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Music for Oneself

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Introduction

Music for Oneself was an event I created for my master's recital for an MA in Composition and Music Theory at the Hochschule für Musik Basel, which took place on June 4, 2016, at the Jazzcampus of the Musik-Akademie Basel. As the title suggests, the event was focused on the notion of *music for oneself*, which can be traced back to the third brainstorming session I had for *CompositionCloud*[1],[2] as well as to my belief that art can also be experienced alone or even just be imagined. At *Music for Oneself*, this notion was manifested in the form of a mobile app and five "images":

- The app, titled *MUSIC FOR ONESELF v1*, guided visitors through a solitary and partially imagined musical experience, giving them instructions for where to go, what to listen to, and what to imagine, but also allowing them to create their own chain of events, their own imagined sound story.

- The five "images", consisting of an interactive audiovisual installation (*d9-tgoc_aCVPsG*), a performance (*"Just Representations?"*), and three videos played on laptops (*aLoneTreeReadsImaginarySounds*, *etv-HK_Rg*, and *10d_6sxsch-MVP_Wsb*), provided visitors with the opportunity to reflect on what music for oneself could be.

This book, organized in two chapters and six appendices, is a compilation of texts concerning this event: chapter 1 describes the process of creating the app; chapter 2 deals with the five "images"; and the six appendices contain information about other closely related ideas. Note that the texts are also available online on *ccloudblog*, a blog about *CompositionCloud*.[3]

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[1] *Music for Oneself* is part of *CompositionCloud*, a work in progress that can be briefly described as an abstract rhizomatic space containing different ideas to be used in modular ways to create art, mostly in the realms of sound and music, but not necessarily.

[2] See "new_ideas-march2015" on *ccloudblog*.

[3] See https://ccloudblog.com.

Chapter 1

MUSIC FOR ONESELF v1

1.1 *7iS-imaginedSoundStory*

My first attempts to make an imagined musical experience are what I call *imaginary sounds*; texts that describe sounds using verbal metaphors. A simple example of an imaginary sound made up of only three words and a comma is *iS1iS2_x1*:

some light but,

iS1iS2_x1, like other imaginary sounds, invites readers to an imagined musical experience in which they are to use their own musical imagery to interpret the text. The music that is imagined depends on how the words and expressions forming the text — in this case, "some light" and "but," — are metaphorically conceived by the reader. Any interpretation is legitimate, as long as it is the result of a sincere reading.

In *MUSIC FOR ONESELF v1*, however, I wanted to specify the sounds to be imagined in a much more direct way, sparing the reader the need to transform the verbal metaphors into concrete descriptions of sounds on her/his own, and allowing her/him to focus solely on imagining the sounds. Therefore, when I began to work on *MUSIC FOR ONESELF v1*, I tried writing down such a transformation of an imaginary sound as an experiment. The following text is the result, turning *iS1iS2_x1* into something less suggestive and more instructive:

```
imagine a high, fragile tone whose pitch occasionally
fluctuates.  keep it in your mind for about a minute.
abruptly cut it.
```

Comparing this to *iS1iS2_x1*:

> some light
> → imagine a high, fragile tone whose pitch occasionally
> fluctuates. keep it in your mind for about a minute.
>
> but,
> → abruptly cut it.

The difference is obvious. Rather than describing the sound using metaphors, the new text describes the sound itself.[1] Exploring this transformation technique further, I used a chance operation to select six additional imaginary sounds, *iS1iS2_x4*, *iS4v2*, *iS2v2*, *iS1iS2_x4v1*, *iS1iS2_x4x1iS5*, and *iS1iS2v1*,[2] transformed also them into similar instructive descriptions, and combined the resulting transformations into a longer text, to which I gave the title *7iS-imaginedSoundStory*[3], and which served as the first prototype of *MUSIC FOR ONESELF v1*:

> imagine a high, fragile tone whose pitch occasionally
> fluctuates. keep it in your mind for about a minute and
> then abruptly cut it. then, pay attention to the sounds
> around you, and whenever you hear a sound with a definite
> attack, recall for a few seconds the high tone again.
> after about a minute and a half (or a minute if even the
> slightest bump does not occur), imagine a long faint downward
> glissando. assume then that the sounds around you pass
> through several guitar amplifiers and raise the distortion
> level of these amplifiers gradually and slowly. at the
> same time, repeatedly mute the amplifiers for increasing
> time intervals yet at a steady rate, creating almost a
> pulse and ending after a minute or two with a short burst
> of noise. let that burst of noise reoccur from time to time
> but irregularly, coming in waves of increasing and decreasing
> density. as the density decreases, imagine a fast, chaotic
> pitch sequence lasting for a few seconds. count at least
> seven sequences before shifting your attention back to the

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[1]Of course, words like "high" and "fragile" are also metaphors. However, at least within the context of sound and music, they are much less ambiguous than the word "light", which they replace.

[2]See appendix A for the 34 imaginary sounds from which *iS1iS2_x1* and the six other imaginary sounds mentioned above were selected.

[3]Because the text describes sounds that could be real, they can no longer be considered *imaginary*, even though they are still to be *imagined*.

```
sounds around you.  this time, however, suppose that they
are heard from a small loudspeaker positioned far from you,
and focus for a while on the altered timbre of the sounds.
afterwards, imagine a series of long slow creaks coming from
beneath the ground, some of them sounding simultaneously,
others separately.  one of them should be particularly slow,
as if it is extremely stretched, continuing much longer than
all the others.  during this exceptionally long creak, recall
once again that small loudspeaker, imagining that someone is
erratically changing its volume.  when that long creak ends,
another, additional creak should follow it, also considerably
long but still somewhat shorter, slowly fading out.  the
erratic changes in volume should become now more sporadic,
and the sounds should come from multiple directions, as
if there were multiple loudspeakers.  imagining that long
threads are loosely hung from the loudspeakers from which
the sounds come, follow the twisted shapes that the threads
make on the floor, as if they were contours of melodies
hummed by breathy voices, forming a polyphonic texture
of growing complexity.  after about a minute, when the
texture is complex enough, imagine a large crowd surrounding
you, creating a noisy tumult, and immerse yourself in the
sound for another half a minute.  then, replace the tumult
with a soft dull noise, intermittently interrupted by a
few pauses but persistently continuing, and explore this
unusual imagined situation in which nothing is audible except
the dull noise.  after a while, short squeaks are to be
imagined on top of the soft dull noise, occurring when it is
particularly quiet around you, or otherwise, if it is never
quiet or always quiet, just once in a while.  after about
30 squeaks, a soft but agitated rubbing sound, whose timbre
varies between a smooth rustle and a dirty grating, should
accompany the squeaks for a minute or two.  finally, stop
all the sounds that you hear, both physically and mentally,
and try to imagine complete silence no matter how loud it is
outside.  the end.
```

On the next several pages are the original imaginary sounds, annotated with the transformations that were combined into *7iS-imaginedSoundStory*. The transformations are written in blue, and additional comments are added below each transformed imaginary sound.[4]

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[4]This form of presentation differs only slightly from what is called in *CompositionCloud*

iS1iS2_x1

some light imagine a high, fragile tone whose pitch occasionally fluctuates. keep it in your mind for about a minute. but, abruptly cut it.

```
"light" was transformed into a description of a sound:  "a high,
fragile tone".  "some" was transformed into a description of
the duration of the sound:  "for about a minute".  "but," was
transformed into a description of how the sound should end:
"abruptly cut it".
```

iS1iS2_x4

\\ scattered pay attention to the sounds around you, and whenever you hear a sound with a definite attack, recall for a few seconds the high tone again. after about a minute and a half (or a minute if even the slightest bump does not occur), imagine a long faint downward glissando.

```
"scattered" was transformed into a description of an algorithm
for producing "scattered" occurrences of "the high tone".  "the
high tone" refers to the previously transformed imaginary sound.
it was chosen in order to create a sense of continuity.  "\\"
was transformed into the description "a long faint downward
glissando":  "downward glissando" because of the shape of the
character; "long" because the character is repeated twice; and
"faint" because it seems to fit with the "fragility" of "the high
tone".
```

iS4v2

a noisy garage assume that the sounds around you pass through several guitar amplifiers. expanding raise the distortion level of these amplifiers gradually and slowly. into almost a pulse at the same time, repeatedly mute the amplifiers for increasing time intervals yet at a steady rate, creating almost a pulse. , a short p end after a minute or two with a short burst of noise.
 { trying to interact
with let that burst of noise reoccur from time to time but irregularly, coming in waves of increasing and decreasing density. as the density decreases, this
, high   ~ ZZHXUO (PPP

"annotated imaginary sounds". There, annotations that define how the different verbal metaphors are to be interpreted are added to the imaginary sounds.

. . k , imagine a fast, chaotic pitch sequence lasting for a few seconds. count at least seven sequences before shifting your attention back to the sounds around you. however, this time, however, suppose that they are heard from a small loudspeaker positioned far from you, and focus for a while on the altered timbre of the sounds.

```
"a noisy garage" was transformed into a description of a noisy
rockish ("garage" was associated with rock music) setup of
"several guitar amplifiers", from which the sounds around the
reader should be heard.  the transformation of "expanding" is
raising the distortion level "gradually and slowly".  "into almost
a pulse" was transformed into another process simultaneous with
the gradual change in the distortion level, leading eventually
to the transformation of "a short p", which is "a short burst of
noise" ("p" was interpreted as a voiceless bilabial stop).  "{
trying to interact / with" was transformed into a description of
an algorithm for coordinating the occurrences of the "short burst
of noise" and the transformation of "this / , high   ZZHXUO (PPP
/ / .  .  k", the description "a fast, chaotic pitch sequence"
(the cryptic combination of spaces and characters following the
word "high" seemed "chaotic" to me).  "however," was transformed
into a description of a setup contrasting the setup described at
the beginning:  "this time", the sounds around the reader are to
be "heard from a small loudspeaker positioned far from" her/him
rather than from "several guitar amplifiers".
```

iS2v2

long creaks, low
slow - imagine a series of long slow creaks coming from beneath the ground, some of them sounding simultaneously, others separately.
creakingly crawling but without
  [almost moving, one of the creaks should be particularly slow, as if it is extremely stretched, continuing much longer than all the others.
as if [... . << during this exceptionally long creak, recall once again that small loudspeaker, imagining that someone is erratically changing its volume.
(a speculation when that long creak ends, another, additional creak should follow it, also considerably long but still somewhat shorter.
\\ scattered

creakingly crawling slow fade out.

```
"long creaks, low / slow -" already seems to be a concrete
description of sounds.  therefore, it was only slightly changed:
"a series of long slow creaks".  "low" was transformed into a
description of the direction from which the "long slow creaks"
```

```
come:  "beneath the ground".  "creakingly crawling but without
/ [ almost moving,", was first simplified into "crawling creak
almost without moving", and then transformed into a "particularly
slow" creak.  "as if [ ...  .  <<" reminded me of moving a dial.
accordingly, it was transformed into a description of someone
who "is erratically changing [the] volume" of "that small
loudspeaker" (the changes are described as erratic because of
the uneven pattern the characters create).  "(a speculation"
was transformed into a description of an "additional creak",
speculating, perhaps, if a longer creak could follow the previous
"particularly slow" creak.  "\\ scattered" was ignored for an
unknown reason.  "creakingly crawling", which appears at the end
again, this time without the "but without / [ almost moving" part,
was transformed into a description of how the "also considerably
long but still somewhat shorter" creak should end:  with a "slow
fade out".
```

iS1iS2_x4x1

\\ scattered

```
 /
  :


//
```

// \ the erratic changes in volume should become more sporadic, and the sounds should come from multiple directions, as if there were multiple loudspeakers.

```
this time, "scattered" was transformed into the instruction to
modify "the erratic changes in volume" into a more "scattered"
("sporadic") texture.  the sentence "the sounds should come from
multiple directions" might be associated with "scattered" as
well, as it implies that the loudspeakers are possibly "scattered"
around the reader.  the "changes in volume" from the previously
transformed imaginary sound were chosen for modification because
the slashes, backslashes, and colon, like the square bracket,
dots, and less-than signs that were transformed into "changing
[the] volume", are also nonletter characters.  the slashes and
backslashes also seem to occur rather "scatteredly", resembling
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a graphic description of "scattered" changes in an unspecified
parameter (which is, in this case, the volume of the loudspeakers
imagined by the reader).

iS1iS2_x4x1iS5

threads, a lot of
plenty of entangled things, ///////// imagining that long threads are loosely
hung from the loudspeakers from which the sounds come, follow the twisted
shapes that the threads make on the floor, as if they were contours of
melodies hummed by breathy voices, forming a polyphonic texture of
growing complexity.
but
  [trying to dissolve, . 1 ^^ ^

  threads
     P
c ~
when the texture is complex enough, imagine a large crowd surrounding you,
creating a noisy tumult, and immerse yourself in the sound for about half a
minute.
[
      not without some dust left in a big closed box replace the tumult with a
soft dull noise.
] 2& {}
{an irritating hassle that will disappear when
 D / the noise is intermittently interrupted by a few pauses but persistently
continuing. explore this unusual imagined situation in which nothing is
audible except the dull noise.

"threads, a lot of / plenty of entangled things, ////////" was
transformed into a description of an algorithm for producing an
"entangled" texture, a "polyphonic texture of growing complexity"
("polyphonic" because there are "a lot of" "threads" and "plenty
of entangled things"). the word "threads" is literally used
in the description, and the "twisted shapes that the threads
make" are to be followed by the reader "as if they were contours
of melodies". the "threads" persist and grow into a "large
crowd" "creating a noisy tumult", in which the reader should
"immerse" herself/himself ("trying to dissolve"). "some dust"
was transformed into the description "a soft dull noise", which
replaces "the tumult" because it is "left in a big closed box".
"] 2& {} / an irritating hassle that will disappear when / D /"
was transformed into a description of how the "soft dull noise"
should change over time: "intermittently interrupted by a few

```
pauses" ("an irritating hassle") "but persistently continuing"
("that will disappear when / D /").
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iS1iS2v1

the shortest creak short squeaks are to be imagined on top of the soft dull noise. once in a while the squeaks should occur when it is particularly quiet around you, or otherwise, if it is never quiet or always quiet, just once in a while.

muted agitation - some after about 30 squeaks, a soft but agitated rubbing sound should accompany the squeaks for a minute or two.

creakingly crawling like [small, even tiny the timbre of the rubbing should vary between a smooth rustle and a dirty grating.

sh stop all the sounds that you hear, both physically and mentally, and try to imagine complete silence no matter how loud it is outside.

```
like the "long creaks" from the transformed version of iS2v2, "the
shortest creak" also seems to be a concrete sound description.
nevertheless, "the shortest" was changed to "short", and "creak"
was changed to "squeaks".  to create a sense of continuity, these
"short squeaks" "are to be imagined on top of the soft dull
noise".  "once in a while" was transformed into a description
of an algorithm for regulating the occurrences of the "short
squeaks".  "muted agitation - some" was transformed into a
description of a sound that should accompany the "squeaks" after
"about 30" of them occur (30 because of "some"):  "a soft but
agitated rubbing sound" ("muted" was transformed into "soft" and
"agitation" was transformed into "agitated rubbing sound", which
also seems to fit with the "dull noise").  "creakingly crawling
like [ small, even tiny" was transformed into a description of how
the timbre of the rubbing changes over time, varying "between
a smooth rustle and a dirty grating" ("creakingly crawling"
was transformed into "dirty grating" and "small, even tiny" was
transformed into "a smooth rustle").  "sh" was interpreted as an
interjection used to urge silence, and transformed into "complete
silence".
```

As can be seen, the transformations were based on a rather free interpretation of the imaginary sounds. Accordingly, some of the explanations and comments above may seem slightly artificial and arbitrary, or at best, highly subjective. Certain parts of the imaginary sounds were simply ignored, like "\\ scattered" from *iS2v2* (as was already mentioned above) and the non-letter characters from *iS1iS2_x4x1iS5*, and *iS1iS2_x4* was transformed in reverse order: "scattered" was transformed before "\\", although "\\" precedes "scattered".

That being said, the structure of each imaginary sound was still carried over into its transformation relatively accurately. Each text was divided into parts — characters, words, or expressions — which were then transformed one after another, creating a sequence of successive descriptions.

Additional tendencies and patterns can also be observed, in particular:

- The transformations of nonletter characters as well as of unintelligible combinations of letter characters were mostly based on the graphic qualities of the characters (for example, the backslashes from *iS1iS2_x4* and the cryptic combination of letters from *iS4v2*).

- Words and expressions directly related to sound and music were either used literally or only slightly changed in their transformations (already mentioned above are the "long creaks, low / slow" from *iS2v2* and "the shortest creak" from *iS1iS2v1*, but additional examples include also "almost a pulse" from *iS4v2* and "threads" from *iS1iS2_x4x1iS5*[5], as well as "once in a while" and "muted agitation", also from *iS1iS2v1*).

- The parts of speech of certain words also influenced their transformations: nouns were often transformed into descriptions of sounds (for example, "light" from *iS1iS2_x1* and "speculation" from *iS2v2*); adjectives into descriptions of algorithms for producing textures that could be characterized by the adjectives ("scattered" from *iS1iS2_x4* and "entangled" from *iS1iS2_x4x1iS5*); gerunds into descriptions of processes ("expanding" from *iS4v2* and "crawling" from *iS2v2*); determiners into descriptions of durations and quantities ("some" from *iS1iS2_x1*[6] and *iS1iS2v1*, and "a lot of" and "plenty of" from *iS1iS2_x4x1iS5*); and contrasting conjunctions into descriptions of contrasting changes ("but" from *iS1iS2_x1* and "however" from *iS4v2*).

Moreover, in the comments added to the transformations of *iS1iS2_x4* and *iS1iS2v1* I state that in order to create "a sense of continuity", parts of these transformed imaginary sounds refer to parts of the transformed imaginary sounds preceding them. As a matter of fact, with the exception of the transformation of *iS4v2*, all transformed imaginary sounds include references to the transformed imaginary sounds preceding them. Furthermore, different

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[5]Obviously, "threads" is not a word directly related to sound or music. Nevertheless, in the transformation of the first part of *iS1iS2_x4x1iS5*, "threads" are incorporated in a description of an imagined graphic score consisting of "long threads loosely hung from the loudspeakers from which the sounds come".

[6]"some" from *iS1iS2_x1* was transformed into the description "for about a minute". Other descriptions of defined durations in *7iS-imaginedSoundStory* were then based on this timescale of "about a minute": "about a minute and a half" and "a minute" (*iS1iS2_x4*), "a minute or two" (*iS4v2* and *iS1iS2v1*) and "half a minute" (*iS1iS2_x4x1iS5*).

parts of the same transformed imaginary sound also frequently refer to one another. Clearly, at the time of writing these transformations, I already had in mind that they will be combined into a longer text, into a *story*.

1.2   Site-specific texts

Even though *7iS-imaginedSoundStory* does refer occasionally to the sounds around the reader, it can be read anywhere, and therefore, it is not site-specific. In *MUSIC FOR ONESELF v1*, however, I wanted the reader to also walk around and explore her/his surroundings, imagining sounds not just as sounds per se, but as parts of specific environments. Thus, I wrote nine additional texts, each to be read at a different place around the Jazzcampus, the building in which *MUSIC FOR ONESELF v1* was to be realized.[7] Figures 1.1 to 1.3 show the architectural plan of the building (floors -1 to 1) and the numbers indicate the places I chose and the titles of the texts corresponding to them.[8] Notice that in *MUSIC FOR ONESELF v1* titles are more than just labels: in order to give the reader the possibility to decide for herself/himself on the order of the texts (within limit; see below), whenever she/he finishes a text, a list of the possible titles of the following texts is shown to her/him, from which the next text can be chosen.

To choose these places, I looked for interesting details to which I could refer in the texts and develop into descriptions of sounds to be imagined. Naturally, as we are dealing here with sound and music, the first thing with which I concerned myself, was those particular sounds that were already sounding in the building, creating its ambience. Four of the nine site-specific texts of *MUSIC FOR ONESELF v1* were based on such sounds:

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[7]My original intention was to realize *MUSIC FOR ONESELF v1* outside in the city, where I thought to take advantage of the large, already available variety of different sounds and environments and their diverse connotations and associations. Unfortunately, because the event *Music for Oneself* was part of my master's recital for an MA in Composition and Music Theory at the Hochschule für Musik Basel, I was obliged to realize *MUSIC FOR ONESELF v1* in the same building where all the other recitals took place. This restriction did limit the scope of what I initially had in mind, but at the same time, perhaps, also enabled me to focus on the more subtle differences between the different spaces of that building as well as on the ways in which they are connected to one another.

[8]As a matter of fact, the building is divided into four "houses" and each has a different number of floors (there are up to four floors in the building). Nevertheless, although none of the texts corresponding to the numbers indicated in Figure 1.3 are to be read on floor 1 (*CRACKING GLASS* (5), *BROKEN SCORE* (6), *PALE GLISSANDI* (7), and *UNRECOGNIZABLE RUSTLE* (8) are to be read on floor 2 and *CAPTURED SOUND* (9) is to be read on floor 3), in the context of *MUSIC FOR ONESELF v1*, the architectural differences between floors 1 to 4 are negligible.

- In *REAL AND IMAGINED* (3) the reader is asked to walk down the stairs following the sound coming from the equipment room until she/he reaches a closed gate, and then to compare the sound to an imagined version of it, in which the pitches she/he hears in the sound are played on instruments of her/his choice.

- In *SMALL INTERVALS* (1) the sound of the copy machine in the locker room is to be imagined as the timbre of a duophonic sight-controlled keyboard encompassing an interval only slightly larger than a major second, whose keys are the 107 lockers.

