
Struggling To Breathe

For 2 Disklaviers (1 detuned by $\frac{1}{4}$ tone)

Jon Fielder

Program Notes

I wrote a great deal of the earliest sketches of *Struggling to Breathe* from a hospital bed in Oakland, CA. I was kept in quarantine in early September of 2019 for a mysterious abscess in my left lung. It was initially believed to be tuberculosis (was later found to be a simple bacterial infection), and because of that hospital protocol required I be completely quarantined during testing and diagnosis. While in the bed with plenty of time on my hands and only a backpack with notebooks, staff paper and some pencils I dedicated to try to work on some music.

While checking my email I saw an open call for pieces by the University of Texas at Austin scored for 2 Disklaviers, one detuned by $\frac{1}{4}$ tone. Having done my doctorate at UT-Austin I knew the capabilities of the Disklaviers and this seemed like an interesting project. I immediately thought of the idea of two identical entities, but one being slightly off, or a little “broken” - not dissimilar to the current state of my lungs. I set out to write a piece that embodied this idea of a single machine, like a metapiano that just couldn’t quite get in sync with itself.

The piece is written as a dichotomy of ideas, one of micropolyphony and the other of hyper-pointillistic kerplunkity writing. At times the two Disklaviers are playing entirely in unison, but the detuned 2nd part creates an interesting resonance and natural phase cancellation/reinforcement, a natural metallic comb filtering effect that I’ve always been drawn to. The piece is filled with interruptions (coughs), wheezing, points of resolve that never quite settle, and a pointed ending that I think still feels a bit unsatisfying - again not dissimilar from my own lungs never quite being the same as a result of scar tissue.

Performance Notes

Struggling to Breathe exists in two forms. One is entirely fixed as a recording, similar to Conlon Nancarrow’s pieces for player piano, but instead written for a modern player piano - MIDI driven virtual pianos that allow for exact detuning to play into the effect of the broken metapiano.

The second version is for two physical Disklaviers. This can be performed live using the instruments by playing a MIDI file from a laptop feeding one stream from MIDI Channel 1 to Disklavier 1 and one stream from MIDI Channel 2 to the second Disklavier. This can be played as a MIDI file from a Max/MSP patch, or from a MIDI file stored in a number of DAW sessions (Logic Pro X, Reaper, and Ableton, all of which are available from the composer).

MIDI Channel 1 - Regularly Tuned Disklavier

MIDI Channel 2 - Detuned Disklavier

Electronics for the live version of this piece can be obtained from the composer at jonfieldermusic@gmail.com

7

Pno.

pp

pp
(XXX)

mp

Pno.

pp

pp

p

mp
(XXX)

9

Pno.

p

(XXX)

Pno.

(XXX)

p

(XXX)

6 6 6 6 5 3

5 5 5 5 5 5 5

3 3 3 3 6 6 6 6

5 5 9:8

5 5 9:8

3

System 1 (Measures 11-12):

Piano (Pno.): Measures 11-12. Treble and bass staves. Treble staff has a 5-fingered scale in the right hand and a 5-fingered scale in the left hand. Bass staff has a 5-fingered scale in the right hand and a 5-fingered scale in the left hand. Measure 12 has a 3-fingered scale in the right hand and a 5-fingered scale in the left hand.

Vocal (Voc.): Measures 11-12. Treble staff. Measure 11: *f* 我 们 的 祖 国 是 一 条 长 城。 Measure 12: *p* 我 们 的 祖 国 是 一 条 长 城。

System 2 (Measures 13-14):

Piano (Pno.): Measures 13-14. Treble and bass staves. Treble staff has a 5-fingered scale in the right hand and a 5-fingered scale in the left hand. Bass staff has a 5-fingered scale in the right hand and a 5-fingered scale in the left hand. Measure 14 has a 3-fingered scale in the right hand and a 5-fingered scale in the left hand.

