# Hybrid 1

cello, electronics and visuals

Knut Vaage

2019
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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 accoustic 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 pice 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 minnefond 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 perfromance,
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 vegen mot ei konsertforestilling tinga 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 konsertførestilling*
*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 oppleva ein ny slags futurisme gjennom all vår entusiasme for ny teknologi.*
*Menneska i vår tid kan visa stor entusiasme for teknologiutviklinga, men kan også oppleva ei redsle for å bli overflødiggjort 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.*

More info: www.knutvaage.com

# Hybrid 1

*for solo cello, electronics and visuals*

Knut Vaage

Dialogue with robot

c. 15 sec.

c. 60 sec.

**1**

c.l. with one hair    free amount of rep. pattern, slow gliss.

s.p. molto

**2**

x = behind bridge

transform into next section

impro in dialog w robot-effect
jetè is a possible variation

Cello

*pp*

small rests will create
more dialogue w. Robot effect

Electronics

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

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c. 1 min. 45 sec.

Cello only (sharp and edgy)
**Misurata** ( ♩ = c. 100)

**2**   s.t.
punta del arco

**2**    **3**    **4**    **5**    **6**    **7**    **8** c. 15 sec. **3**
TACET

Vlc.

*ppp*

CUE to electronics

(IV continue, allow distortion)

*sfz*

*ff*

CUE to Cello
effect solo

(number 3, durata ca. 15 sec.)

El.

Robot glitch, preset 5 (w. pitching reverb)

no electronics
reverberation naturally fade
AMP OFF

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Vlc.

4/4    3/4

El.

Dialogue with saw tooth follower

c. 1 min. 30 sec.

c. 3 sec.

**4** **Senza misura**

impro, pitch ad lib.

variate when repeated

TACET

Vlc.

*ppp*

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

intensivate gradually

effect, short fade

El.

Dirty Mickey Mousing w pitch shift and follower (sawtooth wave), preset 11

add gradually - - - - - - full effect

AMP ON

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Dropping bow variations

variate bowing, muting, pitch, but keep dropping bow

c. 2 min.

c. 45 sec.

**6**

Wood sounds

c. 45 sec.

**5** ✱) col legno, jeté ad lib.

s.t. ⟶ sul pont.

impro on given material, pitch ad lib

impro on given material, pitch ad lib

put down bow
TACET

trill w. fingers on body of instr.

Vlc.

*mf*

✱) Bouncing bow col legno from sul tasto to ord
will make a secondary descending melody

CUE to electronics

El.

Sparkling w. pitch delay, preset 7

add gradually - - - - - full effect

(surround)

CUE to Cello

effect solo

sudden shift

panning multifilter, preset 15
(surround)

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Tiny sounds

c. 1 min. 30 sec.

c. 30 sec.

c. 30 sec.

Moaning moment

**7** behind neck  (pizz. ad lib on all strings)
w. nails or plectrum

same as above but with a suber ball
use handle for pizz and turn for strokes ad lib. **8**

c. 45 sec.

Improvise: strokes on wood
(vivid, free rhythms, no sync.)

Vlc.

voice

small grumpy sounds

contact mic (or close mic behind neck)

crossfade effects

crossfade effects

change into dragging super ball
on body of instrument.
Crossfade pizz behind neck

4/4

El.

Space-grain (close mic.), preset 13
(surround)

Cave reverb, preset 22

In the Cave

**9** **Calmly** ($\quarternote$ = c.60)

Vlc.

grab bow    ord.

*pp* *dolce e legato molto*

**1**

**2**

**3**

El.

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

**4**

**5**

(number 9, durata ca. 1:45)

transform gradually into air sound    (extreme flautando)

Vlc.

*n* *pp*

El.

Crush and fuzz

c. 2 min.

**10**

crush
sul t.

Vlc.

(*p*)

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

sul p.

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

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

$8^{vb}$
(*mp*)

**4**

sul p. ———————————— sul t.

(*p*)    *n*

El.

Freq. mod. ringmodulator w. fuzz, preset 14

manipulate effects, duo with cello

pitch ringmodulator ad lib.