- In *REARRANGED ELEVATOR* (2) the reader should pay attention to the sounds of the elevator and afterwards rearrange them in her/his mind.

- In *CAPTURED SOUND* (9) the reader is asked to observe how the sound of the room changes when a window is open, pick a sound from the sounds coming from the outside and capture it in her/his mind, close the window, imagine that the captured sound flies around the room trying to find a way to escape, open the window again, let the sound out, and close the window again.

Figure 1.1: The architectural plan of the building, floor -1. 0: The main corridor of floor -1, where the other parts of the event took place and where the reader should start; 1: *SMALL INTERVALS*; 2: *REARRANGED ELEVATOR*; 3: *REAL AND IMAGINED*.

Figure 1.2: The architectural plan of the building, floor 0. 4: *BREATHING WALLS*.

Figure 1.3: The architectural plan of the building, floor 1. 5: *CRACKING GLASSES*; 6: *BROKEN SCORE*; 7: *PALE GLISSANDI*; 8: *UNRECOG-NIZABLE RUSTLE*; 9: *CAPTURED SOUND*.

As one can see, in all of these texts the ambience serves as the basic musical material: a combination of pitches (a chord) in *REAL AND IMAGINED*, a timbre in *SMALL INTERVALS*, and a bank of samples in *REARRANGED ELEVATOR* and in *CAPTURED SOUND*.

But it was not only the sounds of the building that were used as starting points, as two of the nine site-specific texts were based solely on visual, nonsounding elements:

- In *UNRECOGNIZABLE RUSTLE* (8) the way clouds fill the sky, seen through a skylight on the second floor, is to be interpreted as a score regulating an imagined sound of rain, whose sound quality gradually deteriorates until it cannot be distinguished from an unrecognizable rustle.

- In *CRACKING GLASSES* (5), the reader is to imagine how it would sound if the large glass doors of the practice rooms cracked apart extremely slowly and crashed down one after another.

Two other texts, *BREATHING WALLS* and *PALE GLISSANDI* refer not only to the places indicated on the architectural plan above, but also to the route to them:

- In *BREATHING WALLS* (4) the reader is asked to imagine that the sound of her/his breathing is amplified and heard from the walls of the building, as if the walls were breathing with her/him, starting soft and becoming louder and louder, while she/he is walking from inside the building to the yard outside.

- In *PALE GLISSANDI* (7) the reader is asked to imagine that a pale tone in the middle register is coming from above her/him, continuously ascending or descending in pitch, while she/he is taking the elevator or walking up the stairs to place number 7. Whenever she/he hears a sound that grabs her/his attention she/he should switch the direction in which the pitch of the tone is changing.[9]

(As a contrast, in other situations in which the reader had a long way to walk before the next text, she/he was asked not to imagine any sound at all.)

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[9]Note that *PALE GLISSANDI* is not really site-specific, as even though the atmosphere of the Jazzcampus did have influence on the effect it had on the reader, like *7iS-imaginedSoundStory*, it can be read anywhere. That being said, because even the preceding site-specific texts may be generalized and adapted to other places, it seems to me that site-specificity is actually more like a continuum than a dichotomy.

Lastly, *BROKEN SCORE* (6) draws on sounds, visual elements, and the route to place number 6. It is also the only case in *MUSIC FOR ONESELF v1*, in which I directly intervened with the sounds that were heard (not just imagined) in the building. At the beginning of the text, the reader is asked to keep the sound of the copy machine from *SMALL INTERVALS* in her/his mind and walk up the stairs to the second floor. For each step she/he takes, the pitch of the imagined sound of the copy machine is to be lowered and its loudness is to be increased. When the reader reaches the second floor, she/he sees in front of her/him an iPhone 4 with a broken screen, and she/he is asked to interpret that broken screen musically as if it was a graphic score. On top of that imagined interpretation, the phone also plays a high synthetic noisy whistle (a slightly varied version of *filteredNoise2*, see appendix B), which the reader should have already noticed while she/he was walking up the stairs and is now to be considered an additional musical layer.

Figures 1.4 to 1.9 are photos of the places mentioned above. Figure 1.10 is a photo of the broken screen of the iPhone 4. Sound examples of the first four places and the sound that was played by the phone can be heard in the playlist *MUSIC FOR ONESELF v1* on *CompositionCloud*'s YouTube channel. See the scheme on page 22 for the full texts.

Figure 1.4: *REAL AND IMAGINED (3)*

Figure 1.5: *SMALL INTERVALS (1)*

Figure 1.6: *REARRANGED ELEVATOR (2)*

Figure 1.7: *CAPTURED SOUND (9)*

Figure 1.8: *UNRECOGNIZABLE RUSTLE (8)*

Figure 1.9: *CRACKING GLASSES (5)*
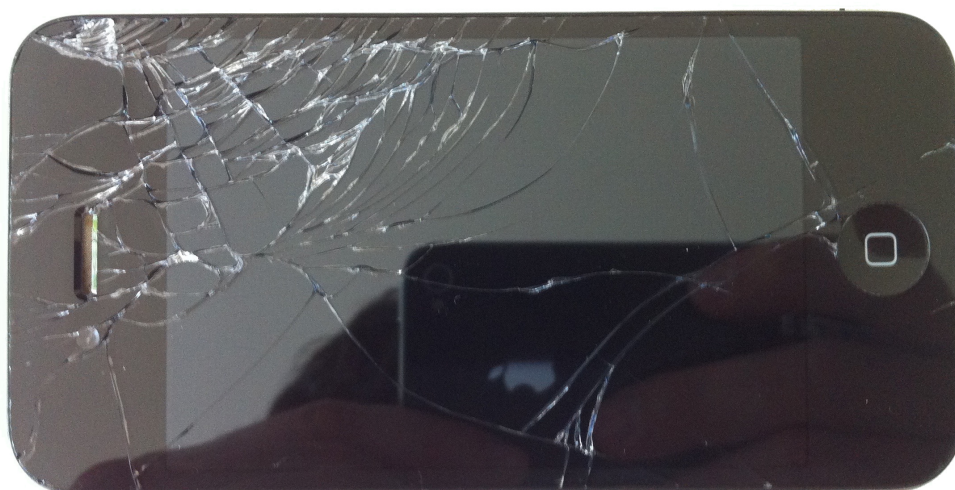
Figure 1.10: *BROKEN SCORE* (6)

1.3   More texts

As I was trying to define the possible orders in which the reader could read the nine texts described above, I realized that she/he would spend considerably more time walking from place to place than on reading the texts and imagining the sounds they describe. Therefore, I decided to add to *MUSIC FOR ONESELF v1* also texts that are not site-specific, allowing the reader to stay longer at each place. This is how *7iS-imaginedSoundStory* came back to the picture, as I broke it back down into shorter texts. It is repeated again below, but divided into sections marked by the titles I gave to the new texts I derived from it.

```
HIGH AND FRAGILE
imagine a high, fragile tone whose pitch occasionally
fluctuates.  keep it in your mind for about a minute and
then abruptly cut it.


BUMP REMINDERS
then, pay attention to the sounds around you, and whenever
you hear a sound with a definite attack, recall for a few
seconds the high tone again.  after about a minute and a
half (or a minute if even the slightest bump does not occur),
imagine a long faint downward glissando.


BURST OF NOISE
assume then that the sounds around you pass through several
guitar amplifiers and raise the distortion level of
these amplifiers gradually and slowly.  at the same time,
repeatedly mute the amplifiers for increasing time intervals
yet at a steady rate, creating almost a pulse and ending
after a minute or two with a short burst of noise.


CHAOTIC SEQUENCES
let that burst of noise reoccur from time to time but
irregularly, coming in waves of increasing and decreasing
density.  as the density decreases, imagine a fast, chaotic
pitch sequence lasting for a few seconds.  count at least
seven sequences before shifting your attention back to the
sounds around you.
```

SMALL LOUDSPEAKER

this time, however, suppose that they are heard from a small
loudspeaker positioned far from you, and focus for a while on
the altered timbre of the sounds.

LONG CREAKS

afterwards, imagine a series of long slow creaks coming from
beneath the ground, some of them sounding simultaneously,
others separately. one of them should be particularly slow,
as if it is extremely stretched, continuing much longer than
all the others. during this exceptionally long creak, recall
once again that small loudspeaker, imagining that someone is
erratically changing its volume. when that long creak ends,
another, additional creak should follow it, also considerably
long but still somewhat shorter, slowly fading out.

MELODIC THREADS

the erratic changes in volume should become now more
sporadic, and the sounds should come from multiple
directions, as if there were multiple loudspeakers.
imagining that long threads are loosely hung from the
loudspeakers from which the sounds come, follow the twisted
shapes that the threads make on the floor, as if they were
contours of melodies hummed by breathy voices, forming a
polyphonic texture of growing complexity. after about a
minute, when the texture is complex enough, imagine a large
crowd surrounding you, creating a noisy tumult, and immerse
yourself in the sound for another half a minute.

DULL NOISE

then, replace the tumult with a soft dull noise,
intermittently interrupted by a few pauses but persistently
continuing, and explore this unusual imagined situation in
which nothing is audible except the dull noise.

SHORT SQUEAKS

after a while, short squeaks are to be imagined on top of
the soft dull noise, occurring when it is particularly quiet
around you, or otherwise, if it is never quiet or always
quiet, just once in a while.

```
AGITATED RUBBING
after about 30 squeaks, a soft but agitated rubbing sound,
whose timbre varies between a smooth rustle and a dirty
grating, should accompany the squeaks for a minute or two.

INNER SILENCE
finally, stop all the sounds that you hear, both physically
and mentally, and try to imagine complete silence no matter
how loud it is outside.  the end.
```

Simply dividing *7iS-imaginedSoundStory* into shorter texts, however, was not enough. Because I also wanted the reader to decide for herself/himself on the order of the texts (at least to some extent), the fact that many parts of *7iS-imaginedSoundStory* refer to the parts preceding them, turned out to be a problem. To solve that without giving up on the sense of continuity that these references create, I introduced variables to 8 of the 11 texts, so each of them could follow at least 2 other texts.[10] To give an example, the following part of *BUMP REMINDERS*, "... recall for a few seconds the high tone again.", was replaced by "... recall for a few seconds [var].", in which [var] may be "the sound that ended the last rearranged elevator sequence from the previous text" when *REARRANGED ELEVATOR* precedes *BUMP REMINDERS*, "the burst of noise that ended the previous text" when *BURST OF NOISE* precedes *BUMP REMINDERS*, and "the amplified breathing sounds that you previously imagined" when *BREATHING WALLS* precedes *BUMP REMINDERS*.[11]

My intention was to create a structure in which each site-specific text could be followed by two or three texts derived from *7iS-imaginedSoundStory*,[12] which could then be followed by other site-specific texts or other texts derived from *7iS-imaginedSoundStory*, and so forth. To accomplish that, it was also necessary to write three additional texts: *GIGANTIC HEART*, which adds the beating of a gigantic heart on top of an already "sounding" imagined sound; *DIFFERENT SIZES*, which modifies the reverberation of

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[10]The texts to which I did not add variables are: *HIGH AND FRAGILE*, which always follows *PALE GLISSANDI*; *SHORT SQUEAKS*, which always follows *BURST OF NOISE* (but only when *BURST OF NOISE* follows *REARRANGED ELEVATOR*); and *INNER SILENCE*, which is always the last text.

[11]Note that *BUMP REMINDERS* cannot follow *HIGH AND FRAGILE* as it does in *7iS-imaginedSoundStory*. In fact, only 5 of the 11 texts can follow the texts they follow in *7iS-imaginedSoundStory*.

[12]The only exception is *CAPTURED SOUND*, a site-specific text that can follow *REARRANGED ELEVATOR*, which is site-specific as well. The reason is that *REARRANGED ELEVATOR* leads the reader to the place where *CAPTURED SOUND* is to be read.

the room and transforms the sound preceding it in different ways specific to the sound; and *JERKY CHIRPS*, which transforms the sound preceding it into "fast jerky rhythms of chirp-like sounds". Furthermore, *SMALL LOUD-SPEAKER* was changed to *HIDDEN LOUDSPEAKER*, because I thought it would be more interesting if instead of imagining that the sounds around the reader are heard from a small loudspeaker, the reader imagines that the loudspeaker (which produces sounds that vary according to the text preceding *HIDDEN LOUDSPEAKER*) is hidden and then try to look for it. Whenever she/he gets close enough, she/he should imagine that the loudspeaker suddenly changes its position.

The scheme on page 22 illustrates the final structure of *MUSIC FOR ONESELF v1* (triangle-arrowheads point to the possible continuations of a text, and simple-arrowheads help to clarify the right directions of the lines that would otherwise be too obscure).[13] At the beginning, the reader is supposed to be in the main corridor of floor -1 and chooses from *REAL AND IMAGINED*, *SMALL INTERVALS*, and *PALE GLISSANDI*. The end arrives when there are no more texts to choose from (each text can be read only once). On page 23 are the texts to which I added variables, and on page 24 are four screenshots of the app.

Finally, it is hoped that in addition to giving an insight into how *MUSIC FOR ONESELF v1* was made, this chapter also allows those who did not visit the event *Music for Oneself* to build up a detailed picture of how it would have been to be experience it. The app itself, which is still available for download and can be used anywhere and anytime (and readers are more than encouraged to try it),[14] should provide a tangible dimension for speculating on that question, of course, as tangible as it could be to imagine that one is imagining.

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[13]In addition, the app limits the number of the possible texts that can follow a text to a maximum of four (giving less priority to the site-specific texts) and ensures that the site-specific texts are always followed by at least one additional text (that is not *INNER SILENCE*, the last text). The only exception, again, is *CAPTURED SOUND*.

[14]*MUSIC FOR ONSELF v1* is available for download from Google Play. The Android Studio project folder can be found at https://github.com/CompositionCloud/MUSIC-FOR-ONESELF-v1.

[+] = as you go, try to clear your mind and avoid imagining any sound.

START #1
exit the main corridor through door A and walk down the stairs

REAL AND IMAGINED
following the sound coming from the equipment room until you reach a closed gate. [+]stop reading and continue only when you get there.

when you are there, try to focus on the pitches you hear in the sound, isolating them from the noisy parts and imagining that they are played on instruments of your choice. for about a minute, alternate between the real sound of the equipment room and your imagined instrumental version of it, as if comparing a painting to its subject. click NEXT when you are done.

GIGANTIC HEART - - - - - - - -
var1 = the pitches played by the imagined instruments
var2 = behind the gate, but to your right (so you are unable to see it)

LONG CREAKS - - - - - - - - - -
var1 = imagine
var2 = behind the gate
var3 = the pitches played by the imagined instruments
var4 = their loudness is now sporadically but suddenly altered
var5 = the imagined instruments continue playing for another few seconds

DIFFERENT SIZES - - - - - - - -
var1 = the pitches played by the imagined instruments
var2 = their loudness is now sporadically but suddenly altered

walk up the stairs

REARRANGED ELEVATOR
, and take the elevator to the third (top) floor, paying attention to all the sounds that it makes (also while you wait for it). after you come out, recall the sounds in your mind but rearrange their order. imagine at least two different orders before you click NEXT.

CAPTURED SOUND
open the window in front of you and observe how the sounds of the outside penetrate the sounds of the inside. focus for a while on a single, specific sound (e.g. birds, people outside, wind, etc.) and capture it in your mind. then, close the window and imagine that the sound flies around the room trying to find a way to escape. after about a minute, open the window again, let it out, close the window again, and click NEXT.

BUMP REMINDERS - - - - - - - -
REARRANGED ELEVATOR >
var1 = focus on
var2 = the sound that ended the last rearranged elevator sequence from the previous text
BURST OF NOISE >
var1 = focus back on
var2 = the burst of noise that ended the previous text

BURST OF NOISE - - - - - - - - -
var1 = focus on the sounds around you

SHORT SQUEAKS - - - - - - - - -
let the burst of noise that ended the previous text repeat for a while. on top of that, short squeaks are to be imagined, occurring when it is particularly quiet around you, or otherwise, if it is never quiet or always quiet, just once in a while. click NEXT after about 30 squeaks.

AGITATED RUBBING - - - - - - -
var1 = the squeaks and bursts of noise from the previous texts metaphorically, so that they come less and less often
var2 = they completely disappear

START #2
exit the main corridor

[+] = as you go, try to clear your mind and avoid imagining any sound.

SMALL INTERVALS
and enter the locker room (H4 Schliessfächer). [+]stop reading and continue only when you get there.

when you are there, focus on the sound coming from the copy machine and imagine that two similar sounds are heard from 2 of the 107 lockers in the room. assuming that it is possible to change the specific lockers from which the sounds come simply by looking at them (the 107 lockers should correspond to ascending transpositions of the sound of the copy machine, encompassing an interval slightly larger than a major second), explore for a minute or two this odd constellation and the beating it can produce. click NEXT when you are done.

HIDDEN LOUDSPEAKER - - - - -
var1 = producing a sound similar to the sound of the copy machine
var2 = in one of the lockers
var3 = and moves to another locker

MELODIC THREADS - - - - - - -
var1 = sounds similar to the sound of the copy machine are coming from 5-10 lockers (instead of from only two), creating a dense cluster and a complex beating pattern
var2 = handles of the lockers

BROKEN SCORE
leave the locker room through door B, and an extremely high and quiet whistle, varying irregularly in pitch and volume, will replace the sound of the copy machine. still, keep the sound of the copy machine in your mind and walk up the stairs to the second floor. for each step you take, lower the pitch and increase the loudness of the sound you imagine (as you go up, the high whistle should become slightly louder as well). stop reading and continue only when you get to the second floor.

on the second floor, you should see three chairs and an iPhone with a broken screen, producing the high whistle you heard from below. think of that broken screen as a graphical score (the x-axis represents time, the y-axis pitch), and using the sound of the copy machine as the timbre and considering the high whistle produced by the iPhone as an additional layer, imagine a possible interpretation of this score. click NEXT when you are done (an interpretation should last at least for one minute).

UNRECOGNIZABLE RUSTLE
walk to the other side of the room (behind the elevator). stop reading and continue only when you get there.

when you are there, take a look at the view from one of the two skylights. "scan" the picture, dividing it into rows and columns, and whenever your eyes meet a cloud, imagine the sound of rain falling on the skylight, increasing and decreasing in intensity according to the color of the cloud. if there are no clouds at all, imagine just a light shower; if it is already raining, simply listen to the real sound. as time passes, imagine that the sound quality of your imagined rain gradually deteriorates. when it sounds (after a minute or two) like an unrecognizable rustle, click NEXT.

MELODIC THREADS - - - - - - -
var1 = instead of a single window, there are many windows at different positions on the ceiling, and let the unrecognizable rustle that ended the previous text continue, but this time sounding from multiple directions
var2 = windows

DULL NOISE - - - - - - - - - - -
UNRECOGNIZABLE RUSTLE >
var1 = replace the unrecognizable rustle that ended the previous text
MELODIC THREADS >
var1 = replace the noisy tumult that ended the previous text

AGITATED RUBBING - - - - - - -
UNRECOGNIZABLE RUSTLE >
var1 = the window physically and the unrecognizable rustle that ended the previous text metaphorically: the rustles should stop for a while, come back, then stop for a little longer, and so on
var2 = they completely disappear
MELODIC THREADS >
var1 = the window physically and the noisy tumult that ended the previous text metaphorically: the tumult should stop for a little while, come back, then stop for a little longer, and so on
var2 = it completely disappears

START #3
exit the main corridor through door C and

PALE GLISSANDI
take the elevator or walk up the stairs to the second (top) floor. as you go, imagine a pale tone in the middle register coming from above you, continuously ascending or descending in pitch. whenever you hear a sound that grabs your attention, switch the direction in which the pitch of the tone is changing. click NEXT when you get to the second floor.

HIGH AND FRAGILE
let the pale tone from the previous text ascend to the highest pitch you can imagine, and transform its timbre gradually so it becomes unstable and fragile. after about a minute, abruptly cut it and click NEXT.

JERKY CHIRPS - - - - - - - - - -
var1 = the high and fragile tone
var2 = loud passages are to be accompanied by a lower tone, slightly ascending or descending in pitch

DIFFERENT SIZES - - - - - - - -
PALE GLISSANDI >
var1 = the pale tone
var2 = the tone is now clearer, brighter, and sometimes, although not very often, even slightly harsh
HIGH AND FRAGILE >
var1 = the high and fragile tone
var2 = the tone is now louder, brighter, and sometimes, although not very often, even slightly harsh
JERKY CHIRPS >
var1 = the jerky chirps
var2 = their tone is now louder, brighter, and sometimes, although not very often, even slightly harsh

CRACKING GLASSES
enter rooms C21-27 (the door in front of the elevator). stop reading and continue only when you get there.

when you are there, imagine how it would sound if the large glass doors of the practice rooms around you cracked apart extremely slowly and then crashed down one after another. one of these crashes should be so loud that your ears will start ringing. hold this ringing sound in your mind even if it is somewhat uncomfortable, and click NEXT only after at least 10 seconds.

GIGANTIC HEART - - - - - - - -
CRACKING GLASSES >
var1 = the ringing sound
var2 = one of the rooms around you
JERKY CHIRPS >
var1 = the jerky chirps
var2 = one of the rooms around you

CHAOTIC SEQUENCES - - - - - -
CRACKING GLASSES >
var1 = the crashes should continue reoccurring
var2 = room
GIGANTIC HEART >
var1 = the crash that previously made your ear ring should reoccur
var2 = room

JERKY CHIRPS - - - - - - - - - -
CRACKING GLASSES >
GIGANTIC HEART >
var1 = the ringing sound
+ CHAOTIC SEQUENCES >
var2 = a couple of additional loud glass crashes are to be imagined as well, but this time, instead of making your ears ring, they should momentarily increase the loudness of the chirp-like sounds
CHAOTIC SEQUENCES >
var1 = the chaotic pitch sequences

BREATHING WALLS
walk down the stairs to the ground floor and exit to the yard. as you go, focus on your breathing and imagine that it is amplified and heard from the walls of the building, as if the walls were breathing with you, starting soft and becoming louder and louder. click NEXT when you are outside.

