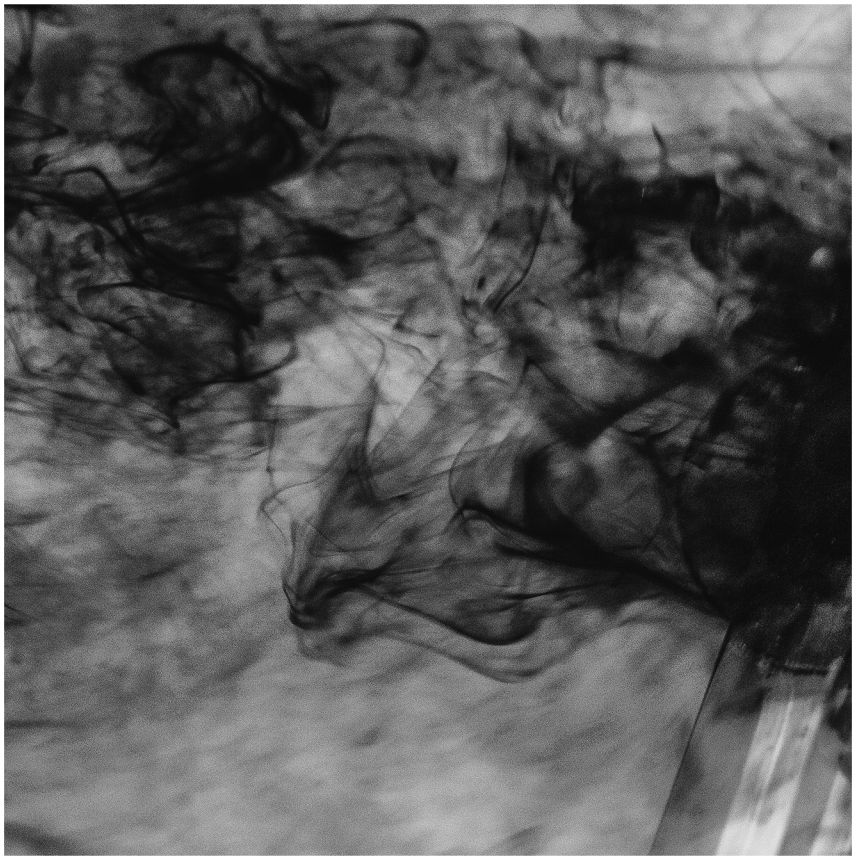
Etudes

For Electronic Percussion



By

Benjamin Heim

I. Ebb and Flow

II. The Sky Melting Into the Ocean

Notes - Technical

This work is to be performed on MIDI electronic percussion controller (such as a Roland SPD or DrumKat) and Laptop. Before each etude a list of patches is given, showing which note on the staff each sound corresponds to, as well as a brief exposé of the ideas behind the etude and a diagram showing how the composer suggests the patches be routed to the midi controller (the SPD-SX is taken as the exemplar). The patches are all available on the composer's website: www.storageboxfour.com/percussionetudes. The performer should load the patches into Ableton Live, Logic Pro, or similar software and route the MIDI controller so that each of its pads corresponds to the appropriate patch. The audio should be routed out of the computer through a high-quality, low-latency interface and then into a PA system.

Notes - Artistic

This work is rather distinctivly artistically as it involves a composer effectively creating his own expressive instrument through sound design and then writing pieces specifically for it. All of the patches are highly expressive and extremely responsive to the player's dynamics, both in volume and, more pertinently, in timbre. Some patches also feature elements of controlled and uncontrolled indeterminacy in the form of pitch sets that are cycled through at a fixed rate as well as randomness in timbre and a myriad of other forms of cyclic manipulation of the patches' timbral controls. Performers should also be aware of dynamics effecting parameters not usually associated with them such as the panning of a sound in the stereo field. I titled this set of pieces as etudes specifically because they go beyond normal means a percussionist has to express themselves musically (and therefore they will have to practice using their dynamics for different purposes than simply volume), and because this "instrument" is relatively new and I have only begun to scratch the surface of its capabilities – both in terms of sound design and composition.

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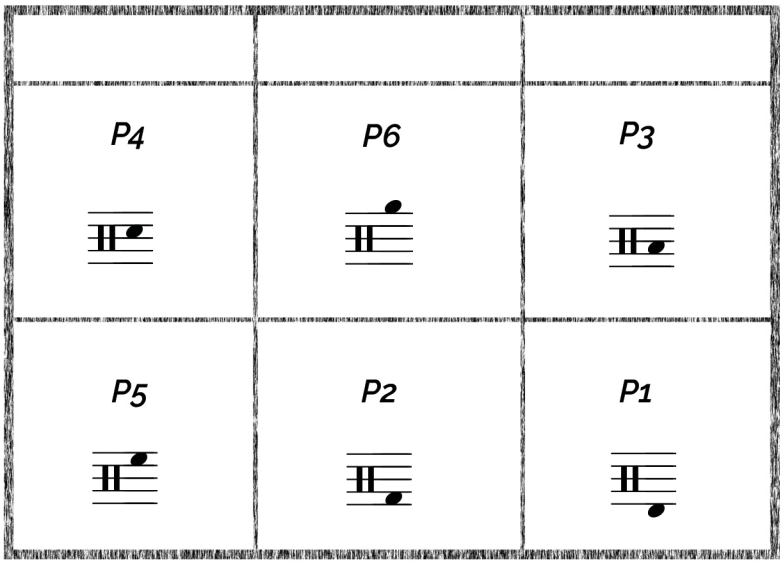
I. Ebb and Flow

