

Richard Barrett

lens

2012-13
quarternote flugelhorn and lap steel guitar

performing score

lens

(2012-13) for quartertone flugelhorn and lap steel guitar

Commissioned by the Art Committee of the Royal Malbourne Institute of Technology

to Brian Ferneyhough on the occasion of his 70th birthday

duration: approximately 7 minutes

Trills, tremoli and gracenotes always as fast as possible.

Quartertones: (♯) ♭ ♮ ♯ ♯ (♯)

] = damp all sound, or, where indicated, damp selected sounds (guitar); abrupt and audible cutting-off of sound (flugelhorn).
The flugelhorn is notated a major second higher than it sounds, the guitar an octave higher.

The second half of the piece (from bar 29 onwards) consists in each instrument of a sequence of disjunct sounds/phrases separated by short rests, initially mostly synchronous but later increasingly alternating and overlapping, between which no sense of continuity should be attempted; rather, each new sound/phrase should sound almost as if played by a different instrument.

flugelhorn

The fourth valve is adapted to lower pitch by a quartertone. A harmon mute is also required from bar 29.
Circular breathing is assumed in long unbroken passages. Glissandi should be as smooth as possible, using half-valve technique as necessary.



= "spreading" from a single pitch to a multiphonic (the opposite process can also occur), as smoothly as possible

lap steel guitar

A six-string instrument is used (with a single slide), equipped with legs to allow free use of two pedals, with the following tuning (which includes three string-benders each with a range of a major second, applied to the first, third and fourth strings):



The instrument for which *lens* was conceived and written was designed and built by David Porthouse of Morpeth (davidporthouselapsteelguitar.blogspot.co.uk), with pickups by Allan Price of Catswhisker Pickups (catswhiskerpickups.co.uk).



The string-benders are notated on a separate staff with one line for each bender to show glissandi or quasi-disjunct movements between the rest position (small notehead) and up to a major second higher (using accidentals up to and including double sharps). The principal staff shows only the pitches and glissandi produced by the slide, which may then be altered by the use of one or more benders. In some rapid passages, smaller glissandi are omitted for clarity (as for example in bar 4, where the overall slide movement is indicated separately). Fret positions are notated using roman numerals, with a + added to indicate quartertone positions, eg. XI+ is halfway between the 11th and 12th fret, etc. In chords, the pitch-notation will be somewhat approximate whenever the bar is slanted - as a rule the outer pitches of the chord should be precisely positioned, and the inner one(s)

Tenuto marks are used to indicate which sounds are plucked. Slurs are placed over legato phrases without plucking (for example in bar 19), dotted slurs indicated phrases formed by sequences of plucked sounds.

A volume pedal and (from bar 29) wah pedal are used. Apart from these, the sound of the instrument should remain consistent: clean, detailed and capable of long sustains (assisted by the volume pedal as necessary), although when the wah pedal is brought in, changes in other settings might be appropriate in order to blend more closely with the harmon-muted flugelhorn. The dynamic range of the amplified instrument should be adjusted to coincide as far as possible with that of the flugelhorn.

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$\text{♩} = 72$ ($\text{♩} = 144$)

The score is divided into four systems, each with a rehearsal mark in a box:

- System 1:** Measures 14-27. Flugel horn (B♭) starts with a *fff* dynamic and a *senza sordino* instruction. Lap steel guitar features a volume pedal and *nat* (natural) and *sul pont* (sul ponticello) techniques. String benders are present.
- System 2:** Measures 27-34. Dynamics range from *fff* to *ppp*. Includes a *nat sempre* instruction and various string bender techniques.
- System 3:** Measures 34-43. Dynamics range from *f* to *mp*. Includes a *sul pont sempre* instruction and a *freeze!* instruction.
- System 4:** Measures 43-52. Dynamics range from *mp* to *ff*. Includes a *freeze!* instruction and a *slide: III* instruction.

Rehearsal marks are: 14/8, 27/16, 13/8, and 25/16.

11
8

8 (13)

flugel horn in B \flat *mf* sempre

string benders

lap steel guitar *mf* sempre

9 (freeze!) 11 8

flugel horn in B \flat *p* sempre

string benders

lap steel guitar (freeze!) *p* sempre

mute with left hand

half-valve glissandi...

