

Not necessarily music - Experiences & Practices [7 Jun 2018]

This file contains additional information for the performance of *Not necessarily music*. The text score contains the essential information to perform this work. Feel free to ignore, re-use or get inspired by this additional information. This text is written by Hans Roels. (contact: info ad hansroels dot be)

General clarifications

A careful choice of the microphone locations (for the *field mic.*) is important for the audiovisual quality of the performance. Obviously, it determines the live environmental sounds in the audience headphones, but also the interaction between what the audience sees and hears.

Ideally, *Not necessarily music* is performed in such a way that both musicians can express their (musical) personality and at the same time remain faithful to the surrounding place and time. Of course, realizing this balance between individual freedom and the things happening and living around them at that moment is a challenge...

These are some suggestions of possible (musical) forms and orders of sections (AA stands for a 'repetition' of section A. They weren't tried out:

- F→L→A→FF: a performance starting with a 'private' performance of performer 2
- A→L→AA→CC (or II): the first time performer 2 could play the *sampler2* in sections B and C, the second time (BB, CC) the filtered microphone sound *filter2*
- H→L→A→LL: this version begins as a 'usual' improvisation and underlines this 'normal', musical aspect (with the usual instrument sound and ensemble playing based on hearing the other performers in H to J and again in HH to JJ).
- L→...: a performance beginning with a solo performance of the mobile second performer (moving around in dialogue with the surroundings), a fade-in of the field mic after 2 minutes and perhaps a large overlap/crossfade between L and A
- A→F: in this shorter version the field microphone only starts in C or D and crossfades at the end of E with the 'private' final section F.

A technical note on sending the audio to the audience headphones:
anno 2018 it is still impossible to stream audio through the internet to the browser or media player of mobile phones, tablets and computers without having a long latency of over 1 second (solving this problem requires a.o. installing software and apps on ALL the devices of the audience). Wireless audio systems (FM sender and many FM radios, silent disco systems with many wireless headphones) are currently a simpler solution to create a one-to-all (multicast) broadcast.

Performance in the reading room of the Krook library (Ghent) - 23 May 2018

The performers were Ana Filipa Botelho (wind controller) and Quentin Meurisse (keyboard), I was mixing the live environmental sounds from a laptop and mixer. A silent disco system (one sender and many wireless headphones) was used and people in the reading room could take a headphone if they wanted to listen. The live field microphones (two DPA 4060 microphones) were positioned just outside the window of the library reading room (on the third floor), about 20 meters from the performers. Outside the library building there is a bend in the Schelde river, streets and a public place. The performance was part of an afternoon of concerts - called RE-Verberations - with advanced master 'manama' students (specializing in contemporary music) of the School of Arts Ghent, as an opening of "The May Events" festival of the arts centre Vooruit (<https://vooruit.be/en>). There were two performances of *Not necessarily music*, one at 15.30 and another at 16.00.

The reading room of the library - where the performance took place - is large (approx. 35mX15m) and has many windows with a view on the city and its buildings. Usually 30 to 100 people are reading or studying in the reading room. This one-minute video gives an impression of the reading room (the camera is located on the spot where the performance

took place a few hours later): www.hansroels.be/krook-leeszaal-intro20180515-compressed.mp4

A live audio recording was made of both performance with a Roland R26 recorder connected to the tape-out of the mixing panel (a copy of the main out going to the audience headphones). You can find the recordings of both performances here (24bit wave files, duration: 21'28'' and 17'40'', 341 and 280 MB):

www.hansroels.be/R26_0130_1-uitvoering1.wav

www.hansroels.be/R26_0131_1-uitvoering2.wav

The first recording starts with the fade-out of the field mic. Compared to the video recording I was a little late to start the second recording. The audio recording begins when section A (the silent 'private' performance of performer 1) was already going on. The recordings are totally unedited.



