introduction

this pdf serves to snapshot the current state (2020-07-30) of situ.am,
a live archiving/annotating/working tool for an ongoing personal
exploration with open-source real-time soundscape mediation.

(being a website, and having to do with interaction with sound,
these features are better experienced in a web browser on situ.am)

contents/sitemap

/meta
reflections, background, theoretical considerations

/records
annotated snippets of experiments with real-time in situ soundscape
mediations, presented in the context of their longer unedited
recordings

/modules
documentation of modules with clearly defined ins and outs, able to
be flexibily interconnected and (re)used

/plans
a place to collect ideas and plans for features to be developed that
occur along the way

situ.am/meta

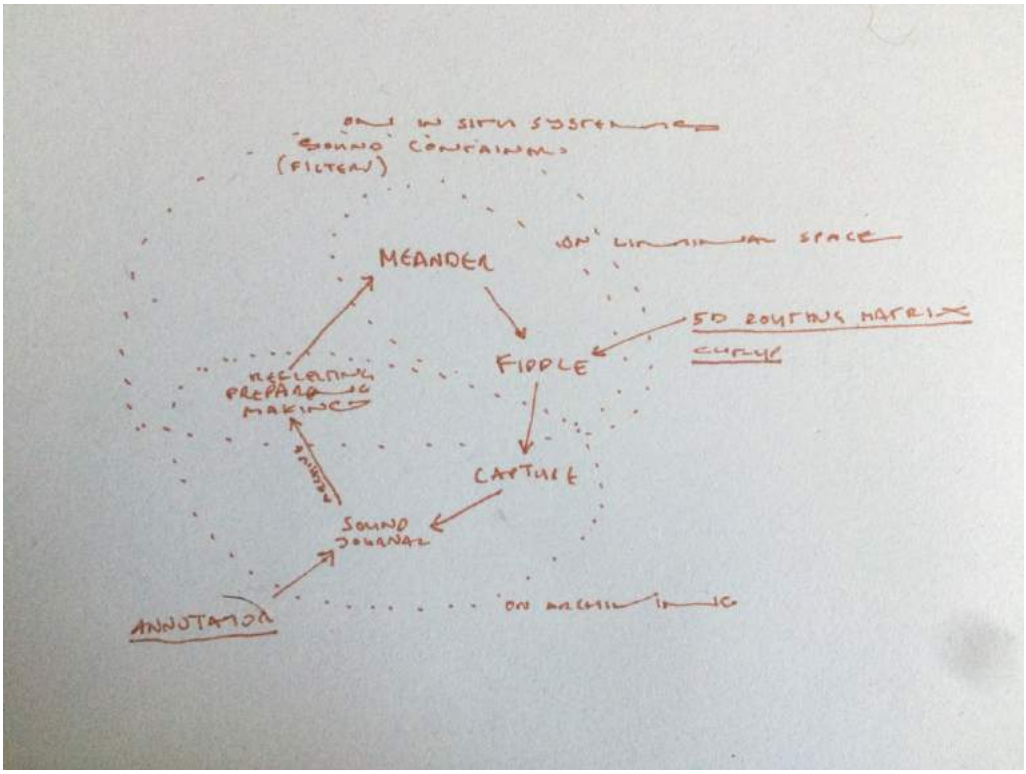
situ.am is a live archive/annotator/working tool for experiments in real-time composition and emergence in meanderings. slow-evolving sounds in a process that is itself slow-evolving, a system for remembering and remembering to remember:

- rhizomatic interferences in perceiver-environment feedback-loop dialogues
- aesthetics of the spaces in-between - emergence in meanderings
- spaces in-between, breaks, delaylines
- self-referential structures, isomorphisms
- vertical sound
- masking, entropy decreasing, affording space for meandering attention
- extended duration in musical composition
- interference patterns filtered->filtered again

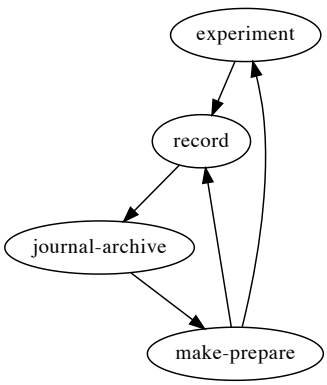
working towards open-sourcing a usable (if still somewhat rhizomatic, cryptic, and personal) live archiving/annotating/working tool and system for in situ soundscape mediation.

> *you can't will spontaneity. but you can introduce it with a pair of scissors.*
> *– william burroughs, the third mind*

structure and process

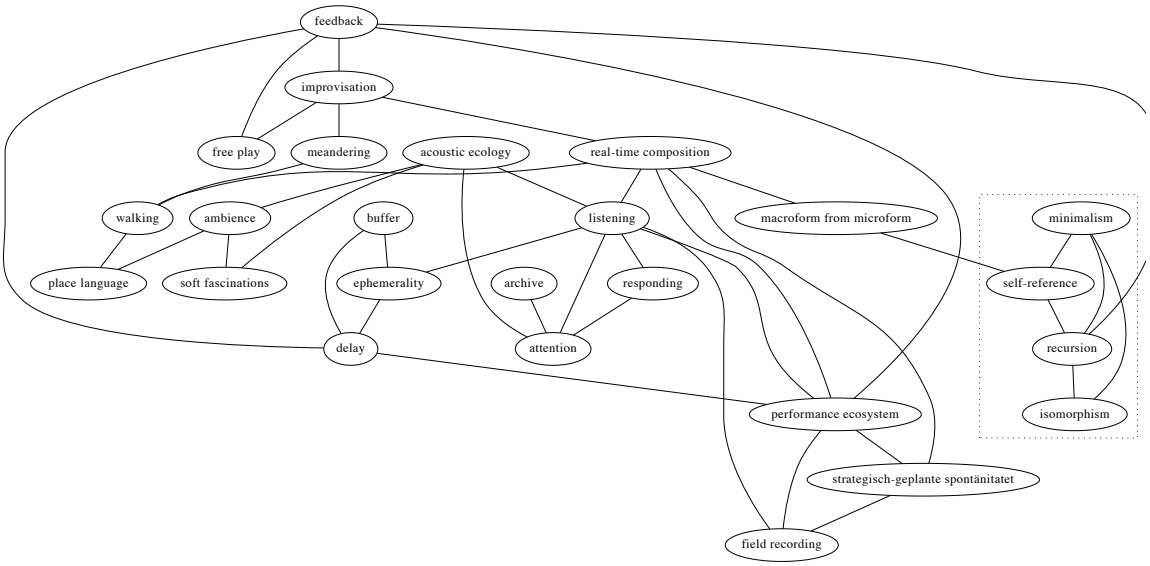


pursuing a cyclic process of experimenting, capturing, listening again, and preparing, the work embraces a spirit of meandering – in a physical sense, of slowly changing environments, and stopping at the places in-between, mediating in real-time the experience with the immediate soundscape – and recording. to experience recordings afterwards is to filter them through the capturing device and and listening device and through the listening situation in a later time and place.



2020.07.13/meta

mindmap



2020.07.04/meta

Emergence in audibly-structured soundscape

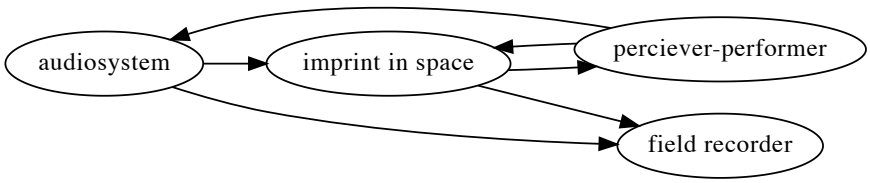


Figure: Emergence in place-language improvisation

Understanding emergent sound structures as macroforms emerging from interactions of the microforms.

