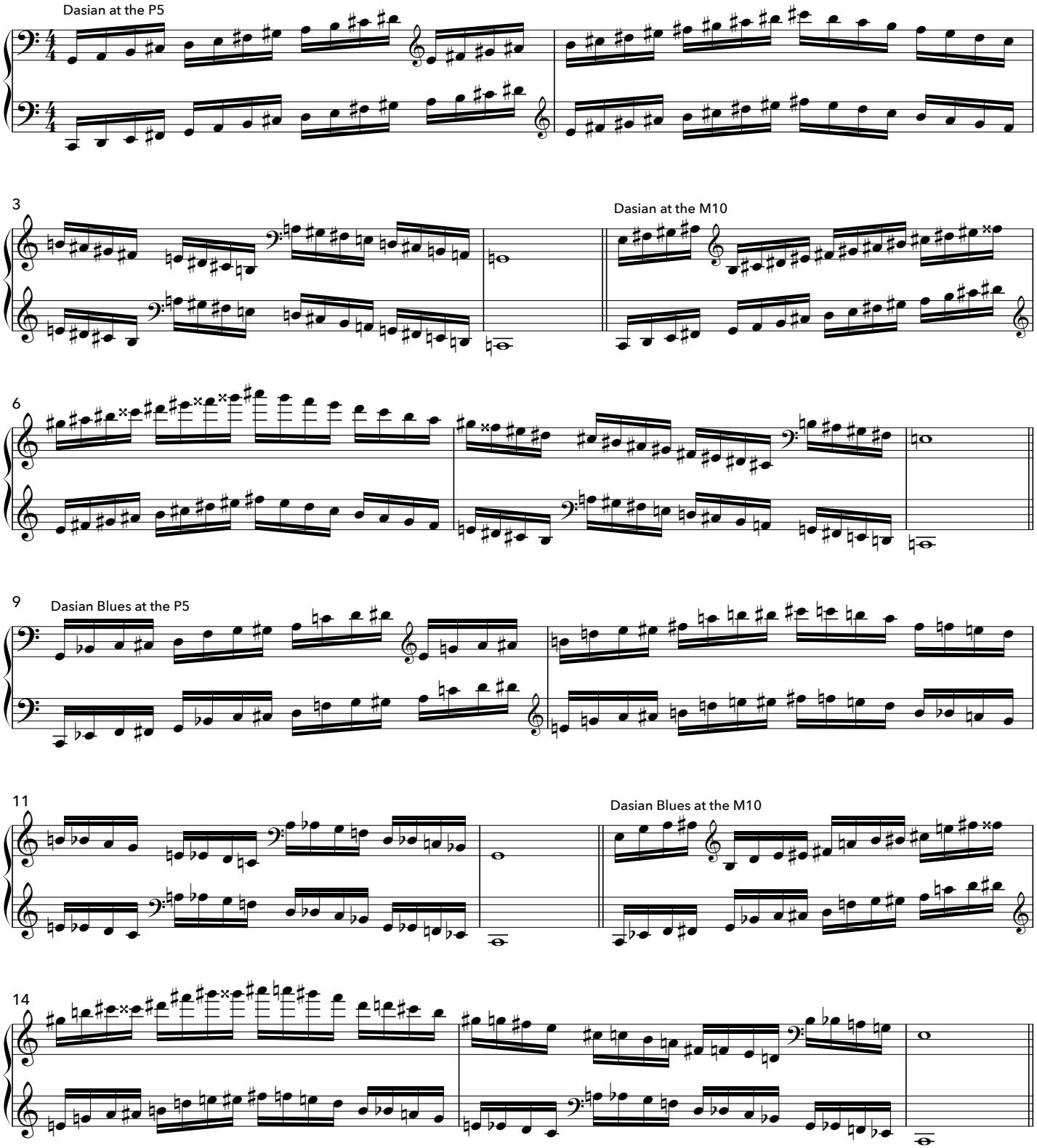
† For a history of Dasian notation, see Dolores Pesce, *The Affinities and Medieval Transposition* (Bloomington: Indiana University Press, 1987). For a more modern application of the theory, see José Oliveira Martins, "The Dasian and Other Affinity Spaces," *Journal of Music Theory* 59, No. 2 (October 2015): 273–319. Finally, outside of academia, Jacob Collier has discussed the Dasian scale in an interview on YouTube, where he gives it the whimsical name "Super-Ultra-Hyper-Mega-Meta Lydian." See June Lee, "Interview: Jacob Collier (Part 1)," April 14, 2017, https://www.youtube.com/watch?v=DnBr070vcNE.

‡ Though be aware there's nothing 5-note-y about the Dasian or Guidonian Pentatonic…

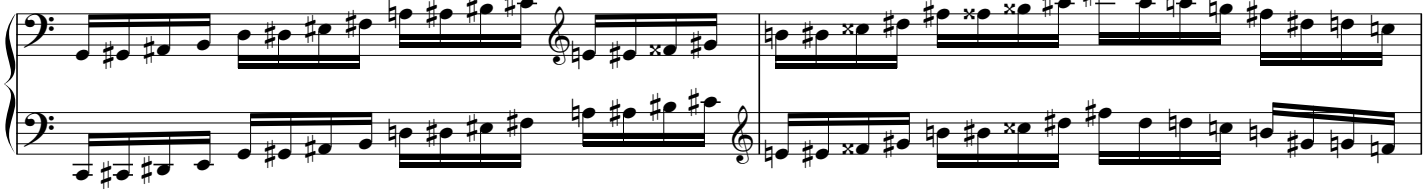
§ For instance, the six-fifth Dasian scale starting on C and the one starting on G are nearly identical, since the scale starting on C turns into the scale starting on G after the first 4 notes.

Warmup No. 1

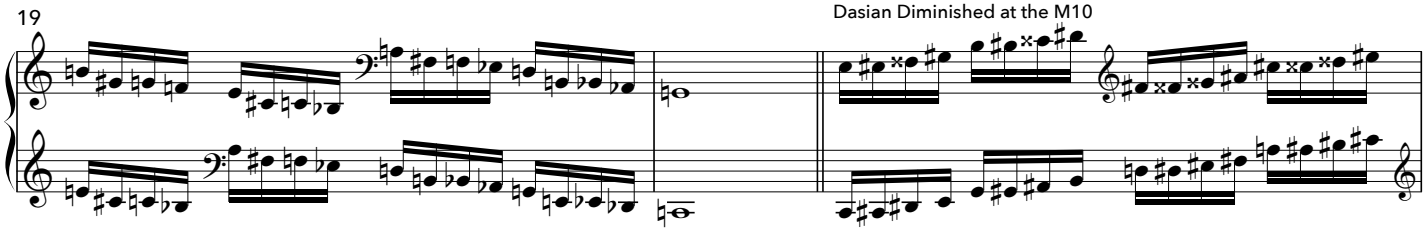
Non-Octavian Scales



17 Dasian Diminished at the P5



19 Dasian Diminished at the M10



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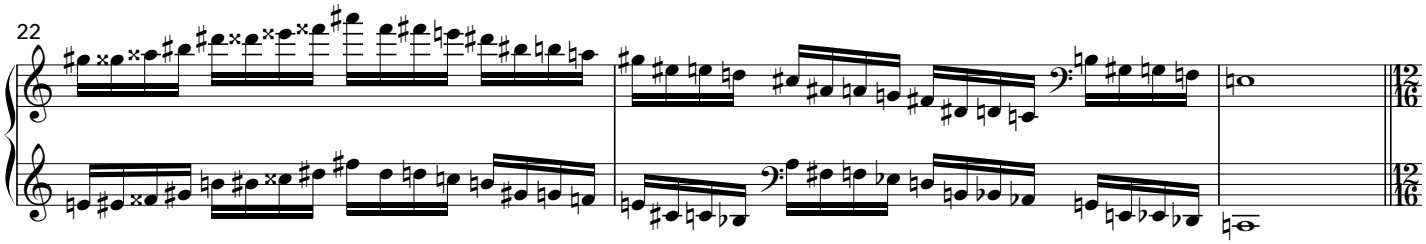
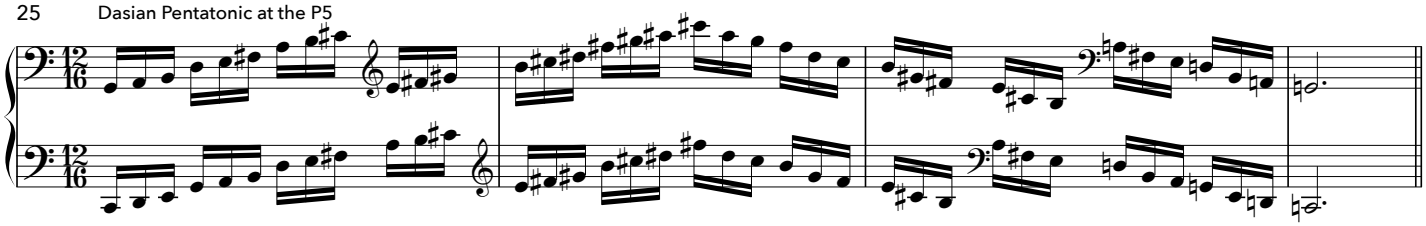
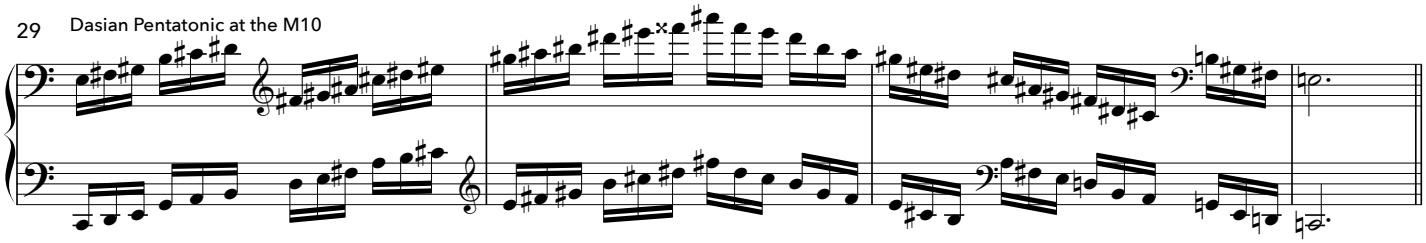


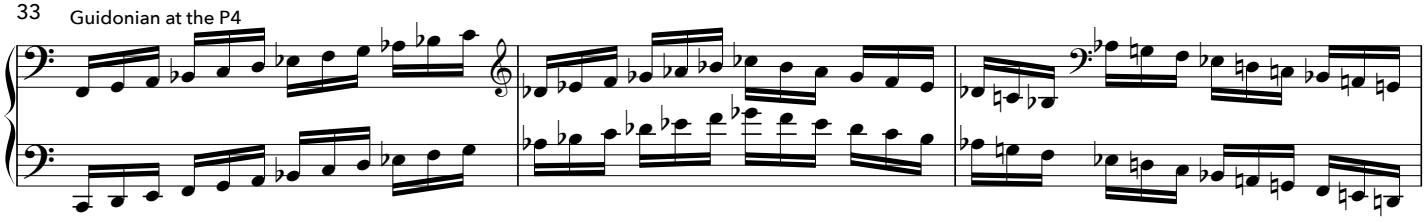
25 Dasian Pentatonic at the P5



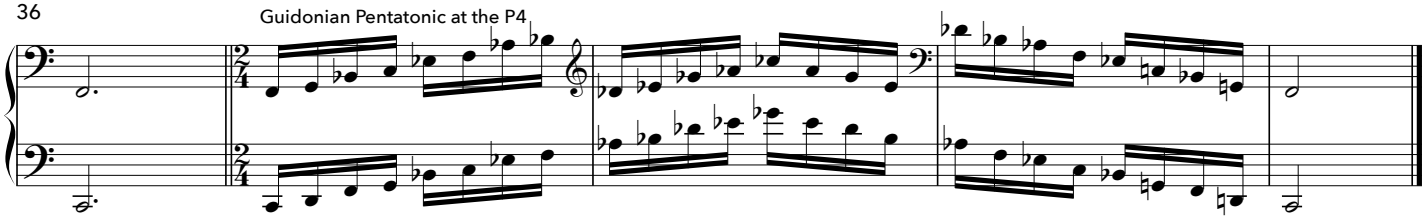
29 Dasian Pentatonic at the M10



33 Guidonian at the P4



36 Guidonian Pentatonic at the P4



Warmup No. 2

(02)-Based Cluster Runs

***

This warmup is actually based on a mishearing that I had of a particular technique Cecil Taylor frequently employs in his improvisations. Taylor's actual technique is in some ways simpler, and in others more complex than my mishearing.* That said, I found I really enjoyed the texture that resulted from playing the thing that I *thought* Taylor was playing—hence this warmup.

The goal here is to play these patterns as fast as possible, while still maintaining dyad clarity. Each pattern includes a transposition—e.g., "(0268) at the P5"—that adds to the level of difficulty.

As with **Warmup No. 1**, each of these is notated in C, and spans a total of six transposed intervals (except for the last exercise, which only spans a total of four). I always practice these in all twelve keys, with the understanding that this method of practicing reproduces significant portions of each cluster run.

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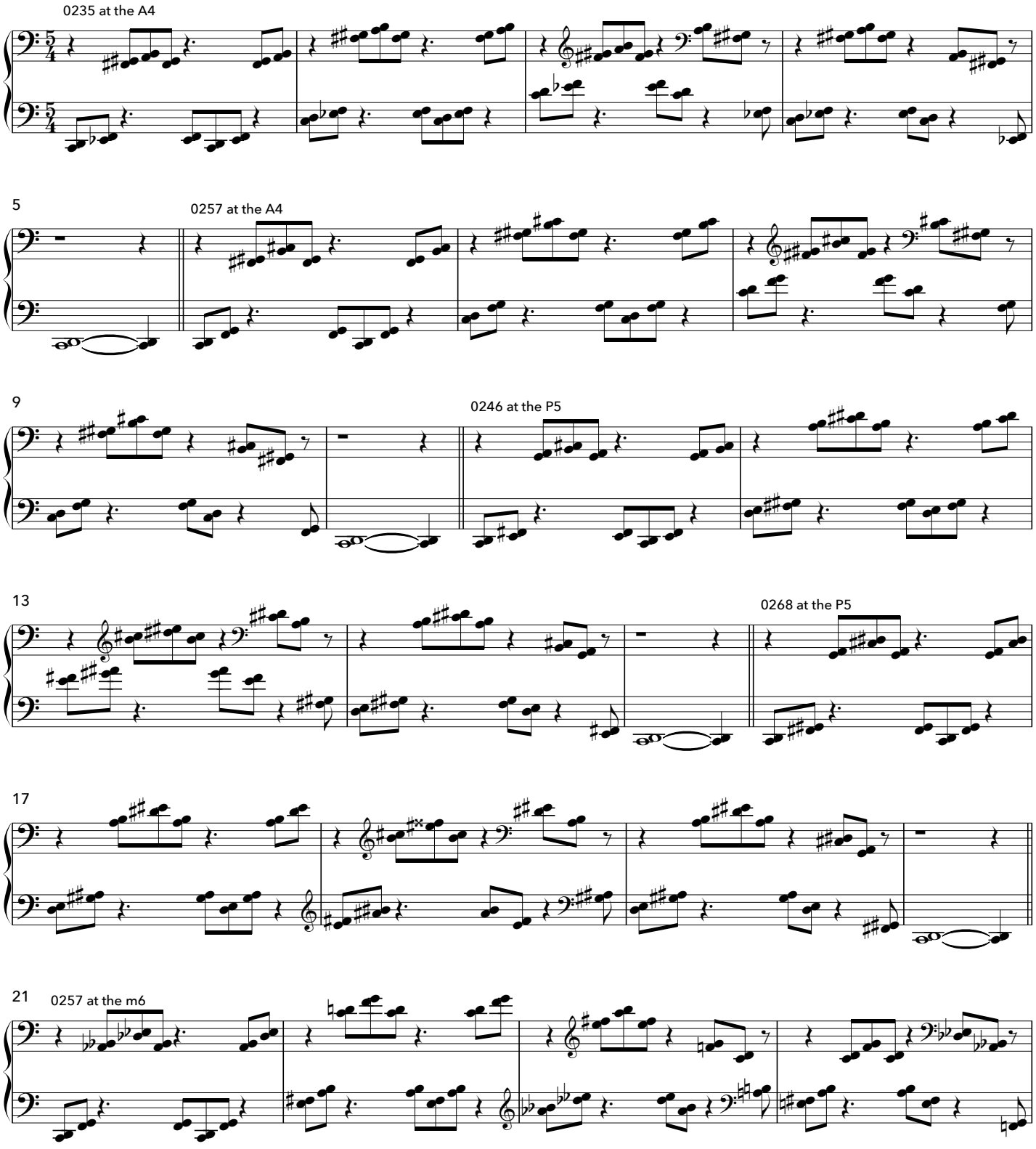
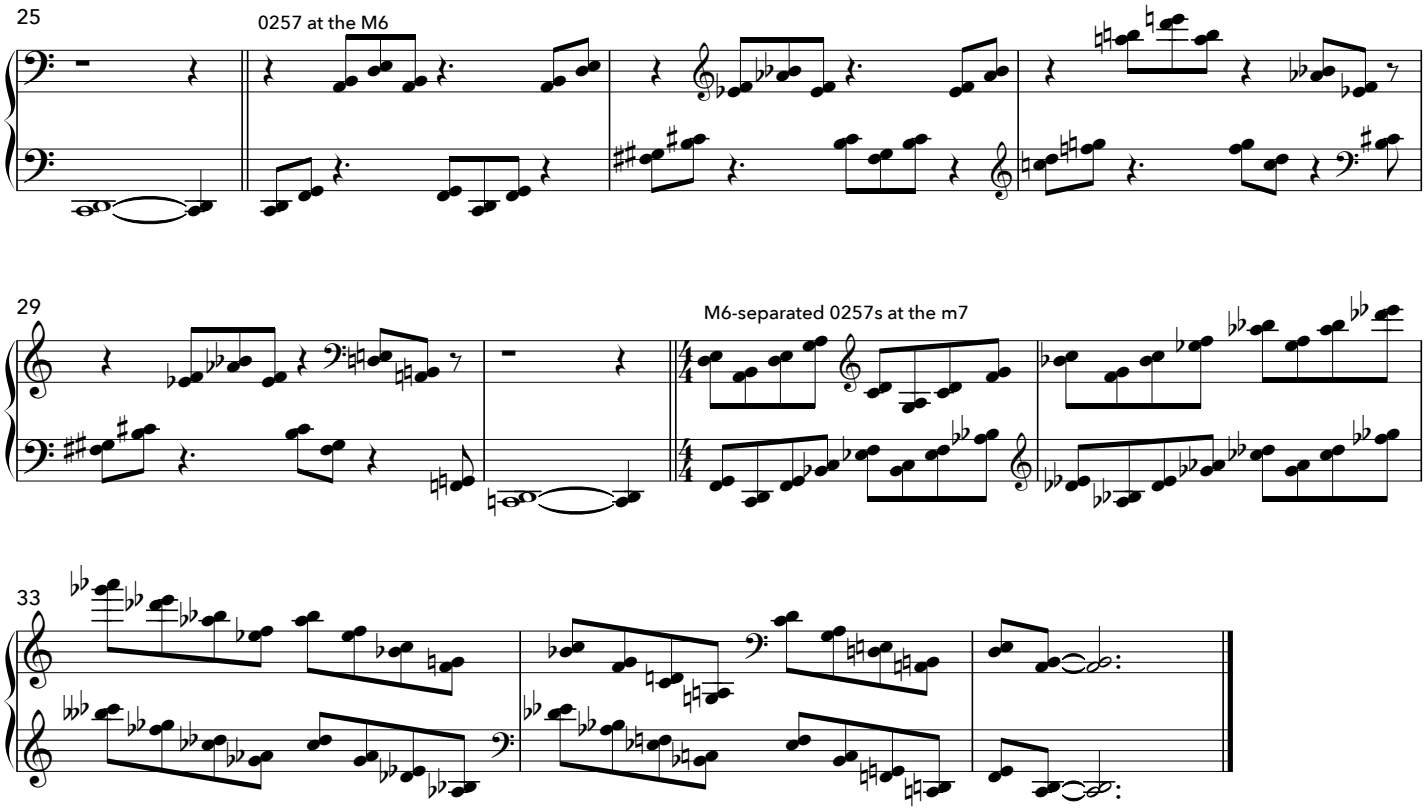
* See **Étude No. 4**, and/or Mark Micchelli, "Sound Structures and Naked Fire Gestures in Cecil Taylor's Solo Piano Music," *Music Theory Online* 28, no. 3 (September 2022), https://mtosmt.org/issues/mto.22.28.3/mto.22.28.3.micchelli.html.

Warmup No. 2

(02)-Based Cluster Runs




25
0257 at the M6
29
M6-separated 0257s at the m7
33

Étude No. 1

Counting Meditation

***

This étude contains all of the 2-voice polyrhythms, from 1 through 8 inclusive. Perhaps overly pedantically, I prefer "polypulse" over "polyrhythm" because, really, isn't that the more accurate term?

My ordering of the 2-voice polypulses is formulaic and uninteresting:

1 over 1, 2 over 1, 3 over 1, …, 8 over 1;
1 over 2, 2 over 2, 3 over 2, …, 8 over 2;
…
1 over 8, 2 over 8, 3 over 8, …, 8 over 8.

This ordering is for convenience of navigation only. The real purpose of this étude is to practice 1) jumping smoothly from any polypulse to any other, 2) switching which pulse is the "beat" vs. the "rhythm," and 3) metric-modulating accordingly. As such, to play the étude straight through is only one of countless interpretations; more interesting would be to craft your own path through the polypulses, either beforehand or on-the-fly.

On the following pages, you'll find two versions of the étude. The first, called "Counting Meditation," features repeated chords expanding outwards from the note C. I usually play this version straight through as part of a warmup. The second, featuring the drier title "Polypulse Catalog, Pt. 1 (2-Voice; 1:1 Through 8:8)," is more bare-bones, featuring just a single voice on B with the second voice implied by the time signature. This second version is designed to show the polypulses most clearly for ease of practicing/improvising.

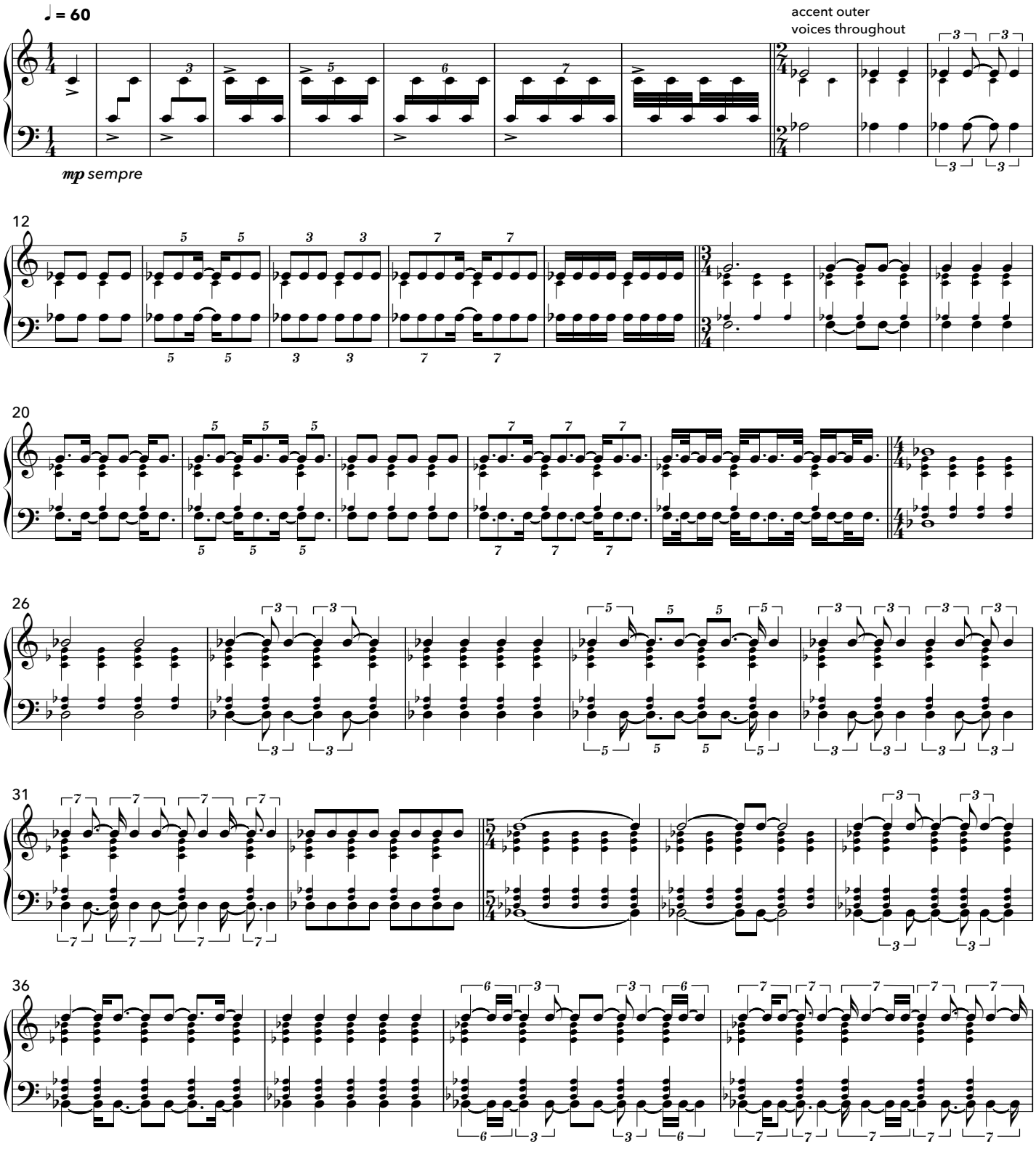
For more polypulse practice, see **Étude No. 6**.