10 (freeze!) 21 16

flugel horn in B \flat *ff*, *f*, *ppp*, *f*, *mp*, *p*

lap steel guitar (freeze!) *ff*, *pp*, *mf*, *ff*

nat. 5:6, 4:3, 3:2, 8:7

sul pont.

11 (freeze!) 10 8

flugel horn in B \flat *pp*, *mp*, *mf*, *ff*

string benders

lap steel guitar *pp*, *mf*, *p*, *f*

nat. 6:7, 7:5, 4:3, 5:4, 7:6, 3:2

16 $\frac{17}{16}$ $\frac{16}{8}$

string benders

lap steel guitar

(nat.)

3:2 5:4

fff *p*

17 $\frac{16}{8}$

flugel horn in Bb

lap steel guitar

4:5 5:4

mp *p sub.*

no glissandi between pitches except where indicated!

5:4 sul pont. 6 1 nat. 4 3 5 10:7 2

mp *p sub.*

18 $\frac{15}{16}$ $\frac{16}{8}$

flugel horn in Bb

string benders

lap steel guitar

8:7 3:2 3:2 3:2

f sub. *mf sub.* *fff sub.*

sul pont. 2 2 4:3 nat. 5 2 3 4:3 sul pont. 4 2 6 5 3 1

(p) *f sub.* *mf sub.* *fff sub.*

19 $\frac{15}{16}$ $\frac{7}{8}$

flugel horn in Bb

lap steel guitar

0 123 0 134

(-...)

f sub. *ppp*

follow guitar diminuendo and stop simultaneously

(-...)

(use volume pedal to enhance or compensate for natural decay as necessary)

ff sub. *pp*

20

flügelhorn in B \flat *mf* (freeze!) *mp* *fff sub!*

string benders

lap steel guitar *mf* (freeze!) *mp* *fff sub!*

3:2 11:9

7 8 123 2 123 2 123 2 123 2 13 16

sul pont. 5:4 6 5 4 5 6 nat. 1 4 5 6

21

flügelhorn in B \flat *pp sub.* *ff* *ff* *pp* *ff* *pp* *f sub.*

string benders (quasi vibrato) (hold still!)

lap steel guitar *p sub.* *f* *f* *f* *f*

legatissimo 6:5

22

flügelhorn in B \flat *ff* *mp* *f* *p* *mf*

lap steel guitar *mp* *ff* *p* *f* *pp* *mf sub.*

(freeze!) 4:3 4:3 3:2 5:4 1 (7th partial) (4) 6

(freeze!) 6 4:3 4:3 2 3:2 4:5 6 (bar/open string)

23

flügelhorn in B \flat *fff* *p* *f* *ff* *mp* *mf* *mp* *sempre*

lap steel guitar *mf* *ff* *mp* *fff* *p* *f* *mp* *sempre*

sul pont. sempre 4:5 3:2 (freeze!) (sul pont.) 2 1 23 5 8

25

flugel horn in Bb

string benders

lap steel guitar

134 14

124

6:5

5:4

9

16

3:2

7:6

4

f

fff

ff

mp

f

ff

nat.

5:4

3:2

(bar/
open string)

1

6:5

5:4

sul pont.

6

5

6

5

6

5

nat. $b\flat$

2

1

3

4

4

5

6

5

f

fff

ff

mp

pp

ff

f

♩=84 (♩=168)

27

flugel horn in Bb

string benders

lap steel guitar

wah

5:6

8

16

6

16

mf

fff

mp

take harmon mute (stem in)

prepare for wah pedal as necessary

11:10

3:2

f

p

fff

mp

♩=84 (♩=168)

* The two lines indicate the upper (o) and lower (+) limits of the filter. Note that since the ascending and descending lines indicate upward and downward movements of the centre frequency respectively, they correspond to upward and downward movements of the heel end of the pedal, not the toe end!

