

# *Hybrid 1*

cello, electronics and visuals

Knut Vaage

2019

(version 14.02.2020)

to  
John Ehde

Electronics: Thorolf Thuestad  
Visuals: Birk Nygaard

#### ABOUT THE SCORE:

Accidentals apply through the whole bar within the same octave

Trills are chromatic if not marked. Tremoloes are unmeasured if not marked

The score gives the performers freedom to improvise, and adjust the length of each Senza misura bar

The Hybrid between acoustic and electronic sound and the visual part must be taken care of by intense listening and equality between the performers of the cello, the electronics, and the visual part. The presets in the electronic part refers to a workshop on relations between cello and electronics. For future performances, the sound designer is welcome to make own versions inspired by the short descriptions on each part.

#### ACKNOWLEDGMENT:

*Hybrid 1* is included in our research project at the Grieg Academy; *(un)settling Sites and Styles*. It has been partly developed with John Ehde (my partner in this project) and sound designer/programmer Thorolf Thuestad. Special effects are developed and combined in new ways as a part of the research project on workshops during 2018. The piece include quotes from *Svev*, premiered at the Borealis festival in Bergen 2018 by Valen Trio. *Svev* took material from *Etudes* made in collaboration between John and me, and from some of my other pieces.

Many thanks to Avgarde and MEP mingefond for supporting and making possible the world premiere at Cornerteateret, april 2019.

#### PERFORMANCE:

It is possible to perform the piece without the visuals, with cello and sound treatments only. The visual can be worked out for each performance, but should follow the electronic part, and fade on the acoustic parts; number 3, 9, 11 and 15.

For the sound part, a full PA with surround is needed. The cello should be microphoned by a DPA, and a contact mic placed by the neck, used for number 7 and faded after crossfade on number 8.

DURATION: c. 25 min.

*"Hybrid 1"* oppstår som eit utforskningsrom på regen mot ei konsertforestilling ting av BIT20 Ensemble kalla "Hybrid spetakkel" for ensemble med cello-solo, elektronikk og visuell design. I begge verka blir tilhøvet mellom menneske og teknologi belyst. Prosjektet vil gå parallelt med, og vera ein del av PKU-forskningsprosjektet «(Un-) settling Styles and Sites på Griegakademiet, og enda i ei avsluttande multimedial konsertforestilling med premiere vår 2020. Men "Hybrid 1" vil stå fram som eit eige verk, urframført på Avgarde på Cornerteateret 13. april 2019.

Ideen oppsto ut ifrå ein refleksjon over at me i vår tid kan oppleve ein ny slags futurisme gjennom all vår entusiasme for ny teknologi.

Menneska i vår tid kan visa stor entusiasme for teknologiutviklinga, men kan også oppleve ei redsle for å bli overflodiggjort av teknologien.

I "Hybrid 1" vil me utforska hybriden mellom den akustisk lyden frå celloen og elektronikken. Instrumentet sine små, subtile lydar som normalt er lydsvake, vil bli forsterka og kraftig elektronisk bearbeida. Gjennom prosessen blir samanhengen mellom dei ulike verkemidla undersøkt.

Samansmelting av elektronikk, akustisk lyd og visuelle teknikkar, vil resultera i ein kreativ loop - eit hybrid multimedialt landskap.

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Scores available from NB noter, Nasjonalbiblioteket/National Library of Norway

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# Hybrid 1

*for solo cello, electronics and visuals*

Knut Vaage

Dialogue with robot

c. 15 sec.

**1** c.l. with one hair free amount of rep. pattern, slow gliss.  
Cello *pp*  
Electronics Robot glitch-effect, preset 3 add gradually from zero effect

s.p. molto  
x = behind bridge  
impro in dialog w robot-effect  
jeté is a possible variation

small rests will create more dialogue w. Robot effect

transform into next section

c. 60 sec.

c. 1 min. 45 sec.

**2** s.t. punta del arco  
Vlc. *ppp*  
El. Robot glitch, preset 5 (w. pitching reverb)

(IV continue, allow distortion)  
CUE to electronics

**3** **Misurata** ( $\text{d} = \text{c. } 100$ )  
TACET  
CUE to Cello effect solo  
(number 3, durata ca. 15 sec.)  
no electronics reverberation naturally fade AMP OFF

Cello only (sharp and edgy)

## Hybrid 1

Dialogue with saw tooth follower

**4** *Senza misura* c. 1 min. 30 sec.

Vlc. impro, pitch ad lib. *tr* *tr* *tr* variate when repeated  
*tr* intensivate gradually TACET

El. emphasis some pitches to trigger electronic follower synth on random melody when follower is triggered, stop and listen, then continue same process effect, short fade

Dirty Mickey Mousing w pitch shift and follower (sawtooth wave), preset 11 add gradually full effect AMP ON

Dropping bow variations

variate bowing, muting, pitch, but keep dropping bow

**5** \*) col legno, jeté ad lib. c. 2 min. Wood sounds

Vlc. s.t. *sul pont.* impro on given material, pitch ad lib put down bow TACET

El. \*) Bouncing bow col legno from sul tasto to ord will make a secondary descending melody CUE to electronics

Sparkling w. pitch delay, preset 7 add gradually full effect sudden shift (surround) effect solo panning multifilter, preset 15 (surround)

CUE to Cello

c. 1 min. 30 sec. Tiny sounds c. 30 sec. Moaning moment

Vlc. Improvise: strokes on wood (vivid, free rhythms, no sync.) behind neck (pizz. ad lib on all strings) same as above but with a super ball use handle for pizz and turn for strokes ad lib. 8

El. voice small grumpy sounds contact mic (or close mic behind neck) crossfade effects change into dragging super ball on body of instrument. Crossfade pizz behind neck

c. 30 sec. Space-grain (close mic.), preset 13 (surround) c. 45 sec. Cave reverb, preset 22

# Hybrid 1

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## In the Cave

**9** Calmly ( $\text{♩} = \text{c.} 60$ )

Vlc. *grab bow ord.*  
*pp dolce e legato molto*

El.