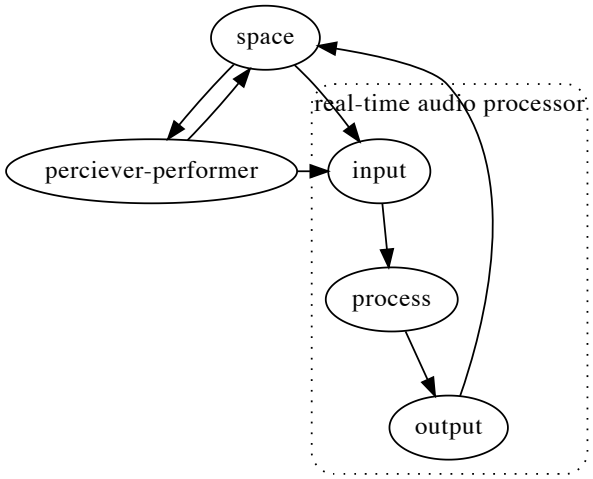


Figure: Emergent macroform from microform interaction

A real-time composition, to let "the musical (macro-level) structure emerge from sound itself and its internal organization (micro-level)." [1]

Resonating with selections from *Analysing Audible Ecosystems and Emergent Sound Structures in DiScipio's Music* (Renaud Meric, Makis Solomos)[1]:

> *While composing with an ecosystemic approach, the composer creates an audio system that interacts with the environment (i.e. space). This space, in which and from which music emerges, is also the listener's space. Thus what emerges is the result of a confrontation between the listener's cognitive system and the audio system used in the musical work. The emergent sound is difficult to define: its general outline is unpredictable and unstable; it is dependent on a dynamic musical space, which is constructed by active listening and an active audio system simultaneously.*

> *focusing on the ephemeral moment in which music emerges in the interaction between the listener and the product of the audio system inside a specific space.*
>
> *in reality, we don't listen to sound but to its own "imprint" (empreinte), in the sense of the word developed by Georges Didi-Huberman (2008).*
>
> *in his own music, Di Scipio opted for complex dynamic systems: "Chaos and the dynamics of complex systems, as accessible with iterated numerical processes, represented for me a way to compose small sonic units such that a higher-level sonority would manifest itself in the process" (Di Scipio inAnderson, 2005)*
>
> *In one of his first articles (Di Scipio, 1994), he elaborated a "theory of sonological emergence", whereby form (macroform) is viewed as "a process of timbre formation" (Di Scipio, 1994: 205)*
>
> *The idea of emergent sound structures is related to the elaboration of a sub-symbolic theory. In the "theory of sonological emergence", the emergence of a higher level should happen through grains and samples, neither of which are symbols, as they are located on a low level (cf. Di Scipio, 1994: 207). With composed interactions (cf. infra), Di Scipio puts the interaction at the signal level: all the information exchanges have a sonic nature (cf. Di Scipio, 2003: 272). We can draw a parallel between this strategy and the model of emergence in cognitive science. To the question "What is cognition?" the "computationalist" model answers "Data processing: the manipulation of symbols from rules" (Varela, 1996: 42), while the emergence model answers "The emergence of global states in a network of simple components" (Varela, 1996: 77). Regarding music, the issue at stake here is as follows: if we want the higher level (the macroform) to appear as an emergence and not as an independent construction, we have to work only at the lower level, abandoning the intermediate level, which is the level of symbols.*
>
> *According to emergence theory, the emergence of sound structures is possible because of the fact that the composer develops systems (in the sense of cybernetics) close to living systems, which are characterized by their capacity for auto-organization*

Whilst not directly applicable (much of the recordings of free play references past melodies played and familiar intervals), it speaks to an attitude of openness and responsiveness in dialogue with the current situation and other players through which the musical moment emerges.

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1. Renaud Meric, Makis Solomos: Analysing Audible Ecosystems and Emergent Sound Structures in DiScipio's Music ↩↩

2020.06.27/meta

inspiration from tim shaw

resonating while listening to tim shaw on listening and field recording

Tim Shaw, on indeterminancy and uncertainty in field recording and soundwalks, finds environmental sound, much richer to practice responding to specific sites/themes outside of studio. Listening being the key practice of the work.

Field recording not as a documentary of one place to another, more as a live, performative act. Whereas traditionally it might be understood as: go somewhere with mics, sit, press record, bring it back to studio, edit/layer... the performative aspect of walking to the site, setting up, these gestures aren't visible. There's a dislocation between making and presentation. How to fold together?

Recording, composing, improvising with the soundscapes that move through.

Normally, recordings are deleted at the end of the walks. Flatten presentation and process, all mistakes like handling noise.

Headphones allow dynamics to come-in - is it sounding in the world outside or it is processed through? Starting with omni-directional mics, then take recordings using contact/hydro/electromic.

The system is malleable and shifting, like the soundscape, always shifting and indeterminate.

Always tries to carry a recorder, decides to start when something catches interest, finding resonant spaces, or attaching a contact mic. Starts by walking and seeking with the ear and eye.

How long to let the recorder roll for is question of composition in itself.

Not about archiving, possesion, but about the process, and the making and the act of it is often more interesting than the recording itself. Using this process to learn the space, how does it react? So it's expansive - what are the possibilites, in the most holistic way?

Not going into a space with too many ideas, being open to the unpredictability, allowing those unexpected events to be just as meaningful as those planned.

2020.06.24/meta

field recording

if the project seems broad, scattered, loosely organized, and unfocused, that's because it is. but one crucial theme is the experience of making-in-real-time, acting and reacting in a live way.

the records then are soundscapes of a "genuine but ephemeral set of circumstances existing in a precise moment of time," rather than soundscapes "meticulously fabricated and controlled in the vacuum of an audio editor".[1]

> *actual events from a specific time and place … a moment's explicit actuality and serendipitous fragility.* (Swift 8)
>
> *… a soundscape is not simply a sum of all these sounds; rather it is a particular subset filtered through the context of a given environmental condition* (Swift 6)

Curiously, wishing to capture these events often blocks these events from occurring. This could be an example of the observer effect, a "common phenomenon where the act of observation can alter the situation being observed." (Swift 3) Perhaps the psychic attention to recording takes valuable attention away from the actual act, a moment of flow, a sort of reset.

Oft noticed is autotelic free play on an instrument -> maybe a moment, groove, emerges - though to capture this! -> stop playing, set up recorder, try to find it again, takes some time, energy is distracted, and the recording then captures this difference and distraction, not the original moment of free play and discovery.

Several strategies to deal with this have been considered:

- a recorder handy and ready to start at the click of a button (requiring minimal attention)
- a recorder always running
- a buffer recorder (capturing the last x-seconds, after the fact)

Setting these to run still requires some forethought, whereas the moments occur seemingly unexpectedly/unpredictably, and most notably while not recording. A possible possible solution is to intrinsically integrate the recorder into the sound ecosystem so that recording is a seamless act with listening while using the system.

as an aside, the work is about sounds situated in spaces. > One of Bernie Krause's tenets is that sounds should experienced in the context of their environment rather than attempting to isolate the sound. (Swift 10)

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1. Swift ↩

2020.06.18/meta | allgaü

archiving process

(voice memo transcription, need to clean)

the archiving process is to have the original raw file, with maybe some markers at the beginning fo the file to talk in what the context of the thing is (first section is meta description). to audition, drop it into a folder that compresses the original file, drops the original onto a hard drive. and it's available for audition in the annotator. layers to configure/toggle:

-timestamp
-place

-mark points of time/regions
-tag/make notes on these markers

That's an annotation added in the process of reviewing. In the process of making/creating the moment you can easily make a marker or start and end a region, which saves some time, then when listening back you already have a place to start watching/listening.

In addition to the manually entered annotation, any interactions with the patches are logged with a line which is the information-preserved-transformation of that interaction. so the interaction is say: route the mic to the speaker, fade up in 10 secs to 50%, do that in first in 5 seconds. this is a simple single line instruction, and this is written down in that way, possibly also as a human-readable, possibly easy to type, format. and this is saved as a log file and can also be toggled, shown on and off in the annotations.

the benefit of also keeping track of all these digital interactions as instructions is one has the easy possibility to change later. what would have happen if we didn't trigger this? so you can remix it later by running it through the patch again, in real time, in this case loading the original file.

the patch saves three files:
-text file: log and annotations
-sound: raw, straight from the microphone
-sound: from patch, exactly what's sent to speakers

with the first two elements, we can recreate the third file, from the list of log instructions. then it can be revisited.

`2020.05.06/meta`

trying to get organized

Goals

- Place Language - Tiny Place Poem
- Emergence in interference patterns
- noise studies
- rhizomatic feedback loops
- Feedback Dialogue
- Feedback systems to inspire play
- piano w thiago
- mawamama
- Realtime composition
- Musical trance/flow contributor/actor
- optimize experimentation - question unorganized/inefficient practice

Ideas

- looper with decay (feedback through effect with adjustable dry/wet)
- matrix/launchpad grid study with field-recorded/live sourced samples
- recorder with easy marker maker

Method

- [x] experiment, outside
- phone setup
- [x] otg cable
- patch matrix?
  - [x] python
- [x] mmp
- go back to places
- [x] organize notes & recordings (maybe in blog-form)

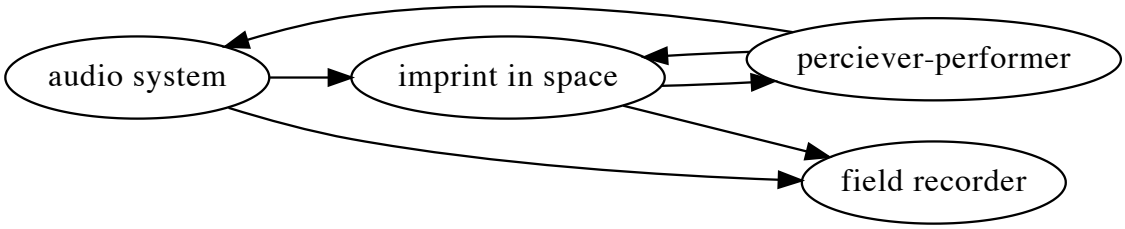
challenges

- noise pollution around NRW...
- the paradox of willing spontaneity and preparing for emergence...

observations

- slowness as generation method
- aesthetics of places in between - soft fascinations: ripples, sunlight on leaves, wind in reeds, caustic reflections, connected to the journey to and from the place, forward movement

