

Knut Vaage:

multiMORF V (book 1)

for trombone og foss med ekko messingkvartett*

*for trombone and waterfall with echoing brass quartet**

(*2 Trumpets in C, Horn in F, Tuba)

2020

(version 16th of September 2022)

Sound design and programming by Thorolf Thuestad

Visuals by Evelina Dembacke

to Ingebjørg Bruket and NyNorsk Messingkvintett

ABOUT THE SCORE:

Accidentals apply for each note only. The performer must intonate partials without adaption to the tempered scale.

(In the score this kind of microtonality is not indicated, but comes with the positions on the instrument)

The material for the echoing brass quartet is notated in an appendix: multiMORF V (book 2)

The soloist must give cue at chosen letter to activate the players in the brass quartet

Numbers for parts and letters for cues are the same in both books

The quartet (or each quartet player) gets cue to start, but has to fade by own choice, or because of next cue or part

TECHNICAL NEEDS (detailed setup on next two pages):

Surround PA with sub (extra: 1 central small speakers), 2 microphones, a computer running the multiMORF V software, and a eight channel sound card is required.

The video part needs a high quality video projector and a projection screen*, if not projected directly on e.g. a wall. Rear projection is preferred.

(*size of screen depending of size of room, but min. m 2,66 m wide and 2 m high)

ABOUT THE PIECE:

multiMORF V is a spinoff from multiMORF 3 that was premiered and commissioned by John Arild Suther in the BIT20 Ensemble

multiMORF V is structured as a piece in open form. The soloist is enabled to control the form of the piece, and to cue the echoing quartet.

The quartet do not use mics. The soloist should use a dynamic microphone on stand to be able to variate the distance to the mic.

The microphone technique must be practiced with technology during preparing the performance of multiMORF V.

The effect of the realtime treatment, and the quality of the output sound depends on this ability.

The piece contains 10 different parts. Each part provides 3 staves for trombone-solo. Maximum time on each part is approx. three minutes.

The soloist choose which staff to play and is free to jump between staves inside each part, or make longer rests with background only, or with background and echoing quartet.

The soloist may omit parts and staves, and may repeat each part 3 times during one performance, but not more than 2 times directly repeated.

Total possible duration is approx. 80 min. Recommended duration: between 20 and 25 minutes.

Commissioned by NyNorsk Messingkvintett

First performed at BrassWind 2020

Financed by



Detailed technical requirements for multiMORF V.

Audio needs.

Speaker system.

multiMORF V may be run either on a 7.2/7.4 or 5.2/5.4 surround sound setup.

The speaker system should consist of high quality components, such as L'accoustics or Meyersound , and should be of suitable scale for the venue.

The center speaker should be placed on floor level in front of the performer, a high qualty stagemonitor is suitable.

2 stagemonitors for the Trombone player.

Refer to image below for example setup.

The outputs from the soundcards should be routed in the following manner:

1: Left

2: Right

3: Center

4: LFE channel, either to the subs if these are on seperate sends, or too L - R if it is a system with crossover. It is preferable to have the subs on seperate sends in order to send to the subwoofers from all output channels.

5: Left mid surround. (optional)

6: Right mid surround (optional)

7: Left surround.

8: Right surround.

Mixer and effects.

Digital or analog mixer of good quality, with:

10 input channels

2 Vca or Dca (for digital mixer)

12 outputs.

All outputs driving speakers should go through a 31 band eq.

1 Digital reverb unit such as the Lexicon pcm 92

The reverb may be distrbuted in the surround system.

Microphones.

Condensator for amplification of the trombone, Akg 414. (This may be set to hypercardoid to minimize feedback)

Dynamic microphon prferably a Sennheiser md 421, with tone control set in the middle. (But any dynamic that is eq ed on the mixer is OK.

The Akg 414 is routed to L - R for amplification and reverberation.

The dynamic is routed from FOH console via a stage return, to input 1 on the soundcard. This is the microphone that drives the live processing.

The live processing returned on channel 1 - 8 from the soundcard. This microphone is NOT routed to any speakers.

The sound engineer is expected to balance the live processing level by adjusting the level of the dynamic microphone return.

VISUAL TECHNIC:

In the *multiMORF remix** project Dembacke has been lowering her gaze, and the daylight has become the natural starting point for the visual design.

The pandemic of 2020/2021 has provoked Dembacke to take a proper look at her local environment through the artistic process.

