RAS

percussion quartet
computer
8-channel sound

duration 10'00

Natasha Barrett, 2000, rev 2011

This music is copyright protected

Ras

Percussion quartet, computer, 8-channel sound.
Duration: 10'00
2000, rev 2011.

'Ras' (Norwegian for avalanche) grows from a self-organised system that builds into a complex critical state, where the frequency and size of avalanches approximately follows a 1/f distribution. In the music this is developed by combining abstract avalanche 'simulations' realised in the percussion parts with concrete sound of the electroacoustic parts. Electroacoustic sound is spatialised in eight channels. Instead of a normal octagon arrangement, each percussionist is connected to two channels of audio and the loudspeakers are positioned in relation to the performers.

Ras was commissioned by PULS with support from Norsk Kassettavgiftsfundet.

Technical requirements

- Macintosh (Intel mac running MaxMSP), MIDI interface.
- 8-channel soundcard (stereo version is available).
- Percussion MIDI drum pad (e.g. Roland Octopad - only one pad is required).
- Four high quality condenser microphones
- Eight high quality loudspeakers plus sub bass. ('Rock-band' loudspeakers are not suitable).

Instrumentation (figure 1)

Concert bass drum
Timpani (28")
Low tom (large, with deep sound and suitable skin for specified sounds).
Rototom (18")
Large cymbal
Small Javanese gong (high octave G or G#)
Large bowl, small bowl (heavy material, large bowl should be approximately 12", F#, G or G#, small bowl can be any other pitch).
Large buffalo bell (lowest octave, approximately 10", F#, G or G#)
MIDI drum pad

NB noter
This music is copyright protected

Matrix

The matrix consists of a 10x10 square of small objects made from glass, metal, clay, plastic, and wood, each of different timbre. The items should be chosen so that the timbre changes progressively across the matrix. A thick foam pad is needed for these small instruments to rest on. Items can be tied onto the pad to hold them in place, but be careful not to dampen the resonance. Instruments should be numbered so that they can be easily repositioned on the matrix. Each percussionist usese one quarter of the matrix. See figure 2.

Beaters

Due to the variable timbres of the matrix, the choice of beaters is left up to the performers. Here are a few guidelines:

- For playing the matrix a drum stick or hard rubber beater may sound best.
- In passages where the matrix notes are few, try one hard beater or stick for use on the matrix and one yarn beater for playing the other instruments.

Performance instructions

Electroacoustic material and real-time signal processing

Percussionist-2 triggers sound via the midi drum pad.
The computer person follows the score, checks and corrects for errors and periodically starts other types of processing.

To come with Intel Mac version.

Microphone and loudspeaker set-up

Four microphones are used to amplify the matrix. High amplification is needed. The normal instruments are no amplified.

Eight channels from the computer are routed to separate loudspeakers as shown in figure 1. On the mixing desk a separate fader should control each loudspeaker.

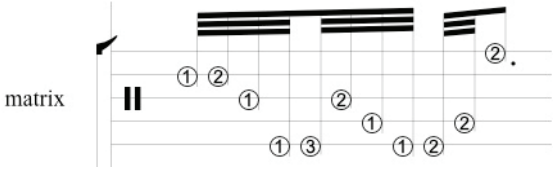
The four microphones are routed to the computer through soundcard channels 1-4, and also to the loudspeakers for general amplification.

One person should balance the levels of live and electroacoustic sound during the performance. All sound sources should be of equal balance.

Speed

All non-matrix material is played in strict rhythm at approximately 120. The matrix material is played as fast as possible (which will normally be a slightly slower tempo). Performers send cues to co-ordinate re-synchronisation.

NB noter
This music is copyright protected



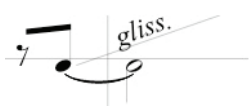
Matrix staff:

ledger line = matrix row
number = item along row

Scrape with stick or wooden part of beater (metal instruments)