HIDDEN LOUDSPEAKER - - - - -
var1 = the amplified breathing sounds that you previously imagined
var2 = somewhere in the yard
var3 = []

BURST OF NOISE - - - - - - - - -
BREATHING WALLS >
var1 = let the breathing sounds fade away and focus on the sounds around you
HIDDEN LOUDSPEAKER >
var1 = after giving up on finding the small hidden loudspeaker, focus on the sounds around you

BUMP REMINDERS - - - - - - - -
BREATHING WALLS >
var1 = focus on
var2 = the amplified breathing sounds that you previously imagined
BURST OF NOISE >
var1 = focus back on
var2 = the burst of noise that ended the previous text

LONG CREAKS - - - - - - - - - -
var1 = after giving up on finding the small hidden loudspeaker, imagine
var2 = beneath the ground
var3 = those breathing sounds that came from the hidden loudspeaker
var4 = the breathing is much faster now and that someone is erratically changing the volume of the loudspeaker
var5 = the breathing gets faster and faster until it becomes indistinguishable from a noisy flutter

DULL NOISE - - - - - - - - - - -
var1 = let the burst of noise that ended the previous text repeat for several times. then, replace it

CHAOTIC SEQUENCES - - - - - -
var1 = let the burst of noise that ended the previous text reoccur
var2 = direction

GIGANTIC HEART
on top of [var1] from the previous text, imagine the beating of a gigantic heart, sounding from [var2] and pulsating at a fixed moderate rate. after about 15-25 beats, the heart should stop for a while, revive gradually, accelerating to a rate slightly slower than before, and then after another 15-25 beats, stop again and die. click NEXT when it is dead.

CHAOTIC SEQUENCES
[var1] from time to time but somewhat irregularly, coming in waves of increasing and decreasing density. as the density decreases, imagine a fast, chaotic pitch sequence, whose each individual step comes from a different [var2]. each sequence should last for a few seconds. count at least seven sequences before clicking NEXT.

LONG CREAKS
[var1] a series of long slow creaks coming from [var2], some of them sounding simultaneously, others separately. one of them should be particularly slow, as if it is extremely stretched, continuing much longer than all the others. during this exceptionally long creak, recall once again [var3] from the previous text, imagining that [var4]. when that long creak ends, an additional creak should follow it, also considerably long but still somewhat shorter, slowly fading out while [var5]. afterwards, click NEXT.

DULL NOISE
[var1] with a soft dull noise, intermittently interrupted by a few pauses, but persistently continuing, and explore for a while this unusual imagined situation in which nothing is audible except that dull noise. afterwards, click NEXT.

DIFFERENT SIZES
consider how the physical structure of the room affects the sounds around you, and assuming that after a few seconds the size of the room drastically and unexpectedly changes, bring back to your mind [var1] from the previous text, imagining that [var2]. then, change the size of the room once again to a third, different size, and alternate between the three different sizes for about a minute. afterwards, click NEXT.

MELODIC THREADS
suppose that [var1]. imagining that long threads are loosely hung from [var2] from which the sounds come, follow the twisted shapes that the threads make on the floor, as if they were contours of melodies hummed by breathy voices, forming a polyphonic texture of growing complexity. after about a minute, when the texture is complex enough, imagine a large crowd surrounding you, creating a loud noisy tumult. immerse yourself in the sound and click NEXT after about half a minute.

BUMP REMINDERS
[var1] the sounds around you. whenever you hear a sound with a definite attack, recall for a few seconds [var2]. after about a minute and a half (or a minute if even the slightest bump does not occur), imagine a long faint downward glissando and click NEXT.

JERKY CHIRPS
transform [var1] from the previous text into fast jerky rhythms of chirp-like sounds, starting and stopping seemingly and following reciprocally the changes in the loudness of the sounds around you (if it is too homogeneous, let the jerky chirps come in slow steady waves). [var2]. click NEXT after about a minute.

BURST OF NOISE
[var1]. assume that they pass through several guitar amplifiers and raise the distortion level of these imagined amplifiers gradually and slowly. at the same time, repeatedly mute the the amplifiers for increasing time intervals yet at a steady rate, creating almost a pulse and ending after a minute or two with a short burst of noise. then click NEXT.

AGITATED RUBBING
imagine a soft but agitated rubbing sound, whose timbre varies between a smooth swishing to a dirty grating, produced by "cleaning" [var1]. click NEXT when [var2].

HIDDEN LOUDSPEAKER
imagine that a small loudspeaker producing [var1] is hidden [var2]. walk around and try to find where the sound comes from. however, whenever you get close enough, imagine that the loudspeaker suddenly changes its position [var3]. try at least twice before giving up and click NEXT.

INNER SILENCE
finally, stop listening to any sound, both physically and mentally, and try to imagine for about half a minute complete silence no matter how loud it is outside. the end.

MUSIC FOR ONESELF v1 ⋮

welcome to MUSIC FOR ONESELF v1!
this app consists of 23 short texts
arranged in a modular fashion, that
will guide you through a solitary and
partially imagined musical experience
around the Jazzcampus of the
Musik-Akademie Basel, giving you
instructions for where to go, what to
listen to, and what to imagine, but also
allowing you to create your own chain
of events, your own imagined sound
story. before you start, note that it is
assumed that at the beginning you
will be in the main corridor of floor -1.
so, prepare yourself and click on the
START NOW button below when you
are ready.

[START NOW]

CHOOSE A BEGINNING ⋮

REAL AND IMAGINED

SMALL INTERVALS

PALE GLISSANDI

REAL AND IMAGINED ⋮

exit the main corridor through door
A and walk down the stairs following
the sound coming from the equipment
room until you reach a closed gate.
stop reading and continue only when
you get there.

when you are there, try to focus on
the pitches you hear in the sound,
isolating them from the noisy parts
and imagining that they are played on
instruments of your choice. for about
a minute, alternate between the real
sound of the equipment room and your
imagined instrumental version of it, as
if comparing a painting to its subject.
click NEXT when you are done.

[NEXT]

WHAT'S NEXT? ⋮

GIGANTIC HEART

LONG CREAKS

DIFFERENT SIZES

Chapter 2

Five "images"

2.1 *d9-tgoc_ aCVPsG*

d9-tgoc_ aCVPsG, the acronym of *diagrams9 — the_ gesture_ of_ creation*; *audioControlledVideoPlayer* and *simpleGranulator*, is an interactive audio-visual installation, in which visitors use the sounds they themselves make to control the playback of several video clips showing me "creating" *diagrams9*; what they hear, meanwhile, is their own input transformed. Technically speaking, two microphones capture the sounds of the space in which the installation takes place, and with the aid of an envelope follower, the loudness of the sounds controls the frame of the video that is shown. Simultaneously, the sounds are also recorded into a two-second-long buffer, from which short grains of 8 to 832 ms are played back by two loudspeakers, creating a sort of feedback loop, as what comes out of the loudspeakers is also captured by the microphones, recorded into the buffer and comes out of the loudspeakers again (while also driving the video). This feedback loop, as well as other aspects of *d9-tgoc_ aCVPsG* (see the scare quotes surrounding the word "creating" in the description at the beginning of this paragraph), is the result of a conscious symbolic thinking, which is discussed later in this section.

d9-tgoc_ aCVPsG was first presented on March 15, 2016, in the framework of the event Gesten der zeitgenössischen Musik — Komposition und Wissenschaft im Dialog at the Musikwissenschaftliches Seminar der Universität Basel, whose program consisted of six lectures and a short concert followed by a discussion, all related to the subject of gestures in contemporary music. In the program notes, *d9-tgoc_ aCVPsG* was described simply as a video-piece (no additional info was given), and I was curious to see how the audience would react to it, and if anyone would figure out the major role that was given to her/him in influencing what is seen and heard by all of us. Unfortunately,

because I barely had enough time to set up on stage and absolutely no time to calibrate the equipment correctly — the feedback loop described above requires careful tuning of the input and output levels in order to work reliably — the potential risk that the loop will just feed itself, making the actual input negligible, materialized. The quietest rustles in the hall quickly became louder and louder, driving the video hectically without giving the audience even the slightest chance to understand that it is interactive. A recording of the sounds that came out of the loudspeakers can be found on *CompositionCloud*'s YouTube channel (titled *d9-tgoc_ aCVPsG_ 160315*) (the video was not recorded because of another technical problem), and even though I wished for something completely different (and technically this presentation was a failure), I found the unintended musical outcome quite interesting and unique.

Three months later, *d9-tgoc_ aCVPsG* was presented to an audience again, this time as part of *Music for Oneself*, the event that is the subject of this book. There, it was installed in a hall of its own, ran for the whole duration of the event, and visitors could interact with it in their own time. A video documenting the whole 1 hour, 20 minutes and 40 seconds during which it was active, can also be found on *CompositionCloud*'s YouTube channel (titled *d9-tgoc_ aCVPsG_ 160604*), showing when and to what extent the visitors engaged with the installation, and giving an impression of the kinds of sounds they produced in order to drive it (notice that the audio of both *d9-tgoc_ aCVPsG_ 160315* and *d9-tgoc_ aCVPsG_ 160604* consists of only the sounds that came out of the loudspeakers; the original input was not recorded). Figure 2.1 shows a screenshot of the video.

Symbolic meaning

As mentioned above, *d9-tgoc_ aCVPsG* was created with a conscious symbolic meaning. Of course, this does not mean that other interpretations of it are wrong or that it is impossible to understand *d9-tgoc_ aCVPsG* differently. Moreover, a symbolic meaning is often the result of an interpretation emphasizing some details while ignoring others (and this is also the case here). Still, I do think that describing how I originally conceived *d9-tgoc_ aCVPsG* is worthwhile, because in order to explain the logic behind the installation's behaviour, that is, why and how it changes over time, it is necessary to explain the symbols on which it is based.

The first, quite obvious symbol is the image of a man (the artist) holding a hammer, a reference to the (mythical) blacksmith who forges metal in order to create something out of it. The video *d9-tgoc* (*diagrams9 —*

Figure 2.1: A screenshot of the video documenting *d9-tgoc_ aCVPsG*.

the_ gesture_ of_ creation)[1] from which the clips that are used in the installation are taken, consists of single blows of a hammer, which, symbolically speaking, represent single gestures of creation. When one of these gestures is repeated and varied (corresponding to the sounds produced by the visitors), it becomes an activity, a representation of the creative process, and each single blow of the hammer that reaches the table, represents progress in the creative process. Proceeding with this symbolic line of thought, progress in the creative process may turn out to be significant or insignificant, and significant progress may lead to a breakthrough. What does a breakthrough mean? In *d9-tgoc_ aCVPsG*, it means either a paradigm shift (a change in perspective, a different diagram, a different processing of the recorded sounds) or a withdrawal (a black screen). In other words, the narrative of the creative process (as it is represented in *d9-tgoc_ aCVPsG*) is made up of endless paradigm shifts that follow one another and are occasionally intermitted by withdrawals. Because artistically, no paradigm is better than the other (only different) and all the paradigms are temporary, the artistic creative process is circular, purposeless, and infinite. The progress mentioned above is subjective, a contextual illusion, an ephemeral anecdote.

Furthermore, the interaction between the visitors and the installation was devised symbolically as well, as the technical feedback loop described above represents a conceptual feedback loop: the way in which the visitors expe-

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[1]Also this video is available on *CompositionCloud*'s YouTube channel.

rience the installation depends on what the installation produces, and what the installation produces depends on the sounds that the visitors produce, which again, depend on how the visitors experience the installation. In the end, the visitors listen to themselves and watch the influence of their own sounds. If the movement of my hand in the video represents the creative process, the visitors do not only observe it, they are part of it.

Finally, a third realization of *d9-tgoc_ aCVPsG* can be found at https:// compositioncloud.github.io/d9-tgoc_aCVPsG.html. This is a web-based version of the installation, programmed using the Web Audio API (at present, this version is supported only in Google Chrome and does not work on mobile phones or tablets). After loading the page, you will be asked to allow the browser to use your microphone. Do so (it is required), and set the volume to a low level. Click "OK" in the popup dialog box, make some sounds, and raise the volume slowly and carefully to avoid too much feedback (do not use headphones). The Max patch that was used in the two other realizations of the installation can be found in *CompositionCloud*'s GitHub repositories.

2.2 *"Just Representations?"*

"Just Representations?" is a "piece" that was originally conceived to be part of the exhibition of impuls 2015's workshop *Composition beyond Music* at esc median kunst labor, Graz, Austria. At the opening, which took the form of a one-hour performance, seven participants, Mariella Bachmann, Shao-Wei Chou, Megan Ihnen, Helga Karen, Stefanie Mirwald, Benjamin O'Sullivan, and Primož Sukic, were spread around the gallery, and using their smartphone's cameras set to selfie mode, they stared at their own faces as they were reflected in their smartphone's screens, while a sound collage made up of different representations of our physical and digital worlds was played from their smartphones' loudspeakers.[2] After the performance, the exhibition ran for two more days and *"Just Representations?"* was realized in a different version, in which the sound collage was only heard from one smartphone hung on one of the gallery's walls, functioning as a mirror, but also as a "photo booth". The photos that were taken by the visitors are shown in figure 2.2.

---

[2]A review of the performance by Robert Winkler (in German) can be found at https://www.music-news.at/reviews/festival-reviews/impulsive-eroeffnung/.
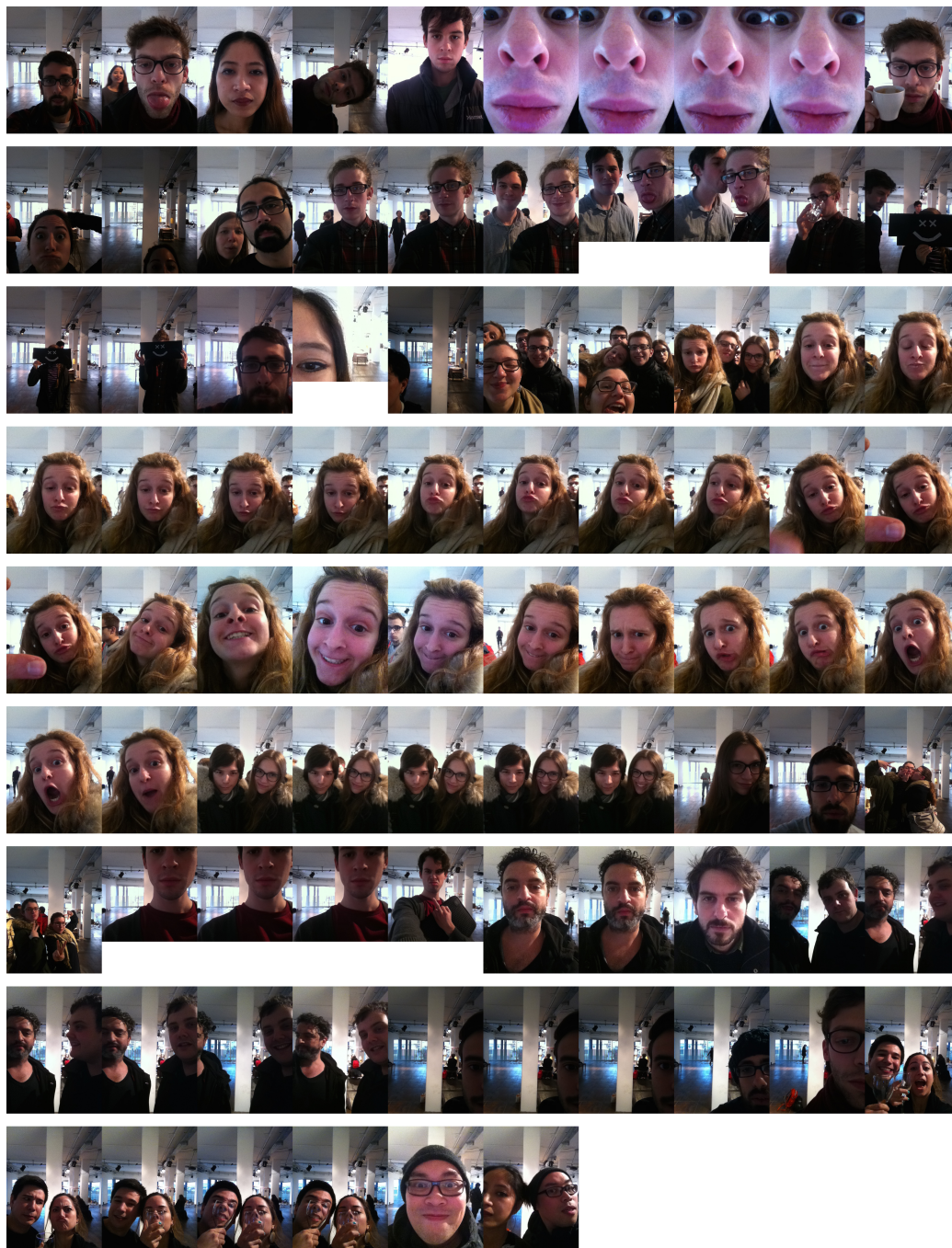
Figure 2.2: The photos that were taken by the visitors of impuls 2015's *Composition beyond Music* exhibition at esc median kunst labor, Graz, Austria.

As I already planned the initiation of *CompositionCloud* before I partici-
pated in the workshop,[3] it should not be too surprising that *"Just Represen-
tations?"* is both the last "piece" I created before I began to focus solely on
CompositionCloud and the first (and for the moment, the only) "piece" I in-
tegrated into it. In fact, its two versions mentioned above — or three, as the
sound collage was uploaded to SoundCloud[4] and can actually be counted as
a third version of the "piece" — already demonstrate some of the modularity
that *CompositionCloud* possess, which means that these different versions
can be described as different combinations of the same components: the
sound collage that was played on the smartphones; the activity of staring
at oneself in the screen of a smartphone; and the notion of representations,
which links the sound collage (made up of representations) and the activity
of staring at (the representation of) oneself.

Moreover, these components (or components of these components) can
also be linked to other ideas in *CompositionCloud*: first, there is the use
of smartphones as sound producing objects, such as the iPhone 4 with the
broken screen that produced a variation of *filteredNoise2* in *MUSIC FOR
ONESELF v1* (see section 1.2 and appendix B), as well as the iPhone 4
mentioned in the collection *objects4JamesSaunders*[5], producing electromag-
netic waves translated into sound by a radio. Second, the collage structure is
evident in *CompositionCloud* both at a local level, for example, in the struc-
ture of the video *etv-HK_Rg* (which is discussed later in this chapter) and as
a possible way to approach interpreting diagrams in *d1-7_sxschVR-Nikel*[6],
and at a global level, that is, in the way ideas co-exist in *CompositionCloud*,
resembling an ever-changing conglomeration, a dynamic collage. And third,
the image of staring at oneself in the screen of a smartphone playing sounds
that represent one's own sound world (one's own music), can be linked to the
notion of *music for oneself*, a link that was, as a matter of fact, the concrete
motivation I had for integrating *"Just Representations?"* into *Composition-
Cloud* in the first place and organizing a performance of it at *Music for One-
self* (this time by five participants, Mariella Bachmann, Oded Geizhals, Eleni
Ralli, Christian Smith, and Lucia Carro Veiga, who were spread around the

---

[3]Although *CompositionCloud* can be traced back to some of the ideas I had in the
summer of 2013 (see "why i stopped writing "pieces"" on *ccloudblog*), I started to begin
working on it only at the end of December 2014, after finishing another "piece", "Stains",
and I really found how to do so only in March 2015, about a month after the workshop,
which took place in the middle of February 2015.

[4]See https://soundcloud.com/gonipeles/just-representations.

[5]See "objects4JamesSaunders" on *ccloudblog*.

[6]See "d1-7_sxschVR-Nikel" on *ccloudblog*.

main corridor of floor -1 of the Jazzcampus of the Musik-Akademie Basel).[7] Several photos are shown in figures 2.3 to 2.5.[8]

To produce the sound collage, I used the soundtracks of the 100 most popular YouTube videos worldwide on February 20, 2015, as well as 10 field recordings of various nature and city sounds downloaded from https://www.freesound.org.[9] Ten channels were created (originally intended to be played on 10 different phones), each consisting of random sequences of 10 to 1010 ms long extracts from a different set of 10 soundtracks, accompanied by a different field recording, arranged in chunks ranging from 2.5 seconds to 17 seconds, and separated by pauses. The Max patch that was used can be found in *CompositionCloud*'s GitHub repositories.

2.3   *aLoneTreeReadsImaginarySounds*

aLoneTreeReadsImaginarySounds is a video in which a lone "speaking" tree is "reading" 34 imaginary sounds (see the beginning of section 1.1 and appendix A). In the video, the texts are read by "Daniel", a text-to-speech voice produced by Apple, in an alphabetical order according to their titles: *iS1, iS1iS2_x1, iS1iS2_x1iS6, iS1iS2_x1iS6iS5, iS1iS2_x1x1, iS1iS2_x2, iS1iS2_x3, iS1iS2_x4, iS1iS2_x4v1, iS1iS2_x4x1, iS1iS2_x4x1iS5_x1, iS1iS2_x4x1iS5, iS1iS2, iS1iS2iS3, iS1iS2v1_v1, iS1iS2v1, iS1v1, iS1v1iS2, iS1v2, iS1v2iS2, iS1v3, iS2, iS2v1, iS2v2, iS3, iS3iS4v1, iS3x1, iS3x2, iS4, iS4v1, iS4v2, iS5, iS5iS6,* and *iS6*.

