

Alex Christie

Shifts in Atmospheric Pressure at 41 N, 105 W

2013

Program Notes: *Shifts in Atmospheric Pressure at 41 N, 105 W*

*Shifts in Atmospheric Pressure at 41 N, 105 W* is my fourth attempt at exploring, through sound, the complexity and composition of American landscapes. In this case, the sound is derived primarily from the fickle weather patterns I experienced at this location, in addition to the physical features of the landscape itself. This piece, however, does not necessarily create a sonic translation of the experience of weather--that interpretation is left up to the listener.

The idea of “atmospheric pressure” is fascinating to me because it simultaneously connotes the tactile experience of climate and weather patterns but also the physical propagation of sound waves, an occurrence necessary to the transmission of music. With this in mind, one objective of this piece is, simply, the creation of sound. These are simple sounds that slowly morph to create complex and rich timbre and texture, sounds I consider to be the unique and raw vocabulary of the instruments in this ensemble. In another sense, the objective of this piece is to transform the shifts in atmospheric pressure responsible for those Wyoming weather patterns into a different kind of shifts in atmospheric pressure, shifts that result from the vibration of the instruments and are perceived by the audience, courtesy of their ears and brains. As a result, sounds rub up against each other, converge and diverge, and, sometimes unexpectedly, shift.

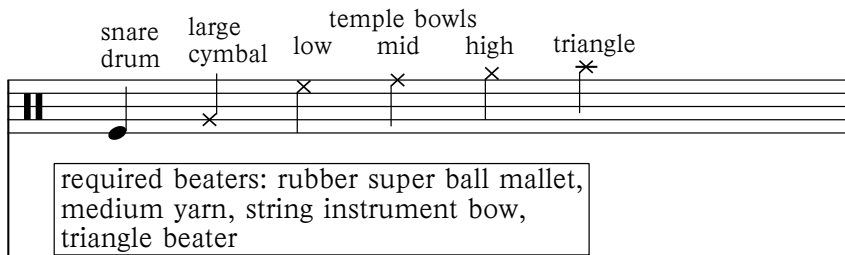
Aesthetically, I consider this piece to be a turning point in my acoustic work. I have often attempted to recreate my electronic music through acoustic means, and vice versa. This has led me to the acoustic exploration of hyper-active musical gestures and sound verging on chaos. *Shifts in Atmospheric Pressure at 41 N, 105 W* is the first piece of mine to explore the opposite sound world, a sound world that derives from the electronic drone music pervasive to the San Francisco Bay Area. What’s interesting to me is that this is a style with which I rarely engaged electronically, but has appeared, relatively naturally, in this acoustic setting.

It is almost as if this piece is a concise summary of my own compositional history. Texture, timbre, and gesture are explored in a manner influenced by my own experience in composing and improvising both electronic and acoustic music. These influences are combined with the extra-musical experience of my trip through a Wyoming landscape and the weather patterns that occurred over the course of less than ten minutes near 41 N, 105 W.

# Shifts in Atmospheric Pressure at 41 N, 105 W

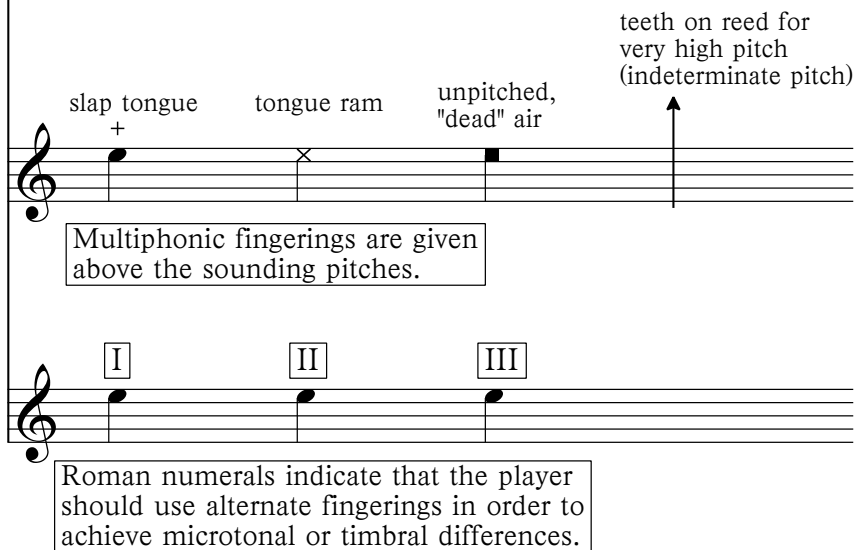
for tenor saxophone, violin, cello, percussion, and piano  
approx duration: 7'45"

## Percussion Setup



A diagram showing a percussion setup on a five-line staff. Above the staff, labels indicate the placement of instruments: 'snare drum' (a dot on the first line), 'large cymbal' (an 'x' on the second line), 'temple bowls' (three 'x' marks on the third, fourth, and fifth lines, labeled 'low', 'mid', and 'high' respectively), and 'triangle' (an 'x' on the first space). Below the staff, a box contains the text: 'required beaters: rubber super ball mallet, medium yarn, string instrument bow, triangle beater'.