Illustration 1: the Krook library

There are also video recordings of both performances, made with a tablet Samsung Tab S2 on a fixed position, showing both performers. These files are too big to upload but can be sent on request. There is a video file on my website combining the first part of this tablet video recording and the R26 audio recording. It shows the first 10 minutes of the performance: www.hansroels.be/video-begin-krook-picasamedium.mp4

As *sampler2* (see main score) performer 2 is playing a sampler with residual piano sounds (sounds of keys and pedals of three different keyboards & resonances of piano strings). As *instrument2* the built-in synthesizer of the AKAI EWI 4000S wind controller was used. Performer 1 used a sampler ('field piano') as *sampler1* that I had built, this was based on piano samples but echoes and glissandi were added and the tuning (an out-of-tune quarter tone system) was changed. As *instrument1* a 'normal' piano sampler was used, more specifically the existing soundfont sampler provided by SynthFont Viena.

Here is a link to the soundfont for performer 1 with the 'field piano' *sampler1*:

www.hansroels.be/krook-sampler1C.sf2

Here is a link to the soundfont used as *sampler2*: www.hansroels.be/krook-sampler2-cl-3.sf2

This is a link to the pure data patch: www.hansroels.be/patch-krook-23mei18copy.zip
(main patch: not-necessarily-3-perf23mei.pd)

This patch was made for a performance at the Krook site but it might be useful to explore details of the setup. The patch requires the fluid~ external (to play the previous two soundfont samplers). The patch also includes objects ('play-file') to play recordings in stead of using live microphones (field mic). I programmed this option because the windows in the Krook building (where the microphones were placed) closed automatically when it started to rain. Luckily it didn't rain during the performance and the live microphones were used. More information on the samplers and Pd patch further on in this document (**Digital instruments and Pd patch**).

Description per section of the performance

This is a description of the performance interaction per section (based on the diagram in the main score). Performer 1 was playing the keyboard controller, performer 2 the wind controller. In some sections the main score gives the performers the freedom to choose which inputs are audible for each performer. This description makes clear which choices were made. I have added the timing of the first performance recording (R26_0130_1-uitvoering1.wav) between brackets.

- A) [0'27''] Performer 1 starts to play music only for him/herself; the audience and other performers only see this performance, they cannot hear what is being played. When the field microphone enters [around 0'58''], it is audible to performer 2 and the audience.
- B) [2'57''] Performer 1 continues the 'private' performance, performer 2 starts to play (piano pedal and key sounds) together with the live environmental sounds or together with the visual and non-auditive experiences of performer 1 (performer 2 does not hear performer 1).
- C) The private music of performer 1 stops, performer 2 continues with an improvisation on the sampler. Now the environmental sounds and performer 2 become audible for performer 1.
- D) [6'29''] Performer 1 enters ('field piano' sound) and both performers hear each other but they base their performance on the sound coming from the live field microphones.
- E) [9'00''] Performer 1 continues with the improvised dialogue with the environment, performer 2 takes a rest (and still hears performer 1 and the field mic).
- F) [10'10''] As performer 1 stops playing, performer 2 begins a 'private' performance. She does not hear performer 1 or the field mic in section F and G. There is no (audible) field mic for the audience or performer 1 any more. The only thing the audience hears are filtered sounds from the live field mic, triggered by (some) MIDI notes of the private performance of performer 2.
- G) [12'18''] In section G performer 1 starts to play with a piano sound. He does not hear the original music of the private performance of performer 2 (wind controller), he does hear the filtered field microphone sounds, indirectly influenced by this private performance.
- H) Performer 2 stops while performer 1 improvises an elaboration of the previous dialogue/comment on the private music of performer 2. Performer 2 starts to hear performer 1 again.
- I) [14'15''] Both performers now hear each other and play together. The live environmental sound becomes audible again (for all players and the audience).
- J) [15'44''] Performer 1 stops while performer 2 improvises an elaboration of the previous dialogue with performer 1.
- K) [17'09''] Performer 1 starts playing on the 'field piano' sampler again. Both performers play together visually but they do not hear each other. They do hear the live field microphones.
- L) Only performer 2 is playing, together with the field microphones. The performance ends with a return to section A (a private performance of performer 1). The field microphones fade out. Thus, at the end of the performance, there is no sound any more, the audience only sees performer 1 playing something for himself on the keyboard.