These titles indicate how the imaginary sounds are interrelated. For example, the title *iS1iS2_x4v1* refers to the first variation of *iS1iS2_x4*, which is the fourth extract of *iS1iS2*, which is the combination of *iS1* and *iS2*. The texts themselves can be found in appendix A, which includes also a schematic representation of the interrelation between them.

---

[7]Before *Music for Oneself* and after impuls 2015, *"Just Representations?"* was performed in ZeitRäume Basel 2015 by 10 participants: Shira Agmon, Mariella Bachmann, Juan Pablo Orrego Berríos, Tobias Krebs, Stefanie Mirwald, João Carlos Pacheco, Eleni Ralli, Andrew Walsh, Yiran Zhao, and myself. Unfortunately, no documentation is available from the event, except the poster I designed for it, which can be found at https://ccloudblog.files.wordpress.com/2016/11/just-representations-poster.pdf.

[8]More photos can be found on *CompositionCloud*'s Facebook page.

[9]A detailed list of the sources that were used can be found at https://ccloudblog.com/2016/10/28/justrepresentations/#note3. Ideally, however, the sound collage of *"Just Representations?"* would have been created from a constantly updating pool of sounds, that is, not from the soundtracks of the 100 most popular YouTube videos worldwide on February 20, 2015, but from the most popular ones at the moment in which *"Just Representations?"* is being played (the field recordings should be updated as well, consisting of the most recent sound representations we create of our world).

Figure 2.3: Oded Geizhals performing *"Just Representations?"* (photo by Lilach Hason).
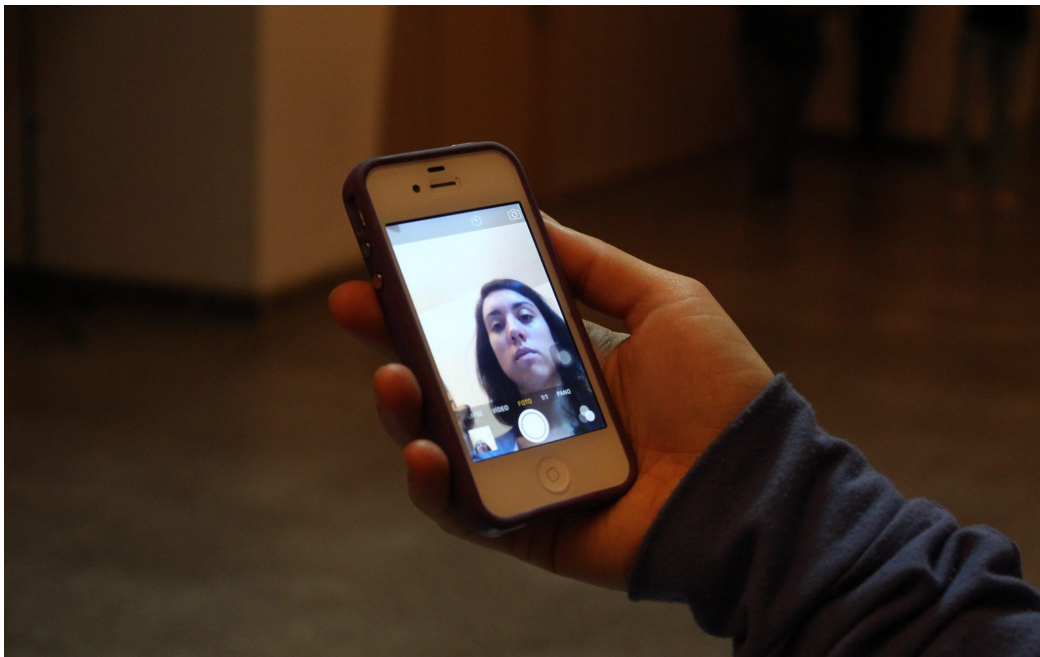
Figure 2.4: Lucia Carro Veiga performing *"Just Representations?"* (photo by Lilach Hason).

Figure 2.5: Mariella Bachmann, Christian Smith, and Eleni Ralli performing *"Just Representations?"* (photo by Lilach Hason).

At *Music for Oneself*, *aLoneTreeReadsImaginarySounds* was played on a laptop placed in the main corridor of floor -1 of the Jazzcampus of the Musik-Akademie Basel, the same space in which *"Just Representations?"* took place. It was possible to listen to it with a pair of headphones that were connected to the laptop. Figure 2.6 is a screenshot of the video, which is available on *CompositonCloud*'s YouTube channel.

2.4   *etv-HK_Rg*

etv-HK_Rg is a collage made up of seven videos taken at Reverenzgässlein, an alley in Basel near the Rhein, in which pianist Helga Karen was recorded practicing exercises to herself from the collection *exploring_the_voice* (see appendix D). Like *aLoneTreeReadsImaginarySounds*, *etv-HK_Rg* was also played on a laptop in the main corridor of floor -1 of the Jazzcampus. On the next two pages is a description of how the collage was made.

Figure 2.6: A screenshot of the video *aLoneTreeReadsImaginarySounds*.

Of all the recordings we made, two- to four-minute interpretations of exercises *etv1*, *etv4-2*, *etv4-3*, *etv4-5*, *etv4-6*, *etv5-1*, and *etv5-2* (all shot in a single session in the afternoon of May 5, 2016), four videos, the interpretations of *etv4-2*, *etv4-3*, *etv4-5*, and *etv5-1*, were used fully from beginning to end; two videos, the interpretations of *etv4-6* and *etv5-2*, had their beginnings trimmed; and one video, the interpretation of *etv1*, had both its beginning and end trimmed, so that only about 20 seconds of it were used. This was done for aesthetic considerations: the interpretations of *etv4-6* and *etv5-2* were trimmed to make them look as if they were extracts from longer recordings, and the interpretation of *etv1* was trimmed because there were only about 20 seconds in the middle of the video during which Helga stood straight (the floor of the alley is slightly bent).[10] The latter also had significant consequences for the overall structure of the collage, as it led me to decide to split all the videos into clips of 20 seconds, making this duration the collage's pulse and creating a pool of 60 video clips of which 54 have the exact same duration (20 seconds) and only 6 do not.[11]

---

[10]The end of *etv5-2* was trimmed as well but not on purpose: the camera just ran out of battery.

[11]The duration of each of these six clips (which are not always the last clips) ranges from 12 to slightly more than 20 seconds (I preferred not to use clips shorter than 1 second). The number of clips per video is between 8 and 12.

Following this trimming process, I ordered the clips randomly according to the following rules:

1. Each clip can occur only once.

2. Two clips from the same video cannot be placed one after the other.

3. Two adjacent clips from the same video cannot be placed one after the other (in forward direction), even if there are other clips between them.

4. There is a 1 to 6 chance of having a 1000 ms to 8000 ms pause rather than a clip, as long as the total number of pauses in the whole video does not exceed 10.

In addition, because *etv1* could occur only once, I decided to determine its position in advance and set it to be the 31st clip, that is, to be in the middle of the video, but slightly towards the end.

After watching the result, I made five changes:

1. I switched clip 1 and clip 4 of *etv4-5*, because I wanted to start with a beginning of a video.

2. I switched clip 5 of *etv4-6* and clip 8 of *etv5-2*, because I did not want a clip of *etv5-2* to follow a pause twice throughout the video.[12]

3. I switched clip 5 of *etv5-2* and clip 10 of *etv4-3* to have *etv5-2* once more towards the end, as all of its clips were already used in the first half of the video.

4. I shortened clip 4 of *etv4-3* to about 10 seconds to make the rhythm of the cuts slightly less regular.

5. I added one second to the ninth pause, because it seemed to me to be too short.

The timeline of the video is shown in figure 2.7 (the changes are emphasized in red). Note that all these changes, even though I can rationalize them, were based on what intuitively felt better to me, which contrasts the neutrality of the random process used for the initial ordering of the clips. Moreover, the tension between intuition and randomness is also evident in the juxtaposition of the intuitive interpretations of the exercises and the randomness of the sounds of the alley (the birds, the door, the people around, etc.).[13] A screenshot of the video, which can be found on *CompositionCloud*'s YouTube channel, is shown in figure 2.8.

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[12]On the other hand, this did not prevent me from letting *etv4-2* and *etv4-3* follow a pause twice, and *etv4-5* follows a pause three times throughout the video.

[13]See also "intuitionVSrandomness" on *ccloudblog*.
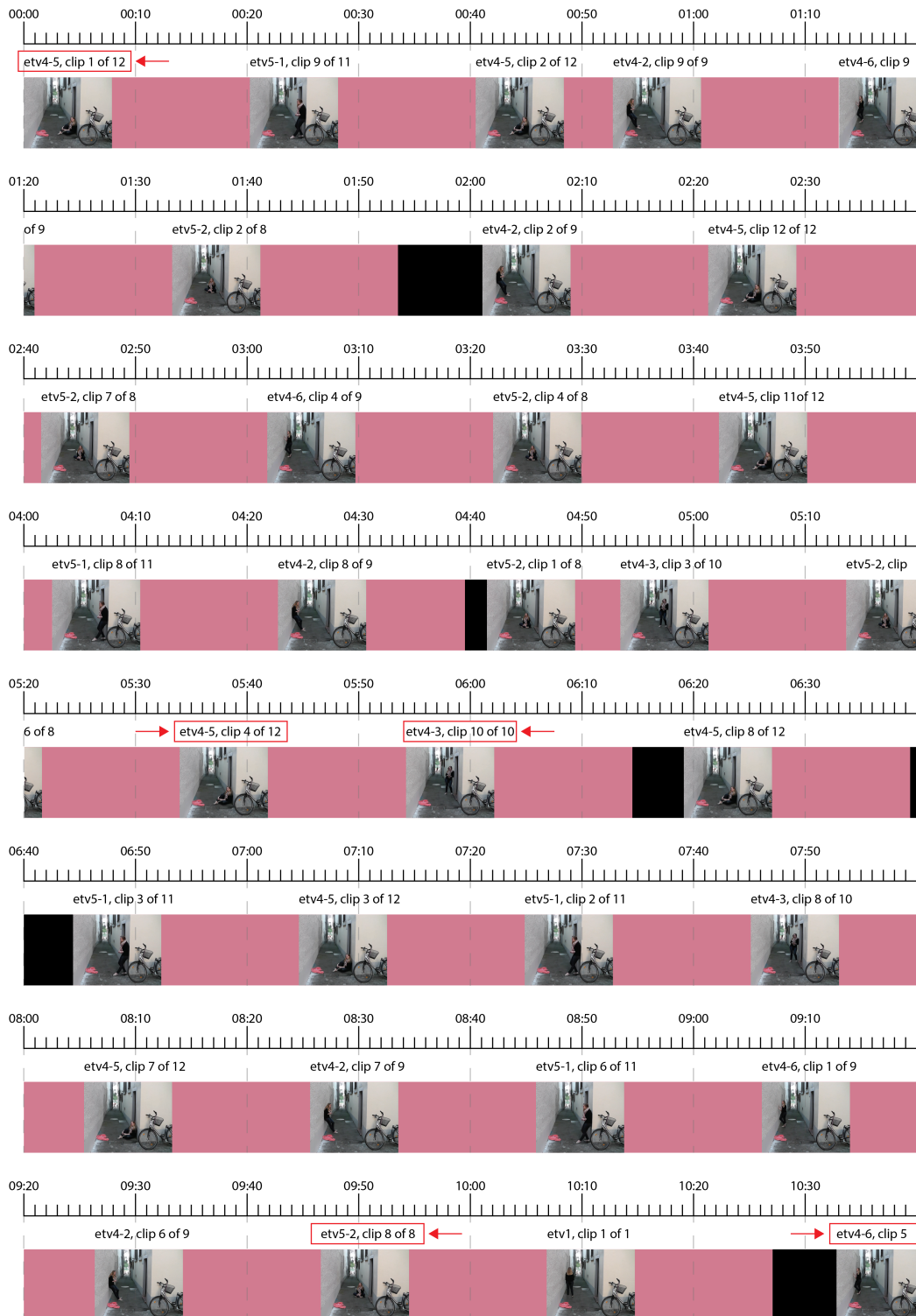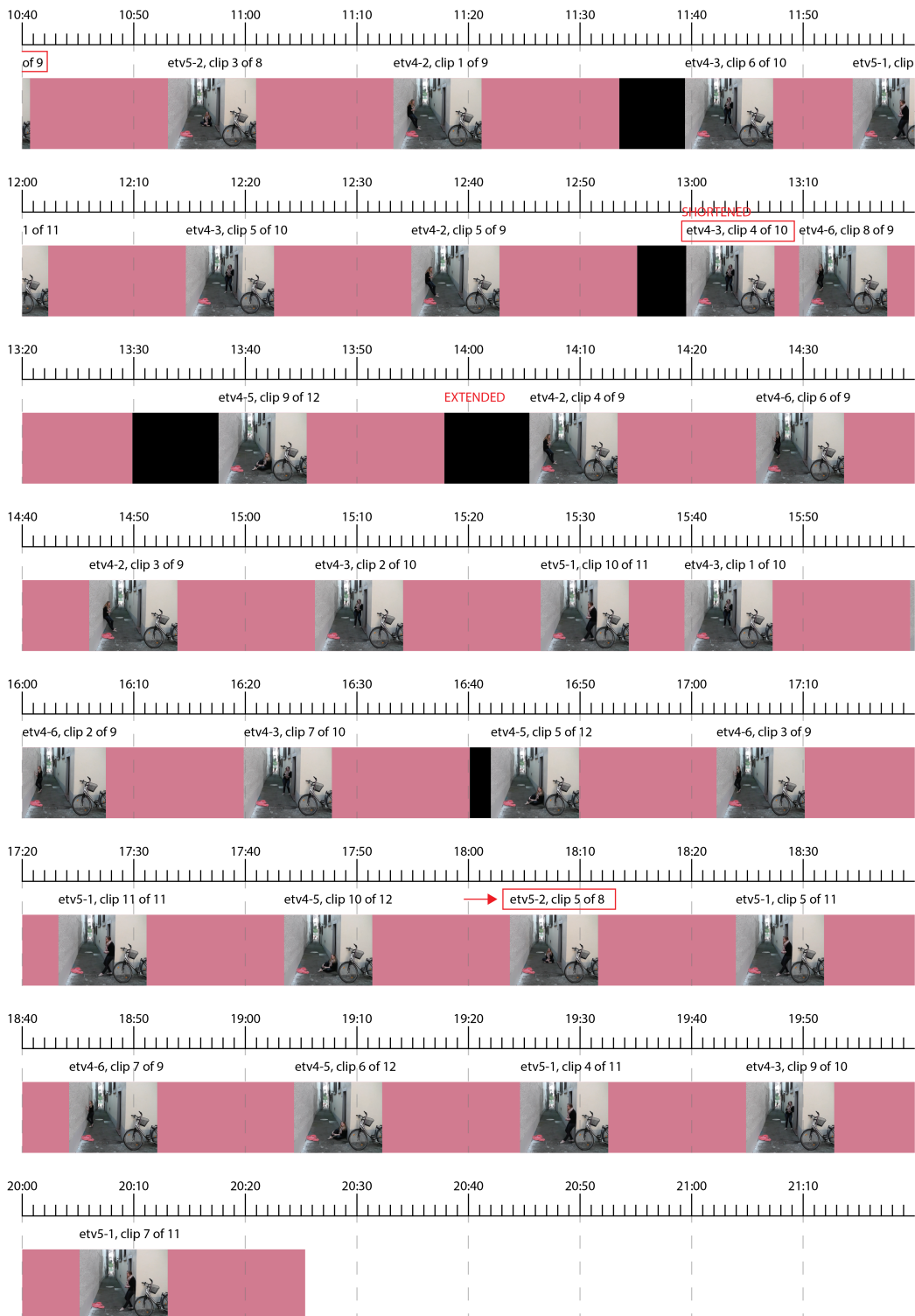
Figure 2.7: The timeline of *etv-HK_Rg*.

Figure 2.8: A screenshot of *etv-HK_Rg*.

2.5   *10d_6sxsch-MVP_Wsb*

10d_6sxsch-MVP_Wsb is a video in which saxophonist Marc Vilanova Pinyol is interpreting 10 diagrams (*diagram9-6*, *pen1v2*, *pen1v1v1v1x1x2*, *pencil1*, *pencil2*, *type1v1*, *diagram10-2*, *diagram9-8*, *pen1v1v1v1v2*, and *diagram9-4*) (see appendix E) on six *saxoschläuche* of different lengths (190 cm, 90 cm, 70 cm, 220 cm, 180 cm, and 200 cm) (see appendix F) on Wettsteinbrücke, a bridge over the Rhein in Basel, whose traffic noise is so loud that a situation in which Marc can only (or mostly only) play for himself is created. Figure 2.9 is a screenshot of the video, which as *aLoneTreeReadsImaginarySounds* and *etv-HK_Rg*, was played on a laptop in the main corridor of floor -1 and can be found now on *CompositionCloud*'s YouTube channel.

Before making the video, we had a recording session at the Elektronisches Studio Basel, during which Marc developed his interpretations of the diagrams (which was naturally impossible to do on the bridge). These studio-quality recordings, which include also an eight-minute improvisation on the 190-cm-long instrument, are also available on *CompositionCloud*'s YouTube channel (see a playlist titled *10d_6sxsch-MVP*).
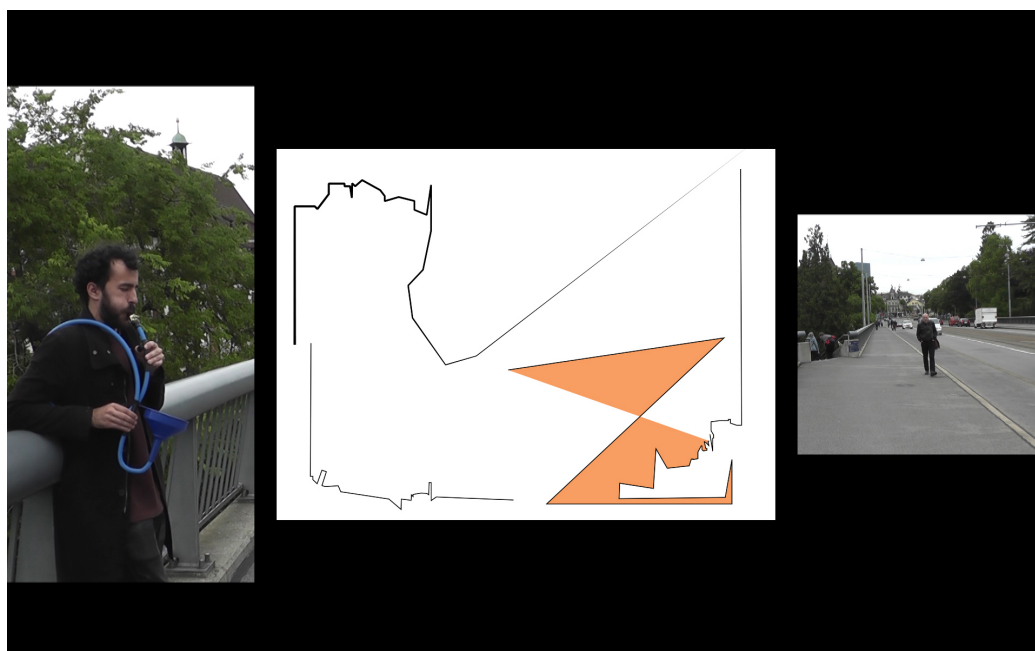
Figure 2.9: A screenshot of *10d_ 6sxsch-MVP_ Wsb*.

Appendix A

34 imaginary sounds

In CompositionCloud, imaginary sounds (iS) are texts that describe sounds using verbal metaphors. Readers are invited to an imagined musical experience in which they are to use their own musical imagery to interpret the texts.