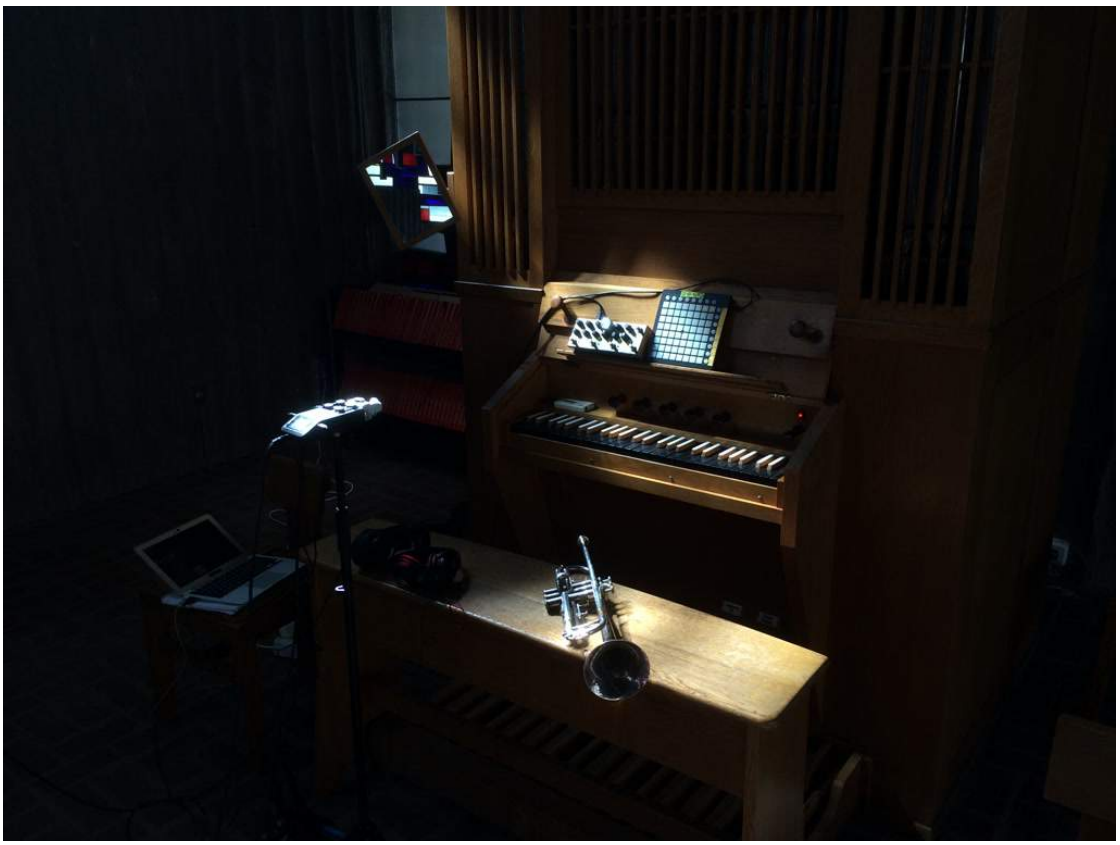
situ.am/records



unedited recordings of experiments, real-time, in situ soundscape mediations

2020.05.14/records

KHG T02



2020-05-14_KHG-1.ogg

▶1-at the piano

03:02 start

2020-05-14_KHG-3.ogg

▶3

2020-05-14_KHG-4.ogg

▶4-on video

03:03 start

2020-05-14_KHG-5.ogg

▶5

2020-05-14_KHG-6.ogg

▶

6-loopy tail

2020-05-14_KHG-8.ogg
8-
05:28 start
06:34 bittersweet (02:42)

Selected recorded improvisations from a sunny morning and afternoon in the Hl. Johannes XXIII church.

2020.05.11/records | pd

Buffer Looper on Launchpad D01

2020-05-11_2200_P17.ogg
damasi

2020.07.29/records | Brüsseler Platz

Brüsseler Platz T02

2020-07-29_123928.mp3
1-echoes of T01 (upstairs at the organ)
02:41 start
08:56 end

2020-07-29_124412.mp3
1-echoes of T01 (downstairs)
02:02 start
09:46 end

2020-07-29_125510.mp3
2-upstairs
01:53 start
13:41 end

2020-07-29_125938.mp3
2-downstairs
01:33 start

2020-07-29_130848.mp3
3-upstairs
01:56 start

2020-07-29_131320.mp3
3-downstairs
01:49 start

2020-07-29_131606.mp3

4-upstairs-thiago playing

2020-07-29_132830.mp3

▶5-upstairs
01:52 start

2020-07-29_1333.mp3

▶5-downstairs

2020-07-29_134514.mp3

▶6-upstairs

2020-07-29_1349.mp3

▶downstairs

2020-07-29_141138.mp3

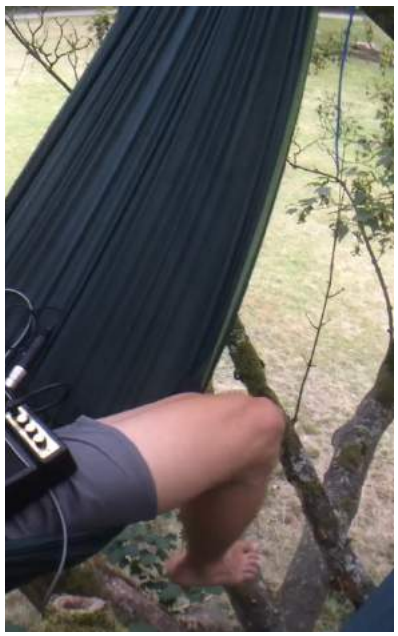
▶playing from church music student

2020.07.26/records | stadtwald

in a tree

2020-07-26_164648.mp3

▶



0:00 / 0:23

2020-07-26_171540.mp3

▶

00:13 start
11:27 reface delay and birds (00:16)

2020-07-26_172942.mp3

▶

04:56 reface battery dies, felix solo (00:17)

short afternoon break to test a delay pedal, two hammocks happened packed, reface cp + moog synth app. echoes of khg plays.

next time: hang mics

2020.07.25/records | Siebengebirge

hülle

2020-07-25_114617_73-adc.mp3

2020-07-25_114617_73.mp3

2020-07-25_114720.mp3

drops

2020-07-25_121704.mp3

2020-07-25_123822.mp3

00:24 start
03:57 end

2020-07-25_124932.mp3

filter rock
00:07 start

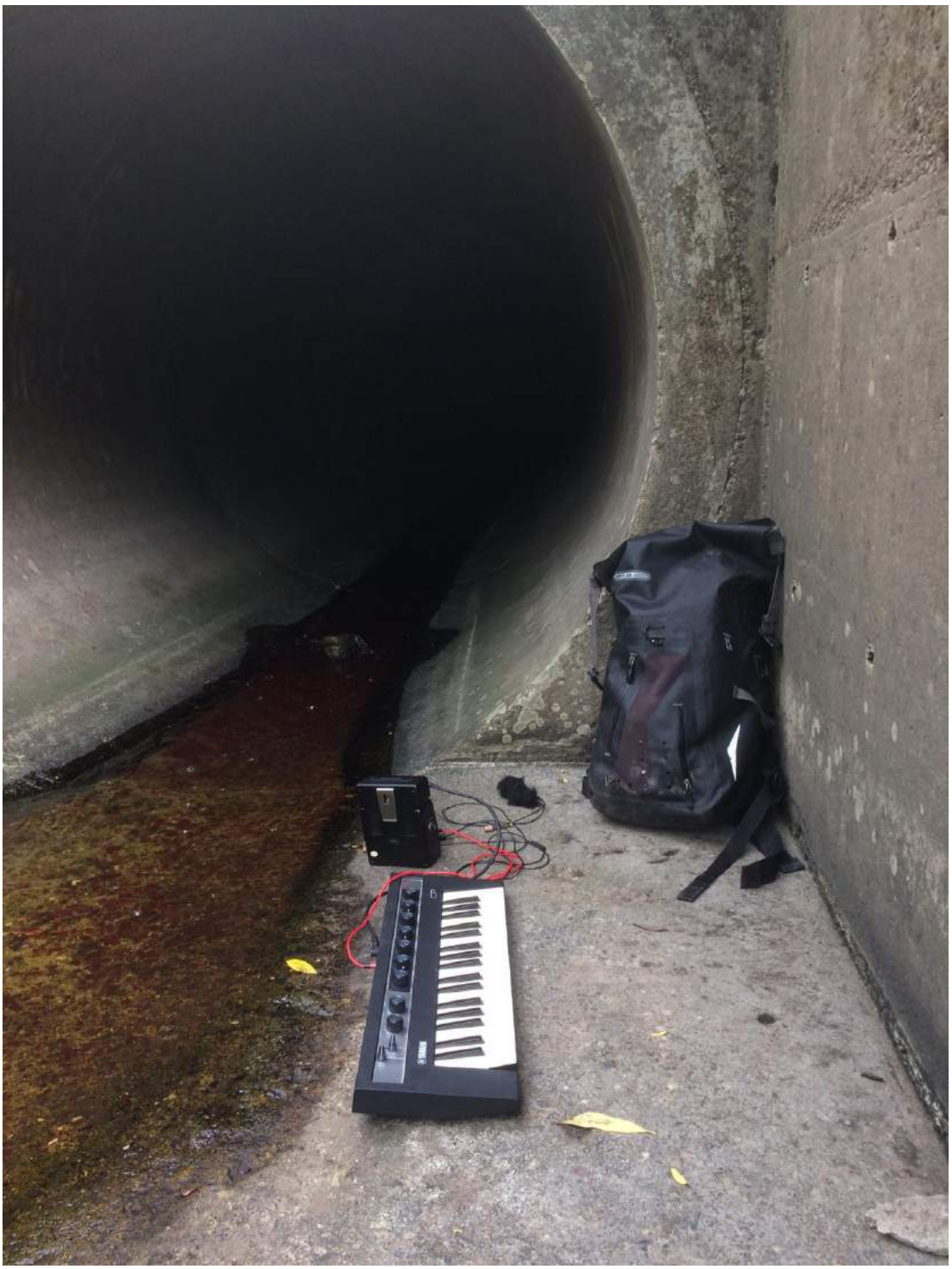
on the train over:
- got the improved routing matrix interface working on the train over

