

# Alluvium

for oboe d'amore and electronics

Taylor Brook

2016

## About *Alluvium*

*Alluvium* was written for Catherine Lee in the Summer and Fall of 2016. The title refers to the sand and rock materials that move through bodies of water, changing the shape and form of shorelines over long periods of time.

The title relates musically to a concept called microtonal drift, which occurs when modulating to different keys in an extended just intonation context, causing the tonic note to gradually drift away from equal temperament. For example, a modulation to the natural seventh is nearly a third of a semitone flat from equal temperament, meaning that a sequence of modulations to the seventh will drift further away from equal temperament with each modulation. In this piece, the tape part plays a series of precisely tuned microtonal modulations that gradually drifts the harmony from an E-flat tonal center to a D tonal center over the course of the entire piece, spiraling through unfamiliar harmonic territory all along the way.

This solo oboe d'amore part is notated in an unusual manner, using proportional notation and suggestive shapes and illustrations combined with more conventional notation. Throughout the score, a good deal of room for improvisation and choice is allowed for and each performance will be significantly different in detail while retaining overall dramatic curve.

## Microtonal Notation

The following accidental nomenclature is used:

♭ - ♯ approximately 1/4 tone flat or sharp (50 cents)

↓ - ↑ approximately 1/6 tone flat or sharp (33 cents)

♭♭ - ♭ - ♯♯ - ♯ - ♯♯ - ♯ approximately 1/12 tone flat or sharp (17 cents)

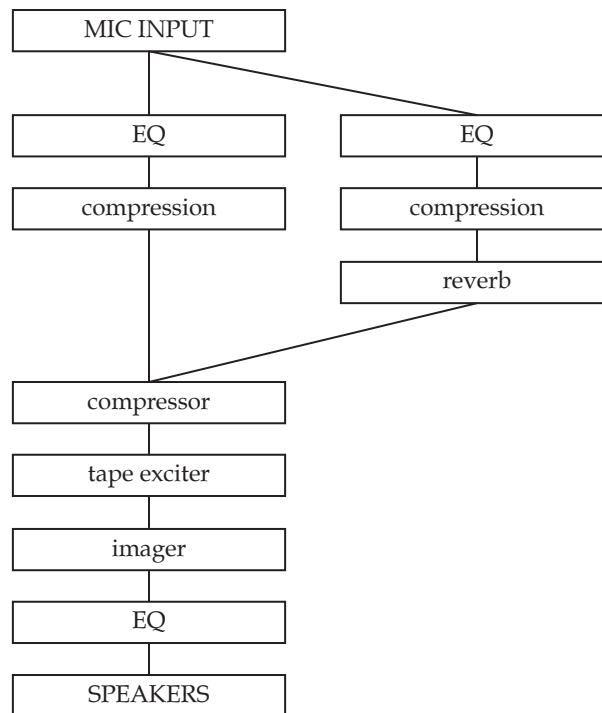
The microtones can usually be understood within a system of just intonation and are almost always doubled by an audible pitch in the electronics.

For the quarter-tone and sixth-tone alterations, specific fingerings should be used whenever possible and these notes are far enough from their nearest equal temperament pitch that they take on their own identity. Conversely, the twelfth-tone alterations are minute, usually better understood as an inflection and not always requiring a special fingering.

## Electronics:

This piece calls for two electronic elements:

1. Fixed Media: A stereo sound-file that is triggered at the beginning of the piece, running through to the ending. This tape part provides a harmonic backdrop and ambiance for the solo part.
2. Amplification: The soloist should be lightly amplified through speakers. The amplified part must be run through a production chain that creates a robust and warm tone for the soloist. For this purpose, hardware or software may be used and an example of a possible chain is provided below:



## Live Mix:

The goal of the mix between the soloist and tape is fusion: the two parts should blend as much as possible, with the tape part slightly quieter than the soloist in general.

## Synchronization with tape:

The live performer and tape need only be loosely synchronized. If the performer familiarizes themselves with the tape part and is able to hear both themselves and the soundfile playback clearly during the performance, this should be enough to properly synchronize the parts. The performer should feel comfortable with their synchronization even if they find themselves a whole measure in front or behind the tape part at times.

## Notation of tape part:

The sound of the tape part is notated in conventional notation in the score. The microtonal accidentals are used along with numbers that indicate the deviation in cents from the nearest equal temperament pitch. The rhythmic notation is somewhat loose as the notes almost always fade in and out from a niente dynamic.

