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Master of Fine Arts in Music, with specialization in Improvisation Performance

Academy of Music and Drama, University of Gothenburg

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Author: Johannes Bergmark

Title: The Hell Harp of Hieronymus Bosch. The building of an experimental musical instrument, and a critical account of an experience of a community of musicians.

Supervisors: Professor Anders Jormin, Professor Per Anders Nilsson

Examiner: Senior Lecturer Joel Eriksson

ABSTRACT

Taking a detail from Hieronymus Bosch's Garden Of Earthly Delights as a point of departure, an instrument is built for a musical performance act deeply involving the body of the musician. The process from idea to performance is recorded and described as a compositional and improvisational process. Experimental musical instrument (EMI) building is discussed from its mythological and sociological significance, and from autoethnographical case studies of processes of invention. The writer's experience of 30 years in the free improvisation and new music community, and some basic concepts: EMIs, EMI maker, musician, composition, improvisation, music and instrument, are analyzed and criticized, in the community as well as in the writer's own work. The writings of Christopher Small and surrealist ideas are main inspirations for the methods applied.

Keywords:

Experimental musical instruments, improvised music, Hieronymus Bosch, musical performance art, music sociology, surrealism

Front cover: Hieronymus Bosch, The Garden of Earthly Delights, Museo del Prado, Madrid, detail of the Harp, third panel (Hell).

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Preface

I have deliberately avoided to spell nations and nationalities with capitals. I refuse to acknowledge the validity of nations and nationalities as no one ever had a choice where or by whom they would be born. We are not born equal until humanity is united and collaborates for the benefit of all on equal terms and with equal opportunities. Until then, nationality is slavery and discrimination. I realize that nationality was once a tool for the advancement of civilization, but history is not over yet.

The recent invention of the gender-neutral pronoun “hen” in the swedish language has no corresponding word in english. I have chosen the solution of Bob Carroll of the Skeptic's Dictionary: to use “he” and “she” every other time.¹ That provides imagination with enough variety, since most of us are a “he” or “she”.

As far as my language skills allow me, I have chosen the us american spelling over the british one.

I have used bold for signifying sections or categories and italics for names or special concepts, at least the first time they are used.

All internet links have been checked for actuality during May-June 2019, unless otherwise stated.

Introduction

The purpose of this thesis is twofold, thus its division into two parts:

1. Describing the process of building the Hell Harp as a compositional and improvisational process.
2. Describing and critically analyzing my background and experiences in the contemporary art and new music communities in general, and the free improvisation and experimental musical instrument building communities in particular, mostly in sweden but not limited to it. This is mainly done from two basic perspectives: the surrealist attitude and the sociological view, analyzing my own behavior as a musician, instrument maker and writer, as well as the ideological contents of those environments. Since my experience here goes back to the 80ies, I do so partly by reviewing some writing I did a long time ago, with the advantage of seeing it from a distance of up to more than thirty years. If the wealth of information might be overwhelming, please keep in mind that I am neither trying to write an autobiography, history, nor a sociological, musicological or conceptual analysis, but parts of all this I find necessary to get a picture of where I stand, which in turn is the background to the specific case study that Part 1 is.

My hope is that this writing is inspiring, exciting, informative and fun, and that it could help the reader to be more inventive as well as critical in these fields or indeed any other.

¹ <http://skepdic.com>

Part 1 The Hell Harp, from idea to performance

On the cover of this thesis is a detail from the right panel of Hieronymus (or Jheronimus) Bosch's famous triptych *The Garden of Earthly Delights* (Museo del Prado, Madrid, see also full image below), painted ca 1490-1500. As one of the major precursors, on the visual plane, of surrealism, his works, and especially this one, have fascinated me greatly. Every time I was in Madrid, even though sometimes only to change trains, I made sure that I would visit this piece and contemplate it as long as possible. Prado has a great collection of paintings, but this one is the one I've always made sure to see, if there was time for nothing else, I ran directly to it and ran straight out when I had to leave to catch the train.

Surrealism is a passion and an attitude that for me developed as an attractive solution out of a frustration of not being able to intellectually combine radical politics and my interest in music, around 1984. The Surrealist group in Stockholm formed 1986 and I've been a member ever since.² The eagerness to meet all living surrealists took me to Chicago in 1987, where I met Hal Rammel, a meeting that changed my life and took me into the world of Experimental Musical Instruments (hereafter EMIs), among other things.³



1. Hal Rammel and Johannes Bergmark playing the saws

This, in turn, raised my interest in all kinds of musical instrument making, and led me to my education as a piano technician. At one of the schools, I encountered Terje Mentyjærvi, a student of guitar making, who was also a member of the physical street theatre and jesting group Stella Polaris.⁴ He brought me into that world at the same time as we both were making invented instruments of different kinds. We played my musical performance instrument the Stringed Stirrups as a duo,⁵ under the name Acrobatic Music,⁶ as well as in theatre performances with Stella Polaris, in a group with another guitar making student and EMI maker Harald Beckstrøm (under the name



2. Acrobatic Music

2 <http://surrealistgruppen.org> The catalyst was the self-produced pamphlet *Surrealism!* In 1984 by fellow political activist Bruno Jacobs with Swedish translations of contemporary texts by active groups in Chicago and in Australia, to celebrate 60 years after the *Manifesto of Surrealism*.

3 <http://www.halrammel.com>

4 <http://www.stella-polaris.com>

Støyorkesteret, later Fretlessarméén)⁷ and a concert with Jaga Jazzist. The combination of EMIs, acrobatics and comic or astonishing performances was thus something we indulged in in a number of ways. The origins of the theatre are much in the street, among unprepared audiences, long before, or at least parallel to, theatres built for performances. The medieval traditions of *Commedia del arte* are very much alive here, and I'm not certain how or when, but I think I remember that we were looking at a reproduction of Bosch's Garden of Earthly Delights and were especially interested in the right panel, depicting his version of Hell, where lots of instruments are used as instruments of torture. The image of a man "crucified" by the strings in a giant harp struck an obvious chord with me – it wasn't that far from the Stringed Stirrups! – and the idea came up to make a full-size construction replicating this image into a functional instrument.



3. Fretlessarméén

This must have been around 1995, and I more or less forgot about it during two decades after that. The education ended with us qualifying as Journeymen in Germany 1996. I worked a year full-time to organize the festival Oslo Impro in 1997,⁸ and then returned to Stockholm where Fylkingen became my new artistic home,⁹ with EMS (Elektronmusikstudion) as a constant appendix.¹⁰

When I heard the rumor,¹¹ through my surrealist friend in Isle of Wight, Paul Cowdell,¹² about the anniversary coming up of Bosch's death 2016 (his birth year is uncertain but is approximately 1450). I was reminded of the plan I once had, formulated it and applied for a travel grant to the exhibition as well as a project grant to realize it. Both were from Konstnärsnämnden (The Swedish Arts Grants Committee) and both were granted.

5 An instrument which the musician is physically involved in: two piano strings hang from the ceiling (or high point) and the musician is attached to them, hanging in the air, standing in stirrups at the lower end of the strings. See more below and on <http://bergmark.org/stirrups>.

6 <http://bergmark.org/acrobaticen>

7 <http://bergmark.org/fretlessarmeen>

8 Johannes Bergmark, *Oslo Impro* festival booklet (Oslo 1997), <http://bergmark.org/stare>.

9 <http://www.fylkingen.se>

10 <http://www.elektronmusikstudion.se>

11 Through the article: "Dutch museum achieves the impossible with new Hieronymus Bosch show," *The Guardian*, October 21, 2015, <https://www.theguardian.com/artanddesign/2015/oct/21/hieronymus-bosch-exhibition-holland-small-museum-host-largest-ever>.

12 <http://poundhammers.blogspot.se>



4. Hieronymus Bosch, *The Garden of Earthly Delights*, Museo del Prado, Madrid

I visited Museo del Prado in the end of July 2016.¹³ I originally planned to first also visit the grand exhibition at Noordbrabant's Museum in Bosch's home town 's-Hertogenbosch (from which he took his name) in April.¹⁴ It turned out that the exhibition moved to Prado just after, to join with the collections there, which made it become an even bigger exhibition, the biggest to date of Bosch's works, where some have been newly renovated and some triptychs that were split-up between different collections rejoined.



5. Selfie outside El Prado

I was beginning to visualize a full-size "reconstruction" of the harp (the harp image on the original painting is about 30-35 cm) where I would be hung between the strings to find out what the sound of the Harp from Hell would be. I spent time planning the work and expected to be ready to premiere it as a piece soon after.

A few attempts have been made before to copy the instruments in his paintings, but as far as I could find never in "full size", and with the essential element: a man "crucified" through his body by the strings.¹⁵

I planned to realize it, in other words, as a musical performance piece, where I myself would act as the tortured man hanging in the strings I play. I have to

¹³ <https://www.museodelprado.es/en/the-collection/online-gallery/on-line-gallery/obra/the-garden-of-earthly-delights/>

¹⁴ <http://www.hetnoordbrabantsmuseum.nl/english/jheronimus-bosch-2016/>

¹⁵ E.g. Eric Wilhelm Kleinmann's copy of Bosch's harp: <https://www.eric-harps.de/historical-harps/gothic.htm>.

point out, though, that the point for me was not the torture, but the body involvement of being in-between the situation as musician and instrument.



6. *The Last Judgment, detail of the Harp*

During the visit to the exhibition, I discovered that Bosch reused the image of the man crucified by the strings of a harp in another work some time later (see detail below), in *The Last Judgment Triptych* (ca 1505-15), when not on loan to that exhibition situated in Musea Brugge, City of Bruges, Groeningemuseum (not to be confused with another triptych with the same name in Vienna, or a fragment in Munich). See also full image below.

I was already considering an unorthodox way of realizing the image, not being true to the exact model, when I saw this variation, with different color and shape of the harp, and a different position of the man too. It also confirms my opinion that the interpretation (of *The Garden...*) that you sometimes see, that the harp and the lute behind it are built together as one instrument, is wrong.

I pay less attention to this second image though, not because it is debated if the picture was made by Bosch alone or by apprentices or students in his workshop (however, the renovators expressed no doubt, in 2015, that it is made by him alone) but because it has less expression in its details.¹⁶ The image is smaller in size, and so the perforation of the 11 strings is not clear, the man is simply painted in front of the strings, leaving it open for imagination how many of them that actually go through his body: maybe through both legs, arms and head, maybe just the torso as seems to be the case with the *Garden...* image.

When examining that, it looks like only 6 to 9 of the 21 strings go through his body (the last three might go through the head or just behind it, it's not clear), so two are free between his legs and 10-13 are free above his head (between his stretched arms).

At first, I thought that I should be as true as possible to the original image and its proportions, then I realized that I'm not actually interested in making a three-dimensional **copy** of the painting but to concentrate on the **idea** of hanging in the strings.

Another detail I discovered, when seeing the *x-radiograph* that researchers had made of the work, displayed in the exhibition, is that Bosch did some changes to the harp during the work on the painting: he took away a drapery that covered the hips of the man as well as some of the harp, and a demon's face looking at him from behind the strings. When I then looked back on the painting in a certain angle, I could clearly see the shape

16 Wieteke van Zeil. "Drieluik in museum Brugge is echte Jheronimus Bosch," *de Volkskrant*, November 20, 2015, <https://www.volkskrant.nl/cultuur-media/drieluik-in-museum-brugge-is-echte-jheronimus-bosch~be598da9/>.

of the brush strokes of the drapes that he covered with other paint later. This relates to an idea I got much later. See below!



7. Hieronymus Bosch, *The Last Judgment Triptych*, Musea Brugge, City of Bruges, Groeningemuseum

Earlier piano string works

The technique itself is not entirely new to me. I have in many years built a number of constructions and music based on **long strings**, of which many “acrobatic” in a similar way. Here are some examples:

- The Stringed Stirrups
- Down and Up
- Damplifly
- Rising Towards the Light
- The Aeolian Rowing Boat (unrealized)
- An Acoustic Study of the Wind

- An Acoustic Study of the Ocean
- Long String instruments at Skomvær Lighthouse

... and after this project was initiated also:

- Sound Fishing
- Androgynous Stones
- Sprelltima i klanghagen
- Long Strings with Sculptures¹⁷

I use piano strings, which are incredibly strong. My education as a Piano- and Harpsichord Maker and my 20+ years of professional practice (since graduating in 1996) as a piano technician have given me knowledge and skills for the instrument designing and building.

I wanted from the start to strive for making the instrument collapsible and transportable, to make it possible to perform in many venues.

Bosch: Poetic oneirism throughout 500 years¹⁸

If you read about Bosch and about the *Garden of Earthly Delights*, you will quickly get very confused, realizing that very little facts are known about Bosch's life and his intentions behind the works. In the exhibition I was disappointed to find that they presented only the superficial idea that they were the same as the obvious themes that he painted, often altar pieces depicting heaven and hell and the original sin, morals from the life of christ and of saints.

Luckily, I brought with me as travel literature the only book I had in my library (probably inherited from my father) about Bosch, *Hieronymus Bosch, The Paintings, Complete Edition, With An Introduction By Carl Linfert* ("complete" as they were believed to be at the time; some of them, like *The Conjurer*, later proved to have been made by disciples or followers but possibly based on his sketches; many others still debated about their veracity).¹⁹ Linfert stresses the ambivalence and ambiguity of the pictures as well as the themes in a very sympathetic and human way, not denying the pleasures from the warnings about the consequences of a sinful life, situating him after the Gothic (with its much more formal presentations of the devil's shapes) and before the Reformation (which canalized some of the critique of the church and clergy which you can see in his paintings), and relating it to alchemical thinking as well.

17 All except the unrealized Aeolian Rowing Boat are displayed in my online gallery of musical instruments, sound sculptures, -installations, -environments and -performances: <http://bergmark.org/gall>.

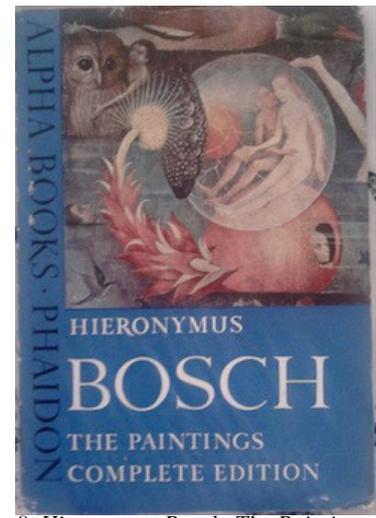
18 Oneirism refers to the **oneiric**, the quality of dreams and dreaminess, from greek *oneiros*, "dream".

19 Ludwig Goldscheider (ed.), *Hieronymus Bosch, The Paintings, Complete Edition, With An Introduction By Carl Linfert* (London: The Phaidon Press, 1959).

Talking about the *Garden...*, he says:

Even if one did not regard the picture in a sectarian, unorthodox way as a representation of Paradise one had no need to call it a ‘Warning against Lust’. Rather is it a combination of doubt and wish-fulfilment manifested in the creatures hesitating between the elements and finally eluding them, and shown also in other metamorphoses. Thus it is best described as a picture of the world in alchemical flux.²⁰

How shall we define this enormous, perennially captivating picture? Perhaps nothing but a supreme delight in invention has impelled these embodiments of voluptuous tenderness, of horror, exhaustion



8. Hieronymus Bosch, *The Paintings*

and extinction. Whether or not they were at the same time programme pictures of a ‘Freethinking’ sect is an open question. They are at all events – down to the smallest gesture – more astonishing than if they had been mere transcriptions of the rule of life of any such association. Bosch’s penetration is surely to be ranked higher than the vitalism of these fraternities, however consecrated. His pictorial sense is greater because instead of turning aside with an air of moral superiority he actually includes in his view of the world not only the loss and distortion of sense but sheer nonsense. One should therefore not look in these pictures for either unity or consistent sense. For it is chance itself that is incorporated into Bosch’s symbolism. All things, however fortuitous, are important. Everything which might make sense is simultaneously displayed in crisis and at a moment of decline.²¹

I know it might be out of place to quote a scholar’s writing 57 years afterwards – I don’t intend to be a scholar myself (at least not an art historian at this time) but to find a sympathetic viewpoint of how Bosch’s work affects us still today in a most profound way, and it seemed to me that this, not in itself very difficult to grasp psychological and imaginative dimension was completely absent in the presentation of the Prado exhibition.

In it, they want to link Bosch to the Brotherhood of Our Lady which was active in his town, but they had contradictory statements as to if he was ever a member himself.

One of the authors of the Wikipedia entry on *The Garden Of Earthly Delights* mentions a speculation of a possible membership in the *Adamite* society, which wanted mankind to return to the state before the original sin (that was supposed to exist in Adam’s time before him and Eve eating the apple from the tree of knowledge), which utopian vision could be similar to the delights depicted in the center panel of the Triptych.²²

20 Goldscheider, *Hieronymus Bosch*, 19f.

21 Goldscheider, *Hieronymus Bosch*, 22.

22 https://en.wikipedia.org/wiki/The_Garden_of_Earthly_Delights, accessed in 2016.



9. Garden of Earthly Delights, detail from Hell

In any case, I agree that the impression from the painting to me, and moreover the importance for humans who watch it today, is the *oneiric* play of desire that breaks through the cracks of moral conflicts of sin and of daily hardships. Bosch is much more individualistic and complex in his thinking than the obvious and traditional themes (deadly sins, the passion of christ, the life of saints etc) that he used as vessels for the unconscious and imaginative flow of his daydreams and nightmares.

Hell of noises

On the side of the speculations as to Bosch's intentions, I also want to connect this vision of his Hell, where musical instruments have turned into instruments of torture. It can be linked to writings of Arthur Schopenhauer, the work of the futurists to present day muzak terror, and the international *acoustic ecology* movement. I already mentioned such themes in my *Muzakblocker – an audio perfume for self-defense*.²³

Work plan

Originally, I made a work plan like this:

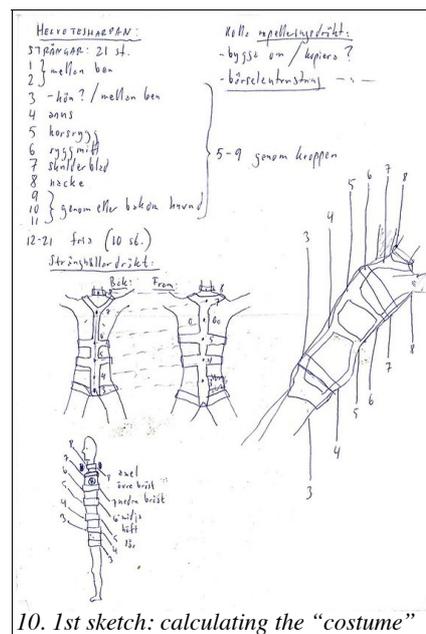
- Proposals for a performance to festivals and other organizers (museums, galleries).
- Study trip to 's-Hertogenbosch (cancelled) and Madrid (done before it became a Master's project).
- Detailed technical drawing and planning of the construction.
- Buying of materials.
- Construction of the "costume".
- Workshop time (locals where I can hang strings from the ceiling).
- Exercises, adjustments, composition work, practice.

²³ Some of the topics: Muzak is part of the environmental pollution in the form of sound which is not only disturbing for the spirit but also a big problem for people with hearing disabilities. Public loudspeakers also call for a discussion about democracy in relation to the coarse dictatorship of the majority over the minority, which swedish cultural politics, by the way, is supposed to contrast! Who decides over public sound space? Etc. "Muzakblocker – an audio perfume for self-defense" written in 2009-12. <http://bergmark.org/muzakblocker>

The plan has been readjusted since. I soon realized that it's too soon to do the promotion work before I know how to make the instrument, how to play it, and if it works as a performance at all. The deeper I have delved into it, the more complicated it seemed to become. To take the initial project-supported work into a Master's project, also changed many conditions. It has made it possible to extend the working period without too much disturbances from other obligations. The financial conditions were that I had support for the first year but much less for the second (for uninteresting reasons). I have continued working as a piano technician, and with doing some workshops and performances, which has brought income, and I was lucky to find a room centrally in Gothenburg for a good price in a family of good friends. This helped making it possible in many ways but working and travelling has also taken time and energy from the work with the project, of course. I have not given priority to playing (or going to concerts of colleagues, with few exceptions) very much, other than payed work that has been offered without me promoting myself. The Academy of Music and Drama also provided not only technical help, and a venue to work in, but an environment where I had the opportunity to discuss the project with several colleagues, in several aspects, during the development of it, which is an unusual luxury and certainly has helped it both in practical and theoretical terms.