On the next pages are 34 imaginary sounds ordered alphabetically according to their titles. Figure A.1 is a schematic representation of the interrelations between them (simple-arrowheads indicate variations, triangle-arrowheads indicate combinations, and inverted triangle-arrowheads indicate extracts).
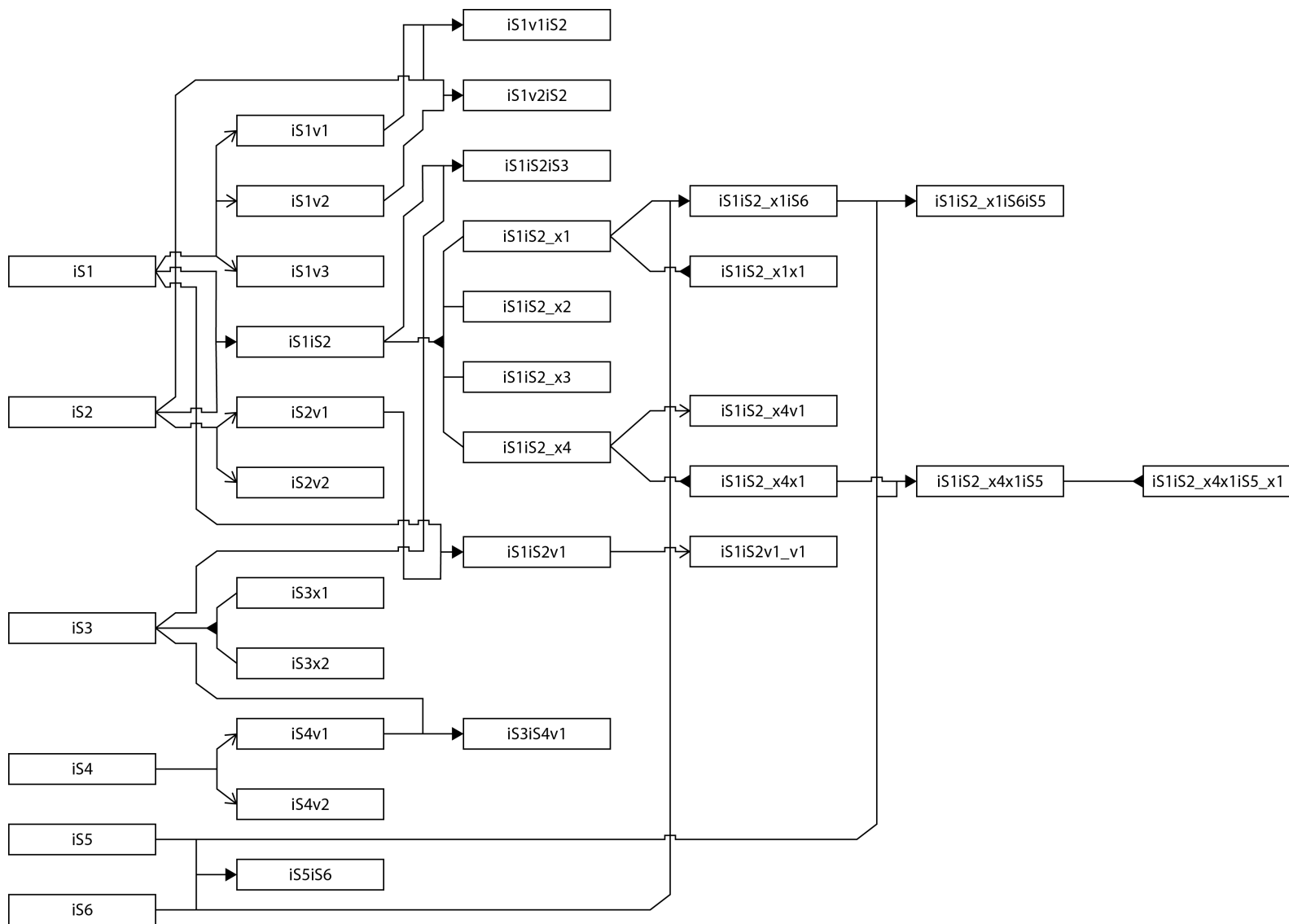
Figure A.1: A schematic representation of the interrelations between the 34 imaginary sounds.

iS1

muted agitation - some light

iS1iS2_x1

some light but,

iS1iS2_x1iS6

. /
just the flatness of
.

a babble in the background (that interferes with

                    . - - / // / (& the excess of things is just some light
nothing more than a wide, stagnant
.

 _= - - - -
-
 =
 _

iS1iS2_x1iS6iS5

] 3 & [{ }
many
, entangled

{an irritating hassle that will disappear when
a lot of threads
[
-

just the flatness of some dust left in a big closed box
. /
  [trying to dissolve into, . 123 ^^ ^ . ^

  ^

a babble in the background
                   . - - / // / (& the excess of things is just some light

.
.
  _- - -   - -
nothing more than a wide, stagnant
.

iS1iS2_x1x1

, some light

iS1iS2_x2

a cre- -eaaeaeaaeekkkkk … ? > mbn,.jjkui[8900=-0— an imperfect and soft- noisy rattle

iS1iS2_x3

[small

iS1iS2_x4

\\ scattered

iS1iS2_x4v1

\\ scattered

```
 /
  :
/ /


// \
```

iS1iS2_x4x1

 ////////
et
c ~
    P

iS1iS2_x4iS5_x1

  threads
[
[2& { }
an irritating hassle that will disappear

      not without some dust
1
1 ^
 u

iS1iS2_x4iS5

threads, a lot of
plenty of entangled things, ////////
but
   [trying to dissolve, . 1 ^^ ^

   threads
       P
c ~

[
       not without some dust left in a big closed box
] 2& { }
{an irritating hassle that will disappear when
 D /

iS1iS2

muted agitation - some light but, a cre-
-eaaeaeaaeekkkkk … ? > creakingly crawling like a giant being? (maybe /could be
[small, even tiny   IN
{0,"in its significance", m \\ scattered

iS1iS2iS3

playing in the junkyard… m \\ scattered
45g xc

qwk0-0,
mU,   gzoO; wqappPQ?U0O + .   s   S >>
mn786"@$% $| aqwqp   Ö Ü ´´´´
. .. .   cN ; / a   O
  §:" 1] $
       ] }

[small, even tiny   IN
{0,"in its
"complexity, relative" significance"
                                          \\\   \\ \\

1,
     \\
\\\\\ //// / //   \\\   \\\\\\\\\\
     \\
          \\\ \\\ // \\\\\VV\\\\\\
   /   ****
   \   *****************
 ****
                  | /   // **
           /   \   \\\\
 /
                                         * { / /   /could
be

muted agitation - some light but, a
cre-
-eaaeaeaaeekkkkk
== creakingly

maybe   **   */ //
                                                          2:
                                                           ?

crawling like a

iS1iS2v1_v1

some short creaks -
once in a while
muted
s
creakingly crawling like [small, even tiny

 . hhh

iS1iS2v1

the shortest creak
once in a while
muted agitation - some
creakingly crawling like [small, even tiny

sh

iS1v1

muted agitation
some light goes through

iS1v1iS2

muted agitation

.
does light pass through?
     'lo(לאש) >>

 - - - —— - - - g   gggg   g g g k g gkgg g g g ggk g g kk k k kk g[k]"creak*

*creakingly crawling like a giant being [small, even tiny   IN
{0,"in its significance", m \\ scattered

iS1v2

muted aggregates of, -
(dark)

iS1v2iS2

muted aggregates of, -

                    {dark

, long creaks
creakingly crawling
scattered
 \\ m
0

like a giant being [tiny

               IN {0

iS1v3

agitated, muted ,   -lit

iS2

a long creak

creakingly crawling like a giant being [small, even tiny   IN
{0,"in its significance", m \\ scattered

iS2v1

the shortest creak
once in a while
creakingly crawling like a [small, even tiny

sh

iS2v2

long creaks, low
slow -

creakingly crawling but without
  [almost moving,
as if   [... . << (a speculation \\ scattered

creakingly crawling

iS3

playing in the junkyard…
45g xc

qwk0-0,
mU,   gzoO; wqappPQ?U0O + .   s   S >>
mn786"@$% $| aqwqp   Ö Ü ´´´´
. .. .   cN ; / a   O
  §:" 1] $
        ] }

"complexity
                                           \\\   \\ \\   1,
      \\
\\\\\ //// / //   \\\   \\\\\\\\\\
      \\
            \\\ \\\ // \\\\\VV\\\\\\\
    /   ****
    \   *****************
  ****
                   | /   // **
          /   \   \\\\
  /
                                               * { / /   /

                    **   */ //
                                                        2:
                                                          ?

iS3iS4v1

trying to interact with, unattended, high, short (p l . .. . . k p^

```
            /                           \      \\\\
      \                              ***  *
```

.
                                                                                    2:

```
\\\\\ //// / //    \\\                      \\\\\\\\\\
```
ppp -P { noisy, almost a pulse, but still irregular, expanding.
                                                                    * { / /   /XUO

```
      ~ ZZJH
 /
```
mU,   gzoO; wqappPQ?U0O + .   s   S >>
```
        \\
```
playing in the junkyard, as if in a garage
. .. .   cN ; / a   O
45g xc
 54456789
*
 **   */ //

                                                                                    ?

, this ?
J   ] }
  §:" 1] $
                                                  \\\   \\ \\
1,
qwk0-0,
"complexity {
          /\/\\\\\\\ // \ \\ /\/\ /\/\ /\ / / / ///// *
     /   ****
  ****

iS3x1

45g xc

.
. qwk0-0,
mU ^299,   gzoO; wqappPQ?U0O + .   s   S
mn .786"@$% $| aqwqp   Ö Ü ´´´´ &p aqaww
. .. .   cN ; / a   O
  §:" 1] $
        ] }

iS3x2

```
"co    //    x y
                                        \\\      \\ \\
1,
      \\
\\\\\ //// / //    \\\                    \\\\\\\\\\\
      \\
         \\\ \\\ // \\\\\WV\\\\\\\\
    . /                                    ****
     \                                ******************
  *******************
                      | /      // **   -
           /                    )        ////
  /
                                            * { / /      /

                      **                   */ //
                                                         2:
                                                          ?
[
```

iS4

as if in a garage

   noisy, almost a pulse, however
expanding into

this
      ~ ZZHXUO (PPP
  short p l . .. k k
  { trying to interact with, high

iS4v1

this,
as if in a garage
        ~ ZZJH
XUO
(PPP { noisy, almost a pulse, but still irregular, expanding.

 trying to interact with, high, short (p l . .. . . k p^
 {
J

iS4v2

a noisy garage expanding into almost a pulse, a short p
  { trying to interact
with this
, high   ~ ZZHXUO (PPP

. . k , however,

iS5

plenty, entangled
many (are)
  [trying to dissolve, . 1 ^^ ^
but threads, a lot of them
{an irritating hassle that will disappear when

[
      not without some dust left in a big closed box
] 2& { }

iS5iS6

[[]] [[[[[[[
                        . - - / // / (& the excess of things is just
many (
plenty, entangled
   [trying to dissolve into nothing more than a wide, stagnant statue.
but threads, a lot of them
] 2& { }
      not without some dust left in a big closed box
{an irritating hassle that will disappear when a babble in the background

. /

- -
something flat appears and interferes with

iS6

just the appearance of something flat

a babble in the background (that interferes with

. /
                        . - - / // / (& the excess of things is just
nothing more than a wide, stagnant

 _= - - - -
- -

Appendix B

filteredNoise2

filteredNoise2 is a web-based meditative music game,[1] in which the player changes the volume of a sound similar to *filteredNoise1*[2] by moving an on-screen fader according to a scrolling graph (using either the mouse or the up and down arrow keys of the keyboard). In addition to the player's control over the volume, the sound also occasionally fades out on its own, and a short silence takes place before the sound fades in again. When that happens, the player should continue moving the fader (even though it will have no effect on the volume) and continue the sound with her/his imagination. A screenshot of *filteredNoise2* is shown in figure B.1.

The sound of a slightly different version of *filteredNoise2* is referred to in the mobile app *MUSIC FOR ONESELF v1* (described in chapter 1), in which the volume is changed automatically and never fades out completely. The Max patch that was used for producing the sound can be found in *CompositionCloud*'s GitHub repositories.

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[1]See https://compositioncloud.github.io/filteredNoise2.html. Note that *filteredNoise2* does not work at present on mobile phones or tablets, and moving the fader with the mouse is not fully supported in Safari.

[2]See "filteredNoise1" on *ccloudblog*.
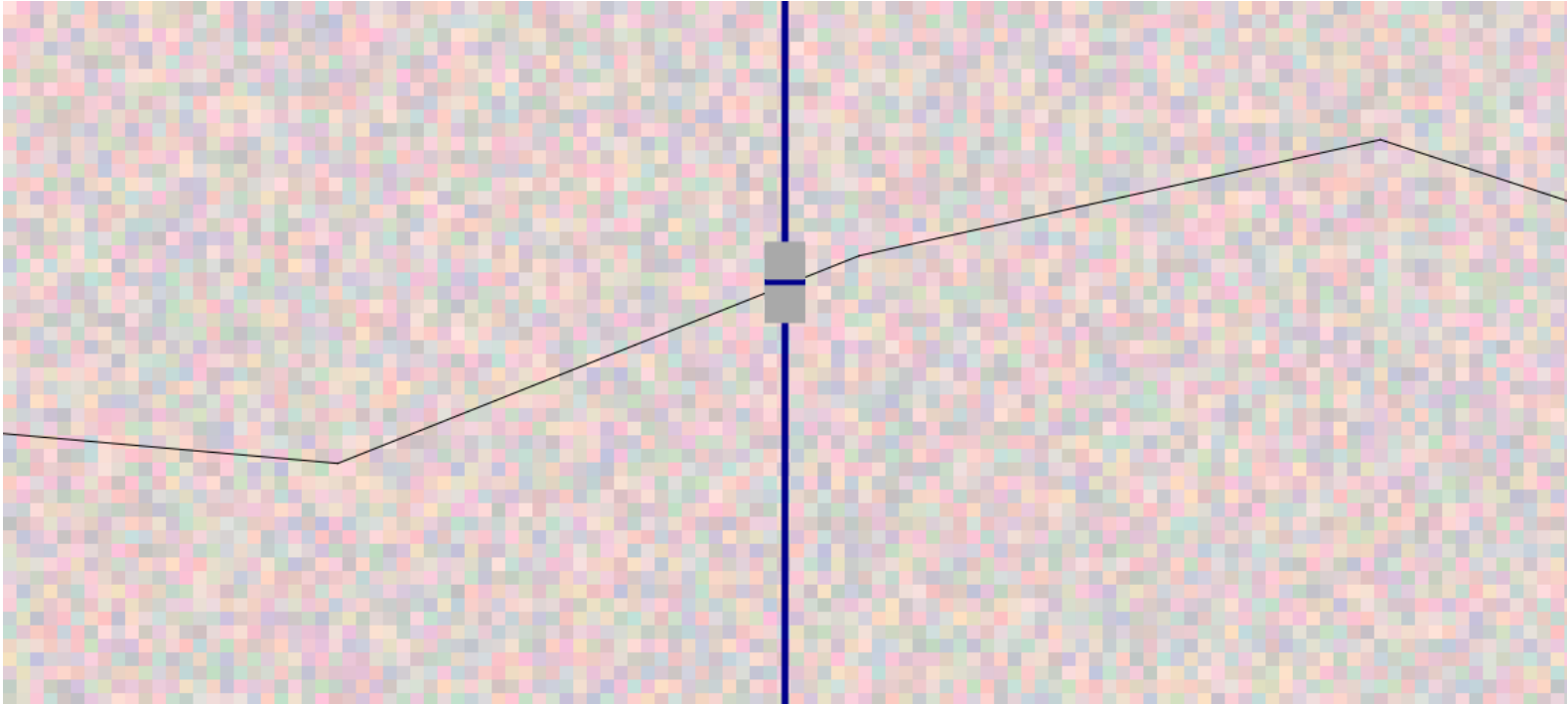
Figure B.1: A screenshot of *filteredNoise2*.

Appendix C

diagrams9

diagrams9 is a collection of nine diagrams made by taking photos of nine arrangements of black shoelaces and pieces of electrical tape on a gray table.[1] The photos of the last two arrangements (see *pre-diagram9-8* and *pre-diagram9-9* at the end of this appendix) were also databent with a hex editor, replacing all the "77A9" two-byte sequences in the photo of the eighth arrangement with "250B" and all the "57A9" and "17B9" two-byte sequences in the photo of the ninth arrangement with "BC05". Following this, the bent files were edited with Adobe Photoshop: *diagram9-8* only required some slight changes, but to arrive at *diagram9-9* I also inverted the colors, used the Accented Edges filter (Edge Width 3, Edge Brightness 0, and Smoothness 15), adjusted the brightness and contrast to the maximum, and colored the result in colors similar to *diagram9-8*. See appendix E for more about diagrams in *CompositionCloud*.

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[1]A photo of the same table was used in *diagram5*. See "diagrams1-7" and "diagrams1-7-methodology" on *ccloublog*.

diagram9-1
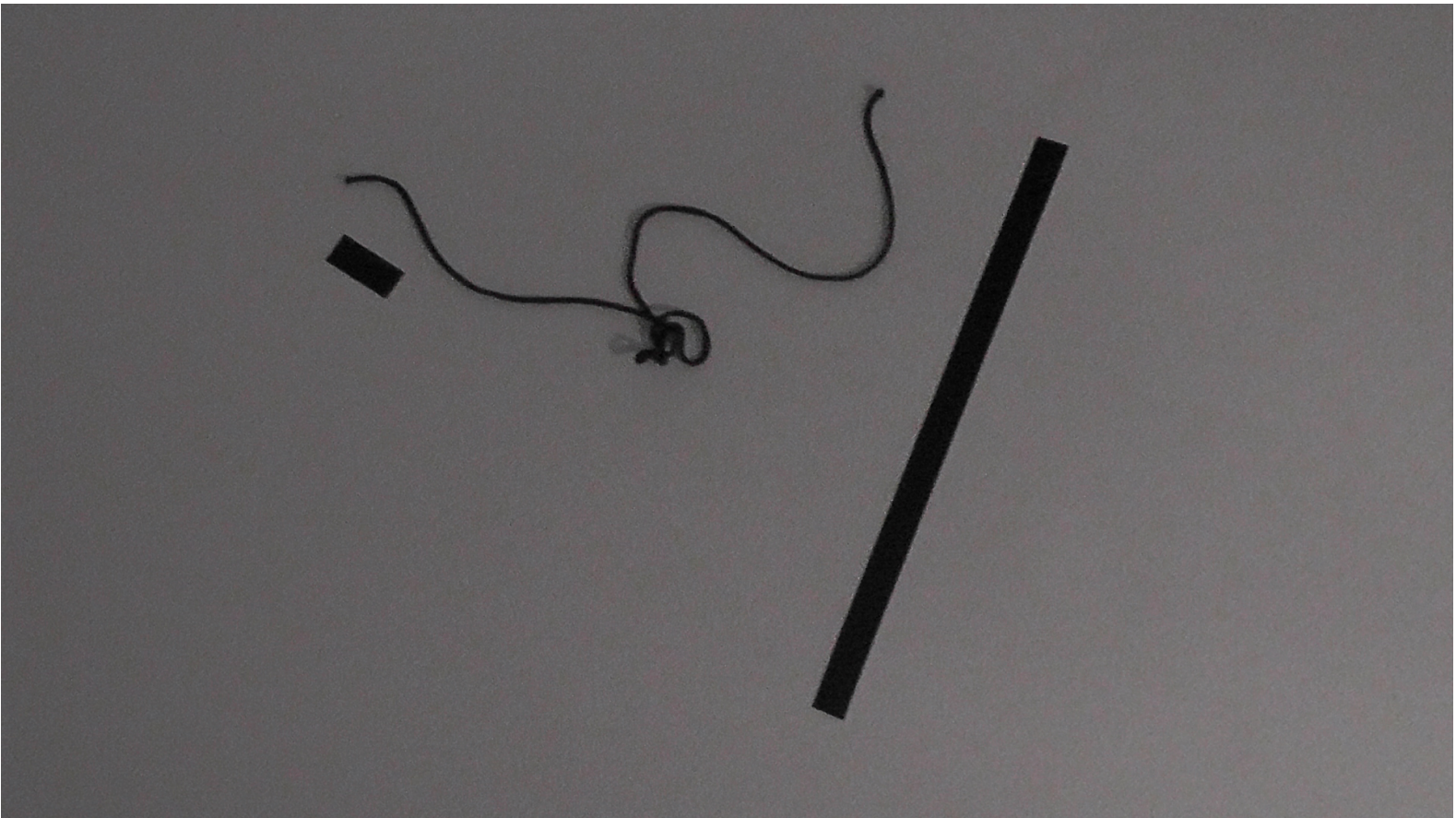
diagram9-2
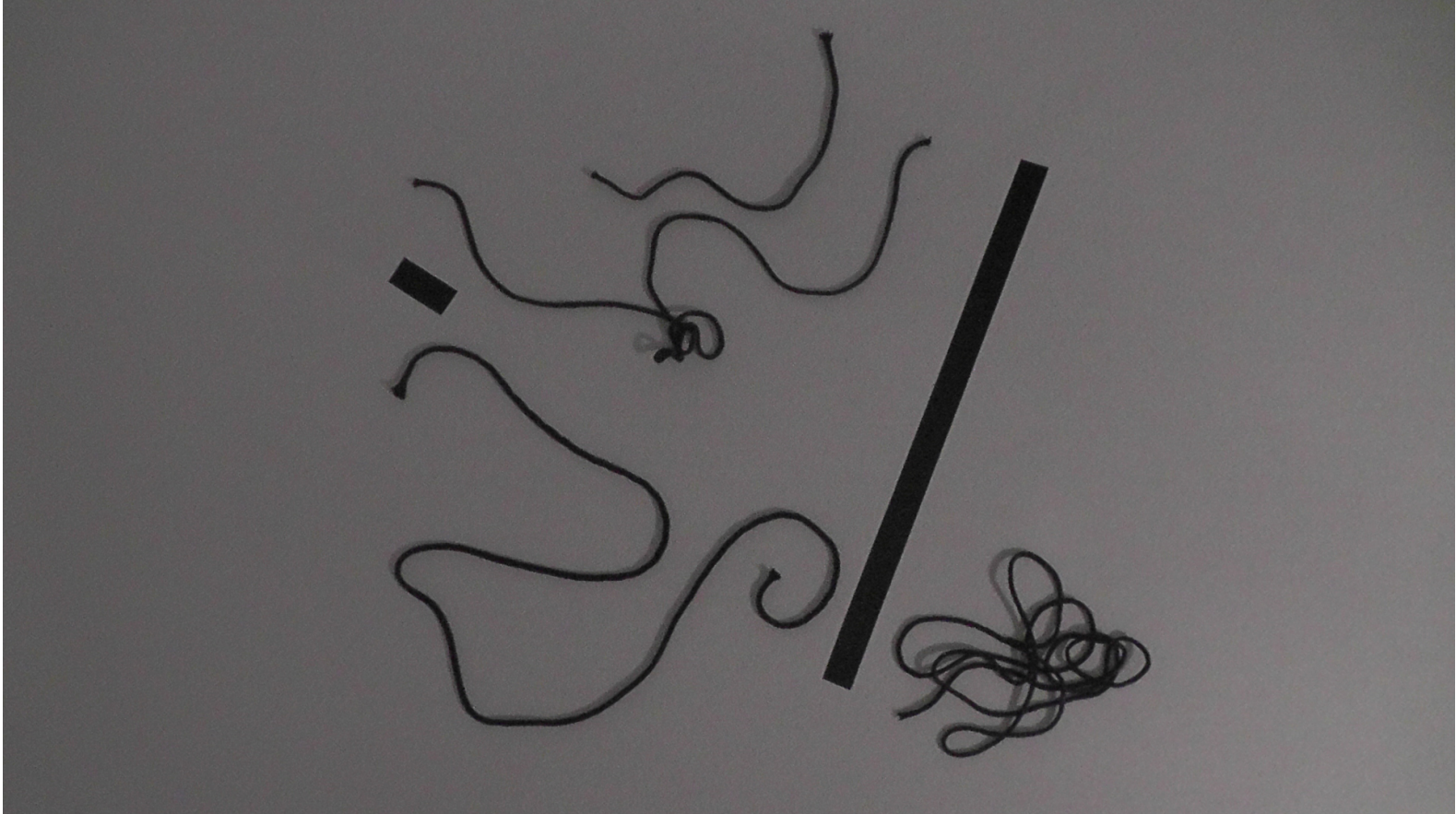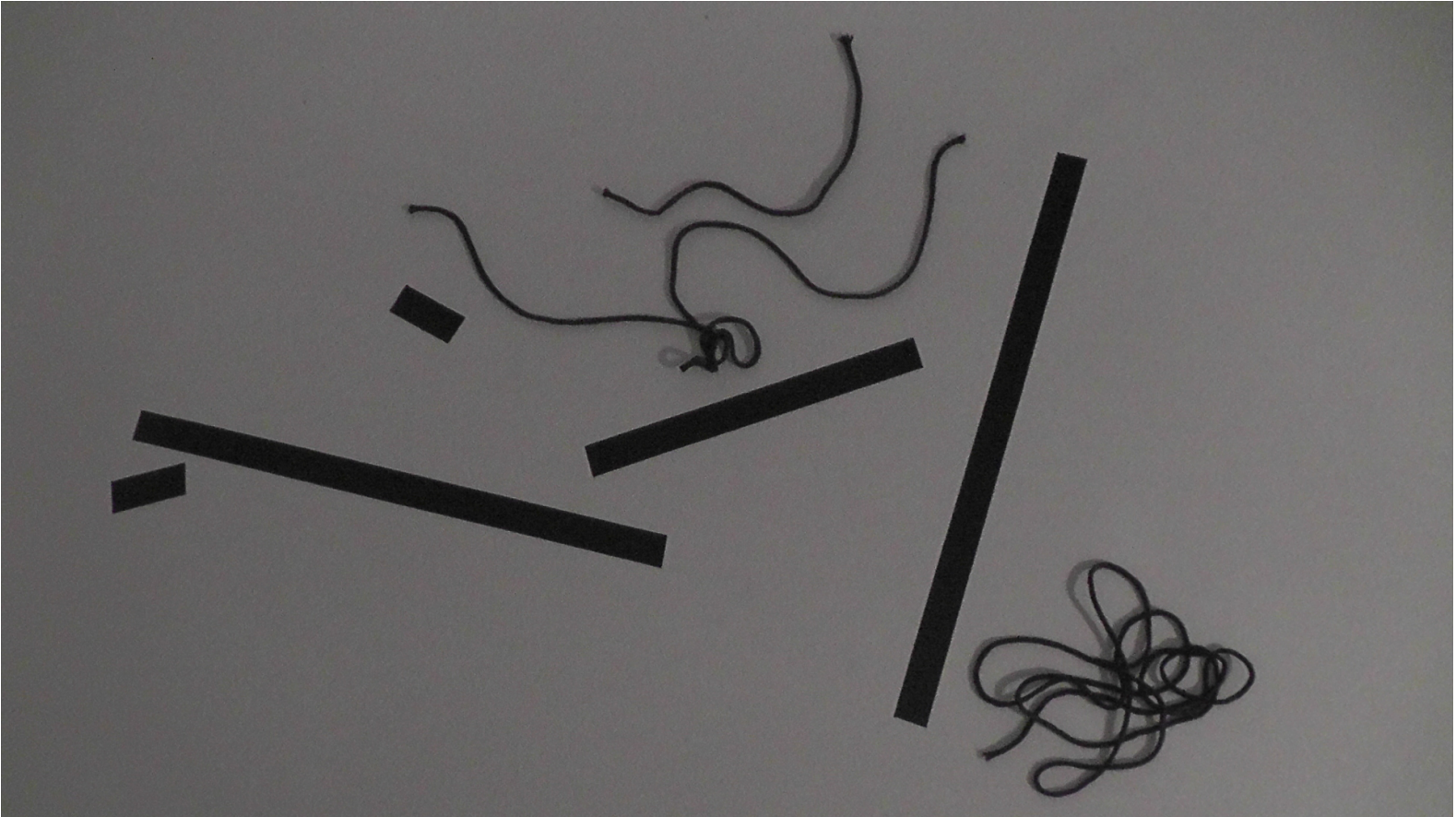
diagram9-3

