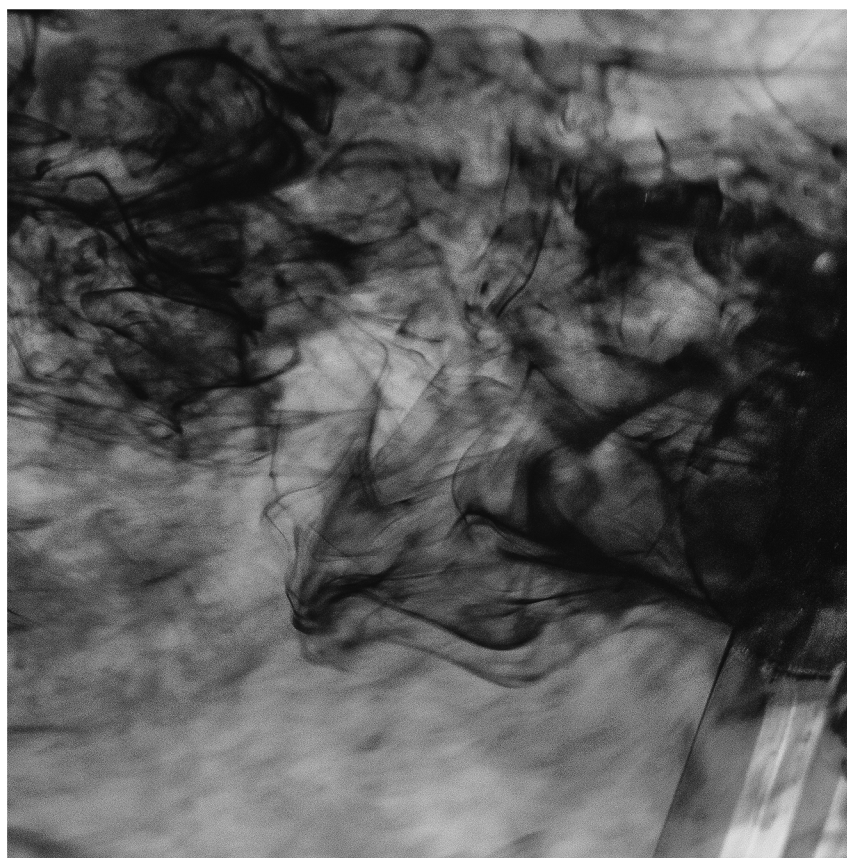


# Etudes

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](http://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 distinctively 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.