Étude No. 1

Counting Meditation

Duration: 4m45s

Mark Micchelli



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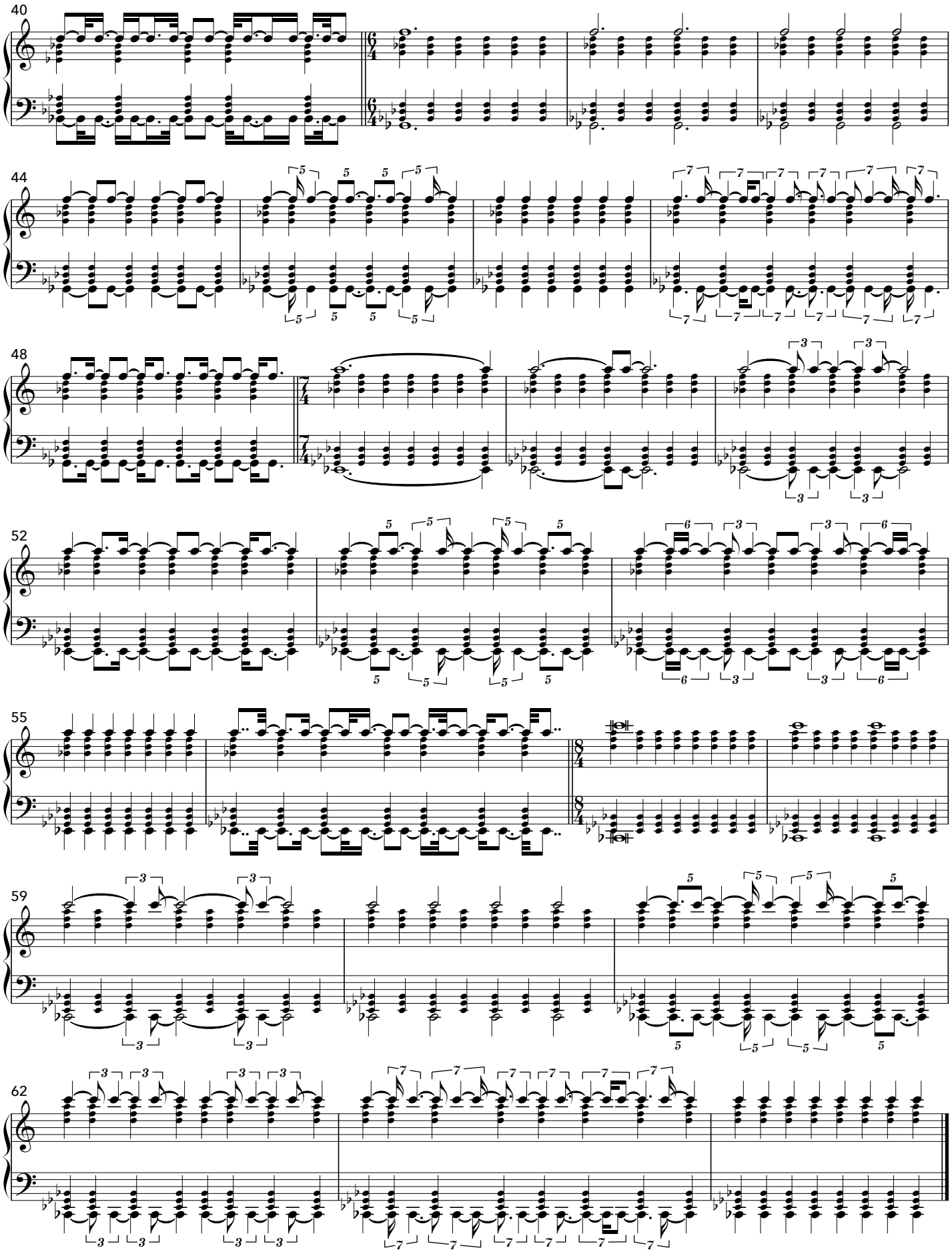
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44
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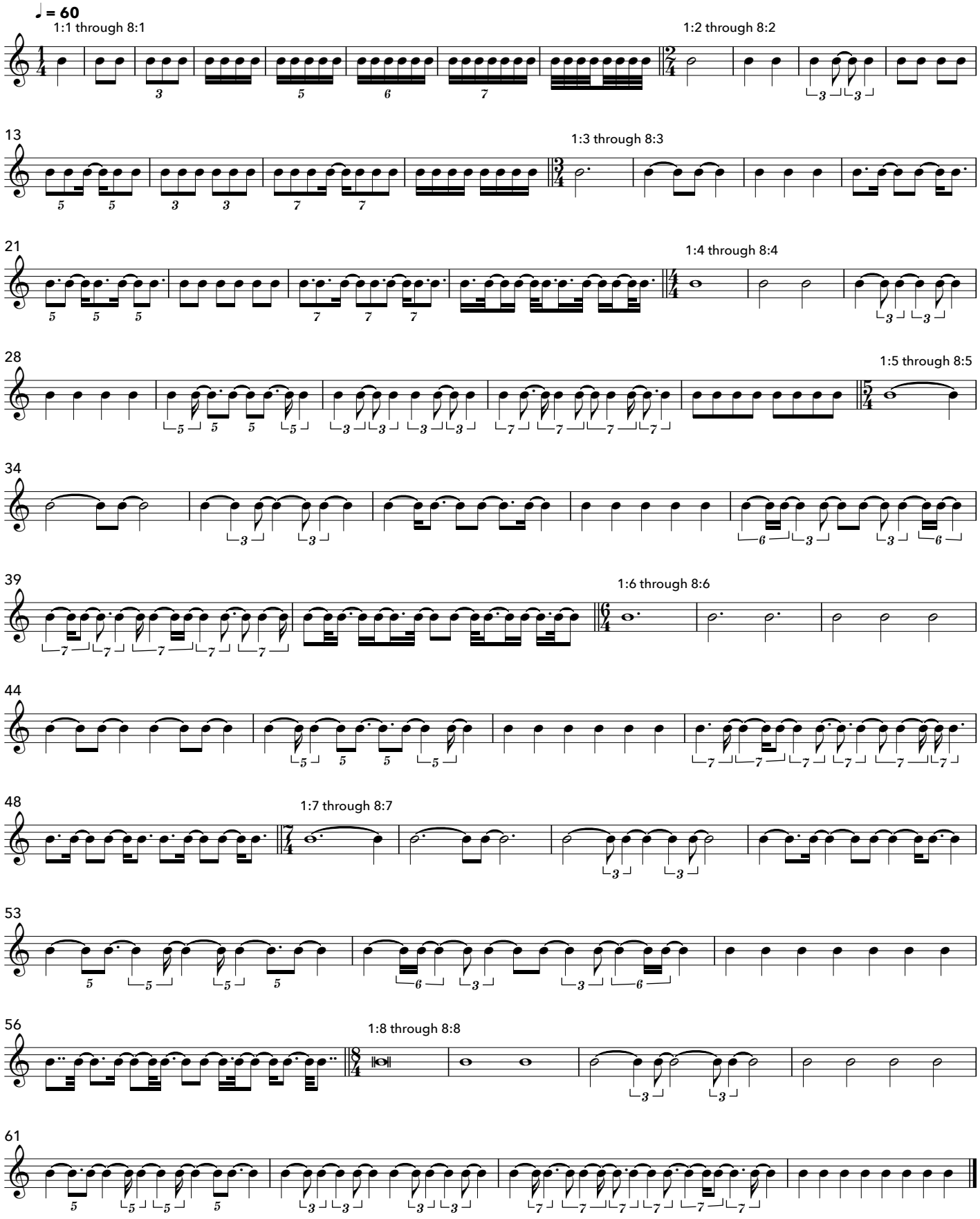
59
62

Étude No. 1

Appendix: Polypulse Catalog, Pt. 1 (2-Voice; 1:1 Through 8:8)

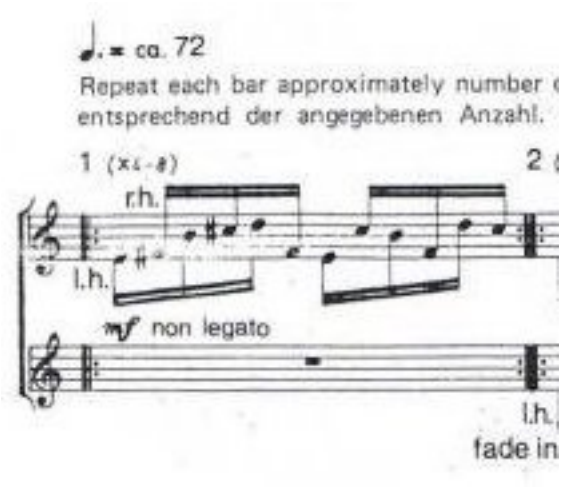


Étude No. 2

Hocket Science

***

This étude develops a pseudo-hocketing technique that I've seen in a handful of other pieces, but never heard given a name. In short, each hand takes a turn progressing through a predetermined cycle of notes, but each hand's cycle is of a different length. An early example of this is the construction of Steve Reich's "Piano Phase," where the pianist's right hand plays through a 2-note cycle 3 times, while their left hand plays through a 3-note cycle 2 times:



Steve Reich, "Piano Phase," bar 1

I call this a "pseudo-hocketing" technique because a true hocket would require multiple musicians. Here, on the other hand, the pianist merely simulates the hocket by assigning a different cycle to each hand.

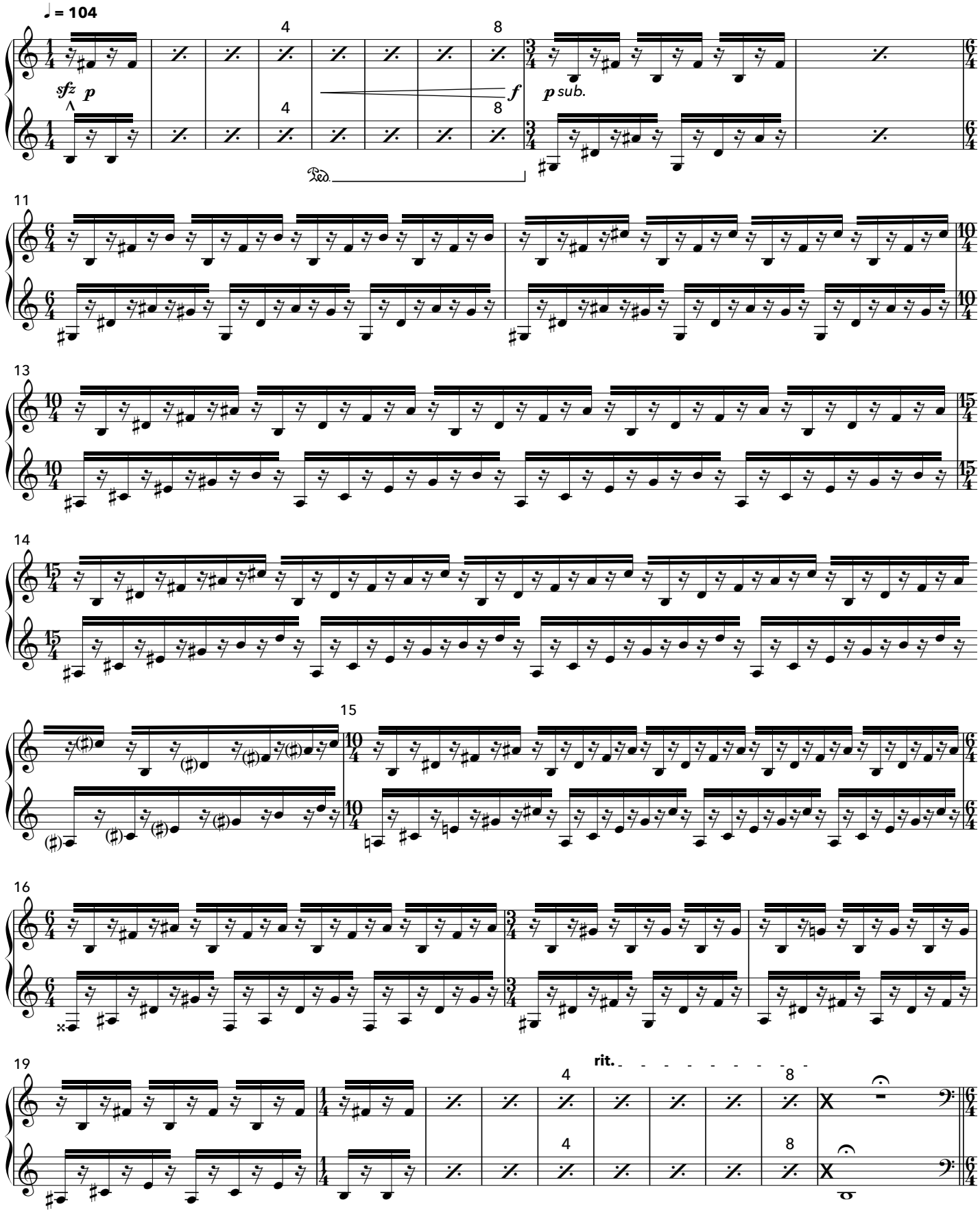
Along with **Étude No. 8**, **Étude No. 2** is the perhaps the most straightforward étude in this book—just read the score from start to finish! However, should you want to practice the hocketing technique further, you can create variations on mm. 29–35: playing thirds or fifths rather than single notes, using fists instead of fingers, etc.

Étude No. 2

Hocket Science

Duration: 4m15s

Mark Micchelli



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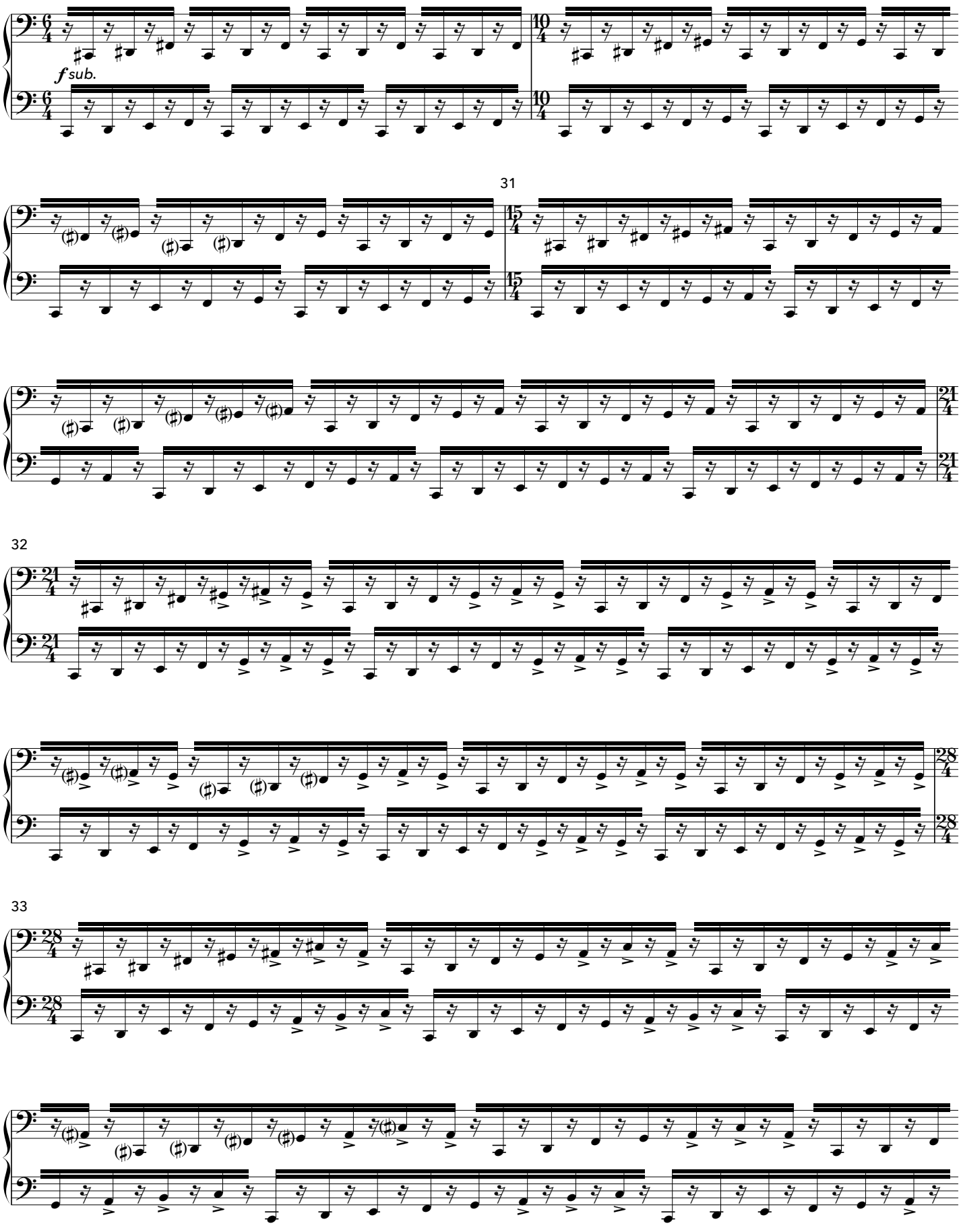
29 ♩ = 144

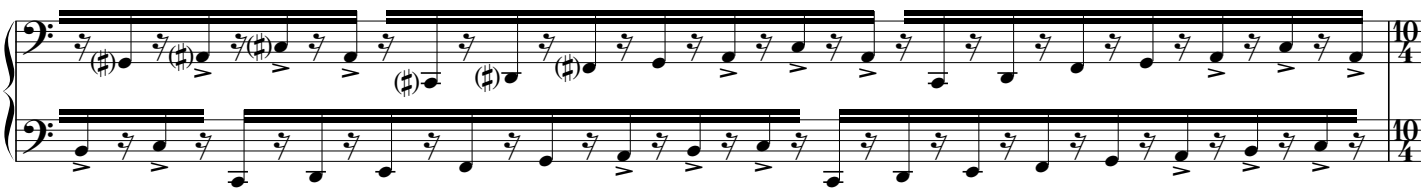
f sub.

31

32

33





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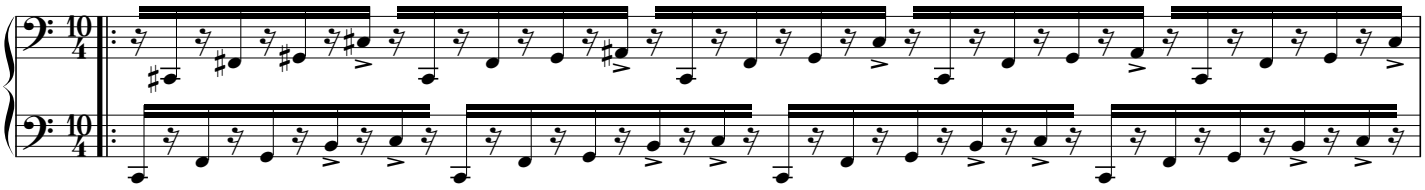

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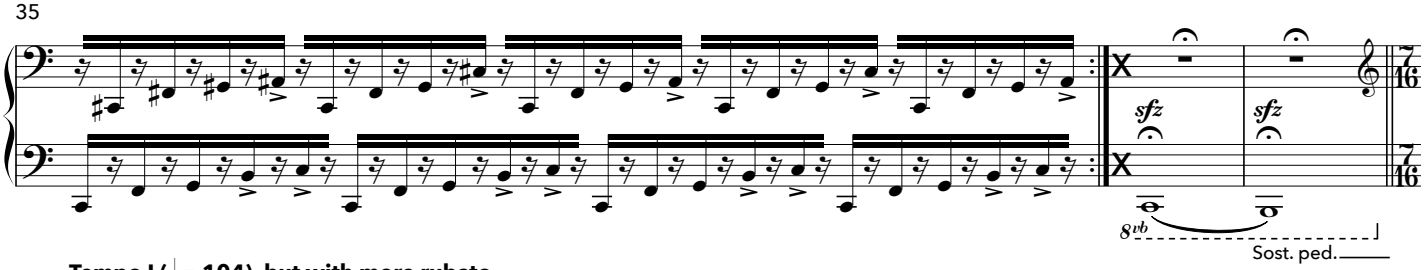
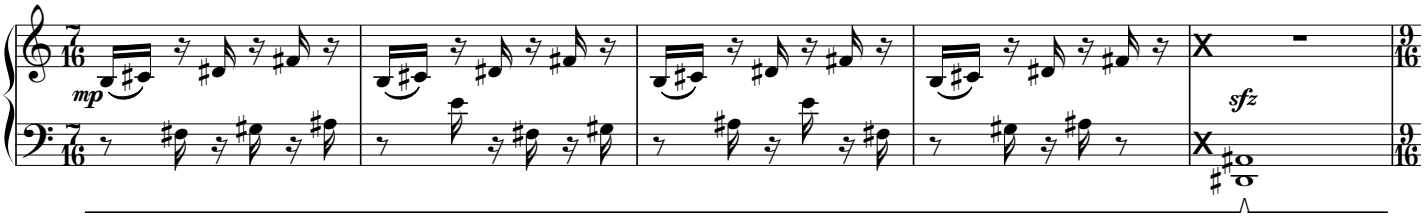


38 **Tempo I (♩ = 104), but with more rubato**



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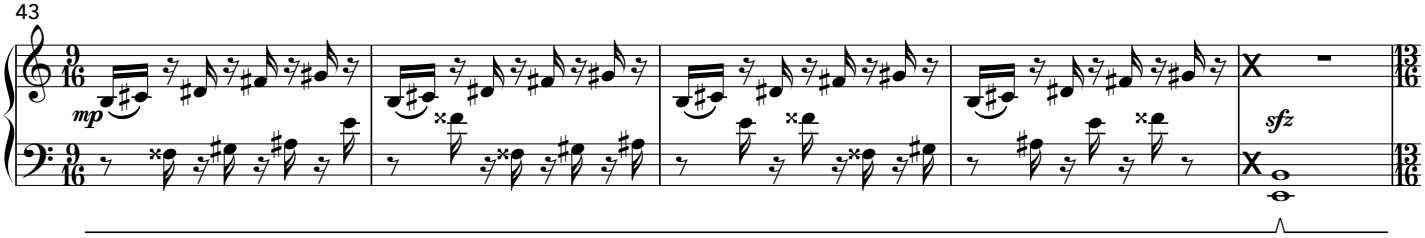

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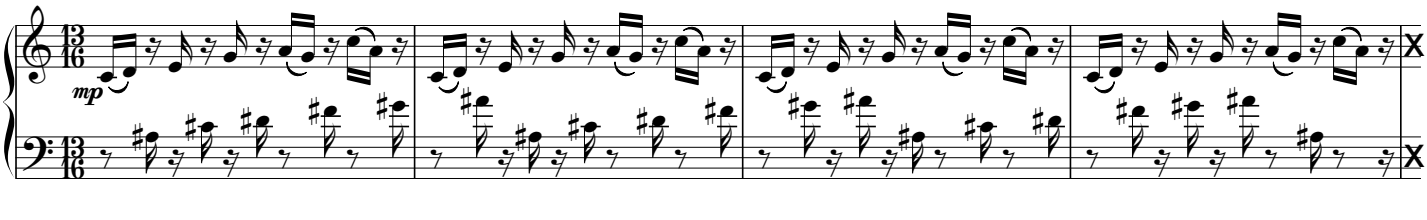

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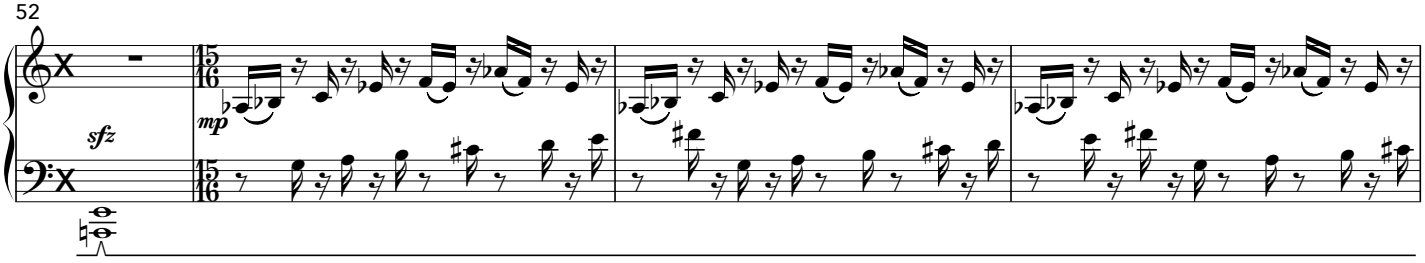
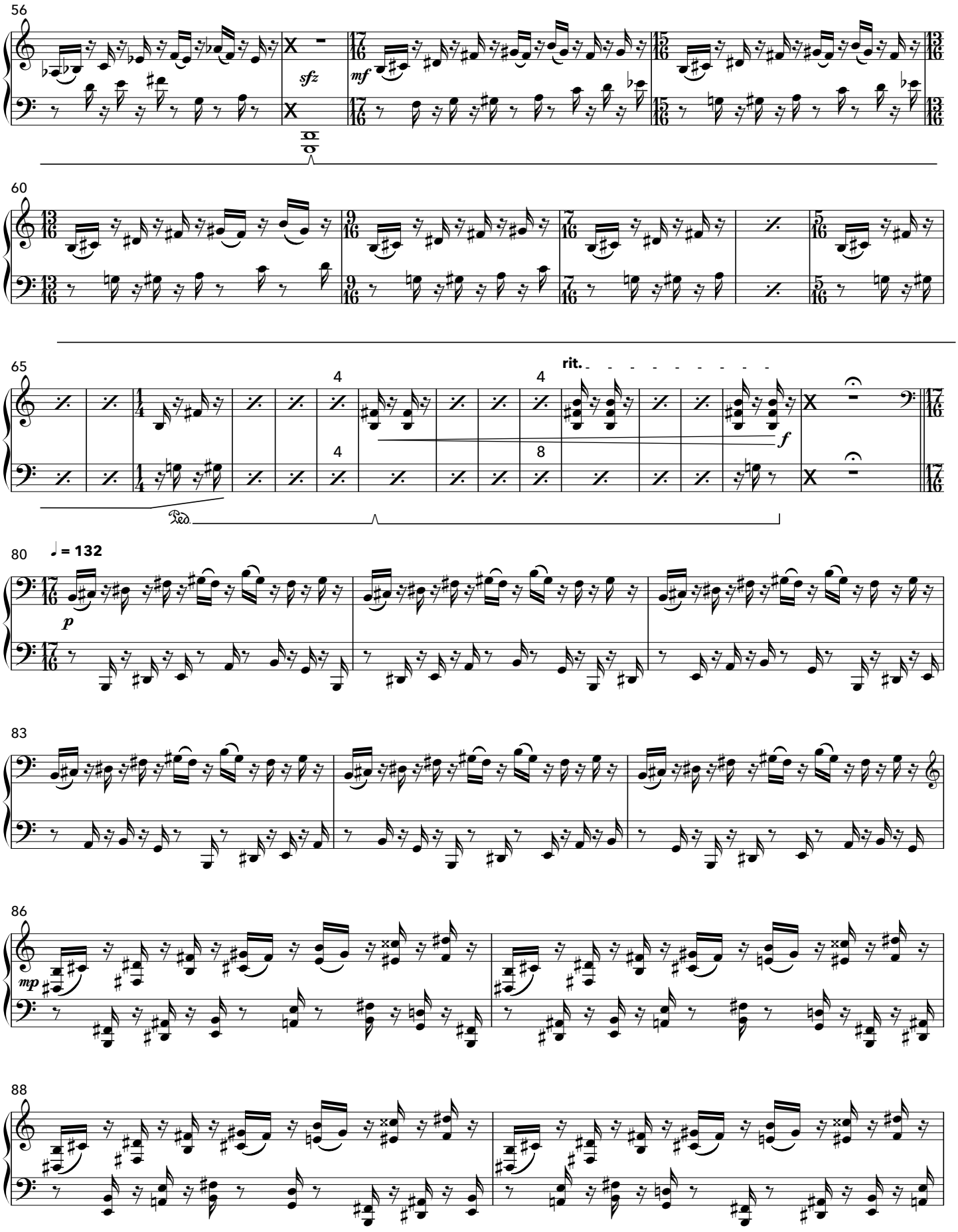
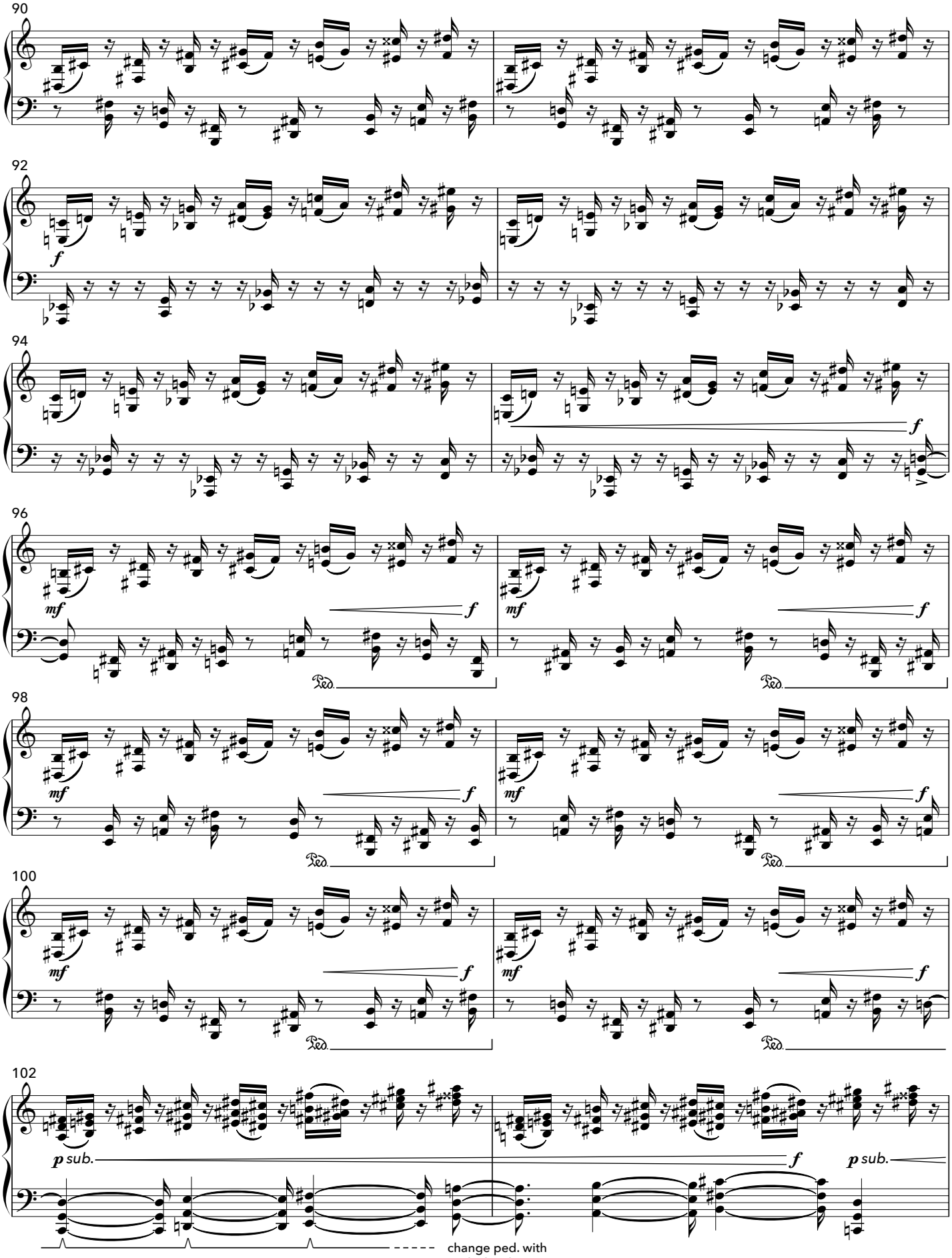
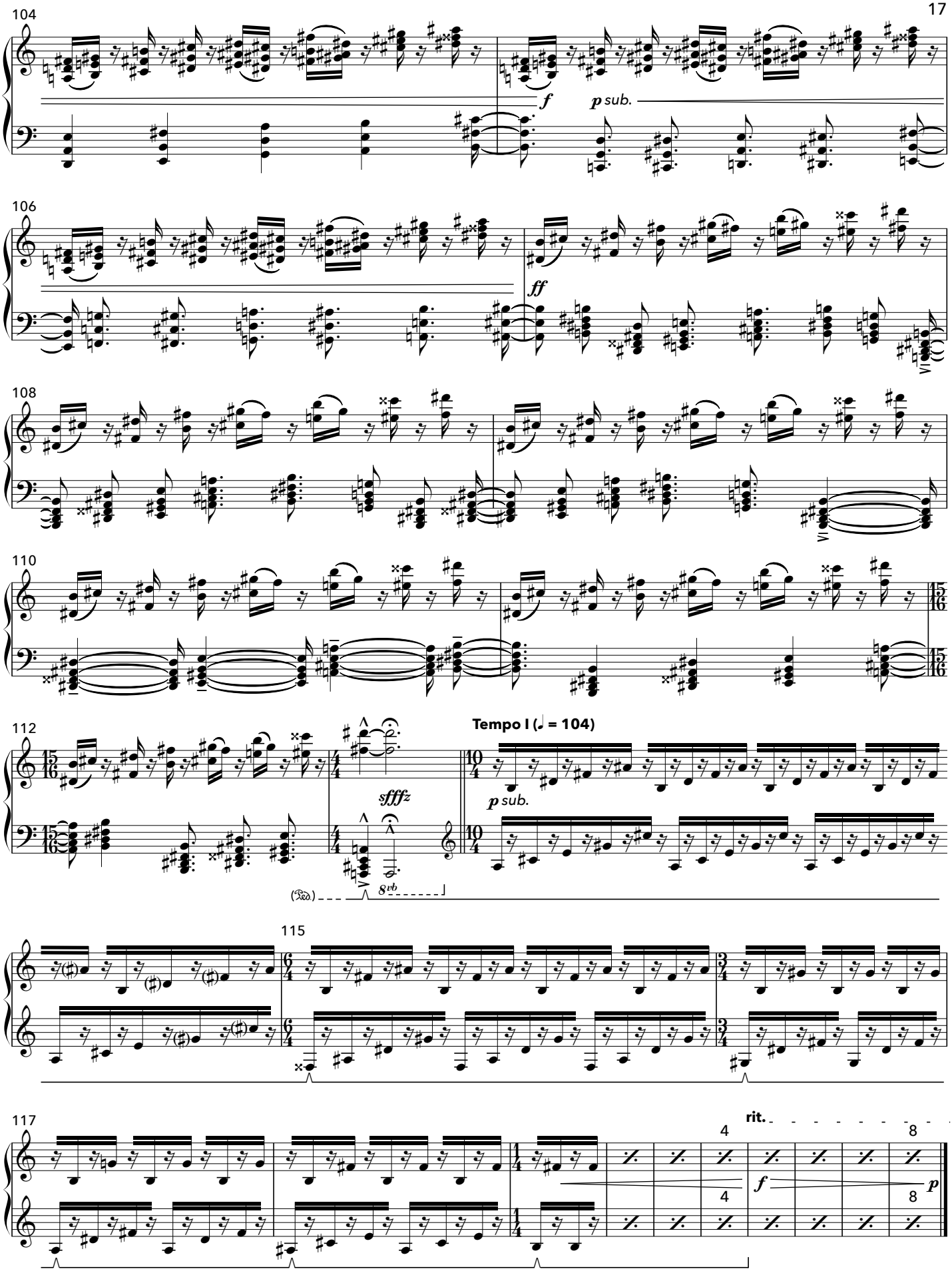