Ebb and Flow takes its inspiration from fluid dynamics and juxtapositions of currents within an aquatic system. It sets up a flowing pattern at the beginning and morphs through different meters and tempos, maintaining unity through the use of metric modulations while juxtapositions of 3 against 5 serve as a recurring motif. The core of the sound is comprised of patches 1-3 which, when struck lightly, sound as short notes in a g minor triad. As the player's striking velocity increases a comb filter is applied to the tones to transform the sound into a less clearly pitched electronic tom tom. Dynamics also effect their stereo placement; with distance between the low and high toms increasing with velocity while the medium tom is on an automated pan. This core is complemented by two electronic bongo type sounds and a skin drum sound whose timbre is highly modulated by striking velocity. This etude is closely related to traditional multi-percussion solos (Xenakis's Rebonds comes to mind) and consequently is easily performable on acoustic percussion as well - 3 tom toms, a pair of bongos and a large skin drum with a very loosely tuned head would suit.

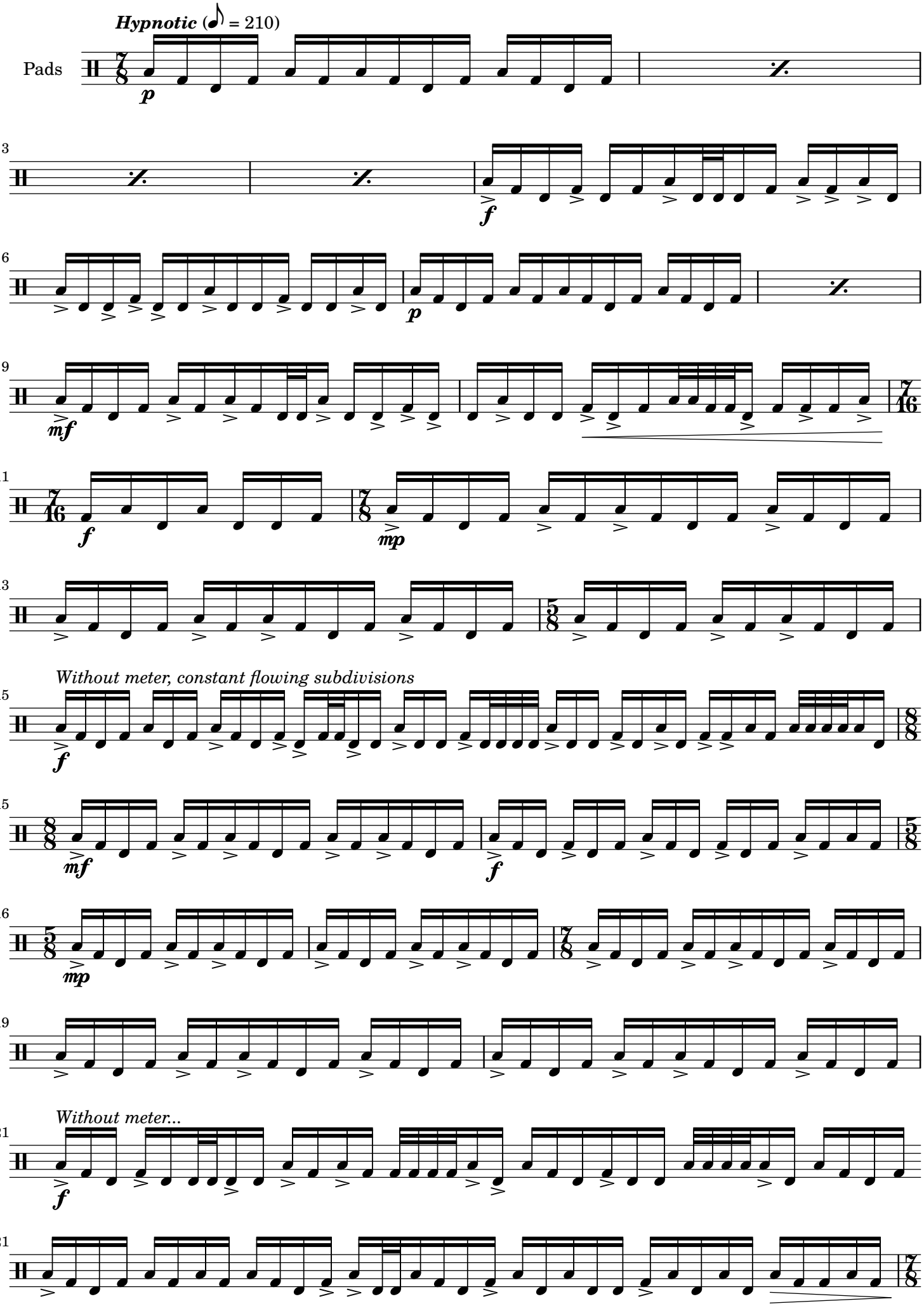
Patch list

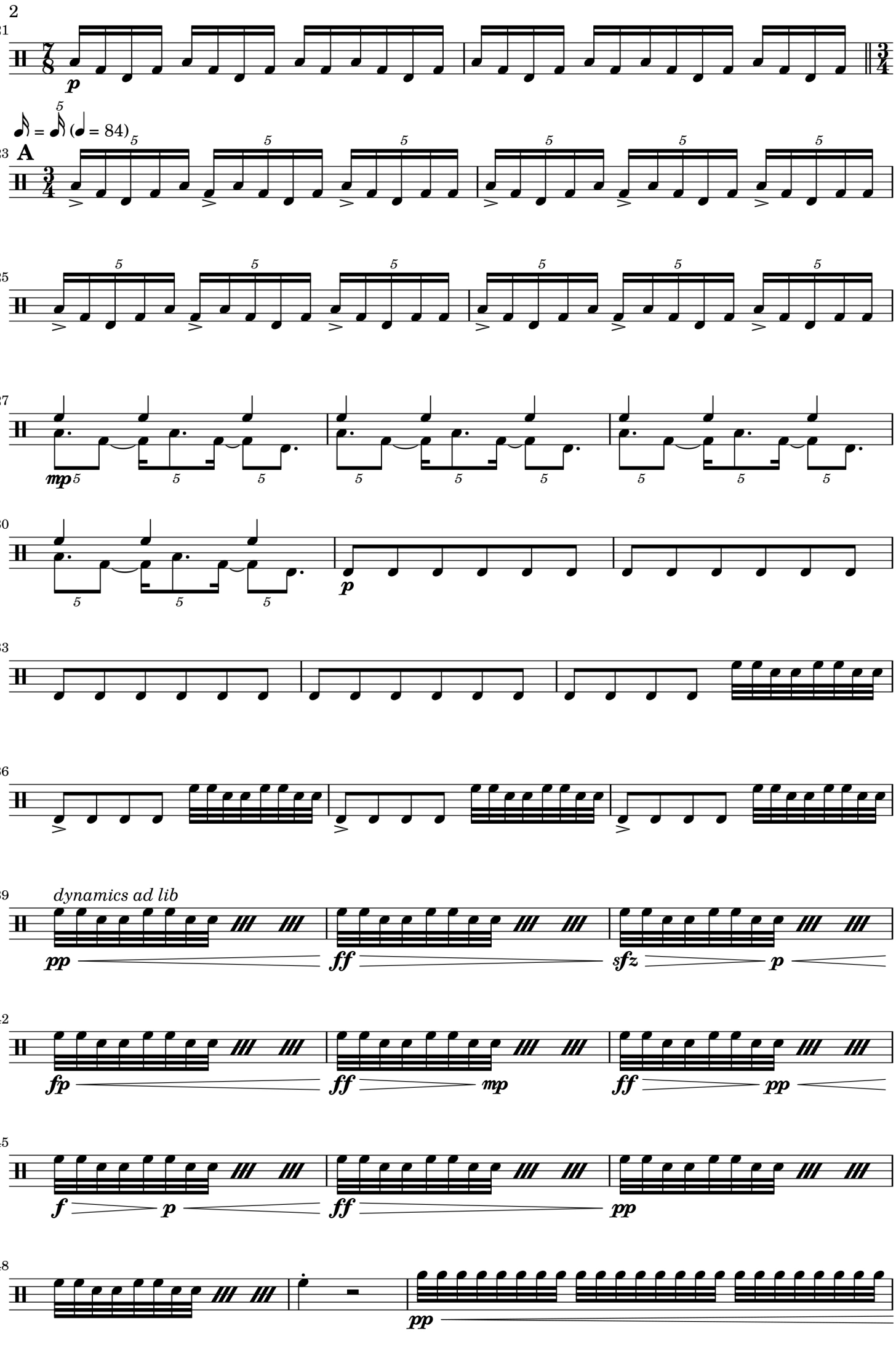
P1. Tone to Tom Tom Low
P2. Tone to Tom Tom Med
P3. Tone to Tom Tom High
P4. Electric Bongo Low
P5. Electric Bongo High
P6. Squelchy Skin Drum

