

**ANDREW LOVETT**

**RICERCARE**

**for keyboard-synthesiser and electroacoustic music**

**2002**

# **RICERCARE** *for synthesiser and electroacoustic music (2002)*

2 performers:

- 1) keyboard and sampler
- 2) sound-diffusion

Duration: circa 16 minutes

First performance: Clive Williamson, Ian Dearden, David Sheppard at the Warehouse, London, 5 December, 2002 as part of the BMIC 'Cutting Edge' Series.

Vocal samples are by Frances Lynch, recorded in August 2002 in Cambridge.

Commissioned by Sound Intermedia supported with funds from the PRS Foundation.

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## Performance instructions

This piece combines a keyboard part with sequenced material, played from a sampler.

An 88 note keyboard is required for the keyboard part. Five synthesiser patches are required all of which use the same microtonal scale. It is not absolutely essential that the patches are sonically identical to those used in the preparation of the piece, but if a Yamaha SY-series synthesiser is used, then a diskette is available from the composer with all the programming for the piece. For further details see appendices 1 (patches) and 2 (microtonal scale).

There are 18 sampler cues which can be triggered by the keyboard player with a small (2 octave) control keyboard just above the main keyboard. The sequences have been prepared and programmed for an Akai S-5000 or Z4/8 sampler. Notes in the cue-line (written an 8ve up, to fit on the treble clef) correspond to the notes on a midi-keyboard that will trigger the correct sequences. 150 megabytes memory are needed for the full set of samples. A reduced set, using 136 meg, is available, which omits sequences 15 and 16. A rehearsal version of the sequenced material CD is available on CD.

Trills are normally with the note a semitone above the one written.

Dynamics refer to keyboard touch. Volume-pedal settings are indicated separately.

Section 8 consists of a long crescendo followed by a sudden cut-off. This can be done either with a volume pedal or it can be done entirely by the sound projectionist.

Reverberation is essential to the piece and should be used creatively by the sound-projectionist. Very simple indications are given in the score. In general, reverberation levels decrease for the rapid passages in movement II, then increase through the rest of the piece.

## Programme note

A *ricercare* is like a fugue: a contrapuntal piece, usually for keyboard. The word literally means to seek or to follow. It is this cluster of meanings, rather than any formal procedures which inform this piece (the word 'fugue' shares a similar set of alternate meanings - 'fugitive' or, most extreme - a psychological state of confusion).

This *ricercare* explores ideas to do with secretiveness and subterfuge. Musical ideas enter a labyrinth of distorting mirrors and warped spaces. Only at the end of the piece is there a suggestion of stability.

Vocal sounds for the sequenced material are by Frances Lynch

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Andrew Lovett's special interests include the combination of instruments or voice with electronics, digital opera, theatre and video. His music has been performed by the London Sinfonietta, The Endymion Ensemble, Metanoia, the California EAR Unit and Vocem Electric Voice Theatre. His music has been broadcast on BBC Radio 3 and 4 and Swedish Radio, BBC2 and Channel 4 television.

He teaches at Trinity College of Music, London and lives in Cambridge, UK.

## Appendix 1: synthesiser patches

Five patches are required for the keyboard part. These were originally generated using a Yamaha SY-99 synthesiser. Programming for an SY-99 (or 77) is available on diskette from the composer. All the sounds use the microtonal scale specified on appendix 2.

Patch 1: grand piano

Patch 2: harpsichord. A rich complex sound, reminiscent of a large 'Goble' harpsichord - not the thin preset sound on some keyboards. Touch-sensitive.

Patch 3: 'ricercare' an FM electric piano type sound. Sustains indefinitely with bite at loud velocities (especially the attack) but very mellow when quiet. Has a somewhat vocal quality in the sustain part of the sound.

Patch 4: FM -synth. A synthesiser 'plucked marimba' sound: very short decay, touch sensitive.

Patch 5: 'simple' synth sound. Another FM type patch, somewhat voice-like. It has great intensity when played loud, but is very delicate when played softly.

Patches 3- 5 all benefit greatly from a modulation-wheel controlled filter cut-off, which can be used expressively by the player.

Absolutely no vibrato.

## Appendix 2: microtonal scale

The scale used consists of two interlocked equi-pentatonic scales, based on D and G# (each interval is precisely 1/5th octave). The notes D, F, G# and B are all the same as for normal equal tempered scale to A=440.

The complete scale is:

C (40 cents flat), C# (20 cents flat), D, D# (20 cents flat), E (40 cents sharp), F, F# (40 cents flat), G (20 cents flat), G#, A (20 cents sharp), A# (40 cents sharp) B.

