

Sam Hayden

Emergence (2004)

for solo accordion, ensemble and live electronics

for Frode Haltli and the Oslo Sinfonietta

duration ca. 25'

instrumentation:

flute in C (doubling piccolo/alto flute in G)
oboe (doubling cor anglais)
clarinet in Bb (doubling Eb clarinet/Bb bass clarinet)
soprano saxophone in Bb (doubling alto saxophone in Eb)
bassoon (doubling contrabassoon)
horn in F
trumpet in C
bass trombone

percussion 1* (untuned):

orchestral bass drum
bongos x2
tom-toms x2
tam-tams x2
woodblocks x3
temple-blocks x2
hi-hat
cymbals x3

percussion 2* (tuned):

crotales (2 octaves chromatic)
vibraphone
tubular bells
marimba
log-drums x2

harp

guitar

synthesiser [MIDI keyboard with 88 keys playing Max/MSP sampler]

piano

violin 1

violin 2

viola

'cello

double bass

solo accordion

amplification [4, 6 or 8 channels depending on size of hall and acoustic]

*NB where 2 or more of the same percussion instrument are required (e.g. cymbals x3)
the sounds and sizes of these instruments should be different and graduated.

live electronics

The sound of the ensemble is spatialised in real-time using a Max/MSP patch programmed by Alexander Refsum Jensenius in collaboration with Cato Langnes and Sam Hayden and at the Studio Nordheim, NoTAM (Oslo). The Max/MSP patch has two main functions:

- (1) to control automated and manual sound spatialisation processes.
- (2) to control a built-in sampler triggered by an external MIDI keyboard.

sound spatialisation

The Max/MSP patch should run on the fastest available Apple computer (ideally a 2GHz Mac G5) with appropriate soundcard (e.g. Digidesign DIGI 002 FireWire Interface). The Max/MSP software is required to run in OSX.

A good quality amplification system is required (4, 6 or 8 channels depending on size of hall and acoustic) with enough microphones to route audio signal from every instrument to the mixer. The number of speakers used needs to be configured within the patch. A monitor will definitely be required for the sampler part and possibly for the quieter instruments (e.g. guitar and harp).

The Max/MSP patch requires 8 inputs so the ensemble should be mixed down into 8 instrumental groups corresponding to the 8 inputs below. The sampler is built into the patch so does not require an input.

1	2	3	4	5	6	7	8	[9]
fl	sax	perc 1	pno	hrp	vc 1	vc	acc	sampler [in patch]
cl	tpt	perc 2		guit	vc 2	cb		
ob	hrn				vc 3			
bsn	tb							

Each section of the piece has a corresponding global setting (I, II, III etc.) which should be loaded into the patch at the appropriate moment by clicking the on-screen button. Some sections (e.g. IV, V and VI) have multiple settings that change within the section (e.g. IVa, IVb and IVc).

A standard computer game joystick (e.g. Saitek Cyborg 3D Gold USB) is also required as this is used to manually spatialise the sound around the performance space. A specific performer is required for this purpose and instructions appear in the score. The controls are as follows and when engaged override the automated functions of the patch. Instructions in the score correspond to these controls:

POW-hat-centre button	=	ON for manual (tutti) rvbap control
Expression slider	=	spread level for rvbap control
F1-button	=	filters ON for rvbap
F3-button	=	delay-lines ON
Fire	=	trigger (tutti) delay-lines

When using the manual joystick rvbap spatialisation start and end rotation points are indicated thus:

Front (F)

Left (L) Centre (C) Right (R)

Back (B)

sampler

The Max/MSP patch contains a built-in sampler triggered by an external full-sized (88 key) MIDI keyboard, connected to the computer with an appropriate USB interface (e.g. Midiman Midisport 2x2). At different points in the piece the patch loads different sets of processed accordion samples, controlled by the global settings (see above).

Questions about the Max/MSP patch should be referred to Alexander Refsum Jensenius (email: arj@arj.no).

The financial contributions of the Holst and Britten-Pears Foundations and the RVW Trust towards the copying costs are gratefully acknowledged. The extended financial support during the project from the British Council, Norway calls for special acknowledgement.