Cello only, 2

**Misurata** (♩ = c. 100)

ord.

**11**

Vlc.

**ff** *secco*

El.

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

Dialogue with robot, 2

c. 15 sec.

**12**

c.l. with one hair

s.p. molto

**pp**
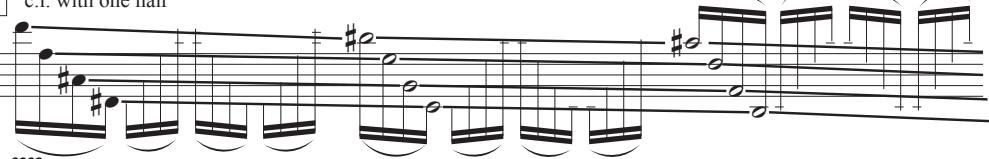
Robot glitch-efffect, preset 3
add gradually from zero effect — — — — — — — — — full effect

AMP ON

c. 30 sec.

**2** impro in dialog w robot-effect

Vlc.

small rests will create
more dialogue w. Robot effect

**13** behind bridge (b.b.)
bow w. windings by frog

c. 30 sec.

**p**
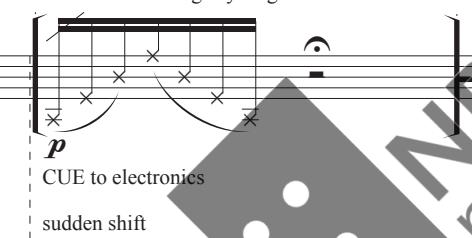
CUE to electronics
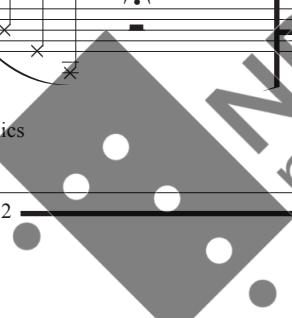
sudden shift

Measured tremolo

**14** brush strings lengthwise
firmly up an down (M.M. c. 132)

c. 2 min. 30 sec

I

(add strings)

**ff**

PEAK

CUE to electronics

sudden shift

bow on body
firmly up/down

c. 30 sec.

(**p**)

El.

Wobbel, preset 12

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

Cello only, 3

**Misurata** (♩ = c. 100)

ord.

**15**

Vlc.

**ff** *secco*

El.

no electronics
reverberation naturally fade
AMP OFF

Pling Plong impro (optional pizz, c.l., spicc)

**16** **Senza misura**

c. 60 sec.

TACET

Create dry effects, samplings etc.

AMP ON

(surround)

effect solo

**Circling bow with overtones**

c. 45 sec.

**17**

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

transform into

Vlc.

(*p*) *non cresc.*

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

El.

crossfade effects

c. 20 sec.
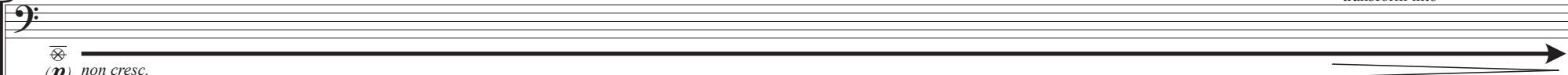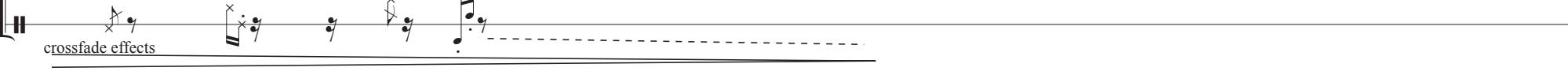
**Overtone variations**

c. 2 min.

**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.)

as above but change
strings ad lib.

Vlc.

*ppp*

(*mp*)

El.

crossfade effects

Under water multieffect, preset 8

improvise, slow change between
random natural harmonics

c. 60 sec.

c. 45 sec.

III

**19** II ------
slow gliss.

(ord.)

Vlc.

*p molto lento*

(*p*)

*n*

El.

crossfade effects

Spectrum enhancing delay, preset 17

Durata 25 min.