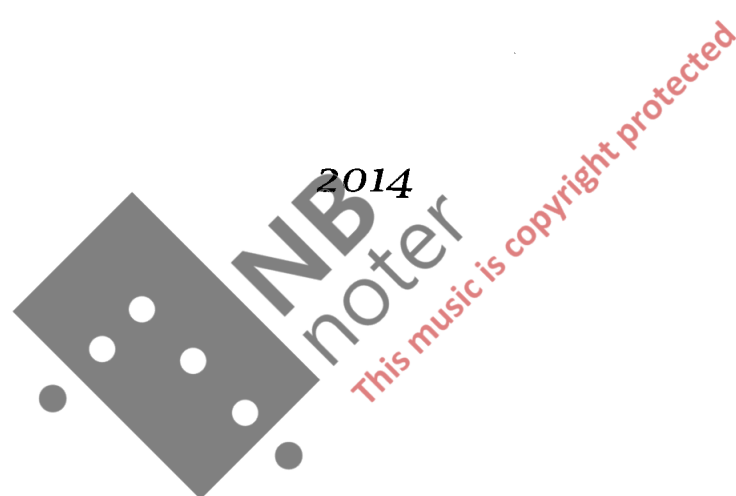


Ragnhild Berstad:

cardinem

for large ensemble



*commissioned by
Klangforum Wien*

*with financial support from
Komponistenes Vederlagsfond*

Première September 2014

Instrumentation

3 flutes (2. doubling alt flute and 3. doubling bass flute) (partly amplified)

oboe

2 clarinets in Bb/2 bass clarinets

alt saxophone/baritone saxophone

extra equipment: mute
(to be used in alt sax. to balance
the woodwind group)

2 horns in F

trumpet

2 trombones

mute: cup mute

mute: cup and straight

mute: cup mute and metal bucket
(preferably JoRan)

2 violins

2 violas

2 cellos

2 double basses

(partly amplified)

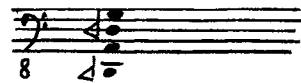
(partly amplified)

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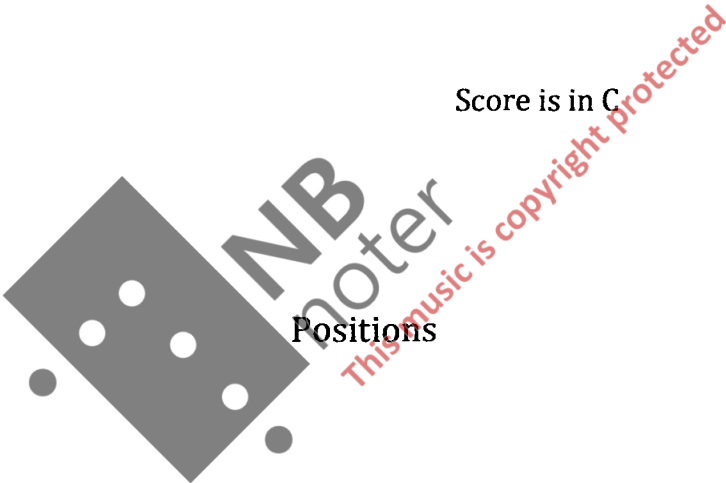
(partly amplified)

1. double bass, scordatura:

2. double bass with 5th string
tuned in B2



Score is in C



Positions

cb1
vc1 vla1 vla2
fl1 fl2 fl3
hn1 cl1
tpt sax
tb1
tb2
ob
hn2 cl2
fl1
vla1 vla2
vc2
db2

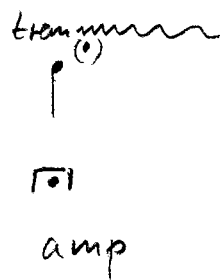
Explanation of signs

General:

- pitch to be raised by $\frac{1}{4}$ of a major second
- pitch to be lowered by $\frac{1}{4}$ of a major second
- pitch to be raised by $\frac{1}{8}$ of a major second
- pitch to be lowered by $\frac{1}{8}$ of a major second