World Premiere:

2004 Ultima Festival, Oslo (10/10/04), conducted by Christian Eggen with Frode Haltli as soloist.

[NB Score is transposed]

emergence

for solo accordion, ensemble, amplification and live electronics
for Frode Haltli and Oslo Sinfonieta

Sam Hayden (2004)

Max/MSP
global
settings:



Joystick rvbap (POW)
+ Filters (F1)

I

Delay-lines on (F3)

Trigger (Fire)

4/8
♩ = ca. 43

The score is divided into two systems, each starting with a 4/8 time signature and a tempo of approximately 43 beats per minute. The first system includes staves for Piccolo (Flute in C), Oboe (Cor Anglais), Clarinet in E♭/Clarinet in B♭/B♭ Bass Clarinet, B♭ Soprano Sax, Alto Saxophone, Contrabassoon (Bassoon), Horn in F, Trumpet in C, Bass Trombone, Percussion 1 (bass drum, bongos, tam-tam, crotals), Percussion 2, Harp, Guitar (amplified), MIDI Keyboard (sampled accordion sound no. 1), Piano, and Solo Accordion (amplified). The second system includes Violin 1, Violin 2, Viola, Violoncello, and Contrabass. The score features various dynamics (ff, f, mp, p, ppp), articulations (accia, sfz), and performance instructions such as 'with volume pedal balance volume with string harmonics' and 'NB: system path is notated for recording studio; please edit path if you have this in score'. A large blue watermark 'PREVIEW FILE ONLY' is overlaid diagonally across the score.

Delay-lines on (F3)

Trigger (Fire)

Picc./Fl. 5

Ob./C.A.

Cl. 5

Saxes 5

Cbss./Bsn 5

Hr.

C Tpt.

B. Tbn.

Perc. 1

Perc. 2

Hp.

Gr.

Synth.

Pno.

Solo Accord.

Vln. 1

Vln. 2

Vla.

Ve.

Cb.

Delay-lines on (F3) Trigger (Fire)

Delay-lines on (F3) Trigger (Fire)

Pic./Flk.

Ob./C.A.

Clk.

Saxes

Cbsn./Bsn

Hn.

C. Tpt.

B. Tbn.

Perc. 1

Perc. 2

Hp.

Gtr.

Synth.

Pno.

Solo Accord.

Vln. 1

Vln. 2

Vla.

Vc.

Cb.

f *ff* *p* *pp* *mp* *mf* *ff* *pp* *p*

Preview File Only

Delay-lines
on (F3)

Trigger (Fire)

Joystick rvbap (POW)
+ Filters (F1):

[B]

[L]

Pic./Flk.
Ob./C.A.
Cls.
Saxes
Clns./Bsn.
Hn.
C Tpt.
B. Tbn.
Perc. 1
Perc. 2
Hp.
Gtr.
Synth.
Pno.
Solo Accord.
Vln. 1
Vln. 2
Via.
Vc.
Cb.

Joystick rvbap (POW)
+ Filters (F1):

Joystick rvbap (POW)
+ Filters (F1):

Picc./Fl.

Ob./C.A.

Cls.

Saxes

Chsn./Bsn.

Hn.

C Tpt.

B. Tbn.

Perc. 1

Perc. 2

Hp.

Gtr.

Synth.

Pno.

Solo Accord.

Vln. 1

Vln. 2

Vla.

Vc.

Cb.



II

Delay-lines on (F3)

Trigger (Fire)

C

4/8 ♩ = ca. 73

Picc./Fl.
Ob./C.A.
Cls.
Saxes
Cbss./Bsn.
Hn.
C Tpt.
B. Tbn.
Perc. 1
Perc. 2
Hp.
Gtr.
Synth.
Pno.
Solo/ Accord.

C

4/8 ♩ = ca. 73

Vln. 1
Vln. 2
Vla.
Ve.
Cb.

Joystick rvhap (POW)

B (R)

This is a full orchestral score for the piece "Joystick rvhap (POW)". The score is written for a large ensemble and includes the following parts:

- Picc./Flk.
- Ob./C.A.
- Clk.
- Saxes
- Cbsn./Bsn
- Hn.
- C Tpt.
- B. Tbn.
- Perc. 1
- Perc. 2
- Hp.
- Gtr.
- Synth.
- Pno.
- Solo Accord.
- Vln. 1
- Vln. 2
- Vla.
- Ve.
- Cb.