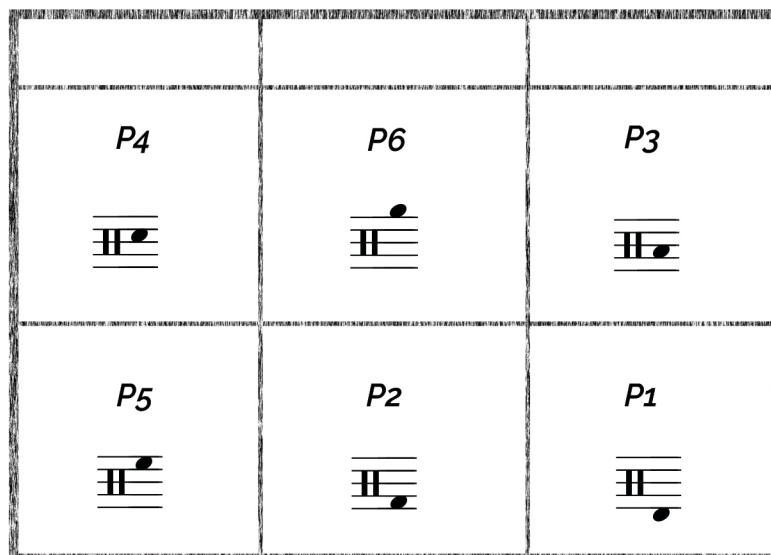


# I. Ebb and Flow

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



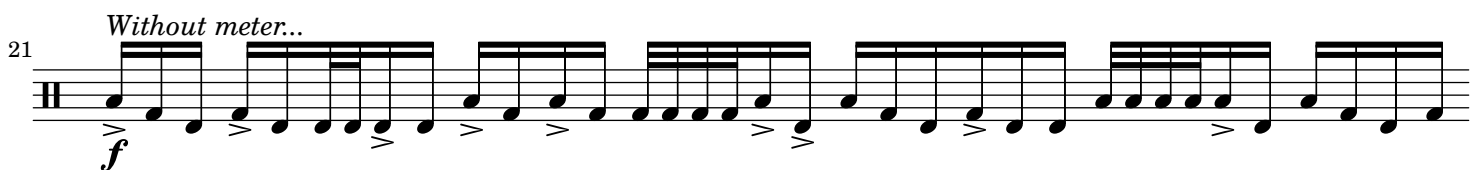
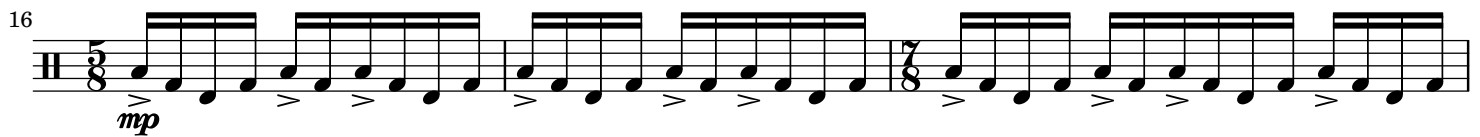
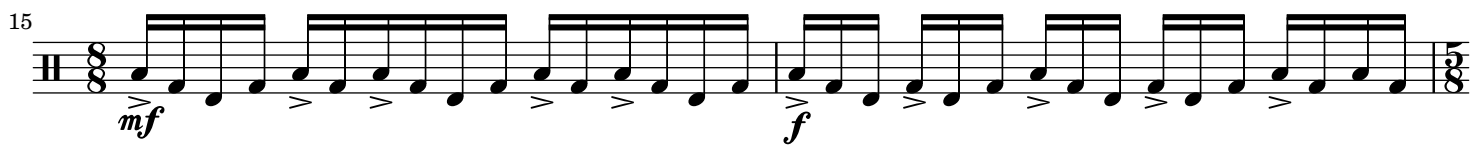
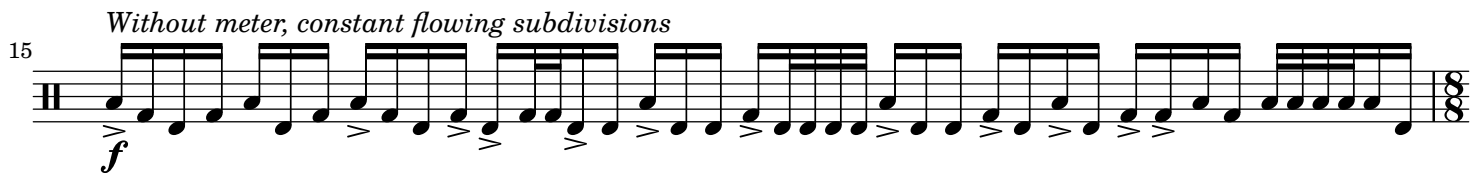


# Ebb and Flow


Benjamin Heim

*Hypnotic* (♩ = 210)

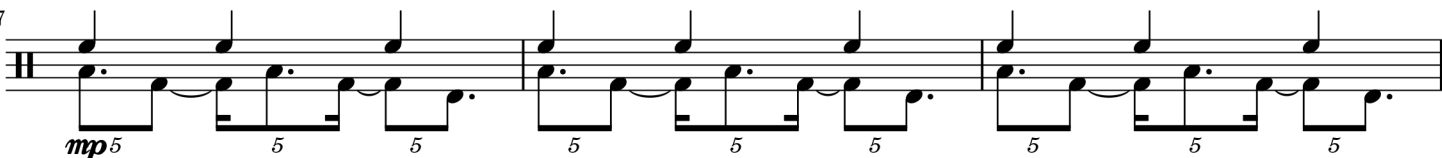
Pads





2  
21  *p*


$\text{♩} = \text{♩} \text{ (} \text{♩} = 84 \text{)}$   
23 **A** 

25 

27  *mp* 5 5 5 5 5 5


30  5 5 5 *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 *f*

79

81 *p*

83 *f*

83 *mp*

83 *mf*

83 *p*

84

Without meter, constant flowing subdivisions

5 (♩ = 210)

7/8

The musical score is written for a single staff with a treble clef. It consists of nine measures of music. The first measure (73) starts with a dynamic of *mf* and features a series of eighth notes. The second measure (75) continues the pattern. The third measure (77) has a dynamic of *f* and includes a five-measure rest. The fourth measure (79) also has a five-measure rest. The fifth measure (81) has a dynamic of *p* and includes a five-measure rest. The sixth measure (83) has a dynamic of *f* and includes a five-measure rest. The seventh measure (83) has a dynamic of *mp* and includes a five-measure rest. The eighth measure (83) has a dynamic of *mf* and includes a five-measure rest. The ninth measure (84) has a dynamic of *p* and includes a five-measure rest. The score is marked with various dynamics: *mf*, *f*, *p*, *mp*, and *f*. It also includes a tempo marking of 210 BPM and a time signature of 7/8. The text 'Without meter, constant flowing subdivisions' is written above the sixth measure.