Vocal (Voc.): Measures 13-14. Treble staff. Measure 13: *f* 我 们 的 祖 国 是 一 条 长 城。 Measure 14: *p* 我 们 的 祖 国 是 一 条 长 城。

System 3 (Measures 15-16):

Piano (Pno.): Measures 15-16. Treble and bass staves. Treble staff has a 5-fingered scale in the right hand and a 5-fingered scale in the left hand. Bass staff has a 5-fingered scale in the right hand and a 5-fingered scale in the left hand. Measure 16 has a 3-fingered scale in the right hand and a 5-fingered scale in the left hand.

Vocal (Voc.): Measures 15-16. Treble staff. Measure 15: *f* 我 们 的 祖 国 是 一 条 长 城。 Measure 16: *p* 我 们 的 祖 国 是 一 条 长 城。

16

pp

Pno.

mp

pp

Pno.

mp

18

Pno.

mp

acc.

Pno.

mp

acc.

20

Pno.

Pno.

(Xia) *p*

22

Pno.

Pno.

(Xia)

(Xia)

Violent Outburst

Pno.

Pno.

The image displays a musical score for two piano parts, each consisting of five staves. The notation is complex, featuring various musical symbols and dynamic markings.

Staff 1 (Top): Treble clef, key signature of one sharp (F#), 4/4 time signature. It begins with a piano (*p*) dynamic and a half note G4. This is followed by a series of triplets (marked with a '3' and a bracket) of eighth notes, starting with a piano-pianissimo (*pp*) dynamic. The first triplet is G4, A4, B4; the second is A4, B4, C5; the third is B4, C5, D5; the fourth is C5, B4, A4; the fifth is B4, A4, G4; the sixth is A4, G4, F#4; the seventh is G4, F#4, E4; the eighth is F#4, E4, D4; the ninth is E4, D4, C4; the tenth is D4, C4, B3; the eleventh is C4, B3, A3; the twelfth is B3, A3, G3; the thirteenth is A3, G3, F#3; the fourteenth is G3, F#3, E3; the fifteenth is F#3, E3, D3; the sixteenth is E3, D3, C3; the seventeenth is D3, C3, B2; the eighteenth is C3, B2, A2; the nineteenth is B2, A2, G2; the twentieth is A2, G2, F#2; the twenty-first is G2, F#2, E2; the twenty-second is F#2, E2, D2; the twenty-third is E2, D2, C2; the twenty-fourth is D2, C2, B1; the twenty-fifth is C2, B1, A1; the twenty-sixth is B1, A1, G1; the twenty-seventh is A1, G1, F#1; the twenty-eighth is G1, F#1, E1; the twenty-ninth is F#1, E1, D1; the thirtieth is E1, D1, C1; the thirty-first is D1, C1, B0; the thirty-second is C1, B0, A0; the thirty-third is B0, A0, G0; the thirty-fourth is A0, G0, F#0; the thirty-fifth is G0, F#0, E0; the thirty-sixth is F#0, E0, D0; the thirty-seventh is E0, D0, C0; the thirty-eighth is D0, C0, B-1; the thirty-ninth is C0, B-1, A-1; the fortieth is B-1, A-1, G-1; the forty-first is A-1, G-1, F-1; the forty-second is G-1, F-1, E-1; the forty-third is F-1, E-1, D-1; the forty-fourth is E-1, D-1, C-1; the forty-fifth is D-1, C-1, B-2; the forty-sixth is C-1, B-2, A-2; the forty-seventh is B-2, A-2, G-2; the forty-eighth is A-2, G-2, F#2; the forty-ninth is G2, F#2, E2; the fiftieth is F#2, E2, D2; the fifty-first is E2, D2, C2; the fifty-second is D2, C2, B2; the fifty-third is C2, B2, A2; the fifty-fourth is B2, A2, G2; the fifty-fifth is A2, G2, F#2; the fifty-sixth is G2, F#2, E2; the fifty-seventh is F#2, E2, D2; the fifty-eighth is E2, D2, C2; the fifty-ninth is D2, C2, B2; the sixtieth is C2, B2, A2; the sixty-first is B2, A2, G2; the sixty-second is A2, G2, F#2; the sixty-third is G2, F#2, E2; the sixty-fourth is F#2, E2, D2; the sixty-fifth is E2, D2, C2; the sixty-sixth is D2, C2, B2; the sixty-seventh is C2, B2, A2; the sixty-eighth is B2, A2, G2; the sixty-ninth is A2, G2, F#2; the seventieth is G2, F#2, E2; the seventy-first is F#2, E2, D2; the