## Notation:

Although the score is notated with a tempo, there should be little or no feeling of pulsation at this tempo throughout the entire piece. The rhythm of the solo oboe d'amore part is proportionally notated and there are also various extended notational devices and timbral visualizations used throughout.

## Improvisation and Performer choices:

Considerable freedom and opportunities for improvisation is provided in this score. The lines, shapes, and curves that extend from the noteheads should be interpreted freely using techniques such as flutter, growl, bisbigliandi, embouchure changes, or any other techniques. Furthermore, the notation should generally be understood as suggestive rather than prescription: the performer should rely on their musicality and act as a third creative vector along with the tape part and musical score.

## Boxed collections of notes:

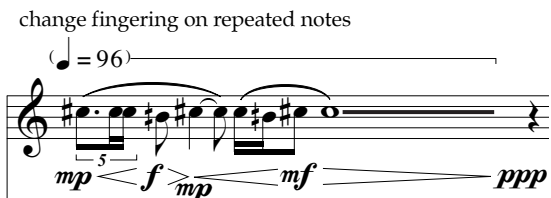
Collections of notes are sometimes provided as a basis for improvisation, in these cases there will always be text that describes how the performer should work with the pitch collection.

Jittery, using alternate fingerings and timbral trills and embouchure variations ad lib.  
Don't don't trill between notes, adding new notes to collection as they appear.



## Momentary tempi:

There are a few instances where a tempo is provided, and in these sections conventional notation is used, albeit without a time signature.



## Dynamics:

Dynamics are usually notated in the conventional manner, though sometimes a dynamic range is provided, as seen below and in the example on the opposite page of textures lines.

*pp - mf*

## Lines, curves, and shapes coming out of notes:

Solid lines are used to show note durations proportionally, played with a “normal” tone:

Oda.

mp < mf > p p < mp > pp mp < mf > pp p a.f. mf

Detailed description: This musical notation shows a sequence of notes on a treble clef staff. The notes are connected by various lines and curves. Below the staff, dynamic markings are placed: mp, mf, p, p, mp, pp, mp, mf, pp, p, and mf. A crescendo hairpin is shown under the final notes, labeled 'a.f.' (ad fortissimo).

Different shapes are used to suggest a kind of timbral thickness, to be interpreted freely by the soloist:

Oda.

pp < mp > pp p < mf > pp mp < pp > mp pp

Detailed description: This musical notation shows a sequence of notes on a treble clef staff. The notes are connected by various lines and curves. Below the staff, dynamic markings are placed: pp, mp, pp, p, mf, pp, mp, pp, mp, and pp.

Textured lines are used to suggest timbral texture evolving during a long note:

Oda.

bisb. trills and color alterations ad lib.

pp - mf

Detailed description: This musical notation shows a long note on a treble clef staff. The note is connected to the next by a textured line. Above the staff, the text 'bisb. trills and color alterations ad lib.' is written. Below the staff, the dynamic marking 'pp - mf' is shown.

## Multiphonics:

The following multiphonics are used in the score, taken from Veale's treatise on oboe technique:

64

pp - ff  
α  
stacc.

Detailed description: This diagram shows a multiphonic technique. It includes a vertical column of five circles (three filled, two empty) and a treble clef staff with a note. The dynamic marking is 'pp - ff', with 'α' and 'stacc.' below it.

72

p - mf  
α  
stacc.

Detailed description: This diagram shows a multiphonic technique. It includes a vertical column of five circles (three filled, two empty) and a treble clef staff with a note. The dynamic marking is 'p - mf', with 'α' and 'stacc.' below it.

132

pp - f  
α  
stacc.

Detailed description: This diagram shows a multiphonic technique. It includes a vertical column of five circles (three filled, two empty) and a treble clef staff with a note. The dynamic marking is 'pp - f', with 'α' and 'stacc.' below it.

342

p - f  
α  
stacc.

Detailed description: This diagram shows a multiphonic technique. It includes a vertical column of five circles (three filled, two empty) and a treble clef staff with a note. The dynamic marking is 'p - f', with 'α' and 'stacc.' below it.



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$\text{♩} = 72$  Maintain loose relationship with tape part throughout.

Oboe d'Amore

Electronics

Jittery, using alternate fingerings and timbral trills and embouchure variations ad lib.  
Don't don't trill between notes, adding new notes to collection as they appear.

Oda.


El.