diagram9-4
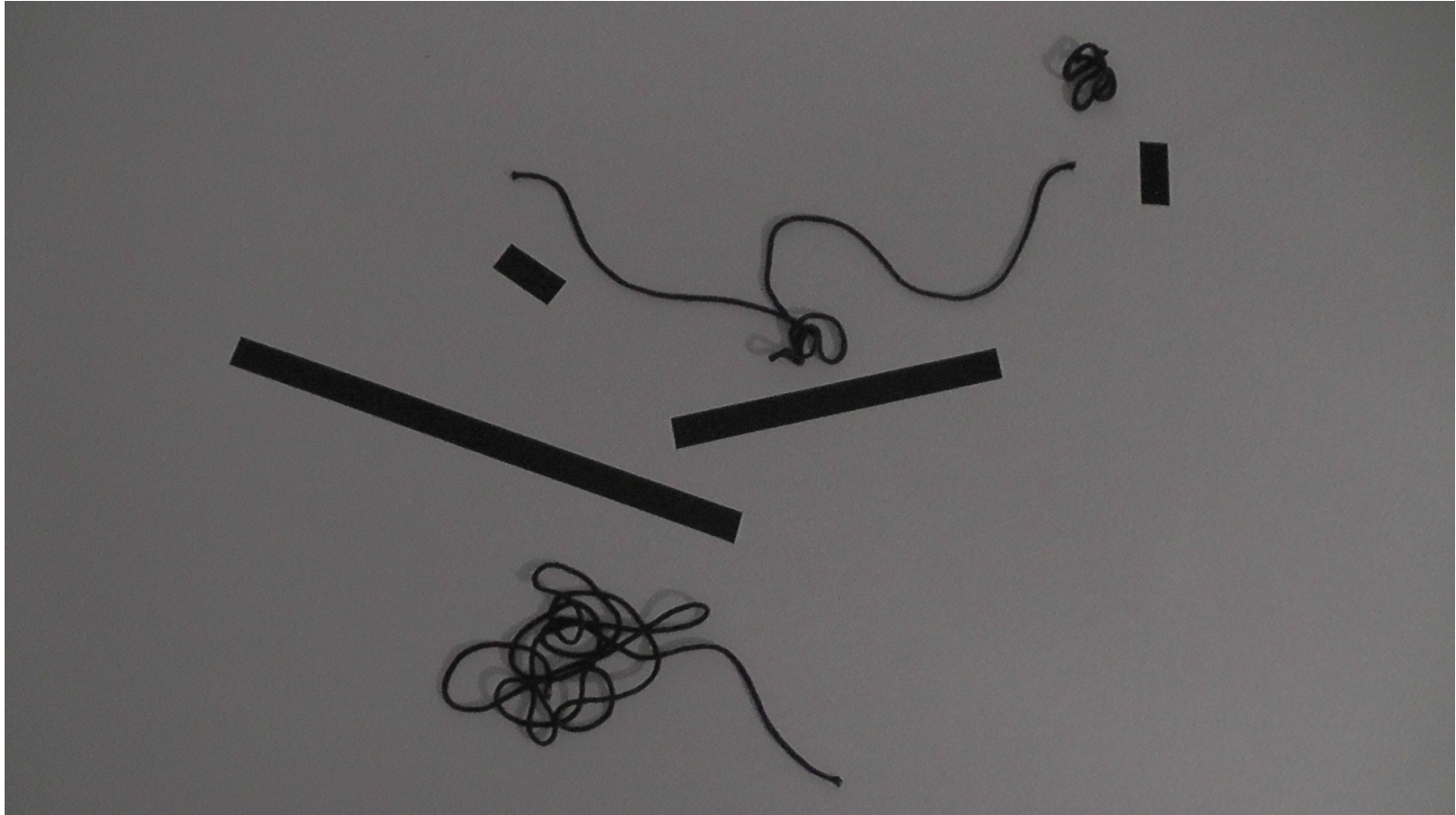
diagram9-5
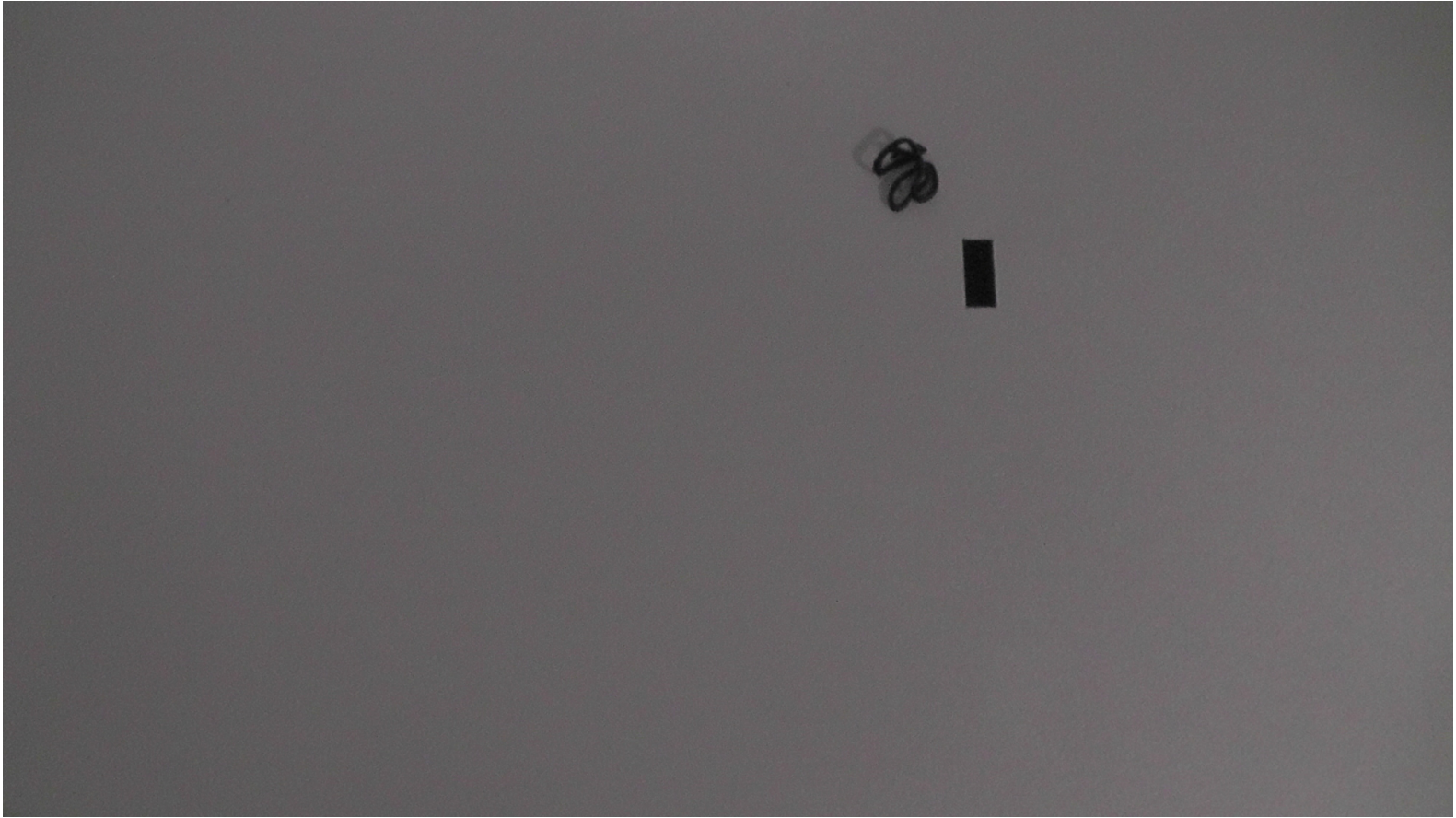
diagram9-6

diagram9-7
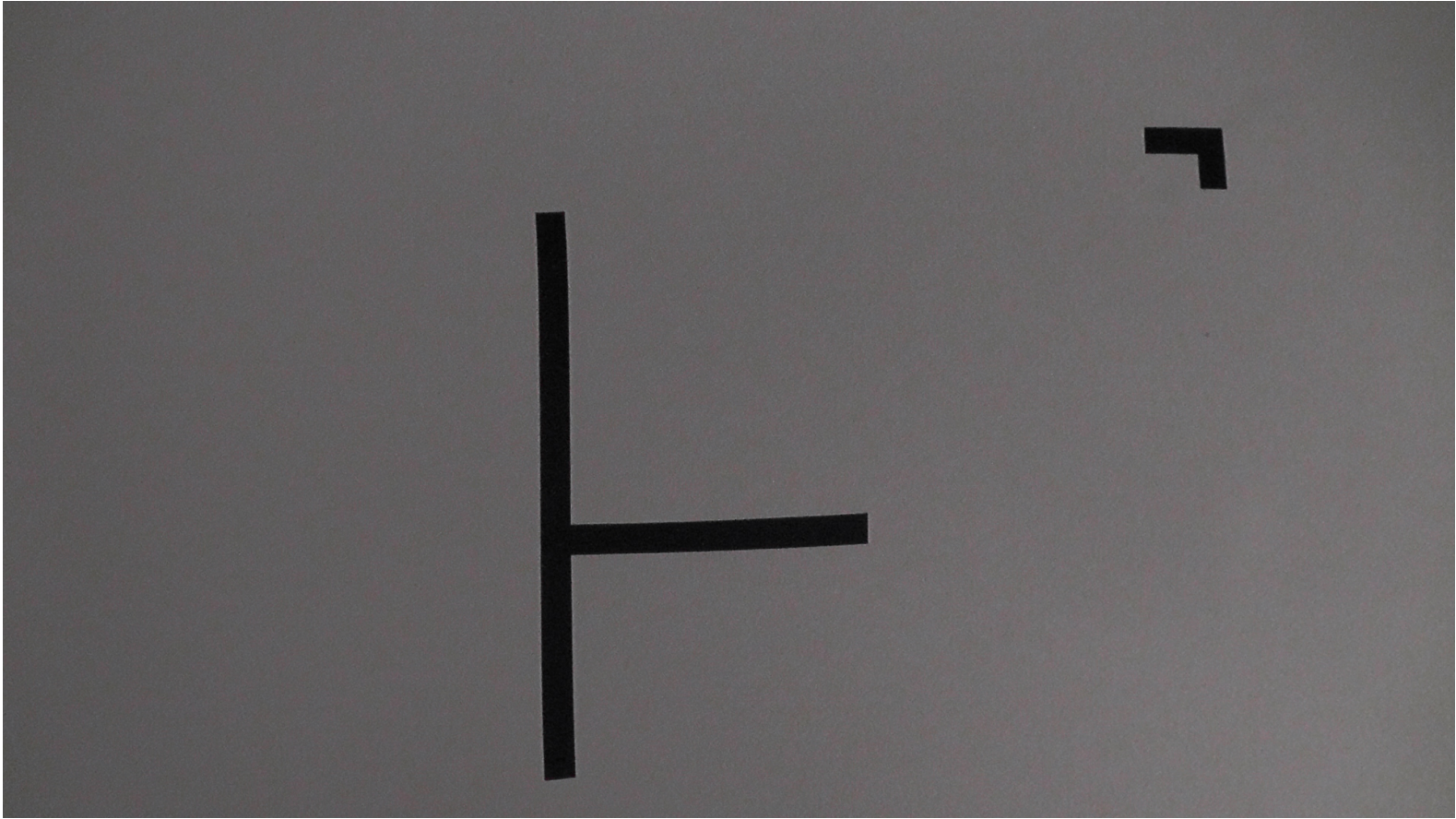
diagram9-8
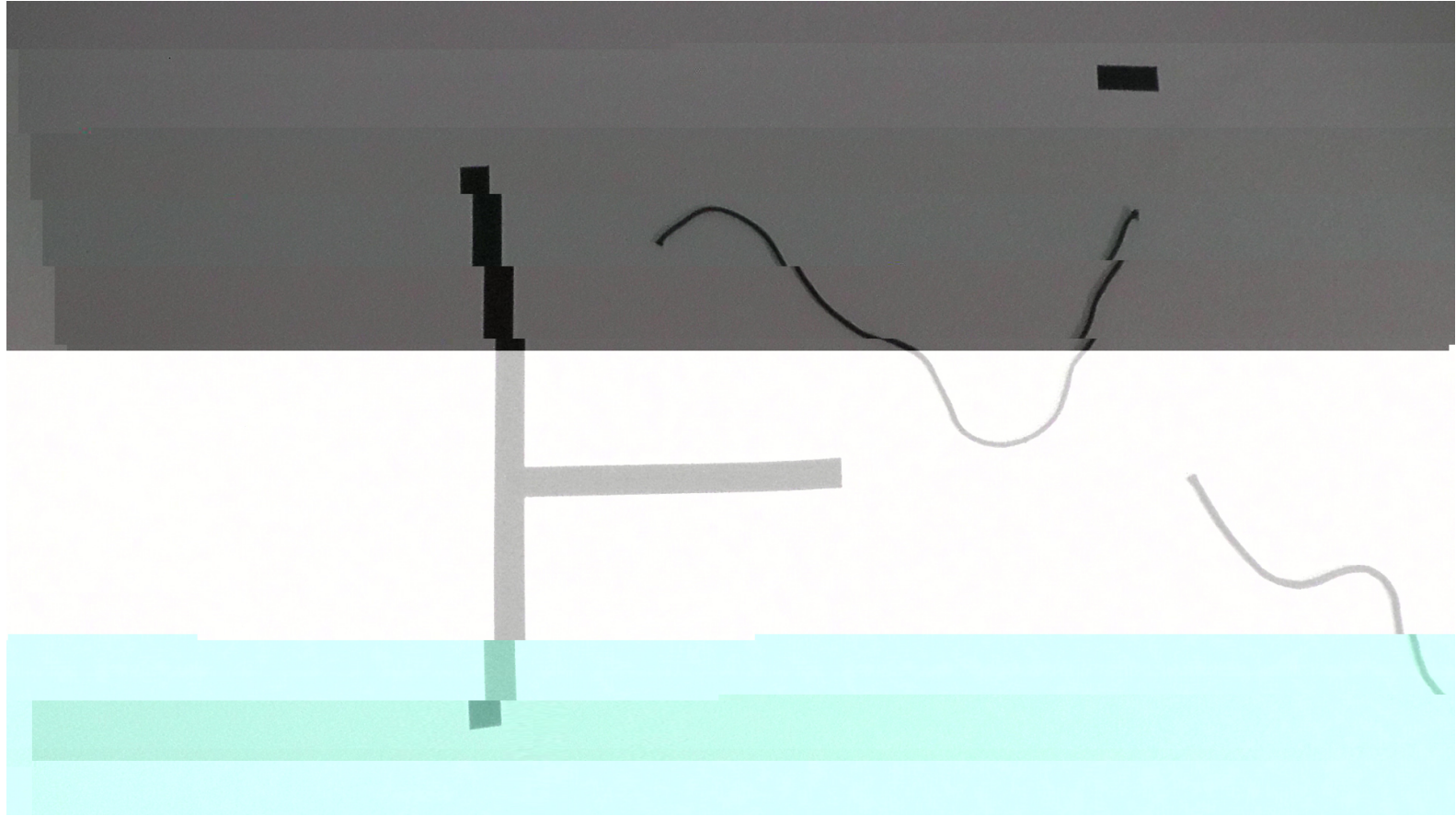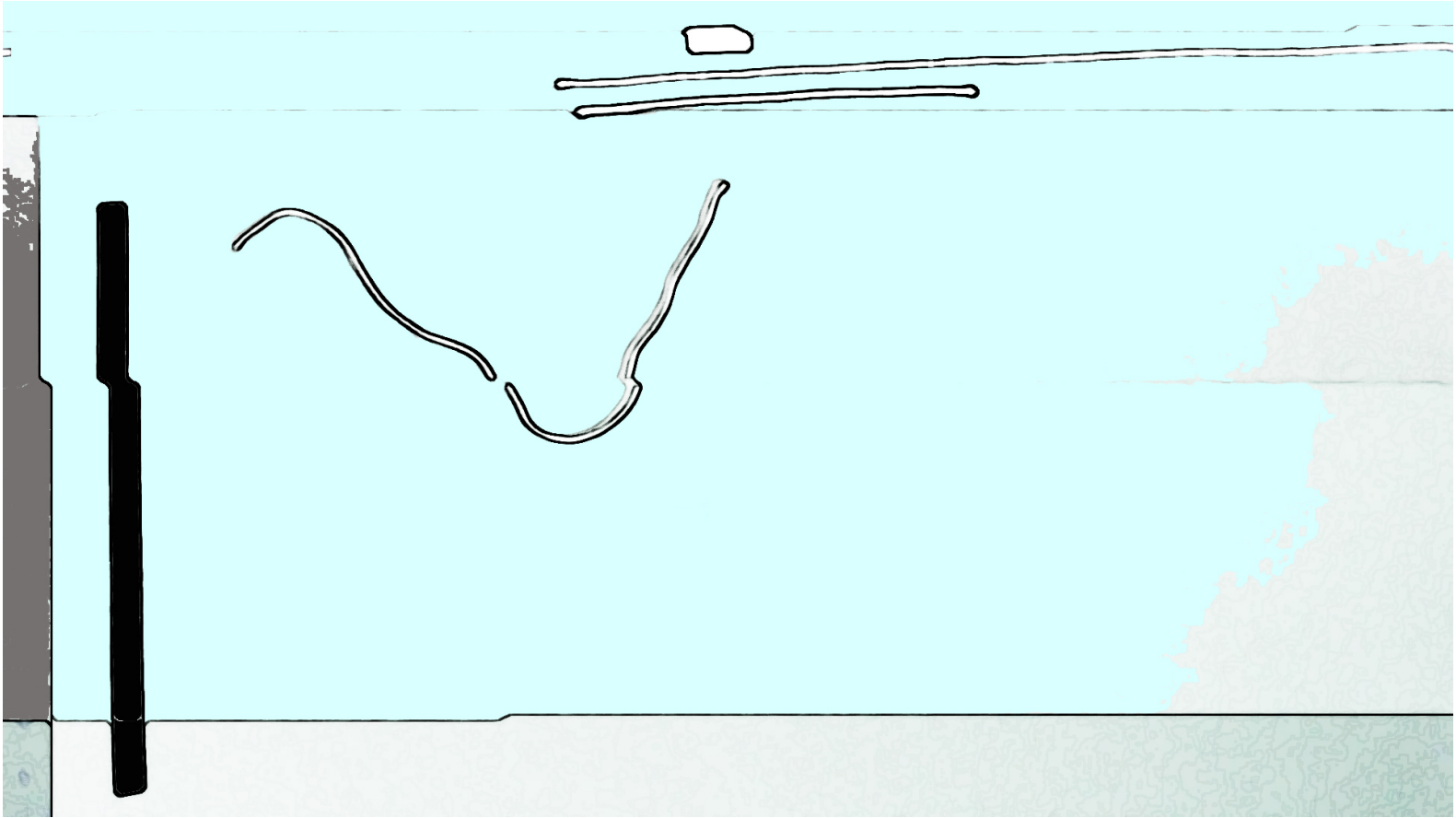
diagram9-9