seventy-second is E2, D2, C2; the seventy-third is D2, C2, B2; the seventy-fourth is C2, B2, A2; the seventy-fifth is B2, A2, G2; the seventy-sixth is A2, G2, F#2; the seventy-seventh is G2, F#2, E2; the seventy-eighth is F#2, E2, D2; the seventy-ninth is E2, D2, C2; the eightieth is D2, C2, B2; the eighty-first is C2, B2, A2; the eighty-second is B2, A2, G2; the eighty-third is A2, G2, F#2; the eighty-fourth is G2, F#2, E2; the eighty-fifth is F#2, E2, D2; the eighty-sixth is E2, D2, C2; the eighty-seventh is D2, C2, B2; the eighty-eighth is C2, B2, A2; the eighty-ninth is B2, A2, G2; the ninetieth is A2, G2, F#2; the hundredth is G2, F#2, E2; the hundred-first is F#2, E2, D2; the hundred-second is E2, D2, C2; the hundred-third is D2, C2, B2; the hundred-fourth is C2, B2, A2; the hundred-fifth is B2, A2, G2; the hundred-sixth is A2, G2, F#2; the hundred-seventh is G2, F#2, E2; the hundred-eighth is F#2, E2, D2; the hundred-ninth is E2, D2, C2; the hundred-tieth is D2, C2, B2; the hundred-first is C2, B2, A2; the hundred-second is B2, A2, G2; the hundred-third is A2, G2, F#2; the hundred-fourth is G2, F#2, E2; the hundred-fifth is F#2, E2, D2; the hundred-sixth is E2, D2, C2; the hundred-seventh is D2, C2, B2; the hundred-eighth is C2, B2, A2; the hundred-ninth is B2, A2, G2; the hundred-tieth is A2, G2, F#2; the hundred-first is G2, F#2, E2; the hundred-second is F#2, E2, D2; the hundred-third is E2, D2, C2; the hundred-fourth is D2, C2, B2; the hundred-fifth is C2, B2, A2; the hundred-sixth is B2, A2, G2; the hundred-seventh is A2, G2, F#2; the hundred-eighth is G2, F#2, E2; the hundred-ninth is F#2, E2, D2; the hundred-tieth is E2, D2, C2; the hundred-first is D2, C2, B2; the hundred-second is C2, B2, A2; the hundred-third is B2, A2, G2; the hundred-fourth is A2, G2, F#2; the hundred-fifth is G2, F#2, E2; the hundred-sixth is F#2, E2, D2; the hundred-seventh is E2, D2, C2; the hundred-eighth is D2, C2, B2; the hundred-ninth is C2, B2, A2; the hundred-tieth is B2, A2, G2; the hundred-first is A2, G2, F#2; the hundred-second is G2, F#2, E2; the hundred-third is F#2, E2, D2; the hundred-fourth is E2, D2, C2; the hundred-fifth is D2, C2, B2; the hundred-sixth is C2, B2, A2; the hundred-seventh is B2, A2, G2; the hundred-eighth is A2, G2, F#2; the hundred-ninth is G2, F#2, E2; the hundred-tieth is F#2, E2, D2; the hundred-first is E2, D2, C2; the hundred-second is D2, C2, B2; the hundred-third is C2, B2, A2; the hundred-fourth is B2, A2, G2; the hundred-fifth is A2, G2, F#2; the hundred-sixth is G2, F#2, E2; the hundred-seventh is F#2, E2, D2; the hundred-eighth is E2, D2, C2; the hundred-ninth is D2, C2, B2; the hundred-tieth is C2, B2, A2; the hundred-first is B2, A2, G2; the hundred-second is A2, G2, F#2; the hundred-third is G2, F#2, E2; the hundred-fourth is F#2, E2, D2; the hundred-fifth is E2, D2, C2; the hundred-sixth is D2, C2, B2; the hundred-seventh is C2, B2, A2; the hundred-eighth is B2, A2, G2; the hundred-ninth is A2, G2, F#2; the hundred-tieth is G2, F#2, E2; the hundred-first is F#2, E2, D2; the hundred-second is E2, D2, C2; the hundred-third is D2, C2, B2; the hundred-fourth is C2, B2, A2; the hundred-fifth is B2, A2, G2; the hundred-sixth is A2, G2, F#2; the hundred-seventh is G2, F#2, E2; the hundred-eighth is F#2, E2, D2; the hundred-ninth is E2, D2, C2; the hundred-tieth is D2, C2, B2; the hundred-first is C2, B2, A2; the hundred-second is