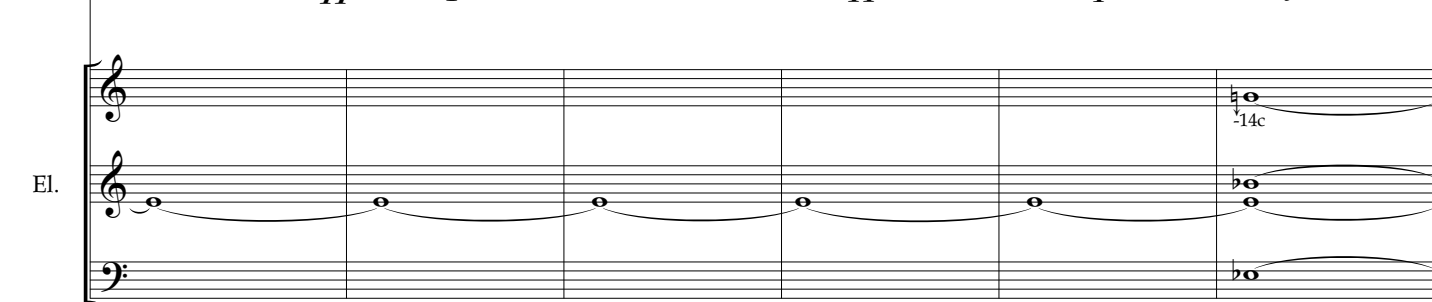
change fingering on repeated notes

double harmonic


Oda.

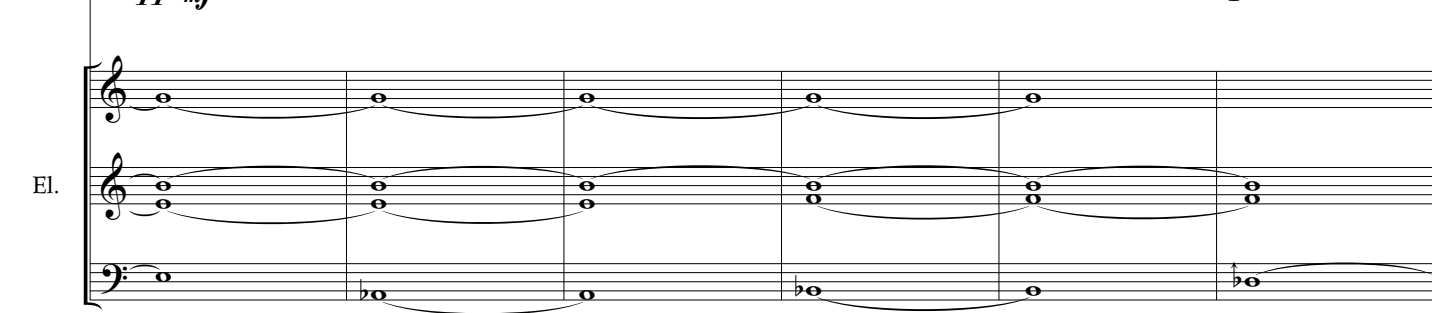
El.


Oda. 

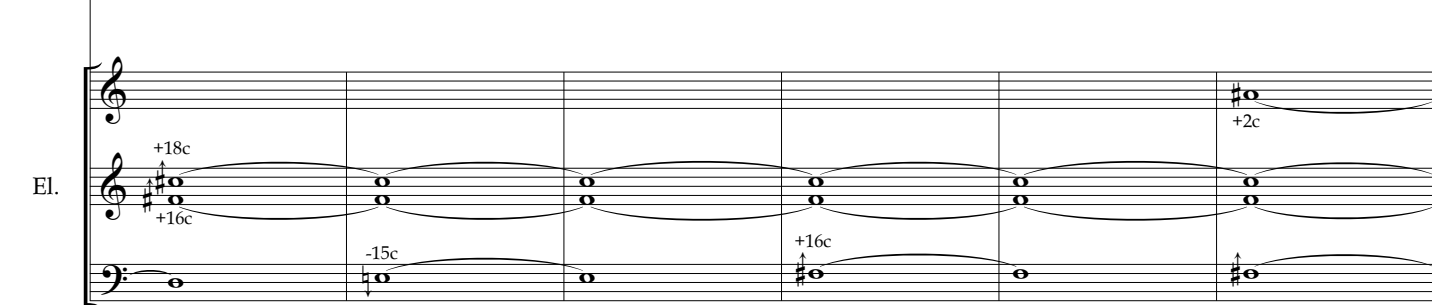
El. 

bisb. trills and color alterations ad lib.


Oda. 