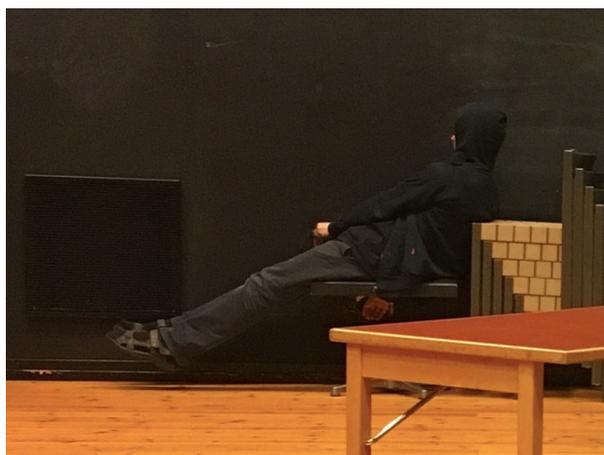
Sketching

Not all EMI projects need sketching. As far as I remember, I have only used it in the cases of the Whalefish (where I also made a life-size cardboard model for an early prototype), the Stranded Whale (an intermediary project used only once, left unfinished and replaced by the Platforms) and the Aeolian Rowing Boat (still unrealized). In all other cases I have built the instruments without sketches. For the Hell Harp, the project is complicated enough to make sketching necessary. The sketches made me think and visualize ideas in order to reevaluate them before building. While showing them to colleagues, I not only was given feedback, but an opportunity to develop my ideas more effectively. Just to have someone listen helps, and even feedback and proposals that you decide to reject helps you define why you choose what you do.



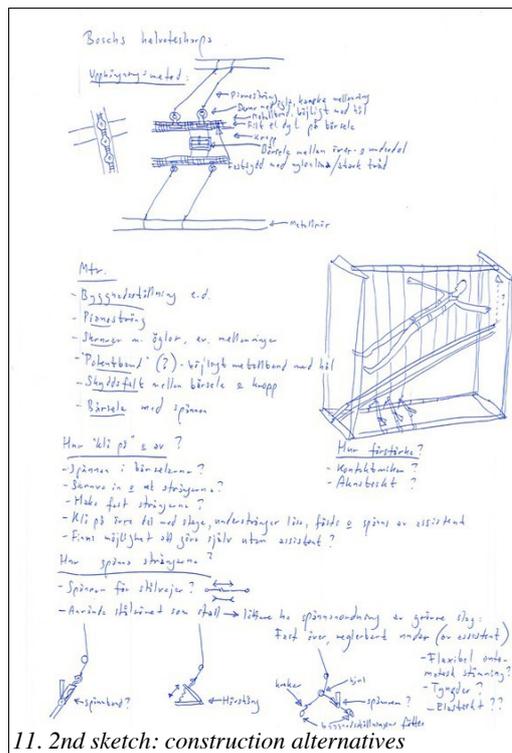
Before starting to construct, I had to first make some important decisions about it. Would I construct the harp as a **functional replica** in which the full tension of the strings with me hanging in them will be possible to realize? I quickly concluded that this is very impractical, in favor of the second idea: the tension has to be taken by a solid construction that will be a **framework around the shape of the harp**, so the harp itself might become more of a theatre prop – or even a projection! – than the actual instrument, i.e. only a visual remnant without acoustic function. It seemed to me that a stable frame of house building scaffolding should be the basis of the instrument, which would then be possible to build up and take down whenever needed.

The most complicated area of experimentation was the actual hanging of my body in the strings. It goes without saying (to me anyway!) that I wouldn't stick strings **through** my body.²⁴ Some people might like that idea, but I'm not particularly masochistic. I sketched where the strings should attach to me from above and from below, to make the impression that they go through me, and to also be free enough to make sound out of. This requires constructing a kind of **costume** around my body, in which the strings are attached.



12. Using the body for sketching a life-size image

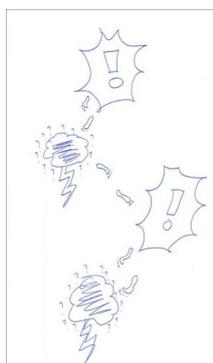
In September 2017, I had the chance to do more sketching



11. 2nd sketch: construction alternatives

and become more detailed about some of the practical difficulties. The **second sketch** shows the developments from a session at the Academy, led by Cecilia

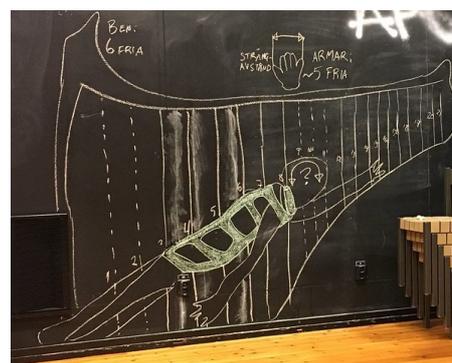
Lagerström, where I was working in a workshop with other colleagues, and also was able to do a **life-size sketch on the wall**, outlining my body. It also allowed me to switch between **creator perspective** and **user perspective**. I got closer to understanding my own bodily possibilities, and how they will meet the source of inspiration I am using (the painting). For example, I adjusted the number of free strings before and behind my body, and the average distance between them. This was another decision to **deviate** from the painting in favor of practical playability.



13. Crisis / catharsis

The next part of my problem-solving concerned the strings below my body: how to tighten them after I have “climbed” or entered the costume, stringing myself into the harp? I sketched different forms of tightening mechanisms that an assistant probably would have to help me with.

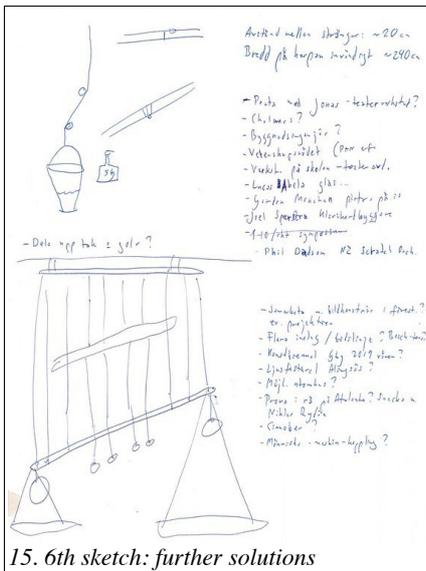
Soon afterwards, in dialog with Magda Mayas, the ideas developed further. My feeling that I was



14. 3rd sketch: The life-size sketch on the wall

missing something fundamental, that I complicated things too much, resulted in my **doing away with the scaffolding** as a necessary (but still possible) part of the construction. An answer was already provided in my

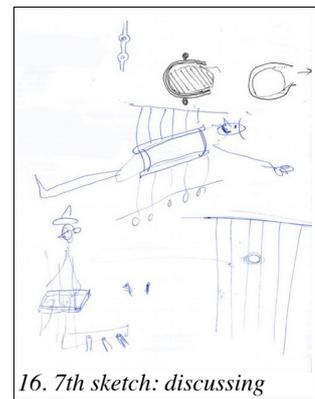
²⁴ That reminds me of a fascinated audience member, at the 1996 Sound Symposium 8, who asked, after I tried to explain how the Stringed Stirrups work, with me “hanging in the strings,” –“Doesn't it hurt?!”



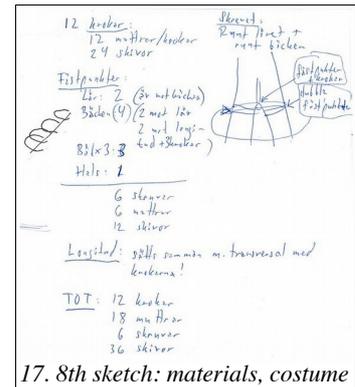
15. 6th sketch: further solutions

ancient instrument the Stringed Stirrups, which I have been playing since the early nineties: **the tension can be acquired entirely by hanging weights:** in addition to my body weight, the lower “bridge” as well as the strings that don’t “go through” my body, can be tightened with weights! In this way, **the whole instrument hangs in the air.** Only to avoid too much swinging, it can be attached to the ground in some way and only if needed. That would keep them free and flexible at the same time. I

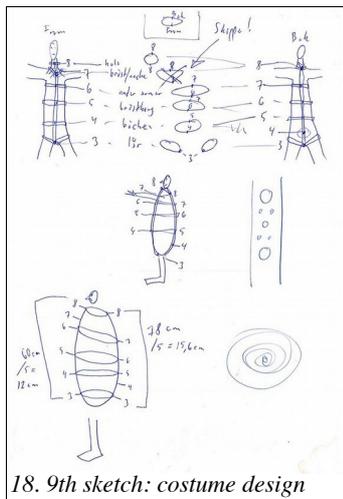
could carefully examine how much weight would be applicable and work out for the string tension as well as for my own body's movability by using **buckets of water** initially: for each added liter the tension would be one kilo more. After such a tryout the buckets could be replaced by fixed weights and the gauge of the strings be adjusted to fit them.



16. 7th sketch: discussing



17. 8th sketch: materials, costume



18. 9th sketch: costume design

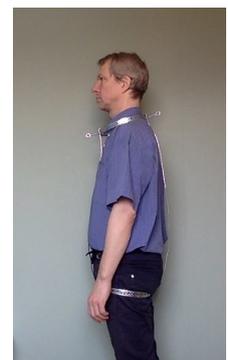
Building

I was then ready to construct a (first version?) of the “costume”. I decided to use **perforated metal strips** which are foldable and can be cut while still very strong. They have holes along it, so you can lock them with a metal screw and a nut and form them in whatever fashion you want. This I did at home, where I also attached screws with loops at certain points, in which to attach the strings, above and below my body. Three of the concentric “belts” around my body were open so I could get into it, and then lock them with the screws and nuts.

I thought I might need a little more sketching, but first, I was very eager to do a physical tryout as soon as possible.



19. trying rings



20. ...and verticals

First test April 2018



22. Me hanging in the Hell Harp for the first time

The first practical experiment, on April 3rd 2018 (*Video 1*), was very successful. I neither lost my ability to breathe or did it stop the blood flow. I also had some mobility



21. Costume hanging in strings

to change the tension between the strings as well as changing the tension

in my body so I could keep going and release pressure from different parts from time to time.

The test was done entirely without any amplification, though. Since I decided to use the costume as it was, I could then plan the rest of the instrument, including amplification. Now, there are many options for solving that. Since the strings are metal, it would be possible to use **electromagnetic microphones**, of the kind e.g. electric guitars use. A problem with that is that they are really sensitive to very small adjustments of their position

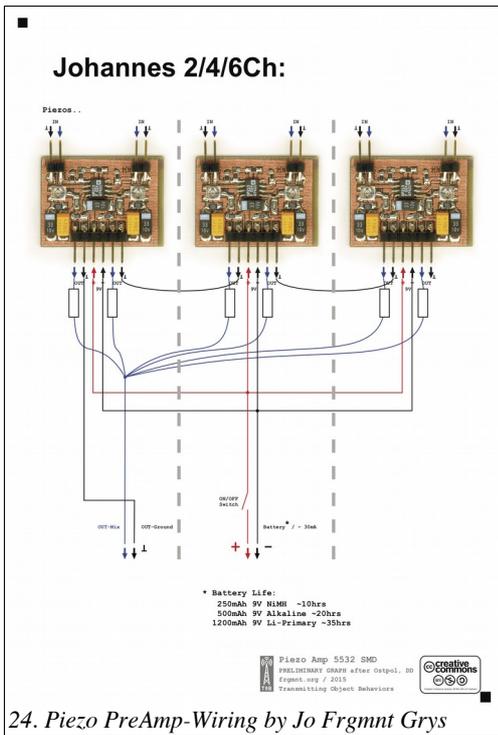


23. Me hanging, still from Video 1

in relation to the string. Since I have a long practice of making and using **contact microphones**, I decided to use those.²⁵ They are very easy and cheap to make, and they usually sound great as they are. However, they don't produce the full range in the low end of the spectrum without the use of preamps.²⁶ I have long thought of trying preamps, but since the sound is really good anyway over many years of use, I haven't been too eager to do it. However, in the summer of 2018, I decided to order preamps for the contact microphones that I would make and attach to each string, in total 20 of them. The provider was my friend Jo Frgmnt Grys in

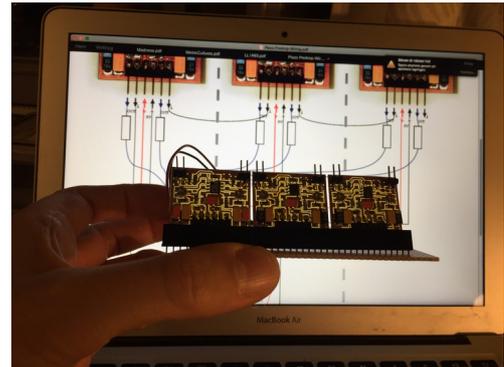
²⁵ Contact microphones make use of the **piezoelectric effect**, which was discovered already in antique times: when a crystal is subject to pressure, e.g. by hitting it with a hammer, electric sparks come out of it. The **piezo element** consists of a thin ceramic membrane on top of a brass plate, and if you solder cables to the different parts, you can record the pressure coming from sound waves in the form of an electric current, i.e., it becomes a microphone, mostly sensitive to sound propagated through solid materials that the microphone is attached to, thus **contact microphone**. It also works the other way around, if you send an electric current into the piezo element, it releases pressure out of it, thus becomes a loudspeaker – actually the most common use for it in electrical devices of all kinds.

²⁶ Those are small circuits that amplify the electric signal from the contact microphones, before they are plugged into the main amplifier or a mixer.



24. Piezo PreAmp-Wiring by Jo Frgmnt Gry

Berlin.²⁷ This means that the mikes will provide a fuller bass sound. Each string sound could also, if I would want to, be individually amplified and sent to different speakers in the performance. In dialog with my friend Fredric Bergström in Gothenburg, I also considered using a **wireless system** for at least some of the strings, the ones above my body attached to the costume, otherwise six microphone cables had to hang down between the strings below.²⁸ I checked with the Academy if they have wireless systems – they do, but not six – so I decided to wait and try with the cable in the way until a later decision, maybe I'll purchase a system myself.



25. Thinking about how to solder preamps

More building

The next step was to make a more definite sketch, find materials for, and build the lower “bridge”. I decided to divide it into three



27. Trying out hanging with buckets

pieces (in front of, below and behind my body) for more flexible transportability. I bought suitable wooden pieces for it, and hooks for attaching the strings on them. The prop workshop at the Academy promised to help with some of the building if I need. To this, I also built in the contact microphones, which required some additional electronic materials and a lot of soldering. To plan this in the most rational way takes a lot of thinking. (Video 2)



26. Costume with bridge materials

²⁷ <https://frgmt.org>

²⁸ <https://bobodrone.com>

Presentation concerns: transformation and transparency

Now that I almost had a working model, many more steps had to be taken with the physical possibilities, the musical-, performative- and sound potentials and how to present it all. One thing that I had been in two minds about, which has always been the case about the Stringed Stirrups, is the relationship between the “ritual”, “mystic” or rather *esoteric* character of the performance, and the transparency that I also enjoy: all there is, is all you see.²⁹ Should I already be inside the instrument when the audience enters, transformed into the performative **being** that I have to become when playing?³⁰ Or should I enter it on stage, like a human being doing the work, like an engineer, an operator, a technician? Last time I talked with Magda, I thought maybe I should actually unite the two, why do they have to be opposites? The question is, if it takes a very long time to enter the costume, maybe it will lose the tension necessary for the ritual component to be held up. I decided it's time to try it out with an audience.

Another thought, that came up when I tried to explain this project for Staffan Mossenmark, is that someone else might play the instrument than me, or as well, even though I might be the “crucified” body between the strings.³¹ And now that I write this, and look at the original paintings again, it strikes me that Bosch might have thought so too. The painted-over demon above the harp (visible only on the x-radiograph), did it actually play the instrument? And doesn't it look like the tree-like demon in the other painting is reaching for the strings? And what about the snake (in both paintings), couldn't it also be playing the strings?



28. Contact microphones on the bridge strings

29 I was once very inspired by Emanuel Swedenborg's writings. His idea about the “mystic” is close to the concept of the esoteric, which means a knowledge or practice that is hidden from the obvious, or the general understanding of the common person. It needs a revelation or initiation to be achieved. At the same time, coming from a scientific background, he explains his world view as something completely natural. The hidden is a layer in all of reality, thus within reach for everyone, just as the different layers of heaven lie within every natural object. See Emanuel Swedenborg, *Andlig Dag-bok* (Lund: Ellerströms förlag AB, 1998) and Johannes Bergmark and Carl-Michael Edenborg, “Swedenborgs handflata,” *Kvicksand – Surrealistisk uppvisning* (1989).

30 The idea of transformation into another being or entity relates to a lot of esoteric traditions (in my case I relate more to my experience of *Butoh*, see more below) but is also a part of all performance practice. To get into “performance mode” from the ordinary world is essential for a performer, but can with experience have become so “natural” that no one even thinks about it. The world of art is free and unlimited but it is virtual, an “as if” existence, which led Herbert Marcuse to call it “essentially tragic” in his *The Aesthetic Dimension, Toward a Critique of Marxist Aesthetics* (Boston: Beacon Press, 1978).

31 <http://www.mossenmark.com>

First performance as a work-in-progress December 2018³²



29. Contact mikes on the strings

I made a first trial performance to enable audience feedback on December 6th, 2018, at Lindgrensalen in the Academy (*Video 3, 4*).

On the question of climbing in view of the audience, or not, I chose to be standing on the ladder while the major part of them came in. I was first of four performances, and after the short introduction by Thomas Markusson, I was handed the microphone and informed the audience simply that there are many ways to be inspired by Hieronymus Bosch, this is my inspiration, my fantasy. It's also not the finished product but an experiment, the first attempt in front of an audience. Then I let myself down into the hanging position.

I needed an assistant for many of the tasks for the performance. This came to be Elsbeth Bergh, a good friend and collaborator who knows my work very well and is very practical.³³ She helped me with taking away the ladder, hanging the buckets, handing me bows and beaters, and putting back the ladder.

A slight anticlimax happened as the S-shaped hooks for the two middle buckets were suddenly nowhere to find. Elsbeth quickly find an alternative solution, and I could begin.



30. From the first public concert, still from Video 4

It was only a few minutes performance, which consisted of briefly trying different playing techniques: plucking, bowing and beating with beaters that were originally made for the Stringed Stirrups. As necessary,

32 <https://hsm.gu.se/aktuellt/Kalendarium/detalj/?eventId=70136723302>

33 <http://makadam.info/language/sv/author/elsa/>

the getting out of the costume became part of the performance, which led the audience to applaud three times: first when the playing was over, then when I got out of the costume, and last when I had climbed down the ladder to the floor. Maybe they correspond to the different levels of otherness that my performance consisted of: first out of the ritual performance, then out of the technical, and last back into my role as a human person.

I realized at least these things, on the practical level:

- The hanging position was pretty tense, especially for the neck. Better would be to hang in a smaller angle, closer to standing than lying.
- I could see nothing at all of the strings below me. I could only learn where they were in blindness.
- The sound of the strings is pretty damped, which is to be expected because they are attached (indirectly) to the body, which is too soft to reflect energy back into the strings.