The score is marked with various dynamics such as *pp*, *f*, *mp*, and *ppp*. It includes performance instructions like "Ad libit. (Metron.)" and "all point". The score is divided into measures, with a large section starting at measure 23. A blue watermark "Preview File ONLY" is overlaid on the score.

Joystick rvhap (POW)

Delay-lines on (F3) Trigger (Fire)

F B (R) F D

26

Picc./Flk.

Ob./C.A.

Clc.

Saxes

Chsa./Bsn

Hn.

C Tpt.

B. Tbn.

Perc. 1

Perc. 2

Hp.

Gr.

Synth.

Pno.

Solo Accord.

Vln. 1

Vln. 2

Vla.

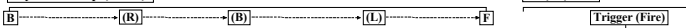
Vc.

Cb.

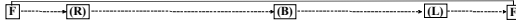
PREVIEW FILE ONLY

Joystick rvbap (POW)

Delay-lines on (F3)



Joystick rvbap (POW)



Delay-lines on (F3)

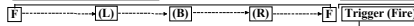
Trigger (Fire)



E ♩ = ca. 71

Joystick rvbap (POW)

Delay-lines on (F3)



5
16

poco rit.

4
8



F ♩ = ca. 53

III

4/8

Pic./Fl. *to Flute in C*

Ob./C.A.

Cl. *to B♭ Clarinet*

Saxes

Cbss./Bsn.

Hr.

C.Tpt.

B.Tbn.

Perc. 1 *to x2 bongos/x2 tom-toms (B.D.)*

Perc. 2 *to vibraphone*

Hp.

Gtr.

Synth.

Pno.

Solo Accord.

Vln. 1

Vln. 2

Vla.

Vc.

Cb.

49

Picc./Fl. *mp* *mf* *f* *sfz* *mp* *fp marc.* *sf* *f*

Ob./C.A. *mp* *mf* *f* *sfz* *mp* *fp marc.* *sf* *f*

Cl. *mp* *mf* *f* *sfz* *mp* *fp marc.* *sf* *f*

Saxes *p* *mp* *mf* *f* *sfz* *f* *fp marc.* *sf* *f*

Clbn./Ban *mp* *mf* *f* *sfz* *f* *f* *ff (tempo)*

Hr. *mp* *mf* *f* *sfz* *mp* *f* *sf*

C Tpt. *mp* *mf* *f* *sfz* *mp* *f* *sf*

B. Tbn. *mp* *mf* *f* *sfz* *mp* *f* *sf*

Perc. 1 *mp* *mf* *f* *sfz* *mp* *f* *sf*

Perc. 2 *mp* *mf* *f* *sfz* *mp* *f* *sf*

Hp. *mp* *mf* *f* *sfz* *mp* *f* *sf*

Gtr. *mp* *mf* *f* *sfz* *mp* *f* *sf*

Synth. *mp* *mf* *f* *sfz* *mp* *f* *sf*

Pno. *mp* *mf* *f* *sfz* *mp* *f* *sf*

Solo Accord. *mp* *mf* *f* *sfz* *mp* *f* *sf*

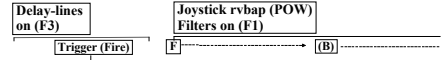
Vln. 1 *mp* *mf* *f* *sfz* *mp* *f* *sf*

Vln. 2 *mp* *mf* *f* *sfz* *mp* *f* *sf*

Vla. *mp* *mf* *f* *sfz* *mp* *f* *sf*

Vc. *mp* *mf* *f* *sfz* *mp* *f* *sf*

Cb. *mp* *mf* *f* *sfz* *mp* *f* *sf*



poco rit.