## Saxophone Techniques



A diagram showing saxophone techniques on a five-line staff. Above the staff, labels indicate techniques: 'slap tongue' (a '+' sign on the first line), 'tongue ram' (an 'x' on the second line), 'unpitched, "dead" air' (a solid square on the third line), and 'teeth on reed for very high pitch (indeterminate pitch)' (an upward-pointing arrow on the fifth line). Below the staff, a box contains the text: 'Multiphonic fingerings are given above the sounding pitches.' Below this, three notes are shown on the staff, labeled with Roman numerals 'I', 'II', and 'III' in boxes above them. A final box contains the text: 'Roman numerals indicate that the player should use alternate fingerings in order to achieve microtonal or timbral differences.'

note: the percussionist only plays one triangle but 4 triangles are required for the piece. At m. 142, triangles are played by all members of the ensemble (except the saxophonist).

A note about glissandi:

Hold the notated pitch for the indicated duration before beginning the glissando. Do not re-articulate the arrival pitch. In other words, all glissandi should be smooth. If glissandi are noted as "continuous glissandi" (m. 116), pass through the notes *without* sustaining for the written duration. The result should be a constantly changing pitch.

C-Score

Shifts in Atmospheric Pressure at 41 N, 105 W

Alex Christie

♩ = 104

Tenor Saxophone

Violin

Violoncello

Percussion  
(triangle, 3 temple bowls,  
large cymbal, snare drum)

Piano

5

Ten. Sax.

Vln.

Vc.

Perc.

Pno.

**A**

Sul D

Sul G

Unison with cello

3

Add open D Drone until m 56 (rhythm matches Sul G phrase)

Vln.

Vc.

18

End unison

Sul A

Sul D

End unison

Sul A

Sul D

Vln.

Vc.

**B**

25

Unison with strings

mf

pp

Unison with cello

Unison with saxophone

Unison with violin

Unison with saxophone

Sul D

fp

fp

pp

Ten. Sax.

Vln.

Vc.

**II**

33

mf

p

f

fp

mf

fp

fp

f

Sul A

Sul D

fp

fp

f

Ten. Sax.

Vln.

Vc.

Alternate between different fingerings until m. 55

42

Ten. Sax. *mp* *f*

Vln. *mp*

Vc. *mf*

Perc. Temple bowls with medium yarn mallet Snare drum with superball mallet Snare off until m. 56