31. *Hanging again at home*

- The cables from the strings above, as mentioned before, are bunched together and go down between two strings below. This inhibits the playing; since I can't see them, they easily get in the way of playing the strings. But where to put them?

I had built all the contact microphones for the strings connected to the costume, however I didn't have enough time to build the preamps into the system yet, and the attachment of the contact microphones on each string hook was crudely done with adhesive tape. This is way less than ideal, but at least I got to try the instrument with some kind of amplification, and with the addition of the strings below me for the first time.³⁴ In order to calculate how much tension the strings needed, I used four buckets with water in order to be able to try the weight. The first and last were hanging in a hook in the "bridge", the two middle ones in the interconnected strings no. 2-3 and 4-5 respectively. The strings passed through hooks whose function it is to conduct the vibrations into the microphones.³⁵

34 The string gauges are: **From the body upwards to the ceiling**: - 3 strings 1,5 mm from the pelvis upwards - 3 strings 1,0 mm from the neck upwards. **Under the body**: - 1 string 0,9 mm from the neck downwards - 2 strings 0,875 mm - 2 strings 0,85 mm - 1 string 0,725 mm from the pelvis

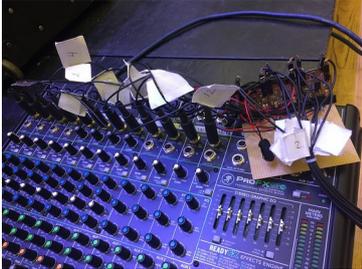
35 Weights under the strings: **The buckets** 0,5 kg each. **Water** (if I remember right?): first fixed 6kg (=liters) - loose strings 2-3 12kg - loose strings 4-5 12kg - last fixed 6kg.

Second private tryout session March 2019

I booked Lindgrensalen, where my final exam presentation would be, for setting up the pole in which to hang the instrument, for last weekend (30-31) of March 2019.



32. Strings attached to the pole



33. Mikes into preamps into mixer

In the weeks before, it took a lot of time to solder the 12 preamps for the contact microphones, to cut and replace the plugs coming out of them to fit the pins on the preamps. Everything is so small and I'm not a very skilled solderer (just enough to have made hundreds of contact microphones...), so I was using a double pair of glasses in order to be able to see anything at all, and I was still not completely sure I didn't solder badly or even shortcircuiting sometimes.

The purpose of the session was:

- To include the remaining planned eight strings that don't go "through" my body but are in front of and behind me
- To try a more upright hanging/playing position than last time, which I felt was too horizontal and uncomfortable
- To attach the contact microphones on the strings in a more firm way
- To try out the sounds with amplification, including the new preamps plugged in
- To start trying out musical sounds and methods in order to find out, invent and increase the instrument's potential as a musical instrument

The first aim failed because I couldn't complete the preparing of the last eight contact microphones and preamps that were needed for those strings in time. The other aims were tried out though, and this is what happened:

I somehow had decided that I would be able to prepare and try all these things without an assistant. The difficulties with this were that

- the ladder that I climb in order to enter the instrument "costume", had no one to remove it before playing, or put it back afterwards
- there was no one to hang or remove the weights (the buckets of water) under the lower strings while I was hanging – I had to adjust the weight a lot down so they could hang before I entered the costume, which was then still much heavier to enter and close.

- there was no one to monitor or adjust sound levels during playing.

Last time, I only attached the contact microphones with adhesive tape, which doesn't conduct the sound vibrations into the microphones very well at all. This time, I glued them directly on the screws with metal glue while the instrument was hanging in the air.

Plugging in all the cables into the preamps and the mixer was quite exhausting and fragile. In the nest of cables, some came loose and had to be fit into their places again without soldering, hoping they would work anyway. The soundcheck was mysterious and incomprehensible: some channels sounded a lot, some on the wrong place, some hardly not at all. There was not enough time to make a proper search in order to solve all the problems, and I had to rely on that there were enough sounds to try anyway. There is a not negligible amount of vibrations conducted acoustically through the metal "costume" as well as the wooden "bridge", so some strings probably sounded through the "wrong" mikes. I was nevertheless amazed that the sound, as predicted, was much richer and deeper than last time, probably due to the combination of better attachment of the mikes and the preamps. I also discovered that there was no need for a lot of weight to keep up enough tension of the lower strings: they sounded very well anyway (*Video 5*).

There were several problems that appeared during the session.

- **Actually getting into the instrument.** Since I had no assistant, I had to try out how much weight (water in the buckets) that I would allow before getting into the instrument. It had to be just about as much as I could handle while entering. In the end, I reduced it to around a liter per bucket. With the weight of the four buckets, the total would then be around 6 kg (except for the bridge itself). In my attempt to "straighten up" the hanging position, I first hung the lowest string (which takes the major weight around the pelvis), then the highest one (which goes to the metal ring around my neck), then the four others adjusted between. Maybe I made the high one too short: the neck ring became stretched out into an oval which was very difficult to put my head through. When I lessened the weight it was a bit easier, but still, it was impossible to get into the costume without putting two ladders close to each other on both sides of the instrument, and it was quite tight between them while I was playing. After some fighting, I even managed to put the three screws in place on the open metal loops of the costume (*Video 6, 7*).

There I was hanging and could start playing. I first tried the bows, which I thought would be the most "musically efficient". There's so much you can do with strings and bows. Then I tried beaters and plucking, but was less satisfied with the results of that.

- **Amplification.** During playing, mysterious sounds sometimes came out of the loudspeaker. I guessed it was an automatic fuse in the amplifier that came into effect because of loud peaks. It was like a high-pitched firework-sounding glissando and soon the sound was back again. Or might it be preamp failures? It was hard to tell in the chain of plugs, cables and appliances between mikes and speaker.



34. Still 1, Video 8, struggling to get out of the Hell Harp

- **Contact microphones.** Of the six mikes on top of the “costume”, five came loose from their glued positions! I only noticed the extent of this problem after climbing out. Perhaps the glue wasn’t good enough, although it seemed like the perfect one for the purpose.

- **Getting out of the instrument.** Unscrewing the three screws was not hard, they were only tightened by hand and so not very tight. But after that operation, the difficulty was to twist my body so I could bend out of the neck ring, back first, before

climbing out of the rings for the thighs (which take the major body weight – I’ve learned this from rock-climbing security belts). This is hard enough when hanging, trying to get some firm balance on the two ladders and not knock them down, which might mean I would be completely stuck until someone would find me, dead or alive, Monday morning. After a lot of struggle, during which I feared I would either strangle or hang myself (a pretty heroic way to die?), I finally got out and could climb down. I was



35. Still 2 from Video 8



36. Still 3 from Video 8

bleeding from my hands, feet and face and had bruises on my arms, but alive and with no broken limb. (Video 8)

Conclusions:

- It’s impossible, or seriously dangerous, to do without an assistant at this point, with the present design of the instrument.

- I have to systematically test all the preamps with another sound source to see if some are failing or need adjustment or repair.

- I have to find out why the glueing of the mikes failed and do it better.

- The visual presentation is still not very developed. I have used a **beekeeper’s white overall** (without the hood), that I have also been using when playing the Stringed Stirrups, to amplify the ritual or at least non-



37. Bloody Sunday

everyday character of the piece.³⁶ There was not much of conscious lighting or any other prop or visual embellishment of the instrument yet. These remain as possibilities.

Inconclusive at the time. Would it really be possible to perform with this instrument? Would it ever be? What would I have time to prepare for the presentation on May 26th?

Heaven or hell?

Initially, I thought that there is one thing I should **not** bring from Bosch's painting: the Hell or torture element. With the ambivalence of interpreting Bosch's own attitude as a reasonable excuse, I felt free to reinterpret the image as part of a more desirable world. To make the instrument of torture into an instrument of joy. However, it seems as though the original setting haunted me in ways I didn't predict! In both the performance in December 2018 and the rehearsal in March 2019, I was struggling hard not only with the playing, but with the physical endurance and even safety. At the performance, the anti-ergonomic position was obviously felt by members of the audience as well, so the hardships inevitably became part of the performance. One told me that she thought of the construction Frida Kahlo was put in because of her serious spine injury that tormented her until her death and which was the theme of many of her paintings. At this time, it seemed that I had to listen to the voice of the instrument (or to Bosch?) and embrace it. I suppose all instruments involve a struggle of some sort, and this is not the first one of mine, either. The Stringed Stirrups and the Singing Coffin come to mind right away, and the performance *Rising Towards The Light*.³⁷ The feeling of **danger** and **risk**, real or not, are part of many performances I like – they follow what I would call the **adventure principle**, a version of the **pleasure principle** as I imagine it. In the circus tradition and in its follower, the sideshow which features the weird, incredible or freaky, the adventure principle is well alive, although often in formalized and commercial form. And there is of course the S/M community which might appreciate this kind of weirdness. Maybe that could be another kind of area to enter with a performance of this kind – I'm not sure the musical taste is shared, though, but it might be interesting to try.³⁸

We'll still see which form of the marvelous I might manage to materialize.

36 It is a precious present to me from Julie and Mikael Ericsson at Harp Art Lab in Harplinge, when I was part of the BZZZ International Sound Art Festival 2016. It was a remnant from an earlier BZZZ-festival, which had had a bees' theme. <http://www.harpartlab.se/2016-BZZZ.html> Before this, I have used a painter's white overall for this instrument.

37 <http://bergmark.org/rising>

38 Once in the 90ies, I believe, I visited a club in Stockholm called Kinks and Queens. I didn't know what to expect, but I got an incredible feeling of freedom of expression, of a masquerade party where anything is allowed. Part of this could of course be the feeling of novelty for me, I'm sure there are conventions there as well as in other groups.

Success?

What constitutes a success of an artwork? Although I'm skeptical to the term art as well as the term work, I think Marcuse has a point when he repeatedly stresses that the art work has to be judged as a whole, and not e.g. by the ending or apparent moral of a story.³⁹ Even though this project might not at some point end with a performance piece I feel confident in proposing on stages, I think the struggle of trying to realize it is worth the while, and it has been an adventure on its own as an example of how an EMI can (struggle to) come to life with all the back-and-forth problems, connotations and relations to art history, philosophy, acrobatics, performance art history and theoretical discussion about invention, creation, improvisations etc.

I have a long list of unfinished or unrealized ideas that I long to work with, some quite specific, some need a lot of development of their ideas, but all of them are journeys into the unknown, the unknown in technical solutions, social settings, visual imagery, sound, playability and mythological significance. The failure would be to stop trying to realize such dreams and urges, the success to pursue trying. If I loose inspiration, I also loose my ability to inspire. And I haven't lost my inspiration yet by far.

The birth of an instrument – the exam concert

With a feeling of approaching a catastrophe, I nevertheless decided to continue the struggle and invite anyone to my final exam concert on Sunday, May 26th 2019. The performance was divided into a section where I presented the background and development of the instrument, and the final attempt to play it. Quite a few people showed up, more than I expected, maybe 30-40 people, in Lindgrensalen.

This was the fourth time I had mounted the instrument in the ceiling. I reused the same strings, and for every time they got a bit shorter since I had to cut away the old loops and knots in order to make new ones. Every time I was hanging higher and closer to ceiling. I suppose next time I have to replace the strings.

I still didn't mount the eight strings in front and behind as planned – maybe they won't actually be needed for the instrument in the future either. The wood blocks for those strings were used as the only weights instead of the buckets of water I had used before. I still hadn't solved entirely the technical problems with the amplification. I was also in the middle of moving back to Stockholm and had unfortunately already shipped too many bows there, so I had to call an emergency, which Elsbeth Bergh solved with bringing a couple of good bows from a recent project. Again, she served as my assistant in the same way as last time.

And again, Tobias Kjerstadius was the sound engineer, and he got the task to just try to be ready for the unpredictability of the sounds from the many different channels. Three of them didn't have sound at all,

³⁹ In Marcuse, *Aesthetic Dimension*.

which I didn't see as a big problem since the sound anyway travels a lot through the metal costume and wood block to the adjacent pickups. We agreed on using a limiter and just a little bit of reverb (which I don't usually use, but in this case it felt appropriate). He did great, and also kept an eye on the film camera. I was very grateful.



38. Still from Video 9, Exam concert

I had decided to only play with bows, they seemed far more useful in this instrument. I was also given a neck protector (of the kind that you get for whiplash injuries at hospitals) from a good friend to save my neck from too many bruises.

I took my time to explore all the strings and sounds, rather using the technical problems to play with as musical elements as they appeared. Some strings had massive distortion qualities, massive bass, and some other had more clear melodic tone. During playing, I discovered that my feet actually

reached the lower bridge, so that I could use them to vary the tension in the lower strings. That became very useful. As a result, there was quite good layering of different sound qualities. When I played I actually had a symphonic feeling from the totality and I was very inspired and happy.

One friend in the audience later told me how she interpreted the music. She decided at some point to close her eyes, and she relived a period of sickness as a child, where all the senses had become oversensitive. The music then shifted from torment into a relief and calm, as her mother came into the room and covered the windows with blankets to ease her from the painful light.

Maybe it corresponded to my own feelings when I played. The extreme tension leading up to this performance, the worries, anguish, and eagerness and longing to meet the instrument in excitement and passion turned into a bliss and gratefulness that the idea had become physical and it returned to me with a strong voice.



39. Audience photo, Exam concert

The instrument finally wanted to be played. It was born.

With every birth, there is blood – without noticing or understanding why, I was bleeding from the same places again: foot, hand and bruises in the face and shoulder. The newly washed costume had to be washed again.

But I was very happy. It seems like the instrument actually will have a life after all. Back on the ground, in blood, sweat and flowers, with friends around me (*Video 9*).

Part 2 The world of experimental musical instruments and free improvisation

My childhood piano lessons, gymnastics training, interests in astronomy, paleontology, aquariums, Jules Verne, radical politics and music composition, developed as an adult into Surrealism, free improvised music, Butoh, EMI making, jesting, Fylkingen and its tradition of “radical and experimental” intermedia and performance art, EMS etc.⁴⁰ These experiences were never only individual or artistic experiences but I always wanted to connect things together, at



40. The entrance sign to Fylkingen

least theoretically, to understand what life was, or could be, about. Thus, it's important for me to put this adventure of trying to make an EMI out of a visual inspiration into a social and dynamic context where I try to understand my role in the different communities I've chosen to spend my life in. So first, by way of introducing myself to myself, I might as well introduce me and part of my world to you in my attempt to understand it. First out is an attempt to put the EMI world as I've come to experience it, into a sociological perspective.

2.1 EMI making and the free improvisation community from a sociological point of view

A sketch toward a sociology of the field of EMIs

I propose to treat these objects not as stationary creations but as objects for interchange. The differences in the traditional connotations that they have in class, and cost, certainly reflect economical relations and the identifications of different groups with different musical communities. Many surveys have linked the contemporary use of classical music to well-off upper and middle class use and expectations of belonging to “high culture”, and the mechanisms behind the choices of instruments are of course the same. Playing the violin or the electric guitar is probably often a choice that different groups of people with different income and self-identification do to reflect their perceived needs and wishes.⁴¹

40 Johannes Bergmark, “Butoh - Revolt of the Flesh in Japan and a Surrealist Way to Move,” in *Mannen på gatan* (Stockholm: Surrealistförlaget, 1991). With an introduction from 2008 and an appendix from 1993 at <http://www.surrealistgruppen.org/bergmark/butoh.html>.

This is interesting enough, but what I'm after here is a way to look at musical instrument making itself, with a sociological eye. This is also a field not exempt from economical interaction, of course. Let us first distinguish a bit more between different kinds of instrument makers:

The **traditional instrument maker** today is a craftsman that is also a businessperson. He makes, and usually repairs, instruments with crafts and skill achieved and valued on the market. The instruments don't usually or permanently belong to the craftsman but to the business, they are there to be sold, the instruments for repair are received from other owners and it's always a question of confidence, skill, speed and accuracy in order to achieve an ideal state of the instrument, or a compromised one agreed upon with the customer, who might not afford top quality in every detail.

Although a case can be made about this situation of the craftsman, her business is on the other hand slightly different from other businesses in that there is an intimacy with the materials that are based on acquired practical and theoretical knowledge, a tactile feeling and it seems also a slightly different state of mind during this one-to-one process between the knowing and feeling hands and the materials of the instrument and the tools of the shop. I've noticed this myself, in different kinds of crafts. It might be going too far to say that there is a different time dimension present in this work, but in case there is, this time dimension is of course compromised with, conflicting with, or at least parallel to, the working time measured in the *wage slavery* aspect, which determines the economical efficiency of the trade.⁴² It might also be to go too far to say that the activity of the craft is an altered state of consciousness, in the same sense as the dream, intoxicated states of different kinds, trance, possession or artistic creative practice. But I would argue that there is a relation that is interesting enough to investigate – some other time.⁴³

The EMI maker is the one I would like to pay attention to here though. But before that, perhaps it would be good to try and define the difference between traditional musical instruments and EMIs. This is not an obvious task, especially since all traditional or classical instruments were once EMIs in some sense. How much reproduced should an instrument be before it becomes a standard one? How long does the history have

41 This is not to say that the violin is always more expensive than the electric guitar – it could very well be the opposite, depending on quality, if you buy a used one, or if a rich sponsor buys a Stradivarius for you etc. It's more about the choice of communities and a statement of belonging, or solidarity, although the choice of instrument isn't always strictly linked to a musical style. The classical guitar, the piano and the violin are common enough in many kinds of very different musical forms.

42 The term has been used in radical labor movements to emphasize the lack of freedom that wage workers have over their working conditions. Working time is not freely chosen but measured by the necessity of earning for your survival, and the influence over the work process is determined by the employer, thus alienated. Although many traditional instrument makers are self-employed, work could often be just as unfree and alienated as if they were employed.

43 Among the interesting subjects to include in a comparison between non-alienated/passionate work would be the projection of subjectivity into the materials or objects that the work is concerned with. The "flying of time" which absorbs all attention, substitutes hunger and tiredness and which might be called automatic (see the discussion about automatism below). My piano building teacher Peter Schlosser emphasized that you have to work "wie Maschine" (like a machine) to get the efficient flow as well as a good and even result. This might not sound very nice, but it's about your identification with your materials which makes you a good craftsman.

to be? Are e.g. all electronic instruments EMIs or only some? The least successful ones? Is the Theremin established or still “experimental”?⁴⁴ Of more recent acoustic novelties, are the Waterphone or the Hang popular enough to qualify as established instruments,⁴⁵ or will time tell, maybe it's just a temporary fad?⁴⁶

It would seem obvious that the difference in definition would be in the “E” of EMIs, i.e. the definition of “experimental”. But that is not really as obvious as it seems. We will come across the term many times in this text, but perhaps we will find the working definition of the concept of the experimental in the varied practice or attitude of the people associated with it, when we try to round up the varied field of EMIs and EMI makers, which will also make it clearer that it's more a question of a **magnetic pole** than a clear definition, as it perhaps would be if we were discussing the role of experiments in science. All EMI makers might also not identify themselves as such.

With these difficulties, it's hard to describe the EMI tradition, movement, history or what you will, as something distinctly separated from traditional instrument making, but there are some traits that might be interesting to look at which are more prominent in the activity of EMI making than in traditional instrument making.