30

flugel horn in Bb

lap steel guitar

6

16

3:2

9

16

3:2

4:5

7

16

pp

mf

mf

p

6

5

3:2

6

5

3:2

6

5

3:2

6

5

6

4

6

5

5:4

3:2

6

6

♩=84 (♩=168)

8

32

7/16 10:7 10/16 12:9 9/16

flugel horn in B \flat

f *p*

string benders

lap steel guitar

ff *mf* *p*

34

9/16 7:9 4/16 (rit.) 3:2 8/16 1234 5/16 3:2

flugel horn in B \flat

(p) *mp* *mf*

string benders

lap steel guitar

mp *mf* *f*

37

5/16 4:3 6/16 3:2 3:2 7/16 3:2 3:2

flugel horn in B \flat

f *p* *pp* *f*

lap steel guitar

ff *mp* *mp*

40

7/16 3:2 3:2 4:3 8/16 4:3 5:6 9/16

flugel horn in B \flat

mf *f* *ppf* *ppf* *ppf* *ppf* *pp* *f* *ppf* *ppf* *ppf* *ppf* *pp*

string benders

lap steel guitar

p *f* *fp fp fp fp fp fp fp fp fp*
(with pedall)

⑤ (vibrato sul ⑥)
⑥

4:3 4:3

43 $\frac{9}{16}$ $\frac{7}{16}$ $\frac{13:16}{16}$ $\frac{9:8}{16}$ $\frac{4}{16}$

flugel horn in B \flat

string benders

lap steel guitar

f *p*

fp fp fp fp fp fp fp fp fp *mf*

6 $\frac{4:3}{16}$ 5:6

45 $\frac{4}{16}$ $\frac{7}{16}$ $\frac{5}{16}$ $\frac{9}{16}$

flugel horn in B \flat

string benders

lap steel guitar

f *mf* *mp*

3:2 3:2 8:7 *tr* (123) 3:2

6 4 2 3 4

48 $\frac{9}{16}$ $\frac{6}{16}$ $\frac{10}{16}$ $\frac{5}{16}$

flugel horn in B \flat

string benders

lap steel guitar

mp *mf* *p* *ppp*

tr 234 7:5 7:9

2 1 3

51 $\frac{5}{16}$ $\frac{6}{16}$ $\frac{8}{16}$ $\frac{10}{16}$

flugel horn in B \flat

string benders

lap steel guitar

mp *pp* *mf* *f*

123 (4) (half-valve) 4:5 (lip-trills) 4 123 0 134 4 13 2

3 5

54 $\frac{10}{16}$ $\frac{11:10}{3:2}$ $\frac{7}{16}$ $\frac{6:7}{3:2}$ $\frac{8}{16}$

flugel horn in B \flat *p*

lap steel guitar *p* *pp* *ff*

56 $\frac{8}{16}$ $\frac{7}{16}$ $\frac{5}{16}$ $\frac{4}{16}$

flugel horn in B \flat *mf* *mp > pp*

string benders

lap steel guitar *mf* *mp* *mp*

59 $\frac{4}{16}$ $\frac{9}{16}$ $\frac{3:2}$ $\frac{7:8}{24}$ $\frac{6}{16}$

flugel horn in B \flat *mp* *mp* *f*

lap steel guitar *mf* *pp* *p*

62 $\frac{6}{16}$ $\frac{5}{16}$ $\frac{6}{16}$ $\frac{7}{16}$

flugel horn in B \flat *f* *ff* *pp* *ff* *pp* *ff* *pp* *f*

lap steel guitar *f*

65 $\frac{7}{16}$ $\frac{9}{16}$

flugel horn in B \flat

string benders

lap steel guitar

p *f* *mp*

67 $\frac{7}{16}$ $\frac{8}{16}$ $\frac{5}{16}$

flugel horn in B \flat

string benders

lap steel guitar

mf *f* *mp*

effect: ③ D gliss. to C#
④ B \flat no gliss.
⑤ D# gliss. to E

70 $\frac{5}{16}$ $\frac{6}{16}$ $\frac{8}{16}$ $\frac{10}{16}$

flugel horn in B \flat

string benders

lap steel guitar

pp *ff* *mf* *p*

73 $\frac{10}{16}$ $\frac{6}{16}$ $\frac{5}{16}$ $\frac{4}{16}$

flugel horn in B \flat

lap steel guitar

p *p* *mp*

76 $\frac{4}{16}$ $\frac{5:4}{16}$ $\frac{7}{16}$ $\frac{4:5}{16}$ $\frac{4:5}{16}$ $\frac{3:2}{16}$ $\frac{4:3}{16}$ $\frac{10}{16}$

flügelhorn in B \flat

string benders

lap steel guitar

p *mp* *mf* *ff*

78 $\frac{10}{16}$ $\frac{9}{16}$ $\frac{8}{16}$

flügelhorn in B \flat

string benders

lap steel guitar

f *mf* *fff* *fff* *fff*

(4) *tr* *tr* (trills irregular and independent)

1234 14 (etc. sim.)