(Cave reverb continue)  
 (number 9, durata ca. 1:45)

①

②

③

④

⑤

Vlc.

El.

(number 9, durata ca. 1:45)  
 transform gradually into air sound (extreme flautando)

## Crush and fuzz

**10**

crush  
 sul t.

Vlc.

El.

c. 2 min.

② impro, use strings I - IV ad lib.  
 as before, but transform by grad. including normal crush

③ crush, slow bow, over-pressure  
 (search for 8va bassa)

④ sul p. ----- sul t.

*(p)* ----- *sul p.* ----- *(p)*

*espr. p.a.p. ma non troppo*

Freq. mod. ringmodulator w. fuzz, preset 14

manipulate effects, duo with cello----- pitch ringmodulator ad lib.

*8vb*  
 $(mp)$

*n*

## Hybrid 1

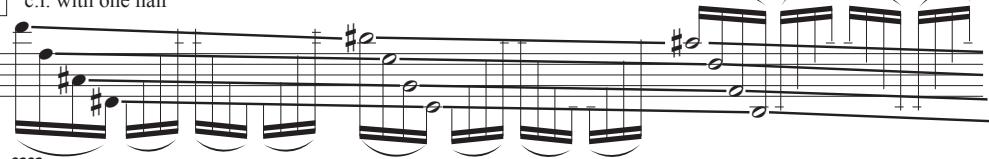
Cello only, 2  
**Misurata** ( $\text{♩} = \text{c. } 100$ )  
 ord.

**11**

Vlc. 

El. (number 11, durata ca. 7 sec.)  
 no electronics  
 reverberation naturally fade  
 AMP OFF

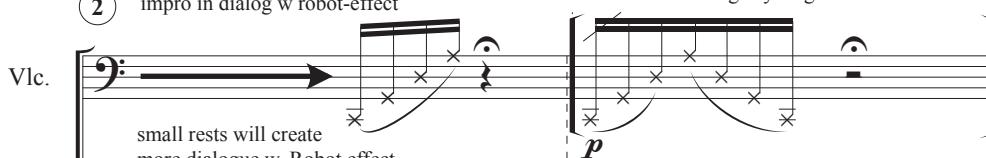
Dialogue with robot, 2  
**12**  
 c.l. with one hair



c. 15 sec.  
 s.p. molto

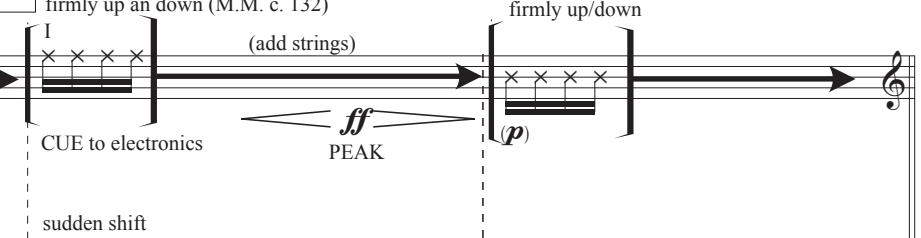
Robot glitch-effect, preset 3  
 add gradually from zero effect full effect  
 AMP ON

c. 30 sec.  
**13** behind bridge (b.b.) c. 30 sec.  
 bow w. windings by frog  
 p CUE to electronics  
 sudden shift

Vlc. 

El. Wobbel, preset 12 →

Measured tremolo  
**14** c. 2 min. 30 sec  
 brush strings lengthwise  
 firmly up an down (M.M. c. 132)  
 (add strings)  
 CUE to electronics  
 ff PEAK  
 sudden shift



Dancing grashoppers, preset 16  
 generating rhythms with resistance to cello-rhythm (surround)

Cello only, 3  
**Misurata** ( $\text{♩} = \text{c. } 100$ )  
 ord.

**15**

Vlc. 

El. no electronics  
 reverberation naturally fade  
 AMP OFF

Pling Plong impro (optional pizz, c.l., spicc)  
**16** Senza misura  
 Create dry effects, samplings etc.

AMP ON

c. 60 sec.  
 (surround) 

c. 30 sec.  
 TACET  
 effect solo

Circling bow with overtones

17 muted IV  
circular movements sul p. molto <-> sul t. molto

c. 45 sec.

transform into

Vlc.

9

muted IV  
circular movements sul p. molto <--> sul t. molto

$\overline{\otimes}$  —  
**(p)** *non cresc.*

Spectrum enhancing delay, preset 17 ----- full effect

El.

crossfade effects

c. 20 sec.

## Overtone variations

18

mute string, hoarse overtone ad lib.  
free bowing, very light pressure  
○ transform into - - - - -

as above but L.H. rapidly ad lib.  
searching for overtones (sul p. ad lib.)

c. 2 min

as above but change  
strings ad lib.

Vlc.

A diagram consisting of two horizontal black lines crossing each other. Above the top line is the label "ppp" and above the bottom line is the label "mmp".

El.

crossfade effects

### Under water multieffect, preset 8

c. 45 sec.

Vlc.

improvise, slow change between  
random natural harmonics

c. 60 sec.

El.

crossfade effect

**19** II - - -  
(ord.) slow glis

Spectrum enhancing delay, preset 17

Durata 25 min.