## Appendix 3: sampler

A zip cartridge is available from the composer

# RICERCARE

**I** mysterious, furtive, hushed

ANDREW LOVETT

$\text{♩} = 66$

keyboard

*fff*

PATCH 1: concert grand

*ppp*

*ppp*

8<sup>va</sup>

8<sup>va</sup>

8<sup>va</sup>

5

3

3

3

3

3

reverb level: medium

SAMPLER CUES

1

computer / CD

8

8<sup>va</sup>

kbd

*ppp*

*pp*

(loco)

3

3

3

3

3

3

3

(b)

3

3

(cues)

2

pp

cmprtr/cd

sampler cue ends in silence

**suddenly violently explosive!**

13

8<sup>va</sup>

kbd

*fff*

3

3

3

3

3

3

3

3

3

3

3

3

3

8<sup>vb</sup>

8<sup>va</sup>

15

kbd

pp

ppp

8<sup>vb</sup>

(cues)

cmpr/cd

3

8<sup>va</sup>

17

kbd

pp

8<sup>va</sup>

(cues)

cmpr/cd

3

5

5

5

5



21

*fff*

8va-----

8vb-----

kbd

(cues)

cmpr/cd

23

*pp*

*p*

8va-----

8vb-----

kbd

(cues)

cmpr/cd

8<sup>va</sup>-----

27

kbd

*ppp*

8<sup>va</sup>-----

(cues)

cmptr/cd

8<sup>va</sup>-----

31

kbd

*ppp*

2/4

3/4

3/4

3/4

(cues)

cmptr/cd

sampler cue ends in silence

strong

36

kbd

41

kbd

(cues)

cmpr/cd

(8<sup>va</sup>)

44

kbd

pp

(8<sup>vb</sup>)

(cues)

cmpr/cd

46

kbd

pp

ppp

straight on

(cues)

cmpr/cd

sampler cue ends in silence

# II strong, purposeful and energetic

♩ = 160 gradual acceleration

51

kbd

PATCH 2: harpsichord

*f*

*p*

8<sup>va</sup>

8<sup>va</sup> (loco)

reverb level: low

(cues)

cmprtr/cd

(percussive piano)

61

kbd

*f*

*p*

*f*

8<sup>va</sup>

8<sup>va</sup> (loco)

8<sup>va</sup>

(cues)

cmprtr/cd

**sudden arrest**

70 *sf* *ff* *p* *8va* *8va* *96*

kbd

(cues)

cmpr/cd

reverb level: high

76 *p* *pp* *ppp* *8va* *8va* *2/4* *2/4*

kbd

(cues)

cmpr/cd

sampler cues overlap

continue as sound fades to nothing

# energetic again

♩ = 166 accelerating

82

kbd

reverb level: low

(cues)

cmptr/cd

(percussive piano) harpichord

8va

p 5

5

8va

ff

sfz

sfz

bb

90

kbd

(cues)

cmptr/cd

8va

sfz

97

kbd

(cues)

cmpr/cd

*sffz*

*f*

8<sup>va</sup>

(loco)

**sudden arrest**

106

66

kbd

(cues)

cmpr/cd

PATC 3. 'ricercare' synthsound

*ppp*

continue as sound fades to nothing

pitch-bend wheel

reverb level: high

sampler cues overlap



# edgy and brittle

J-166

111

kbd

PATCH 2: harpsichord

reverb level: low

(cues)

8

mptr/cd

pp (percussive piano)

sfz

harpsichord

118

gva

mf

sfz

sfz

kbd

(cues)

mptr/cd

The image shows a musical score for a piece titled "edgy and brittle" (J-166). The score is divided into two systems. The first system starts at measure 111 and features a keyboard (kbd) part with a harpsichord patch and a computer/CD (mptr/cd) part with a percussive piano (pp) sound. The second system starts at measure 118 and features a keyboard part with a forte (mf) dynamic and a computer/CD part. The score includes various musical notations such as notes, rests, and dynamics. A large blue watermark "Preview File Only" is overlaid on the score.

127

kbd

(cues)

cmpr/cd

sfz

8va

8va

sfz

>

>

>

>

>

>

losing control... accelerating...

136

kbd

(cues)

cmpr/cd

sffz

fff

fff

reverb level: increasing...

143

8va

*ff*

kbd

(cues)

cmpr/cd

reverb level: increasing...

The image shows a musical score for a keyboard instrument, with cues and computer/CD tracks. The keyboard part is marked with a forte dynamic (*ff*) and includes a section with a reverb effect that increases over time. The score is numbered 143 and includes a watermark that reads "Preview File Only".

### III 'ricercare'

151 filter low

35s

kbd

PATCH 3: 'ricercare' synthsound

reverb level: high

reverb level: increasing...