Accidentals applies only to the subsequent note

- subito
- make a sudden increase of the crescendo in the end of note; makes a strong accentuation
- make a strong accentuation in the the end of the crescendo on indicated note, rhythmical notation shows the length of the different stages of the cresc./dim. movement
- gradual transition
- note in bracket may be omitted if necessary
- note in bracket indicates the end of the glissando movement, not to be performed as a separate note
- bending beams indicate rhythmic flexibility inside the figure
- grace notes before beat, here: moderate tempo
- extra fast grace notes
- grace notes on the beat
- as above, but make a slight accentuation on the last note as indicated
- as above (first example), here tie is connected to the last grace note for practical reason: to avoid collision with ledger lines
- tremolo as fast as possible
- tremolo, accelerate from slow to fast



- decelerating tremolo

- long fermata

- amplified

Wind instruments:

- air sound
- air sound; pitches notated are only fingering suggestions
- air + pitch
- make continuous flutter tongue throughout the phrase
- special form of whistle tone; cover the entire embouchure plate with the lips, teeth loosely enclosed by the lips, tip of the tongue filling the lower part of the embouchure hole, a high whistle (wisper) tone with a definite pitch two octaves above the indicated fundamental is to be heard
- as above, but without the tongue inserted, a blowing sound with a definite pitch is to be heard
- a transition position obtained by gradually passing from one to the other of the foregoing procedures, given the difficulty of precisely controlling the emission of the whisper, the note are given in parenthesis
- air sound; half-valve one or more valves and blow through that resistance (hn, tpt), make simultaneously a transition from "s" to "sh" with the mouth
- blow the "s"; coloured by the vowel in parenthesis ("I" as in bit)
- prolong the "s"; the "I" is short

Hand stop (horn):

$\oplus$ $\frac{3}{4}$ stop (lower the pitch $\frac{1}{2}$ -tone), $\bigcirc$ open, $(\bigcirc)$ a middle position (lower the pitch $\frac{1}{4}$ -tone)

Strings:

- fast continuous tremolos in right hand are to be coordinated with rhythmic variations in left hand (to avoid unwanted legato)
- finger tip
- Pinch string between two fingers and lift slightly. Bowing as close to the left hand finger/finger tip as possible. Gives a hoarse slightly plaintive sound with a definite pitch.
- VI/vla: play like a cello, instrument body placed on leg.
- Half-harmonic stop; touch the string lightly and play alto sul tasto in order to produce a hoarse slightly plaintive sound. Put on an extra finger to reduce the amount of overtones (if touching a node).

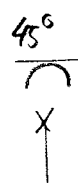
Bowing positions:



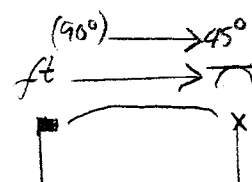
- quasi sul ponticello



- alto sul ponticello



- bowing on top of the bridge, use a bowing angle approx. 45 degrees on bridge/string length. No ordinary pitch is to be heard, damp string if necessary. (where "bowing on bridge" alternates with other bowing positions, this notation is used)



- gradual change of bowing position (bowing angle indicated is a suggestion).



- bowing on top of the bridge as above. (this notation is used for longer sequences)

Bowing speed:

fast bow

normal bow (N.B)

slow bow (SL.B)

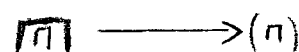
very slow bow (V.SL.B)

- the resulting sound has to contain noise elements in addition to notated pitch
- the equivalent to "crush tone" in softer dynamic levels. No ordinary pitch is to be heard.