86  $\text{♩} = \text{♩}^3$  ( $\text{♩} = 140$ ) **C**  $\text{mf}$

88

90

92

94  $\text{mp}$

96

99  $p$

102  $\text{mf}$   $p$   $\text{mp}$   $p$

105  $f$   $\text{mp}$

108  $\text{pp}$

Detailed description of the musical score: The score consists of 23 measures. Measures 86-95 are primarily eighth-note patterns, many of which are triplets. Measure 86 includes a tempo marking of quarter note = 140 and a key signature change to C major. Dynamics range from mezzo-forte (mf) to mezzo-piano (mp). Measures 96-108 show more complex rhythmic patterns, including sixteenth-note runs and slurs. The dynamics become more varied, including piano (p), forte (f), and pianissimo (pp). The piece concludes with a series of dotted quarter notes in measure 108.

6

111   
115   
119   
123   
126   
129   
132   
134   
136   
136   
136   
136 



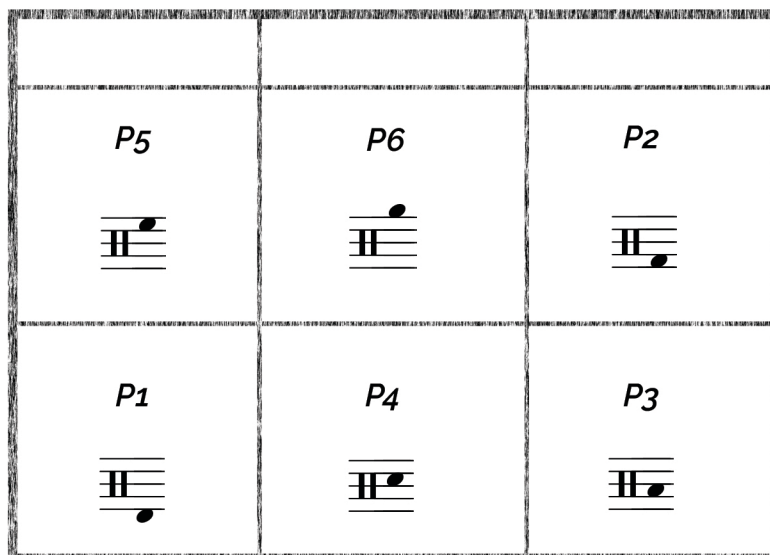


## II. The Sky Melting into the Ocean

This etude is based around velocity-stacked fifths. Most of the sounds are built upon notes of a g major scale which, when struck 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

Benjamin Heim

**Free, Exploratory** ♩ ÷ 50

*Free, Exploratory* ♩ ÷ 50 Benjamin Heim

Pads

*p*

*pp*

*p*

*mf*

*6''*

*4''*

*2''*

*mf*

*mp*

*1''*

*4''*

*mf*

*p*

*f*

*p*

*mf*

*10''*

*p*

*f*

*p*

♩ = 230  
*Unmetered, in tempo without a pulse*

*pp*

♩ = 115  
*Quasi-metered, in tempo with a constant non-stressed crochet pulse (barlines for ease of reading)*

*p*

6

2

8

*mf*

*p*

Slightly faster (♩ = 118)

*mf*

2

31



36



39

*f*

42



45

*ff**mf*

49

*Unmetered, in tempo without a pulse, add shifting accents*

56

*f**etc...*

56



56



56

*Quasi-metered with non-stressed crochet pulse*

57

*mp*


60



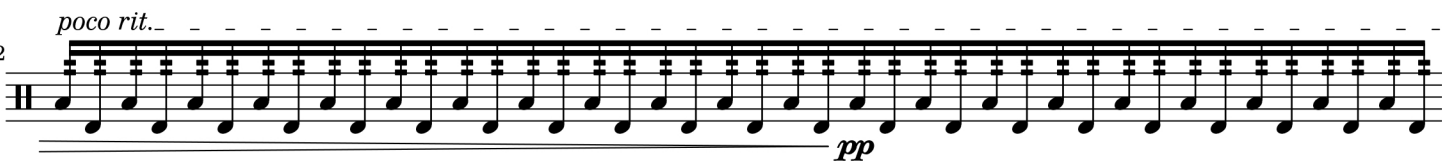
*Modified Buzz roll, maintain separation between semiquavers*

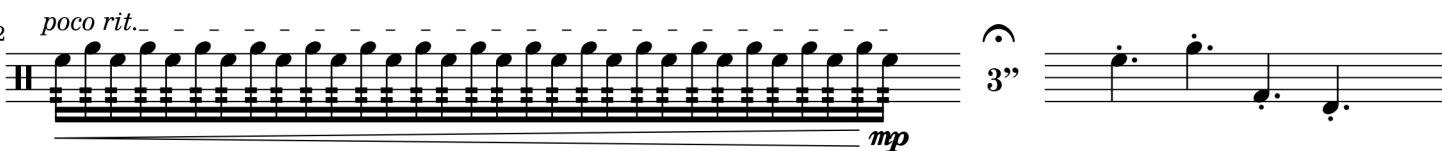
62 

62 

62 

62 

62 *poco rit.* 

62 *poco rit.* 

62 