- agreed to set felix up with a simple one-page site that creates annotation entries for recordings, editable by anyone (maybe password-protected)
- make appointments in nice places and get ready on the way…

balancing giving and taking in a space, active/passive, listening/sounding. cold and dark, still air, sensory deprivation.

2020.07.25/records | Königswinter

rheinröhr



2020-07-25_151819_76-adc.mp3

▶pipe

2020-07-25_151819_76.mp3

2020-07-25_151827_76-vm.mp3

2020-07-25_154858_77-adc.mp3

2020-07-25_154858_77.mp3

2020-07-25_154906_77-vm.mp3

2020-07-25_155254_78-adc.mp3
walking on crunchy river rocks (adc~)

2020-07-25_155254_78.mp3
walking on crunchy river rocks

2020-07-25_160252_79-adc.mp3

2020-07-25_161534_80-adc.mp3

2020-07-25_161534_80.mp3
reface rhein

2020-07-25_161811_80-vm.mp3

2020-07-25_162834.mp3

2020-07-25_164001_81-adc.mp3

2020-07-25_164001_81.mp3

finally found the pipe not looking for it.

testing routing matrix

2020-07-23_132211_71-adc.mp3

2020-07-23_132211_71.mp3

testing small compact battery-powered setup: reface cp, marshall ms-2, ma

+
flexible routing into pitch shifters, slow changes

-
hard to see value of loudness in the router

idea:
- [x] changing interface so that holding down pad moves 'set value' to current value
- [ ] expose loop in-out-fade time

^ where the process of experimentation is more interesting than the recording itself, and the experience of the process reveals desire lines and areas for improvement

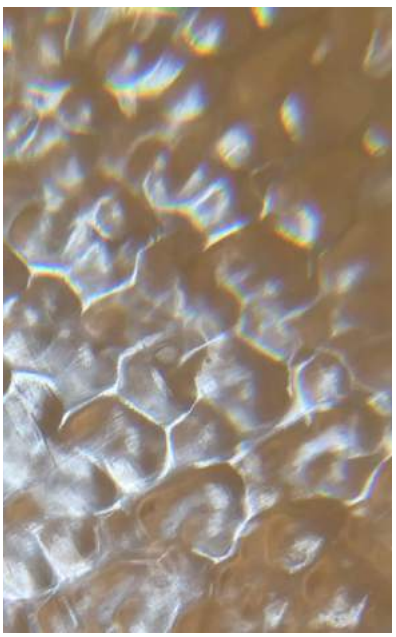
2020.07.21/records | Münster

Münster Kirche

2020-07-21_152824.mp3

2020-07-21_160126.mp3

2020-07-21_161050.mp3



0:00 / 3:01

2020-07-21_175118.mp3

2020.07.20/records | Duisburg

Landschaftspark Duisburg

2020-07-20_114708_LS_50540.mp3

▶racket

00:20 start

2020-07-20_120328_LS_50542.mp3

▶bells

2020-07-20_135622_LS_50543.mp3

▶

found object

2020-07-20_140940_68-adc.mp3

2020-07-20_140940_68.mp3

00:47 start

2020-07-20_141610_69-adc.mp3

2020-07-20_141610_69.mp3

found object mediation in situ

2020-07-20_141657_69-vm.mp3

17

2020-07-20_143847_70-adc.mp3

2020-07-20_143847_70.mp3

2020-07-20_145422_LS_50544.mp3

2020-07-20_213536_LS_50545.mp3

Rohrklang

2020-07-20_091042_62-adc.mp3

2020-07-20_091042_62.mp3

2020-07-20_094934_LS_50539.mp3

2020-07-20_095719_63-adc.mp3

2020-07-20_095719_63.mp3

2020-07-20_095742_63-vm.mp3

2020-07-20_101243_64-adc.mp3

2020-07-20_101243_64.mp3

2020-07-20_101710_65-adc.mp3

2020-07-20_101710_65.mp3

2020-07-20_102204_66-adc.mp3

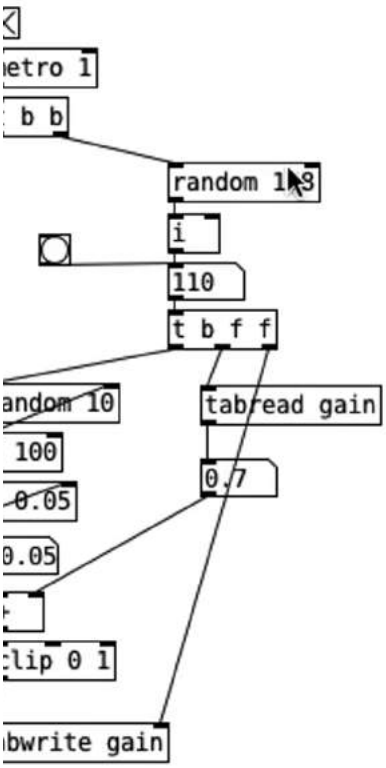
2020-07-20_102204_66.mp3

2020.07.13/records

fft filter

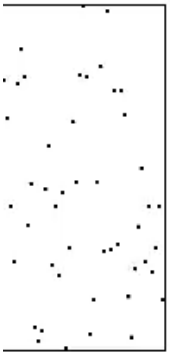
2020-07-13_134802.mp3

00:00 radio, stream filter (00:17)
00:56 rm piano (01:21)
00:25 choir fade in (00:27)
02:28 choir pitchshifting, filter play (01:54)



0:00 / 1:22

0:00 / 1:51



0:00 / 1:32

on the way to a fft resynth

2020.07.07/records | St. Michaels, Brüsselerplatz

Orgelstunde

> 2020-07-07_BrüsselerPlatzOrgel_1.mp3
>
> victor demo
> 00:53 flutes (00:34)
> 06:24 strings (00:39)
> 07:03 strings, flutes, sunshine/spring (00:53)

> 2020-07-07_BrüsselerPlatzOrgel_3.mp3
>
> 02:41 start
> 06:23 bass, yoshimura~ (02:15)
> 11:34 beating (00:21)

0:00 / 0:11

0:00 / 0:27

A serendipitous organ hour at the St. Michaels church in Brüsseler Platz. Standing in the middle of the church, kids play outside, filter through, reverberate. Victor switches the organ on, a low hum, a deep breath fills the space. Soft flutes tumble in, strings and bass sounds smoothly drift into eachother.

Victor invites us upstairs for an organ hour with the *Baroque Synthesizer*, displaying the voice options assigned to three keyboards, foot pedals, volume pedal, flexible coupling.

for next time:

- try a two stereo-mic setup:
  - in front of organ (in player's position) to capture wide stereo image
  - in middle of church, for reverb, outside sound, trumpet
- felix free to move around the space with trumpet

`2020.06.26/records | ul | p17`

mnmlma

> `2020-06-26_141933_ma-iphone-piano.ogg`
> ▶14:19

> `2020-06-26_170559_mnml-ma-piano-2.ogg`
> ▶
> 04:58 start
> 01:18 glitch synth (00:05)
> 05:02 qdb (01:04)

testing the patch running running simply on iphone using built-in mic. the lightness and lack of cable connections afford an intuitive movement of the integrated mic as dry/wet modulation.

```
tapeshift~ = pitch -12, window ~100, delay ~100
process = adc~:tapeshift~:dac~
```

`2020.06.25/records | ul`

feedback matrix

> `2020-06-24_110512_feedback-1.ogg`
> ▶something from nothing part i
> 13:01 start

> `2020-06-24_110956_feedback-2.ogg`
> ▶part ii

`2020.06.20/records | field recording | Allgäu`

walking down

> `2020-06-20_084248.ogg`
> ▶

2020-06-20_084248[vm].ogg

2020-06-20_084726.ogg

filter walking

01:09 start

2020-06-20_090718.ogg

filter walking

00:04 approaching cowbells (00:31)

00:37 filterplay (00:22)