I have yet to see any comprehensive “history of EMI making,”⁴⁷ if that would at all be possible, so my appreciation of it as a movement comes to a large extent from the impression of the magazine with that name (Experimental Musical Instruments) that was published by Bart Hopkin in Northern California in the years 1985-1999 along with books, cassettes and cds.⁴⁸ It seemed to me to reflect much of the spirit of *Do It Yourself* (DIY) that has been cultivated in the USA and which seems to stem from the heritage of immigrant optimism of creating a new life from scratch, but more recently with precursors in American experimental composers like Harry Partch, Lou Harrison, Alvin Lucier, David Tudor and John Cage. Artist Harry Bertoia, the Australian composer Percy Grainger and the French brothers François and Bernard Baschet should also be mentioned, and many more. It was also a little movement in London which was associated with the early free improvisation community in the 60ies, of which Hugh Davies has to be mentioned especially, a life-long

44 Invented by the Russian physicist Lev Termen in 1920, it is played by holding the hands in relation to two antennas, one for pitch and the other for volume. (Some say it's the only instrument you can play without touching it, but then they are ignorant about the Vietnamese K'long pút, which is played by propelling a gush of air with clapping hands into large pipes of bamboo set up like huge lying pan pipes.)

45 Invented by Richard Waters, it consists of metal rods welded around a metal container with a small amount of water which changes the timbre while spinning or tilting the instrument. The rods are usually played with a bow or with a mallet. (Rumor says that Spock played it in an episode of Star Trek. If you find a recording of this, please contact me!)

46 Invented by Felix Rohner and Sabina Schärer, it's a development of the Steel Pans, but contained into a shape that reminds of a flying saucer.

47 A brave, short attempt has recently been made, though, by Yuri Landman, “From Rusollo [sic!] till Present, A History about the Art of Experimental Musical Instruments”, 2019, <https://medium.com/@yurilandman/from-rusollo-till-present-423100fe20d5>. He includes a list of contemporary individuals and organizations that complement my tips below as a resource for the interested researcher.

48 <http://barthopkin.com/books-cds/>

instrument inventor, composer, improviser and expert of EMIs and electronic instruments, with many articles in *EMI the journal* as well as in the *Grove Dictionary of Musical Instruments*.⁴⁹

The literature about EMIs is not very big. There are a number of monographs on individual artists engaged in EMIs (David Tudor a.o.), and a few anthologies with selected instruments described (Bart Hopkin). Many are written by the artists themselves (except elsewhere mentioned here, there are François Baschet, Gordon Mumma, Lou Harrison a.o.), and contemporary ones often have web sites (except elsewhere mentioned here, there are Yuri Landman, Judy Dunaway a.o.) where they describe their work. A few are engaged in teaching at art academies (Nicolas Collins, Eric Leonardson a.o.). Some are doing pedagogical work about instrument making and have published studies intended to inspire DIY work or to work with children (except otherwise mentioned, there are Reed Ghazala, Bart Hopkin, Gunnar Valkare, Folke Rabe/Jan Bark a.o.). In Gothenburg, there are of course Per Anders Nilsson and Palle Dahlstedt as valuable sources for developing digital instruments for improvisation. However I have yet to find any studies that talk about either the creative process itself of making EMIs, or the sociological aspect of it. This I intend to do, starting here.⁵⁰

What is an EMI?

The type of instruments that EMI makers make can perhaps only be described by listing them into a number of, often overlapping, categories that reflect different interests, personal preferences and attitudes toward music making and to the musical performance:

Altering classical instruments

- The alternative, often comic **version of classical instruments**: guitars made of toilet seats⁵¹ or skis,⁵² etc.

49 <http://www.oxfordmusiconline.com/page/grove-dictionary-of-musical-instruments/the-grove-dictionary-of-musical-instruments>. See also the wonderful little brochure *New / Rediscovered Instruments Volume 1*. Ed. and preface by David Toop. (London: Quartz/Mirliton, 1974). Texts by Hugh Davies, Paul Burwell, Max Eastley, Evan Parker, Paul Lytton and David Toop.

50 In the internet age though, there are many online platforms, forums, communities and mailing lists that gather and spread information about new or unusual instruments, sometimes connected to festivals or residencies (<http://www.oddmusic.com>, <https://instrumentsmakeplay.nl>, Noisejunk (now offline), <http://rareandstrangeinstruments.com>, <https://www.facebook.com/groups/WeirdInstrumentTribe/>, <https://instrumentinventors.org>, <https://www.facebook.com/StringedMingers/>, <https://www.facebook.com/groups/homemadeinstruments/> a.o.)

51 Ken Butler has made hundreds of instruments that mostly are based on the principle of the guitar, violin or one-woman-band and largely made out of found objects. His toilet seat guitar is displayed in the Ripley's Believe It Or Not! Museum in Copenhagen. He is a wonderful musician as well, <https://kenbutler.squarespace.com>.

52 Jon Halvor Bjørnseth has led workshops in instrument making, sometimes with me or Isak Andersen, and during many years produced a long series of original instruments, often in collaboration in workshops with children. The ski with strings is one of them, <http://drivhuset.musikkverksted.no/jonhalvor/>.

- Instruments specialized in **alternative tunings** like quarter-tones, or different types of “microtonal” or “just-” or “pure intonation.” Pretty often these are quite straight versions of classical instruments, like flutes, guitars, pianos, zithers, tubas, only altered in order to facilitate the playing of the alternative scale on familiar-sounding (and -looking) instruments.⁵³
- Making your own versions of an instrument **within a tradition**, like cigar box guitars or devil’s fiddles.⁵⁴
- Making **alterations of classical instruments** in order to make them have more possibilities: extra holes on wind instruments to enable different scales or *multiphonics*;⁵⁵ adding extra resonance strings to guitars;⁵⁶ making giant versions of existing instruments;⁵⁷ adding “buzzing” possibilities to the sound quality of wind- or stringed instruments etc.⁵⁸
- **Preparations** on existing instruments in a way to enable them to make different sounds: using bows on instruments not traditionally bowed, manipulating strings on pianos or guitars with clamps, screws, wedges etc.⁵⁹ using a knife⁶⁰ or ebow⁶¹ instead of a bow or plectrum etc., manipulating an electric guitar mike with

53 I would guess the most popular scale alteration is quartertone instruments, which seems to have been made with just about every classical instrument. It means that there are 24 tones at equal (logarithmic, if you talk about frequency) distance per octave. This is probably because it makes it pretty easy for composers to write music with quite simple additions to the traditional notation. It also means it includes the standard equidistant 12-tone scale within the system. “Just intonation” is a much more complicated story, though, since all it has in common with the standard scale is the octave. That means that it's not as often enough to alter existing instruments, new ones have to be built. (The problem doesn't concern instruments that are able to play a continuum of pitch, like the violin family, the oud, the trombone, the saw, the theremin or the slide whistle. The difficulty, then is in the musician's ability to recognize and reproduce the usually unfamiliar scale. Then alterations can be in the form of marks on the fretboard in order to more easily find the right spots for the fingers etc.) Harry Partch, e.g. built a whole orchestra with very beautiful and unique instruments that could cope with his 43-tone scale which was designed to be able to play pure intervals (usually defined mathematically, like a pure fifth would be two notes that have a frequency relationship of 3/2, a pure fourth 4/3 etc). His musical history, thoughts and instruments are described in his *Genesis of a Music* (2nd ed. New York: Da Capo Press, 1974). It would be too lengthy to describe the problem and the proposals for solutions here. The discussions of tuning are big, complicated and still very much going on. The composer and EMI maker Ivor Darreg edited the magazine *Xenharmonic Bulletin* that specialized in these discussions. Now there are online forums doing similar things. I have criticised the “just intonation” movement for ignoring the physical realities of overtone distributions and clashes in the physical materials that musical instruments are made of, in favor of mathematical speculations, in “Om frekvens” (swedish, 2012) <http://bergmark.org/frekvens>.

54 The Devil's Fiddle, Stumpf Fiddle, Stomp Fiddle, Bladder on a String etc are different versions of a street instrument with a number of percussive and often humorous elements mounted on a stick, with medieval origins. One of the contemporary developers of it is Hal Rammel.

55 Multiphonics are “impure” tones that are on the brink of turning over into another tone, or mixtures of tones on instruments that are usually made for producing pure tones. Most wind and string instruments have such possibilities. I have myself also developed multiphonic playing on the saw.

56 Famous examples of players of such extended guitars are Pat Metheny and John McLaughlin.

57 Most musical instrument museums have such instruments on display. They were often made as advertisement pieces for musical instrument workshops.

58 The chinese flute *Dizi* (笛子), e.g. has an extra hole covered with a membrane made from the inner skin of bamboo cells which gives a more buzzing sound. The swedish flute player Anders Hagberg has designed for himself a flute inspired by this principle but with a key that can open it at will, even partly, <https://andershagberg.se>.



41. Me and Lise-Lotte Norelius playing prepared piano at Fylkingen 2016

different objects emanating electro-magnetic fields.⁶²

- **One-man-bands**, usually consisting of mechanisms to facilitate the playing of many classical instruments simultaneously, sometimes with fanciful additions.

Altering materials

- Traditional instruments made by **unusual materials**, like carrot

flutes,⁶³ fiddle made of dried fish etc.⁶⁴ (Also belongs to the former category.)

- **Melodic instruments** with unusual sound-making materials or methods that are organized in pitch (thus “able to play ordinary songs”).⁶⁵

- **Percussion setups** with instruments made from found or unusual materials mostly aimed at playing rhythmic music. These are often assembled like a drum kit or xylophone.⁶⁶

59 The most famous forerunner of the prepared piano is John Cage. Many have followed, and some of the great contemporary practitioners of this are Magda Mayas <https://www.magdamayas.com> and Andrea Neumann [https://de.wikipedia.org/wiki/Andrea_Neumann_\(Musikerin\)](https://de.wikipedia.org/wiki/Andrea_Neumann_(Musikerin)). The latter has also designed a reduced and more transportable version of the piano frame to enable her playing.

60 Like in *Ab* by the Italian composer Fabio Cifariello-Ciardi, which I saw at the Italian Cultural Institute in Stockholm in 2010.

61 An ebow is a small electric device that you typically hold above a metal string (or thin metal rod) and that magnetically amplifies the vibrations in the string. Since the increase of the volume is gradual, it can remind you of the dynamics when you use a bow, thus “ebow”.

62 One of the precursors of this idea is Keith Rowe. The idea has been used to full extent by the Swiss duo Voice Crack (Norbert Möslang and Andy Guhl, 1972-2002) with all sorts of “cracked everyday electronics”. Also the Alabamian guitar player Davey Williams applied a number of electronic toys and gadgets on his guitar, including an electric shark and electric baseball glove. Neil Feather has used electro-magnetic induction the other way: to send pulses into magnets so they kick drums, e.g. <http://neilfeather.com>

63 One of the many instruments usually made by the Austrian Vegetable Orchestra <http://www.vegetableorchestra.org>.

64 This is an original story found in research about Swedish folk instruments. A tradition in southern Sweden is to make a fiddle out of a worn-out clog (träskofiol). But when resources were especially poor, you would put strings on anything available, even dried fish.

65 E.g. the Terpodion, a keyboard instrument stroking wooden rods by a turning barrel, Bart Hopkin's Savart's Wheel, a “tuned rasp” <http://barthopkin.com/instrumentarium/savarts-wheel/>, the Car Horn Organ by Wendy Mae Chambers <http://www.wendymae.com/carhornorgan.html> or the Daxophon by Hans Reichel <http://www.daxo.de>.

Electronic, mechanical or electronically/mechanically manipulated instruments

- **Amplifying** instruments not usually amplified, or **manipulating** the sound with electronic boxes etc.
- **Analog electronic** constructions made from modules or electronic components into unique personal sound machines.⁶⁷
- **Manipulations of electronic toys and gadgets**, often called *circuit-bending*, sometimes with additions of potentiometers etc on certain places.⁶⁸
- Making instruments or sound sculptures played by **machines**,⁶⁹ or making machines that can play classical instruments,⁷⁰ or machines that involve a compositional element, like a mechanical sequencer,⁷¹ using replaceable pegs on a rotating drum, machines controlled by electronic means like Arduino⁷² or Max patches, or devices that enable them to be played or composed for on internet interfaces etc.⁷³

66 E.g. Ferdinand Försch and many others.

67 The “father” of the now widespread practice of filling a table with interconnected electronic devices to produce sound is arguably David Tudor <http://www.davidtudor.org>. The modular synthesizer consists of units that can be put together in your own fashion. Famous precursors are the Buchla, Moog and Serge systems. There are since digital imitations of the same idea, e.g. the Nord Modular.

68 Circuit-bending, a term coined by Reed Ghazala, is a technique where you use electronic devices that have a sound component and by manipulating their electric circuits in different ways: it can be simply by touching them intuitively with your fingers or electric wiring to adding electronic components to specific places in order to manipulate the sound that comes out of them. Electronic toys and toy instruments are popular to use, and often add a comic visual effect to the performance. This practice has developed into a world-wide community with lots of descriptions of practices and discussions. It's related to or sometimes identical with the practice of *hardware hacking*, a term made popular by Nicolas Collins in Chicago, see Nicolas Collins: *Handmade Electronic Music, The Art of Hardware Hacking*. 2nd ed. (New York/London: Routledge, 2009), book with dvd. See also my review for *Nutida Musik* 4 (2010-11) or on <http://bergmark.org/Collins>.

69 Such as the percussion orchestras “Rytmobile” made by Jan Cardell in Malmö, <http://www.jancardell.se>. The setup of Pierre Bastien largely consists of Meccano constructions <http://www.pierrebastien.com>.

70 A very big tradition called e.g. Orchestrions, that sadly went obsolete when the phonograph became more widespread.

71 A sequencer is a music machine that you program to send information to synthesizers or samplers that perform melodies, rhythm loops etc, often using the midi language. A very famous recent version of an acoustic sequencer is Wintergatan's *Marble Machine*, seen millions of times on youtube.

72 “Arduino is an open-source electronics platform based on easy-to-use hardware and software. It's intended for anyone making interactive projects.” <https://www.arduino.cc> Arduino is a very popular way of programming small robotic devices that perform tasks of many kinds. It is often used in automatic or robotic EMIs.

73 “Max is a visual programming language for the specialized needs of artists, educators, and researchers working with audio, visual media, and physical computing.” <https://cycling74.com> Max MSP is a user-friendly program with an interface that looks like different kinds of boxes that you patch together and that is used for programming musical (and other) events of many kinds. It's possible to use as a compositional tool, for automatic or sensor-triggered functions, or as a live electronic instrument with a laptop, midi devices or sensor devices that e.g. connect to the human body or acoustic instruments.

Found sound

- Playing on ready-made **objects** not altered, acoustically or amplified, like bicycle wheels⁷⁴ or found objects and toys.⁷⁵
- Making instruments or sound sculptures played by **natural forces** such as the wind,⁷⁶ waves etc.⁷⁷
- Playing **found recordings**, mostly with analog machines like cassette tape players,⁷⁸ reel-to-reel tape recorders⁷⁹ or gramophones, sometimes altered in different ways.⁸⁰



42. Poster for the Horse concert series by Adam Bohman, 2013



43. Poster for Sonic Hypnotic concert, Szczecin 2018

Other original ideas

- Making instruments or sound sculptures **played by visitors** on exhibitions or in parks not necessarily with any musical training etc.⁸¹
- **Long string** instruments and installations.⁸²

74 Bicycle wheel playing is almost a tradition on its own. Some versions of it can be seen by London musician Sylvia Hallett, Ken Butler in New York, Erik Petersen in Västerås, Nya Kulturkvartetten (Jan Bark, Folke Rabe, Thord Norman, Fuzzy), Bjørn Klakegg in Oslo <http://www.bjornklakegg.com>, the brazilian Marina Cyrino, Carl-Michael Edenborg in Stockholm, Per Anders Nilsson (also a bicycling enthusiast) in Gothenburg and myself <http://bergmark.org/veloncell>, all in very different ways.

75 My own music making has gone in this direction since long. Other major examples that are also close collaborators include Adam Bohman in London and Martin Klapper in Copenhagen/Prague, <http://bergmark.org/Bergmark-Bohman-Klapper>. Anna Homler in Los Angeles specializes in toys as well, <http://www.annahomler.com>.

76 Like the long tradition of Aeolian Harps e.g. and many instruments using natural forces by swedish Bengt Carling, <http://bengtcaring.blogspot.com>. I made my contribution with An Acoustic Study of the Wind, an amplified, long, hanging piano wire, <http://bergmark.org/anacousticstudyofthewind>.

77 E.g. the Sea Organ in Zadar in croatia: a large organ built under the marble steps by the seaside and played by the waves, by architect Nikola Bašić in 2005.

78 Japanese Aki Onda, Andrea Ermke (also minidiscs) and Marta Zapparoli in Berlin, Pär Thörn in Gothenburg, Luc Kerléo (Nantes) and Tippi Tillvind (Athens) of Sonic Hypnotic <https://soundcloud.com/sonichypnotic> are some of many who use cassettes.

79 French Jérôme Noetinger e.g.

80 Christian Marclay <http://www.artnet.com/artists/christian-marclay/>, japanese Otomo Yoshihide, the Berlin-based duo Vinyl Terror and -Horror (Greta Christensen and Camilla Sørensen) <http://vinylterrorandhorror.com/> and Ignaz Schick (Berlin) e.g.

- Acoustic or amplified instruments prone to “**noise**” rather than tones, meaning emphasizing a variety in timbre rather than pitch, often promoting unstable acoustic situations like multiphonics, squeaks, scratches and other sounds often considered “percussive.”⁸³

- Making **sound environments** or site-specific installations where the visitors experience or influence the sounds and the space through sensors by walking, moving, interacting in different ways etc.

Virtual or imaginary instruments

- Musical instruments invented by cartoon characters,⁸⁴ in novels,⁸⁵ etc. Leonardo da Vinci's invention of a keyboard with strings bowed by wheels was imaginary until several present-day builders constructed their versions of it.⁸⁶

- **Virtual** instruments made only for 3D animation films or games but not physically realized.



44. Poster for concert with me and Hal Rammel, Chicago 1990

81 A number of shows by the Eye Music Trust, mostly under the name Fabulous Sound Machines featured such instruments, <http://www.eyemusic.org.uk/spectacularevents/spectacularevents/fabulousounds.php>, of which my Kaleidochord was included, <http://bergmark.org/kaleidochord>. In parks you can e.g. see instruments to be played by passers-by in Moderna Museet in Stockholm, outside the art school in Alytus, Lithuania or temporarily the sound sculptures by Sverre Hoel in Bærum, Norway.

82 This is also almost a movement on its own. Some use long strings to excite *longitudinal vibrations* (as opposed to the traditional transversal ones), like Ellen Fullman <https://www.ellenfullman.com> in San Francisco or the Dutch Paul Panhuysen <http://www.paulpanhuysen.nl>. The Australian Jon Rose <http://www.jonroseweb.com> has used fences in different projects, and I have made many uses of long strings, of which some have already been mentioned and some will be described later.

83 Some of those can be described as one-man-bands or be contraptions of selected every-day objects. Many of the constructions by e.g. Tom Nunn <http://www.edgetonerecords.com/nunn.html> and Bryan Day <http://bryanday.net> in San Francisco, Eric Leonardson <http://ericleonardson.org> in Chicago, Hal Rammel (previously mentioned), or Damian Bisciglia <http://bergmark.org/damian> in Los Angeles could fit into this category. The **contact microphone** is often a common denominator, allowing very small objects to have large sounds. Those are easy to make and too expensive to buy if you're a regular user of them, <http://bergmark.org/piezo>.

84 Like the Suessophone, Zimbaphone a.o. by Dr Seuss (Theodor Seuss Geisel) or the Gaffophone a.o. by Gaston (André Franquin).

85 Like *Impressions of Africa* and *Locus Solus* by Raymond Roussel <http://imaginaryinstruments.org/impressions-of-africa/>.

86 The most successful one seems to be the one constructed by Slavomir Zubrzycki. He uses Leonardo's own name for it, the Viola organista, <http://www.violaorganista.com>.

- Sounds produced from **theoretical acoustic situations** calculated by a computer, e.g. extreme string guages that are never physically constructed.

* * *

As can be seen from this list, the instruments reflect the personalities, attitudes, purposes and communities of the makers, as well as their specific musical ideals in sound, structure and playing methods and techniques. There is no EMI without the mind of its maker.