56
sfz
mf
60
65
rit.
f
Ped.
80
♩ = 132
p
83
86
mp
88


90
92
f
94
f
96
mf
f
Ped.
98
mf
f
Ped.
100
mf
f
Ped.
102
p sub.
f
p sub.
change ped. with
each chord sim.


104
f
p sub.
106
ff
108
110
112
sfffz
Tempo I (♩ = 104)
p sub.
8vb
115
117
rit.
4
4
f
8
8
p

Étude No. 3

Knockoff Nancarrow

***

This étude features standard boogie-woogie patterns overlaid at different speeds. There are three versions notated here—2:3, 3:4, and 4:5—but, of course, there are countless other possibilities one could work out following the same conceit. As the subtitle indicates, Conlon Nancarrow explored a number of them in his Study No. 3, aka the "Boogie-Woogie Suite."*

My études are painfully simple compared to Nancarrow's studies, since each follows a single pattern without variation. In fact, my études don't even need to be notated; once you understand the central conceit, you could easily work them out for yourself without ever seeing the score. To this end, each étude is preceded by a sort of abstract roadmap: a grid showing how the right and left hands will line up as each proceeds along its own tempo. The notation of these grids borrows some set theoretic conventions: counting starts at 0 rather than 1, and 10 and 11 are replaced by T and E, respectively.

Étude No. 3 has enormous potential for variation and integration with other works. For instance, I have lifted all of 3a and parts of 3c verbatim for my version of Mary Lou Williams's "Roll 'Em."† There are a number of other ways one could choose to complicate this work, whether in the practice room or on stage:

- Switch the "fast hand" and the "slow hand" (i.e., swap the left hand and right hand in the written-out versions).
- After a hand completes a "12-bar" cycle, that hand changes key.
- After a hand completes a "12-bar" cycle, it is replaced with a different boogie pattern (a bit of this variation is incorporated in the written-out versions of each étude).
- Actually improvise/solo rather than just mechanically churn through boogie patterns (I am nowhere close to being able to do this, though I imagine setting up an electronic "backing track" would probably be more manageable than trying it solo).

---

* My choice of numbering and subnumbering—viz.: 3a, 3b, & 3c—is an intentional homage.

† "Roll 'Em," by the way, is where I stole the first boogie pattern in the étude.

Étude No. 3a

Knockoff Nancarrow (2:3)

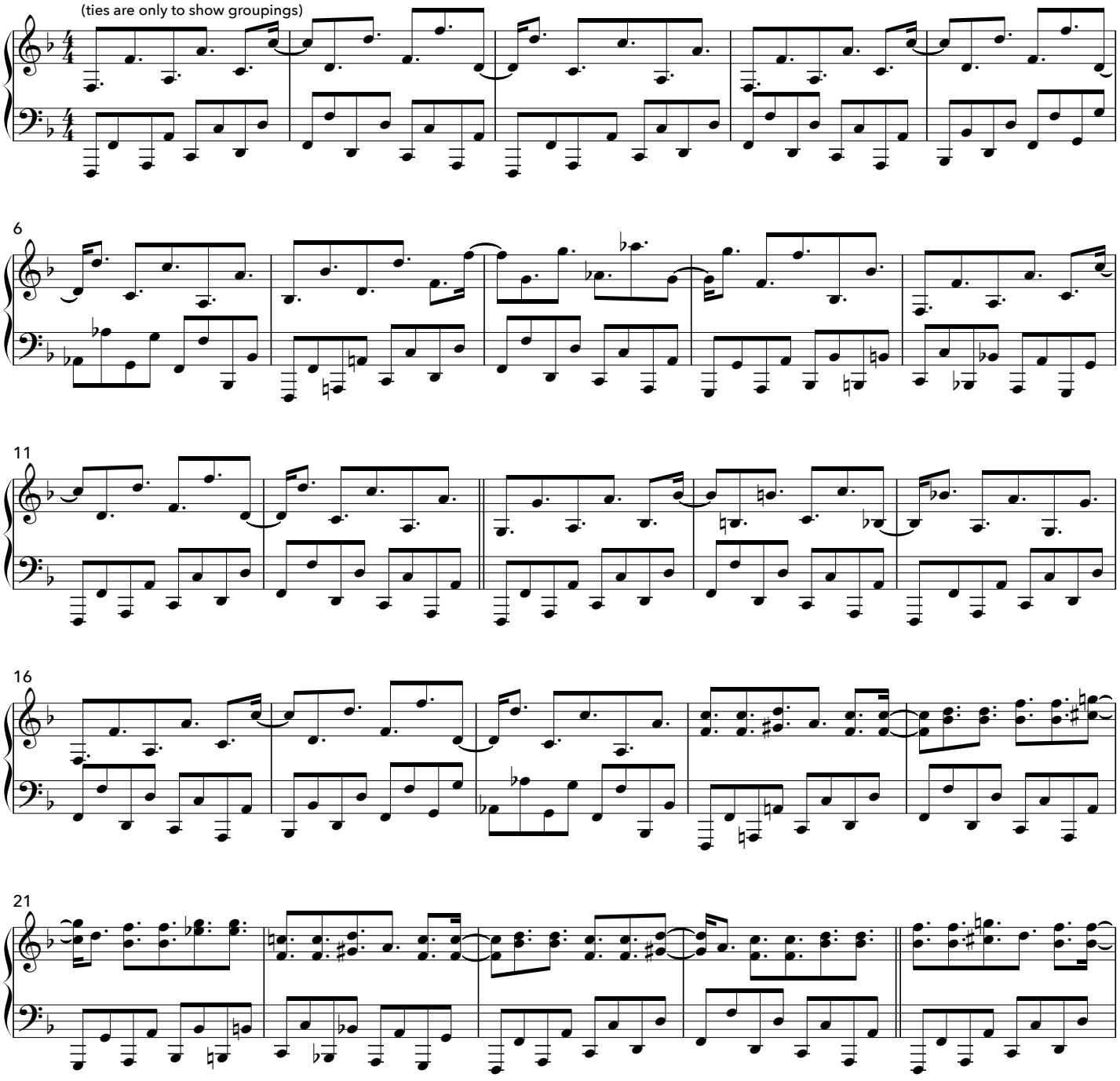
Duration: 1m30s

Mark Micchelli

```
I  I  IV I  V  I  I  I  IV I  V  I  I
0  2  4  6  8  T  0  2  4  6  8  T  0
0123456789TE0123456789TE0123456789TE0
0  3  6  9  0  3  6  9  0  3  6  9  0
I  I  I  IV I  I  I  IV I  I  I  IV I
```

♩ = 192

sempre staccato
(ties are only to show groupings)



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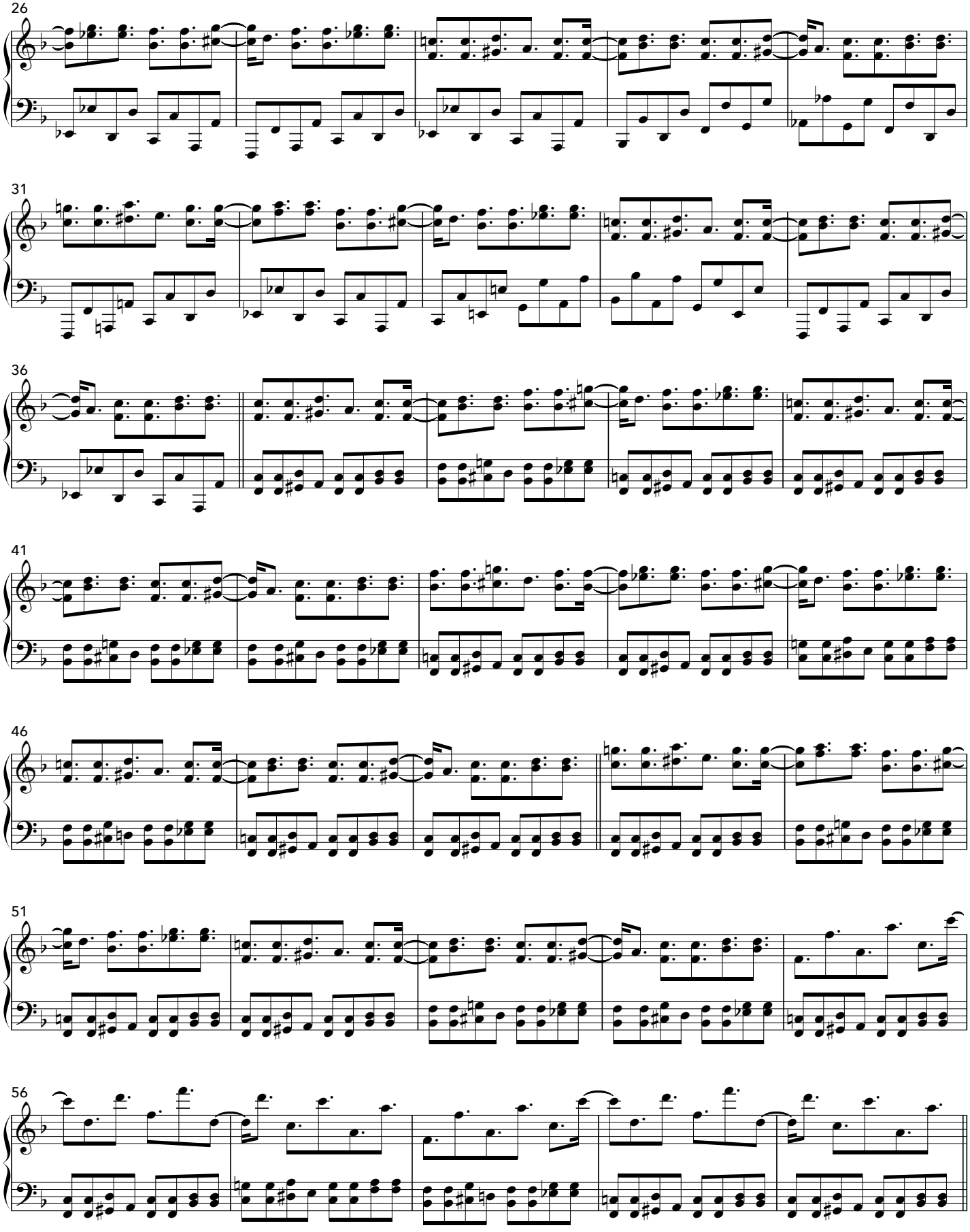
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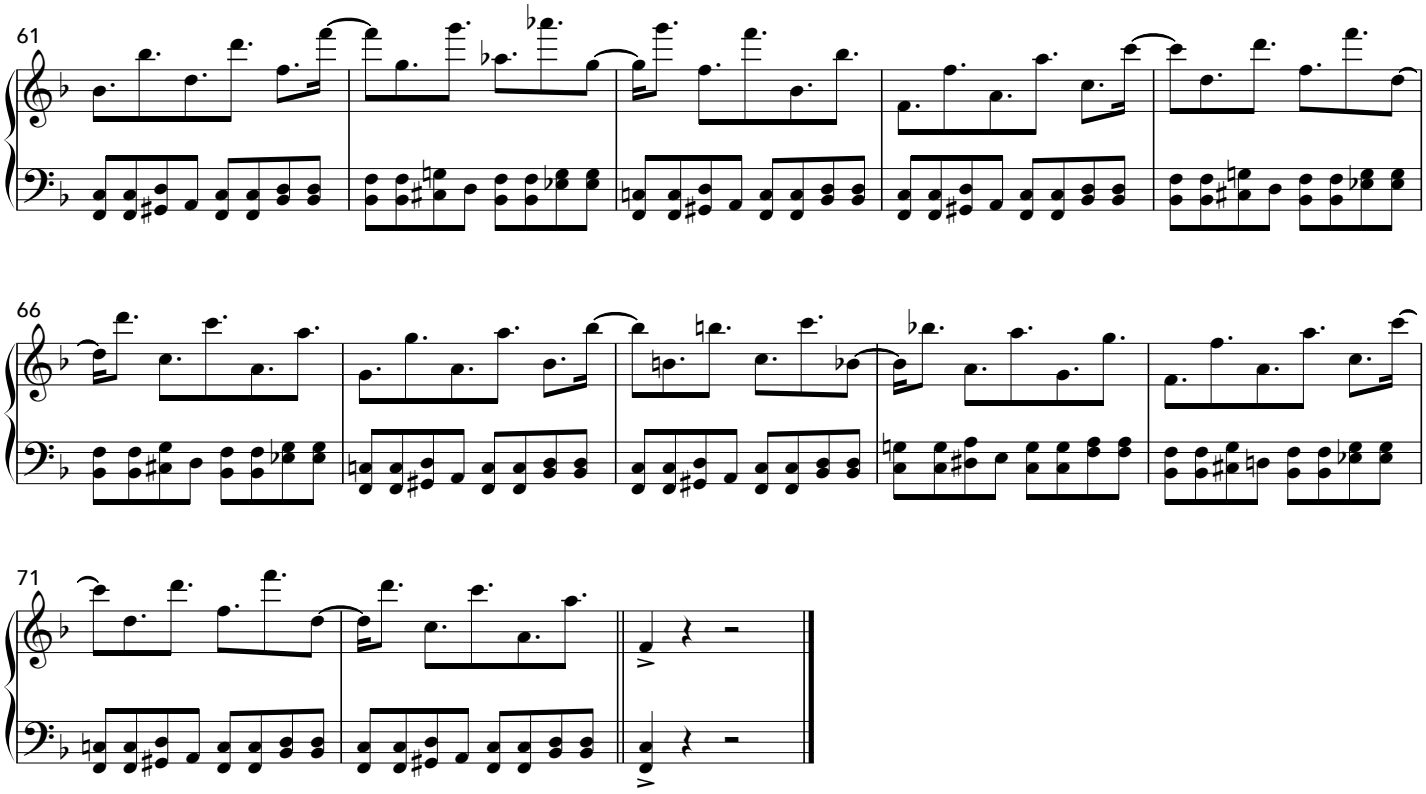
56


61
66
71

Étude No. 3b

Knockoff Nancarrow (3:4)

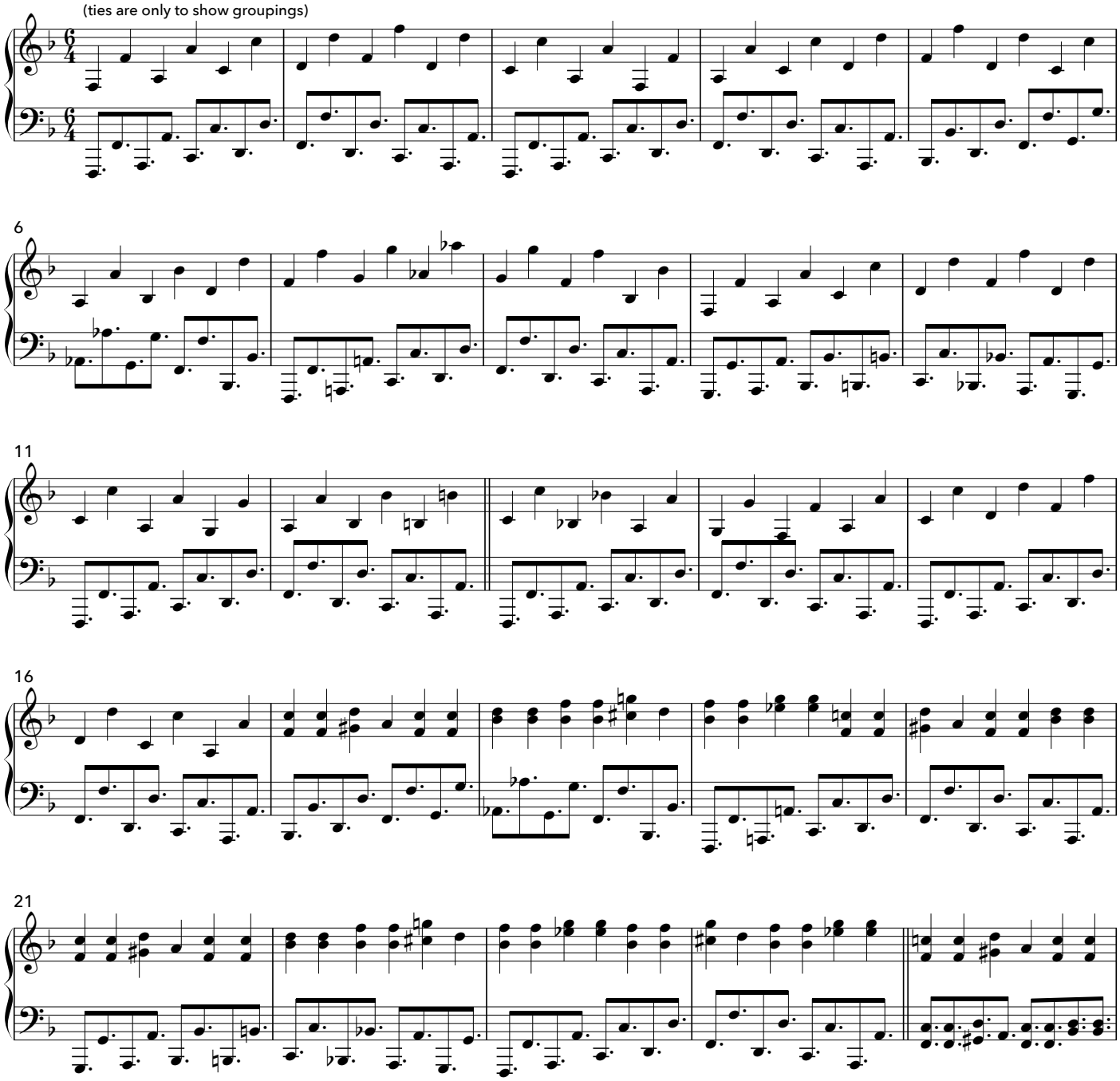
Duration: 2m

Mark Micchelli

```
I   I   I   IV  I   I   I   IV  I   I   I   IV  I
0   3   6   9   0   3   6   9   0   3   6   9   0
0123456789TE0123456789TE0123456789TE0123456789TE0
0   4   8   0   4   8   0   4   8   0   4   8   0
I   IV  V   I   IV  V   I   IV  V   I   IV  V   I
```

♩ = 144

sempre staccato
(ties are only to show groupings)



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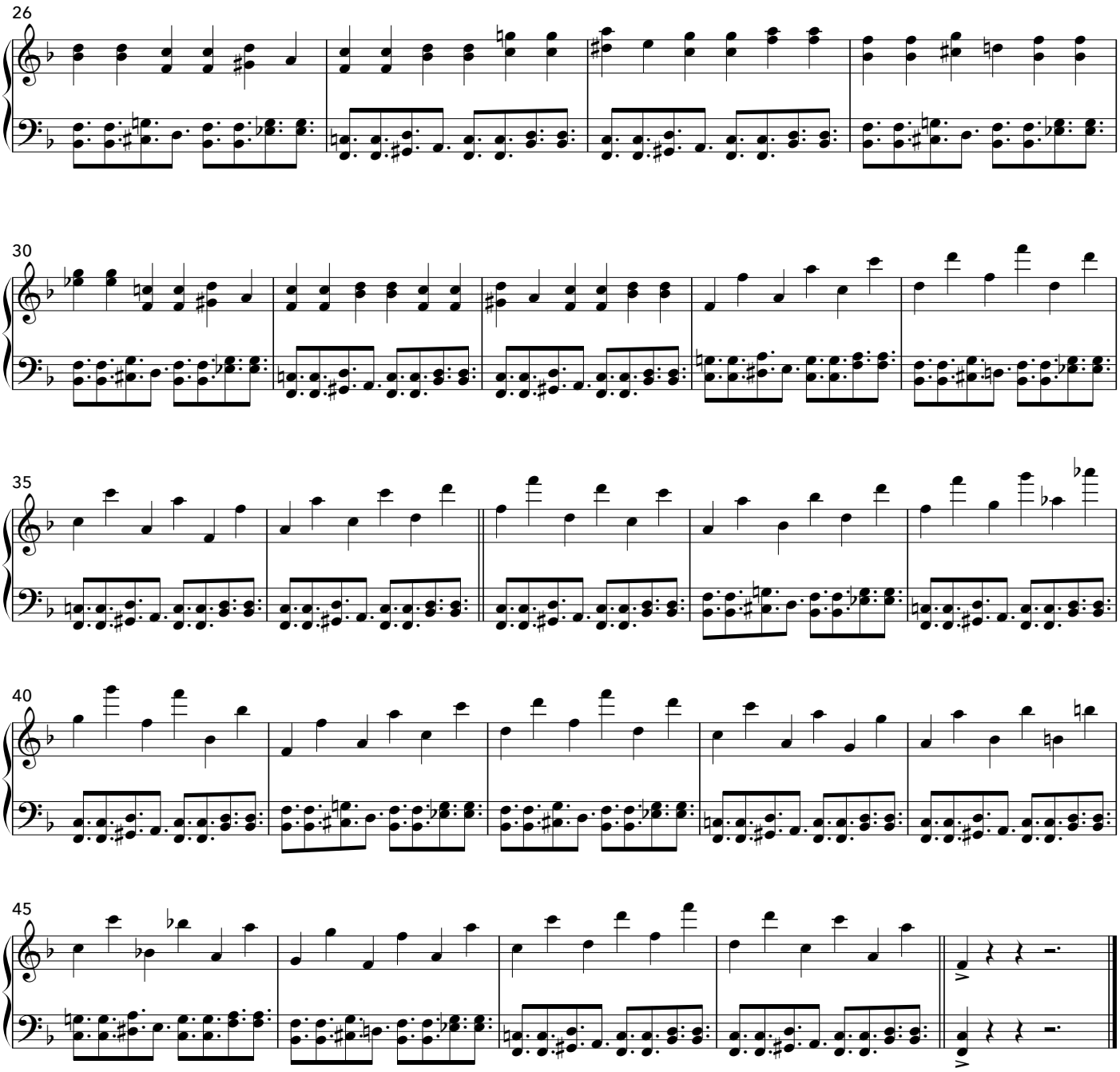