2020.06.19/records | field recording | allgäu

in the rain

2020-06-19_1939.ogg

under umbrella

2020-06-19_1954.ogg

under umbrella, filter play

10:05 end

2020.06.18/records | field recording

allgäu

2020-06-18_1124.ogg

▶waterfall mic movement

01:10 end

2020-06-18_1232.ogg

▶cowbells
00:04 start
00:15 end

2020-06-18_1233.ogg

▶cowbells approaching

2020-06-18_1238.ogg

▶cowbells walkthrough

2020-06-18_1240.ogg

▶walking

2020-06-18_1701.ogg

▶light rain hiss
00:33 start

2020-06-18_1805.ogg

▶

00:03 start

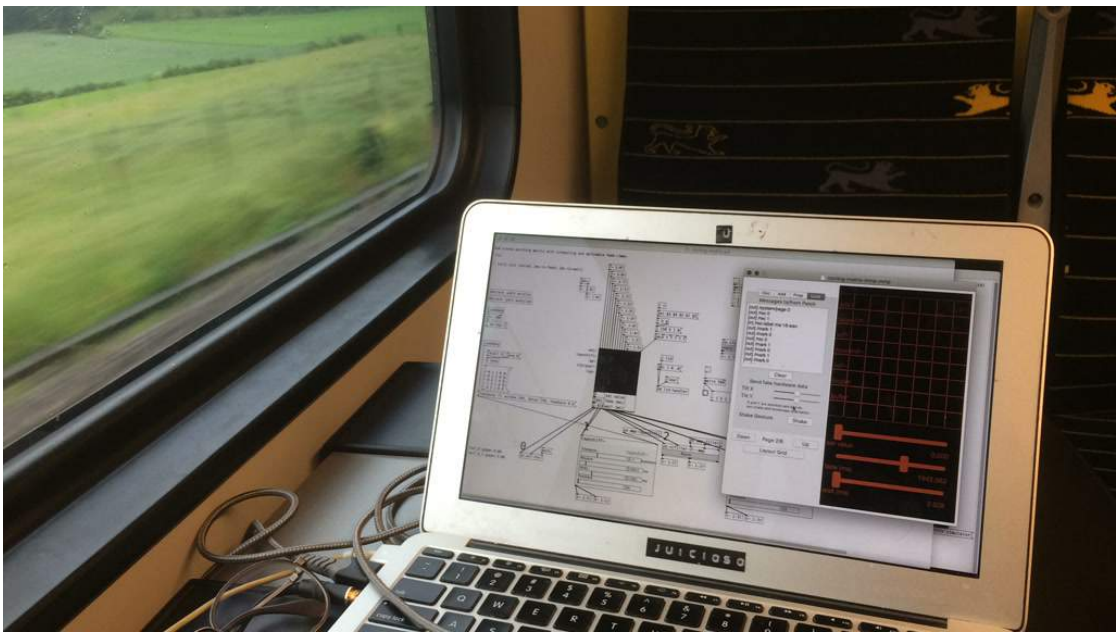
2020.06.16/records | pd

train to allgäu

2020-06-16_0133.ogg

▶

06:15 fade to train (00:15)
03:04 piano and train (01:41)
00:19 train fades in (00:38)
00:12 start



a space in-between, a space on the way. mediating the loud train ride through a macbook microphone and earlier piano sample to test functionality of the patch accidentally re-situates the listening experience as active and real-time.

> *the presence of everything, nothing shouts importance … quiet is quieting …*
> *(Gordon Hempten)*

`2020.06.14/records | field recording`

ginsterpfad ambience

> `2020-06-14_2055_ginsterpfad-ambience.ogg`
> ▶
> 00:34 start

`2020.06.14/records | pd`

routing matrix pt. 2

> `2020-06-14_0939.ogg`
> ▶
> 01:20 start
> 03:39 end
> 01:54 crackly (00:18)

> `2020-06-14_0959.ogg`
> ▶
> 01:03 start
> 01:43 tapeshift~ fade in (00:13)

> `2020-06-14_1022.ogg`
> ▶
> 03:50 start–end but it clips (01:06)
> 03:30 start

> `2020-06-14_1306.ogg`
> ▶

in situ slow-evolving conducting/scheduling

first thing in the morning, open up the routing-matrix patch from yesterday, pull in a looped piano recording.

filtered in feedback and filtered again.

```
route tapeshift~:dac~ 1 10000
X
|
metro 125
```

|

```
route sf~:dac~ 1 0; route sf~:dac~ 0 0 10
```

patch.pd

```
2020.06.13/records | pd
```

routing matrix

```
2020-06-13_1305.ogg
```

```
2020-06-13_1308.ogg
```

```
2020-06-13_1317.ogg
```

```
2020-06-13_1318.ogg
```

```
2020-06-13_1322.ogg
```

```
2020-06-13_1642.ogg
```

```
2020-06-13_1805_stadtwald-crickets.ogg
```

```
2020-06-13_2042.ogg
```

```
2020-06-13_2101.ogg
```

routing matrix with variable fade-time working

patch.pd

recordings feature prominent low-end ambience from traffic - how to use this?
filter it out?

```
2020.06.12/records | field recording
```

Wassermannsee

```
2020-06-12_1119.ogg
```

00:25 start

2020-06-12_1128.ogg

2020-06-12_1856.ogg

under umbrella, filter play
04:36 hly (00:38)

2020-06-12_2034_Wassermannsee.ogg

wind through reeds, loud ducks. off-recorder mics make cue-making (almost) silent.

2020.06.11/records | field recording | Ginsterpfad

Am Ginsterpfad

2020-06-11_2036.ogg

rm

2020-06-11_2049.ogg

rm

2020-06-11_2131.ogg

00:29 start

2020-06-12_1856.ogg

walking soundscape, slowly-changing filters as attention-prompts. elements:

- footstep rhythm
- how to deal with traffic drone?

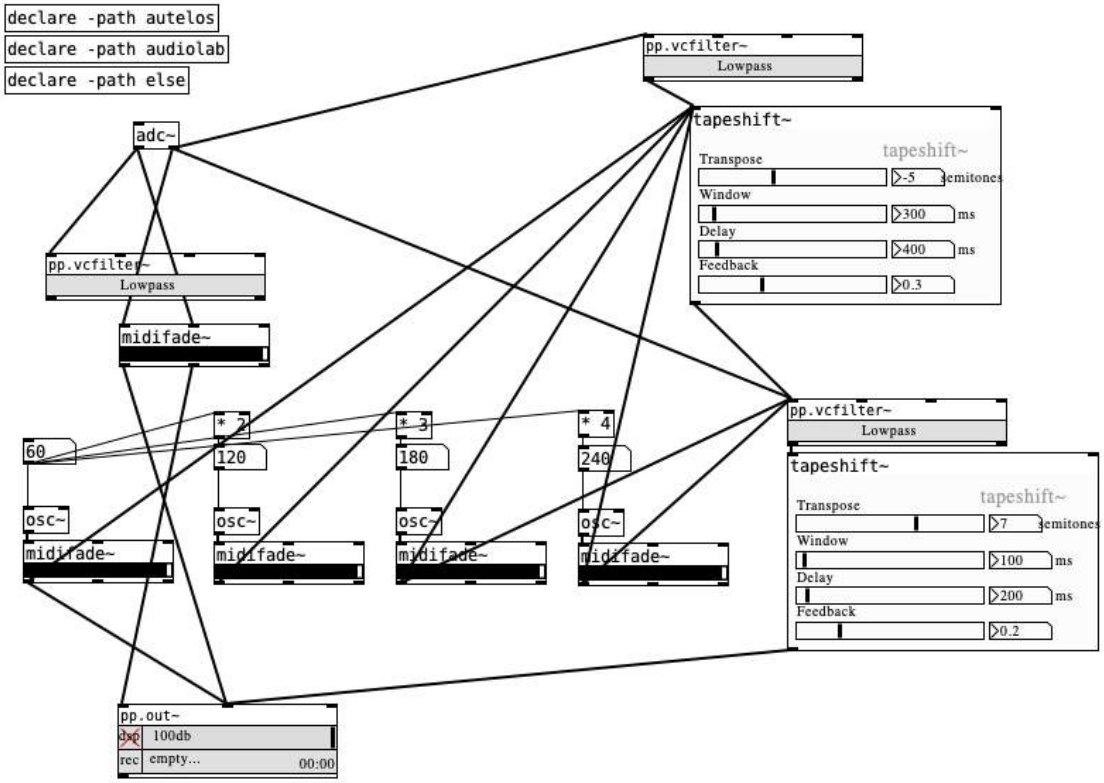
2020.06.11/records | pd

pd in the park

2020-06-11_2140.ogg

17:37 sine wave play (02:36)
17:24 start
20:32 kids in bg (00:21)

how to work with droning car sounds? trying to reinforce/mask them with sinewave organ.



pd in the park patch

2020.06.09/records | pd | p17

buffer/grid looper, piano

> 2020-06-09_121053.ogg
>
> ▶asynchronous piano loops and tapeshift~
> 00:27 start
> 07:46 maybe remove (feedback) (02:00)