Pno. *p* *mf* *mf*

End unison

Sul A

Sul D



47

Ten. Sax. *mp*

Vln. *f*

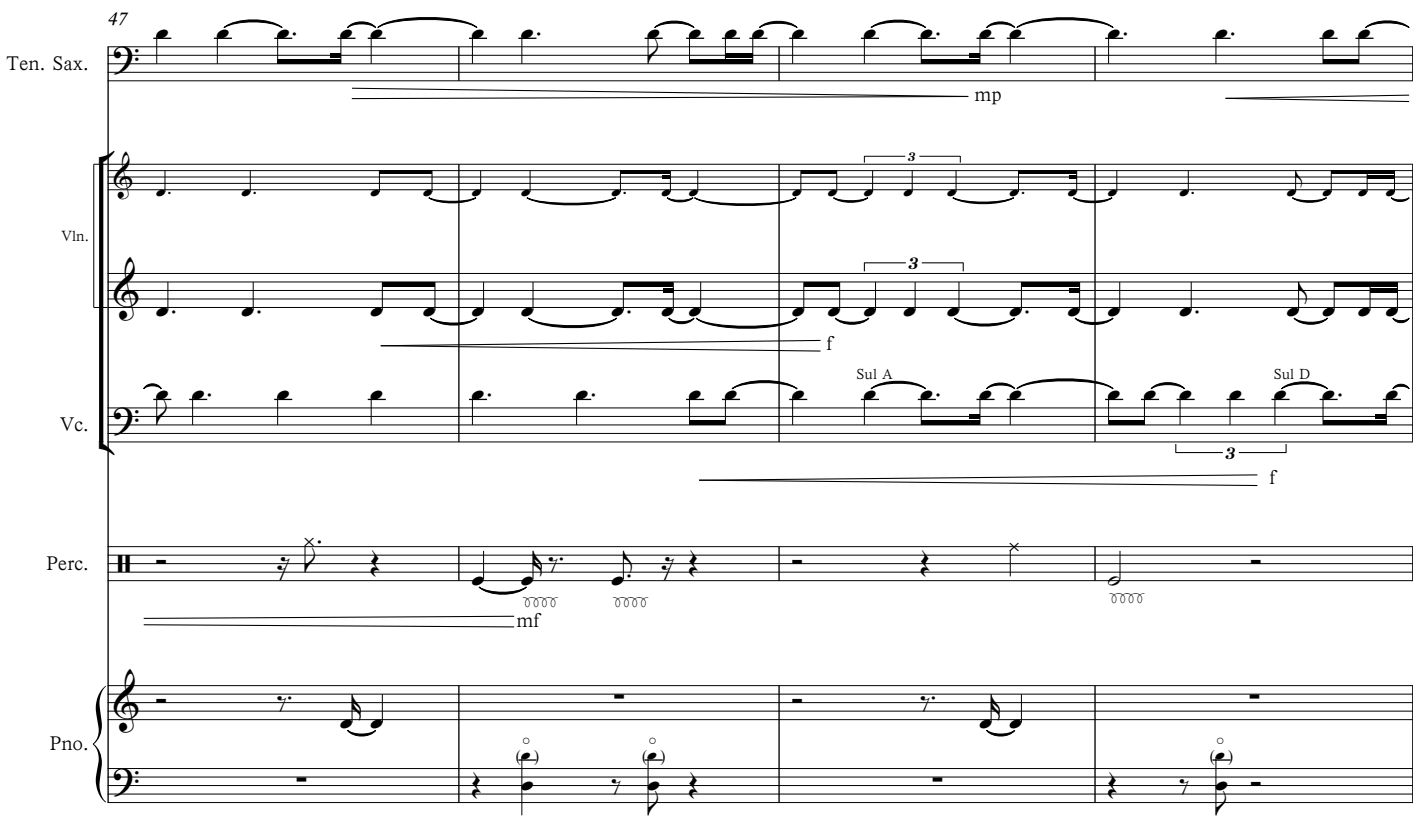
Vc. *f*

Perc. *mf*

Pno. *mf*

Sul A

Sul D



51

Ten. Sax. *f*

Vln. *f* Sul D Sul G

Vc. *f* Sul A Sul D

Perc. *f*

Pno. *f*

56

Ten. Sax. *mf*

Vln. *mf* Sul D Sul G

Vc. *mf* Sul A Sul D

Pno. *mf*

**C**

63

Ten. Sax. *mf*

Vln. *mf*

Vc. *mf*

Alternate between different fingerings until m. 116

68

**D** Breathe as needed. Try to match dynamic contour.

Ten. Sax.

mf ————— f ————— p ————— mf

Vln.

Add drone (sul D) until m. 141

Sul G

Slow glissando

ff

Vc.

ff

Perc.

Temple bowls with medium yarn mallet

f

Pno.

**D**

Mute D2

f

Ten. Sax.

79

Slow glissando

p ————— f

Vln.

Vc.

Slow glissando

Perc.

Pno.

Silently hold D4

*Ad lib.*



90

Ten. Sax.

Vln.

Vc.

Perc.

Pno.

Dynamic markings: p, f

100

Ten. Sax.

Vln.

Vc.

Perc.

Pno.

Dynamic markings: p, f

109

Ten. Sax.

Vln.

Vc.

Perc.

Pno.

*p* *f*

116

Ten. Sax.

Vln.

Vc.

Perc.

Pno.

**E**

continuous glissandi

continuous glissandi

Large cymbal arco.

Gradually lift keys leaving only D4

*pp* *mp* *f* *n*

*f* *ff*

*p* *ff*

*ff*

122

Ten. Sax. (ord.) growl

Vln. Bow Pressure: ord. medium ord.

Vc. Bow Pressure: ord. medium ord.

Perc. p ff

Pno.

128

Ten. Sax. (ord.) growl (ord.)

Vln. BP: ord. med. heavy

Vc. BP: ord. med. heavy

Perc. arco. p ff

Pno. ff Gradually lift keys leaving only D4

134 (ord.)

Ten. Sax. (ord.) growl

p mp f mf ff

Vln. very heavy

Vc. very heavy

Perc. arco. mf

Pno. mf Ped.

140

Ten. Sax. **F** teeth on reed f

Incorporate fast and varied articulations and flutter tongue. Continue for approx. 95" (43 measures)

60"

Vln. To Tri. Triangle ff Violin

Vc. To Tri. Triangle ff Violoncello

Perc. Triangle ff

Pno. To Tri. Triangle ff

145

Ten. Sax. 35" 25"

Vln. *f* highest possible harmonic, continue for approx. 60" (25 measures) 35" 25"

Vc. *f* highest possible harmonic, continue for approx. 60" (25 measures) 35" 25"

Perc. 35" 25"

Piano 35" 25"

147

Ten. Sax. tongue ram *f* 3 slap tongue *mp* 7

Vln. pizz, quick glissandi *mf* 3 3 5

Vc. pizz, quick glissandi *mf* 3 5:3

Perc. Drag drum sticks around the side of the drum *mf*

Pno. Shot glass glissandi *mf* 3

150

Ten. Sax. 

Vln. 

Vc. 

Perc. 

Pno. 

152

Ten. Sax. 

Vln. 

Vc. 

Perc. 

Pno. 

Flz. 

mp   f  p  f