

**FRASER JEREMY PIKE**

**Ph.D.**

**2000**

**Volume V**

# **CLOSED CIRCUIT**

*for*

**Clarinet in B flat**

**Piano**

*and*

**Live Electronics**

**JEREMY PIKE**

1996

**THESIS CONTAINS  
CD/DVD**

**First performance:** 2 November 1996, Royal Northern College of Music, Manchester.  
Roger Heaton (clarinet) and Stephen Pruslin (piano)

### **Instructions for the use of the live electronics:**

The live electronics part is created by treating the clarinet sounds with a digital multi-effects processor. The microphone should be placed in a position which picks up the clarinet sound clearly, minimising overspill from the piano. The processing unit should be capable of triple pitch shift in the range plus or minus two octaves. It must also be possible to delay each transposed note independently. The maximum length of delay required is 1500 milliseconds. When echo and feedback are required together the feedback should produce multiple echoes at the specified pitches only, and not produce further shifted intervals.

Pitch transpositions are indicated in the electronics part, using middle C (C3) as zero shift. Thus a shift of plus one semitone is indicated by the note C sharp, minus one semitone by B etc. Glissandi should be effected by using the pitch bend controller. The shifts are ideally controlled from a MIDI keyboard, but may be pre-programmed within the delay unit itself. The treated sound should be sent to two speakers, with stereo effects being employed subtly at the discretion of the engineer. The volume of the treated sound should be equal to or sometimes below that of the live clarinet.

Slight reverberation may be added to the treated sound to improve tone quality if necessary. Two effects processors are recommended for live performance to minimise the need for rapid programme changes.

The clarinet part is notated at transposed pitch.

**Duration 9'**

# Closed Circuit

for clarinet in Bb, digital delay and piano

Jeremy Pike

Adagio J.44

This system contains the first three staves of the score. The top staff is for Clarinet in Bb, the middle for Electronics, and the bottom for Piano. The Clarinet part begins with a long, sustained note marked *pp*. The Electronics part features a melodic line with a 'Pitch Shift On' instruction and a '[pitch bend]' marking. The Piano part starts with a *pp* chord and includes a triplet of eighth notes. The system concludes with a *Red.* (Reduction) symbol.

Andante J.66

This system contains the fourth and fifth staves. The Clarinet part continues with a melodic line marked *p*, featuring a triplet of eighth notes and a sextuplet of eighth notes. The Piano part has a *p* accompaniment with a triplet of eighth notes and a *pp* chord. The system concludes with a *Red.* (Reduction) symbol.

This system contains the sixth and seventh staves. The Clarinet part continues with a melodic line marked *p*, featuring a triplet of eighth notes and a *poco cresc.* marking leading to a *mf* dynamic. The Piano part has a *p* accompaniment with a triplet of eighth notes and a *mp* chord. The system concludes with a *Red.* (Reduction) symbol.

**Tempo I**

19 *pp* *pp*

*sempre simile*

19 *pp* *pp*

*Red* \* *Red* \*

**Poco più mosso**  $\text{♩} = 76$

27 *mp* *cresc.*

Delayed Pitch Shift 790ms (sounds one crotchet later)

27

31 *f* *f* *f* *f*

All effects off

31 *mf*

33 *cresc.* Pitch Shift On Reverb 5 sec *ff*

33 *cresc.* *f* *ff*

*Ped.*

36 *Poco meno mosso*  $\text{♩} = 60$  *Poco più mosso*  $\text{♩} = 66$

*p* *Reverb off*

*sempre simile*

36 *p* *pp* *p* *pp*

*Ped.* *Ped.*

43 *p* *dim.* *pp*

43 *f* *p*

*Ped.* *Ped.* *Ped.*

Poco più mosso

precipitoso

49 *f* *risoluto*  
All effects off

Pitch Shift On

*f*

6 6 3 6 6 3

This system contains measures 49 to 52. The vocal line begins with a forte (*f*) dynamic and a *risoluto* marking. The piano accompaniment is mostly silent, with a 'Pitch Shift On' instruction and a final chord in measure 52. Fingerings 6, 6, 3, 6, 6, 3 are indicated for the vocal line.

6 6 3 6 6 3

3 3 3 3 3 3

6 6 6 6

This system contains measures 53 to 56. The vocal line continues with sixteenth-note patterns and slurs. The piano accompaniment features chords and sixteenth-note figures. Fingerings 6, 6, 3, 6, 6, 3 are shown for the vocal line, and 3, 3, 3, 3, 3, 3 for the piano right hand.

6 6 6 6

*cresc.* *ff*

3 3 3 3

6 6 6 6

This system contains measures 57 to 60. The vocal line features a crescendo leading to a fortissimo (*ff*) dynamic. The piano accompaniment includes chords and sixteenth-note patterns. Fingerings 6, 6, 6, 6 are shown for the vocal line, and 3, 3, 3, 3 for the piano right hand.



stringendo

58

Delayed pitch shift, upper note 650ms, lower 1300ms

*p* *cresc.* *mf* *cresc.*

61

*ff* *f* *mf*

Più mosso 1.88

Add echo with feedback, 750ms delay

*Pea* \**Pea*

63

*cresc.* *f* *furioso*

\**Pea* \**Pea*

66 *cresc.* *ff* *fff*

67 68 69 70 71 72 73

• *Rea* • *Rea*

74 *Tempo 1* *sonoramente* *fff* *Più mosso*  $\text{♩} = 68$  *ff* *Pitch shift with each note delayed separately c. 500ms, 1000ms & 1500ms.*

75 76 77 78 79 80 81

• *Rea* •

82 *molto agitato* *ff*

83 84 85 86 87 88 89

• *Rea* • *Rea* • *Rea*

76 *cresc.* *fff*

Red

78 *fff* *cresc.*

Red

Tempo I *Poco più mosso*  $\text{♩} = 52$  *espress.*

80 *fff* *p* *pp* *p*

Pitch Shift only

Red

85

First system of a musical score, featuring a single treble clef staff with a melodic line. The music begins with a series of eighth notes and a half note, followed by a long, sweeping melodic phrase that spans across the system. The notes are mostly in the upper register of the staff.

85

Second system of a musical score, featuring a grand staff (treble and bass clefs). The treble staff contains a complex melodic line with triplets and a five-note chord. The bass staff provides a harmonic accompaniment with a triplet and a five-note chord. Dynamics include *pp* and *p*. There are two asterisks with the word "Red" below the staff.

89

Third system of a musical score, featuring a single treble clef staff. The music starts with a melodic line that gradually fades, marked with *dim.* and *pp*. The text "All effects off" is written below the staff.

89

Fourth system of a musical score, featuring a grand staff. The treble staff has a melodic line with triplets and a five-note chord, marked with *dim.* and *pp*. The bass staff is mostly empty. There are two asterisks with the word "Red" below the staff.

Adagio

pp

Pitch shift with 750ms delay, add feedback

niente

pp

Fifth system of a musical score, featuring a grand staff. The tempo is marked "Adagio". The treble staff has a melodic line with a pitch shift effect. The bass staff has a melodic line with a five-note chord. Dynamics include *pp* and *niente*. There are two asterisks with the word "Red" below the staff.

102

*simile*

*p* *dim.*

Delayed Pitch Shift 790ms (sounds one crotchet later)

6 5

102

*pp* *pp*

*Red* *Red*

107

*ppp*

*niente*

5

107

*ppp* *pppp*

*Red* *Red*