26
30
35
40
45

Étude No. 3c

Knockoff Nancarrow - 4:5

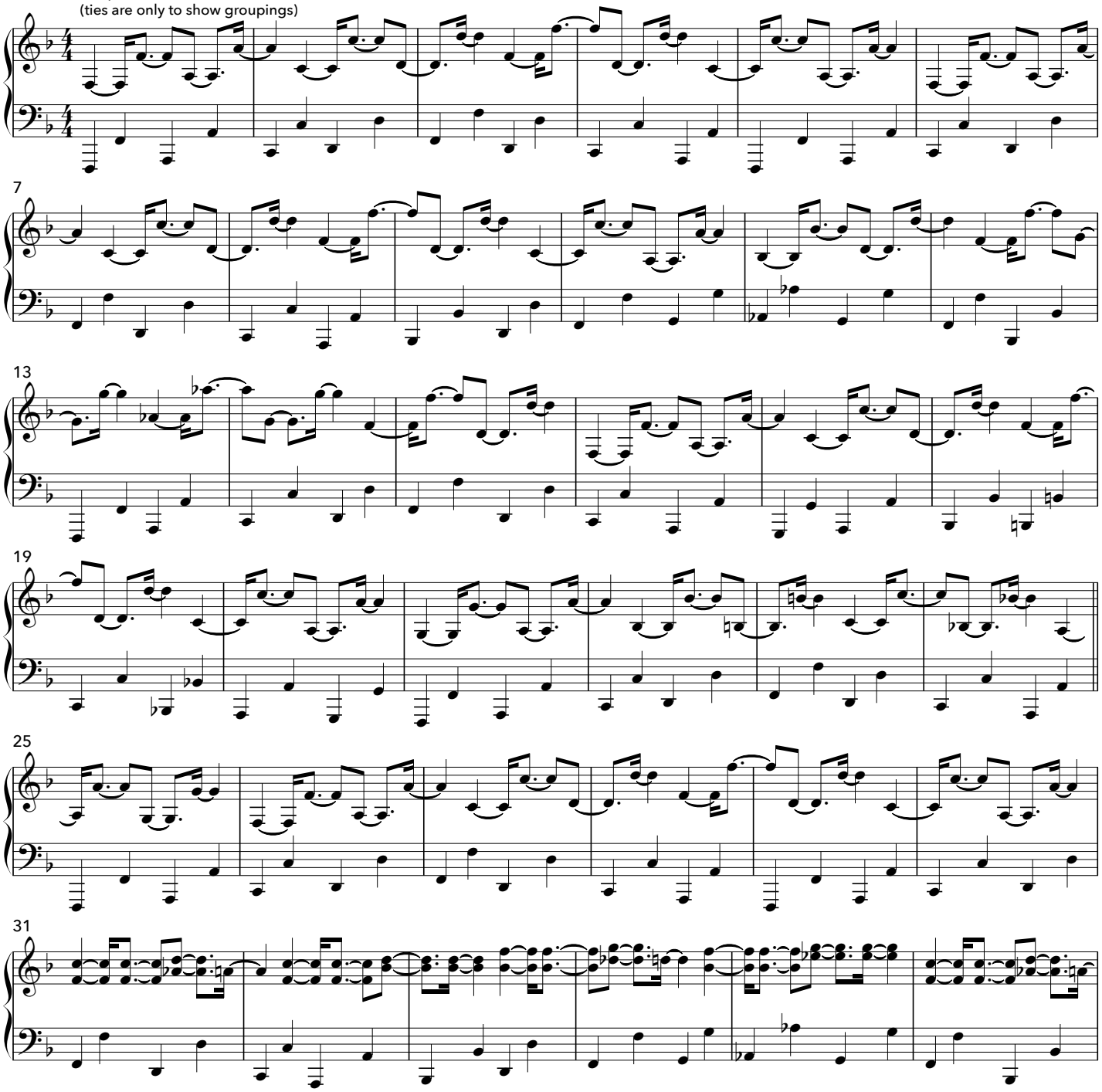
Duration: 5m

Mark Micchelli

```
I    IV   V    I    IV   V    I    IV   V    I    IV   V    I
0    4    8    0    4    8    0    4    8    0    4    8    0
0123456789TE0123456789TE0123456789TE0123456789TE0123456789TE0
0    5    T    3    8    1    6    E    4    9    2    7    0
I    IV   I    I    V    I    I    I    IV   IV   I    I    I
```

♩ = 96

sempre staccato
(ties are only to show groupings)



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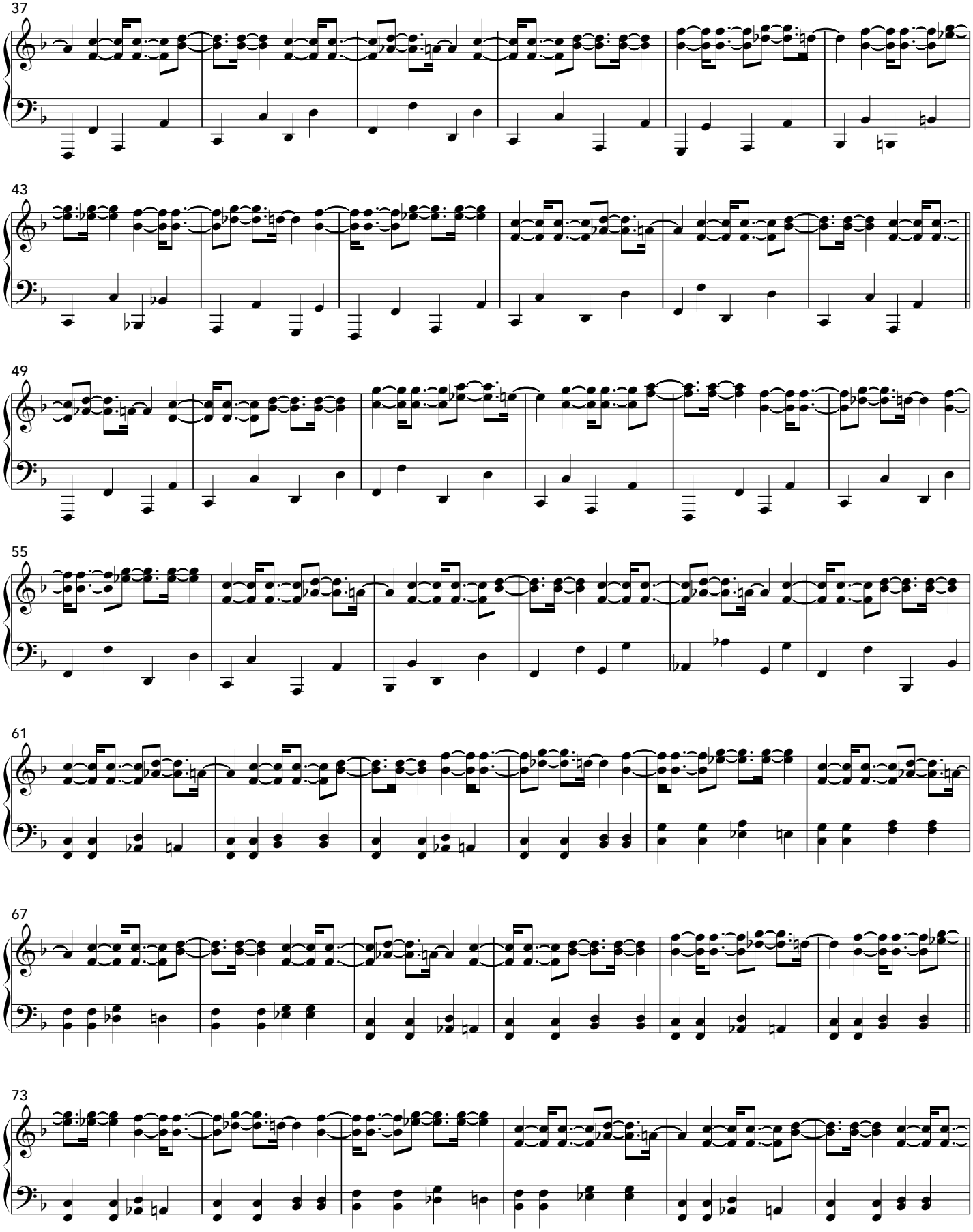
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49
55
61
67
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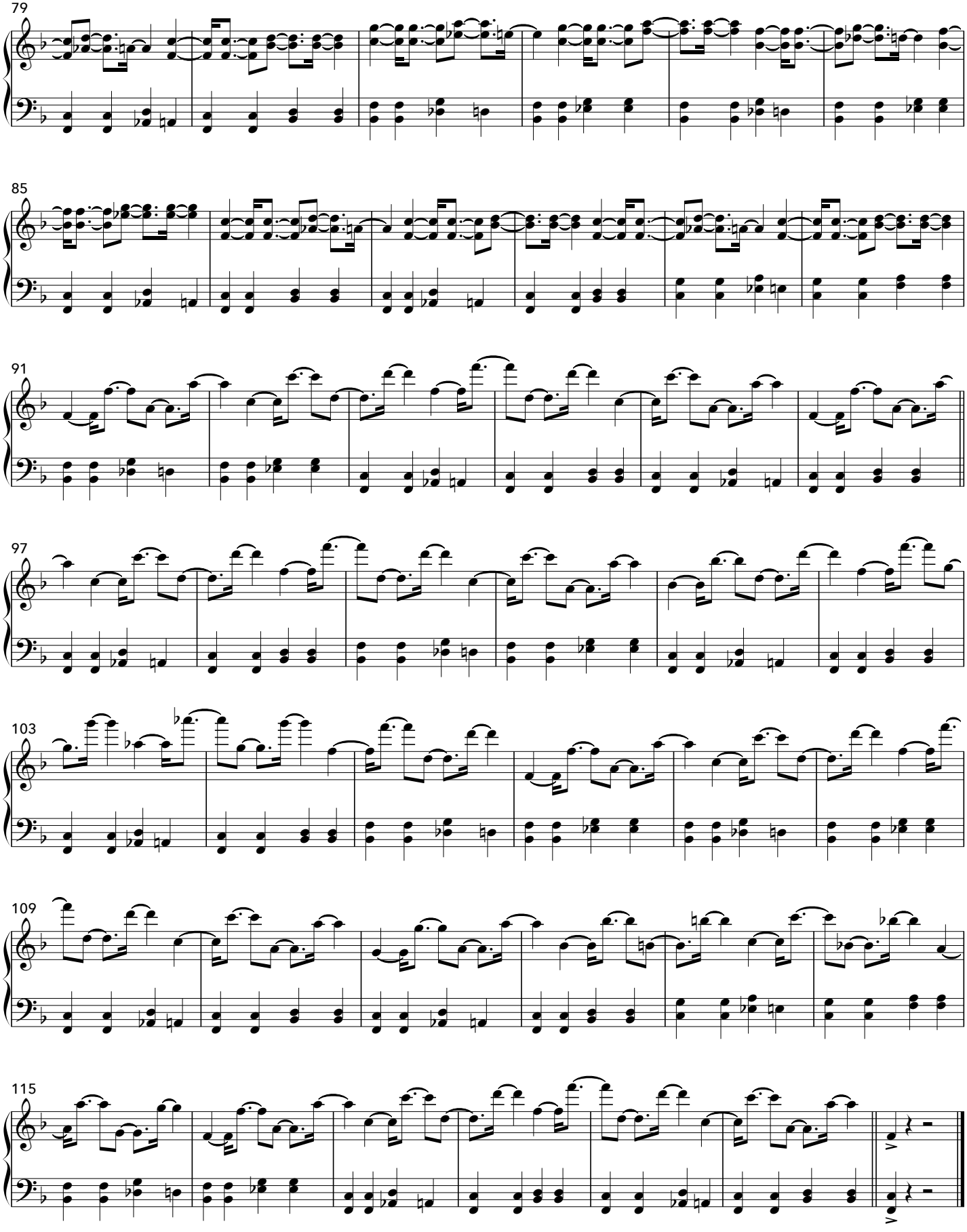
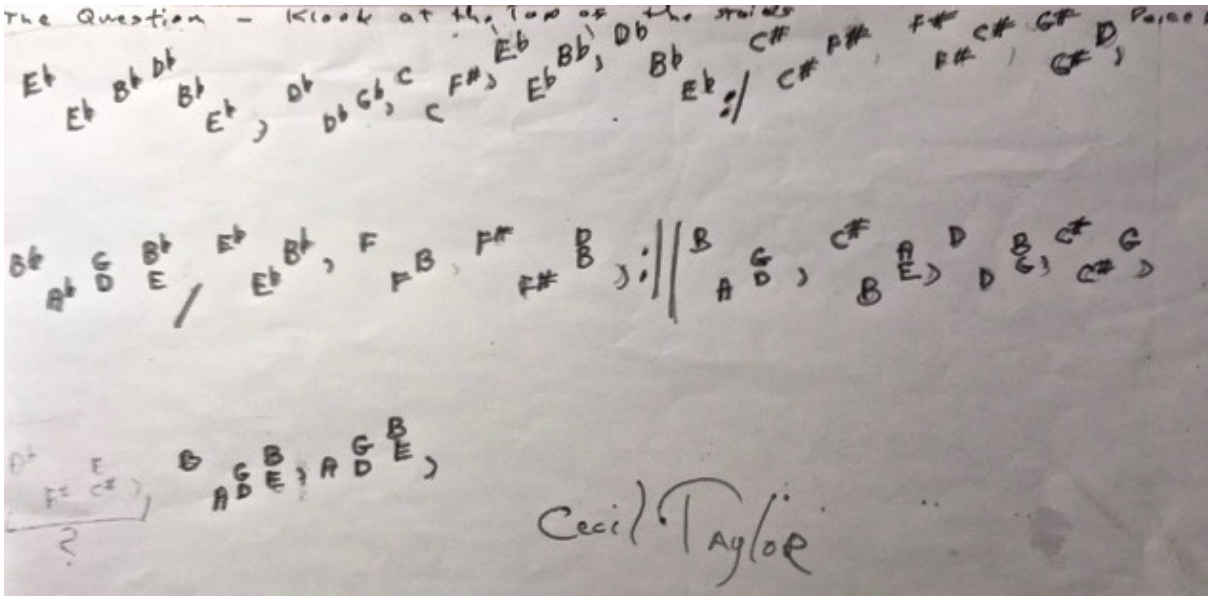

79
85
91
97
103
109
115

Étude No. 4

Reimagine the Sound

***

This étude was inspired by my work transcribing and analyzing the music of Cecil Taylor, specifically an untitled improvisation from the 1981 documentary *Imagine the Sound*. Taylor's notational style is highly unconventional, befitting his contention that "Western notation blocks total absorption in the 'action' playing."* He organizes his music into groups of repeated cells, which he represents as note names grouped in space along x and y axes of time and register.



Example of Cecil Taylor's notational method (courtesy Karen Borca)

My reimagining of Taylor's improvisation follows his same cell-based formal principles, and uses a similar method of notation. Much of the melodic material is also adapted from the *Imagine the Sound* improvisation. While a guide to notation is provided on the following page, that will not be enough to get a feel for the piece. Instead, find videos of CT performing and study them. Listen for his sense of phrasing, repetition, pacing, large-scale structure. But most importantly, simply watch him *move*.

---

* Cecil Taylor, "Sound Structure of Subculture Becoming Major Breath/Naked Fire Gesture," liner notes to *Unit Structures*, Cecil Taylor, BST 84237, LP, 1966.

Guide to Notation

"Reimagine the Sound" is divided into six sections, labeled A–F. Within each section, cells are delineated by whitespace. You may start each section with any cell in the section (not necessarily the top-left-most), and from there you may jump to (or return to) any other cell within the section ad lib. The exception to this is in section B, where cells must be read left-to-right and top-to-bottom.

Melodic material may be written as note names, scale degrees, or pitch class numbers. (Scale degrees are represented as Arabic numerals with ^s, and pitch class numbers are represented Arabic numerals without ^s and with T and E replacing 10 and 11.*) Relative height corresponds to relative register. Always read left-to-right, unless the cell lies above a double-sided arrow "⟷", in which case you may also read right-to-left. Rhythms are free unless otherwise specified.

"T" means transposition: e.g., T_7 = transpose up a perfect fifth (7 semitones); T_{-16} = transpose down a major tenth (16 semitones). "I" means inversion: e.g., I_{D4} = invert around the note D4;† $I_{E4/F4}$ = invert around the E4/F4 axis.

The "CT-esque" cluster runs mentioned in section C refer to Taylor's extremely fast cluster passages. These are performed by playing dyads or trichords with each hand, with the left hand playing only black keys and the right hand playing only white keys.‡

The "CT-esque" bassline mentioned in section E refers to a common technique used in Taylor's ballads, such as "After All" from *Silent Tongues* or "Pemmican" from *Garden*.§

This étude frequently references "Dasian"-based and "Guidonian"-based scales. For more information on how these non-octavian scales are constructed, see **Warmup No. 1**. Similarly, the bottom-right-most cell in section F ("free improvisation w/ hands separated at P5 or M10") explicitly harkens back to the hand separation intervals featured within that warmup.

Section D is actually identical to **Warmup No. 2**, just represented in a more abstract way.

---

* I deploy "scale degrees" somewhat loosely in the score below, as I sometimes deploy the so-called "scale degrees" 9, 11, and 13 instead of 2, 4, and 6. That said, this is customary in jazz when emphasizing third relations.

† Here, as throughout this document, I am using Scientific Pitch Notation, where middle C = C4.

‡ For more information on how to perform these, see Mark Micchelli, "Sound Structures and Naked Fire Gestures in Cecil Taylor's Solo Piano Music," *Music Theory Online* 28, no. 3 (September 2022), https://mtosmt.org/issues/mto.22.28.3/mto.22.28.3.micchelli.html.

§ For more on this technique, see Mark J. Bobak, "The Music of Cecil Taylor: An Analysis of Selected Piano Solos 1973–89" (DMA diss., University of Illinois, Urbana-Champaign, 1994), 147–166 and Kaja Draksler, "Cecil Taylor: *Life As…*: Structure within a free improvisation" (Master's thesis, Conservatorium van Amsterdam, 2013), http://www.kajadraksler.com/Taylor.pdf.

Étude No. 4

Reimagine the Sound

Duration: probably at least 4m

Mark Micchelli

the form of this improvisation is **A** **B** **C** **D** **E** (**A**)

optional

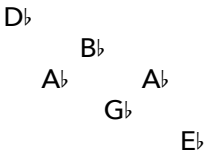
can be switched

can be switched

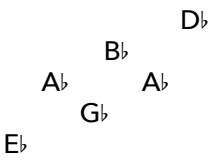
material from **F** may appear at any point

A

(RH)

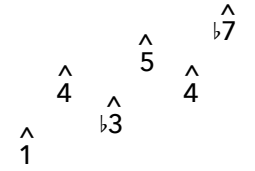


(LH)

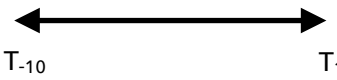


(prime or retrograde)

(RH)



(LH) I_{D4} *OR* T_{-16}



symmetrical free improvisation around I_{D4}

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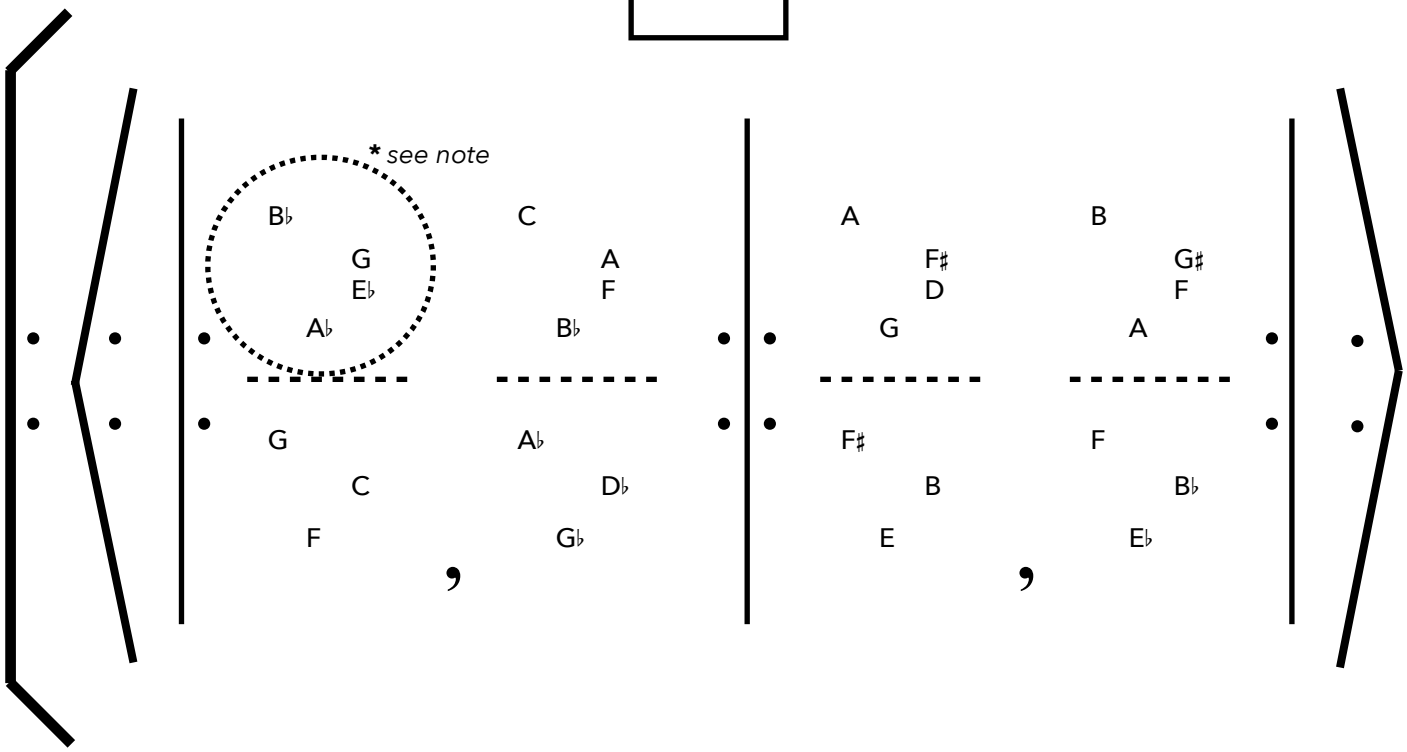
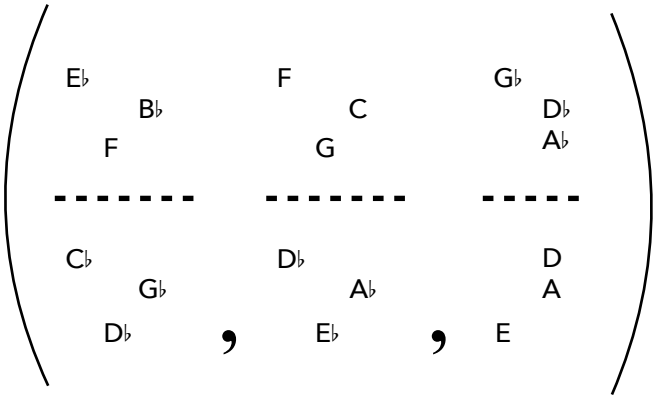
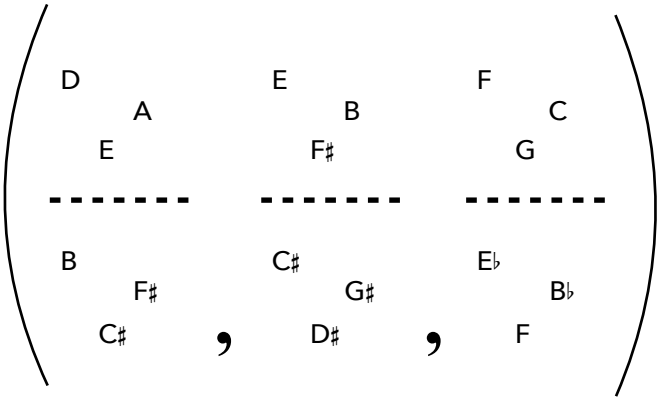
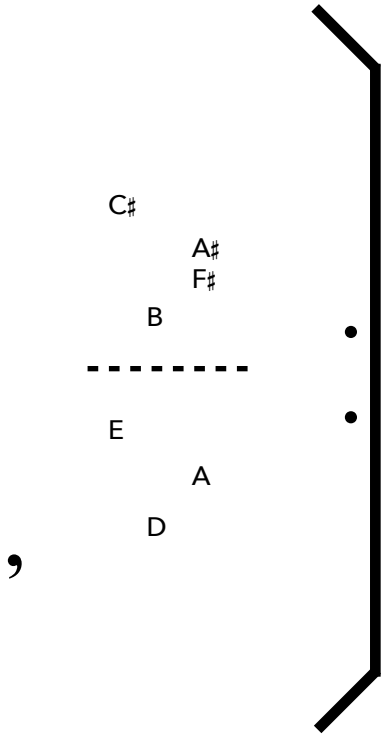
B





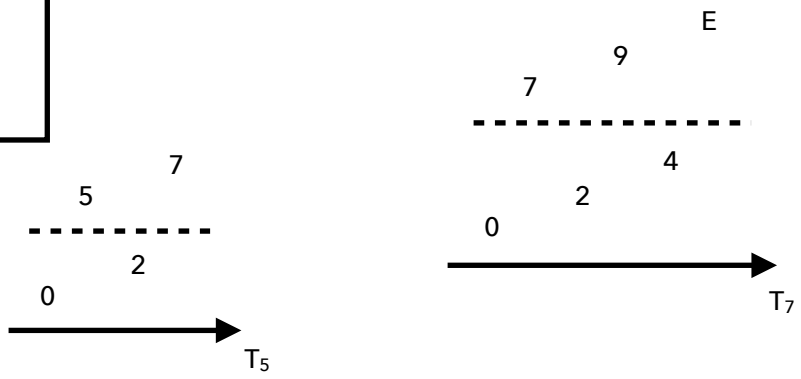
OR



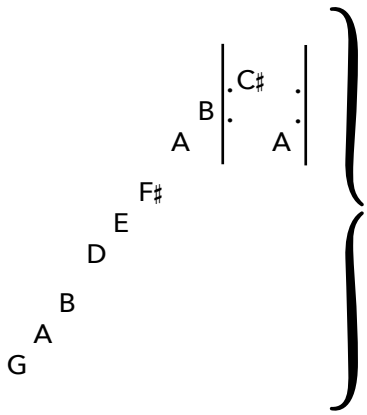


***** *note: any RH pattern of* ^9 ^7 ^5 ^1 *can be inverted to* ^7 ^5 ^2 ^1

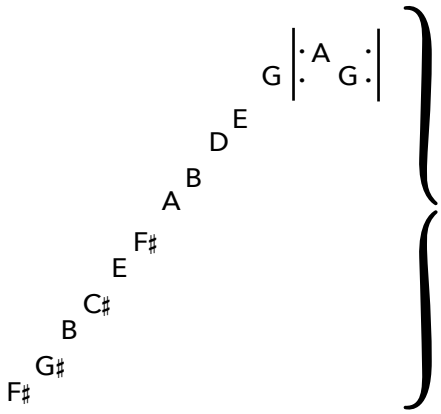
C



free improvisation using CT-esque alternating RH-white-key/LH-black-key cluster runs

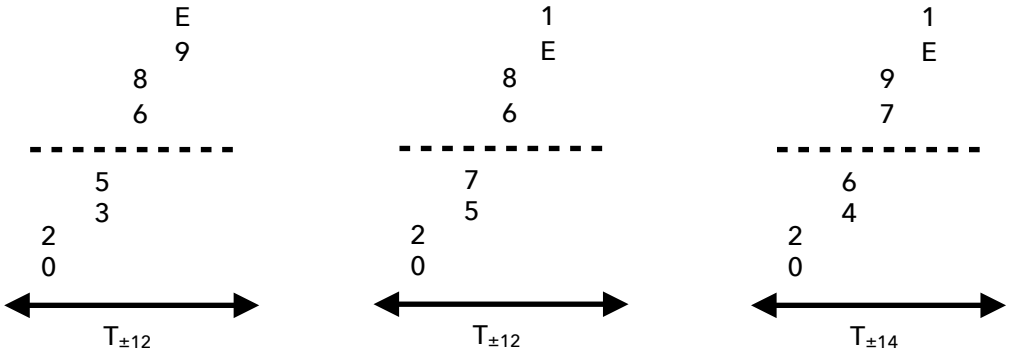


can keep moving up W-W-m3 interval cycle ("Dasian Pentatonic")

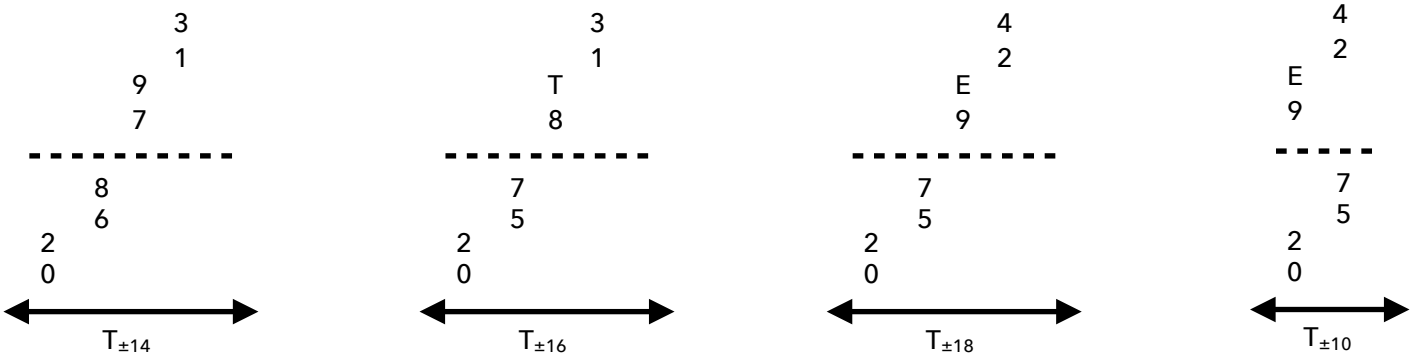


can keep moving up W-m3 interval cycle ("Guidonian Pentatonic")

D



free improvisation using (0235), (0264), (0257), and (0268) tetrachords



E

D♯ B♯ G♯ C♯ } $T_{\pm6}$

B♭ G E♭ A♭ } $T_{\pm3}$

F♯ E D♯ C♯ } $T_{\pm4}$

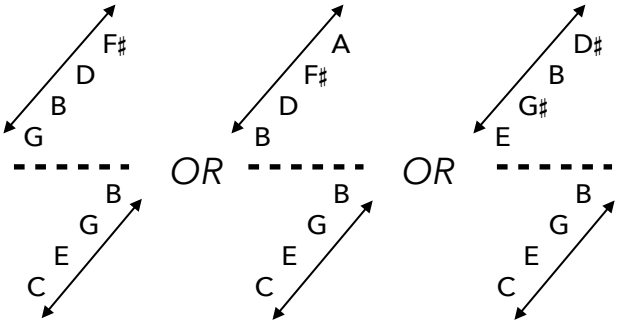
C B♭ G F } $T_{\pm4}$

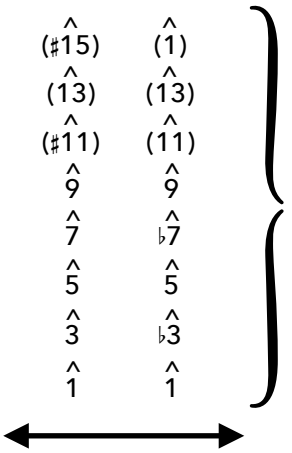
Optional: intersperse CT-esque chromatic bassline in 8ves; make generous use of sostenuto pedal

---

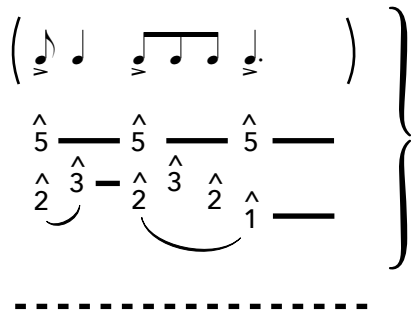
F

Dasian scale in 3rds w/ hands separated at the Dasian 5th, 7th, or 10th, e.g.:





T_1 when prime →, T_{-1} when ← ret., $T_{Dasian3rd}$ at any point (i.e. move up a M3 or m3 as to stay within the same Dasian harmony)



can also invert around ♭3̂/♯3̂ axis

T_{-7} *OR* T_{-9} *OR* T_{-16}

$T_{\pm3}$ *OR* $T_{\pm4}$

free improvisation w/ hands separated at the P5 or M10

Étude No. 5

Undue Symmetry

***

While there are twelve inversion classes, I contend it's only important to learn to improvise with two: one that generates the intervals P1, M2, M3, d5, m6, and m7, and one that generates the intervals m2, m3, P4, P5, M6, and M7. The previous étude explored I_4, which is a P1-based inversion class.* This étude explores I_9, which is an m2-based inversion class. I chose I_9 for two reasons. First, it's only one note-pair off from having perfect black-key/white-key symmetry (although the same can be also said for I_{11}). Second, the E4/F4-axis divides the piano into two equal halves of 44 notes each, meaning that the lowest A and the highest C can be played simultaneously.