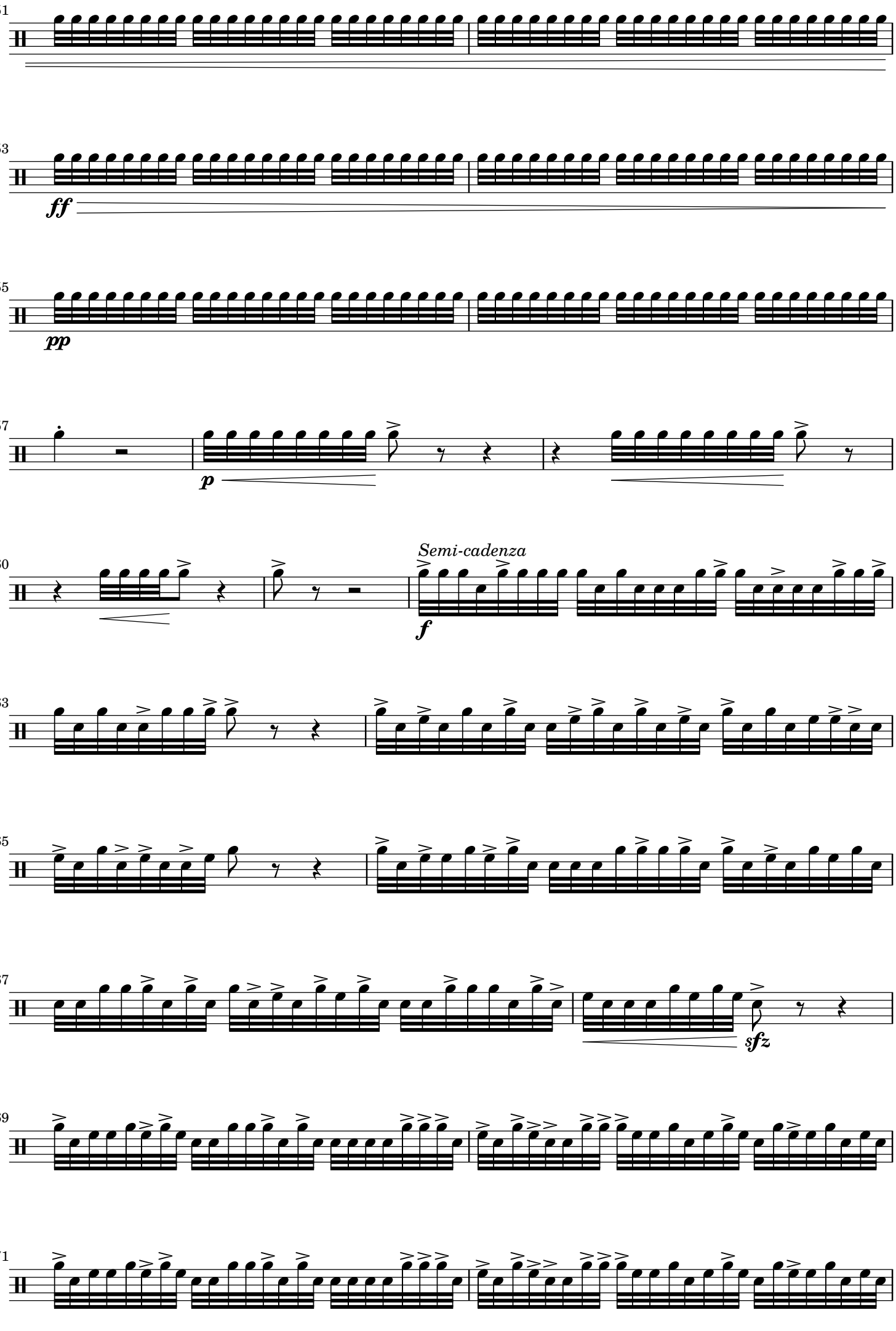


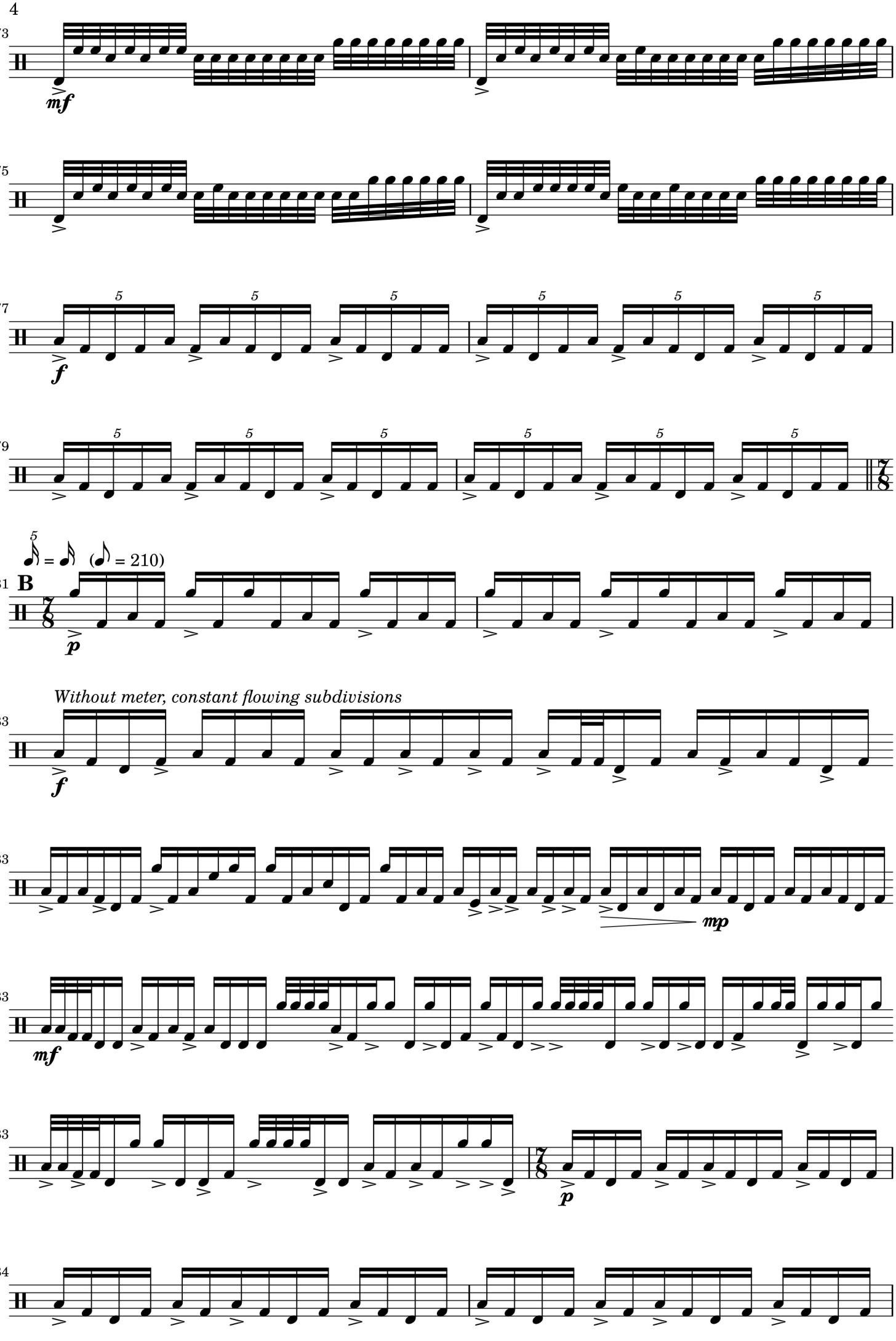
Ebb and Flow

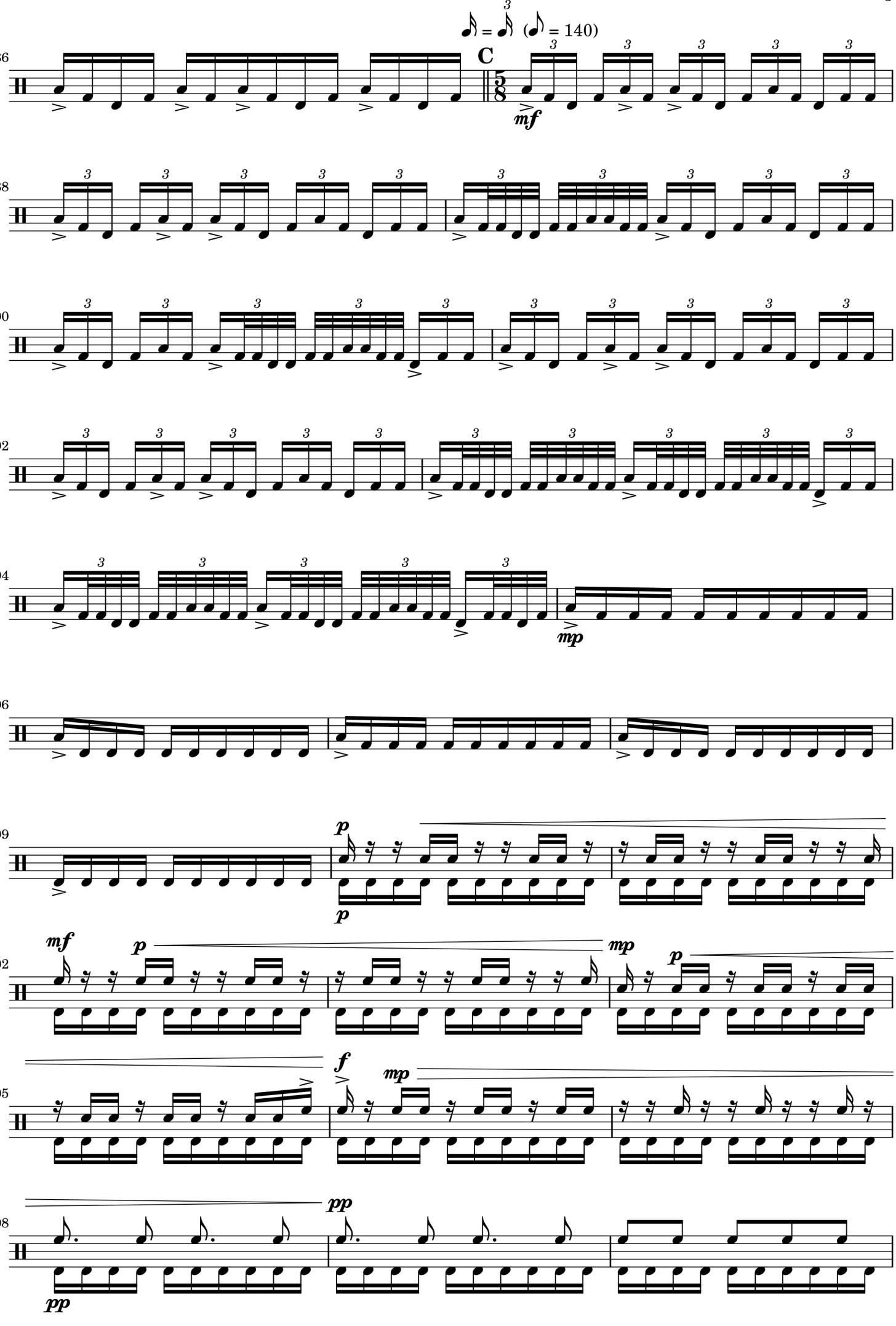
Benjamin Heim

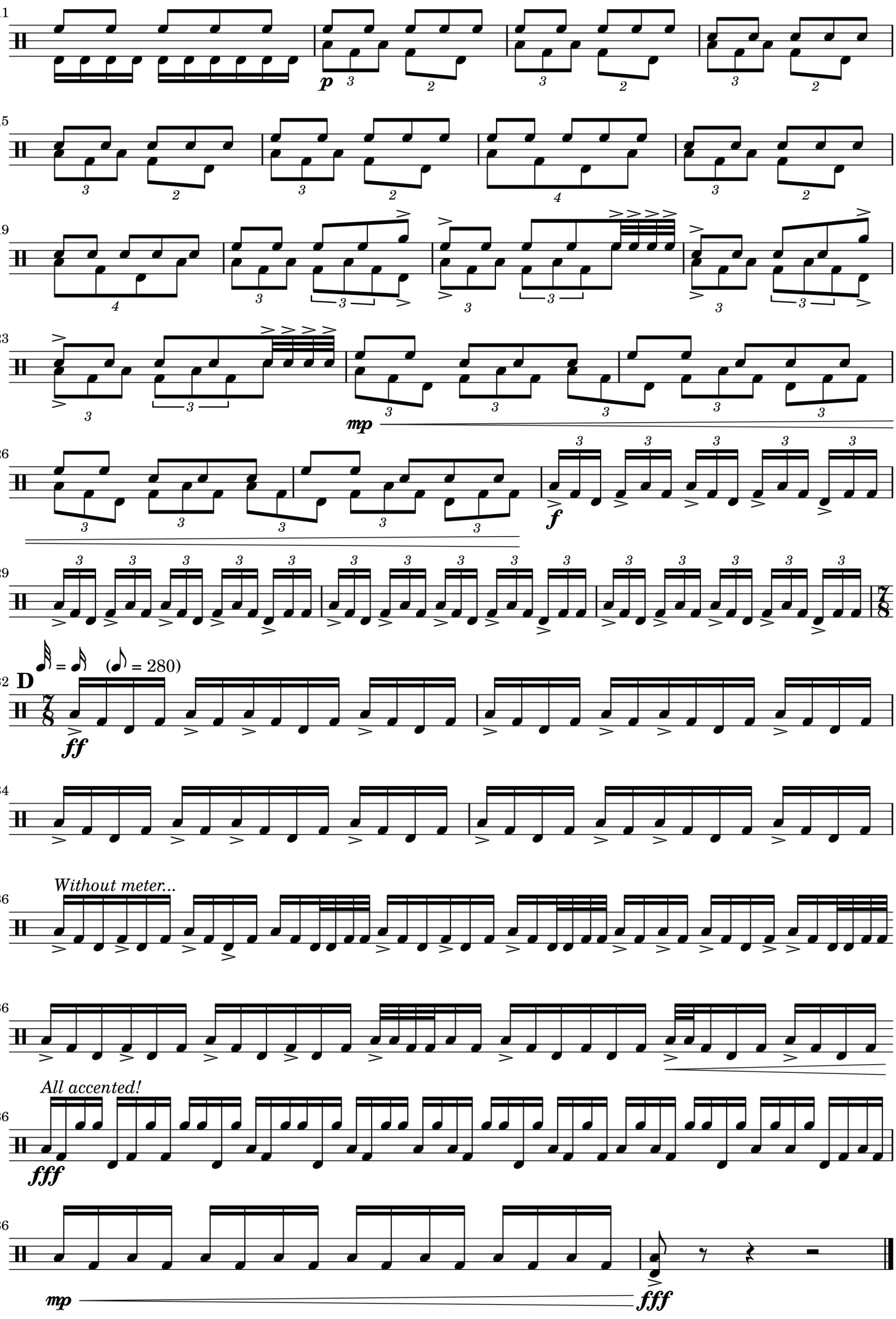



21
7/8
p
3/4
♪ = ♪ (♩ = 84)
23
A
3/4
25
27
mp
30
p
33
36
39
dynamics ad lib
pp
ff
sfz
p
42
fp
ff
mp
ff
pp
45
f
p
ff
pp
48
pp


51
53
ff
55
pp
57
p
60
Semi-cadenza
f
63
65
67
sfz
69
71


73
mf
75
77
5
f
79
5
81
B
5
= (♪ = 210)
p
Without meter, constant flowing subdivisions
83
f
mp
mf
p
84


86
C
mf
88
90
92
94
mp
96
99
p
p
102
mf
p
mp
p
105
f
mp
108
pp
pp

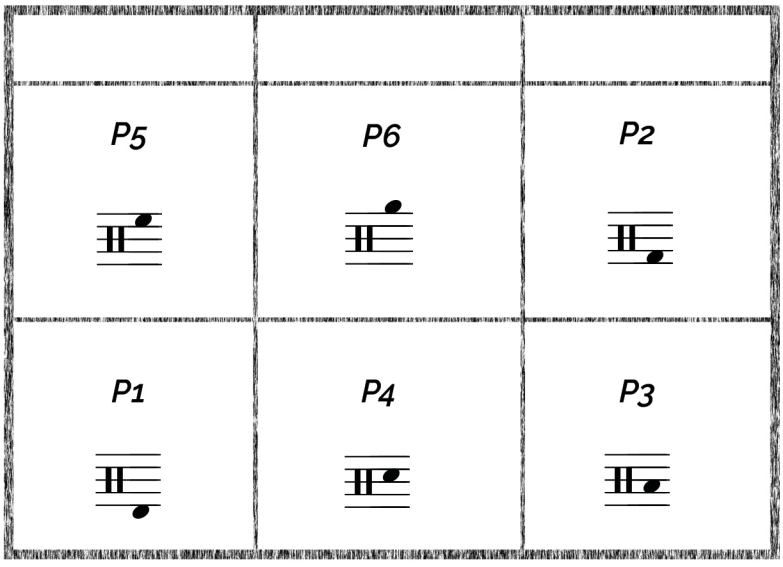

111
p
115
119
123
mp
126
f
129
132
D
(♪ = 280)
ff
134
Without meter...
136
All accented!
fff
mp
fff

II. The Sky Melting into the Ocean

This etude is based around velocity-stacked fifths. Most of the sounds are built upon notes of a g major scale which, when stuck lightly, only sound a fundamental; when struck with medium velocity, sound a fundamental and a fifth above; and when struck hard, sound a fundamental and two stacked fifths. These kind of sounds comprise patches 1-3 which all have hard attacks, and patches 5-6 which have soft attacks with long release trails. Finally, patch 4 cycles through a sequence of notes in the scale at a constant pace (not synced with performance tempo), this patch also features a complex delay trail which also does not sync with the etude's tempo, but remains constant to add a slightly polyrhythmic effect. Rolls and swells are frequently used in this etude to create expansive and non-rhythmic textures. All aleatoric time indications are approximate.

Patch list

P1. Stacked Bell Low C
P2. Stacked Bell Med A
P3. Stacked Bell High B
P4. High Flam Cycle
P5. Stacked Atmos G
P6. Stacked Atmos D