Exploration and rehearsals

A few months before the performance, I frequently visited the performance site and its surroundings. I was intrigued by the quiet, silent gestures and habits that people develop in a reading room to co-exist peacefully and by the river surroundings, characterized by water birds and a reverberant acoustics with echo. I made recordings and listening observations and wrote down the sounds and gestures in the reading room. The following sessions and rehearsals did not happen at the library, mainly because they required a large technical setup and because the chances were high that people in the library would get disturbed by these activities.

In advance there were two preparatory sessions with Ana Filipa, playing the wind controller. She hadn't performed on the controller before. During these sessions she

explored the wind controller (and its built-in synthesizer), adjusted the sensitivity of the sensors (breath, pitch bend, etc.) to her wishes and I adjusted the Pd patch to the MIDI data from the wind controller - changed by the adjusted sensitivity.

At the beginning of May, when I had finished the Pd patch for the performance, there were two rehearsals. In the first one I explained the general concept of the performance, gave a short audio example of the sounds in the library and next, we explored the different instruments (samplers/synthesizers) and interactions (visual input, input from field microphone, etc.) per section. I used recordings of the Krook environment in stead of a live microphone. The performers also heard each other in more sections than planned in the performance. This was done to get to know each other's instrument and the 'field mic' sounds. We also took care that the duration of the sections was less regular. We designed a cue system which in general gave the responsibility to move from one section to another to the performers (ensuring that there was an organic flow in the overall form of the performance). This is how the cue system worked:

- one performer decides to move on to the next section
- performer 3 at the mixer and laptop hears this change and changes a visual indication of the present section (marked 'A', 'B', 'C', etc.)
- after approx. 10'' when the mixer performer is sure that both performers have seen the indication, he changes the preset (in the Pd patch) to the next preset (= the preset of the current section).

Because the performers take the lead, the presets ensure that a performer can start the next section when he/she chooses to do so. For example, in the preset of section A *sampler2* is already loaded and routed to the audience output, performer 2 can start section B whenever she wants. Another example: in the preset of section E the synthesizer for the private performance of performer 2 and the *filter2* for the audience output are ready.

In between the rehearsals I decided in which sections the performers would be audible for each other (I don't fix this for all sections in the main score). For example, to create diversity in the overall structure and to avoid an overload of 'performed music', I decided to make the performers audible for each other in sections C, D, E and not audible in K. Further details are found in the paragraph *Description per section of the performance*.

The second rehearsal focussed on these issues:

- have the character of the performance correspond more to the performance site in the Krook (I showed the performers a video of the reading room in the Krook). The performance should reflect the character of the performers *and* the place.
- ensure that the structure of the performance is more installation-like and contains less musical ideas (in the first rehearsal the improvisations were too rhapsodic). This was done to give the audience the opportunity to both listen and see the performance (listening to both the performed (headphone) music, live field recordings and the acoustic sounds; watching performers 1 & 2, the inside and outside environment through the windows)
- practising to play in the background, perform less and let the field microphones take the lead.

On the day of the performance, we practised together for half an hour, after the whole technical setup was made and checked.

Digital instruments and Pd patch

The first versions of *sampler1* consisted of many different (short) sounds, recorded at the performance site (the Krook): sounds of objects inside the reading room such as chairs, metal tables, people whispering, etc. and outside sounds such as birds, water, people talking, tram, bus, etc. This sampler was too complicated to perform (and memorize the sound of specific keys and pitches). Combined with the *field mic*, performer 1 also completely disappeared from the performance. In opposition, the idea of the composition was to create a *mix* between the instrument of performer 1 and the performance site. I decided to simplify the design of the sampler, focus on the sound of sea gulls and the reverberant outdoor surroundings (with buildings and the river surface) and create a hybrid instrument of piano sounds and reverberant bird sounds.