(cues)

vocal phrases

RE- RI- CE- CA- CE- CA- RE- RI- RI- CE- CA- RE-

cmpr/cd

sampler cues overlap

Preview File Only

# IV absolutely calm

♩ = 40

157

kbd

*pp* *p* *p* *pp*

(cues)

9 reverb level: very high

(soft vocal phrases)

cmpr/cd

163

kbd

*pp*

(cues)

cmpr/cd

# V fearful, nervy, anxious

♩=30

167

kbd

PATCH 4: FMtone

*pppp*

*sf*

8<sup>va</sup>-----

8<sup>va</sup>-----

(cues)

section V cued by deep muffled percussion beat  
soprano phrases end at the end of s4

sampler cue ends in silence

cmptr/cd

Preview File Only

171

kbd

8<sup>va</sup>-----

*sfz*

*pp*

*pppp*

# VI expressive, longing, fervent

96 filter starts low but can be used expressively

175

PATCH 5: 'simple' synthsound

*p*

10

voices, harmonics arpeggio

186

kbd

(cues)

cmptr/cd

kbd

(cues)

cmptr/cd

Preview File Only

197

kbd

(cues)

cmpr/cd

208

kbd

(cues)

cmpr/cd

pitch-bend wheel

sampler cues overlap

'suspended cymbal' sound

*Wait until the 'cymbal' reaches a peak  
soprano phrases end at the end of s10*



# VII dark, crepuscular, nebulous

♩ = 96

211

kbd PATCH 2: harpsichord *mf*

(cues) 11

cmptr/cd

221

kbd *mf*

(cues)

cmptr/cd

The image shows a musical score for a harpsichord and computer/CD tracks. The score is divided into two systems. The first system covers measures 211 to 220, and the second system covers measures 221 to 229. The harpsichord part is written in 3/4 time and features a melodic line with slurs and a dynamic marking of *mf*. The computer/CD tracks are shown as empty staves with a circled '11' in the first measure of the first system, indicating a cue point. A large blue watermark 'Preview File Only' is overlaid diagonally across the score.

# interruption

extreme rallantando

Musical score for the 'interruption' section. It features three staves: kbd (piano), (cues), and cmpr/cd (computer/CD). The kbd staff starts at measure 229 and contains two systems of music. The first system has a *fff* dynamic and includes a 'percussive 'bang' cue' indicated by a box and arrow. The second system is marked *pppp*. Both systems feature triplet patterns. The (cues) and cmpr/cd staves are mostly empty, with a few notes in the cmpr/cd staff. A large blue watermark 'Preview File Only' is overlaid diagonally across the score.

# resuming - but with gentle ritardando

Musical score for the 'resuming - but with gentle ritardando' section. It features three staves: kbd (piano), (cues), and cmpr/cd (computer/CD). The kbd staff starts at measure 231 and contains two systems of music. The first system has a *p* dynamic, and the second system has a *ppp* dynamic. The music consists of arpeggiated chords with long notes. The (cues) and cmpr/cd staves are mostly empty. A box labeled 'sampler cues overlap' is located at the bottom right of the kbd staff. A large blue watermark 'Preview File Only' is overlaid diagonally across the score.

# VIII tense, grinding, relentless

**♩ = 40**

237 filter to maximum open level

kbd

PATCH 5: 'simple' synthsound

*fff*

set volume pedal to zero

Over the course of VIII, gradually raise volume-pedal and pitchbend wheel

(cues) 12

cmpr/cd

243

kbd

sampler cues overlap

(cues) 13

sampler cues overlap

(cues) 14

cmpr/cd

8va

251

kbd *fff*

maximum loudness and pitchbend

SUDDEN CUT-OFF - EVERYTHING TO ZERO!

sampler cues overlap

15

(cues)

cmptr/cd

## IX a quiet whimper...

258

kbd *ppp*

PATCH 4: FMtone

*pp* *pppp*

pitch-bend wheel

16

sampler cue ends in silence

(cues)

cmptr/cd

# X epilogue

♩ 66

8va<sup>7</sup>

265

kbd

PATCH 1: concert grand

*sfz*

*p*

8va

reverb level: medium

(cues) (17)

cmptr/cd

8va

275

kbd

*p*

*pp*

8va

(cues)

cmptr/cd

'suspended cymbal' sound

# tender, delicate

287 *8va* *mp* *pp* *mp*

(cues) **sampler cue ends in silence** 18

voices, flanged whisper sounds

cmptr/cd

295 *8va* *pp* *pp*

(cues)

reverb level: high

cmptr/cd

5

302

gently moving

ppp

p

5

5

5

5

5

5

5

5

5

5

5

5

reverb level: very high

(cues)

cmptr/cd

310

5

5

5

5

5

5

5

5

5

5

5

5

5

5

5

(cues)

cmptr/cd

**gradual ritardando to end**

318

kbd

(cues)

cmptr/cd

sampler cue ends in silence

Preview File Only

327

kbd

*pppp*

Cambridge, 23 November 2002