What is an EMI maker?

I believe that the activities of humans reflect their inherent ideology, conscious or not, without intending to reduce all activities to ideology. Thus, I don't believe people who say they have no ideology. That would mean that they have no consciousness, no judgement, no opinions, affiliations or morals. If so, they just subscribe to the dominant one in their environment. The leftist platitude “everything is politics” is true in the sense that the political (or ideological) aspect is inherent, at least latently, in every human interaction (with the addition that they wouldn't have to be reduced to it). In this way, EMI making can be analyzed as human actions with a latent ideological content just as any other human endeavor. In order to do that, I think you have to see it in its social and mythological functions, in which also the ideology reveals itself.

In this light, let's look at the common differences we can see between the EMI maker and the traditional instrument maker:

The EMI maker usually considers himself a **creative artist**. She usually **plays his own instruments**. For one thing, she must be the first one to try them out, but they are also usually made, to begin with, in order to be used by himself in performances. (There are many notable exceptions to this, of course.) Often, the process of building **mixes with the process of playing** – they can be a continuum as in cases of “circuit-bending” or using found objects, or in live-hacking or live coding, where you can really question whether this is most of all a form of instrument-making or a form of instant composing.⁸⁷ Often, EMI making is also in a sense a **compositional process**, since the design of the instrument interacts intimately with the sounds that the designer desires to make. More about that later.

The EMI maker is interested in **finding new** materials, objects, tools, ideas, principles, solutions. It can be anywhere, on the streets, junkyards, scrapyards, flea markets, yard sales, one-euro stores, “chinese markets”, in nature, on the internet, in dreams, in other works of art.

⁸⁷ As has become a bit popular using e.g. the program Supercollider, where you can write code and directly experience the result during performance. One of the people I know that has been practicing this is Fredrik Olofsson, Berlin, <http://fredrikolofsson.com>. There have also been concerts with people actually soldering hardware synthesizers during playing.

The EMI maker has to develop a relationship to the **visual**. This is inevitable as the instruments usually attracts curiosity first from its visual appearance, and later from the sounds it makes. I will talk later about how the visual appearance sends out a number of signals that connect to ideas and associations about its role in music between humans, maybe even more than how it is played or sounds.

The EMI maker might first of all be a **musician** or composer. The EMI might be something that complements other instruments, or musicians, or the major focal point in the show. EMI making can be done with the idea of being an **expert**, a specialized inventor – or with the democratic **DIY attitude**, belonging to the community of “anarchist” share-alike-minded people.⁸⁸

* * *

So how to evaluate the sociological and mythological contents of EMI making? What are we actually looking at? I think there are three major images in front of us: the image of the instrument; of the instrument maker; and of the musical performance involving an EMI. I use “looking” and “image” here not in the mere visual sense, but in the sense of a collected impression of the phenomenon.

The image of the instrument

As we can see from the above, an EMI can look in a number of ways, but one common trait is that it usually emphasizes the visual appearance very strongly, since that is often new to the listener. The listener, moreover, is not reduced to listening, but also seeing, in a more obvious way than in a traditional performance, where seeing is certainly also a central component of the collected experience and significance of the event. But the EMI use often raises a number of questions (posed openly or not):

- What is this? - How does it work? - How did you make it? - Why did you make it? - Why isn't it more (or less!) visible in the performance? - Why don't you use ordinary instruments? - Is it fun? - Why is it (not) fun? - Can you enjoy the music even if you don't see it played? - Will you make more than one for others to use? - Will you sell it? - Why (not)? - Are there / will there be any compositions for it? - Can you play an “ordinary melody” on it? - Can I try? - Can I take a photo?

The image of the EMI often creates a social situation at its center immediately after a concert, where the maker explains things about it and answers questions such as these. It adds to whatever the concert situation was about, and the use of it just as well as the questions and answers make new ideas appear in the minds of

⁸⁸ I realize that, in my case, I probably inherited much of this attitude from the “Music Movement”, of which punk was a part, among with many other non-commercial and anti-commercial genres, individuals and groups that joined forces and collaborated from the 70ies. I was never into punk myself, but it seems to be often described nowadays like a movement of its own, which is not really true in my experience. Much of the activity was in organizing broad non-commercial festivals where all genres were welcome: punk, prog rock (which in the swedish scene means rock with radical political content), world music, improvisation etc.

the audience members. If the concert situation is an intimate alternative or underground scene, the environment can be even more familiar and personal, and extend to other areas of common interest. The audience then, are very often creative musicians or artists belonging to the same or related communities and the exchange of ideas, knowledge and even instruments can be quite intense. In the new music scene, especially in the improvisation communities, the exchange between musicians is especially intense, and one project often leads to another more or less seamlessly, in a continuum of collaborations, sharing and new meetings. This is a way of life in the more or less small (although also very international) creative circles. This sense of community is often undermined, of course, by the hardships of survival that create career stress, competition and jealousy. I will come back later to describe the way I've perceived the free improvisation community in Sweden and the way it has changed since I first joined it.

The ways that the EMI itself looks, provides clues to the attitude of the maker. Is it very well crafted in its appearance, is it looking "good" and appealing in itself – and what kind of "good-looking" are we striving for here? Should it be able to be admired on an exhibition as an art object? If a synthesizer, is the casing shiny or rough, are the knobs displayed in symmetrical patterns with nice colors? If a wooden object, is it smoothly polished and varnished or is it a scrap box at hand that does the job? Does it look like a highly personal crafted thing or like a DIY because "anyone can do it" kind of thing? Is it painted or decorated, in what way and with what kind of associations? Folk, punk, technocratic, futuristic, ritual, collage, newagey? All these things say "I want to be this kind of person belonging to this kind of group with those values." In other words, we can see the instrument as part of the social behavior of the maker, and one of the ways in which she communicates or strives for belonging, or not belonging, somewhere.

The image of the instrument maker

Not to disregard, the image of the EMI maker is perhaps just as important as the way the EMI looks. The way she's dressed: as a business person – "you have to look rich and successful in order to become rich and successful", nerd, hippie, new ager, hipster, punk or tramp. The way he appears as an active agent: someone doing something with a thought and for a purpose, in a circumstance. If she has a "studio" (like an artist) or a "workshop" (like a crafts person), or does things at home, in the kitchen or bedroom. If the instruments are presented as artifacts in galleries or as strange things at Ripley's Believe It Or Not. If they are used at "concerts" with "ensembles" or at "gigs" with "bands"? If they are explained in professionally-looking websites and journals, with high-resolution studio photos. If they are explained in an "artist's statement" or in an "instructable": "this is how it's done and you can do it too."⁸⁹ If they are sold with a price; as unique pieces or produced in numbers. All these things tell us how the EMI maker sees himself and how she relates to others.

89 Instructables is a website specializing in user-created and uploaded DIY projects, <https://www.instructables.com>.

One important aspect is how much the EMI maker invites others to the very process of invention, experiment, creativity: if this is a secret process of the genius, or shared with others in its different hardships, developments, stages back and forth with disappointments and conquests. If he asks for advice, help, inspiration, input, references, tips, associations or prefers to do everything alone, the research, sketching, attempts, models, adjustments, decisions?

The “outsourcing” model is also not very uncommon: one person has the idea, the other makes the solution and creates the artifact. It’s an order with a price. One is the artist/musician/composer, the other the crafts person, the specialist/maker/technician.

Sometimes, however, it is the maker that sells the idea to the artist, possibly with adjustments in order to accommodate special needs.⁹⁰

These questions puts the EMI maker on the sociological map concerning its position in a group: a clever provider of goods, a jolly inventive fellow in the community or an “up-and-coming” artist that you should be proud to have once known/met/seen.



45. Working on the Kaleidochord, ca 1999

Christopher Small's musicking sociology

I have since long embraced a method of how to define and analyze music, proposed by the music sociologist Christopher Small.⁹¹ In brief, his point of departure is that music is not a thing at all but an activity in which we engage, and he even wants to exchange the noun “music” into the verb “to music” or “musicking.”⁹² This activity can be described as a **social ritual** (in the anthropological sense) in which the group involved **affirms, explores, and celebrates** their understanding of themselves and their ideals. You can say that the musical ritual of musicking is a process of creating an experimental **utopia** – a **virtual** one, because of the

90 This seems to be the way icelandic inventor of the Halldorophone, Halldór Úlfarsson, works, as he told me, <http://www.halldorophone.info>.

91 In an attempt to make his ideas more known in sweden, I published a brief presentation in Nutida Musik, accompanied with a number of challenges to the new music community. Only one writer responded back then, although I was interviewed on the swedish radio about these ideas. See “Music is a verb! Christopher Small and the future of the musical ritual,” *Patricide* 4 (2011). Original text in swedish *Nutida Musik* 1 (2004), <http://bergmark.org/Smallen>.

92 The term was first used in *Music of the Common Tongue: Survival and Celebration in Afro-American Music* (London: Calder, 1987), but the theory further developed in *Musicking: The Meanings of Performing and Listening* (Hanover, NH: University Press of New England, 1998) – see especially chapter 12, “What's Really Going On Here?”

limitations of freedom within the constraints of time, space, economical relations etc. It takes place in the form of establishing a **network of relationships** between the people involved, the sound structures, and all the ideas, conceptions as well as physical factors that are present in the act. His ideas will permeate the following, and have already permeated the preceding sections of this text.

Why do I find his model so explanatory (so far), in the analysis of the collective contents of a musical ritual?

First of all, to see the musical ritual *as* a ritual, in the anthropological sense, means that there is a meaning, or are contents, of the action of doing this common act of performing/listening/dancing/organizing the event that has humanly chosen sound structures at its core, or at least as a major component. Everything that goes into the act, far beyond the sound structures themselves, determines these contents. That's why it's never enough for this kind of analysis to look at the sound structures only, not even if you include the intentions of the composer and the interpretations of the performers. You have to look at this very unique time and place, and the actions of all involved, the way it looks, feels and smells, from the promotional, architectural, economic perspectives, involving all the expectations and challenges of all involved. What is really going on? What do we share? What's the story and what does it mean? Ultimately, this tells the involved "this is the way we see ourselves, this is who we are, what we want and hope for." That's why this analysis is so interesting. It tells us what it could mean to be human, what is possible to think and do. It's so much more than music, and this is why music is connected to such strong feelings. It's about why and how we live, and how we could imagine doing it differently and ideally.

So, to do an analysis, we have to look not only at the sound structures but also at how they relate to other behaviors around them. Do they play a central role in the way we relate, or are they an indivisible part of the whole event, consisting of other elements? Is the musician at the center of attention or do we mingle around, talk, eat, drink, flirt, dance? And for this discussion, what are the roles of the instruments in this?

The musical performance involving an EMI (sketch of an analytical method)

The instrument, its maker and the performance with it together form a picture of significance, a network of relationships that forms the construction of meaning. Important parts are the roles the instrument and its builder have in the performance where it is used. In an attempt to imagine a systematic approach in a study of this kind, I made a set of proposed questions for examining the sociological contents of a musical performance with an EMI. Let me underline that I have not (yet) done such a study, it's just imaginary at this stage. However, with such a sketch in mind, it might be easier to estimate my own role, and those of my instruments, in my environment, something I shall soon try to do below.

Observation of the situation:

Where are we?

- Who is where? - Where are the musicians? - Where are those listening? - How are the people placed: standing, sitting, walking? - What does the place look like: is it organized for the musical situation, is it multipurpose, or is it not at all meant for musical situations?

What happens?

- Who does what? - How many are actively playing? - How many are (apparently) passive? - Does anyone do anything other than playing or listening: dancing, cleaning, serving drinks / food, talk, walk past? - Are the musicians visible? - Are the musicians separated from the audience or in the same room / at the same plane? - Is there an organized, casual or spontaneous talk about music or other things about it afterwards or in connection with the concert? Who leads it / participates in it?

What relationships exist or arise?

- What kinds of contacts are there between the musicians, the audience and others present? - What relations precede the music, and what exist afterwards? - How is feedback given to the musicians? Gestures, words, money, indirectly through other arrangements? - What economic relations are established? - How important is the music as creator of relations? What other factors are there and how important are they?

The roles of the instruments

- What instruments are used? - Who uses them? - How expensive are they? - Who made them? - Are they unique or mass-produced? - How are the instruments treated? - Are they more important than musicians? - Are they more important than the music? - Do they get their own presentation of some kind? - Can other people than the musicians touch or try them? - Do their visual, sonorous, literary or associative sides dominate? - Are the instruments designed for a certain kind of music, certain kinds of sounds, gestures or movements? How can you see that? - Can they also be used for other types of music than what they are intended for?

The structure of the music

- Is the music repetitive, strong, danceable, metric, harmonic, melodic, tonally orientated, dynamic? - How much of this is determined by the choice, design and ways of playing the instruments? - Is it in some sense functional? (Are people supposed to act in any specific way while it is in progress, such as dance, shout, sing along, give money?) - Is it in some sense symbolic? (Thought to evoke a certain sentiment or thoughts?) - Is there text to the music? How prominent is it? - Is it precomposed or improvised? - To what extent is the music made by the musicians? - To what extent is the music influenced / determined by others present? - How open / sensitive is it to chance and to be influenced by other external factors? - Are there pauses

between pieces? What happens then? Is there talking between or during the pieces? Who speaks when? Is there a dialogue? - How surprising or predictable does it seem in this context? - How long is the concert going on? - Is there other (background -?) music before or after the concert?

Analysis of the situation:

- What types of relationships are established during the musical ritual? - Are there hierarchies? Of what kind? Do they continue also outside of the musical situation? - How can the situation be analyzed as a temporarily established society? Is it like a business relationship, a love relationship, an affinity, a sect, a club, an individual-liberal coexistence, a democratic structure (direct democracy; representative; consensus)? - What ideological landscape are we moving in? Is there individual worship, equality between colleagues, mistrust, distance, proximity, traits of careerism or equal exchange? Are we “on the same side” about something or on a socially neutral plane?

Criticism of the situation:

- Is the situation promoting creativity? At the same time, or after, explicitly or implicitly? - Is equal exchange of knowledge and skills promoted or are “business secrets” nourished? - How is the situation related to the rest of the society: does it contribute to a preservative building of a society or can it inspire reforms / rebellion / utopias? - Is the situation radical, liberating, revolutionary, conservative, oppressive or inhibiting?

2.2 An autoethnographic case study, with a sketch of an ideal self-understanding

An autoethnographic approach

In anthropology, there has been a lively discussion about how to overcome the endless regress of self-doubt as an observer who inevitably influences his surroundings and can never, moreover, completely step out of her own cultural prejudices.⁹³ With too many doubts and excuses you find yourself unable to do anything. In order to actually propose an idea, you have to be bold enough, at some point, to disregard the objections that will inevitably follow. In order to have a discussion, you have to put your mind at risk. But that’s when the interesting things happen: where ideas are born and tried. It starts with a hypothesis, a preliminary that needs no confirmation in order to start working out a knowledge-building method.

Part of what I do here is applying what has been called *autoethnography*. I couldn't formulate it better than this brilliant abstract, whose ambition I hope to share:

⁹³ Described in e.g. C.A. Davies, *Reflexive Ethnography: Guide to Researching Selves and Others* (New York: Routledge, 1990).

Autoethnography is an approach to research and writing that seeks to describe and systematically analyze personal experience in order to understand cultural experience. This approach challenges canonical ways of doing research and representing others and treats research as a political, socially-just and socially-conscious act. A researcher uses tenets of autobiography and ethnography to do and write autoethnography. Thus, as a method, autoethnography is both process and product.⁹⁴

So, the only case study I will be doing is my own. The question that I am constantly hovering over is: Why do I do this? And the reason I turn to sociology, is that I find it hard to believe that there is a meaning to this that is only mine. In whatever way this is made, it is within a dynamic of exchange, or intersubjectivity. In an immediate sense, I can think, “what will happen when I play this, what will people think, how will it work, what will they say, how will it affect them,” and “how will I feel when they say this or that, or if they don’t say or think this or that. Will they like it, will they like me?” and “Does it mean that I should change or not?”

I propose the sociological perspective, in other words, partly in order to have a critical viewpoint on my own work, and a self-critical understanding of it, its limitations and pitfalls, but I want to emphasize that this aspect, though important, is not the only one. Just as important, or even more, is “What is the nature of the shared experience that we will have?” Is it a comical, mysterious, “spiritual” or “cool” experience? Do they think I’m a cool guy, arty-farty, pretentious or “mad professor”? Pitiful, a failed artist, natural lunatic, fake, failure, lacking artistic quality or understanding, and will be forgotten in artistic circles, public awareness and history books?

I don't say that this self-doubt makes me “exist” (like René Descartes' *Cogito ergo sum*) – I'd rather say that it is one way that we can try to see ourselves more from the outside, and use it to actually see each other, by transforming confusion into consciousness, with the aim of expanding the possibilities for action (which is not dependent on consciousness only), and thus maybe also “exist” in an existentialist sense (through our actions), as well as allowing the observation to leave us free to be playful together. In this sense, it might not be so self-centered after all but could benefit a sociological understanding as well as the field of possibilities.

And sociology is not the only viewpoint – an intersubjective meaning can also be mythological, utopian (in a visionary or even prophetic sense), mystic (esoteric), phenomenological, and of course many things at the same time depending on your aspect when looking. So let's look.

My own case study (where I am in the communities)

My activity as a musician is pretty “classical” in the contemporary sense that I play in situations that are “concerts” or “performances” in order to promote a concentrated listening experience: the audience, usually

94 Ellis et al., *Autoethnography: An Overview* (Forum: Qualitative Social Research, [S.l.], v. 12, n. 1 2010), 1, <http://www.qualitative-research.net/index.php/fqs/article/view/1589/3096>.

seated, are supposed to be silent and just look and listen to me and what I do. These situations are quite the same, because the community usually is the same, although there can be quite a variation in the kind of venues that are fit for this kind of concert: from big, well-equipped theatres on festivals (usually focused on contemporary music but sometimes performance art or “sound art,” in whatever way the latter is defined at the time and place) to rough cellar clubs with very primitive facilities. What is important here is the gathering of a relatively small group of interested people that define themselves as a group with special interests: they are interested in the experimental, improvised, unusual, creative art that you don’t find in the mainstream but only if you look for the specialized communities that provide them. Economically, these can sometimes be well-funded or even sponsored but very often they are totally idealistic and no-budget events with no one paid for anything. The feeling of being some “chosen few” who know about and understand the basics of these art forms is important. Quite often such events can be totally off the radar and spread only from person to person. It can be in people’s homes, you are trusted to put whatever you can afford or think is appropriate in a bucket for the musicians’ expenses and for the beer. There is a feeling of solidarity. Newcomers can be met with slight suspicion but are often warmly embraced and encouraged. This private party often has the same feeling at somebody’s home as in the underground venue or even in a festival. Who is on stage, backstage or in the audience can vary and many have several roles. Casual introductory talk often includes the question “Do you play yourself?”

What kind of community is this? It is very useful to use the three verbs that Small's verb **to music** can be broken down to, in terms of understanding the basic contents of the ritual: to **celebrate**, **affirm** and **explore**. We **celebrate** the specific kind of creativity that we share and the community we build through this, in spite of all difficulties. We celebrate that we found each other in something valuable and unique. We **affirm** the values and the enjoyment that this community brings every time we do this “ritual.” We **explore** the potentials of the **musicking** through the musicians and their instruments and the way they relate to their situation on stage. We pay attention to everything they do but also give feedback between the sets – we’re all in this together and the breaks are just as important for this feeling of community.