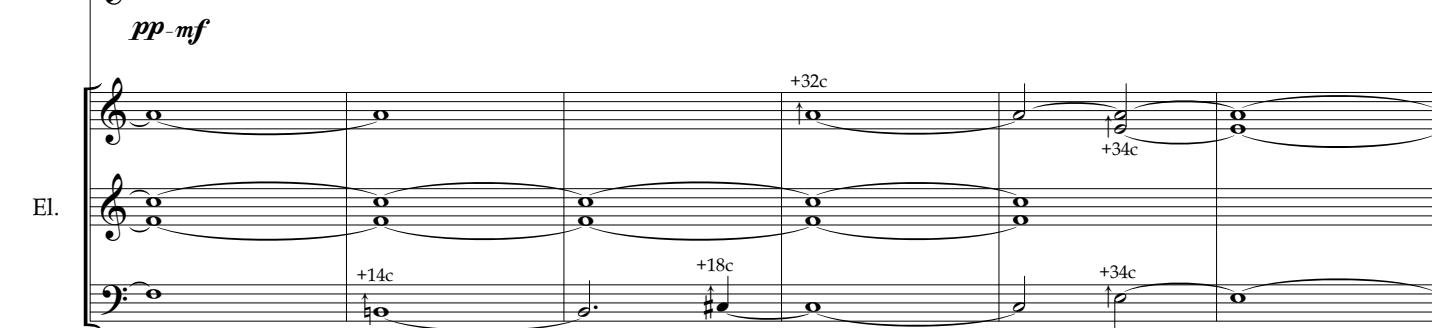
El. 

Oda. 

El. 

Improvise melodically, with a generally calm affect.

Oda. 

El. 



Play 3 or 4 note rising melodic figures.

(♩ = 76) *rit. poco a poco* → (♩ = 42)

Oda. *pp-mp* *p* *mf* *p*

repeat continuously

El. +1c +3c +32c

Oda. *mp* *mf* *p* *p* *mp* *pp* *mp* *mf* *pp* *p* *mf*

a.f.

El. +32c +46c +34c +50c

Oda. *pp* *mf* *mp* *mf* *p* *f* *mp* *mf* *pp*

a.f. fast as possible a.f.

(♩ = 52)

El. +17c +48c +48c

Oda. *pp* *mp* *pp* *mp* *pp* *pp* *mp* *pp* *mp* *mf* *pp*

(veale 130) (match pitch to upper line in electronics on long notes)

El. +17c -1c +48c -18c +13c

Oda. *p* *mf* *ppp* *mf* *p* *mp* *ppp* *f*

El. -37c +30c +38c +52c

Oda. *ppp* *mp* *p* *mf* *ppp* *pp-mf* *billbigliando and trill-like figures*


El. +54c -37c -18c +21c +52c +50c

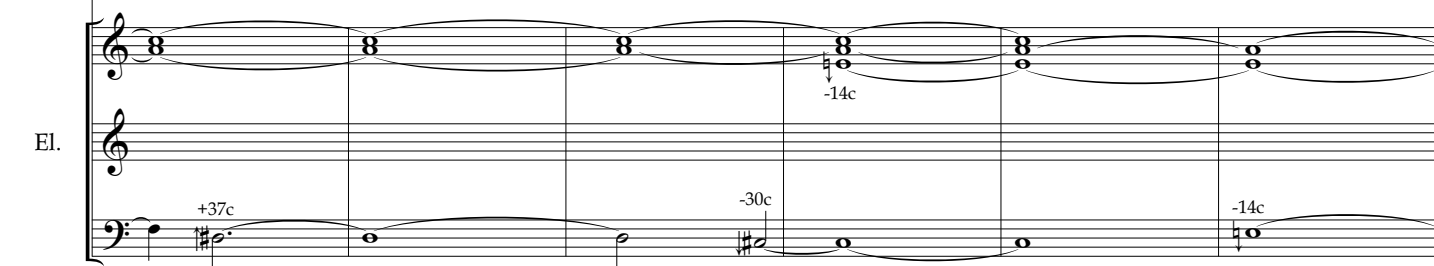
Oda. *pp* *mp* *p* *mf* *pp* *pp* *f* *pp* *mp*