In addition to the near-ubiquitous I_9, this étude features an additional challenge involving arpeggio permutation. This method of improvisation is loosely based on a technique in jazz improvisation involving permutations of varying subsets of descending 4- or 5-note scales.† I've taken a more overtly mathematical approach to this technique, enumerating every possible arpeggiation of a 4-note figure up through cardinality-7 in the Arpeggio Contour List following the main score.

Lastly, although the vast majority of this piece strictly adheres to I_9, mm. 13–16 break this pattern. Bring special emphasis to the A5s and M3s in these final bars, as those will be the first times those intervals appear in the entire piece. (This also turns the title into an oblique pun: while throughout the piece there is an undue amount of symmetry, at m. 13, you "undo" the symmetry.)

---

* I chose I_4 (as opposed to I_0, I_2, I_6, I_8, or I_{10}) because the black-key/white-key pattern is fully symmetrical: whenever the right hand plays a white key, so does the left hand, and whenever the right hand plays a black key, again, so does the left hand.

† See, for instance, Mark Levine, *The Jazz Piano Book* (Petaluma, CA: Sher Music, 1989), 167–178.

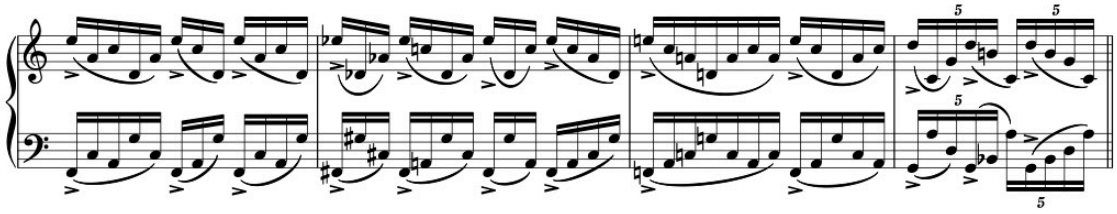
Improvisation Ideas for mm. 11-12

N.B.: throughout the following improvisations, the left and right hands should remain exactly symmetrical around the E4/F4 axis.

IDEA 1: arpeggiated 4-note chords

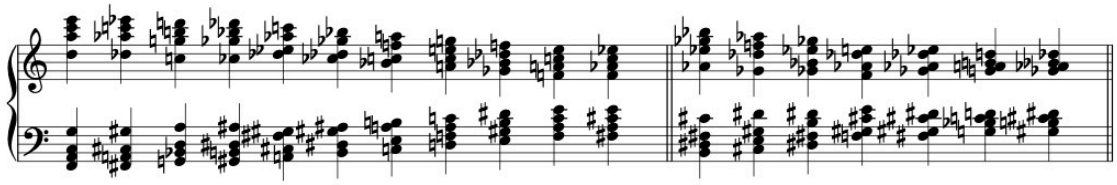
This is the primary musical idea of the improvisation. Start by focusing on only a few chords, then gradually expand your harmonic palette.

The pattern of the arpeggios should remain constantly in flux. The primary note value is the sixteenth note, although you should occasionally switch to sixteenth-note quintuplets to add interest (as in m. 4 in the example below). Always begin the arpeggios with the outermost note, and always give that note a slight accent.



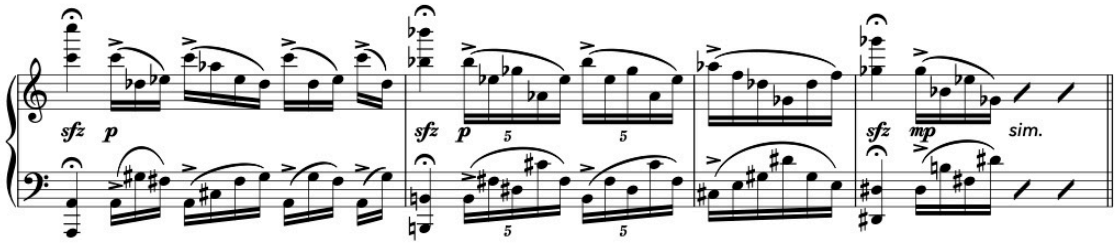
One way to think about these arpeggios is as melodic contours, where the outermost note is encoded as "3," the second-outermost as "2," the second-innermost as "1," and the innermost note as "0." In the example above, for instance, m. 1 contains the contours <31201>, <320>, and <3120>; m. 2 contains <301>, <3201>, <302>, and <3210>; and so on. To assist with this technique of constantly-varying arpeggios, you can refer to the Arpeggio Contour List following the main score, which enumerates all possible contours for all arpeggio lengths (aka "cardinalities") up through 7.

Generally speaking, each pair of successive chords should follow smooth-ish voice leading, at least at first. I tend to use the two sets of harmonic progressions below as a starting point.



IDEA 2: punctuating outer-register octaves

To harken back to the main motivic idea of the piece (as in mm. 1–4, 6–9, and 13–14), you may occasionally want to punctuate the arpeggiated 4-note chords from **IDEA 1** with outer-register octaves, as in the example below.

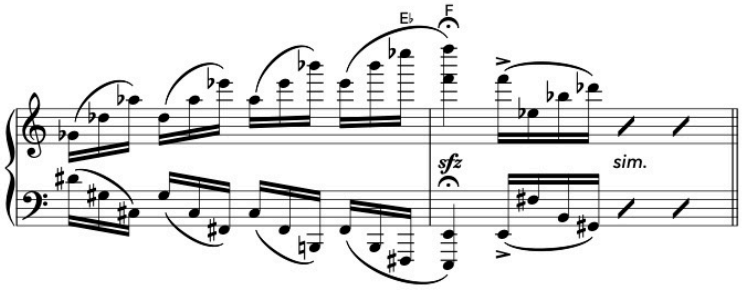


IDEA 3: outward-moving scales

As the improvisation progresses, you may want to vary the texture of the 4-note arpeggios by introducing outward-moving scales. Any scale will do; the example below uses Dasian.* This is a useful way to "reset" harmonic progressions like those at the bottom of the previous page, which tend to move inward towards the E4/F4 reflection point.

IDEA 4: outward-moving P5 patterns

As a more extreme version of **IDEA 3**, you can break up the texture of the 4-note arpeggios with outward-moving P5 patterns. These get you to the outer register of the piano much more quickly than the scales in **IDEA 3**.†



* See **Warmup No. 1**.

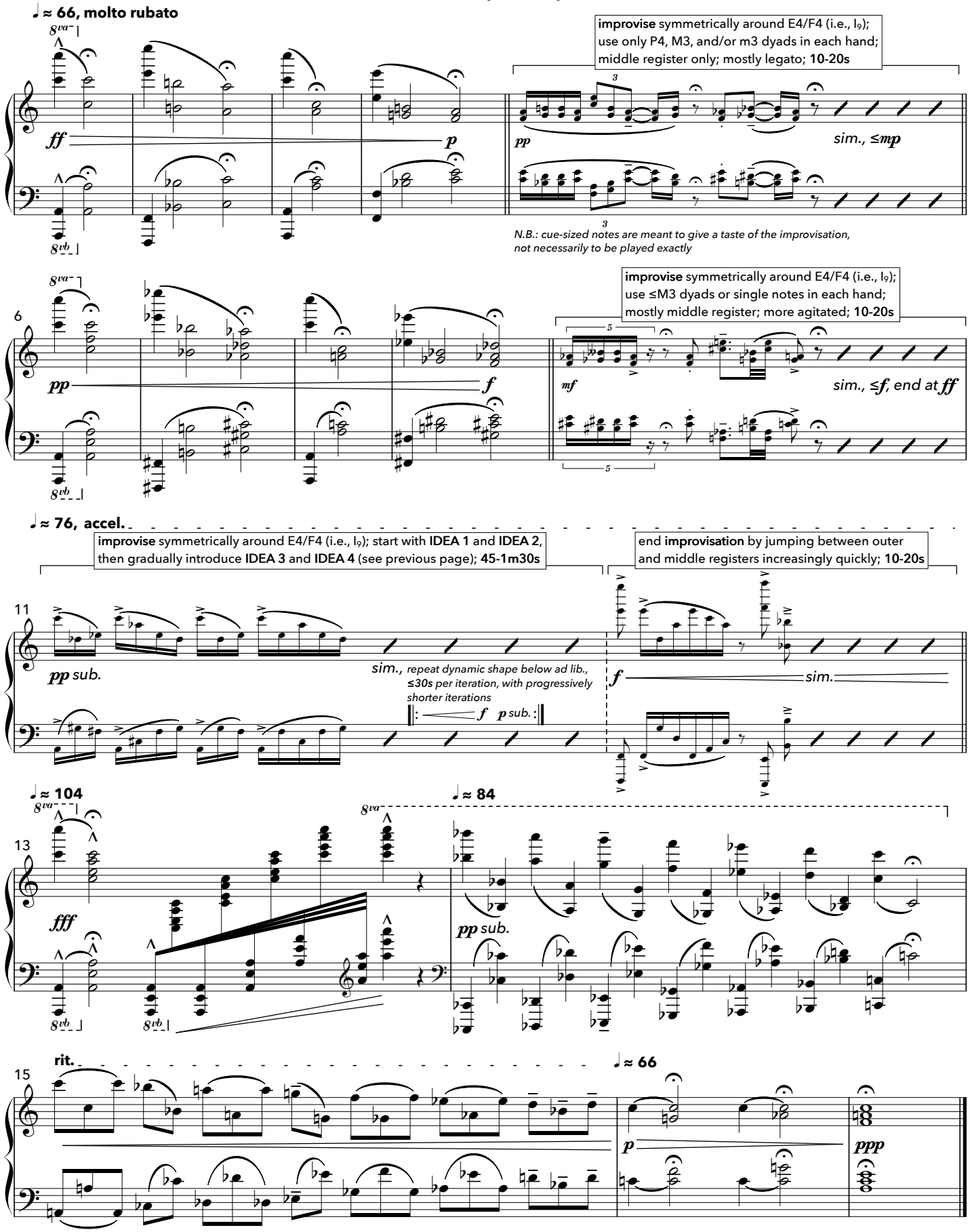
† These are also an oblique reference to the primary technique used in György Ligeti's "Étude 2: Cordes à vide."

Étude No. 5

Undue Symmetry

Mark Micchelli

Duration: 3-4m



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Arpeggio Contour List

cardinality-7		cardinality-6	cardinality-5,4,3,2
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<3212120>	<3102120>	<321210>	<32120>
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<3120101>	<3010101>	<301010>	<30>

Étude No. 6

Étude for the Left Brain

***

This étude is the 3-voice version of **Étude No. 1**, continuing the idea of the "Polypulse Catalog." However, adding the extra voice increases the total number of polypulses (literally) exponentially, meaning that it's not exactly practical to perform all of them in a single étude. Nevertheless, I've painstakingly notated all of them in "Polypulse Catalog, Pt. 2 (3-Voice; 2:3:4 Through 6:7:8)." Sibelius tells me the total time to perform it is eighteen-and-a-half minutes, so needless to say, I've never tried making it through all the way through in one go.

More musically, "Étude for the Left Brain" presents a single three-voice polypulse, in all six of its permutations. This étude is less of a standalone entity and more of a set of instructions for étude-construction, although I also include an example resultant étude featuring a 6:7:8 polypulse.

For more polypulse practice, see **Étude No. 1**.

Instructions for Étude Construction

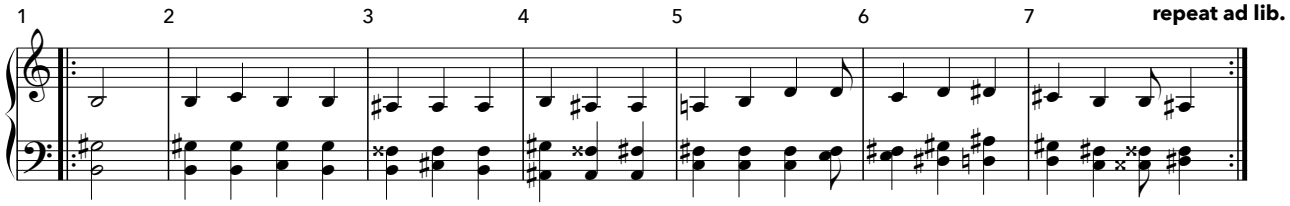
"Étude for the Left Brain" consists of 7 measures, repeated ad libitum. The tempo should be slow enough to hear the nuances of the polypulse in question, so each playthough should probably take between 30s and 1m, depending on the polypulse.

Each measure uses a different distribution of fast pulse/medium pulse/slow pulse over the top voice/middle/voice bottom voice. The distribution should be as follows:

	m. 1	**m. 2**	**m. 3**	**m. 4**	**m. 5**	**m. 6**	**m. 7**
top voice	fast	fast	medium	slow	slow	medium	fast
middle voice	medium	slow	slow	fast	medium	fast	medium
bottom voice	slow	medium	fast	medium	fast	slow	slow

Note that this is *different* distribution ordering than the one given in "Polypulse Catalog, Pt. 2," which aimed for a more combinatorially logical ordering. The ordering here is designed to bring out the voice leading of the harmonies.

Speaking of which, the 7 measures of "Étude for the Left Brain" should use the following harmonic progression. Harmonies should be more-or-less equally spread out across each measure, with the exceptions of the harmonies notated as eighth notes, which should be shorter.



While it is theoretically possible to construct instances of "Étude for the Left Brain" without writing everything out (and what an étude for the left brain that would be!), I find it enormously helpful to write out a plan for where to change each voice in the 3-part harmony. This usually entails writing out the whole étude, as I have done in the example on the following page that uses the 6:7:8 polypulse.

Dynamics are up to the étude constructor/performer. However, make sure to bring out the voice leading by accenting the moments when a note changes within the harmonies. These accents, as well as some sample dynamic markings, are also given in the 6:7:8 example on the next page.

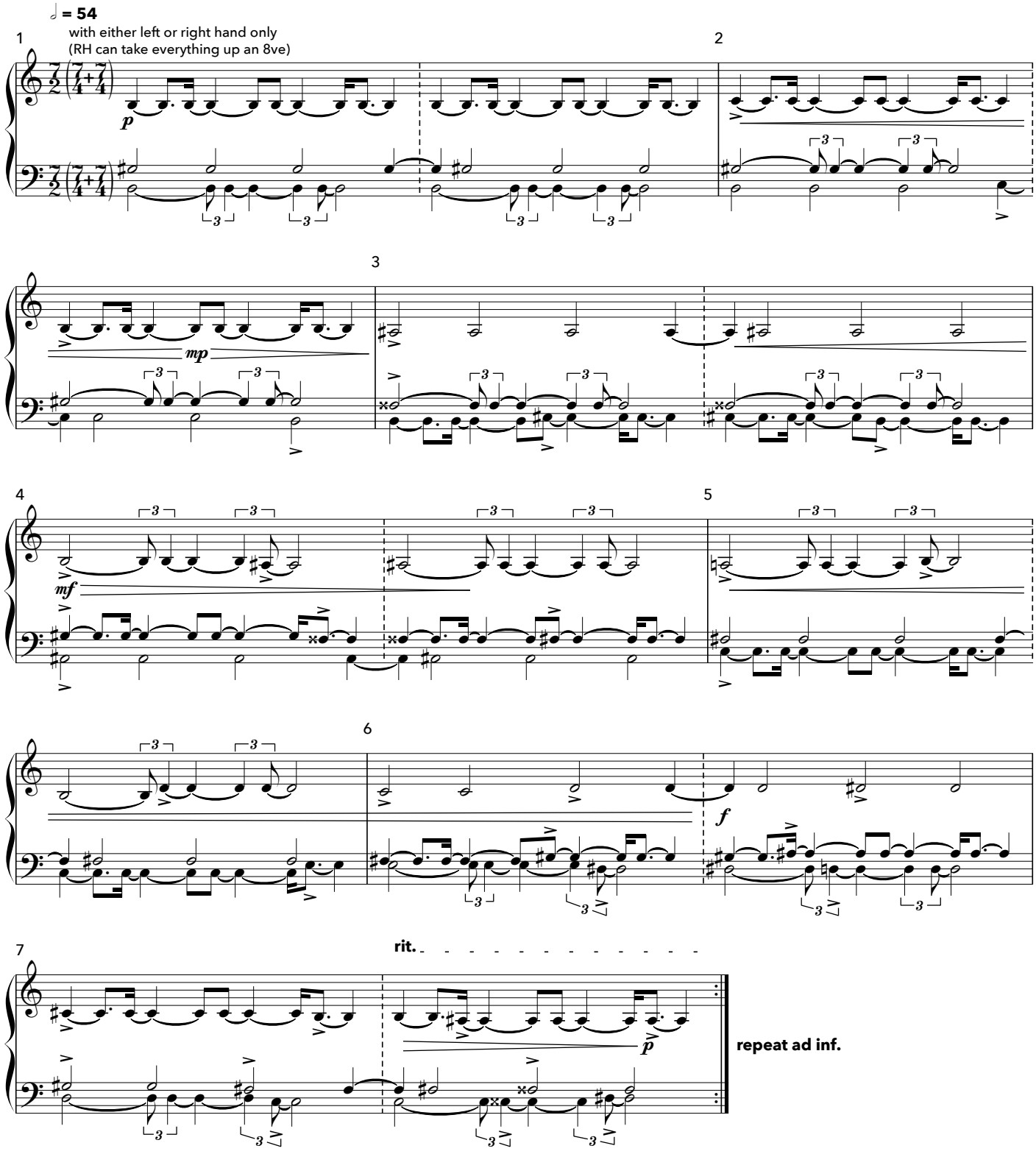
Oh, and perform everything with only one hand. Your pick ;)

Étude No. 6

Étude for the Left Brain [6:7:8 example]

Duration: ≈1m for each time through

Mark Micchelli



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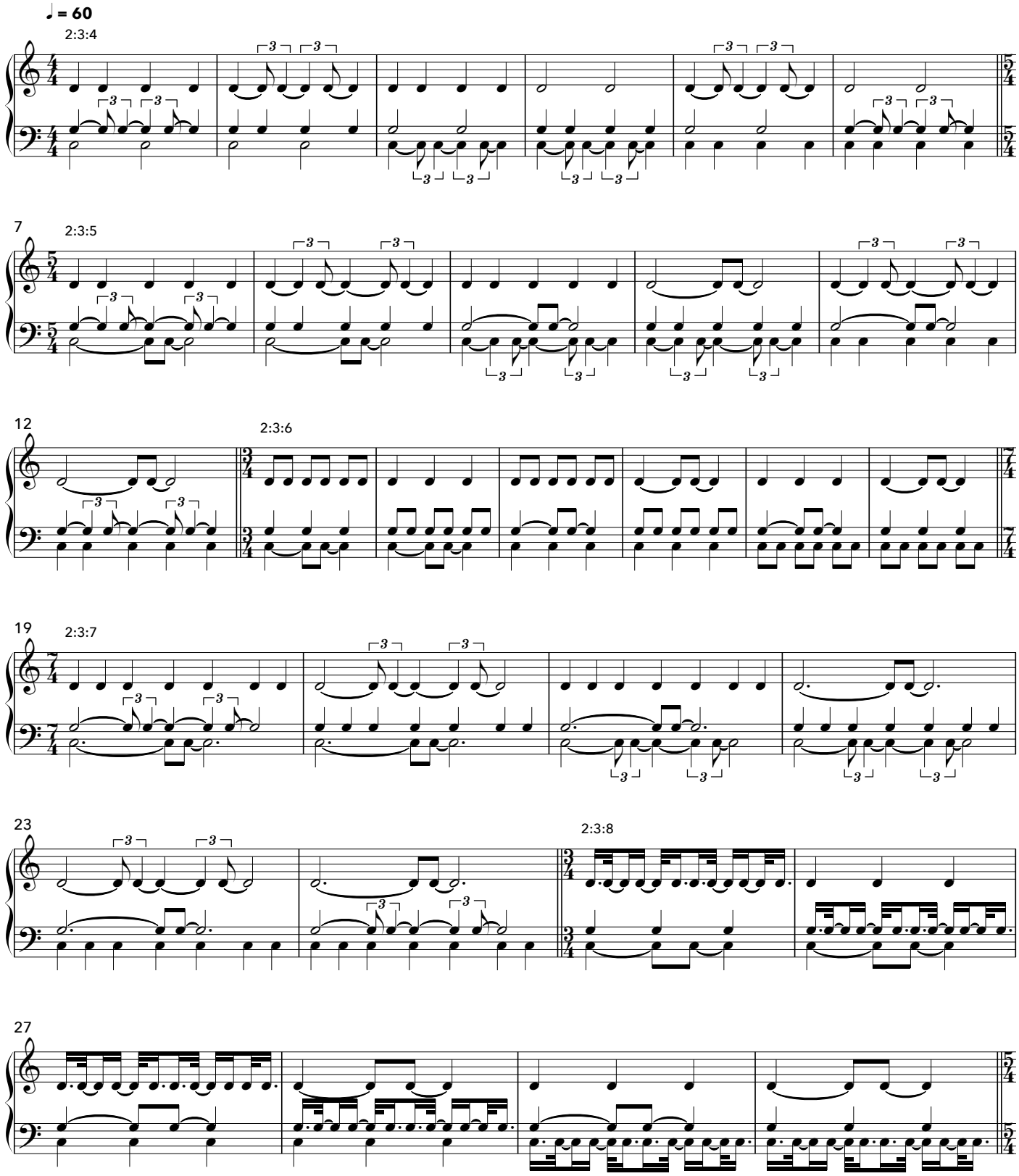
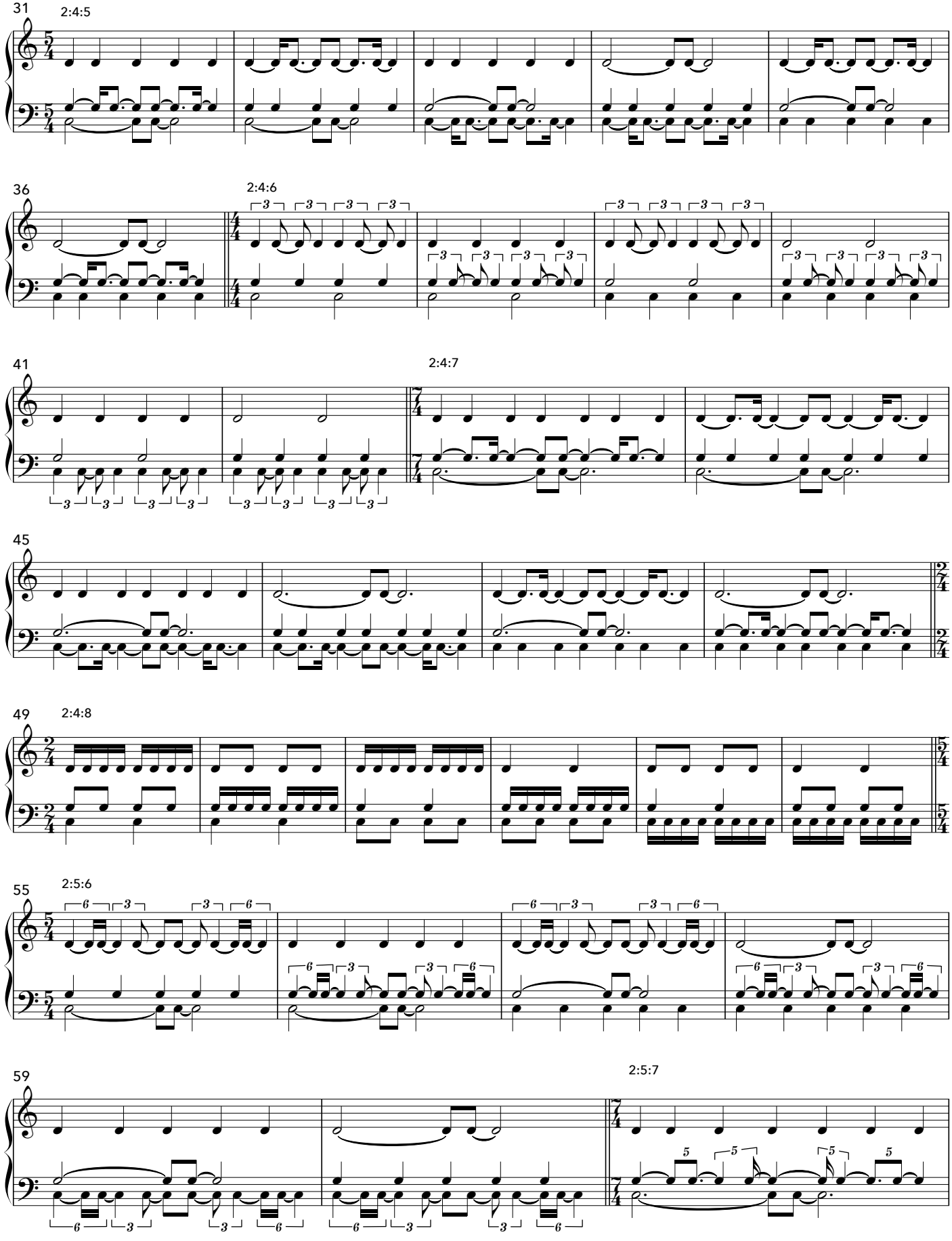
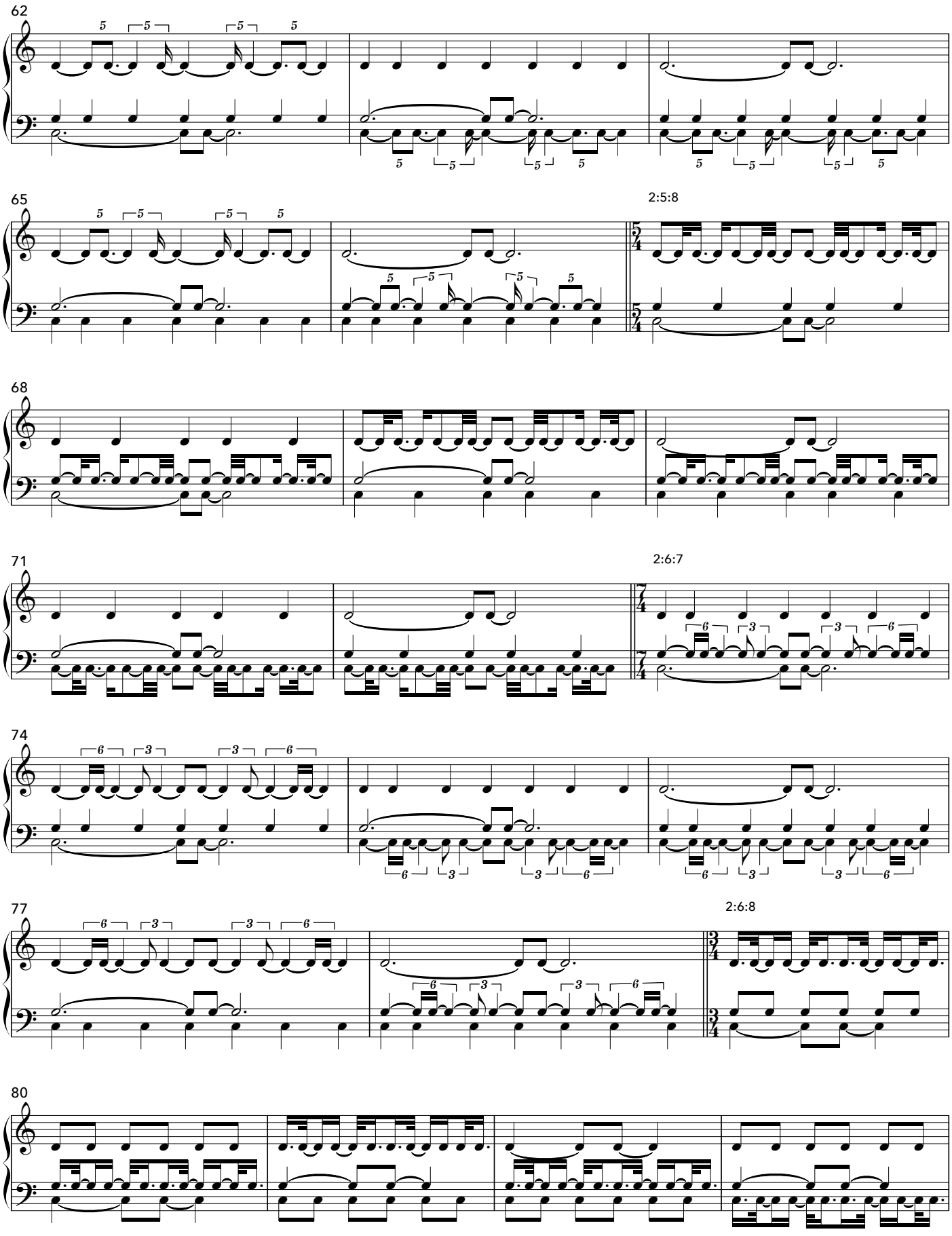
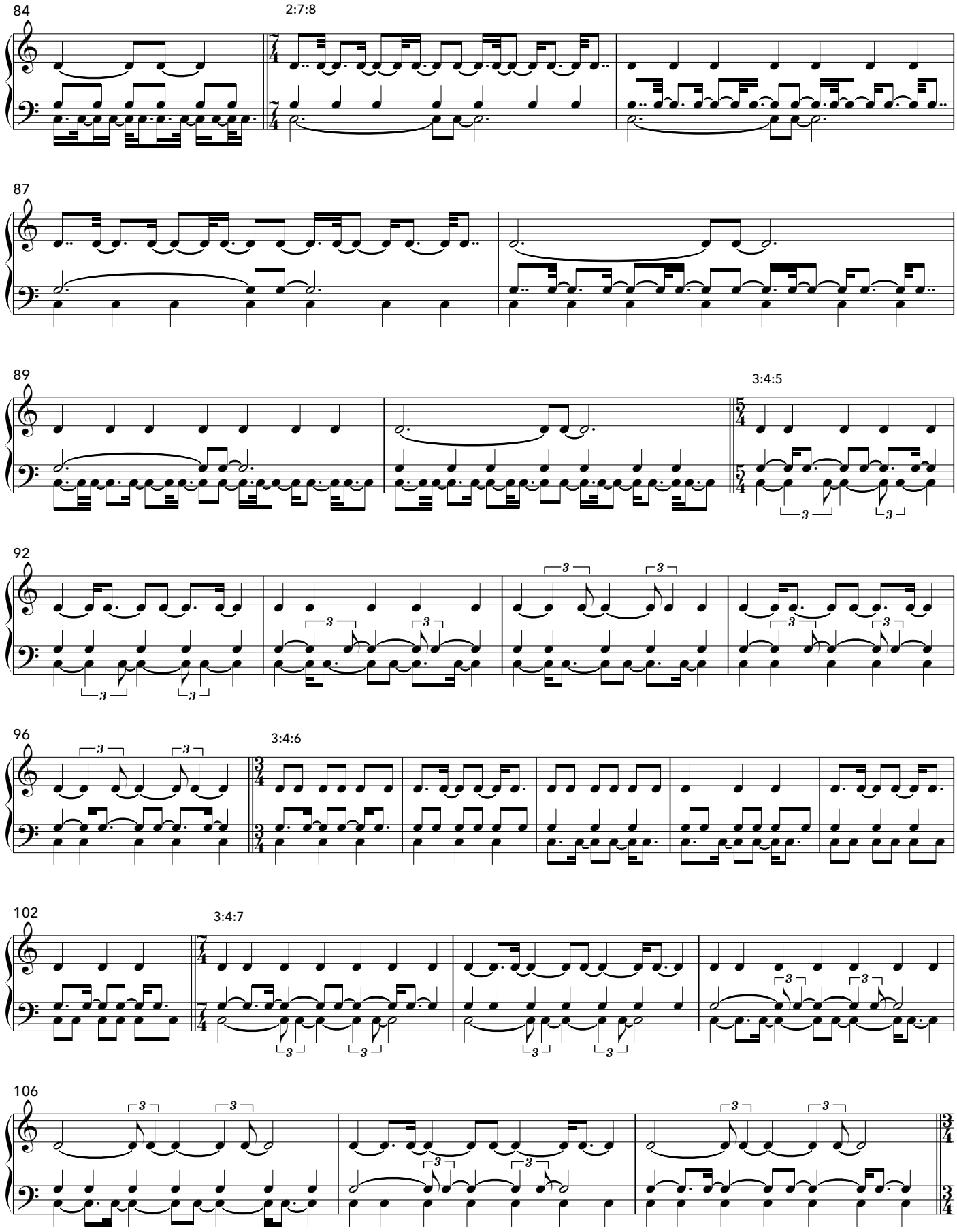
Étude No. 6