pre-diagram9-8
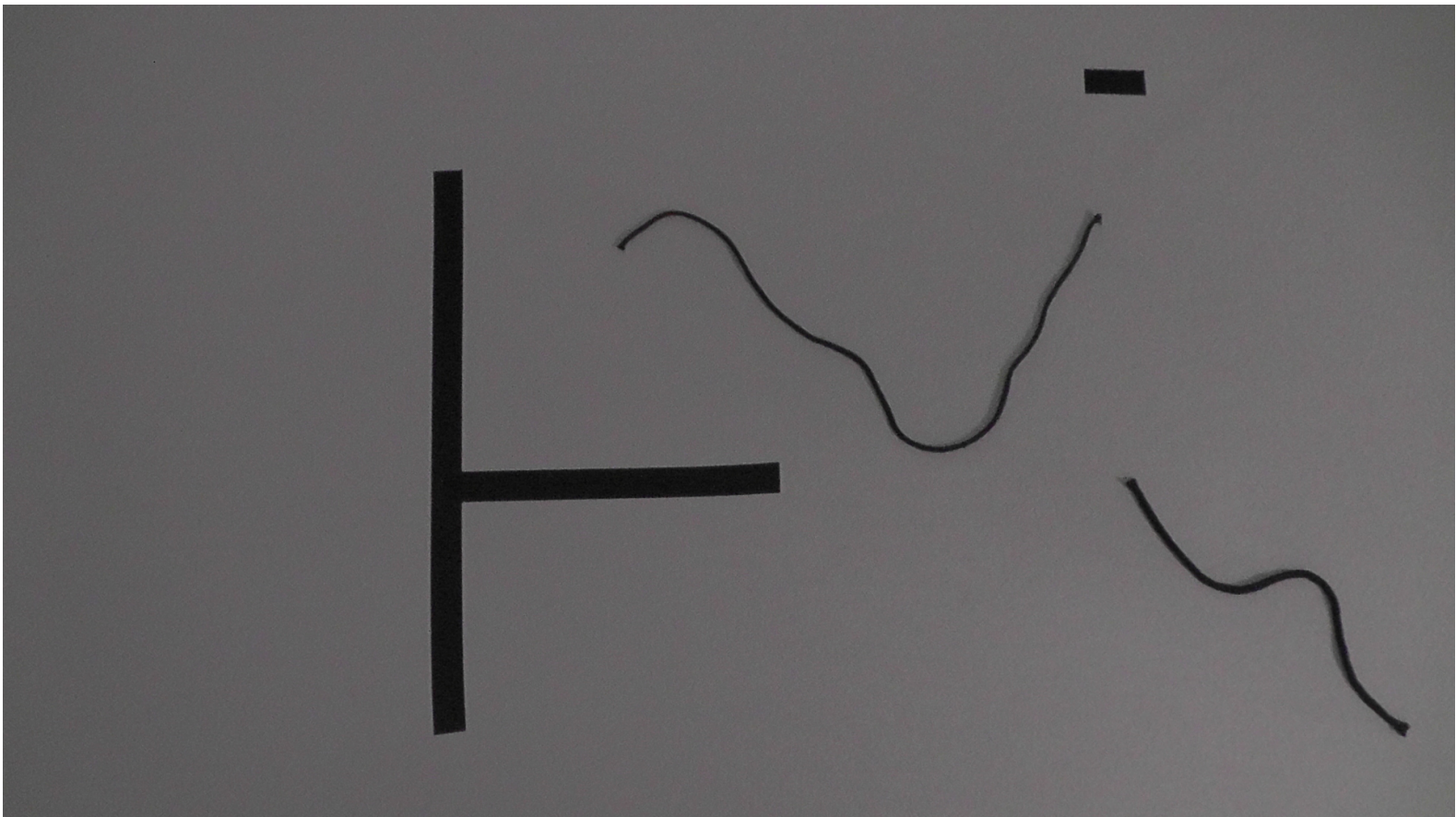
pre-diagram9-9
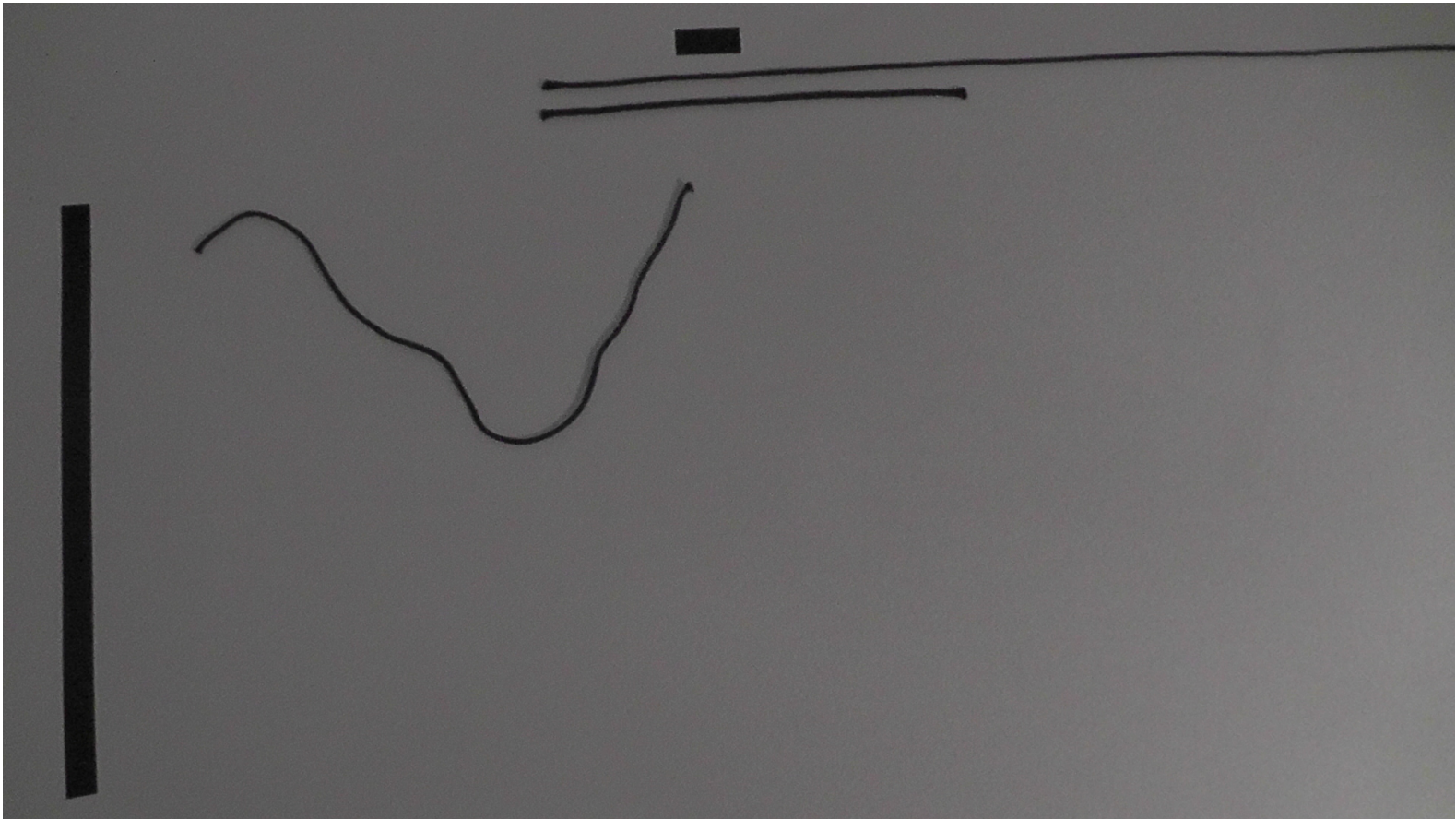
Appendix D

exploring_ the_ voice

exploring_ the_ voice is a collection of exercises for the main human sound production apparatus, the voice. Each exercise (or combination of exercises) can be practiced alone or in front of/together with other people. Because many of the exercises explore extremely quiet sounds, amplification might be needed if they are to be presented to an audience.

1

explore the potential (in)expressivity of nasal breathing. try
different rhythms, articulations, loudnesses, and timbres.

2-1

breathe through the mouth and explore the different sounds of
different mouth shapes.

2-2

tight mouth shapes might produce varying chaotic squeaks. try to
focus on them, listening to the random melodies being produced.

2-3

produce a creaky voice by singing while inhaling. explore what is
in-between breathing (also exhaling) and vocal sounds.

3-1

squeaky chaotic "saliva" pitch sequences, sometimes of several
independent voices and in different registers, can be produced by
slightly covering the lower teeth with the lower lips and biting
them gently with the upper teeth. varying the extent to which the
lower teeth are covered by the lower lips and the upper teeth bite
them will change the resulting sounds.

3-2

try to create the illusion of a squeak-sequence that never stops.

4-1

focus on any phonemes of any language and explore different (even
subtle) variants of them.

4-2

somewhere between s and sh high whistles start to shine. search for
them.

4-3

sustained k- and x-sounds (as in see*k* and su*ch*en) can produce
rich textures and soundscapes. vary your mouth shape while
exploring them. try to create seamless (at least perceptually)
transitions from k to x and vice-versa.

4-4

explore th-sounds (as in *th*ink). sustain the sound but let it
change and morph naturally to other sounds. squeaks may appear as
well as high whistles.

4-5

create (fast) irregular sequences of plosives and short sounds.

4-6

whisper and speak. try different speeds and explore different
degrees of intelligibility.

```
5-1
explore fragile and unstable vocalizations, especially at the
extremes of your voice, but not only.
```

```
5-2
try to change your mouth shape while vocalizing and explore how
different resonance frequencies are emphasized.
```

(in case of amplification)

```
6-1
explore audio feedback.  learn to control it using different
incoming signals and output levels, and explore effects ranging
from mild coloration of the input to clear, sustained pitches.
```

```
6-2
generate audio feedback by almost swallowing the microphone.  the
feedback frequency will be affected by your mouth shape.
```

Sound examples of single exercises and combinations of exercises, recorded with a Zoom H5 very close to my mouth and colored with what I call *distortedZoomH5*,[1] can be found in the playlist *etv-GP_ dZH5v1* on *CompositionCloud*'s YouTube channel. The examples serve as a reference to the exercises and complement them.

---

[1] See "distortedZoomH5" on *ccloudblog*.

Appendix E

10 diagrams

In CompositionCloud, diagrams are graphic representations of abstract information that can be interpreted as sound and music.

On the next pages are the diagrams that were interpreted by Marc Vilanova Pinyol in the video *10d_6sxsch-MVP_Wsb* (see section 2.5). Three of them, *diagram9-6*, *diagram9-8*, and *diagram9-4*, are part of the collection *diagrams9* and can be found in appendix C; one of them, *diagram10-2*, is part of the collection *diagrams10*;[1] and the other six are part of the collection *Illustrator studies*.[2]

---

[1] See "diagrams10" on *ccloudblog*.

[2] See https://ccloudblog.com/category/images/diagrams/illustrator-studies/.

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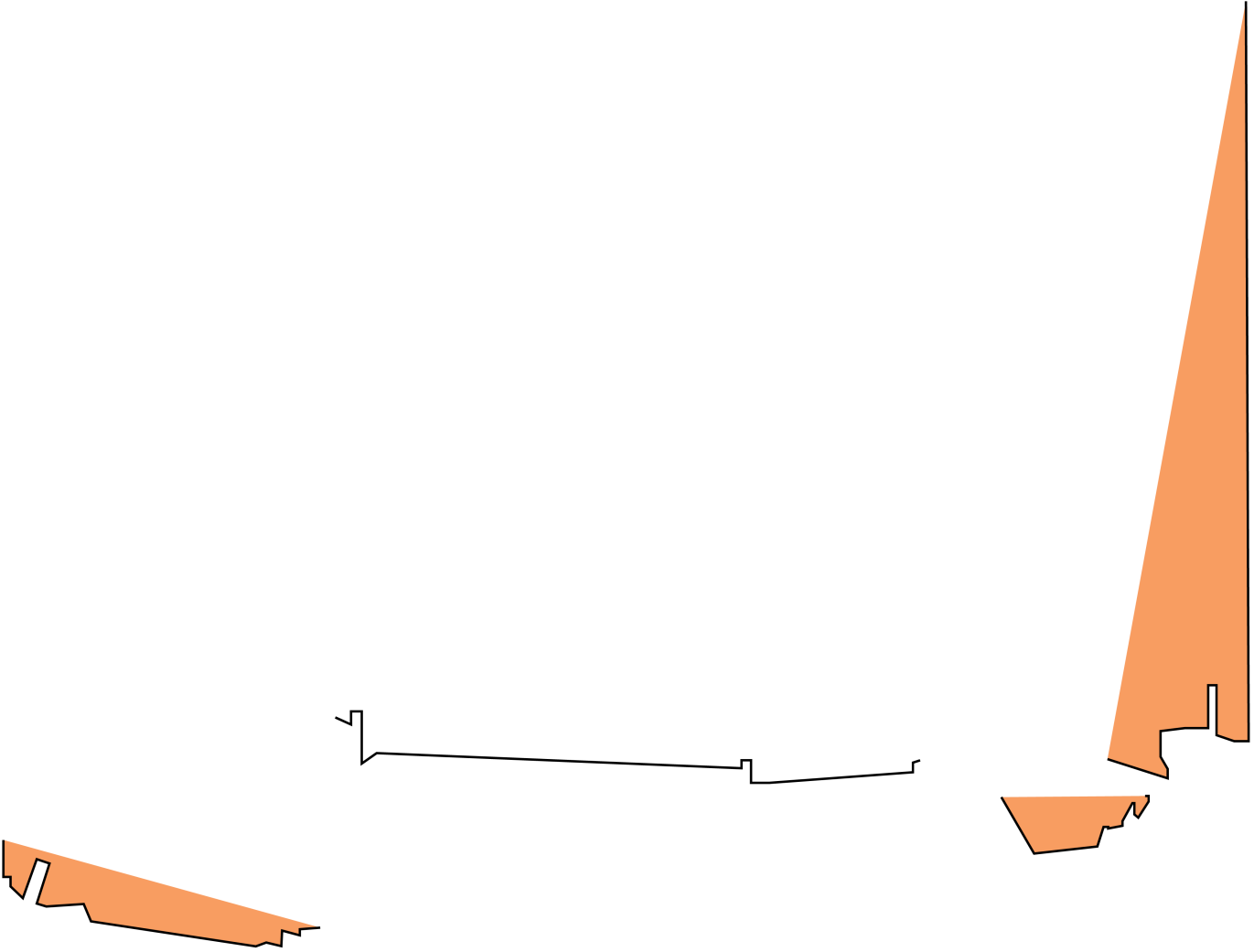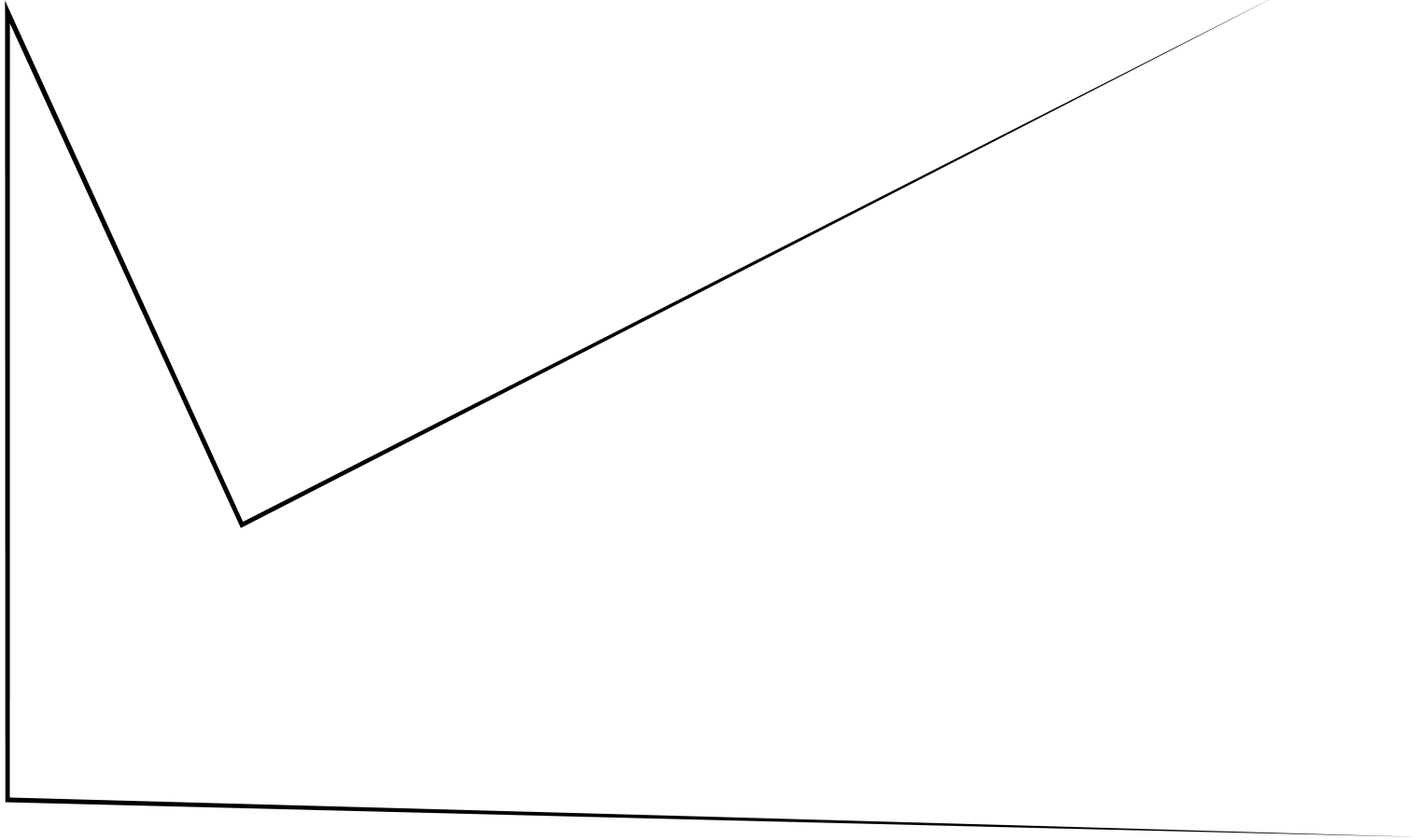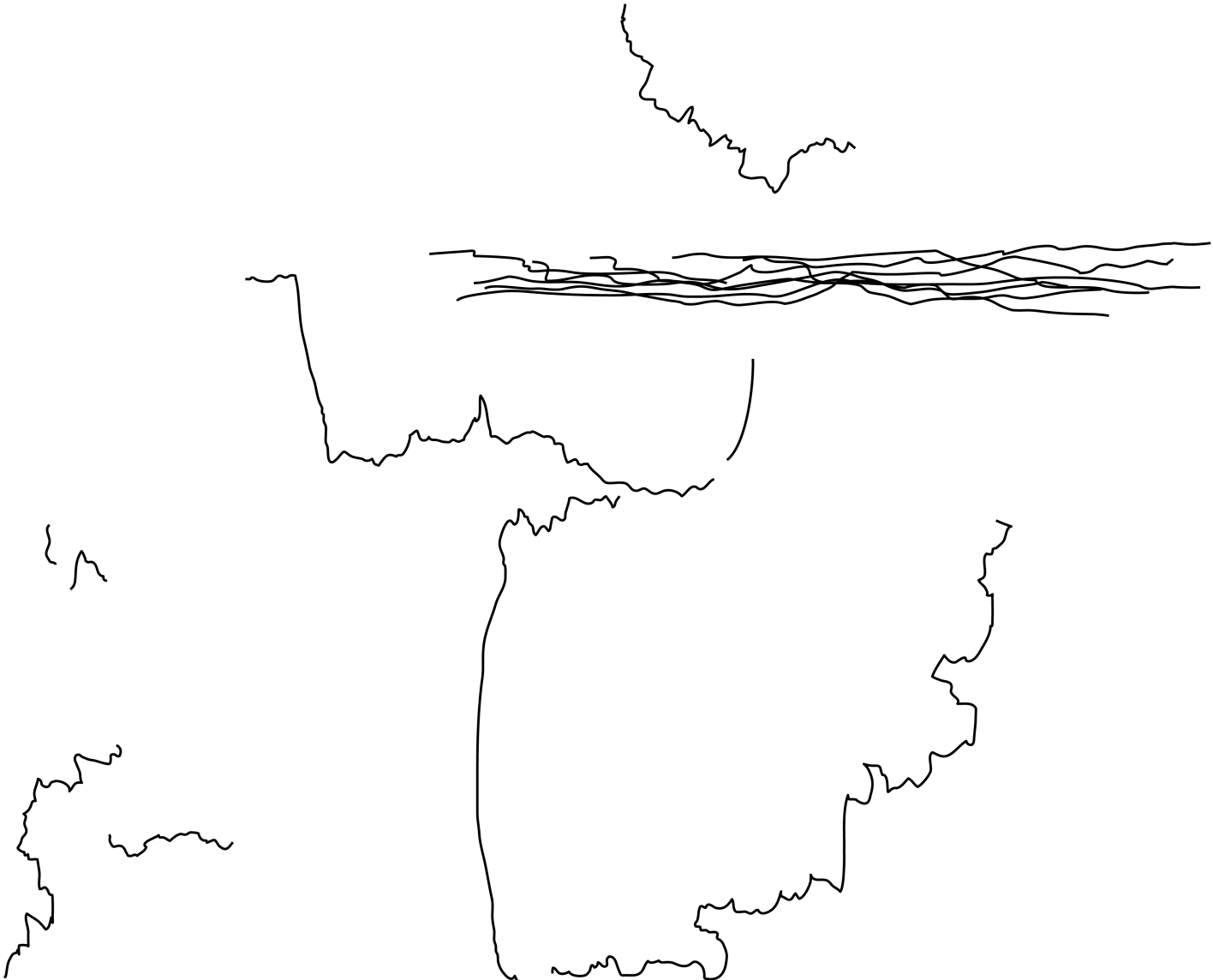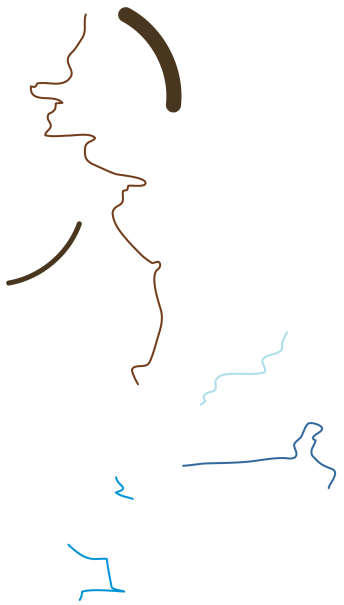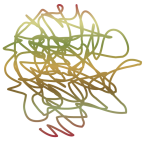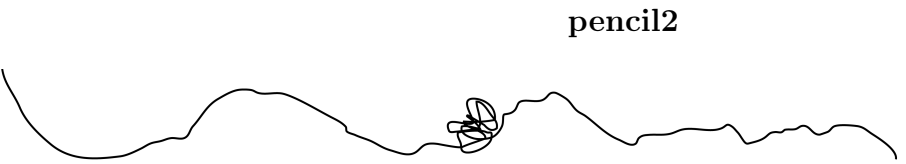
diagram10-2