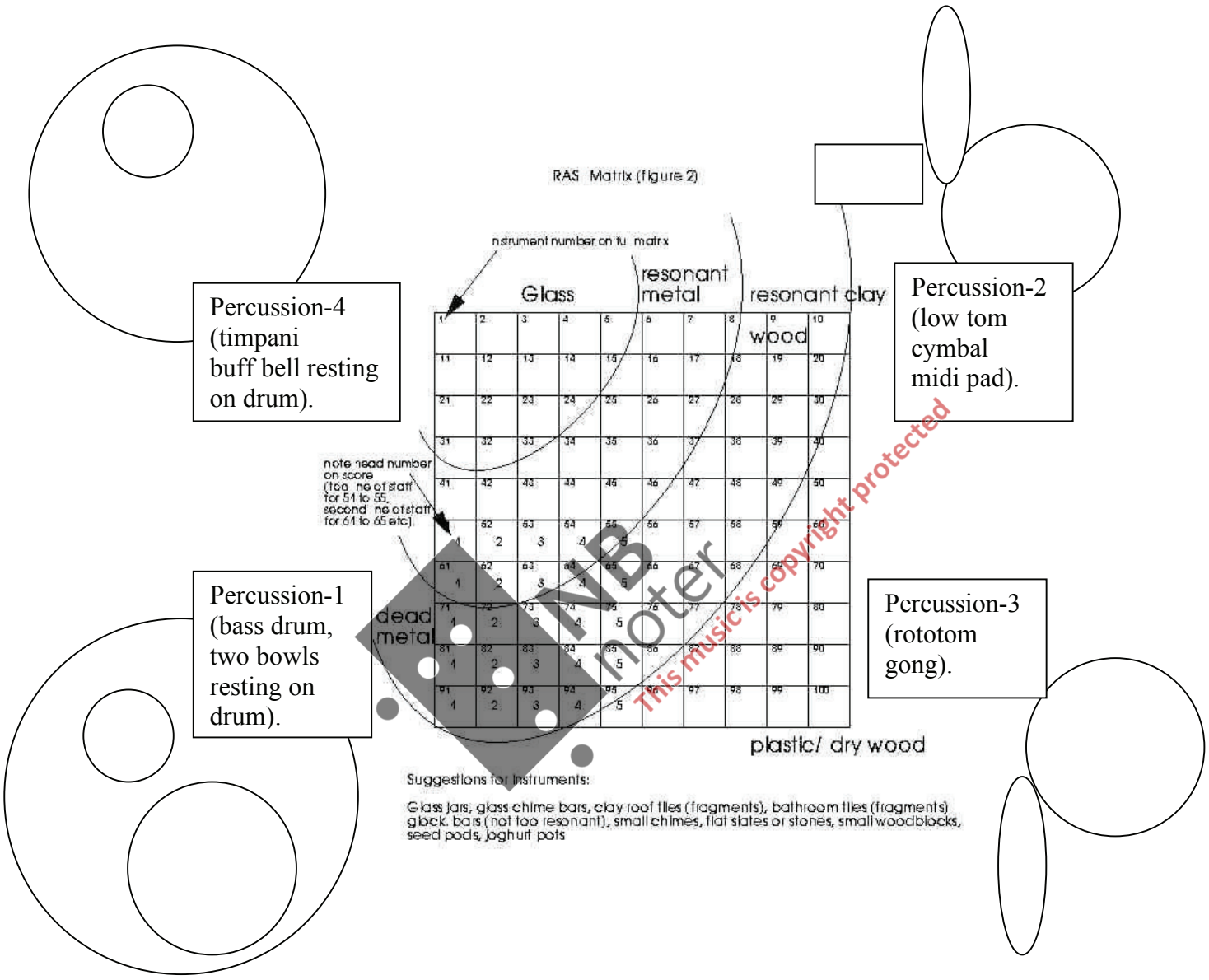
Hit rim (drums)

Rest stroke and drag (bass drum)

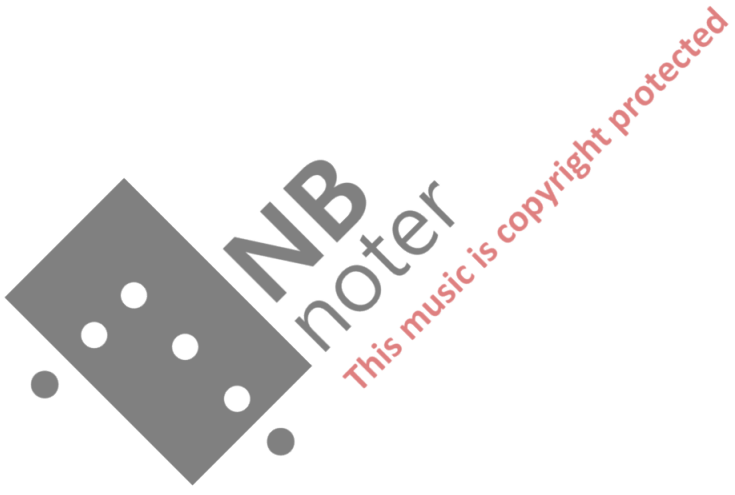


Gliss from approximate lowest note to highest note (timpani and rototom).
Note for rototom: if possible use a pedal driven drum to allow gliss in faster passages.