To bring in nature, both as an ideal state and a destructive force, is the core element of the MultiMORF remix visual project.

Technical needs for the visual design:

- Computer with dedicated graphic card and live video software

Inputs:

MIDI controller with physical faders

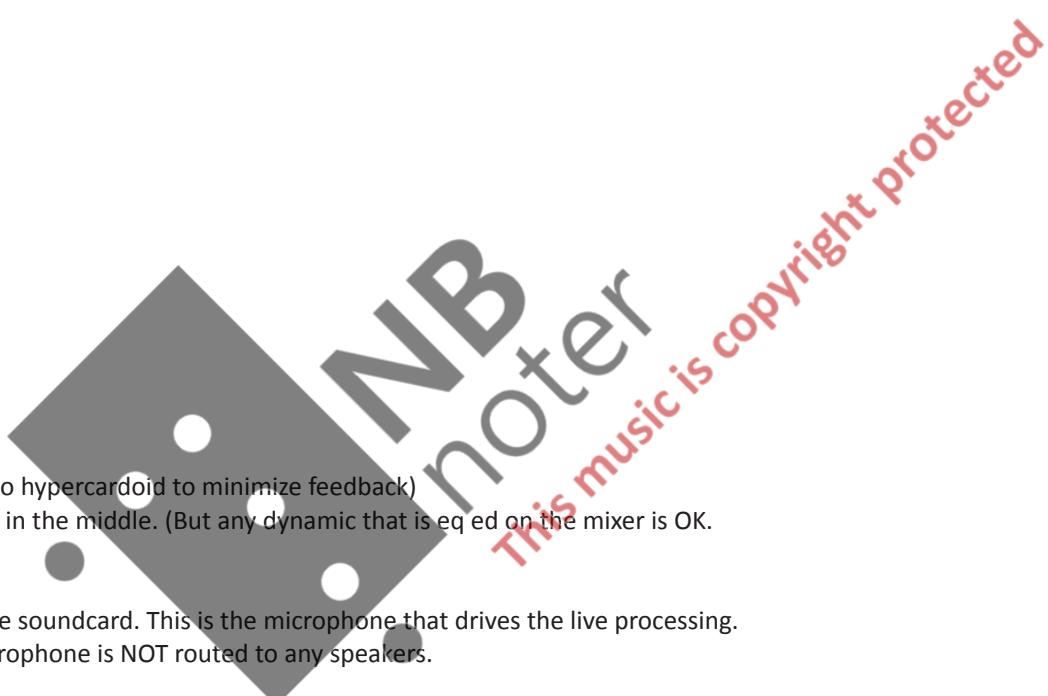
Soundcard

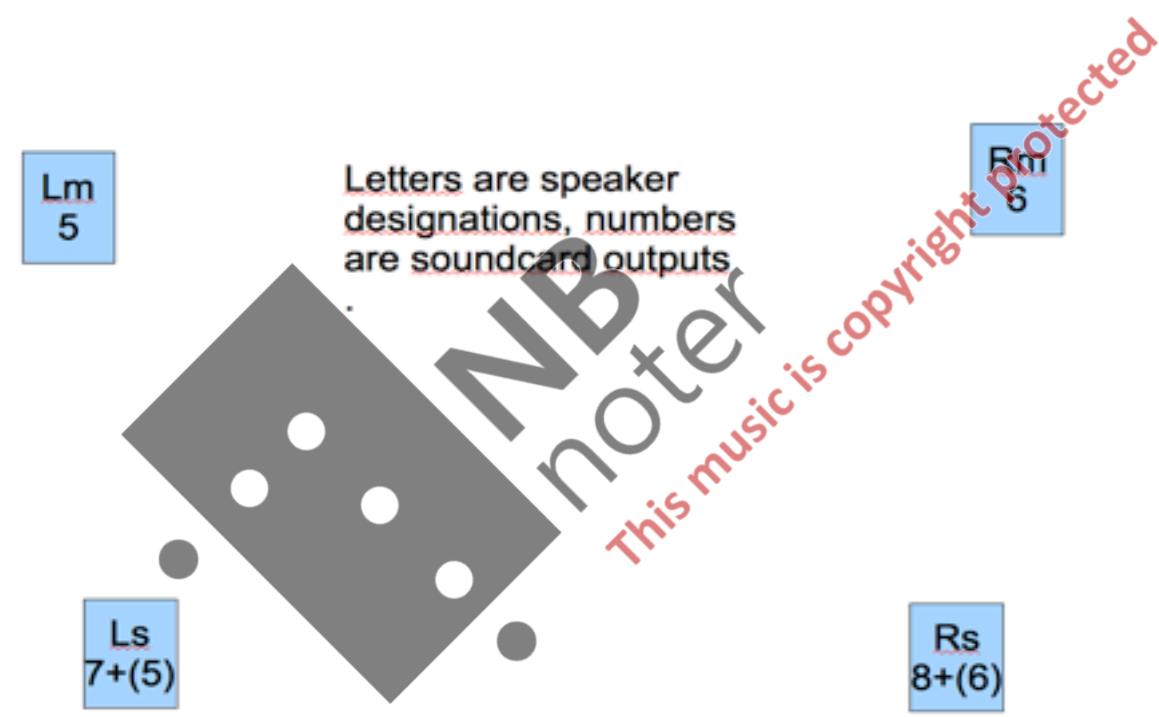
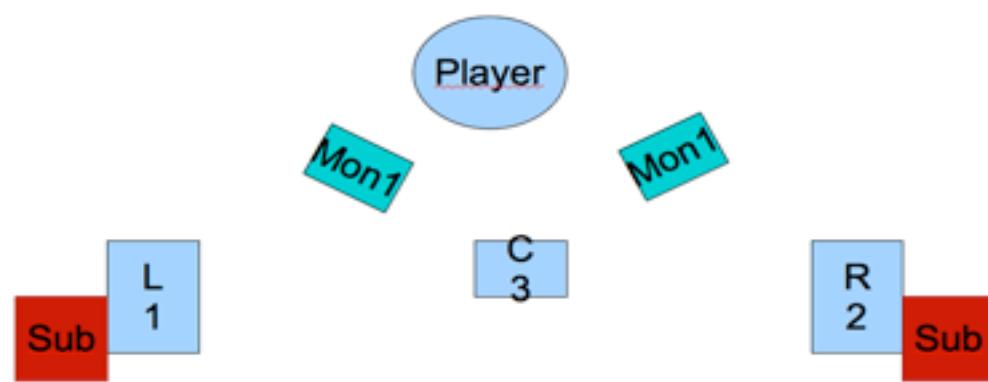
Outputs:

Video signal to projector

- Projector and projection screen

- Lighting fixtures controlled by DMX lighting console





Brass quartet are placed behind audience with distance between each player

Trumpet

Tuba

Horn

Trumpet

multiMORF V
for trombone og foss med ekko messingkvartett

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front speaker (kept for this section)
* optional time to put on straight

1 (♩ = c. 60) **A** (echo Hn)

Tbn. variant 1 * Straight
ensure irregularity in rhythm **ff secco molto**

Tbn. variant 2 I Open optional gliss. to
I II I II sim.

(from 10) Tbn. variant 3 Open opt. tacet Rhythmically (♩ = c. 108) back speakers
for each rep. 1 position lower II III etc. grad. longer rests

Computer back speakers playback simultaneously
Waterfall distant 0%
100% gradually less volume
fade microtonal Col pedal notes/sempre

Live electronics ring modulation

1.1 (ring modulation/granulation) **D** (echo Trpt 2)

Tbn. 1 optional: play backwards

Tbn. 2 opt. gliss. tempo ad lib. lento <----> presto, fragments ad lib.

Tbn. 3 straight optional closer w.f. morph to close up full w.f. front speakers

Cmp. 100% back speakers 100% filter sweep
morph (add spectrum ad lib.) morph by fading always highest back speakers gradually enforce harmonics

L.E. ring modulation/granulation gradually add "bubble" effect, surround sweep filter sweep cloud of notes back speakers

(optional: wait, listen to morphing of backgrounds)
front speakers

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2

A (echo Trpts)
(semi legato sim.)

Tbn. 1

B (echo Trpts)

Tbn. 2

C (echo Tu/Hn)
I

Tbn. 3

D (echo Tu/Hn)
I

E (echo Tu/Hn)
II

f *espr.*

f *espr.*

f

central small speakers grad. to distant w.f.