53 Picc./Fls. Ob./C.A. Cls. Saxes Cbsn./Bsn. Hn. C. Tpt. B. Tbn. Perc. 1 Perc. 2 Hp. Gtr. Synh. Pno. Solo Accord. Vln. 1 Vln. 2 Vla. Vcl. Cb.

f *ff* *mf* *fppp* *acc* *stacc* *rit.* *poco rit.*

Delay-lines
on (F3)
Trigger (Fire)

Joystick rvbap (POW)
Filters on (F1)



$\lambda = \text{ca. } 59$

G

poco rit:

Perc. 1
Perc. 2
Hp.
Gtr.
Synth.
Pno.
Solo Accord.

G

poco rit:

Vln. 1
Vln. 2
Vla.
Vc.
Cb.

Joystick rvbap (POW)
Filters on (F1)



$\text{♩} = \text{ca. } 53$

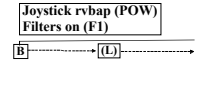
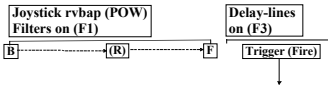
H A Tempo

$\text{♩} = \text{ca. } 53$

H A Tempo

Delay-lines
on (F3)
Trigger (Fire)

This page contains a detailed musical score for a large ensemble. The instruments listed on the left are: Picc./Fl., Ob./C.A., Cls., Saxes., Cbsn./Ban., Hn., C Tpt., B. Tbn., Perc. 1, Perc. 2, Hp., Gtr., Synth., Pno., Solo Accord., Vln. 1, Vln. 2, Vla., Vc., and Cb. The score is written in a standard musical notation with various dynamics (f, ff, mf, mp, p, pp) and articulations. A large blue watermark 'PREVIEW FILE ONLY' is overlaid diagonally across the center of the page. At the top, there is a technical instruction: 'Delay-lines on (F3) Trigger (Fire)' with a small square icon containing a vertical line. A section marker 'I' is placed above the first measure of the Picc./Fl. staff. The score spans multiple systems, with measures 66 and 67 clearly visible at the beginning.



72

Pic./Flk.

Ob./C.A.

Clc.

Saxes

Cbss./Ban.

Hn.

C Tpt.

B. Tbn.

Perc. 1

Perc. 2

Hp.

Gtr.

Synth.

Pno.

Solo Accord.

Vln. 1

Vln. 2

Vla.

Vc.

Cb.

J

J

Preview File Only

Detailed musical score for page 19, measures 72-75. The score includes parts for Pic./Flk., Ob./C.A., Clc., Saxes, Cbss./Ban., Hn., C Tpt., B. Tbn., Perc. 1, Perc. 2, Hp., Gtr., Synth., Pno., Solo Accord., Vln. 1, Vln. 2, Vla., Vc., and Cb. The score is divided into four measures. Measure 72 starts with a dynamic of *mf*. Measure 73 features a *ff* dynamic. Measure 74 includes a *ppp* dynamic. Measure 75 concludes with a *ff* dynamic. The score contains various musical notations including notes, rests, slurs, and dynamic markings. A large blue watermark 'Preview File Only' is overlaid diagonally across the page. Section markers 'J' are present at the beginning of measure 72 and the end of measure 75.

Delay-lines on (F3) Trigger (Fire)

Joystick rvbap (POW) Filters on (F1)

Delay-lines on (F3) Trigger (Fire)

9/16 32/8 4/8

Picc./Fls.

Ob./C.A.

Cls.

Saxes

Chsa./Bsn.

Hr.

C. Tpt.

B. Tbn.

Perc. 1

Perc. 2

Hp.

Gr.

Symb.

Pno.

Solo Accord.

Vln. 1

Vln. 2

Vla.

Vc.

Cb.

Iva

IV

Filters on (F1)

K $\text{♩} = 61$

4
8

Delay-lines on (F3)

Trigger (Fire)

Joystick rvbap (POW)
Filters on (F1)

B → (L) →

This section of the score covers measures 82 through 140. It includes staves for Piccolo/Flute, Oboe/Clarinet in A, Clarinet, Saxophone, Contrabass/Bassoon, Horn, Trumpet, Trombone, Percussion 1, Percussion 2, Harp, Guitar, Synthesizer, Piano, and Solo Accordion. The score features complex rhythmic patterns with many beamed notes and rests. Dynamics range from *pp* to *ff*. Performance markings include *fmp*, *ff*, *pp*, *mf*, and *sfz*. A large blue watermark 'Preview File Only' is overlaid diagonally across the score.