Bowing pressure:



- "crush tone"; exaggerated bowing pressure no pitch is to be heard



- gradual transition back to normal pressure

Dynamic levels:

"mf" "f"

- quoting signs shows that the indicated dynamic level is related to playing techniques with limited dynamic possibilities (air sounds etc), here: play with the intensity of mf/f

Amplified instruments: dynamic levels notated are before amplification

Sound engineering:

11 microphones are needed:

3 ordinary microphones on stand for the flutes

8 DPA- microphones (or similar) for the strings

Cellos and double basses are to be partly (p. 25 – 36) high pass filtered (HP filt)
Use a parametric EQ to reinforce the flageolets only, approx. freq area 415 – 2200. The flageolets should be distinct and clear.

The amplified sound is to be conceived as closely connected with each amplified instrument individually.

The amplified instruments are placed in two groups; one on left hand and one on right hand side. The two loudspeakers should be placed close to these groups, preferably as front speakers, and the channels should be routed in accordance with this.

Reverberation

Page 26 – 36: a short rev should be used to blend the flageolets (strings) with the flutes

Page 53 – 54: a longer rev should be used to strengthen the whispering sound and to "enlarge" the room

Handwritten musical score for a symphony orchestra, page 2. The score is written on 24 staves, organized into three systems of eight staves each. The instruments are listed on the left side of each staff:

- System 1: Fl 1, Fl 2, Bass Fl, Ob, Cl, Bass Cl, Bar. Saxe
- System 2: Hrn 1, Hrn 2, Tpt, Trb 1, Trb 2
- System 3: Vl 1, Vl 2, Vla 1, Vla 2, Vc 1, Vc 2, cb 1, cb 2

The notation includes various musical symbols such as notes, rests, and dynamic markings. A large, diagonal watermark reading "This music is copyright protected" is visible across the center of the page. The score is written in a handwritten style, with some annotations and corrections visible.

Dynamic markings include *pp* (pianissimo) and *(slightly amplified)*.

Fl 1

Fl 2

Bass Fl

Ob

Cl

Bass Cl

Bar sax

Hn 1

Hn 2

Tpt

Tbn 1

Tbn 2

VL 1

VL 2

Vla 1

Vla 2

Vc 1

Vc 2

cb 1

cb 2

1) Pinch string between two fingers and lift slightly.
Gives a hoarse slightly plaintive sound with a definite pitch.
Change bow imperceptibly.

Fl 1

Fl 2

Bass Fl

Ob

Cl

Bass Cl

Bar Sax

Hn 1

Hn 2

Tpt

Tbn 1

Tbn 2

Vl 1

Vl 2

Vla 1

Vla 2

Vc 1

Vc 2

Cb 1

Cb 2

1) Note in bracket may be omitted, if necessary, in order to find the next note

2) play on top of the bridge. Use a bowing angle approx. 45 degrees on bridge/string length. No ordinary pitch is to be heard.

3) Half-harmonic stop; touch the string lightly and play alto sul tasto in order to produce a hoarse slightly plaintive sound. Put on an extra finger to reduce the amount of overtones if touching a node. Change bow imperceptibly.

Handwritten musical score for various instruments. The score is divided into two systems, each with a double bar line. The instruments listed on the left are:

- FL (Flute)
- Bass Fl
- Ob (Oboe)
- Cl (Clarinet)
- Bass Cl
- Bar. Sax
- Hn (Horn)
- Tpt (Trumpet)
- Trb (Trombone)
- VL (Violin)
- Vla (Viola)
- Vc (Violoncello)
- Cb (Contrabass)

Key annotations and markings include:

- FL:** "slightly amplified", "ppp", "11", "change to Alt Flute".
- Bass Fl:** "slightly amplified", "ppp", "6".
- Cl:** "ppp (possible)", "11".
- VL:** "flautato", "ppp", "9", "3", "7".
- Vla:** "flautato", "ppp", "90°", "45°", "ft", "ast", "3", "7".
- Vc:** "ppp", "45°", "ft", "3", "7".
- Cb:** "suono reale", "II 5 ppp".

A large diagonal watermark is present across the center of the page, reading "MB Noter" and "This music is copyright protected".