NB noter
This music is copyright protected



NB noter
This music is copyright protected


NB
noter
This music is copyright protected

RAS

Barrett 2000, rev 2011

♩ = 100 / 120

Matrix
bass drum
bowls — small / large

Matrix
Low tom
Cymbal
Midi pad

Matrix
Rototom
Gong — edge / centre

Matrix
Timpani
Buf.bell

7

matrix
bd
bowl

matrix
lt.
cym.
Midi trigger

matrix
rt.
gong

matrix
timp.
bell

NB noter
This music is copyright protected

15

matrix

bd

bowl

matrix

lt.

cym.

Midi trigger

matrix

rt.

gong

matrix

timp.

bell

22

matrix

bd

bowl

matrix

lt.

cym.

Midi trigger

matrix

rt.

gong

matrix

timp.

bell

NB noter
This music is copyright protected

28

matrix

bd

bowl

matrix

lt.

cym.

Midi trigger

matrix

rt.

gong

matrix

timp.

bell

34

matrix

bd

bowl

matrix

lt.

cym.

Midi trigger

matrix

rt.

gong

matrix

timp.

bell

NB noter
This music is copyright protected

41

matrix

bd

bowl

matrix

lt.

cym.

Midi trigger

matrix

rt.

gong

matrix

timp.

bell

48

matrix

bd

bowl

matrix

lt.

cym.

Midi trigger

matrix

rt.

gong

matrix

timp.

bell

NB noter
This music is copyright protected

56

matrix
bd
bowl

matrix
lt.
cym.
Midi trigger

19 20 21

matrix
rt.
gong

matrix
timp.
bell

63

matrix
bd
bowl

matrix
lt.
cym.
Midi trigger

22 23

matrix
rt.
gong

matrix
timp.
bell

NB noter
This music is copyright protected

69

matrix

bd

bowl

matrix

lt.

cym.

Midi trigger

matrix

rt.

gong

matrix

timp.

bell

75

matrix

bd

bowl

matrix

lt.

cym.

Midi trigger

matrix

rt.

gong

matrix

timp.

bell

NB noter
This music is copyright protected

80

matrix

bd

bowl

matrix

lt.

cym.

Midi trigger

29 30 31 32

matrix

rt.

gong

gliss.

matrix

timp.

bell

gliss.

88

matrix

bd

bowl

matrix

lt.

cym.

Midi trigger

33

matrix

rt.

gong

matrix

timp.

bell

NB noter
This music is copyright protected

94

matrix

bd

bowl

matrix

lt.

cym.

Midi trigger

34 35 36 37

matrix

rt.

gong

matrix

timp.

bell

99

matrix

bd

bowl

matrix

lt.

cym.

Midi trigger

38 39 40 41 42

matrix

rt.

gong

matrix

timp.

bell

NB noter
This music is copyright protected

105

matrix

bd

bowl

matrix

lt.

cym.

Midi trigger

43

44

45

matrix

rt.

gong

matrix

timp.

bell

109

matrix

bd

bowl

matrix

lt.

cym.

Midi trigger

46

47

48

matrix

rt.

gong

matrix

timp.

bell

NB noter
This music is copyright protected

matrix
bd
bowl
matrix
lt.
cym.
Midi trigger
49
50
matrix
rt.
gong
matrix
timp.
bell

119

matrix
bd
bowl
matrix
lt.
cym.
Midi trigger
51
52
53
54
matrix
rt.
gong
matrix
timp.
bell

gliss.

This music is copyright protected

124

matrix
bd
bowl
matrix
lt.
cym.
Midi trigger
matrix
rt.
gong
matrix
timp.
bell

127

matrix
bd
bowl
matrix
lt.
cym.
Midi trigger
matrix
rt.
gong
matrix
timp.
bell

NB noter
This music is copyright protected

132

matrix

bd

bowl

matrix

lt.

cym.