K $\text{♩} = 61$

4
8

This section of the score covers measures 141 through 199. It includes staves for Violin 1, Violin 2, Viola, Violoncello, and Contrabass. The score continues with complex rhythmic patterns and dynamics ranging from *pp* to *ff*. Performance markings include *f*, *sfz*, *ff*, and *pp*. The large blue watermark 'Preview File Only' is still present.

Joystick r/bap (POW)
Filters on (F1)

Delay-lines
on (F3)

Trigger (Fire)

85

Picc./Fl. *p* *f* *ff* *ff*

Ob./C.A. *p* *f* *ff* *ff*

Cl. *p* *f* *ff* *ff*

Saxes *p* *f* *ff* *ff*

Cbss./Bsn *p* *f* *ff* *ff*

Hr. *p* *mp* *ff* *ff*

C Tpt. *p* *mp* *ff* *ff*

B. Tbn. *p* *mp* *ff* *ff*

Parc. 1 *p* *f* *ff* *f* *mf* *mp*

Parc. 2 *p* *f* *ff* *f*

Hp. *mp* *f* *ff* *ff*

Gr. *mp* *mf* *f* *ff*

Synth. *p* *ff* *p* *mf*

Pno. *p* *mp* *f* *ff* *f* *ff*

Solo Accord. *mp* *mf* *ff* *ff*

Vln. 1 *p* *mp* *f* *ff* *ff* *ff* *ff*

Vln. 2 *p* *mp* *f* *ff* *ff* *ff* *ff*

Vla. *p* *mp* *f* *ff* *ff* *ff* *ff*

Vc. *p* *ff* *mp* *f* *ff* *ff* *ff* *f* *ff*

Cb. *p* *ff* *mp* *f* *ff* *ff* *ff* *f* *ff*

Delay-lines on (F3) Trigger (Fire)

Joystick rvbap (POW) Filters on (F1) [B] [R] [L]

88

Picc./Fl. Ob./C.A. Cts. Saxes Cbss./Bsn. Hn. C Tpt. B. Tbn. Perc. 1 Perc. 2 Hp. Gr. Synth. Pno. Solo Accord. Vln. 1 Vln. 2 Vla. Vc. Cb.

Delay-lines
on (F3)

Trigger (Fire)

Delay-lines
on (F3)

Trigger (Fire)

Trigger (Fire)

This page contains a detailed musical score for a large ensemble. The instruments listed on the left are: Picc./Fl., Ob./C.A., Cls., Saxes, Obsn./Ban., Hn., C Tpt., B. Tbn., Perc. 1, Perc. 2, Hp., Gr., Synth., Pno., Solo Accord., Vln. 1, Vln. 2, Vla., Vc., and Cb. The score is divided into three systems. The first system (measures 91-100) features a 'Trigger (Fire)' event that initiates 'Delay-lines on (F3)'. The second system (measures 101-110) continues the musical development. The third system (measures 111-120) includes two more 'Trigger (Fire)' events. The score includes various musical notations such as dynamics (pp, p, mp, f, ff), articulation (accents, slurs), and performance instructions (e.g., 'pizz. nel punto', 'ritard.'). A large blue watermark 'PREVIEW FILE ONLY' is overlaid diagonally across the center of the page.

Delay-lines
on (F3)

Trigger (Fire)

Trigger (Fire)

94

Picc./Flk.

Ob./C.A.

Clc.

Saxes

Cbsn./Bsn

Hn.

C Tpt.

B. Tbn.

Perc. 1

Perc. 2

Hp.

Gtr.

Synth.

Pno.

Solo
Accordion

Vln. 1

Vln. 2

Vla.

Vc.

Cb.

Dynamic markings: *f*, *mf*, *pp*, *ppp*, *fz*, *ff*, *ffz*, *fff*, *ppp*, *pp*, *mf*, *fz*, *pp*.

Performance instructions: Trigger (Fire), Delay-lines on (F3).

Watermark: Preview File Only