0% closer w.f. 100%

straight/back speakers

H 0% 50% 0% 100%

Harmon open

morph to optional spectrums in/out

morph to optional spectrums in/out

Col pedal notes sempre

L.E. 0 % effect gradually to surround delay

(Letter F not used in the *multiMORF remix* version)

F (echo Trpts)

Tbn. 1

G (echo Tu/Hn)
back speakers

Tbn. 2

E II

C I

if repeated: reduce phrase by phrase from lowest

if repeated, reduce by dropping notes from end of phrases

Tbn. 3

even closer w.f.

close up, full w.f.

front speakers

H 0% 50% 100%

Harmon closed

morph (crossfade spectrums)

Bucket

morph

central small speakers

G (echo Tu/Hn)
I

if repeated, choose block ad lib.

L.E. 0 % E spectrum solo

surround delay 100 % effect

6

keep rhythms irregular
optional: jump between lines

(press ad lib.)
Trigger loop: 3.1 --> 3.2 (repeated by continue pressing pedal 3) multiMORF V

3 (echo Trpt 1) **A** (echo Trpt 2) **B** (echo Trpt 2) sim. **C** (echo Hn)

3.1 (cut delay/add granulation) opt. tacet opt. morph **3.2** (surround delay) opt. tacet

Tbn. 1

Tbn. 2

Tbn. 3

front speakers (morph gradually to surround)
close up big w.f. volume 100 % 50%

Cmp. back speakers 50%

Open
7 sec. 7 sec. 7 sec. 7 sec. 3 sec. 3 sec.

E spectrum. Col ped. notes add G^b spectrum add A^b spectrum add B^b spectrum (keep until end of part) add G spectrum

L.E.

presto

Tbn. 1

presto

Tbn. 2

VII lento ad lib. V III I

Tbn. 3

surround "pleasant" medium calm w.f.

50%

Cmp. 100%

7 sec. 3 sec. 3 sec. 3 sec. 3 sec. 7 sec. 2 sec. 5 sec. 3 sec. 3 sec. 5 sec. 2 sec. 7 sec. infinity

add A spectrum (tutti)
optional: gradually less surround delay

L.E.

D (echo Tu/Hn) improvise

front speakers
Outburst, presto
 (optional: wait, listen to morphing of backgrounds)

4 multiMORF V

Tbn. 1 (A) (echo Tu) (flz) (sim.) (B) (echo Hn) (C) (echo Trpt 2) (flz) (D) (echo Trpt 1) I (E) (echo Trpt 2) (flz) (F) (echo Trpt 1)

I → VII(highest) VII → I VI → I

Tbn. 2

Tbn. 3

* back speakers close up, big w.f.
 radical treatment of all w.f. sounds w.f. w. tbn-harmonics
 different w.f. filtered/treated

Cmp. [100%] [0%]

[avoid sounding static in w.f. sounds]
 front speakers
 +Harmon
 +, sim.
 very slow bass row continue repeat as needed
 (optional transposed by trit twice to 8vb)

all speakers Harmon open

bassline continue (loudly)

block TACET (bassline continue)

all speakers (morph to back speakers)
 Harmon closed

crossfade

L.E. granulated (opt. ringmod.)

4.1 (granulation into short delays)

Tbn. 1 (I) (flz) (G) (echo Trpt 2) (fade Trpts) (H) (echo Hn) (fade Hn) (I) (echo Tu) (J) (echo Tu)

Tbn. 2 (I) (TACET quartet VII) (K) (echo Tutti) (like E spectrum)

Tbn. 3 (I) (K) (gliss. to) (like E spectrum) (improvise)

central small speakers
 (granulation, calmly, less pitch change)

front speakers
 different peaks; active w.f./active spatialisation/filtering/reverb etc. *

Cmp. back speakers Straight

(bassline continue) crossfade w. bucket E-spectrum Bucket (back speakers)

L.E. granulation into short delays

E spectrum

* for the w.f. in this section: create a feeling of activity in different rooms/spaces

8

front speakers
listen to cloud effect of sustains, optional improvise order/shape of gliss
(sustainer)

5

(A) Tuba playing bass line from letter 6

Trigger loop: 5.1 -> 5.3 (repeated by continue pressing pedal 5)

5.1 (stop input sustainer)

5.2 (fade sustainer)

5.3 (new input sustainer)

Tbn. 1

Tbn. 1: *dolce*

Tbn. 2: *dolce*, (B) (echo Hn)

Tbn. 3: *dolce*, (C) (echo Trpt 1), (D) (echo Trpt 2), (E) (echo Hn)

multiMORF V

Trigger loop: 5.1 -> 5.3 (repeated by continue pressing pedal 5)

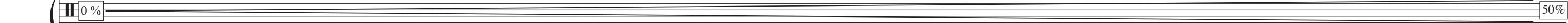
5.1 (stop input sustainer), 5.2 (fade sustainer), 5.3 (new input sustainer)

rep. ad lib.