This was the 'field piano' sampler (found in the soundfont and Pd patch). A sampler usually consists of standardized, uniform samples (same duration, amplitude, etc.) which contrasts with the living environment of the performance site. Here unexpected and unpredictable events happen all the time. To create a mixture of a music instrument - usually fully 'under control' - and the living environment, I added some uncontrollable and indeterminate elements to the sampler: releasing some keys triggers additional samples, the glissandi of the piano sample are not the same for the whole range of keys, some samples include a kind of echo, others not, etc. In general the field piano (*sampler1*) has a quarter-tone tuning but the tuning wasn't applied strictly (there is no tuning system in the environment...). The lowest octave of the 'field piano' sampler has longer samples (30'' to 60'' duration), cut out of recordings at the performance site.

In retrospect, I spent a lot of time on designing this *sampler1*. Its main function is to create a link between the piano (the sound associated with a keyboard) and the performance site. Afterwards, I realised that I could have used a simpler strategy: go to the performance site with a lot of presets of synthesizers and samplers. Next, perform and explore on site (with one earplug) until I find sounds/presets that create this link or sound as if they could just as well be performed on an instrument or produced by the environment. In fact, after designing the field piano sampler, I was looking for existing soundfont libraries of pianos (as *instrument1* in the score). I found a very simple 'BEEP' preset, consisting of short sine waves with a very short attack time. This BEEP (with a quarter-tone tuning) added also worked well as *sampler1*. Short, mid- and high-pitched sounds are part of the library (beeps of the elevator or security systems) and the outside environment (lorries driving backwards, water birds, etc.). The BEEP sampler is audible at the end of the recording of the second performance (R26_0131_1-uitvoering2.wav).

The sampler *sampler2* used by performer 2 (wind controller) consists of recordings of keys and pedals being pressed down and released on 3 different keyboards (one acoustic grand piano and 2 digital keyboard controllers: M-Audio Radium keystation and CME UF 88 keys). I also made recordings of resonances of strings inside a grand piano (by pressing a pedal or playing the strings). These samples are used in the lowest octave of *sampler2*. The loudness of each sample is not as uniform and standardized as in a usual sampler. I tried to make the sampler performable - by slightly adapting the 'natural' amplitude - while also remaining faithful to the diverse, non-standardized sound world of pedals and keys (one key or pedal creates a lot more residual noises than another one).

Basically *filter2* filters the environmental sound (from the *field mics*) through a band pass filter, by using the MIDI pitches from the wind controller. The pitches also trigger an audio (amplitude) envelope. The processing was created as a Pd patch and has a two-voice polyphony. Perhaps this could be enlarged to 3 or 4 voices, which could improve the sound, there was no time to test this solution. In section F and G performer 2 (wind controller) is performing 'privately'. This means that the speed and number of MIDI pitches is unpredictable. I added a probabilistic filter algorithm to the Pd patch, which enables the third performer (controlling the patch and mixer) to move a fader and change the amount of MIDI pitches (probably) sent to the band pass filter. Thus, not all notes ('privately') played by performer 2 are audible for the audience as filtered sounds. Sometimes performer 2 is performing without any sound for the audience. By adding the probabilistic filter, the 'private' sections of performer 1 and 2 also become more similar.

Evaluation

In general, the audience and performers enjoyed the performance. A part of the visitors of the reading room didn't bother about the performance and continued reading and studying.

The interaction between sounds (performed music, inside and outside environmental sounds) on the one hand and the sight (of the musicians, the reading room, outside environment) was not as good as I expected. The microphones (*field mic*) were outside the window. There are many windows, everybody in the reading room can look outside. But as the reading room is on the third floor, it was not possible to 'see' any of the sounds coming from the microphones. I had expected that some sea gulls or other birds would have been both audible and visible but this didn't happen. The birds were very present in the preparatory visits to the site but not at the moment of the performance.