The Sky Melting into the Ocean

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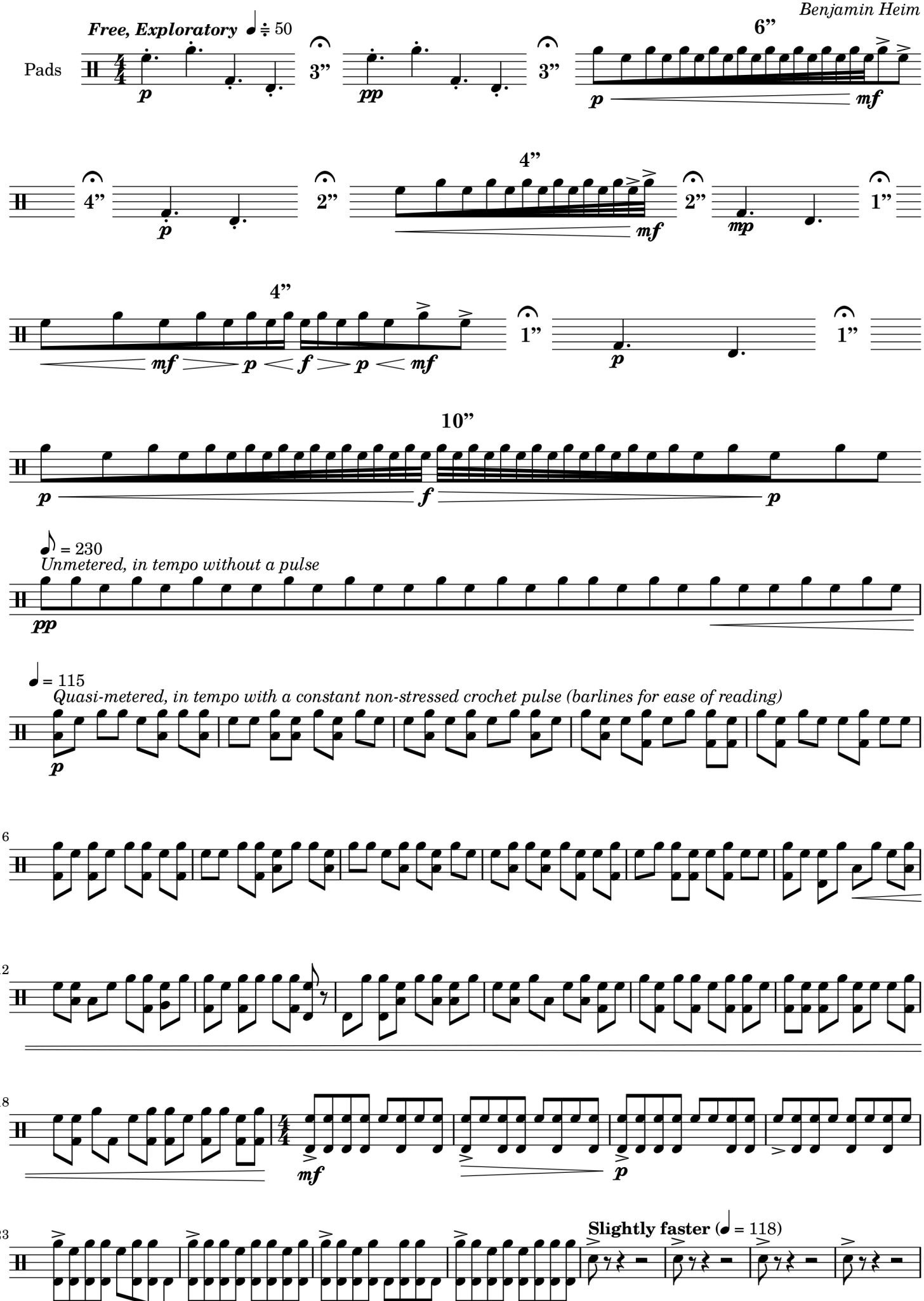
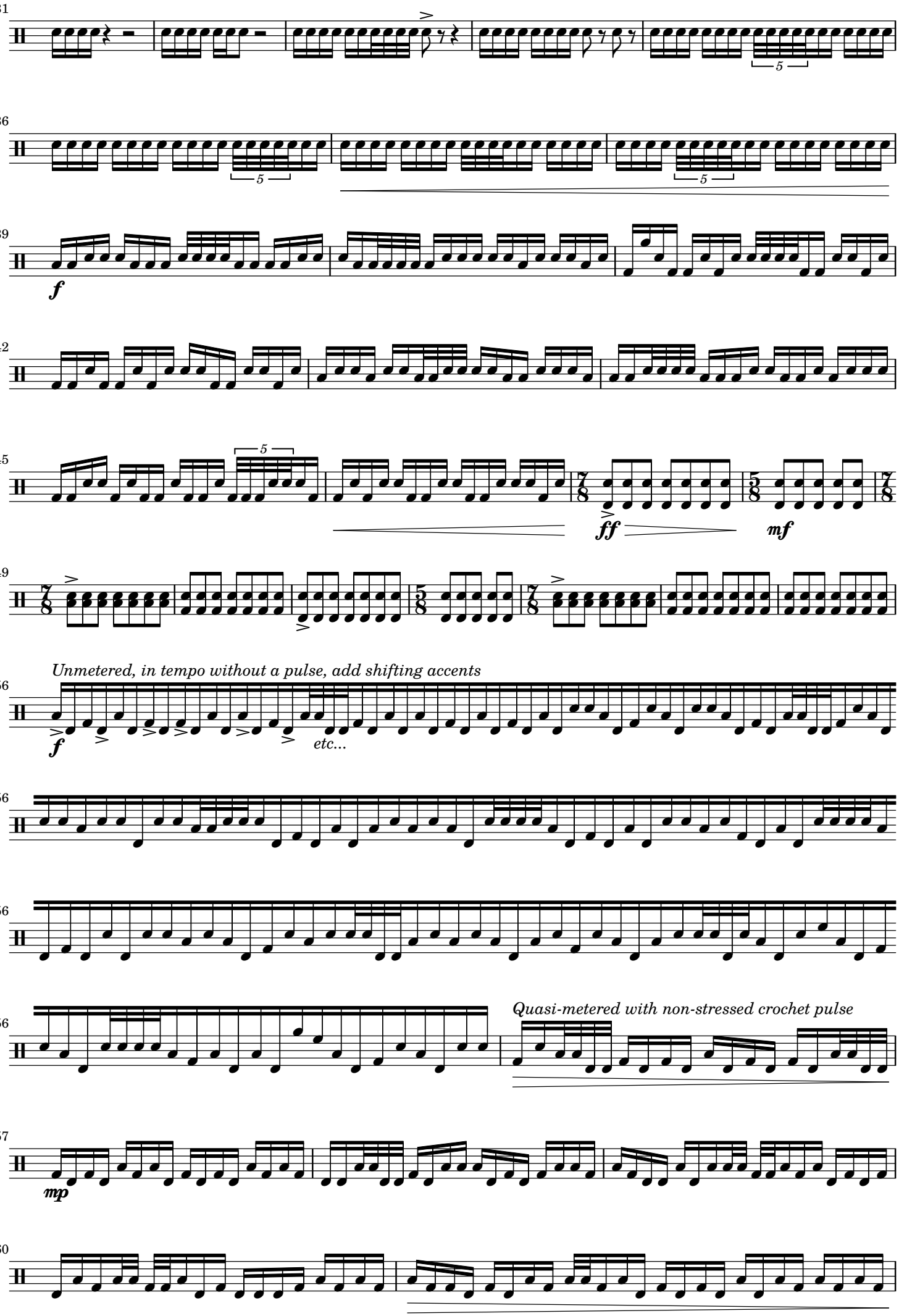
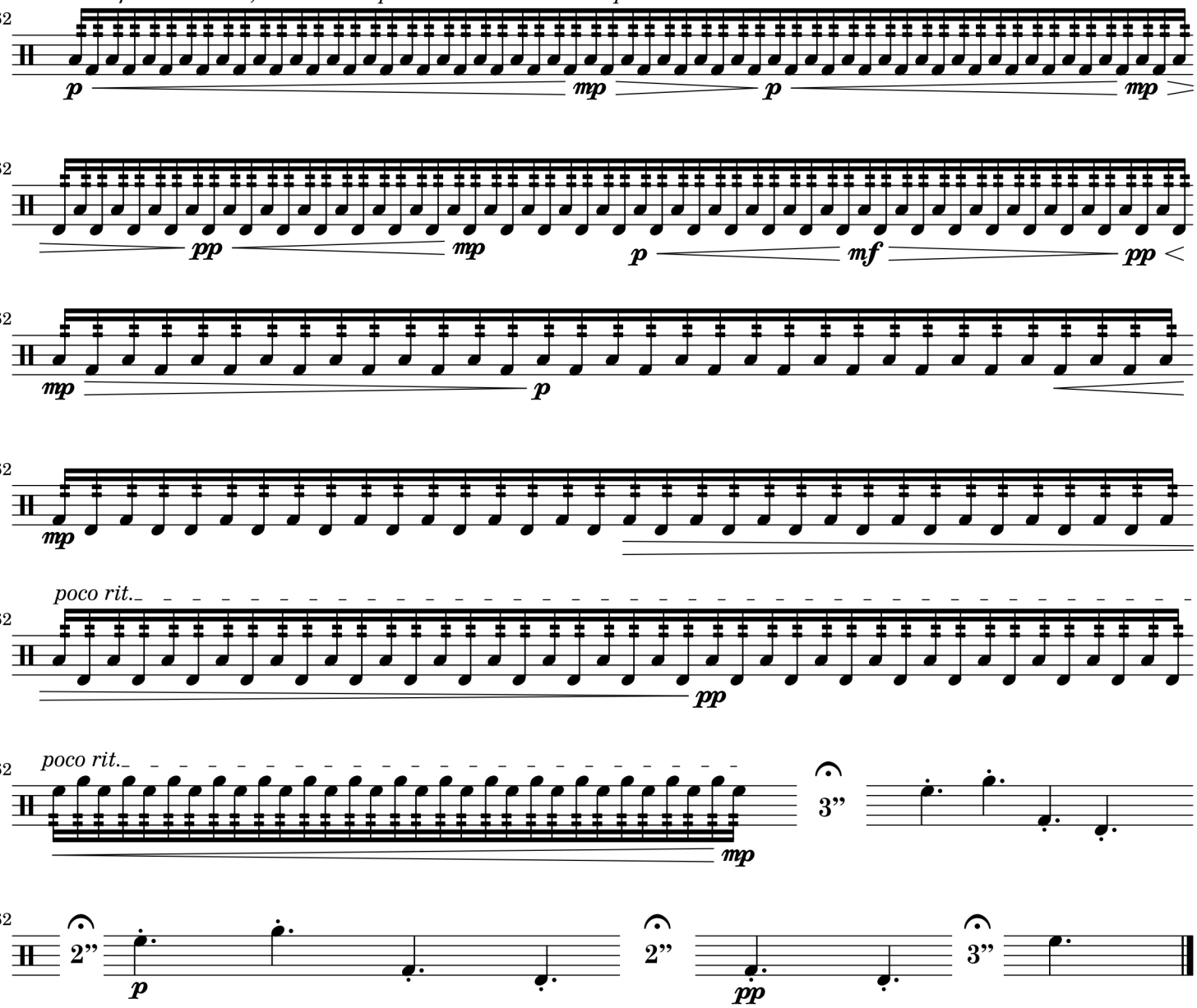
Pads

Free, Exploratory ♩ ≒ 50




31
36
39
f
42
45
ff
mf
49
Unmetered, in tempo without a pulse, add shifting accents
f
etc...
56
56
56
Quasi-metered with non-stressed crochet pulse
57
mp
60

Modified Buzz roll, maintain separation betweeen semiquavers