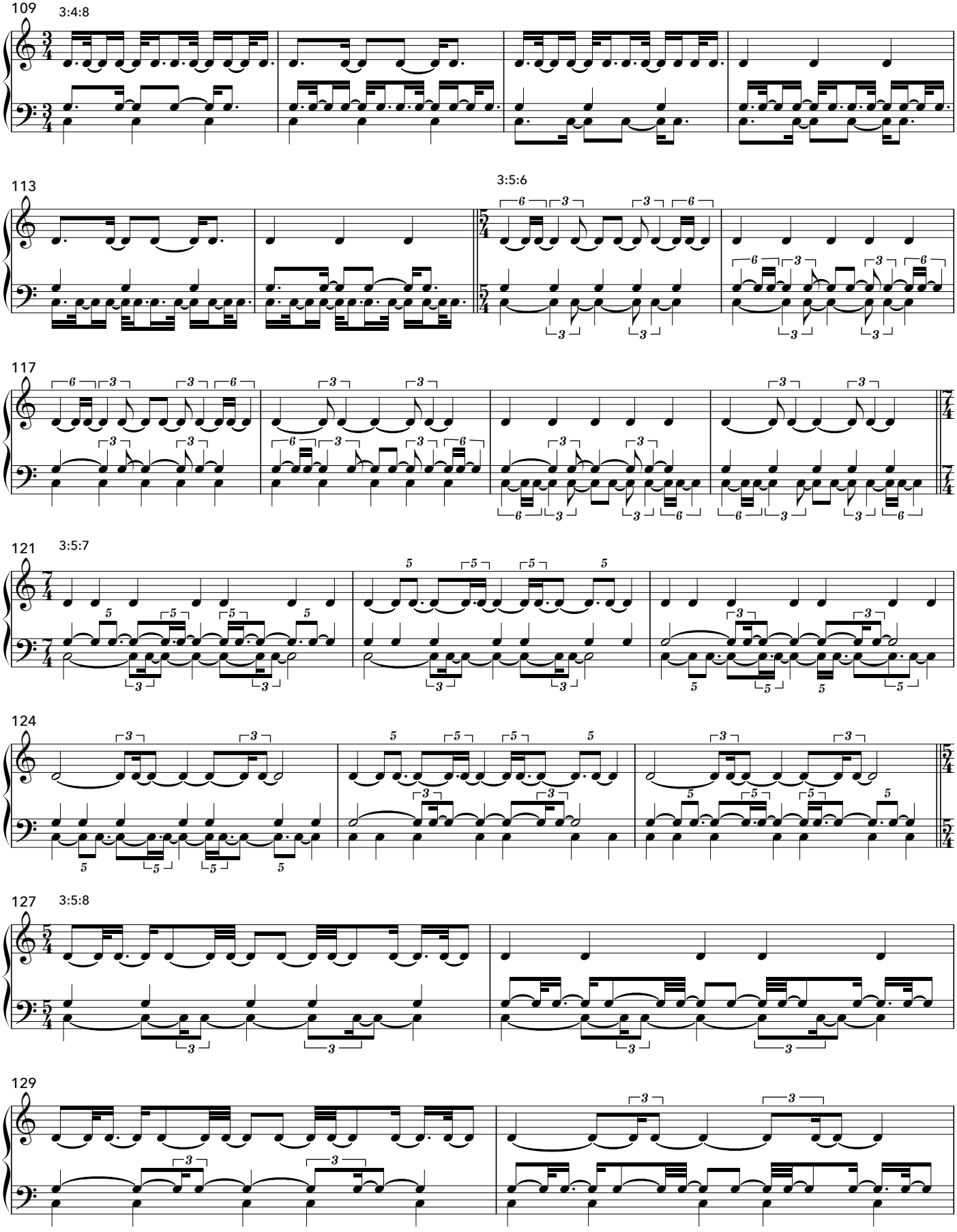
Appendix: Polypulse Catalog, Pt. 2 (3-Voice; 2:3:4 Through 6:7:8)