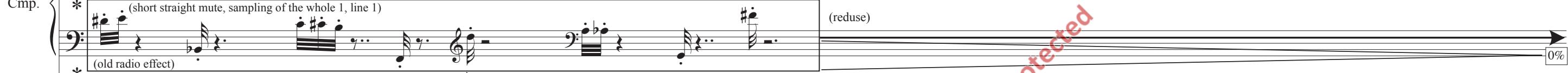
Tbn. 2

Tbn. 3

back speakers
full spectre w.f. completely filtered/transformed morph by gradually opening filters



central small speakers



* (old radio effect)

ensure irregularity in rhythm

sustainer

surround

spatialize



front speakers



L.E.



Tbn. 1

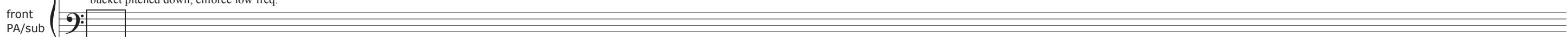
Brass

Tbn. 3

polyphonic w.f.
filtered sound open/close random

(fragments of intimate w.f.)

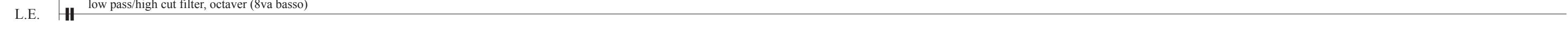
bucket pitched down, enforce low freq.



Cmp.

front

PA/sub



L.E.

6

Bucket



Tbn. 1

Brass

Tbn. 3

(central

small

speakers)

Cmp.

front

PA/sub

L.E.

</div

(optional: wait, listen to morphing of backgrounds)
Harmon, enforce harm. spectre

7

Tbn. 1
dolce
open/close ad lib.
sim.

Tbn. 2
dolce
chords on the harmonic rows (crossfading)
A (echo chords Tutti) **B** **C** **D** **E**
make irregular rhythms
add different intimate w.f. sound (pitch change)

Cmp.
intimate w.f.
pulsate irregular rhythm on bass row
enforce low freq. optional col 8vb

L.E.
enforce harmonic spectrum

8

Harmon optional: play normal notes, sing diamond notes
III use slide and harmon open/close very slowly on diamond notes

Tbn. 1
opt. repeat backwards

Tbn. 2
opt. repeat fragments

Tbn. 3
optional combination of playing and singing ad lib., lyrical
intimate w.f., different sound quality

Cmp.
harm. spectrum
morph by grad. fading original Tbn into synthetic spectrals only

L.E.
enforce lyric vibration, eg. surround delay/harmonizer

NB
noter
This music is copyright protected

8

Tbn. 1
opt. repeat backwards

Tbn. 2
opt. repeat fragments

Tbn. 3
opt. repeat fragments

Cmp.
intimate w.f., different sound quality

L.E.
enforce lyric vibration, eg. surround delay/harmonizer

9.1 (fade sustainer)

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9.2 (fade trombone on tape)

9 Harmon
(into sustainar - make chord)

Tbn. 1

p dolce

(into sustainar - make chord, preferable)

Tbn. 2

p dolce

Tbn. 3

(optional ending)
ad lib. (make rhythm and frases ad lib., but lento molto)

p dolce

most intimate, subtle water sounds

Cmp.

gradually enforce overtones

harmon 11 sec.

L.E.

enforce harmonic spectrum gradually into sustainer/spectral enforcer

(Tbn-recording optional earlier fade by cue 9.2)

(reduce sustainer if melody) no input sustainer, gradually fade

0%

10 TACET quartet
Harmon 11 sec.

Tbn. 1

(optional start, press pedal 1)

Tbn. 2

p ff
optional, senza flz

Tbn. 3

EMPTY
Use this pattern to create space (without backgrounds) and to stop "hangovers"

Cmp.

L.E.

fade all sounds