> 2020-06-09_2352.mov
>
> ▶

2020.06.07/records | pd

[pp.grainer~] T03 organ

> 2020-06-07_122700.ogg
>
> ▶
>
> 04:40 tapeshift~ organ (00:21)
> 07:53 ear tickle (00:19)
> 08:24 feedback tapeshift~ (00:13)
> 01:49 emergent rhythm (01:36)

> 2020-06-07_1356.ogg
>
> ▶organ through grainer

> 2020-06-07_145600.ogg
>
> ▶

> organ through grainer

> 2020-06-07_194200_grainer-vox-test.ogg
> ▶vox

testing sequencer with pp.grainer~ and KHG organ sample

```
process=khg-organ.wav:pp.grainer~

[pp.grainer~]<:([tapeshift~].[pan~].[fade~],2)
```

2020.06.06/records | pd

G01

> 2020-06-06_211452.ogg
> ▶ma jumps on piano loops
> 01:03 start
> 01:50 key change (00:10)
> 04:28 emergent rhythm (00:17)

ma jumps on piano loops

2020.06.05/records | pd

2020-06-05_102557

> 2020-06-05_102557.ogg
> ▶mnml ma
> 01:44 start

2020.06.04/records | pd

2020-06-04_221410

> 2020-06-04_221410.ogg
> ▶

patch notes: two asynchronous loops, one ma loop

tapeshift~ delay on live input

would be nice: easy control of tapeshift~ volume (at least)

2020.05.30/records | pd

krupp gm7 and the dogs outside

> 2020-05-30_142454.mp3
> ▶

testing chord with rhymthic 1/8 playpos jumping as carpet

listened through through schmalfußs tape-IR. consider feeding through, re-recording?

todo: add playpos-jumping module

2020.05.25/records | pd

2020-05-25_175236

> 2020-05-25_175236.ogg
> mit johann
> 00:33 start

past sound as rhythmic pulse

spring between random segments of the loop

```
every 1/8, jumping 1/8*lengthOfLoop * random(8)
```

2020.05.22/records | pd

2020-05-22_174851

> 2020-05-22_174851.ogg
>
> 04:05 tapeshift~ (00:24)

1 mic in room with piano with loops and tapeshift

fix:

- [x] changing cycle length after buffer loop is made removes sound

todo:

- [x] autogenerate meta.md
- [x] include file automatically
- [x] include date automatically
- [ ] convert to mp3?
- [x] offer voice memo feature? /
- [ ] auto-open text editor with meta file?

2020.05.20/records | pd

Buffer Looper-Router

> 2020-05-20_1921.ogg
>

getting back to the launchpad-looper-router-interface, checking that it works as expected after a few days away. testing with a sample

patch notes: sample (taiwan-junglebirds.wav) looped, buffer looped, routed into tape-shift effect with feedback, starting to find something, hit record

todo:

- [x] get input routing working, so that can happen on the pad
- [ ] get resonanant filter+tapeshift also mapped to pad buttons
- [x] add record button to launchpad

2020.05.09/records | visuals | Stadtwald

wind on grass

2020.05.03/records | visuals

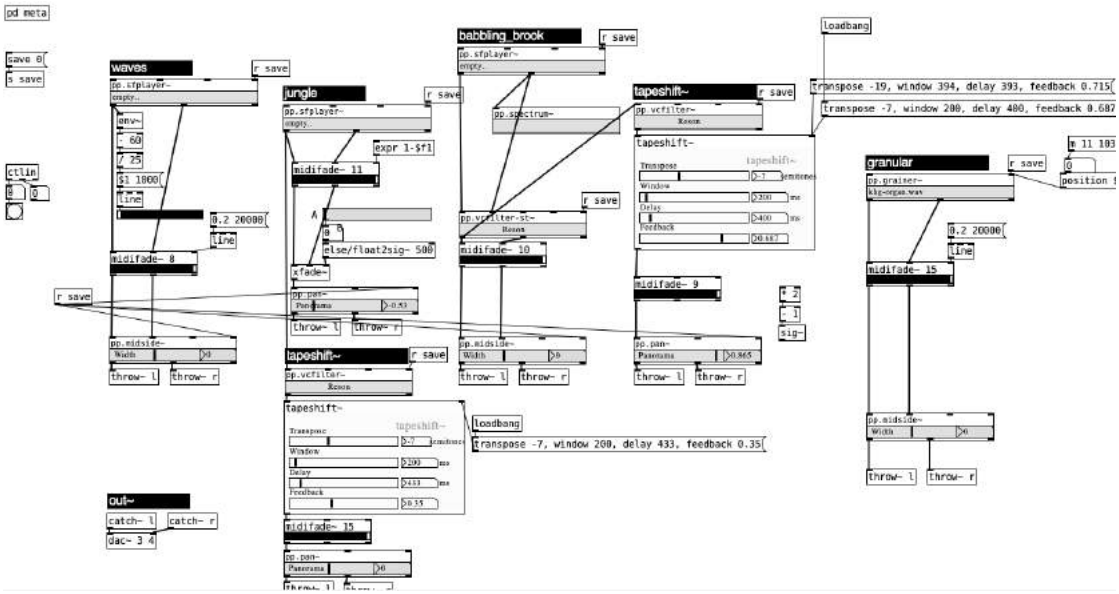
on screens

0:00 / 0:33

Trainsketch Taiwan

2020-03-10_171703_taiwan-trainsketch.ogg

▶on a train, taiwan samples goldenstone



taiwan-trainsketch.pd

2020.03.01/records | field recording

Taiwan

[todo] insert field recordings

2020.02.15/records | pd

Trumpet Drone in Wallraf-Richartz Museum

> 2020-02-15_182316_felix-wallraf.ogg
> ▶
> 07:49 start

2020.02.14/records | pd

crinkly plastic bag -> water sound

> 2020-02-14_200851_marie-plasticbag.ogg
> ▶

2020.02.05/records | todo

mawamama t01

> 2020-02-05_225924-mawamama-t01.ogg
> ▶mawamama t01 in a small room with a piano
> 03:43 auto-regulating larsen tones (00:39)

first take of improvising in dialogue with an active figure-ground delayline modulation feedback. the length of a sound-object (distinguished as a ‘figure’) modulates the length of a delayline such that sounds made in a room are fed back to the room at varying–controllable–later times. pitch-shifting artefacts of the moving delayline abound.

with heiwa wong, marie stremmel, david martens

2020.02.02/records | pd

sine/piano drone

> 2020-02-02_154031_sinedrone_1.ogg
> ▶

2020.01.18/records | visuals

Ginsterpfad Caustics

0:00 / 0:08

2019.12.07/records

Bozen

2019-12-07_Bozen_F01.ogg

▶B01

2019-12-07_Bozen_F02.ogg

▶B02

A handheld zoom capturing a waterfalls fed through Microbrute sequenced filter formed the basis for later keyboard overdubs.

2019.12.05/records | field recording

Bozen T02

2019-12-05_122648-LR.ogg

▶icy stream

2019-12-05_122912-LR.ogg

▶icy stream 2

2019-12-05_122912-Tr1.ogg

▶

2019.12.03/records | field recording

Bozen T01

`2019-12-03_121832-Tr2.ogg`

▶microbrute sequence with stream line-in
00:01 start

`2019-12-03_122620-Tr2.ogg`

▶longer microbrute sequence with stream line-in

`2019-12-03_185142-LR.ogg`

▶falls in the distance

`2019-12-03_185338-LR.ogg`

▶falls in the distance 2

`2019-12-03_185454-LR.ogg`

▶falls moving

situ.am/modules

a collection of pieces to be put together in varying configurations

2020.01.23/modules/pd

Figure-Ground Delayline Modulator

the length of a sound-object figure modulates the length of a delayline
sounds received are fed back at varying, controllable, later times
varying the change in speed pitches the sound being fed back