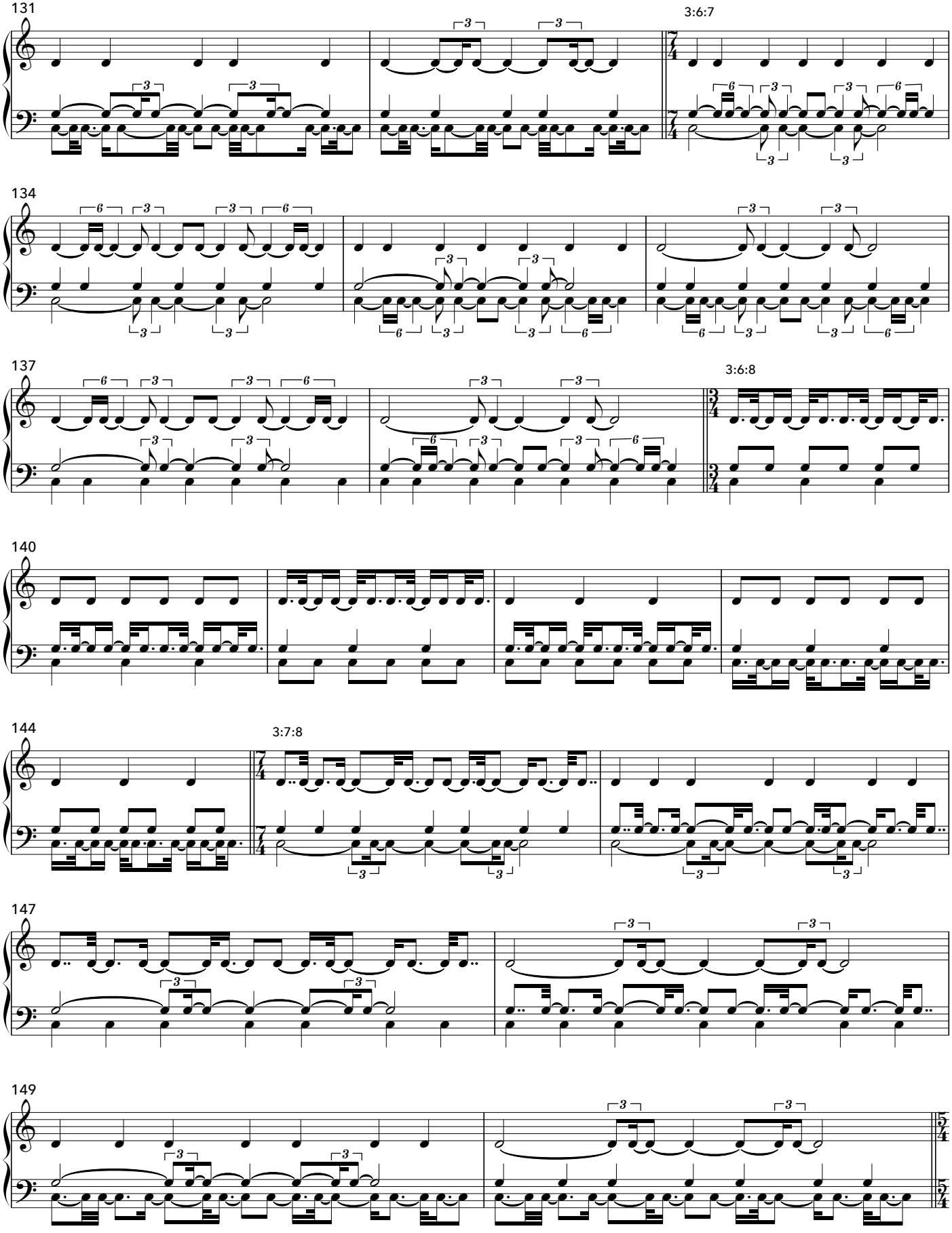


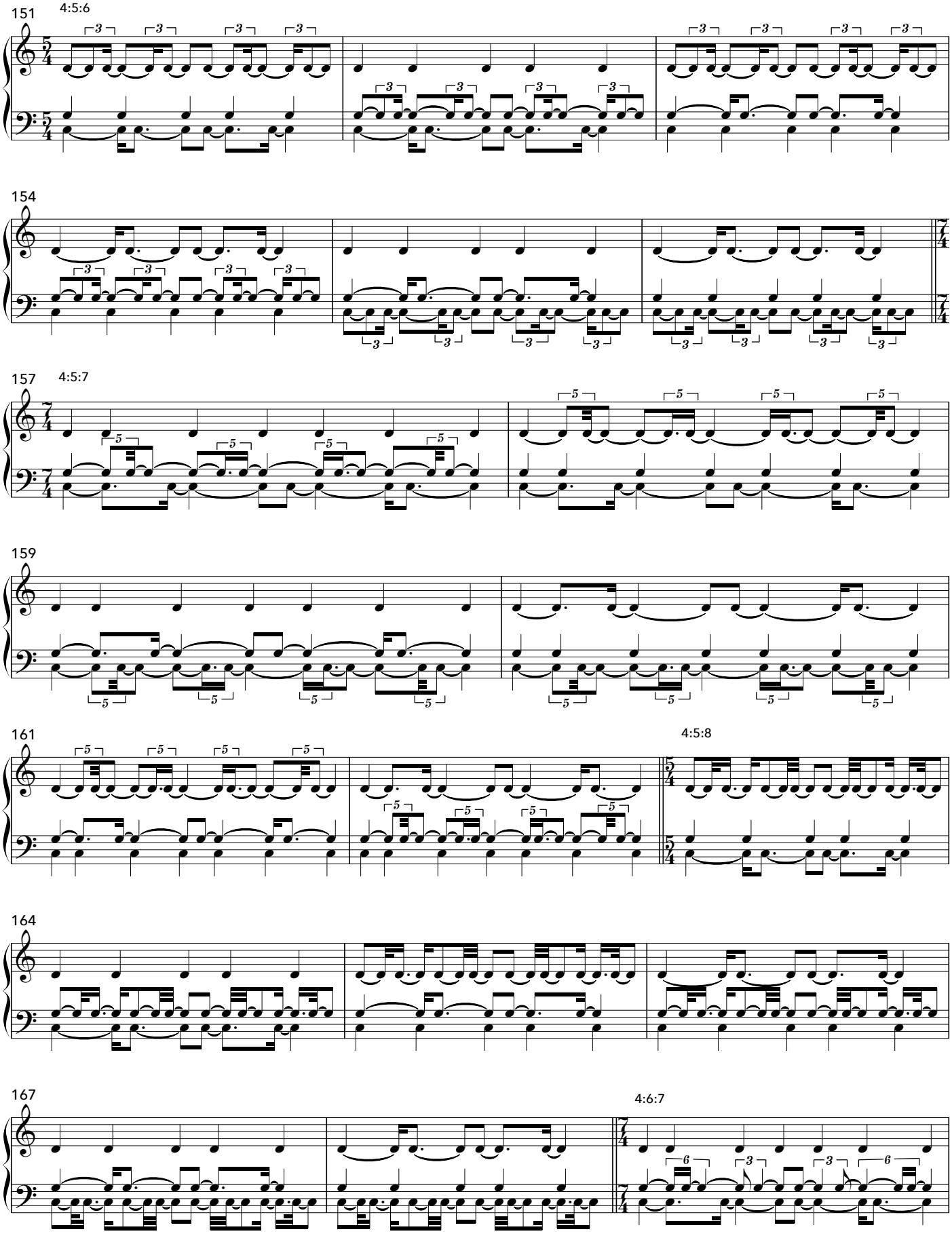

31
2:4:5
36
2:4:6
41
2:4:7
45
49
2:4:8
55
2:5:6
59
2:5:7

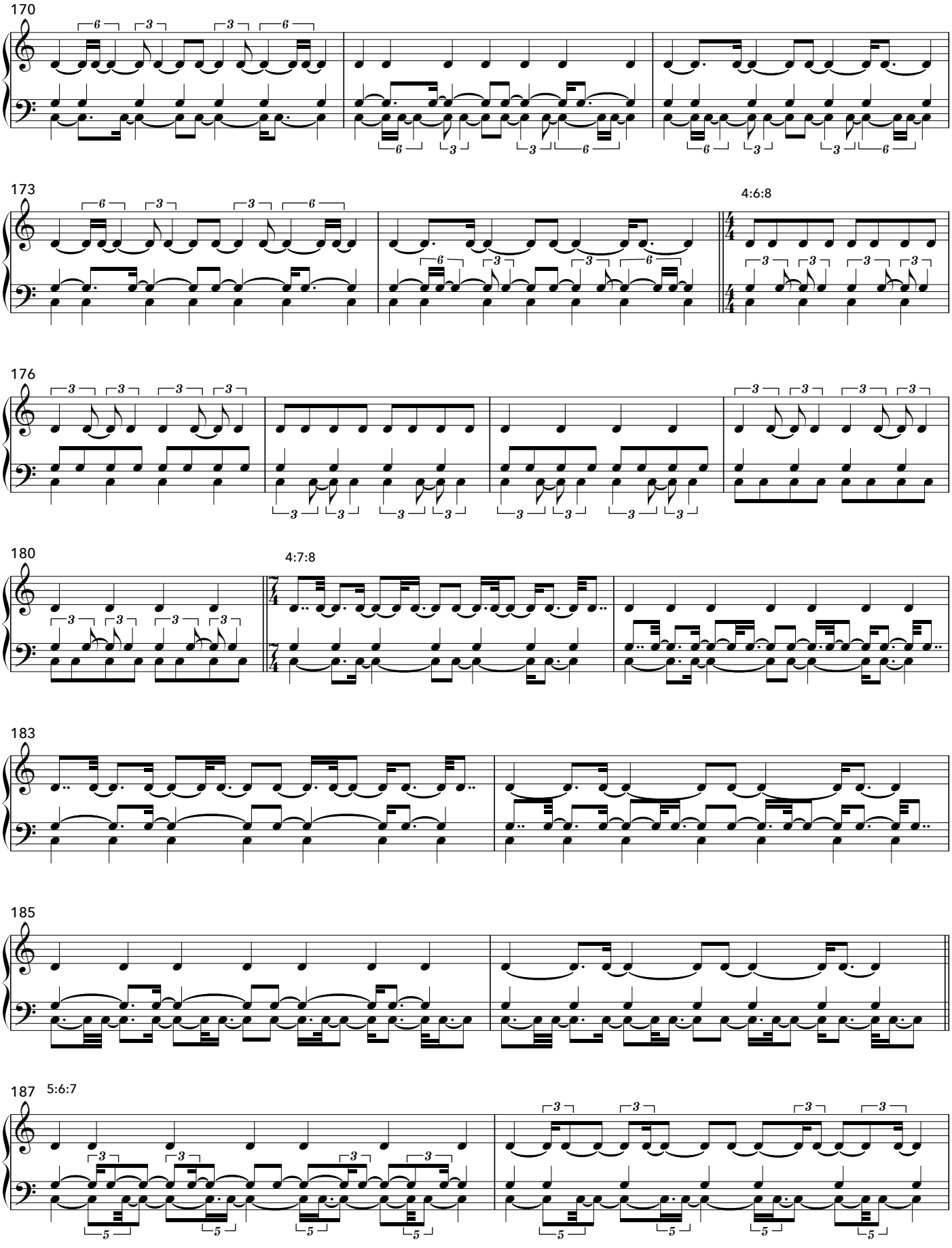

62
65
2:5:8
68
71
2:6:7
74
77
2:6:8
80

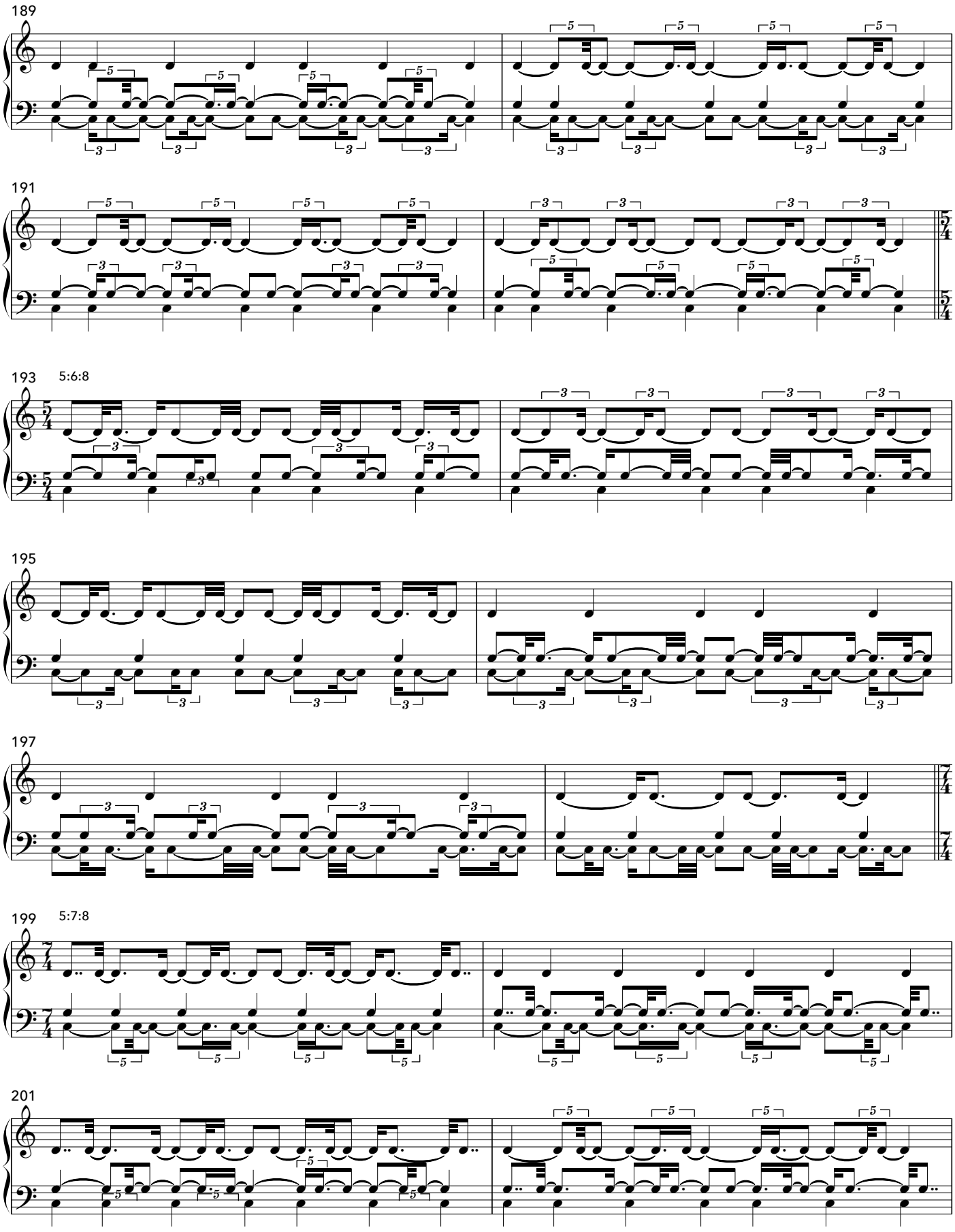

84
2:7:8
87
89
3:4:5
92
96
3:4:6
102
3:4:7
106

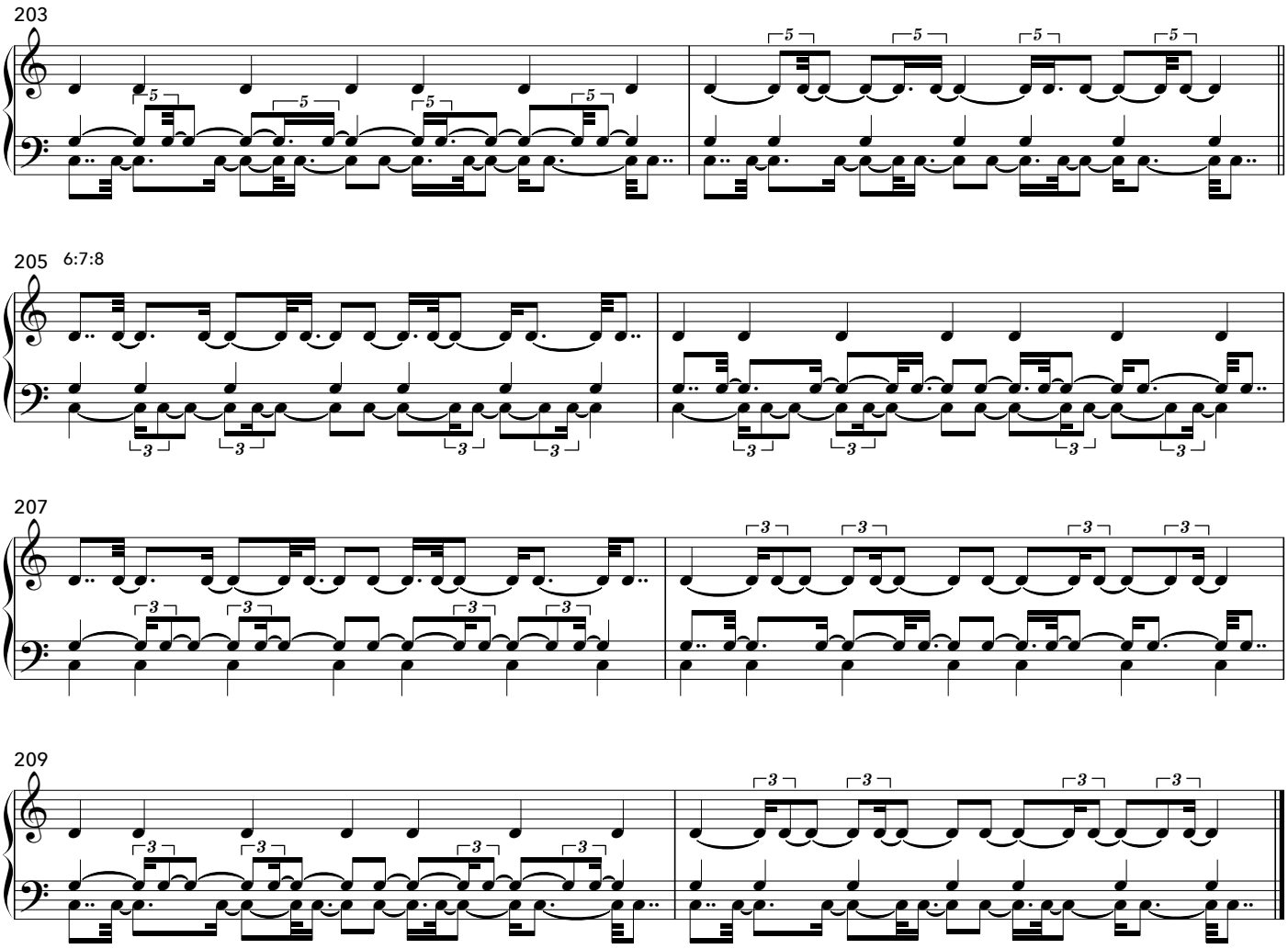

109
3:4:8
113
3:5:6
117
121
3:5:7
124
127
3:5:8
129


131
3:6:7
134
137
3:6:8
140
144
3:7:8
147
149


151
4:5:6
154
157
4:5:7
159
161
4:5:8
164
167
4:6:7


170
173
4:6:8
176
180
4:7:8
183
185
187
5:6:7


189
191
193
5:6:8
195
197
199
5:7:8
201


203
205
6:7:8
207
209

Étude No. 7

Traces

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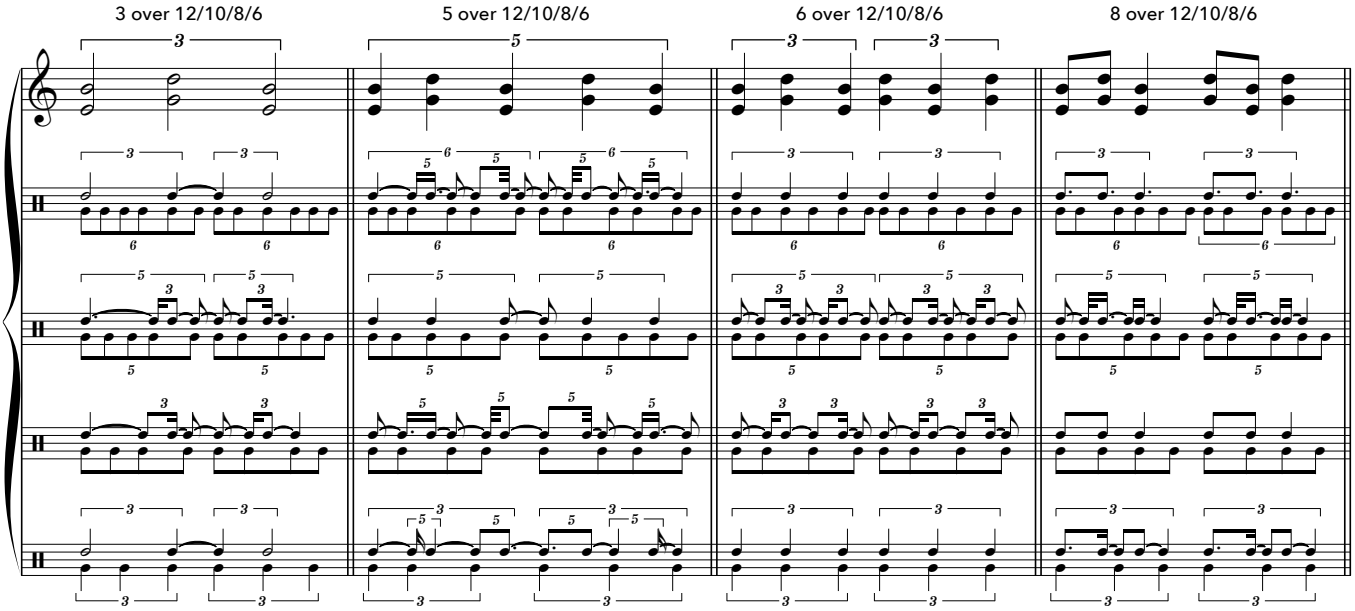
The meaning of the title, "Traces," is threefold. First, there are what I'm literally calling "traces" in the score: quiet, barely-there textural figures that rest in a liminal zone between sounding and non-sounding. Second, there is the ostinato arpeggiation pattern, which traces over itself countless times in the piece. Finally, there is the fact that this étude, despite being completed in 2021, reuses musical material from two older pieces of mine. One of these pieces is from 2015, a few years after I finished undergrad. The other of these pieces is from 2004, when I was in middle school. (In fact, it was the first piece I ever wrote.) This nostalgic character permeates the étude, and in spite of the technical complexity, the piece should be performed with the character of a nursery rhyme or lullaby.

An earlier draft of this piece featured complex polypulses over Improvisation Section 1 (these are a reference to yet another older piece of mine, from 2011). While I don't believe these work musically within the context of the final version of the étude, they are nonetheless good practice, and so are included below:

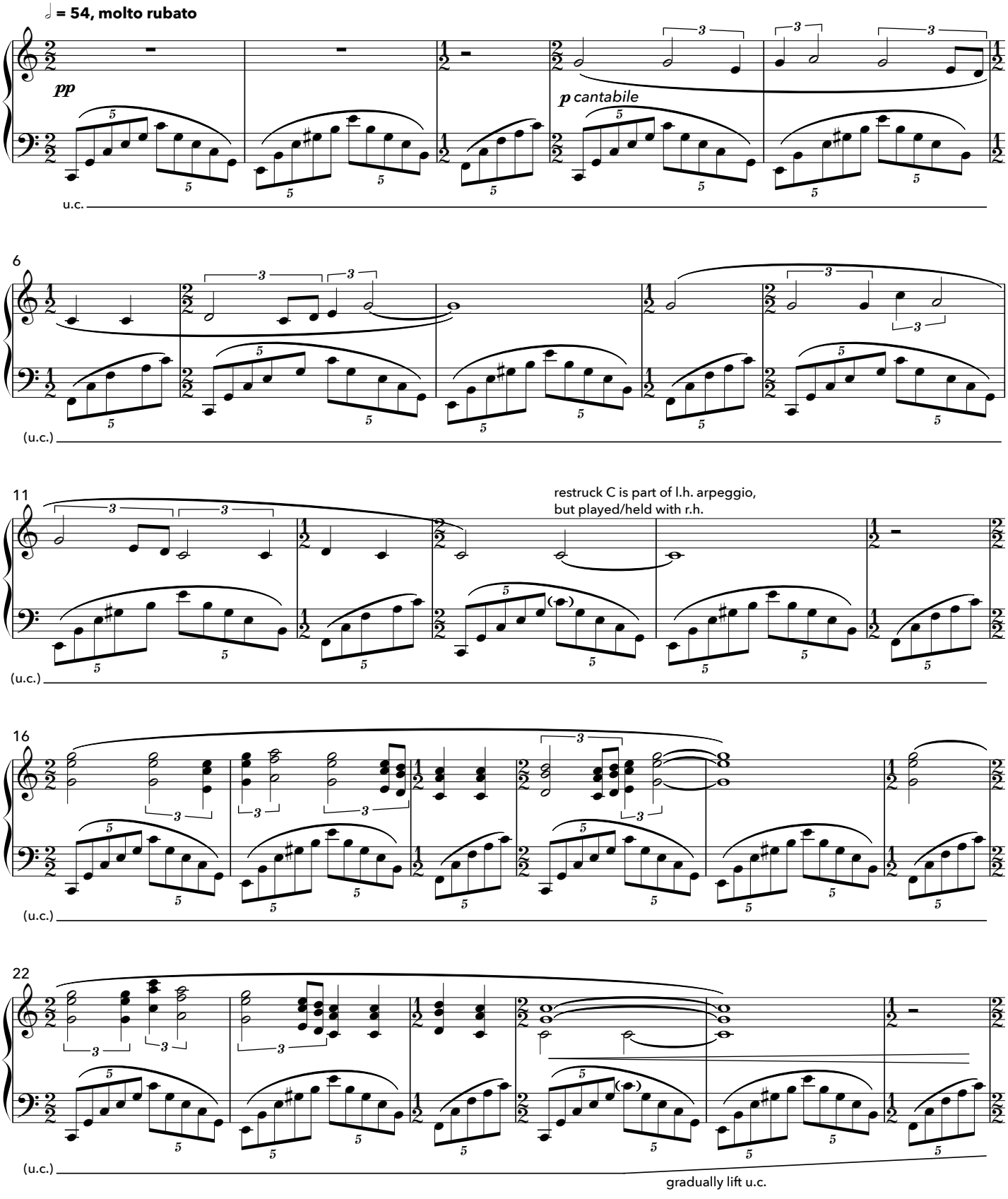


Étude No. 7

Traces

Duration: 4-5m

Mark Micchelli



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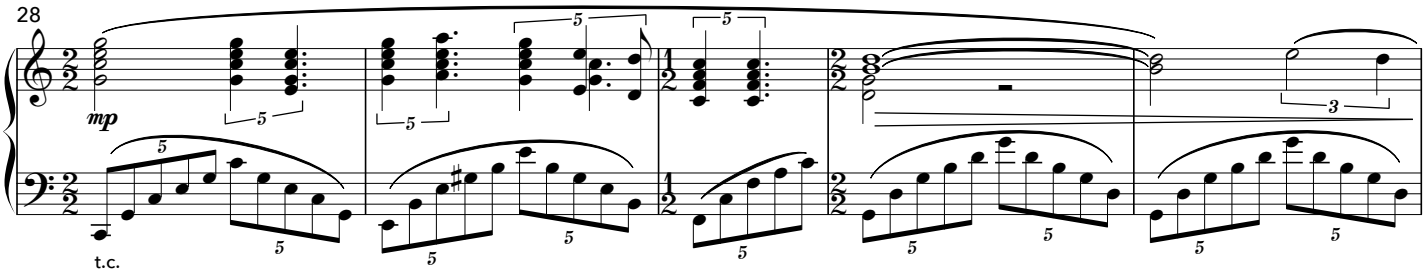
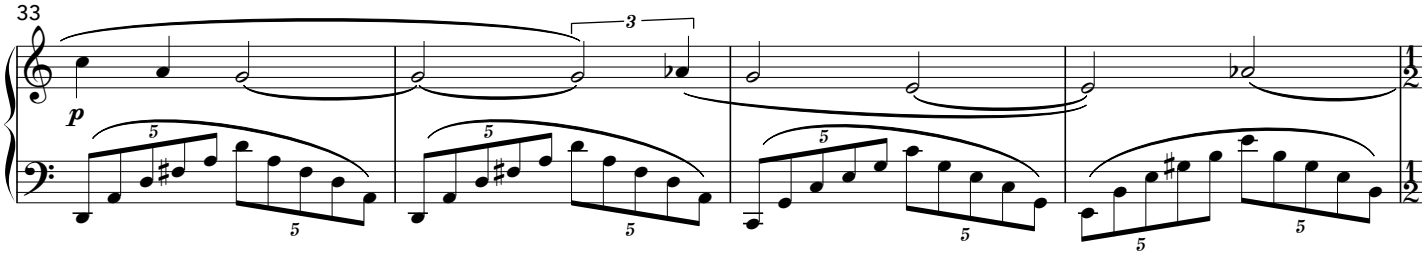
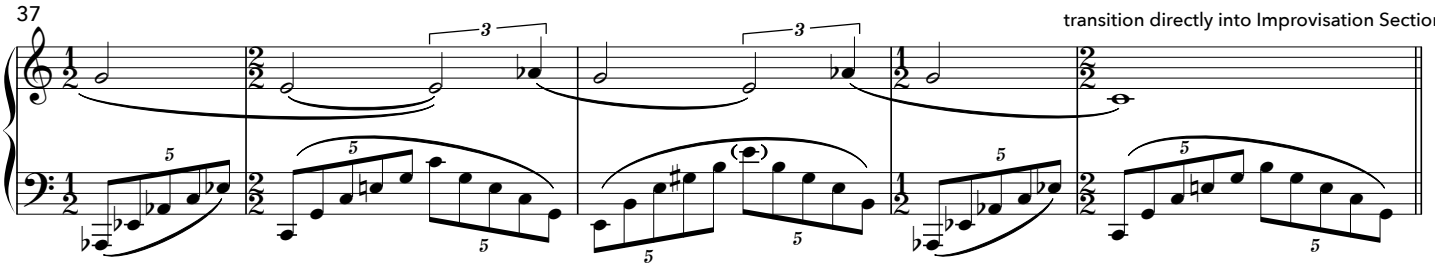
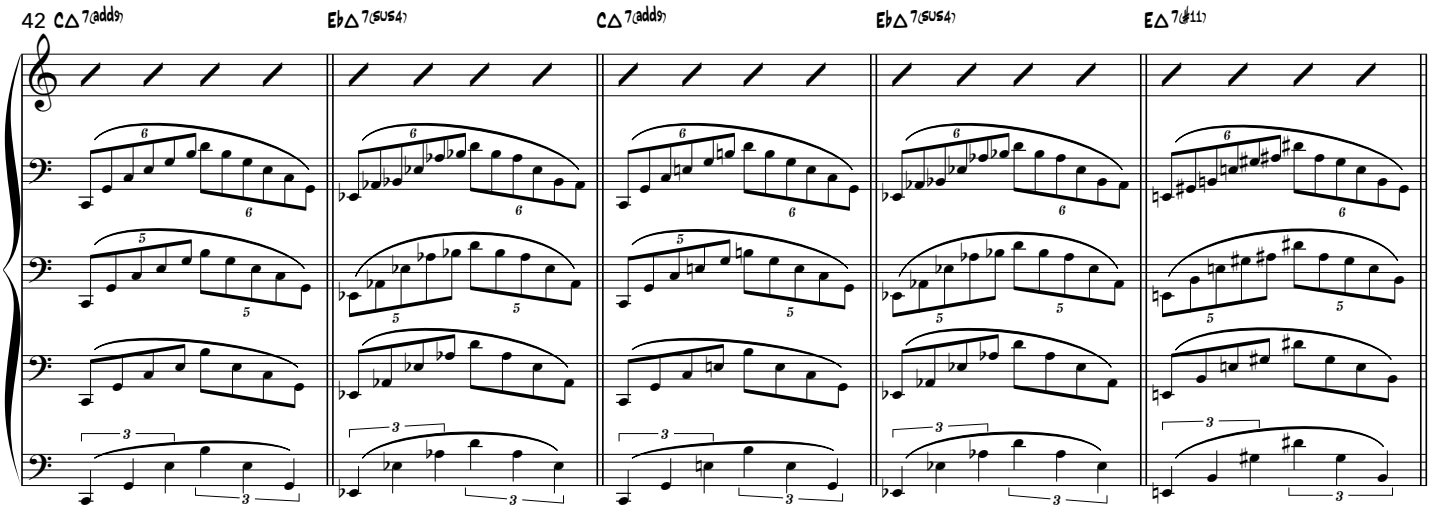






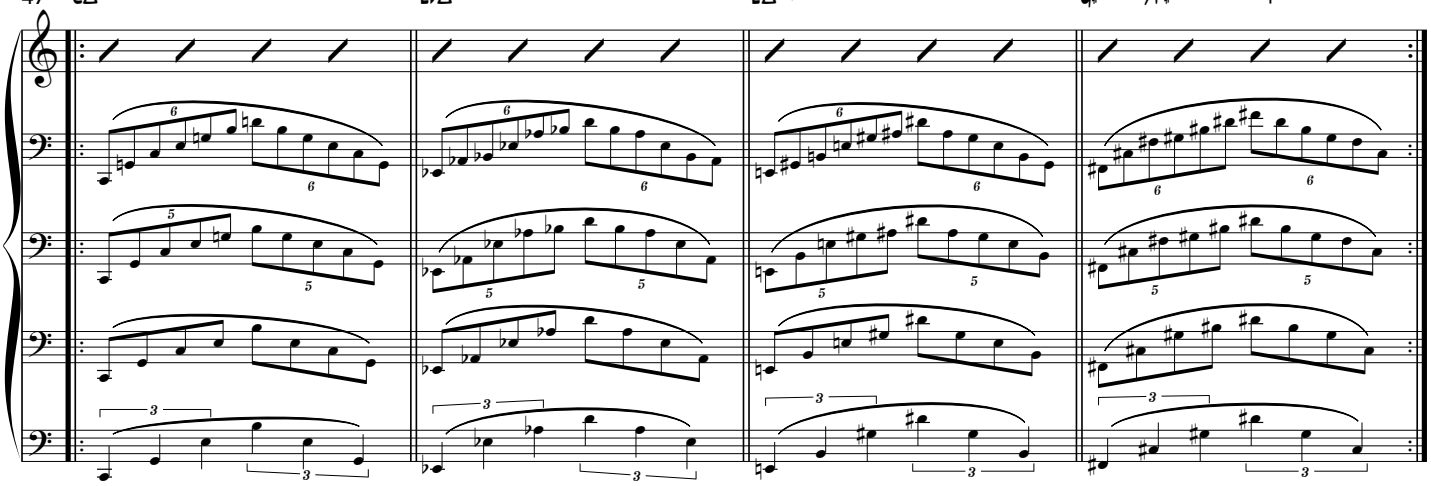
Improvisation Section 1 (mm. 42-50)

Repeat each bar ad lib. before moving onto the next one. With your right hand, play fast-moving, skittish passages at a quiet dynamic. (Think the title—"Traces"). With your left hand, play one of the four possible arpeggiation patterns associated with each chord. The listener's focus should be on the left hand's rhythmic changes, with the right-hand "traces" providing textural accompaniment.



Play once or twice

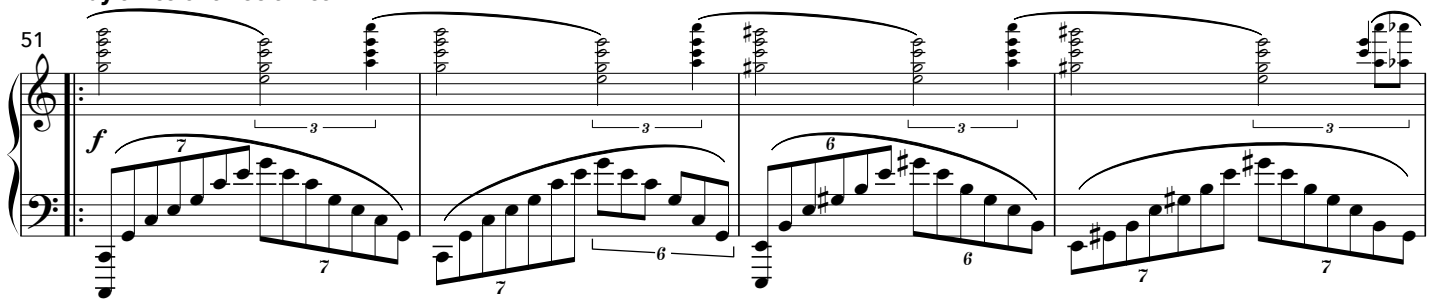
last time: transition directly into Improvisation Section 2



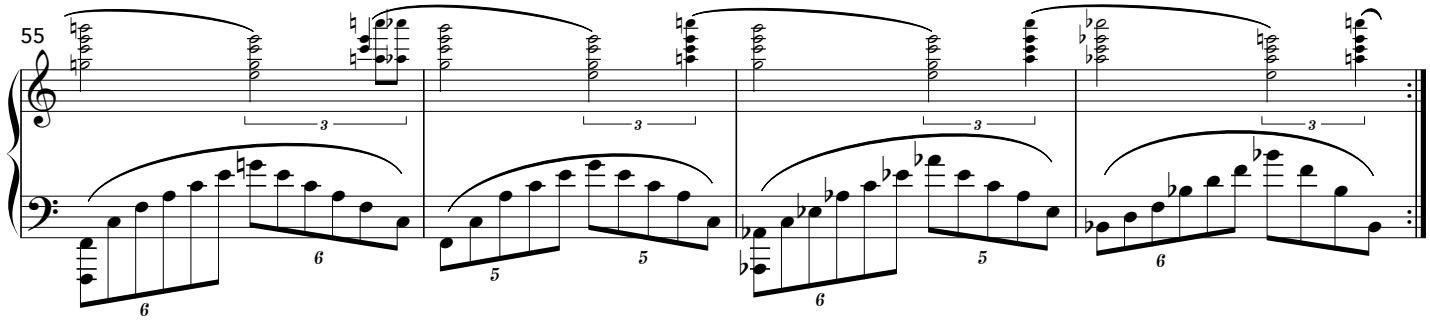
Improvisation Section 2 (mm. 51-58)

Play the left-hand part as-is. For the right hand, improvise around the given melody. This improvisation should only barely resemble what's written; you're thinking about it in your head, but the listener probably won't be able to follow along.

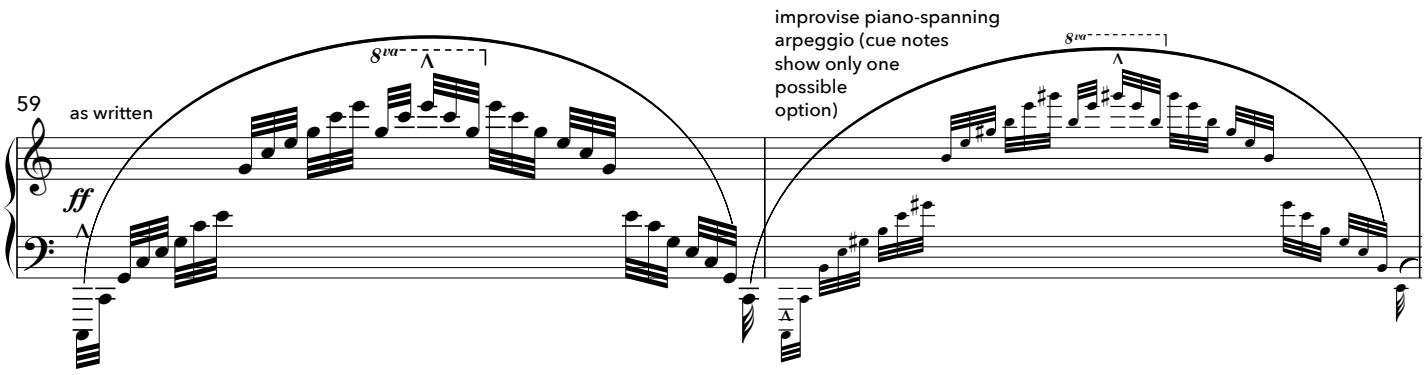
Play twice or three times



last time, transition directly into m. 59 (as written)

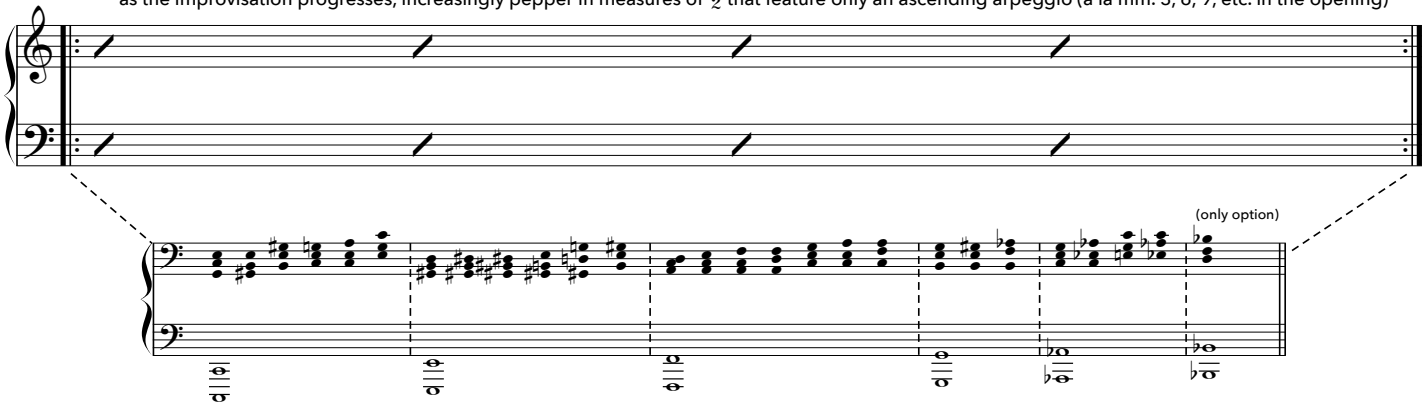


Improvisation Section 3 (mm. 59-62)

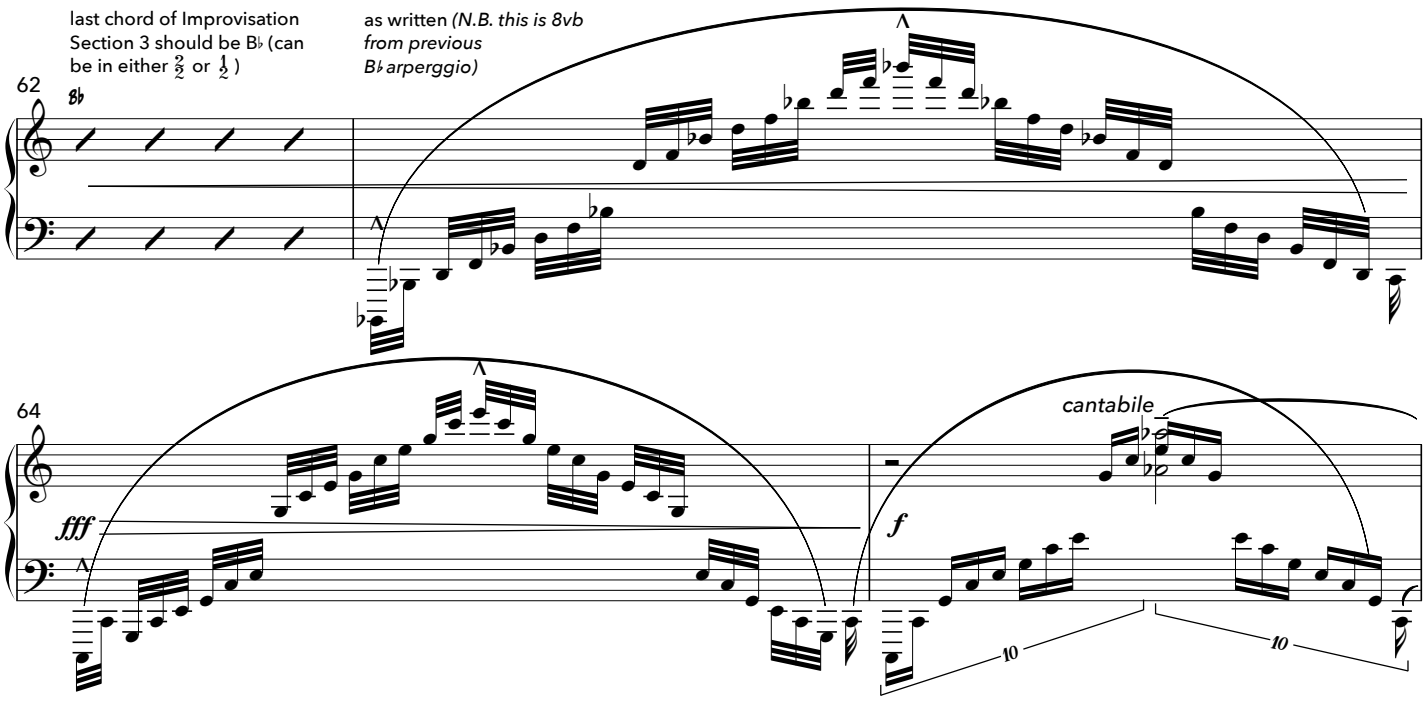


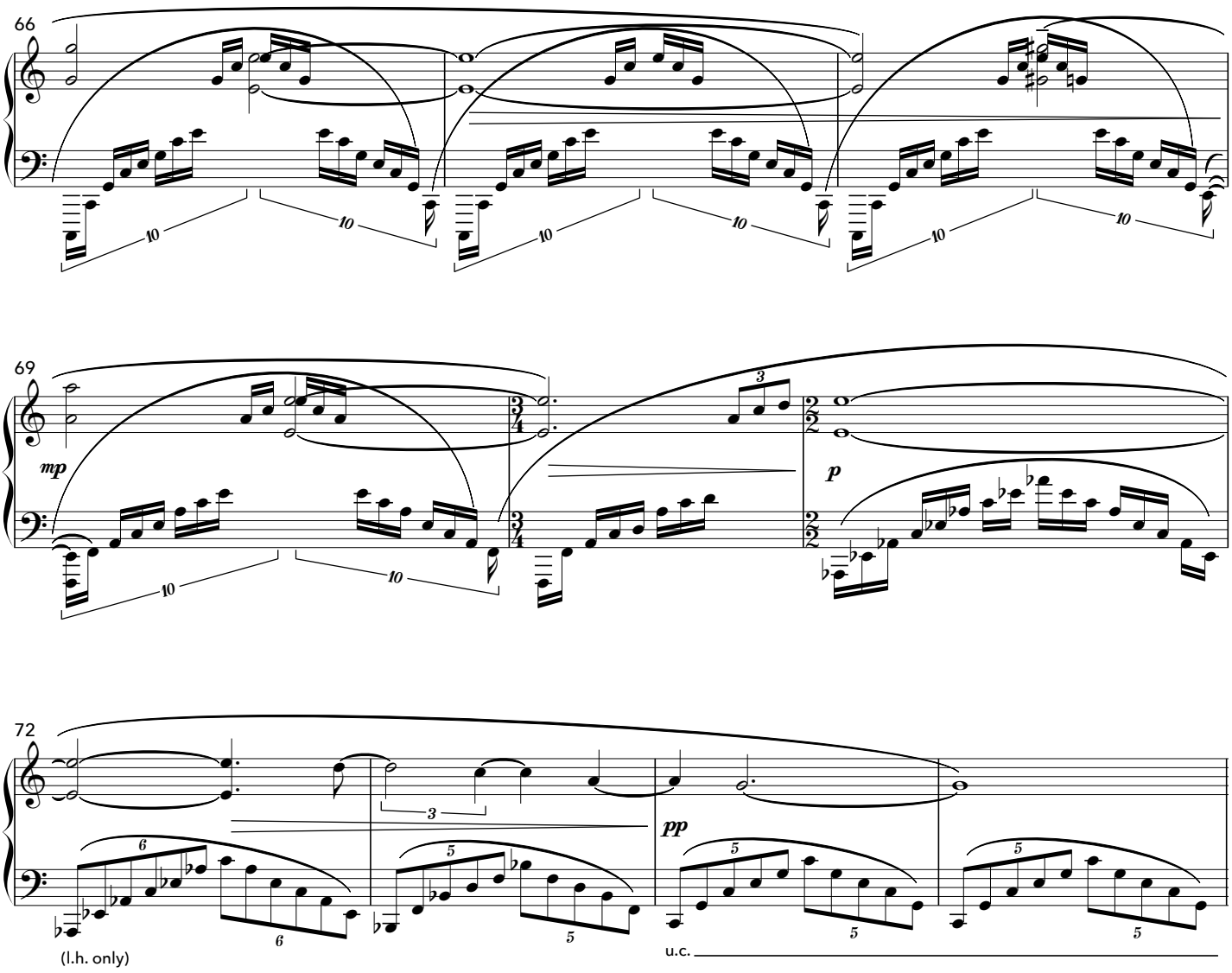
Repeat ad lib.