Looking backwards, one solution to improve the multisensorial character of the performance could have been to start the performance with the field microphones *inside* the reading room (with less diverse and interesting sounds but more audiovisual interaction) and gradually move them to the location outside the windows. The whole setup and 'transparency' of the performance would be more capable of being experienced. This solution would have required a fourth performer (moving the field mics).

The previous remark on the audio-visual interaction and the related location of the microphones arose soon after the performance. I realised that *Not necessarily music* needs to integrate sounds around the performers to realize this audiovisual interaction. The version for the performance in the Krook was a celebration of a quiet, public space such as a reading room, but other versions and performances of *Not necessarily music* could happen at places with a more lively (sound) environment, such as a park, a playground, a train station, etc. This reflection caused me to leave out 'quiet' in the phrase on the first page of the score: "*This composition is performed in a quiet place where people gather to wait, relax, study, read, enjoy, etc. and not necessarily want to hear music*". In the first place the composition is absent or 'non-compulsory' (people do not hear it if they don't want to) but it is not a refuge into a fantasy (musical) world. The composition is based on the interaction with sounds, sights and actions happening all around the performers.

In the months before the performance I had hoped that the performer with the wind controller could have moved and walked now and then during the performance. But we were using an older (non-wireless) version of the AKAI wind controller and in the end needed 3 cables (line out and MIDI out going to the computer Pd patch, headphone in coming from this computer). The line out was necessary to capture the sound of the built-in synthesizer (the performer could easily practise this synth at home with a headphone, got used to it and therefore used it in her performance).

After reflecting on the first performance I further refined the gestures in this composition and added this phrase to the main text score: "Make sure that (sound-producing) gestures are genuine (...)." In the performances at the Krook the keyboard player occasionally did music-producing gestures (playing the keys, moving sliders) without making sound. This somehow confused the overall performance. The aim of *Not necessarily music* is not to create a game of confusion (who is producing which sound). People are doing things for some reason (fun, work, communication, etc.) in a place, but sometimes this 'reason' may be hidden or difficult to notice or understand for others. Therefore, I want the performers to underline their performance, make it visually richer but remain close to a genuine music performance.

Originally I intended to stream the sound to a website to ensure that the people in the reading room could visit that website on their laptop or smartphone and use their headphone to listen. This would have fit perfectly in the performance setting: many people in the reading room are listening to music through headphones while reading or studying. The difference between performers, listeners and visitors would have become very small. But the latency between the live visual performance and the audio proved to be too long (several seconds). I didn't want to ask the audience to download specific apps or software to solve the latency on the network.

The cueing system worked very well (as it had already done in the rehearsals).

The sentence on spatialisation ("Panning, filtering, reverb ...") in the main text score was added *after* the first performance. In the first performance no additional live spatialisation was done with the instrument and sampler sounds. In the adapted, new version the third performer at the mixer or perhaps performer 1 or 2 could create panning and/or amplitude trajectories.

Info: Program note distributed in the reading room on 23 May

Not necessarily music is a work for 'silent' musicians: you can just watch the performance or - if you want to - take a wireless FONKEL headphone and listen.

In some sections the musicians are only playing for themselves. Nor the co-performers, nor the audience hear the 'original' music. In other sections they only play visually together or they listen to the same environmental sounds (arriving from microphones placed outside the windows of the building). Finally, they also play together as 'real' musicians, listening to each other.

This work is an ode to a public, quiet place like the Krook library. Thanks to technology such as internet, smart phones or headphones people can work, study or read at many places. They can also listen quietly to music or play piano (for example, on the grand piano on the first floor) with headphones. Performing music becomes a semi-private, semi-public activity in this way. Passersby see an intriguing visual performance but they can only guess what the musician is playing for him/herself. Just as you can only guess which messages you see people sending, or which sounds the outdoor environment - visible through large windows - is making. This game of exposing and hiding, and creating a public space, controls *Not necessarily music*.

Performers: Ana Filipa Botelho (wind controller) and Quentin Meurisse (keyboard)

Composition: Hans Roels