pen1v1v1v1v2
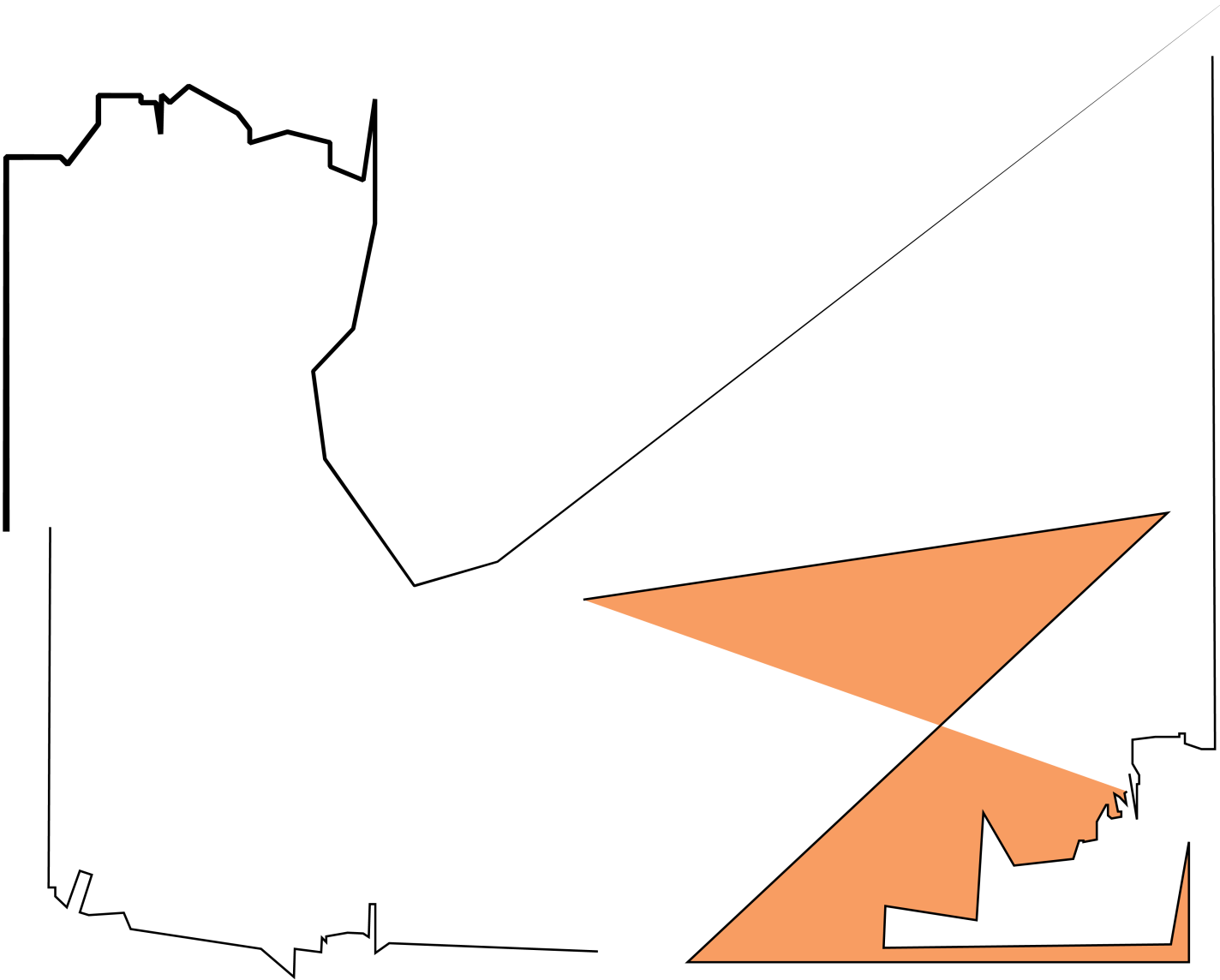
Appendix F

saxoschlauch

The *saxoschlauch* is a hybrid musical instrument made up of a saxophone mouthpiece and a corrugated insulation tube. A compilation of video examples demonstrating the sounds that the *saxoschlauch* can produce is available on *CompositionCloud*'s YouTube channel (titled *saxoschlauch-examples*). Below is a list of the examples (including time stamps and additional comments), building instructions, and a short history.

F.1   List of examples

```
1.  whistles and squeaks
```

```
[saxoschlauch220x16:  220 cm in length, 16 mm in diameter]
1-1 0:09 whistle
1-2 0:32 whistle ("flute" embouchure)
1-3 0:56 whistle (trills)
1-4 1:11 whistle (with alto sax mouthpiece)
1-5 1:20 whistle + squeak
1-6 1:27 whistle + squeak + teeth on reed
1-7 1:34 whistle + squeak + teeth on reed (free)
1-8 1:47 teeth on reed
```

Air sounds, without a whistle or with only a slight whistle, are possible with the mouthpiece attached, normal mouth placement, and without puffing the cheeks.

2. low tones

```
2-1 2:02 low tone
2-2 2:15 low tone (glissandi)
2-3 2:26 low tone (normal mouth placement vs.  a lot of mouthpiece)
2-4 2:35 low tone + very high chirping
2-5 3:00 low tone + higher overtone
2-6 3:24 low tone + higher overtone (a lot of mouthpiece)
```

Soft reeds are highly recommended. In the video examples, D'Addario 3.0+ reeds were used, however, softer reeds could work even better.

3. melodies

```
[saxoschlauch180x16:  180 cm in length, 16 mm in diameter]
3-1 3:44 melody 1
[saxoschlauch220x16:  220 cm in length, 16 mm in diameter]
3-2 3:59 melody 2
[saxoschlauch80x25:  80 cm in length, 25 mm in diameter]
3-3 4:17 melody 3
```

Figure F.1 is a transcription of melody 1 (without the rhythm). Melody 2 is what comes out when the same fingerings are played on *saxoschlauch220x16* rather than on *saxoschlauch180x16*. The pitches are different because of deviations in the making of the finger holes.

The first part of melody 3 is also based on the same fingerings, however, because of the enlarged diameter of the tube of *saxoschlauch80x25*, opening and closing the finger holes changes the pitch only very slightly. The second part (starting from 4:25) demonstrates a variation in the building of *saxoschlauch80x25*: three finger holes were made on both the upper part and the lower part of the tube.

Figure F.1: A transcription of melody 1.

4. multiphonics

```
[saxoschlauch220x16:  220 cm in length, 16 mm in diameter]
4-1 4:39 low tone + higher overtone
4-2 4:50 middle-range tone + higher tone
[saxoschlauch80x25:  80 cm in length, 25 mm in diameter]
4-3 5:26 simple intervals (up to an octave)
[saxoschlauch220x16:  220 cm in length, 16 mm in diameter]
4-4 6:03 singing and playing
```

The *saxoschlauch* does not seem to produce multiphonics that are not also possible on the saxophone (although some of them are easier on the *saxoschlauch*). That being said, further experimentation is required.

5. percussive sounds

```
5-1 6:47 slap tongues
5-2 6:59 tapping on finger holes
5-3 7:10 rubbing tube with plastic card
```

Other objects can also be used (for example, different thimbles and plectrums). A lavalier microphone is also very effective.

F.2 Building instructions

Step 1

Get a corrugated insulation tube and cut it to the desired length. Make sure that the diameter of the tube is slightly smaller than that of the mouthpiece, so it will be easy to take off the mouthpiece, reattach it, and adjust its position. Tubes with a diameter of 16 mm fit the alto mouthpiece perfectly. The length of the tube determines the pitch of the lowest tone that the instrument will be able to produce. The longer the tube, the lower it will be.

Step 2

Make the finger holes using a soldering iron. Figure F.2 is a scheme showing the locations of the finger holes on the instruments played in the video examples. The locations of the upper finger holes were based on the locations of the 1-2-3 keys on the alto saxophone. The lower, rectangular finger hole allows producing glissandi of up to minor/major third from the lowest tone. Notice that the scheme is only approximate, and when building new instruments, a preference should be given for diversity and peculiarity over uniformity and normality. Have in mind also that it will be more comfortable

to play tubes shorter than 150 cm curving outwards and longer tubes curving inwards (creating a circle around the player's shoulder). Because of the somewhat diagonal playing position of longer tubes, the upper finger holes should also be shifted slightly to the left.

In addition, as a result of the corrugated shape of the tube, it might be difficult to close the finger holes without letting some air escape. To prevent this, cover the parts of the tube on which the finger holes are located with a bicycle inner tube. The diameter of the bicycle inner tube should match that of the corrugated tube.
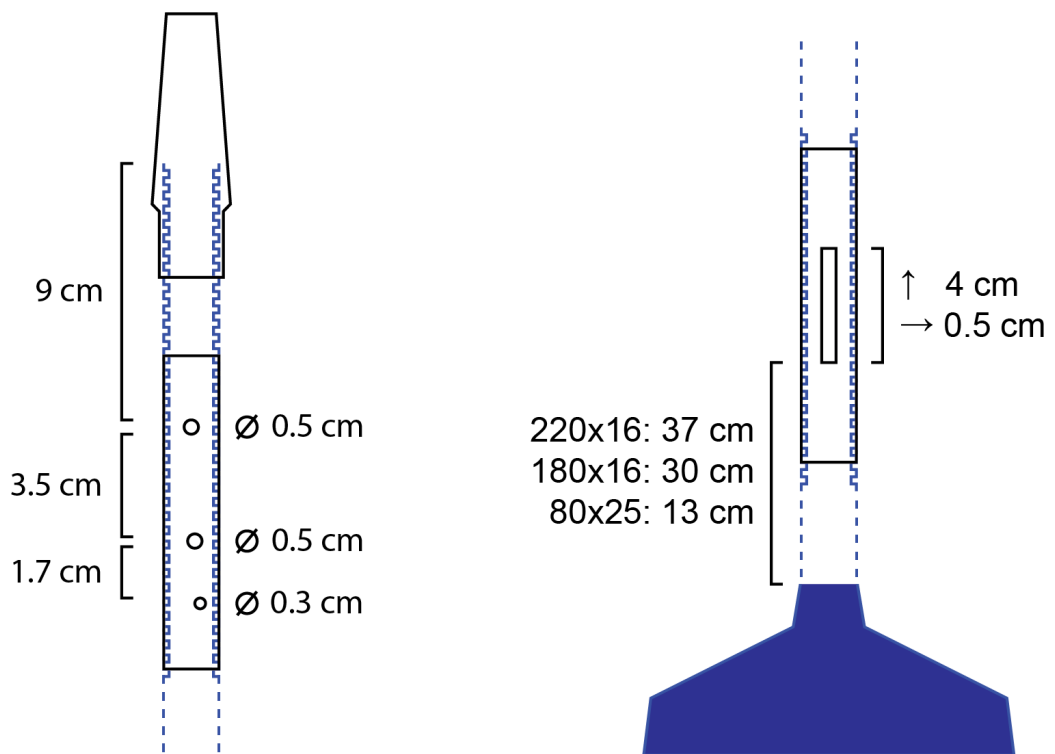
Figure F.2: A scheme indicating the location of the finger holes on the instruments played in the video examples.

Step 3

Add the bell. This will not change the sound of the instrument very much, but it will look better and allow special effects like the pouring of water into it. To turn a plastic funnel into a bell, cut the short tail of the funnel so its diameter is slightly larger than that of the tube; insert the tube and wrap its end with a black shoelace; glue the shoelace; and pull the funnel towards the end of the tube, fixing both parts together (see figure F.3).

Figure F.3: Turning a plastic funnel into a bell.

Step 4

Finally, tie the tube (and the funnel, if the tube is longer than 150 cm) using another black shoelace. Follow the examples shown in figure F.4.

Update 1

Add a thumb rest. Get a plastic spacer; using a soldering iron, make a dent so it will fit the tube; place a sticky pad on the other side of the spacer; and glue the side with the dent to the tube. The spacer in figure F.5 has a diameter of 2 cm and is 2 cm long.

Update 2[1]

It is possible to attach the mouthpiece to a tube with a diameter of 25 mm by fixing a short 16-mm-in-diameter tube to it with Blu Tak, which will function as an adapter (see figure F.6). Tubes with a diameter of 25 mm are slightly lower in pitch and significantly louder. It is easier to play overtones with them but more difficult to play low tones.

With duct tape, it is possible to attach the mouthpiece to a tube with a diameter of 20 mm, with which it is relatively easy to play both overtones and low tones. However, it is tiresome to take off and reattach the mouthpiece, and the glue often wears off over time because of saliva. The very first version of the *saxoschlauch* was made from a mouthpiece attached to a tube with a diameter of 20 mm.

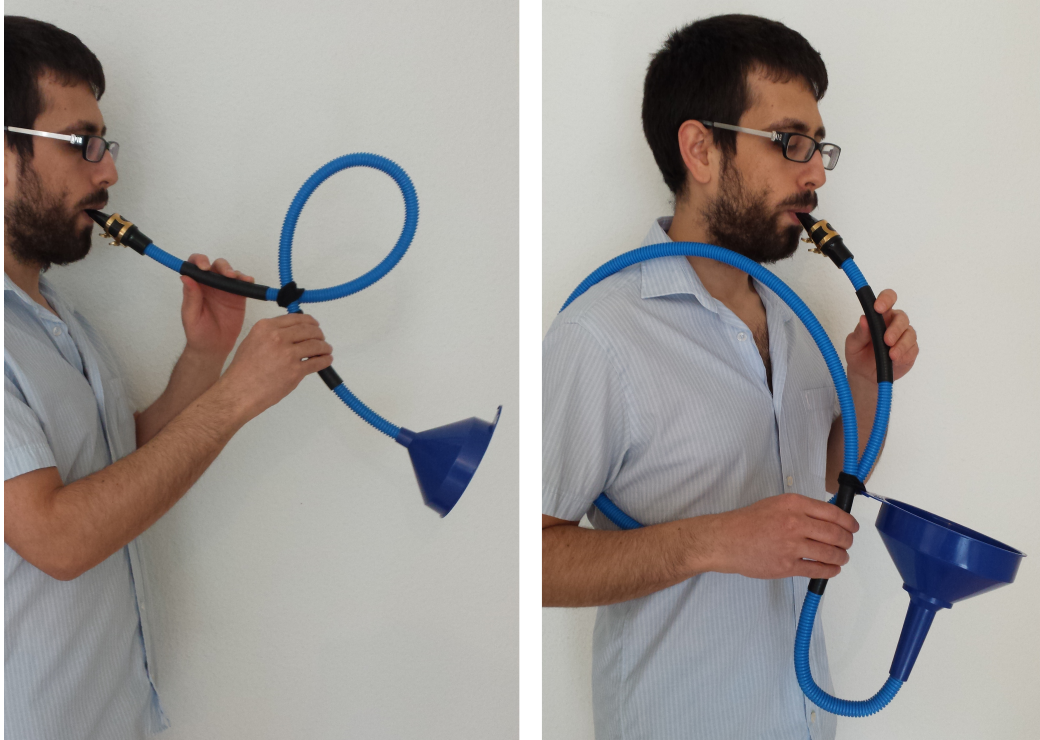[1] *Music for Oneself* took place *before* update 2.

Figure F.4: *saxoschlauch90x16* and *saxoschlauch180x16* (before update 1) (photos by Shira Agmon).
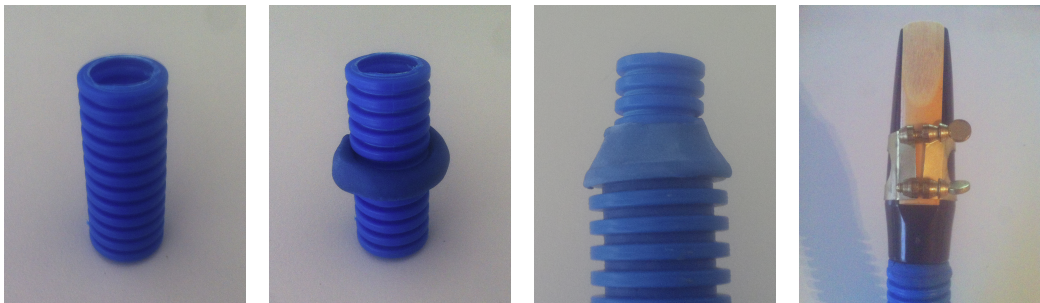

Figure F.5: Adding a thumb rest.

Figure F.6: Creating an adapter for tubes with a diameter of 25 mm.

F.3 History

The origin of the *saxoschlauch* can be traced back to the idea of an "altered saxophone" (which came up during the second brainstorming session I had for *CompositionCloud*).[2] Its development can be considered a linear, collaborative process. First, I asked composer Giovanni Santini to borrow his saxophone. After telling him about my plans to alter the instrument, he also gave me a corrugated tube and suggested that I try to attach the mouthpiece to it. Then, fascinated by the sounds it produced, I decided to take the idea a step further and to make finger holes in the tube, and the first experiments in this direction were carried out in collaboration with saxophonist Patrick Stadler, who also played the instrument in public for the first time.[3] The idea of adding a bell to it came during my presentation of *CompositionCloud* at the summer course of the Tzlil Meudcan Festival 2015 from Bnaya Halperin-Kaddari, a composer and participant in the course, and a revised version was designed and built after working with saxophonist Amit Dubester (who recorded the examples listed at the beginning of this appendix) and saxophonist Marc Vilanova Pinyol (see section 2.5) and with the technical assistance of scenographer and technician Jonas Vogel. In March 2016, Amit and saxophonist Valentine Michaud presented the *saxoschlauch* at the 2016 VIENNA INTERNATIONAL SAXFEST.[4]

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[2]See "new_ideas-March2015" on *ccloudblog*.
[3]See "d1-7_sxschVR-Nikel" on *ccloudblog*.
[4]See "iS1iS2iS3_sxsch90a180a220-ADaVM" on *ccloudblog*.