used in: mawamama t01

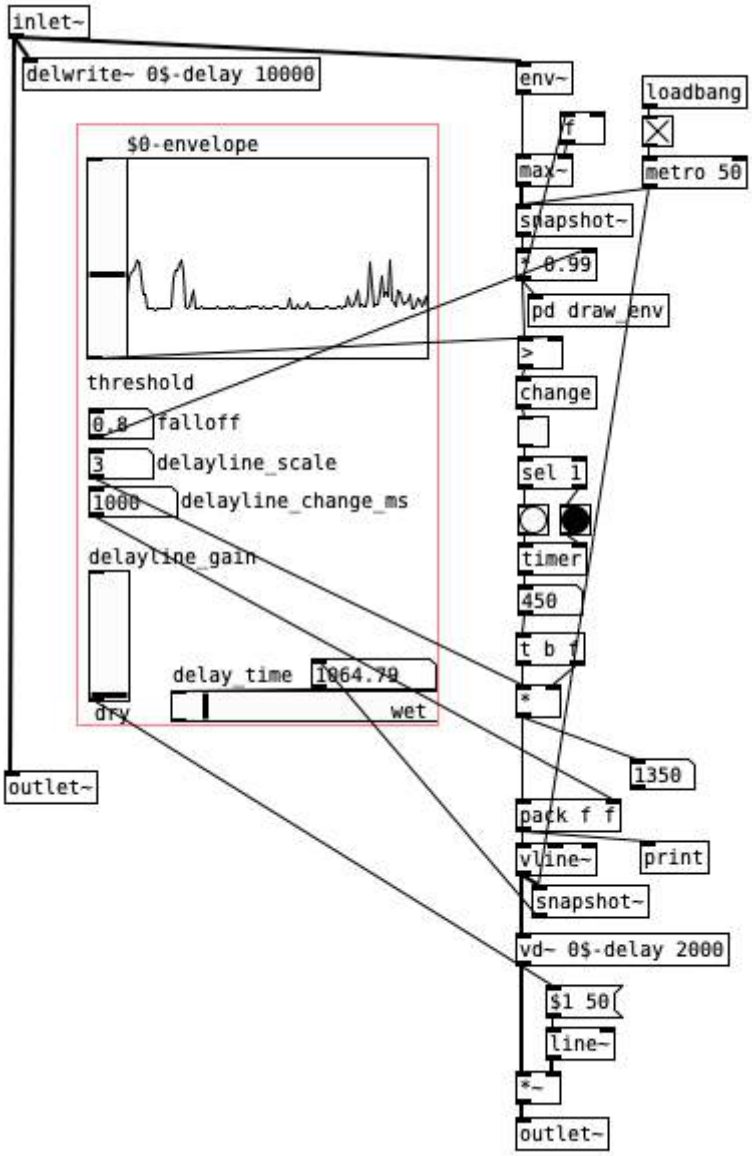


figure-ground-delayline-modulator.pd
figure-ground-delayline-modulator-help.pd

annotator

annotator _ presents recordings with possibly defined start position, end position, highlighted/annotate regions, and regions marked for removal (which are skipped over), offering an easy and potentially collaborative in-browser possibility of annotatating and non-destructively presenting snippets in the context of their longer recordings. regions made can be exported to a reaper project.

how to use:

- click on recording to load soundfile, waveform, and start playing
- click and drag on waveform to create and select region
- type to annotate (some commands are interpreted):
- `start`
  - sets start position, fades in length of region
- `end`
  - sets end position, fades out length of region
- `rm`
  - skips region with fade-in/fade-out
  - currently set to 500 ms fade
  - [ ] add variable fade-in/fade-out times
    - eg. `rm 500`
  - [ ] add crossfade

note: adding/changing annotations is currently password-protected
- [ ] add guest user login

roadmap

- [ ] offline mode
- [ ] video player - annotate video
- [ ] add highlight/star/rating capability
- [ ] fix sometimes being overwritten bug
- [ ] add play/pause button next to waveform
- [ ] display file length
- [ ] mark recordings for removal (syntax: rename with 'rm' at start of)
- [ ] for slomo videos: option to change playback speed and set+save default playspeed. how to deal with the slow-motion recordings (120fps captured on iPhone 5s)? maybe the annotator shows the fps and exposes the option to change playback speed, with the last-selected setting sticking?

- how to display multitude of files connecting to single recording moment? small mixer between mic input and sound output with preset setting?

2020.07.30/modules/pd

out-recorder~

stereo audio monitor and recorder. toggling record outputs two stereo .wav files to the disk - the audio sent to the first two inlets (x.wav) and the stereo microphone in (x-adc.wav). filenames are incremented. while recording, marks can be made, output to a text file on the disk. after recording, a voicememo can be optionally recorded from the microphone in (named as x-vm.wav).

requires `rec-count.txt` to keep count.

inlets: in-L, in-R, message

messages:

- `[/rec 1(` start recording two stereo audio files (inlets 1 2, adc~ 1 2)
- `[/rec 0(` stop recording
- `[/rec-voicememo 1(` start recording voicememo
- `[/rec-voicememo 1(` stop recording voicememo
- `[/mark 1(` outputs index of file followed by timestamp to `markers.txt`

out-recorder~.zip

2020.07.30/modules/pd

container

a container MobMuPlat patch for pure data modules that currently consists of that runs on iphone:

- 5d routing matrix for on-the-fly routing with scheduled attenuation fades between:
- 2 filters
- 2 pitch shift delays
- 2 loopers
- buffer looper
- recording module

`2020.07.30/modules/archive`

website

the website is built on pelican, a static generator that converts folders of markdown files to a static site. this allows the entire structure of the site to exist simply as text files with minimal markup. it is mostly used as is, aside for the addition of the annotator javascript app, the flow of which is as follows:

add session entry, all fields optional:

```
YYYY-MM-DD_test-entry.md


---
title: no title
date: YYYY-MM-DD
media: *.mp3, *.mp4, *.mp3
cover: *.jpg
---


some description
```

the list of media files specified in the yaml metadata output a list of `div`s:

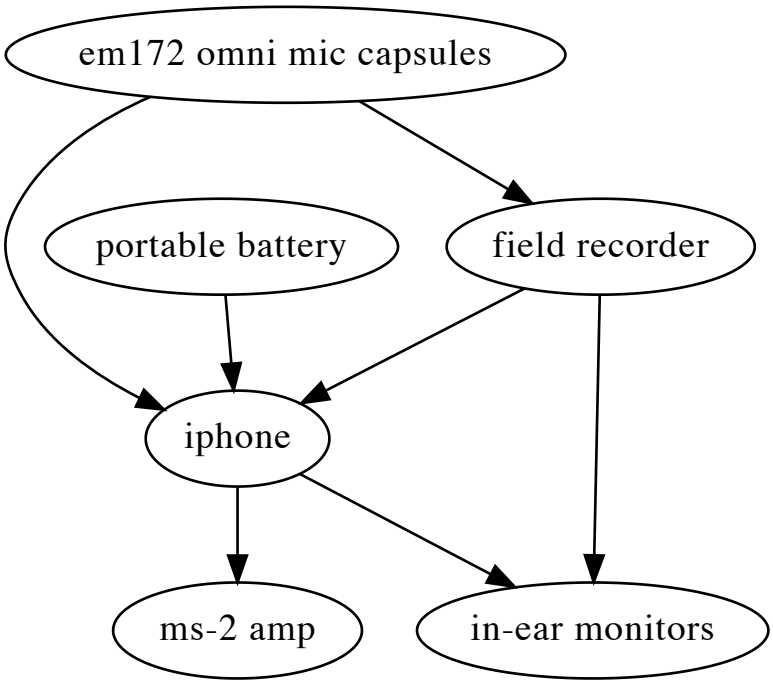
```
<div class="sfplayer" id="soundfile-1.mp3"></div>
<div class="sfplayer" id="soundfile-2.mp3"></div>
<div class="sfplayer" id="soundfile-3.mp3"></div>
<script src="app.js"></script>
```

`app.js` on page load fills in each div with a sound file player interface. then it checks if there exist annotations for the soundfile, which are saved simply as .json files on a (currently separate) PHP server. if there are, a list of (labeled) regions and a title are filled in.

the title is content-editable, meaning it can be edited directly on the page, and any changes made are saved live back to the soundfile.json file. any changes to the annotations are similarly auto-saved to the server. the php scripts that handle this are placed in a password-protected folder on the server, making for a crude but functional at this scale authentication-required to make changes to the annotations.

2020.07.28/modules

portable collection



a small collection of physical modules with different possibilities for interconnection depending on the situation that arises, chunked as follows. in assembling this kit, preference is given to small and light vs big and bulky, trying to always carry with:

- field recorder (olympus ls-5)
- battery case
- battery
- otg+usb cable to connect field recorder to iphone
- usb/lighting cable to charge iphone
- iphone (running PD container patch)
- wide angle/macro lens
- crystal prism
- headphone case
- in-ear monitoring headphones
- omni mic caps (primo em172)

- headphone/mic splitter
- headphone splitter

sometimes also:

- yamaha reface cp keyboard
- usb cable
- ms-2 amp
- bluetooth speaker

Digital Components

iphone runs MobMuPlat, a container app for Pure Data patches, which in turn runs:

- container patch that holds the 5d routing matrix and modules to be developed along the way. (currently, filters, pitch-shifting delays, jumping loopers, buffer looper) (planned, resynth)
- recorder which captures raw mic input, sound that is output, and a voicememo

`2020.07.22/modules/archive`

archiving workflow (current status)

currently:

- recordings are made on phone (in _ app), videos, voice memos, olympus field recorder
- after session, files saved to `0_process` folder on computer
- running `process.sh` script inside this folder:
  - prepends/renames files with creation timestamp
- converts/compresses each file to the relevant filetype for the web-friendly archive
  - mov: mp4
  - wav, aac: mp3
- moves the original files to `1_originals`
- moves the compressed files to `{static}/media` folder
- generates a markdown session file

folder structure:

```
| 0_process
  | *.mov
  | *.wav
```

```
  | *.aac
  | process.sh

| 1_originals
```

markdown file

```
---
title: (insert title here)
date: YYYY-MM-DD
media: *.mp3, *.mp4, *.mp3
---

(insert description/related notes/ideas here, before forgetting)
```

ideally:

- save to dropbox/google drive folder
- server-side watcher auto converts and generates entry?