continue improvising piano-spanning arpeggios, using the given trichord hand shapes over the given bass notes;
arpeggios may be repeated ad lib. and played in any order;
as the improvisation progresses, increasingly pepper in measures of $\frac{1}{2}$ that feature only an ascending arpeggio (á la mm. 3, 6, 9, etc. in the opening)



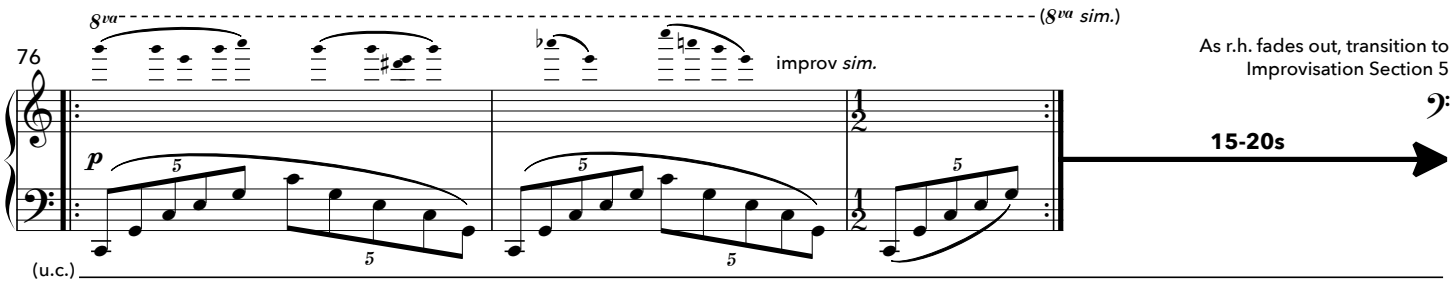
As Written (mm. 63-75)





Improvisation Section 4 (mm. 76-78)

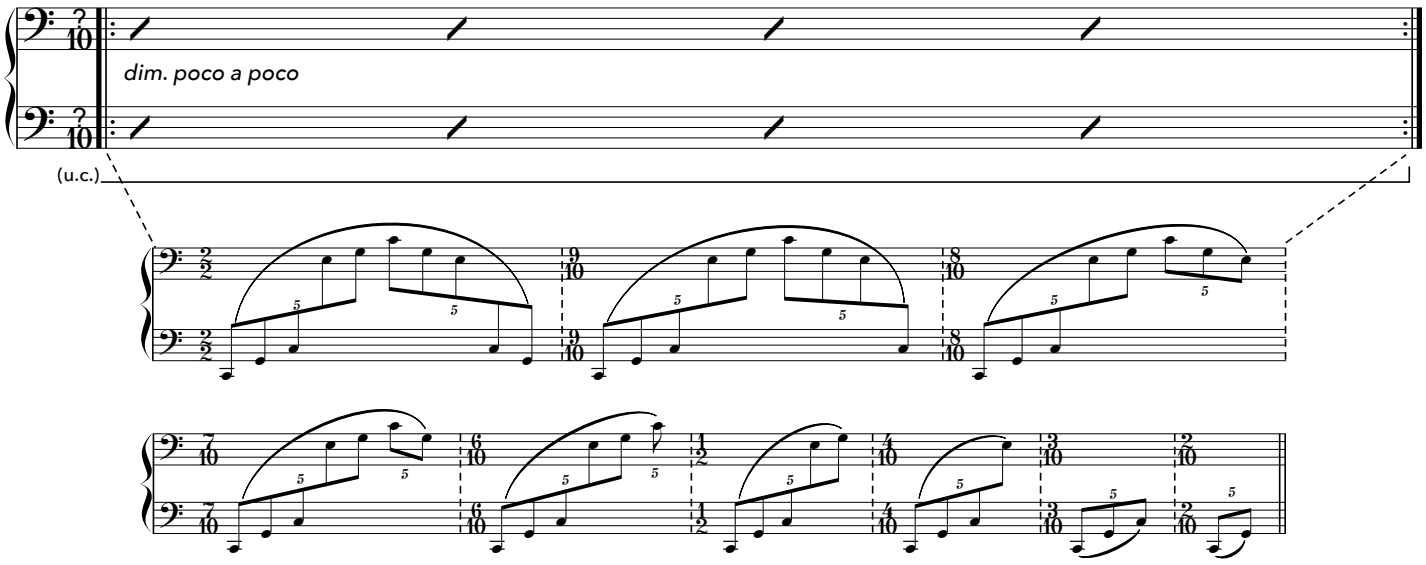
Keep left hand as written, while right hand plays quiet "traces" of melody from mm. 3-15. These traces are texturally similar to the traces from Improvisation Section 1, but harmonically adhere much more closely to the C major pentatonic scale. Rhythmically, pretend your right hand is like a set of wind chimes–*accel.*-ing and *rit.*-ing *ad lib.*



Improvisation Section 5 (mm. 79)

Shuffle among the measures below. As you dim., gradually start to omit notes. However, keep the flow of the gesture going; it should looks as if you're playing a constant stream of quintuplet-eighths, but sound increasingly syncopated. Eventually, you should be omitting so many notes that the measure is mostly silent. Finally, after a few iterations of purely silent gestures, end the piece.

79



Étude No. 8

Flutter Clutter

***

This étude is an elaboration of the (02)-based cluster runs from **Warmup No. 2**. In the first half of the étude, the cluster runs are presented as single notes played across both hands. In the second half, the cluster runs are presented as dyads played by a single hand.

As the last entry in this book of études, there are subtle references to the several of the previous études peppered throughout:

- **Étude No. 2** – mm. 22–24 reference the central alternate-hand hocketing technique
- **Étude No. 3** – mm. 25–33 reference the boogie woogie bassline
- **Étude No. 4** – lots to pick from, but the cluster runs and the I_4 ending are most notable
- **Étude No. 5** – m. 36 references the big C major arpeggio at the climax

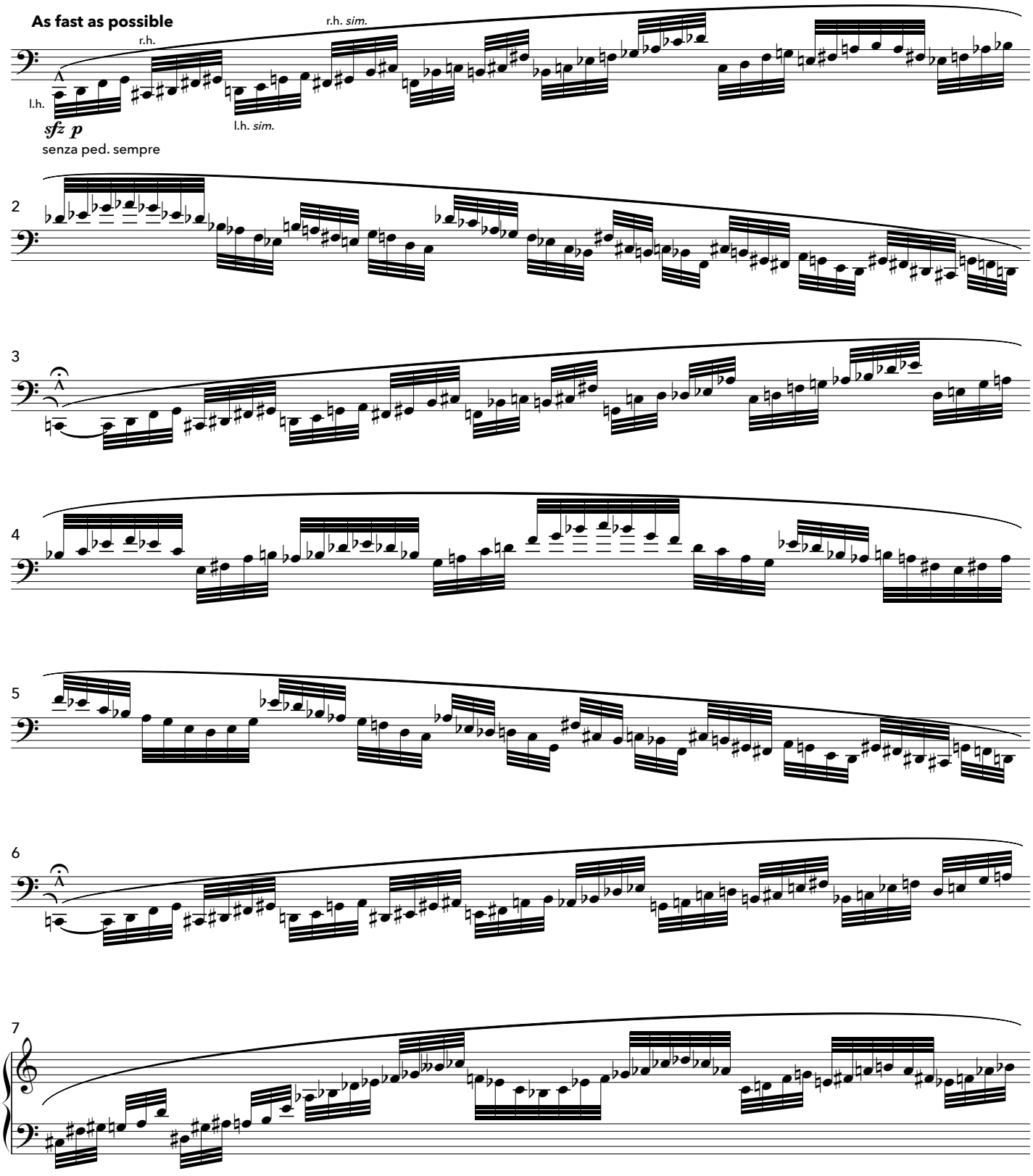
Like **Étude No. 2**, this étude was meant to be performed as-is, from start-to-finish.

Étude No. 8

Flutter Clutter

Duration: ≈2m

Mark Micchelli



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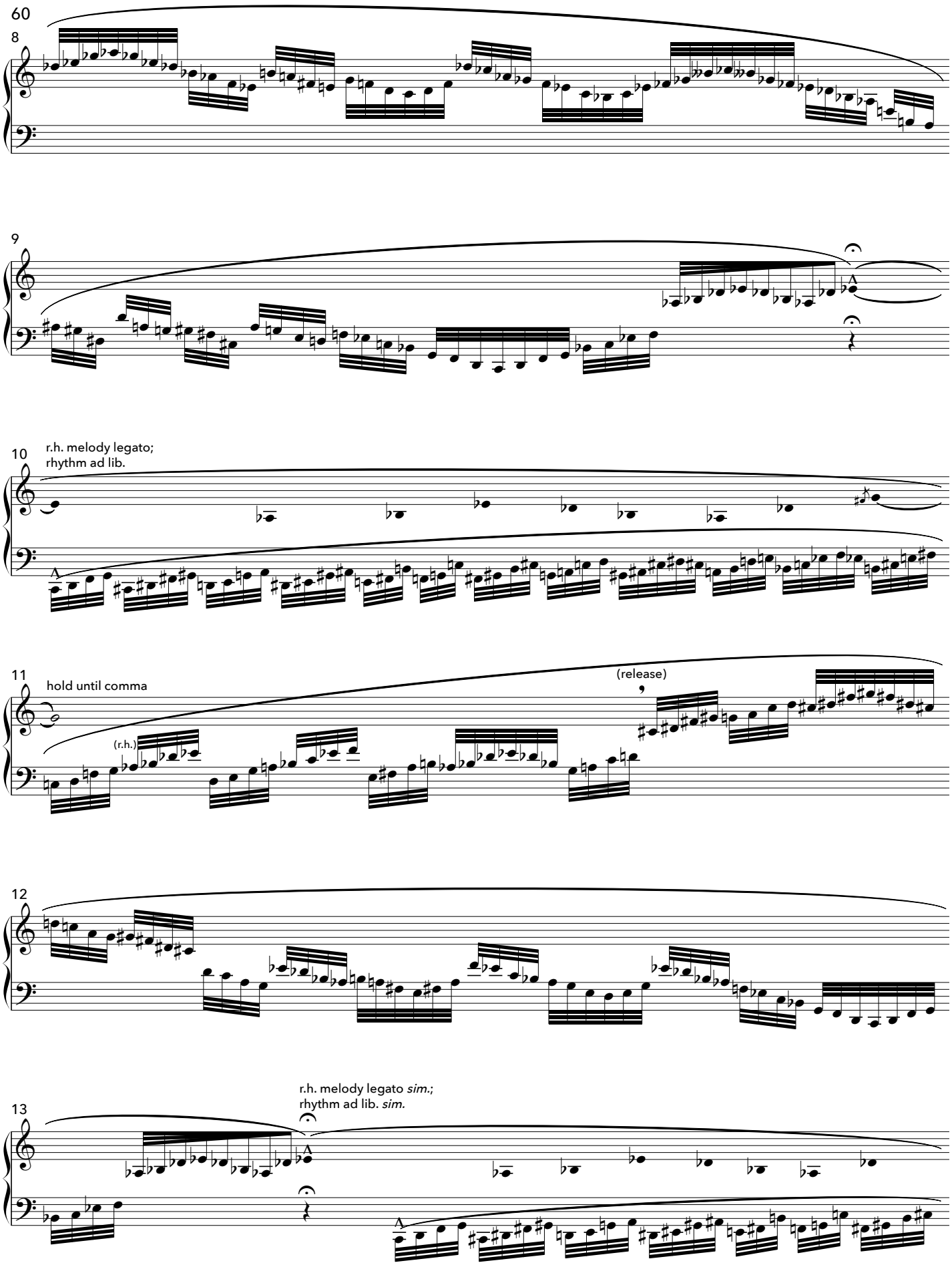
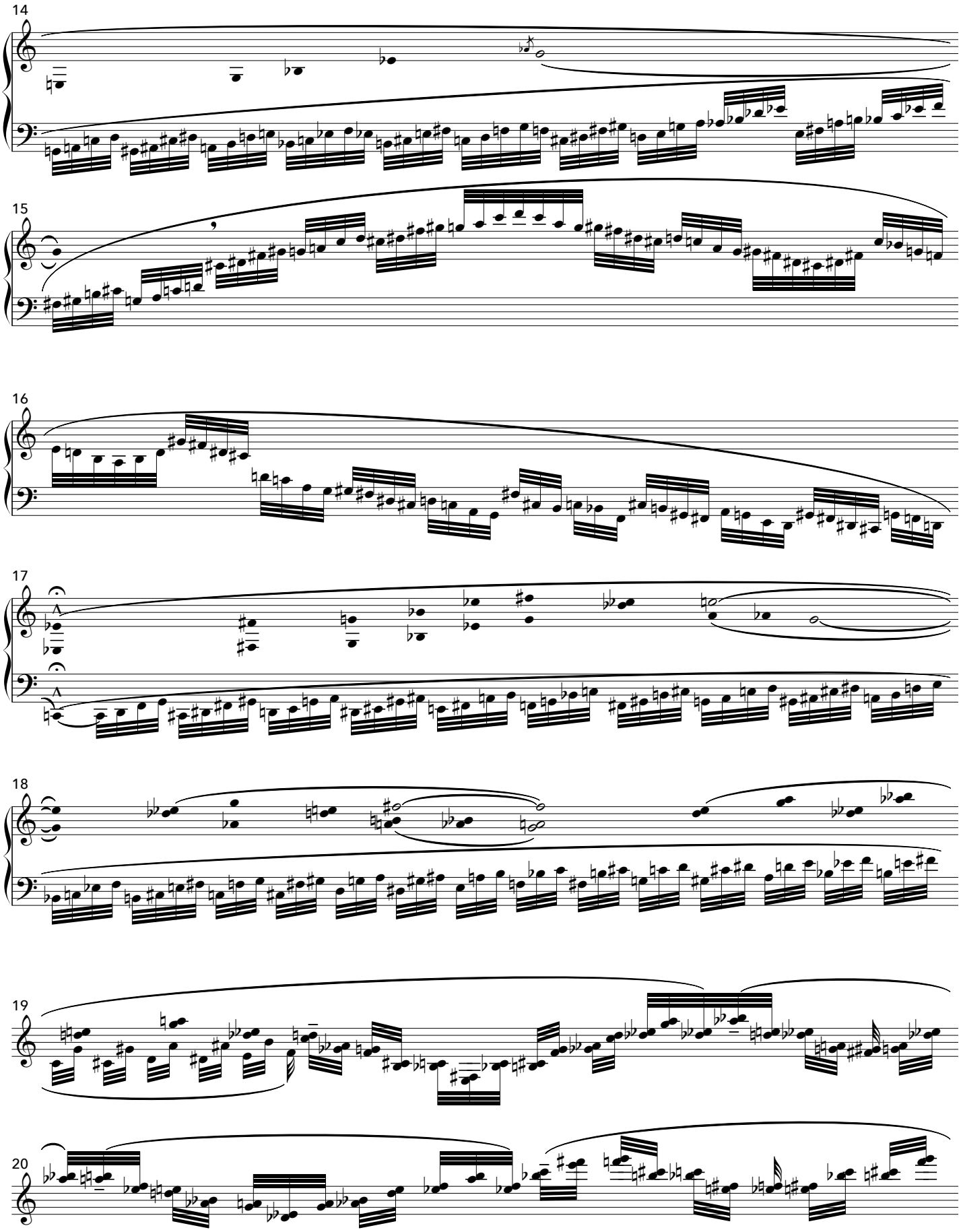

60
8
9
10
r.h. melody legato;
rhythm ad lib.
11
hold until comma
(release)
(r.h.)
12
13
r.h. melody legato *sim.*;
rhythm ad lib. *sim.*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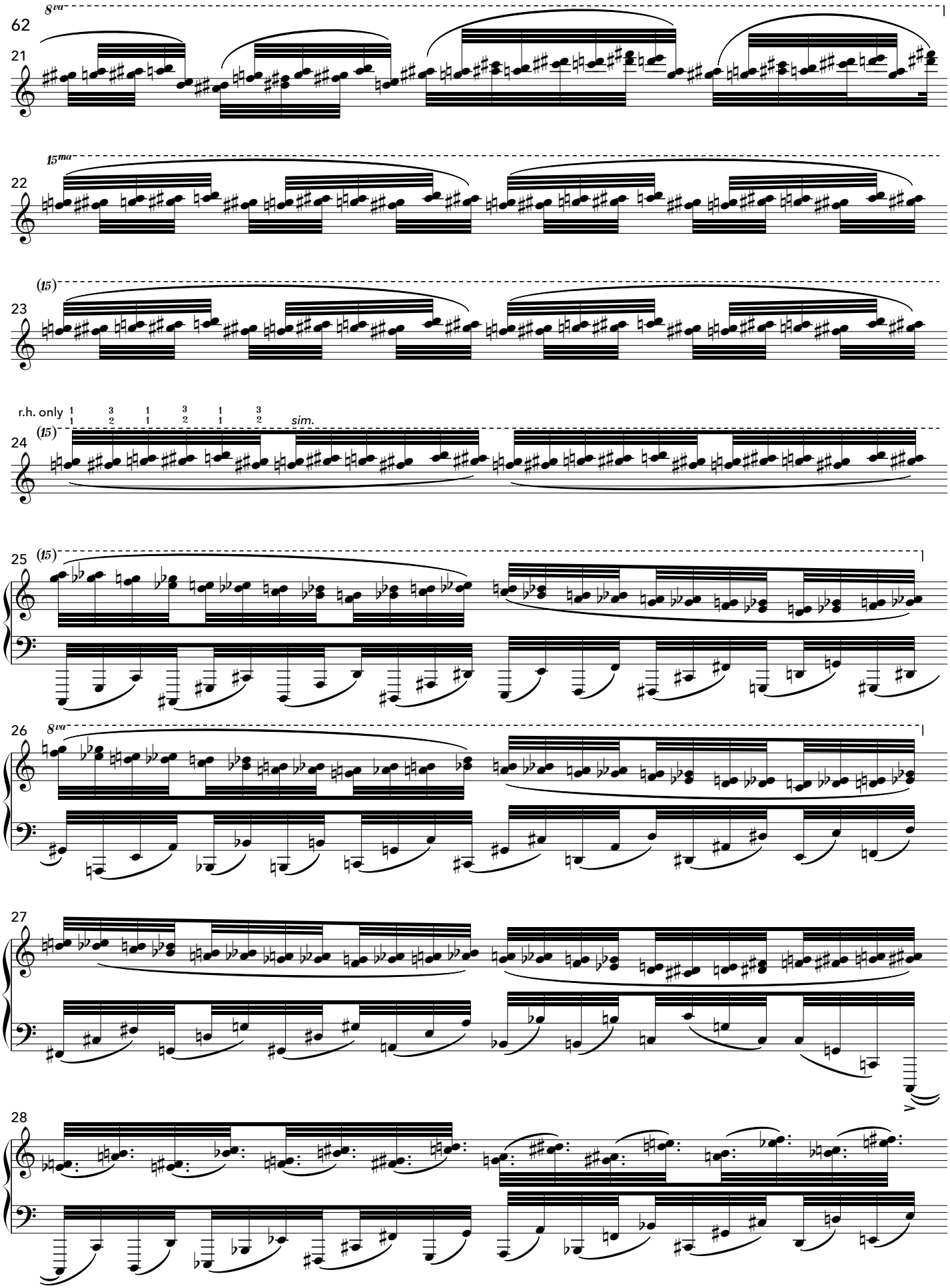
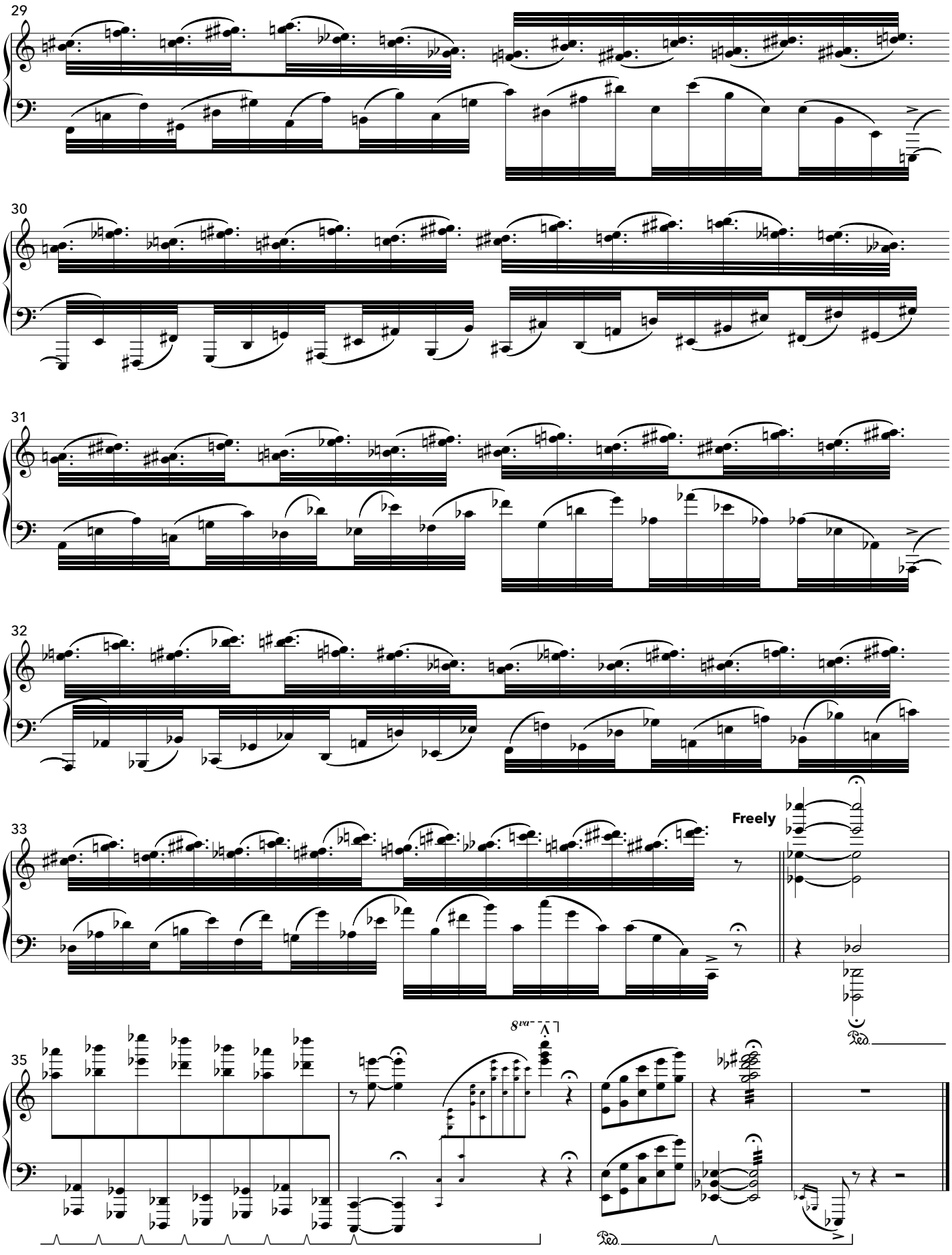
15
16
17
18
19
20


62
8va
21
15ma
22
(15)
23
r.h. only
sim.
(15)
24
(15)
25
8va
26
27
28


29
30
31
32
33
Freely
35
8va