What is it that is of value here, that sets this apart from the rest? It’s more than just celebrating being few and different. There are values, often explicitly stated in different ways but mostly taken for granted, that this kind of art is better than the widely commercially available one. It’s considered to be more inventive, more creative, more important, of higher quality. Now, to elaborate on why this is so is often difficult for the participants, there are no readily available proofs, or definitions of quality that are easy to agree upon. The definitions and arguments that are necessary in cultural politics rely on the consensus, or majority votes, in chosen juries, and it’s usually enough to argue for certain support that this kind of art (after having been defined high quality) needs support in order to provide a reasonable variety of expressions in cultural life as a whole.

But I would argue that the needs of a rhetoric in cultural politics is something quite different from the actual self-understanding of these groups of “avant-garde,” “modern,” “contemporary,” “underground” artists.

What are the ideals that set them apart from the mainstream? I suggest a few here, based on my appreciation from many decades of experience as part of this community:

- We cultivate individual, uncompromising creativity.
- We like the freedom of expression.
- We like breaking rules concerning forms. We don't like being constrained to conventional forms like the functional harmonic, the tempered scale, the even meter, the classical concert form or the classical use of instruments.
- We like mixing or transgressing the boundaries of art forms.
- We are free from the constraints of tradition, possibly only acknowledging the alternative traditions of the modern or experimental genres.
- We are open for new collaborations between people, often even unprepared ad hoc meetings.

Please note that I try to estimate the self-understanding of this scene and not any facts about it. These might be prejudices, or wishful thinking perhaps, or their ideal view of their mission or moral character.⁹⁵

Many who would agree with the above, nevertheless at the same time contradict it with adhering to e.g.

- Certain repetitive modern traditions like minimalism.
- Certain functional harmonic systems like drone-based music (often combined with noise).
- Certain expressions of more popular culture that are considered to have broken through borders within their own genre, like free jazz, progressive rock, traditional expressions that are different enough from the classical western traditions to provide "far out" inspirations etc.

– but this might not be surprising, the dialectics of many traditions involve the approving and rejection of certain other traditions more than others, and is part of their self-definition which is an ongoing thing. It's not unusual, of course, that a community like the "improvised music" one is more or less divided into subgroups of which some consider themselves true to the "real thing" while others are true to their freedom to break with the past. Some subgroups are breaking out, or merging with another to make a "new scene," some are making strategic alliances that they think will enable them more success or a niche of their own, and it's not uncommon to identify oneself with two or more groups at the same time, or from time to time.

⁹⁵ There is a wealth of ample evidence to back up many of those ideas in interviews, articles, books, studies etc. This is not really the point for me here. To learn about the ideas and history of the scene of free improvisation or "new music" I refer the reader to other studies. This text concerns my own practice, experience, self-understanding and a discussion of methods and viewpoints. It can of course be used by others as an example in a general study.

It's of course the same with me. The “community” that I describe above is actually a few overlapping ones, and they are not the only ones that I identify myself with. If I try to estimate very spontaneously, as an example, which those are, and to what degree I identify with them, it would be something like this, at the instant of writing:

- The Surrealist community 85%
- The free improvised music community 80%
- EMI makers 70%
- The Fylkingen association, with its varying art forms and history 50%
- The Skeptics' movement 50%
- The society of contemporary composers 45%
- Performance artists 40%
- Socialists 25%
- Electronic music makers 20%
- My family and relatives 15%
- School mates 15%
- Noise musicians 15%
- Visual artists 15%
- Jazz musicians 5%
- My generation 5%
- Folk musicians 3%
- Swedish people 1%
- Men 1%
- Heterosexuals 1% - etc...



46. Fylkingen's foyer, me working in the bar

Improvisation and EMI makers

For the sake of the present discussion, let's just focus on the overlap between the free improvisation community and the EMI community. It might be surprising how much the overlap is from the EMI side. To some degree the EMI side also overlaps with the “contemporary composers” side, but there's also a quickly increasing overlap between the latter and the improvisors that is part of the explanation for this (more about this later).

A large part of the improvisors overlap with the jazz musicians' community, stressing the heritage from free jazz in the formation process of free improvisation as a style on its own. Other parts overlap with art rock, noise music or electronic music.

There are some pretty obvious structural similarities between the work of the free improvisor and the EMI maker that might explain the overlap:

- Both identify themselves as explorers, inventors, experimenters, searchers or even researchers into new ways of playing, new sounds and new methods, one through playing, the other through making.

- The work method for both is to a large extent intuitive, through rehearsing, trial- and errors, learning by doing, relying on chance encounters or available resources etc. A long time improvisor-EMI maker, Tom Nunn, puts it in this way, in his book about improvisation, where a chapter is devoted to EMI making, very much mirroring how I feel too:

It takes courage, time and money, and a willingness to fail without (too much) regret, to take on the challenge of designing and building original instruments. And once an instrument has been invented, there remains the task of learning to play it well. Experimental or original instruments provide immediate advantages for free improvisation: listener expectations are all but nullified because the instruments are unfamiliar (...) The making of experimental/original instruments is, itself, a kind of improvisation, of course; a creative response to materials. (...) The two main challenges to creating a new instrument are to articulate interesting sounds and to make the instrument accessible to playing techniques (...) Beyond this, there may also be a concern with visual aesthetics and craftsmanship.⁹⁶

The attitudes of both improviser and EMI maker could ideally be summed up as: **by all means necessary, find ways of increasing the field of possibilities for excitement and joy in life and imagination, and share it with those who are ready for it.**

Maybe this could be a way of defining, ideally, the self-understanding of our community as well, and that's why I like it and choose to be there.

Ideally, for me that is.⁹⁷ Because I know that many of my colleagues shun any possible manifest political implication of their work (although I think this "definition" has political implications only indirectly, as a poetical manifesto), they like to see it as artistic work of high quality with no implications outside of the art community except for a vague general notion that high quality art is good for people. This is so although many at the same time **sympathize** with radical or leftist politics of some kind, but don't make much conscious connection between the two, at least not in any systematic way.

But if I disregard the enormous variety of expressions among my colleagues, let's take a dialectical step back to the structure of the sounds in my case, to see if and how it corresponds to the totality of the musical ritual that I described above.

How do I play?

The concepts influencing my way of playing that I can think of are

- **the "possessed" method.** Inspirations: Cecil Taylor, Sun Ra, Albert Ayler, Giacinto Scelsi, shamanistic ideas and mediumistic methods.

⁹⁶ Tom Nunn, *Wisdom of the Impulse, On the Nature of Musical Free Improvisation* (San Francisco: Thomas E. Nunn, 1998). See also the first article where I read about this same parallel: Tom Nunn, "Improvisation with Experimental Musical Instruments," *Experimental Musical Instruments* 8:1 (1992).

⁹⁷ In a similar way, I tried to analyze the Fylkingen society as a utopian vision, knowing that it would never formulate it manifestly itself. Thus, the Fylkingen statutes remain with the self-definition as a society for "radical and experimental art", as it should be in its position, only latently open for individual manifest expressions and interpretations of what that means. See "Fylkingen, From Where And Where To?," in *FYLKINGEN 80!* (Stockholm: Fylkingen Förlag, 2014), 96-98: <http://bergmark.org/Fylkingen.varur.vari.varthan.pdf>.

- **the bodily expression**, to let the music be a result of the joy of the body to move and feel good with no regard to aesthetics of other kinds.

- **the “nervous” drive**, the forward motion of motoric muscle tension against any tendency to relaxation or complacency.



47. Martin Klapper and me at Mayhem, Copenhagen 2015

- **the curiosity for materials and objects**, as tactile, visual and poetic inspirations (Martin Klapper, Adam Bohman, Damian Bisciglia).

- **the “playful” method**, ludic ideas following associations based on the joy of playing and reacting to whatever situation is at hand, with other players and also circumstances in the environment. It could also sometimes include humor, jesting, stylistic collaging (Jon Rose, Eugene Chadbourne, Fretlessarméén) etc.

- **the variety principle**, to use the full potentials of all musical parameters (Anton Webern, the cliché about the “british” style of free improvisation, often practiced by swedish improvisers emerging in the 80ies).

- **the surprise and risk principle**, against boredom, to embrace chance and sudden whims and impulses in order to explore unknown and unforeseen situations, even at the risk of jeopardizing the driving force or “qualitative security” of the music and the concert, and consequently the reputation of the musician, for the sake of the potential adventure and new experience (Davey Williams⁹⁸ and LaDonna Smith⁹⁹ in Alabama, Jaap Blonk in some respects).¹⁰⁰

- **the cultivation or “occultation” of sounds**, to let a certain sound take over all attention and let it dwell and develop for a long time with no regard to other concerns of form or “respect” (The Sons of God and many others).¹⁰¹

Already we can see a couple of things:

- Those principles, methods, inspirations, drives or ideas are often overlapping but sometimes also contrasting or conflicting with each other.

98 <http://the-improvisor.org/transmuseq/davey/index.htm>

99 <http://ladonnasmith.com>

100 <http://www.jaapblonk.com>

101 A duo consisting of Leif Elggren and Kent Tankred: <http://www.thesonsofgod.se>.

- They often explicitly or implicitly correspond to an attitude, a way of relating, moral, ideological or political standards, hopes or views. What are those?

Since the easiest way to know myself is through my conscious expressions – the rest being mostly afterthought in the form of suspicion or fear – my reply can easily be seen as a manifesto or at least as an “artist’s statement” rather than an objective analysis, but I want to at least theoretically acknowledge that I want to see myself, and hopefully also many of my colleagues, as struggling daily with letting those ideals remain stronger than the many forces that often too easily destroy them: the commercial and competitive structure, fear of being thrown out of career, of being unable to support yourself enough to be able to continue working with the art that excites you, fear of poverty, of getting a bad reputation, of being forgotten and not appreciated.

After this excuse, let’s go:

I want my music to reflect a view of humankind as having the potential to collectively and on equal terms share adventure, beauty, poetry and inventiveness without concern for ego, career, star status or fear. This musicking should express that all means, inventive and intuitive, are freely permissible and that it should be able to expand the possibilities in life through methods of joy, curiosity and sharing.

How do I invent? Case studies in the invention of some EMIs

After this introspection of the playing, let's do one of the making. What is actually behind the making of the EMIs in my case? In order to give a multiple answer to the question “how do you invent something?,” I list here some very different ways in which my instruments have come into existence.¹⁰²

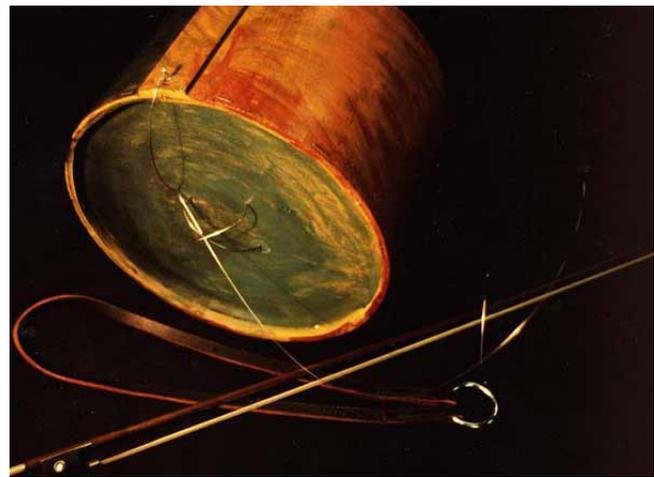
There is no “total invention” just as there is no “total improvisation,” in the sense that it comes from pure inspiration or out of the blue. I think originality is causal and determined, there is no free will – as there are no supernatural forces to blame. I can always trace every instrument I made to something, if I only remember – my process with EMIs from idea to performance has been very different every time, though.

My first instrument construction, in the mid-1980s, was a **Percussion Shirt**, to have different percussion instruments sawn into a shirt which I could play while moving around. I was very interested in dance and body expression at the time. It was completely destroyed by my first performance on it.

¹⁰² A first version of this section: “Case studies in the invention of some Experimental Musical Instruments (EMIs) by an improviser” (paper presented at *Technologies and Improvisation: Tools and theories for uncertain futures*, Gothenburg, February 8, 2018. Presentation with pictures and sound: <https://youtu.be/gmcLxBMUH3c?t=2h23m48s>.

My first still remaining instrument is the **Butter Bass** – a one-string instrument that I saw in a dream.¹⁰³

Also very physically involving since I was supposed to stand on one leg, holding the resonator in the air by the other foot. I compromised after I constructed it so I have used it sitting since. I found a butter box (at least that's what I imagined) on a flea market, and it became the resonator. The instrument has no neck, the bridge consists of a loop of piano string, berimbau style, and the string is stretched by my neck, with a collar almost like a dog.¹⁰⁴ There is an



48. *Butter Bass*

incredible range of sounds you can make with changing tension, bow position, plucking etc.

At this time I had started my education as a piano builder, and I used the school workshop to create a number of instruments in the evenings. Inspired by the strength of piano strings, I realized that a person could actually hang in one string without it breaking. Still very interested in bodily involving instruments, I constructed the **Stringed Stirrups**, where I would hang in two strings with different gauges and play them at the same time.¹⁰⁵ I think Jules Verne and my interest in aquariums might have something to do with it too. I still like this instrument, or perhaps performance piece, very much and play it relatively often.

My friend Petra Mandal had a dream about her lying inside a coffin with strings, that would start sounding by themselves from her singing voice. The **Singing Coffin**, constructed with her permission, took a long time to find out how to realize, but I finally used a microphone for the voice and multiplied the signal through



49. *Stringed Stirrups, London 2016*

a mixer to tiny piezo speakers that rest on the strings, where they also make interesting feedback.¹⁰⁶ This idea comes from a misunderstanding of a colleague's sound installation. It has become a durational performance

103 <http://bergmark.org/butter>

104 The berimbau is a brazilian instrument known for often being used to accompany the *capoeira* fight-dance. It consists of one string stretched by a bow, and pulled back on a point by a loop of string, dividing the playing string into two parts which you play with a stick. You can also change the pitch with a stone that you press against the string, and the timbre by covering or opening the hole in the resonator gourd which is connected to the dividing-string (which thus works as a bridge). In this way you can play really powerful and intriguing rhythms and sounds on it.

105 <http://bergmark.org/stirrups>

106 <http://bergmark.org/coffin>



50. *Singing Coffin in Mimer at Norberg Festival 2002*

piece that could last for hours. The feedback sounds weren't part of the dream but can be played by manipulating the mixer. A recording of that became the source material for a long noise composition.

At the school I also had the chance to use ceramic and metal workshops and made different wind- and bowed instruments. I was into the didjeridu at the time and made versions in ceramics,¹⁰⁷ and I was

inspired by Hal Rammel's bowed spinning instruments (the Triolin, Aerolin, Amplified Palette etc), the nail violin and the waterphone and made my own variations in metal and ceramic.¹⁰⁸ The **Metal Harp** was meant for bowing with a spinning motion but could also be played trumpet-style, or as a flute.¹⁰⁹ I still like to play it very much, and also made a long suite with recordings of sounds only from that.



51. *Metal Harp*



52. *Finger Violin*

String instruments with no neck and no fret board interested me because I was never good at playing guitars or violins, and I wanted to make one that had a string on each finger. When I made it, I looked for materials and thought about the shape of the resonators. Only in the last minute, as a joke to myself, I decided to make them in violin shape, with a classic model that I borrowed from the school's violin workshop. It turned out that a good playing position

was actually to hold the resonator under the chin just like an ordinary violin, but that wasn't the original plan. The **Finger Violin** has a very unique sound, also because I used piano strings which are very stiff and usually not "meant" to be that loose.¹¹⁰ It can be sounds that remind of an earthquake, a horrified choir, human voice or whistling. I'm not sure what sound I imagined, but I play with what I discover after the instrument is made and during learning how to play it. Playing is constantly learning, even on my own instruments.

107 <http://bergmark.org/clay> and <http://bergmark.org/doubletrumpet>.

108 The Nail Violin or *Nagelgeige* in German, invented by German violinist Johann Wilde in 1740, consists of a semicircular wooden soundboard with iron or brass nails of different lengths arranged to produce a chromatic scale when bowed. You sometimes find it in musical instrument museums as well as other versions that are more spherical.

109 <http://bergmark.org/metal>

110 <http://bergmark.org/finger>



53. Brillolin played at Klubb Kanin, Trondheim 2000

On the street I found an empty pair of goggles, and immediately thought they should become an instrument: the **Brillolin**, which actually has several possibilities like a very small one-woman band. In this case, the visual idea didn't come in the end, it came in the beginning.¹¹¹

When my bicycle broke down, I used the remaining good wheel to make an instrument

as a homage to Marcel Duchamp's bicycle wheel.¹¹² The **Veloncell Marcel** was a bit different though, since it used the light generator as an oscillator, which meant it needed to keep the tire on, and it also had light effects, keeping the bicycle lights.¹¹³



54. Veloncell Marcel (and Whalefish) 1997



55. Whalefish

After all these instruments, I decided to make one that combined the playing principles I was interested in, and also make it physically possible to play electronics, saw, didjeridu and use the voice at the same time. A proper one-man band. After several sketches, calculations and a cardboard model, I created, around the base from an old piano's soundboard, the **Whalefish**.¹¹⁴ This was to become my main instrument as a musician for many years, and had enough possibilities to last for a full-length concert.

One thing it made me increasingly discover was that using a contact microphone glued on a soundboard turned the soundboard itself into a big contact microphone. Any object that was in contact with it became part of the instrument. So the Whalefish was not only an instrument in itself, but more and more the base for an increasingly large collection of objects, materials and tools. My guitar-playing colleague Sören Runolf¹¹⁵

111 <http://bergmark.org/brillolin>

112 Marcel Duchamp's *Bicycle Wheel* from 1913 is one of the most famous examples of his invention of a new art form, the *ready-made*. See e.g. one of the versions he made of it here: https://www.moma.org/learn/moma_learning/marcel-duchamp-bicycle-wheel-new-york-1951-third-version-after-lost-original-of-1913/.

113 <http://bergmark.org/veloncell>

114 <http://bergmark.org/whalefish>

115 We play together in the group Smullotron <http://bergmark.org/smullotron> and many other projects.

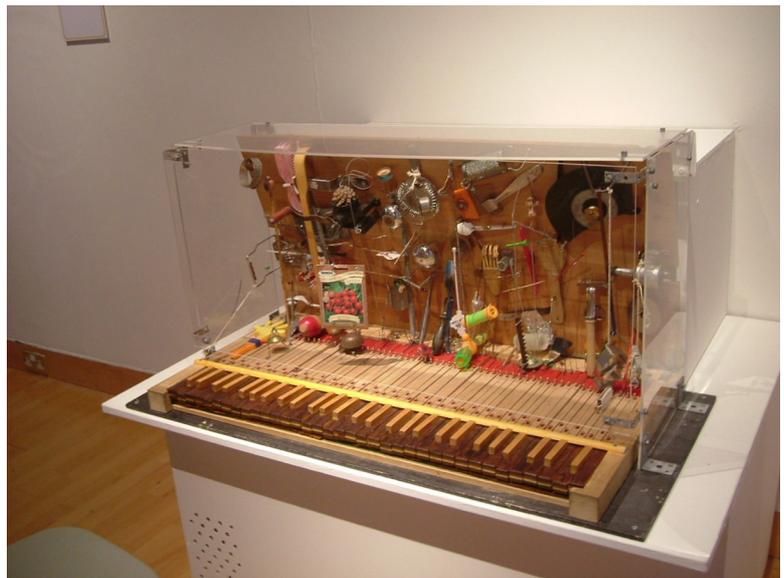
called this collection my “plectrums”. But where does the tool start and the instrument begin? The amplified object aspect of the instrument gradually took over, and, after the Whalefish became really worn, and I had a creative break for a few years, I made a pair of new instruments that took this idea further, the **Platforms**.¹¹⁶ This neutral name states that it might not be an instrument but a stage, or an extended, prepared microphone or something. In the different versions of it, the fixed



56. *Platforms*

elements are different and can be changed at any time. The collection of objects also change with new discoveries, things breaking, disappearing, being stolen and replaced because of lack of space in my bag, or that my interests fluctuate. It’s an evolutionary instrument – or, considered as a composition, it’s flexible, like a game.