80 $\frac{8}{16}$ $\frac{7:8}{16}$ $\frac{6:5}{16}$ $\frac{5:6}{16}$ $\frac{9}{16}$ $\frac{8:9}{16}$ $\frac{6}{16}$

flügelhorn in B \flat

string benders

lap steel guitar

mp *mf* *fff* *fff* *mp*

② ① ② ③ ① ② ① ② ① ③:2

This musical score is divided into four systems, each featuring a Flugelhorn in B \flat and a Lap Steel Guitar. The notation includes various time signatures, dynamics, and performance markings.

System 1 (Measures 83-85):
- **Measures 83-84:** Flugelhorn in B \flat (mf), Lap Steel Guitar (p). Time signatures: 6/16, 4/16. Rhythmic markings: 4:5, 5:4.
- **Measures 85-86:** Flugelhorn in B \flat (mp), Lap Steel Guitar (f). Time signatures: 7/16, 5/16. Rhythmic markings: 3:2, 4:3, 5:6, 6:5, 4:3, 5:6.

System 2 (Measures 86-88):
- **Measures 86-87:** Flugelhorn in B \flat (pp to ff), Lap Steel Guitar (f). Time signatures: 5/16, 6/16. Rhythmic markings: (4) 3:2, (2) 3:2, 6:5, 9:8, 6:5.
- **Measures 88-89:** Flugelhorn in B \flat (p), Lap Steel Guitar (mf). Time signatures: 5/16, 7/16. Rhythmic marking: 3:2.

System 3 (Measures 89-91):
- **Measures 89-90:** Flugelhorn in B \flat (mp to f), Lap Steel Guitar (mp). Time signatures: 7/16, 9/16. Rhythmic marking: 3:2.
- **Measures 90-91:** Flugelhorn in B \flat (f), Lap Steel Guitar (f). Time signatures: 8:9, 10/16. Rhythmic marking: 8:9.

System 4 (Measures 91-93):
- **Measures 91-92:** Flugelhorn in B \flat (f), Lap Steel Guitar (f to p). Time signatures: 10/16, 8/16. Rhythmic marking: 13:10.
- **Measures 92-93:** Flugelhorn in B \flat (f), Lap Steel Guitar (f). Time signatures: 3:2, 9/16. Rhythmic marking: 13:10.

14

93

9/16 7/16 10/7 6/16 5/6 8/16

flügelhorn in B♭

134

p *fff* *f*

string benders

lap steel guitar

f *f*

96

8/16 5/6 4/16 3/2 5/16 3/2

flügelhorn in B♭

mf *p*

string benders

lap steel guitar

f *mf*

99

3/2 3/2 6/16 5/4 7/16 7/6 8/16

flügelhorn in B♭

p

string benders

lap steel guitar

p

p "pluck the four strings in random rapid order while executing slide glissando (and holding bender on 4th string!)"

102

8/16 3/2 4/3 7/6 7/6 4/3 9/16 3/2 4/5 7/8 5/4 10/16

flügelhorn in B♭

f

string benders

lap steel guitar

p *mp*

(quasi vibr)

104 $\frac{10}{16}$ $\frac{6:5}{8:7}$ $\frac{4:3}{7:5}$ $\frac{4:3}{9}{16}$

flugel horn in B \flat *f*

string benders

lap steel guitar *mp*

105 $\frac{9}{16}$ $\frac{4:3}{8}{16}$ $\frac{3:2}{7}{16}$

flugel horn in B \flat *p* *f*

string benders

lap steel guitar *(mp)*

107 $\frac{7}{16}$ $\frac{6:7}{6}{16}$ $\frac{4:5}{5}{16}$ $\frac{4:5}{4}{16}$

flugel horn in B \flat *pp* *mf*

string benders

lap steel guitar *p* *f*

110 $\frac{4}{16}$ $\frac{5:4}{5}{16}$ $\frac{5:4}{6}{16}$ $\frac{3:2}{4:3}$ $\frac{5:6}{mf}$

flugel horn in B \flat *mp* *mf*

lap steel guitar *f* *p* *mf*