El. +56c +54c -30c -16c

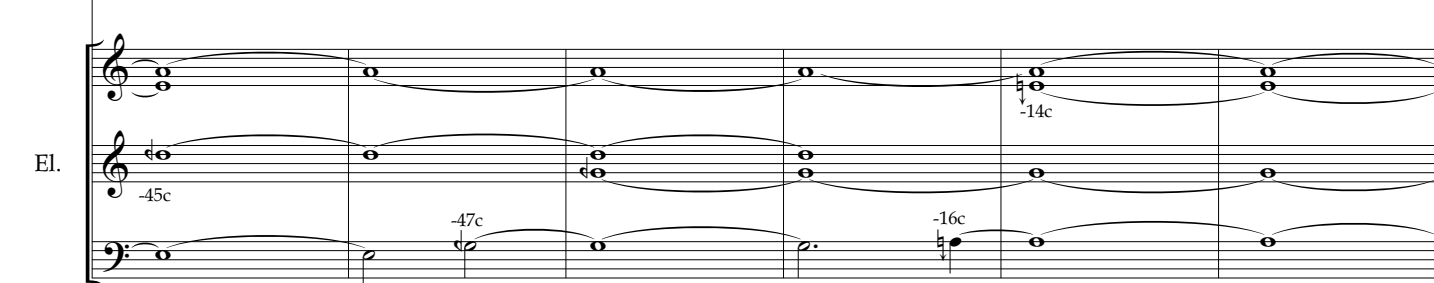
Oda. *pp-f* *Long notes with bending, include melodic improvisation ad lib.*

El. +37c -32c

Oda.  *pp-mf*

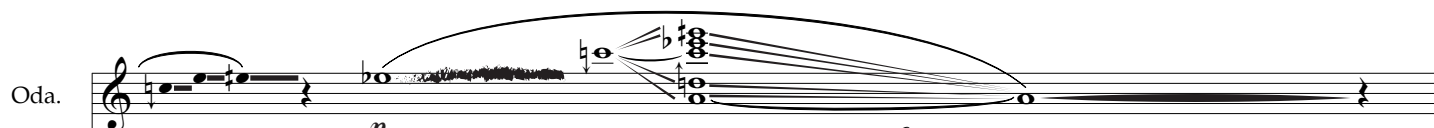
El. 

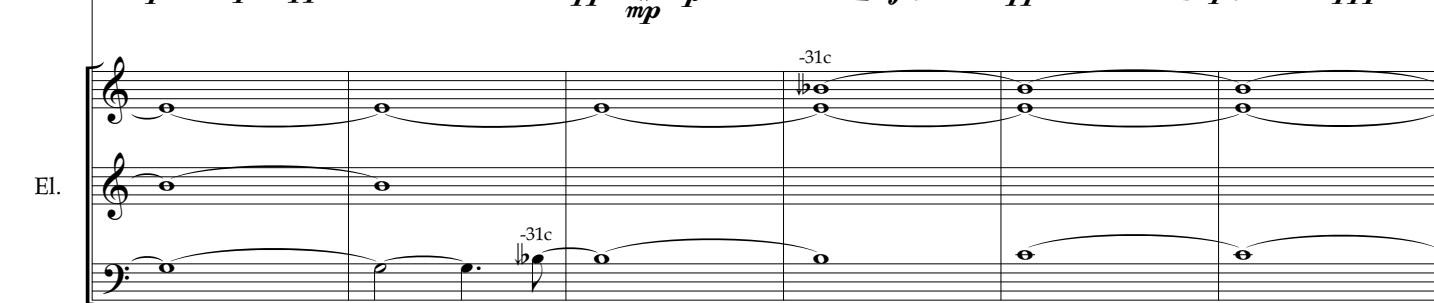
Oda.  *pp-f*

El. 

Oda.  *pp < mp > pp mf > p < mf > pp mp < mf*

El. 

Oda.  *p < mp > pp p pp < mp > p mf > pp mp > ppp*

El. 

(match pitch to upper line in electronics on long notes)

Oda. *pp* *mp* *p* *mp* *pp* *mp* *pp* *mp* *pp* *mp* *pp* *mp* *pp*

El. +31c +4c -18c -35c

Oda. *pp* *mf* *pp* *pp*

El. -49c +16c -31c +51c +16c

Oda. (veale 64) *pp* *mf* *ppp* *ppp* *mp* *ppp* *p* *mf*

El. +51c -32c -13c +50c +18c

Oda. (♩ = 96) *p* *mf* *pp* *pp* *f* *pp*

El. -16c -4c

Oda.

ppp mp pp mp pp mf ppp

-45c -29c +2c -31c

El.

-31c

(veale 342)

Oda.

ppp p f p ppp ppp

-31c

El.

Oda.

ff ppp pp mf pp mp pp

+18c +4c -31c +33c

El.

Oda.

ppp mp mp mp mp

-16c +16c -59c -29c

Oda.

mp mp

+31c +4c -18c -35c

Oda.

mp p pp mp ppp

-49c