B2, A2, G2; the hundred-third is A2, G2, F#2; the hundred-fourth is G2, F#2, E2; the hundred-fifth is F#2, E2, D2; the hundred-sixth is E2, D2, C2; the hundred-seventh is D2, C2, B2; the hundred-eighth is C2, B2, A2; the hundred-ninth is B2, A2, G2; the hundred-tieth is A2, G2, F#2; the hundred-first is G2, F#2, E2; the hundred-second is F#2, E2, D2; the hundred-third is E2, D2, C2; the hundred-fourth is D2, C2, B2; the hundred-fifth is C2, B2, A2; the hundred-sixth is B2, A2, G2; the hundred-seventh is A2, G2, F#2; the hundred-eighth is G2, F#2, E2; the hundred-ninth is F#2, E2, D2; the hundred-tieth is E2, D2, C2; the hundred-first is D2, C2, B2; the hundred-second is C2, B2, A2; the hundred-third is B2, A2, G2; the hundred-fourth is A2, G2, F#2; the hundred-fifth is G2, F#2, E2; the hundred-sixth is F#2, E2, D2; the hundred-seventh is E2, D2, C2; the hundred-eighth is D2, C2, B2; the hundred-ninth is C2, B2, A2; the hundred-tieth is B2, A2, G2; the hundred-first is A2, G2, F#2; the hundred-second is G2, F#2, E2; the hundred-third is F#2, E2, D2; the hundred-fourth is E2, D2, C2; the hundred-fifth is D2, C2, B2; the hundred-sixth is C2, B2, A2; the hundred-seventh is B2, A2, G2; the hundred-eighth is A2, G2, F#2; the hundred-ninth is G2, F#2, E2; the hundred-tieth is F#2, E2, D2; the hundred-first is E2, D2, C2; the hundred-second is D2, C2, B2; the hundred-third is C2, B2, A2; the hundred-fourth is B2, A2, G2; the hundred-fifth is A2, G2, F#2; the hundred-sixth is G2, F#2, E2; the hundred-seventh is F#2, E2, D2; the hundred-eighth is E2, D2, C2; the hundred-ninth is D2, C2, B2; the hundred-tieth is C2, B2, A2; the hundred-first is B2, A2, G2; the hundred-second is A2, G2, F#2; the hundred-third is G2, F#2, E2; the hundred-fourth is F#2, E2, D2; the hundred-fifth is E2, D2, C2; the hundred-sixth is D2, C2, B2; the hundred-seventh is C2, B2, A2; the hundred-eighth is B2, A2, G2; the hundred-ninth is A2, G2, F#2; the hundred-tieth is G2, F#2, E2; the hundred-first is F#2, E2, D2; the hundred-second is E2, D2, C2; the hundred-third is D2, C2, B2; the hundred-fourth is C2, B2, A2; the hundred-fifth is B2, A2, G2; the hundred-sixth is A2, G2, F#2; the hundred-seventh is G2, F#2, E2; the hundred-eighth is F#2, E2, D2; the hundred-ninth is E2, D2, C2; the hundred-tieth is D2, C2, B2; the hundred-first is C2, B2, A2; the hundred-second is B2, A2, G2; the hundred-third is A2, G2, F#2; the hundred-fourth is G2, F#2, E2; the hundred-fifth is F#2, E2, D2; the hundred-sixth is E2, D2, C2; the hundred-seventh is D2, C2, B2; the hundred-eighth is C2, B2, A2; the hundred-ninth is B2, A2, G2; the hundred-tieth is A2, G2, F#2; the hundred-first is G2, F#2, E2; the hundred-second is F#2, E2, D2; the hundred-third is E2, D2, C2; the hundred-fourth is D2, C2, B2; the hundred-fifth is C2, B2, A2; the hundred-sixth is B2, A2, G2; the hundred-seventh is A2, G2, F#2; the hundred-eighth is G2, F#2, E2; the hundred-ninth is F#2, E2, D2; the hundred-tieth is E2, D2, C2; the hundred-first is D2, C2, B2; the hundred-second is C2, B2, A2; the hundred-third is B2, A2, G2; the hundred-fourth is A2, G2, F#2; the hundred-fifth is G2, F#2, E2; the hundred-sixth is F#2, E2, D2; the hundred-seventh is E2, D2, C2; the hundred-eighth is D2, C2, B2; the hundred-ninth is C2, B2, A2; the hundred-tieth is B2, A2, G2; the hundred-first is A2, G2, F#2; the hundred-second is G2, F#2, E2; the hundred-third is F#2, E2, D2;