Midi trigger

69

70

matrix

rt.

gong

matrix

timp.

bell

135

matrix

bd

bowl

matrix

lt.

cym.

Midi trigger

71

72

73

matrix

rt.

gong

matrix

timp.

bell

NB noter
This music is copyright protected

138

matrix

bd

bowl

matrix

lt.

cym.

Midi trigger

matrix

rt.

gong

matrix

timp.

bell

gliss.

141

matrix

bd

bowl

matrix

lt.

cym.

Midi trigger

matrix

rt.

gong

matrix

timp.

bell

NB noter
This music is copyright protected

147

matrix

bd

bowl

matrix

lt.

cym.

Midi trigger

matrix

rt.

gong

3

matrix

timp.

bell

155

matrix

bd

bowl

matrix

lt.

cym.

Midi trigger

matrix

rt.

gong

matrix

timp.

bell

gliss.

NB noter
This music is copyright protected

163

matrix

bd

bowl

matrix

lt.

cym.

Midi trigger

matrix

rt.

gong

6

matrix

timp.

bell

169

matrix

bd

bowl

matrix

lt.

cym.

Midi trigger

62

matrix

rt.

gong

matrix

timp.

bell

NB noter
This music is copyright protected

175

matrix

bd

bowl

matrix

lt.

cym.

Midi trigger

matrix

rt.

gong

matrix

timp.

bell

181

matrix

bd

bowl

matrix

lt.

cym.

Midi trigger

matrix

rt.

gong

matrix

timp.

bell

NB noter
This music is copyright protected

186

matrix

bd

bowl

matrix

lt.

cym.

Midi trigger

Main proc 1

matrix

rt.

gong

matrix

timp.

bell

189

matrix

bd

bowl

matrix

lt.

cym.

Midi trigger

matrix

rt.

gong

matrix

timp.

bell

This music is copyright protected

192

matrix

bd

bowl

matrix

lt.

cym.

Midi trigger

matrix

rt.

gong

matrix

timp.

bell

196

matrix

bd

bowl

matrix

lt.

cym.

Midi trigger

matrix

rt.

gong

matrix

timp.

bell

NB noter
This music is copyright protected

198

matrix

bd

bowl

matrix

lt.

cym.

Midi trigger

matrix

rt.

gong

matrix

timp.

bell

200

matrix

bd

bowl

matrix

lt.

cym.

Midi trigger

matrix

rt.

gong

matrix

timp.

bell

NB Noter
This music is copyright protected

202

matrix

bd

bowl

matrix

lt.

cym.

Midi trigger

matrix

rt.

gong

matrix

timp.

bell

205

matrix

bd

bowl

matrix

lt.

cym.

Midi trigger

matrix

rt.

gong

matrix

timp.

bell

NB noter
This music is copyright protected

207

matrix

bd

bowl

matrix

lt.

cym.

Midi trigger

matrix

rt.

gong

matrix

timp.

bell

209

matrix

bd

bowl

matrix

lt.

cym.

Midi trigger

matrix

rt.

gong

matrix

timp.

bell

NB noter
This music is copyright protected

212

matrix

bd

bowl

matrix

lt.

cym.

Midi trigger

matrix

rt.

gong

matrix

timp.

bell

214

matrix

bd

bowl

matrix

lt.

cym.

Midi trigger

Main live proc 2

matrix

rt.

gong

matrix

timp.

bell

NB noter
This music is copyright protected

216

matrix

bd

bowl

matrix

lt.

cym.

Midi trigger

matrix

rt.

gong

matrix

timp.

bell

220

matrix

bd

bowl

matrix

lt.

cym.

Midi trigger

matrix

rt.

gong

matrix

timp.

bell

This music is copyright protected

223

matrix

bd

bowl

matrix

lt.

cym.

Midi trigger

matrix

rt.

gong

matrix

timp.

bell

225

matrix

bd

bowl

matrix

lt.

cym.

Midi trigger

matrix

rt.

gong

matrix

timp.

bell

NB noter
This music is copyright protected

228

matrix

bd

bowl

matrix

lt.

cym.

Midi trigger

matrix

rt.

gong

matrix

timp.

bell

230

matrix

bd

bowl

matrix

lt.

cym.

Midi trigger

matrix

rt.

gong

matrix

timp.

bell

This music is copyright protected