My school asked me if I wanted to do something with some unfinished instruments that they would otherwise throw away. I saved a harpsichord keyboard, from which I built, during many years, an interactive exhibition piece that children can play as violent as they wish. For every exhibition, it needs repair and adjustments so it’s in constant development. It’s called The **Kaleidochord**.¹¹⁷



57. *Kaleidochord in “Fabulous Sound Machines”, Carlisle 2005*

A former interest in being a sword-swallower came up again when I heard of an easy way to make hydrophones: to simply cover a contact microphone with waterproof material. I made one that I could swallow. I’m not sure it counts as an instrument. In the stomach, you can hear my heart beat, the carbon dioxide of soft drinks and the popping

116 <http://bergmark.org/platforms>

117 <http://bergmark.org/kaleidochord>



58. *I Have Been In You...*

exploding candy. I call this piece **I Have Been In You, You Have Been In Me** (title stolen from Frank Zappa).¹¹⁸

In contact with an organizer that has a venue which is a former airplane washing hall, I was interested in using the great space for a **long string installation**, and thought about my experience with metal sheets as resonators, so I asked for scrap metal.¹¹⁹ He proposed a collaboration with the sculptor Jimmy Dahlberg, who works with bending metal sheet, and it became a collaboration. The sound and playing possibilities are quite unpredictable in spite of any experience.¹²⁰

The current project **The Hell Harp of Hieronymus Bosch**, takes, as already mentioned, a painting as a point of departure.

The visual dilemma

Over time, I had a constantly negotiating relationship with the visual aspect as well as the performative aspect of my instruments. Is this even music? Is it jesting, circus, performance art, dance, puppet theatre, object theatre, physical theatre or something else? I was never interested in coming to a fixed conclusion but liked to experiment with different kinds of labeling. I

was also ambivalent to the comic side of playing unusual instruments like the **saw**.¹²¹ Sometimes I detested the excitement and just wanted people to listen to the saw as a very unique sound maker, not only because of its visual appearance. I think I finally decided that I'm usually not fitted to be a jester but that I'd just keep a straight face and just do what I like to do, and let the audience be free to share my excitement if they want. The question came up again and again: Did this music always have to be seen, was there any point of sound recordings? I'd like to leave that open too, at least in most cases. I'm not against recording, it's just a totally



59. *Long Strings with Sculptures*, LAT63 art arena, Frösön 2017

118 <http://bergmark.org/you>

119 <http://bergmark.org/longstrings>

120 I could give you more examples where the sources of inspiration include, among many others: - A revenge <http://bergmark.org/anacousticstudyofthewind> - A text about fishermen <http://bergmark.org/ocean> - A feedback mistake during a rehearsal <http://bergmark.org/manual> - The need for having a portable instrument on a tour <http://bergmark.org/sounddetector> - The decision to use found materials on the mongolian countryside <http://bergmark.org/mongolfiol> - The task to work with stones, and finding a cracked one which reminded me of the myth of the Androgyne <http://bergmark.org/androgynousstones> - The task to work with stones, and finding an old beautiful yoke <http://bergmark.org/yokeforstones>.

121 <http://bergmark.org/saw>

Sound objects and me.

My playing is not all done with EMIs. I also to a large extent use ready-made sound objects. These deserve a section of their own.

In 2006, I wrote **The Corn Grinder From The Venus Temple – about found sound objects**.¹²⁴

Re-reading it now, I am struck by the long list of objects that I used at the time, as parts of the Whalefish, which was my main instrument then. There were 141 described objects (if I counted right). I have since forgotten many of the details I wrote about them, and when I go through the list, I can recognize 31 that I still use today, with the instruments that I call Platforms.¹²⁵ To them, hundreds of new objects have been added. Most of them also disappeared from use in one way or another (having been abandoned, lost, broken, forgotten or stolen).

The shift of instrument from the Whalefish to the Platforms represents a shift of my interest in sound objects. Since I began to improvise freely in 1985, I did it with the mindset that anything could be used as an instrument by anyone, inspired by the meeting with surrealist musicians and inventors Hal Rammel in Chicago (since then moved to Wisconsin) and Davey Williams and LaDonna Smith in Birmingham, Alabama. Especially the latter have cultivated this attitude and have always welcomed “non-musicians” to play with them, a play not limited to be called music, or anything else.

In the beginning I gathered friends to sessions where we could bring anything to play with. This contrasted very much with some of the second wave of free improvisers in Sweden that I also approached, who cultivated skilled control over the instruments, and I am sure I was looked upon with suspicion (which never stopped me, however). Inspired by Hal, I began to make my own instruments (and even begin my education as a piano technician), and I eventually discovered the possibilities of the contact microphone, which opens the field of microscopic (microphonic?) discovery: any object could now bring out a rich and full sound, even for an audience, regardless of how little it sounded acoustically. The contact microphone in the center of the one-man-band-kind-of instrument that the Whalefish was intended to be, became a central focus for a number of objects that I began to use on it, and after many years, when the Whalefish was very worn out, I constructed a set of instruments that were simply amplified cupboard doors and called them Platforms. Their use and design is much more flexible than the Whalefish, and they are intended specifically for amplifying small objects.

To choose to describe just one or two objects is the most difficult thing, since they are very much a collective of individuals, like a large family gathering in every concert. One by one they could hardly be described as

124 Johannes Bergmark, “The Corn Grinder From The Venus Temple – about found sound objects,” *Noisegate* 13 (2006), <http://bergmark.org/corngrinder>.

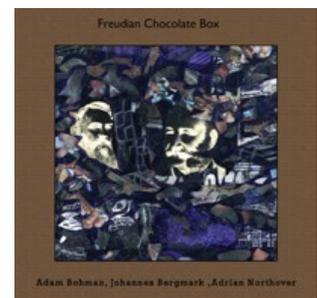
125 For an account of those, see Appendix 1.

instruments, and they often work in teams or combinations, where one is a tool, one is a conductor for sound vibrations, one is a resonance, a damper etc. One typical combination is a type of stick (that can be a piece from a big firework, having fallen down on Berlin at New Year's Eve, an unused welding rod, a grill stick etc) with a type of surface (a broken piece of glass, enamel, sand paper, rusty metal...).

The kind of object you choose to pick up with the thought of trying it out as a sound object depends of course much on previous experience just as much as the curiosity to try something new. Experience expands your possibilities to treat an object in the way of "playing" but might also limit the degree of surprise. One of the advantages with making instrument inventing workshops is that your advice to the participants is often wrong (i.e. based on your own limited experience, however "expert" it might be) and the inexperience or difference in associations of the workshop participant can lead to a lot of solutions that you couldn't imagine.

I "listen" to new and found objects first with my hands, and eyes, and the ears usually come last. The circumstance of the object, the meeting with another one, with a situation, environment, perhaps a story, never leaves it alone as a single entity. That meeting I apprehend as very similar to the spark of poetic beauty, the meeting of two realities (including the former use and the new) that Pierre Reverdy described and which André Breton adopted as the description of poetic beauty in surrealism,¹²⁶ exemplified many times with the quote from Lautréamont "beautiful as the chance juxtaposition of a sewing machine and an umbrella on a dissecting table".¹²⁷

What is the reason for me to pick up a new instrument, or object, and when and why do I decide to leave it? When you look at the larger picture, the djembe, didjeridoo and hang are some instruments that have had periods of being the fashionable "unusual" instruments (for the western world) just like the ebow, hand fan, cappuccino beater and vibrator have become standard cliché extended techniques for experimental instrumentalists. There are perhaps more objects that risk becoming clichés, like combs, egg slicers and springs, just like some electronic technology have their own fashion periods: be it reverb, delay, sampling, looping, circuit bending, max msp or arduino.¹²⁸ Maybe the contact microphone even more, although it has actually been used already since the 50ies by Cage and others.



63. Freudian Chocolate Box

126 "The image is a pure creation of the mind. It cannot be born from a comparison but from a juxtaposition of two more or less distant realities. The more the relationship between the two juxtaposed realities is distant and true, the stronger the image will be – the greater its emotional power and poetic reality..." *Nord-Sud* (1918). Quoted in André Breton, *Manifesto of Surrealism* 1924. (In *Manifestoes of Surrealism*, Ann Arbor, MI: Ann Arbor Paperbacks, The University of Michigan Press, 1969.)

127 Canto VI, Verse 3, in Comte de Lautréamont, *Maldoror and Poems* (New York: Penguin Books, 1988 – *Les Chants de Maldoror* first published in french in 1869), 216–217.

128 Nevertheless, I'm very proud of the *Eggslicer Sextet* that I was part of at Copenhagen International Experimental Festival in 1998 with Hugh Davies, Mats Lindström, Martin Klapper, Adam Bohman and Jindřich Biskup, later reproduced virtually as *Eine kleine Eierschneidermusik (Eggslicer Quintet)* – as a quintet, since Jindřich was not available, in Hugh Davies, *Sounds Heard* (Chelmsford: Soundworld Publishers, 2002). See an excerpt from the book's section about eggslicers at: <http://bergmark.org/SoundsHeard>.

I am certainly guilty of participating in some of these potential clichés and fashions, but in general, I shun away from what most people do (and often do much better than me!) because I lose interest when there doesn't seem to be any mystery left to discover for me. I want to still be able to wonder what these objects want to tell me. And what do I want to tell them? Other people are good at being experts, virtuosos and skilled. I prefer to follow my curiosity, and to do it in public. That's why I am drawn to improvisation, invention, lack of control, inviting chance etc.

Let's go into detail with some of the objects. One night, I went through the pile of things lying on my floor and in the last bag packed for a concert two days before. These are the 22 things I chose:



64. Twenty-two selected sound objects 2019

- An **almond grinder** found on a flea market in Oslo long ago, and which used to be one of the more or less fixed parts in the previous instrument the Whalefish, and thus described in the article mentioned before.

- A **doll** first found on a flea market in Copenhagen where I went with Martin Klapper. It's a girl with an absurdly large head playing a guitar. When wound up on the back, she moves the arm and twists her head, but more effectively, she makes a loud clicking sound when you turn her head around manually. Some time later, I found her replica on another flea market, so now they are twins, one with a more rough hairdo than the other.

- A **miniature piano** where you can open the key lid. You can scratch the keys but not press them down. It's also possible to bow it. I think it's from a Berlin flea market.



65. Playing the doll in Tallinn 2016

- A wooden **toy** that makes noise from a figure that makes a shaking motion and rattling sound when it slowly falls down along a rod. I found one of that kind in a thrift store in Los Angeles and used it on a concert with Erotic Boulders in 2006, but gave it away when I moved back to Europe, where I found this one many years later.¹²⁹

¹²⁹ <http://bergmark.org/exoticboulders> [sic!]



©2006 Wild Don Lewis
 wilddonn@yahoo.com
 66. Playing a toy with Damian Bisciglia, Los Angeles 2006



67. Playing the spinning wheel in Tallinn 2016

- A small wooden **coatrack** for wall mounting (?) that you can bow but makes an incredible unpredictable jumping glissando when you slowly scratch it against the flat side of hacksaw blades.

- A flat **wheel with rainbow colors** with a nicely crafted handle. You can turn it manually in one direction but if you do the other, the screw will come loose and the wheel falls off.

The wheel is metal but a bit soft, maybe lead, in order to provide a steady motion and it seems it can be driven by a kind of timing belt on the other side. I got it on a tour of workshops to northern Norway with Jon Halvor Bjørnseth in 2005, it was going to be thrown away from a school and it was used to display the idea that white light consists of a mixture of all colors.¹³⁰ When you spin the wheel quickly enough it looks white – although now it's so dirty it's more greyish! I have used it for a combination of sounds:

there is a squeaky sound and a low noise coming from the motion, and when you tilt it downwards, it often starts an uneven wobble which makes a groan before it stops. Moreover, I've used the spinning edge of the wheel to "bow" an extended metal band which wobbles and makes unstable pitches.

- A **mysterious tool with a ball weight** in a chain from a handle, from the same school in northern Norway, use unknown. I've often carried it with me, but it's so far a bit difficult to use as a sound object. It's waiting for its discovery.

- A **cooler element** for an electric machine, blue, hand written "Happy birthday!" for me by my friend and colleague Luc Kerléo, that I've worked with enough that he seems to understand me perfectly!¹³¹ The cooling rods make an incredibly high pitched wizz when you stroke them, which is difficult to amplify. More effective is scraping it towards a glass surface or similar, then it makes fine high-pitched squeeks.

- A **kangaroo** with head, limbs and child on springs so that everything shakes and rattles when you move it. It goes on a green metal rod so that you can easily stick it on a surface and amplify the movements. I got it as a present after I played at Findars in Kuala Lumpur 2012.

130 <http://bergmark.org/children2005b>

131 <http://luc.kerleo.free.fr>

- A **miniature table tennis racket**, “McDonald’s” printed on it, from a flea market somewhere. I liked it since I belong to a trio called Fågelpingis (“Bird Table Tennis”), an improvised music and comedy group that seldom plays nowadays.¹³² It is often used in combination with a toy hair brush, which when scratched in twisting motions on the surface makes nice noises.

- A **Star Wars 3D picture**, very useful for scratching with the nails in one direction. I discovered this method from Martin Klapper, who uses a 3D postcard of the pope to scratch.

- A **head massage tool** which my friend and colleague Eliad Wagner identified as an advertisement for the migraine medicine that he is using.¹³³ It turned out that we both suffer from migraines. From a Berlin flea market, it’s very effective in playing the strings of egg slicers in a variety of ways.

- An **onion slicer** which is made out of a very stable round metal frame and very sharp knife blade “strings” who keep the tension very well so it also rings very well. From a flea market in Sacramento, California.



68. Playing the kangaroo in Tallinn 2016



69. Playing big brass spiral

- A **big brass spiral** ending with a rod, probably from big fireworks at New Year’s Eve in Berlin. I have never heard as violent fireworks as there, sometimes they are like enormous bombs, and maybe it’s a tradition brought by turkish immigrants there. This piece is very effective in providing very low frequencies when scraped with a slight anti-angle against a surface, a difficult technique that depends on the right tension, pressure and position of the hand. (Many drummers do this with a drum stick on the cymbals.)

- Some kind of **metal grill rod** with a tightening mechanism. I found a number of them on a flea market in London that I visited with Adam Bohman. One thing that it does, is providing a surprisingly loud squeek when you slide the tightening mechanism in one direction. With the pointed end in the surface, it gets amplified easily.

- A **white chalk**. I like the sound quality and rhythmic sound structure of writing with a chalk very much, and I do it often on wooden surfaces but ideally on black slate, which also has a wonderful sound both resonant and as a surface to scrape things against, and against things. The white chalk writing patterns on the black surface adds a visuality to the sound, as if it salutes its past use. This is also a

132 With me, Tomas Halling and Jacob Ullberger, <http://bergmark.org/fagelpingisen>.

133 <http://eliadwagner.com>

hint to my other profession as a piano technician, where I use chalk to mark notes that need mechanical attention (regulation or repair) while tuning, so I easily can find my way back to them after the tuning is done, and wipe off the mark with a wet finger after the problem is solved.

- A **glass rod**, maybe the type you use for stirring chemical solutions with. The glass material combined with the shape makes it very useful for many types of scraping, especially against hard materials like metal: the edges of the almond grinder or hacksaw blades, e.g.



70. *Playing a chalk on a slate, Harp Art Lab 2016*

- A **sharp holder of receipts** or orders with a heavy granite weight in the bottom end. It was stolen at an expensive restaurant where I went for a drink with friends after a concert at the Academy of Music and Drama, Gothenburg. I was afraid of stealing it, but was encouraged by Magda Mayas to do it and I wasn't caught. The horror I think also came from the association to the Sidney Lumet film *The Pawnbroker* (1964) where a jewish pawn broker (Rod Steiger), used such a tool to torture himself after being haunted by horrible experiences from a concentration camp, he pressed it through his hand. I saw this film first when I was small and my mother said he wanted to punish or torture himself, a concept that I could hardly understand back then. Nevertheless – as a sound object I have used it in many effective ways since then, since both rods and stone are favorite materials.



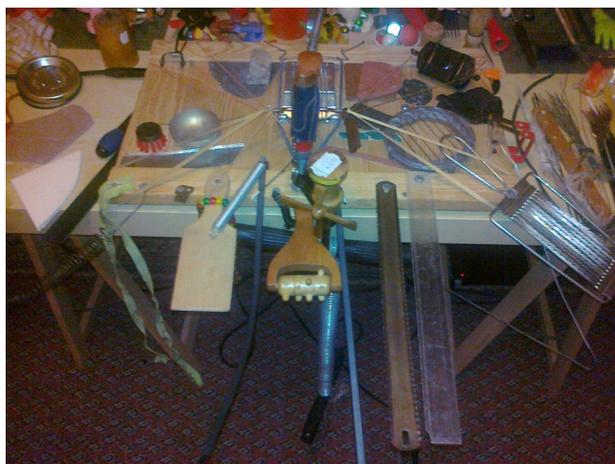
71. *Almond grinder, windmill, miniature leather boot, Berlin 2013*

- A **miniature leather boot** on a key ring. Maybe you are meant to put the keys in the boot, it strikes me as I write this. I have gotten a habit to put it upside down over the handle of the clamp I use to attach the Platforms to the table when I play. In this position, the friction of the heel can be used effectively for sounding a piece of slate. And usually rubber bands go around it to other parts of the instrument. From a Berlin flea market.

- A wooden **hand-held massage tool** with pegs on a rotating drum, most of them have fallen off, but when turned with some squeezing, it makes rich and interesting squeeks. Usually, it is also used as the in-between piece between the Platform and the table, to hold the Platform some centimeters in the air above the table to decrease the table resonances and damping. I have forgotten where it comes from.

- A handle-turned **fan for outdoors grilling**, red plastic, from a Berlin thrift store. It blows air in a controlled way through a tube into the charcoal so you don't have to get your face full of ashes. It gives a siren-like groan when you turn it.

- A piece of a **plastic magnifying glass** consisting of concentric relief circles that can be scratched by the nails etc, similar to the 3D picture.



72. Hand-held massage tool etc, Altes Finanzamt, Berlin 2013

The sociology of invention?



73. Playing the fan for outdoors grilling, Copenhagen 2015

Curiosity, inspiration, improvisation, to use what is at hand, to embrace chance, to have a poetic vision and method and to share the process openly. If that is more or less the conclusion of my EMI making (and use of objects), it counts for the music making as well. They are one and the same.

In a sense, to take the step of wondering about what a sociology of music could be, is in itself a hint at the utopian. In order to understand ourselves, we need to distance ourselves from ourselves. Introspection is one way of understanding the forces of creativity, but to imagine ourselves as neutral onlookers, even when we look at ourselves, is a way of understanding that what we can see could also be different. We also have to know what we're not in order to understand what we are, and that's a first step of becoming critical (as well as self-critical) and widening the perspective. If we see the

significance of our activity, we also see that it's not the same as another one, and we are able to ask ourselves, "why did we choose this way and not the other?" Many choices that are based on feeling and affinity are actually much more significant than we are at first able to put in words. And by doing that, we also give ourselves permission to reevaluate our choices and perhaps also understand other people's choices and why they are so different. In other words, we become more conscious, even about our unconscious drives. This then actually becomes something that we can discuss, instead of resigning to the cliché of music being "the pure language of feeling" and "saying whatever words can not." We are just not enough trained to

talk about it. And all the languages are available, the scientific, the mythological, the poetical, all valid in their own sense, side by side.

2.3 The free improvisation community's attitude as a contrast to a surrealist attitude

How I approached the free improvisation community

Let me now employ another angle on my experience in the different music communities I've been an active part of. This concerns the way me and my colleagues have been looking upon the roles of composition, improvisation, cultural politics and what it means to be a professional musician.