2020.06.23/modules/archive

inverting images (pd screenshots)

tiny markup in markdown allows for easy client-side image-inverting

CSS:

```
img[src$='#pd-screenshot'] {
  filter: invert();
  mix-blend-mode: screen;
}
```

Markdown:

```
![alt]({static}/patches/demo.pd.png#pd-screenshot)
```

2020.06.20/modules/archive

managing recordings

Generally, the archive/annotator displays a light, web-friendly version of the files for viewing, with the originals stored elsewhere, as the raw files quickly fill up storage space.

The files are timestamped with their creation date (YYYY-MM-DD_HHMMSS.*) to enable easy sorting and individuality and reinforce that they were created at that time and not edited afterwards.

scripts

a collection of file managment bash scripts, meant to be run in a folder of raw files. requires ffmpeg.

wav-to-mp3.sh
renames *.wav to file creation timestamp and compresses to mp3, returns list of mp3 files

mov-to-mp4.sh
renames *.mov to file creation timestamp and compresses to mp4, returns list of mp4 files

jpg-to-web.sh
renames *.jpg to file created timestamp, compresses and resizes jpg images for web, returns list of jpg files

`2020.06.19/modules/pd`

5D routing matrix

A 5D routing matrix for PD affords programatic/instruction-based access to conduct signal routing on-the-fly with variable destinations, fade-time, and scheduling (wait x-ms first).

Syntax:

```
[; route <out> <in> <value> <ms-to-fade> <ms-to-wait>(
```

This effectively decouples the patching interface from the PD GUI, allowing control to be given to, ie., the MobMuPLat touchscreen interface, which implements a grid control and 3 sliders (value, ms-to-fade, ms-to-wait).

This also exposes the potential for live-coding/text-based triggering, ie:

```
[x]
|
[metro 100]
|
[; route <dac~> <adc~ 1> 1 10 0; r <dac~> <adc~ 1> 0 10 20(
[x]
|
[metro 101]
|
[; route <dac~> <adc~ 2> 1 10 0; r <dac~> <adc~ 2> 0 10 20(
```

2020.06.19/modules/pd

buffer looper

- [ ] document

2020.06.06/modules/pd

ma-jumper

- [ ] document

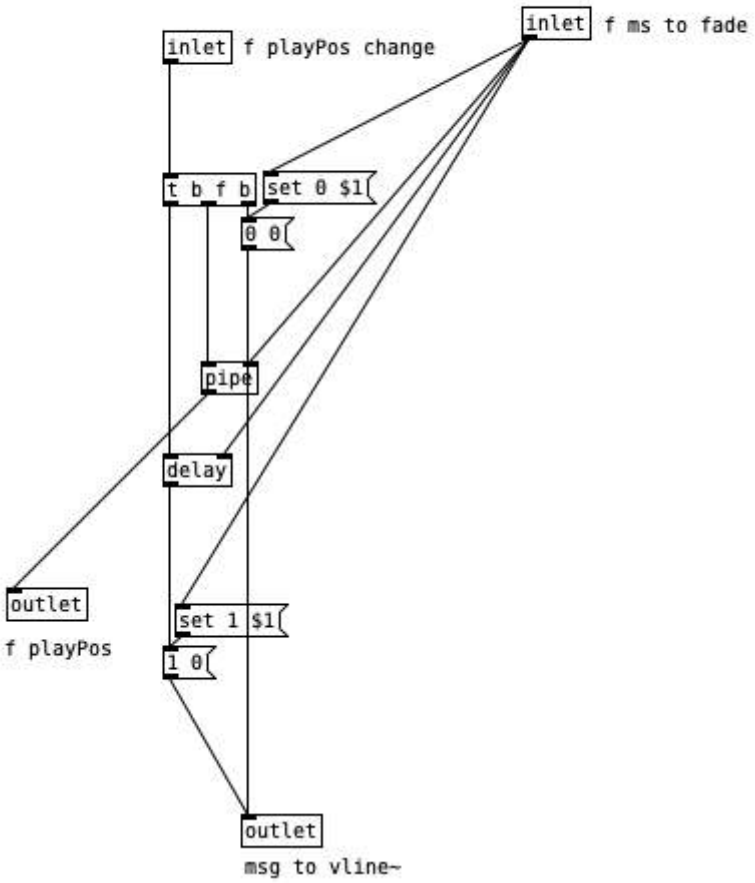
2020.06.06/modules/pd

[pd smoother] T01

[pd smoother] handles timing for fading level to zero while changing playPos

```
handles timing for fading level to zero while changing playPos

inlets: [f] playPos, [f] ms to fade
outlets [f] playPos, [msg( to vline~
```



2020.05.18/modules

portable sound setup options

- field recorder with rich expressive convulution/mixing control layer
- recorder with marker support
- visual sonifier

hardware options

PiSound + Raspberry Pi

components required:
- RPI: 35€
- PiSound: 99€
- SD card: 10€
- Battery

pros:
- dedicated device
- stereo audio in/out

explorations:
- [ ] document pisound explorations

findings:
- noisy preamp
- package is bulky and heavy

Phone

- iphone 5: 40€ (used)
- otg cable: 20€
- audio interface/field recorder: 60€

decided to proceed with phone setup to reduce complexity, given the availability of MobMuPlat container app, and since it's a device most always carried around anyway.

Bela Mini

- Bela Mini: ~67€, bela.io
- PocketBeagle-SC-569: 27€, mouser.de
- MicroSD card: ____
- Battery: _ (3.3V)

situ.am/plans

a place to keep ideas and plans to work on later

- [ ] fill archive with experiments already done
- [ ] add khg t01
- [ ] add soundscape 1&2 with felix
- [ ] add visuals from bozen, tunnel, eifel
- [ ] go through proposal, create experiments/modules for each element
- [ ] document modules + at least one test demoing
- [ ] phase looper. from one loop (maybe tail of a banjo/piano key) create two loops, 1 unit length and 1.01(?) unit length. filter one slowly up, filter other slowly down.
- [x] asynchronous piano/synth loops playing on pitchshift-delay

`2020.07.29/plans`

website as ambient player

getting into web audio for the the annotator exposed the potential of using the website as more than just a static dry serving of snippets

for example:
- cut-up/juxtaposing two randomly selected recording to create new interactions between them.
- maybe suggested pairings of recordings? and slow fade in and outs, ala mynoise.net

progress:

situ.am/juxtapose
website that overlays two randomly-selected video files from a public google drive folder. successfully accesses drive folder and overlays videos with css blending modes.

(wishing to still smooth more the process of getting recordings onto an accessible website, decided to look into google drive implementation, opening up the possibility of, for example, directly saving iphone recordings to this folder, and easily opening up the process to others)

try:
- randomly overlay highlighted regions of two audio files

2020.07.12/plans

resynth

how to work just with sounds in environment? idea for a resynth by upstairs neighbor and composer pablo garreton.

integrate resynth for drone from impulse
- look into pd fft analysis and resynthesis
- found working example of fft filter on [pd-tutorial.com] (http://www.pd-tutorial.com/german/ch03s08.html)
- a filter to fight with emerges

2020.06.18/plans | allgäu

transcribed from pocketbook

transcribed from pocketbook in reverse chronological order

- [x] 5D routing matrix
  - on the fly routing patching control
  - log of interactions affords easy real-time scripting interface
    - 'limiter' of too much clipping could undo last interaction from log?
      - although this only works if feedback was caused by digital interaction, not change to audio in
      - sequencer interface for phone
- stopping at the places in between
- walking soundscape
  - footstep rhythm
  - car drone
    - how to work with?
- [x] make marker in patch
- pd log
- ma - empty containers
- rhythmic moving playheads
  - how to deal with clicks?
    - [x] pd-smoother (envelope)
- buffer recorder recalls ephemeral moments
- moving image as lo-fi sound processor/convolver
- ultralight setup
  - [x] pd x mobmuplat
- diffusion and routing as percussion (ambisonic/further away/filtered)

- emergence in gifs, live-arppegio-code
- emergence on the border of control
- sound object delay line… blurring figure-ground by delaying figure-ground
  - [x]
  - delayline changing speed can be octave/interval
  - moving delayline as rhythmic/textural harmonizer
  - gesture -> rhythmic delay texture
  - slow gestures as play with space/time
  - texture from multiple delay lines,
  - delay line, listening again
  - when changing delay line length, fade it out / have variable gain
- environmental music: amplifying/using what is already there
  - attention restoration theory
  - walk every day

meta

- Titel: situ.am
- Prüfungsstufe: Bachelorarbeit
- Ort: Technische Hochschule Köln, Fakultät für Kulturwissenschaften, Köln International School of Design
- Betreuer/in und Lehrgebiet: Prof. Dr. Lasse Scherffig, Interaction Design
- Autor: Martin Simpson
- vorgelegt am 30.07.2020
- Bachelor Integrated Design
- Paginierung:

Hiermit versichere ich, dass ich die Arbeit – bei einer Gruppenarbeit den entsprechend gekennzeichneten Anteil der Arbeit – selbstständig angefertigt habe und keine anderen als die angegebenen Quellen und Hilfsmittel genutzt habe. Zitate habe ich als solche kenntlich gemacht.

– Köln, den 30.07.2020