31

Pno.

(Xia)

Pno.

(Xia)

Pno.

Pno.

(Solo)

(Solo)

Pno.

Pno.

(Sca.)

(Sca.)

Pno.

pp

(*add.*)

Pno.

(*add.*)

* *

$\text{♩} = 76$

42

Pno.

mp

f

p

mf

mp

p

mf

f

mf

5

3

6

3

45

Pno.

mp *mf* *f*

3 6 4:3 3 5

p *f* *ff*

5 7 6

47

Pno.

p *f* *mf* *p*

mf *mp* *f* *mp* *mf* 3

5:4 5 5 *mp* 3 5

50

Pno.

f 3 5 5 3 5 6

p *mp* 3 5:4 5 8 *f* 6

[illegible]

68

Pno.

ppp

p

(*Scd.*)

ppp

p

(*Scd.*)

70

Pno.

(*Scd.*)

Pno.

(*Scd.*)

72

Pno.

(*Scd.*)

Pno.

(*Scd.*)

74 $\text{♩} = 94$

Pno. *mf* *f* *f*

Pno. *mf* *f*

77 *p* *f* *mf* *sfz*

Pno. *f* *f* *f*

Pno. *f* *f* *f*

80 *mp* *mp* *mp*

Pno. *mp* *mp* *mp*

Pno. *mp* *mp* *mp*

Detailed description of the musical score: The score is for two pianos. Measures 74-76 show a dense texture with quintuplets in the right hand and triplets in the left. Dynamics are mezzo-forte (mf) and forte (f). Measures 77-79 continue this texture with various articulations like accents and slurs. Measure 80 introduces a change with sextuplets and a mezzo-piano (mp) dynamic. The notation includes many accidentals (sharps and flats) and complex rhythmic groupings.

18

94

Pno.

mf

p

pp

(Xia.)

4

4:3

6

5

6

5

98

Pno.

pp

(Xia.)

3

3

5

5

6

6

7

6

7

101

Pno.

5

6

9:8

6

6

6

6

7

7

7

(Xia.)

103

Pno.

(Xia)

Pno.

(Xia)

The image shows two staves of musical notation for piano (Pno.). The top staff begins at measure 103 with a treble clef and a key signature of one flat (B-flat). It features a continuous sixteenth-note scale in the right hand, with groups of six notes bracketed and labeled '6'. The left hand provides a harmonic accompaniment with chords and single notes. A fermata is placed over the final measure of the scale. The bottom staff also begins at measure 103 with a treble clef and a key signature of one flat. It contains a similar sixteenth-note scale in the right hand, with groups of six notes bracketed and labeled '6'. The left hand has a more active role with chords and single notes. Both staves end at measure 104. The top staff's measure 104 features a treble clef, a key signature of one flat, and a dynamic marking of *sfz* (sforzando). The right hand has a whole note chord, and the left hand has a triplet of eighth notes followed by a quarter note. The bottom staff's measure 104 features a treble clef, a key signature of one flat, and a dynamic marking of *f* (forte). The right hand has a triplet of eighth notes followed by a quarter note, and the left hand has a triplet of eighth notes followed by a quarter note. Both staves end with a double bar line.