In my youth, having made some compositions in the traditional way with notes, starting to work with electro-acoustic tape and text compositions, and some unsuccessful attempts at forming jazz rock groups, the surrealist concept of “*pure psychic automatism*”¹³⁴ inspired me to decide to only engage in free improvisation.¹³⁵ With a radicalist fervor, I became antithetical to all my previous musical engagements, and adapted an antithetical standpoint to composition in general as well.

One reason for rejecting the concept of composition extra harshly was in the confrontative attitude the surrealists had in launching their concept of automatism in the 1920s. The word initially came from *spiritism* but it was interpreted in an atheist,¹³⁶ materialist philosophical attitude, stripped of metaphysics and the supernaturalist framework, partly leaning on some psychoanalytic ideas and methods, among which dream tales and the method of *free association* were inspirations, thus abandoning the restrictions and repressions of the self-conscious super-ego and the related concept of the personality of the unique artistic genius.¹³⁷ “We have no talent” they declared in the manifesto, and it was an anti-elitist attitude that believed in the poetic power of the inner voice in every single person, regardless of if they called themselves artists or not. Thus, “composition” in the romantic genius sense would be alien to the concept, but it hailed the individualist

134 “SURREALISM, n. Psychic automatism in its pure state, by which one proposes to express -- verbally, by means of the written word, or in any other manner -- the actual functioning of thought. Dictated by the thought, in the absence of any control exercised by reason, exempt from any aesthetic or moral concern.” Breton, *Manifesto of Surrealism*.

135 One decisive text for me was Franklin Rosemont, “Black Music and the Surrealist Revolution,” *Arsenal* 3, (1976).

136 Spiritists mediums used automatic writing and drawing in order to allegedly connect to spirits of dead people or even extraterrestrials, and take messages from them by channeling or being temporarily possessed by them.

137 In psychoanalysis, free association is used as a way to let the patient reveal repressed content of the unconscious which wouldn't come up in ordinary conversation, in which the superego blocks it more effectively. André Breton had used it a bit when he served as a physician in the war.

imagination, within a collective community of revolutionaries. They repeatedly quoted Comte de Lautréamont: “Poetry shall be made by all, not by one.”¹³⁸

Well, many of them also rejected music altogether, but that’s a story I tell elsewhere.¹³⁹

When I approached the few swedish musicians that were engaged in free improvisation, I discovered that their self-understanding as radicals was based on general leftist political affiliations and a vague understanding of their “music itself” having specific qualities that were superior to other kinds of music and thus implicitly had radical implications as some kind of raise in awareness through the sole act of listening. Listening was stressed as a sort of higher principle. Moreover, they had a very self-conscious idea of themselves as “cultural workers”: which means that they demanded rights as professionals, had reformist ideas in respect to cultural institutions, basically arguing for their rights to grants and pay and anti-commercial cultural politics which had been partly achieved through pressures on the social democratic party’s long dominance over swedish politics.

For some time, I was influenced by this attitude, too. But generally, my standpoint was poetical, and only political by implication, meaning that I refused to see the musician I wanted as a worker, but as a passionate human being where the creative work was radically and qualitatively different from wage slavery or alienated work. The question of money had to be totally absent from the creative process. This is still my standpoint today.¹⁴⁰

Performance rights as a way of understanding improvisation as composition

However, my passion for free improvisation, and through the meeting with Hal Rammel, for EMIs, made me increasingly active in the free improv movement and I gradually found myself more professionalized, having relations to funding bodies myself. I organized a festival while living in Oslo, and naturally reported to TONO, the norwegian performance rights’ society.¹⁴¹ This was 1997 and the concept of free improvisation was not yet very known in norway and had very few practitioners. There was no community to speak of at all. TONO responded that no improvised piece could be reported as a composition. Of course I raised hell,

138 Comte de Lautréamont, *Poésies I and Poésies II* (Paris: Librairie Gabrie, Balitout, Questroy et Cie, 1870). *Maldoror and Poems* (translation, New York: Penguin Books, 1988).

139 I have done so in e.g. “No Music!,” written 2004 for a book of international surrealist contributions, ed. by the Surrealist Group in Paris, not published <http://surrealistgruppen.org/nomusic.html> (briefly); “Surrealism and Music”, unfinished, unpublished, last version from 2009 (more at length); and in Johannes Bergmark and Mattias Forshage, “Music” and “Musical performance,” in *The International Encyclopedia of Surrealism*, ed. Michael Richardson et al. (London: Bloomsbury Visual Arts, 2019).

140 I formulated it first in *Konst, politik och pengar*, written in 2000 (in swedish, “Art, Politics and Money”), <http://bergmark.org/pengar>.

141 Bergmark, *Oslo Impro*.

and in the process, honestly also realized that free improvisation actually is not the opposite of composition but just another method of composing.¹⁴²

By then, I had also realized that there is a distinction between improvisation and automatism. Actually, if I had adapted the spiritist notion of automatism, and moreover used that notion on musical free improvisation, I would have had to agree with TONO at the time: the music would have come from somewhere else than the musician. In the surrealist concept though, it comes from the unconscious, or rather from the “actual functioning of thought”, which would



74. Hal Rammel and me playing his instruments in Madison, Wisconsin 1990

include the totality of human spiritual capacities. But this is of course not directly transferable to improvisation, which includes lots of aesthetic, idiomatic and other conscious choices, however in the flow, not to speak of ideals of taste, traditions and habit. Ultimately, it depends much on the attitude of the player, where some, sometimes, might have more elements of automatism than others.

At the time, though, I didn't think of such things – I only reacted in defence of the musicians in the festival: if no one has performance rights for the music, who the hell is making it? I heard later that the early serious improvisers in Norway approached the problem by sending TONO concert recordings along with a *post hoc* graphic score.

My standpoint for, and defense of improvisation was becoming more complex though.

Right after that I moved back to Stockholm and immediately got deeply involved in **Fylkingen**. As the chairman, I had to have lots of relations to funding institutions, reporting concerts to STIM (the Swedish performance rights' society) as well as arguing in cultural political questions. I also took up a lot of work in the close collaborator **EMS**, the Electronic Music Studio, and was influenced by the proud Fylkingen history of electroacoustic music, text-sound composition, performance art etc.

Concerning cultural politics and the daily work of running such an association, my attitude had become clearer: Matters of money and resources are not the least related to creative or poetic questions. They are only strategies of survival, a matter of daily self-defence. They should not be confused or mixed with a

142 “Improvisatörers rättigheter i fara! Öppet brev till Tono,” (written 1998, Swedish, “The rights of improvisers in danger! Open letter to Tono”), <http://bergmark.org/improdebatt>.

political ideology or work ethic. I tried to communicate this to the members, but had no response whatsoever.¹⁴³

I also saw that the ideological differences between genres, especially because of the closeness and integration between Fylkingen and EMS, were not as strict as I imagined before. I saw improvisors working closely with electro-acoustic composers. At first, I was a bit disgusted by it, I saw it as a betrayal of the ideals of improvisation in favor of fixed forms and fixed hierarchies. But soon I found myself in both roles, and I again realized that there is not such a big gap between these two communities. Moreover, technical development increasingly blurred the edges and “live electronics” gradually became at least just as common as “tape compositions” or “fixed media” electronics.

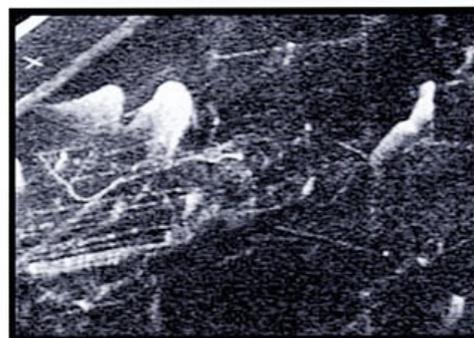
You can add that the active improvisors, although regarding their improvising as an ideal form of musicking, nevertheless paid a lot of effort in making perfect recordings and cd releases, thus fixating their acts of the moment into something “eternal”.¹⁴⁴ Some made a point of writing on the album liner notes that “the music is freely improvised” or even “unedited”, but this fad soon disappeared as the music became increasingly established.¹⁴⁵

And soon we saw the conservatories as well as grants committees embracing all these genres as equal and equally interchangeable.

But I believe that this reconciliation is not just technical or social, it’s ideological as well. The difficulty is only how to analyze and define it.



75. Holding a speech at a Fylkingen festival, 2003



S A F A R I S
C L O U D C H A M B E R
Johannes Bergmark · Martin Küchen · Sören Runolf

76. Cloudchamber, “Safaris”, Fylkingen Records 2002

143 E.g. in “Diskussionsinlägg till höstmötet 2001-10-15,” (in Swedish, for Fylkingen's Autumn Members' Meeting to the discussion about the aims of the association), <http://bergmark.org/fylkingensmallsattning>, and “Invigningstal, Jibbolii” (In Swedish, at Fylkingen's 70 years' anniversary festival), written in 2003, <http://bergmark.org/jibbolii>.

144 An ironic anecdote is that when I applied for membership in the then (1980ies) dormant FRIM, the association for free improvised music, the chairman at the time commented the cassette of my recordings that I gave him that the **sound quality** was bad, and I was implicitly rejected membership. At the time, FRIM only accepted members of “quality”. A few years later, when FRIM came to a second life, I was at different times both secretary, web designer and eventually chairman.

145 When we put together the cd “Safaris” by my trio Cloudchamber in 2002 with Martin Küchen and Sören Runolf, we did some editing, e.g. cutting some pieces short and splicing parts together – but we had a discussion about the honesty of doing that. Sören was of the opinion that the result should sound like something we **could have** played live in order to be acceptable, <http://bergmark.org/cloudchamber>.

Convergent evolution, or why does it sound so similar?

With the method, or at least attitude, of Christopher Small, sketched above, I would like to approach a problem which I'm not sure I can solve on my own. Copyright prevents me from showing you here a fascinating picture by my favorite painter from my childhood, Zdeněk Burian, who depicted very vivid landscapes with prehistoric animals in their natural settings. It is an illustration of the biological phenomenon of "convergent evolution".¹⁴⁶ The **shark**, the **ichtyosaur** and the **dolphin** adapt very similar features because of the very similar life conditions and needs, although they belong to branches on the tree of life very far from each other: a fish, a reptile and a mammal. And you could in some aspects also add the **penguin** to this comparison, a bird.

Let's then exchange the biological classes to methods of music composition:

The shark is serial composition.

The ichtyosaur is chance composition.

The dolphin is free improvised composition.

The penguin is intuitive atonal composition.

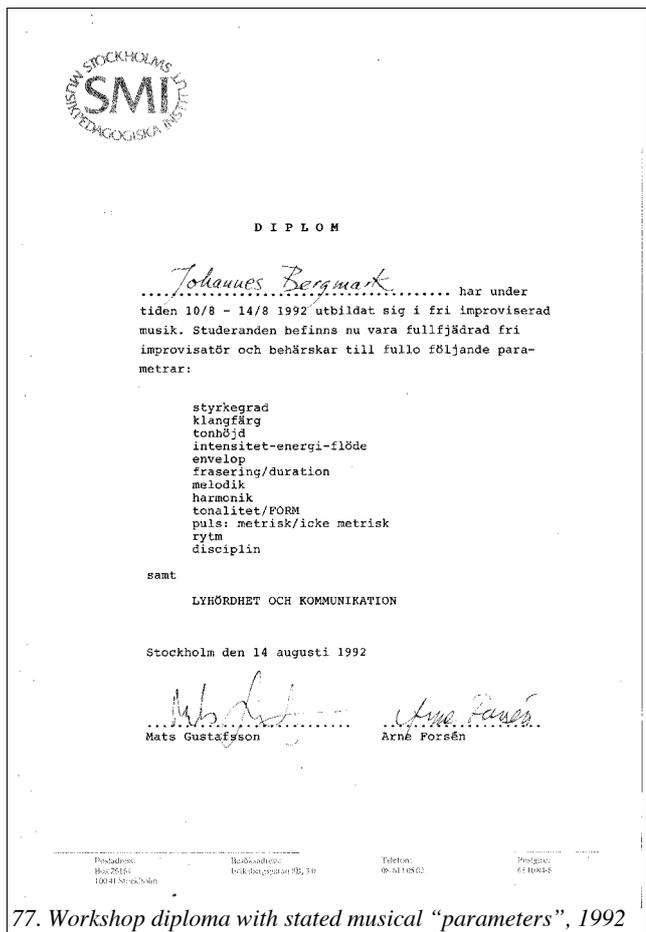
It has been noted by many that the sounding results of each very different method can be strikingly similar, although the methods are diametrically opposed, or so they seem. Many composers have employed several of the methods, and my impression is that the oppositions have weakened and that they seem interchangeable and of equal value for more and more musicians. Not long ago, improvisation was totally impossible for the ordinary interpreter. (Going back further though, musician, composer, tuner and even instrument maker were more often one and the same, and improvisation was much more common – remember that Mozart and Beethoven were improvisers, too!)

This happened of course at different times in different locations. The Gruppo di improvvisazione Nuova Consonanza in Rome might be one of the earliest examples in the 1960s to 1970s.

But back to the question: how to explain these similarities in sound structure? In where lies the meaning? In the sound structure or in the composition process, or somewhere else? Let me share some observations from my experience, which is from the angle of the Swedish free improv community since the 1980s.

¹⁴⁶ Hopefully, you can still see it here: <http://www.daildeli.cz/ilustrace/01burian/105augusta9/27.jpg>.

The (supposed) aesthetics of the “english school” of free improvisation that this community adapted was at least partly, I think, an expression of their strive for respect as musicians. Their festivals were called “**Sounds**”, their workshops centered on going through the musical “**parameters**” and they focused quite a bit on instrument control and despised amateurs. A colleague in this field noted that they were all sports fanatics, too, and that their playing reflected the attitude of becoming virtuosos in a similar way (in contrast to the dominating style in the rest of scandinavia of that period, the “fjord jazz” and all that ECM reverb, which he called “lullabies”). They were striving for establishing themselves as professionals, part of a great tradition, well paid, well funded and with high status as “cultural workers”. Perhaps the low status of the improviser at the time led to a will to prove their legitimacy on the same level as their colleagues in the composers’ field,



thus wanting to prove that they could reproduce, on stage, all the stages of conscious composition, interpretation and skill on their instruments. And the later establishment in cultural life that they conquered also led to the watering-out and even more banalization of their supposedly radical ideas, and so the former aesthetics withered away in favor of a myriad of ways of playing, probably corresponding to slightly different social needs. The oppositional, revoltish has almost disappeared; **noise, minimalist, silentist, dronish, popimprov** etc are much more prominent now. And the ever present **free jazz**.¹⁴⁷

I’ve seen a gradual but radical change in the self-understanding of the free improvisation movement. It was once explicitly radical, egalitarian, anti-hierarchical, socialist, often anarchist and critical of other methods of music making (not only popular forms but also traditional “serious” score writing or electro-acoustic music), and by implication of music culture and human culture in general. Today, however, it has lost almost all of its radical self-understanding, indeed many of its practitioners publicly scorn it. It has entered academia as well as pop culture, and has no more problem of getting public funding (in sweden anyway) than classical or folk music. And with funding comes the problem of the hierarchy between artists: the funding bodies choose among the applicants, among some other political agendas, according to “quality”, and I’ve never detected

147 The differences in significance between “original” free jazz musicians and later generations repeating the sound of the pioneers is compellingly described in Jack Wright, *The Free Musics* (Philadelphia, PA: Spring Garden Music Editions, 2017).

another definition of quality than the tautological argument that you are chosen with quality criteria. And then you are higher on the ladder than your colleagues, and have to defend your position.

In one sense, this new situation can be seen as an achievement, on the other as a big loss of critical potential, or with Herbert Marcuse's words, it has come under the ever bigger umbrella of *repressive tolerance*: big culture should include a little bit of everything.¹⁴⁸

I'm not going to wash my hands completely in this development. I was influenced by it, adapted some of the positions at least temporarily, was partly in it, but always partly also very far outside of it. And I'm not necessarily despising or rejecting any of the genres and styles as such, it's more interesting to me to understand the workings of why they come up and what they reflect. Perhaps some of my prejudices reveal more about myself than of what I want to distance myself from.

So that was, so to speak, about **the dolphin**. The other animals I can only talk about from the outside.

Let me mention briefly **the penguin: the intuitive atonal** composer. I'm thinking of what I heard on a musicology seminar in Stockholm about Bo Nilsson (probably by his biographer Gunnar Valkare), who made early success as a wonder boy in the Darmstadt circles, but his composing wasn't as conceptual as the other ones. Nevertheless, he felt obliged to produce some heavysounding theory as a work commentary, but in the opinion of the researcher, this was more or less mumbo-jumbo that he came up with in order to satisfy the Darmstadt literary style.

And something about **the ichtyosaur: chance composition**.

At a seminar in Rome around 2013, the focus was on the improvisation aspect of the composers Giacinto Scelsi and John Cage. David Bernstein told the story of Cage and David Tudor performing *Cartridge Music* for a German radio station. The time was too short for the meticulous preparations for the "chance operations" that are part of the piece. They carried through the performance more or less improvised instead. Cage was outspokenly skeptical to jazz and improvisation, but probably, I guess, he felt that if he did it with his close collaborator, Tudor's experience and understanding of what he wanted to achieve were enough to trust that the result would be interesting enough, in the right way.

148 A concept coined in Herbert Marcuse, "Repressive Tolerance," in: *A Critique of Pure Tolerance* by Robert Paul Wolff, Barrington Moore Jr., and Herbert Marcuse (Boston: Beacon Press, 1965). His definition is quite broad, and extends to the individual plane, when tolerance of repressive ideas in itself has a repressive effect, but I am using it here in the sense that the institutions and representatives of the state are tolerating, or even supporting, any expression within the pretext of bourgeois democracy (these days often using the term "plurality"), thus reinforcing the myth of itself as the only possible provider of individual freedom, as an argument of defending the status quo of the ruling power structure, pacifying all potentially revolutionary significance of any expression. This is often combined with reinforced surveillance and institutions of violence, under the pretext of fighting terrorism, "violent extremism", drugs, sexism, child pornography and abuse, while traffic and smoking are much more dangerous.

In 2000, I performed a solo in Logos Tetrahedron, and my dancer friend, very influenced by Cage's ideas, was in the audience.¹⁴⁹ He gently criticised me afterwards for getting into a groove, for just following my good-feeling in my playing. At first I was astonished, how could it be wrong to follow one's *pleasure principle* in an endeavour that is all about pleasure?¹⁵⁰ Or is it not? Then I understood his point: if you commit yourself only to your habits and pleasures, how can you find ways to explore, of surprising yourself and achieve new ideas and experiences? The following question is of course: **what's the point of being new all the time?** This question was posed by the brilliant improviser Evan Parker when criticised that his solo playing sounds the same after a couple of decades. Why should he necessarily change something that he likes (and that many others like as well)?¹⁵¹ I could reply, against myself and him at the same time: well music is not only about pleasure, it's about ideas **as well**. Ideas meaning not only statements and confirmations, but the willingness to take risks in order to find new solutions.¹⁵²

Actually, another time three years later in Ausland Berlin,¹⁵³ another colleague, a known representative of the *Echtzeitmusik* scene, criticized me in almost the opposite way (also after a solo concert on the same instrument, the Whalefish).¹⁵⁴ We had agreed to openly criticize each other after our concerts, and her critique of my playing was that "first came that sound, and then came that sound, and they had no relation to each other". I was astonished by this compositional method of internal logic, and thought, but that's what I like, that they contrast each other and have no relation!

This argument reminded me of the electroacoustic music composition course I went to in 1999-2000, the compositional thinking of the "*swish and clonk school*,"¹⁵⁵ which talked about "*goal points*" and

149 <https://www.logosfoundation.org>

150 The Pleasure Principle is a Freudian concept which plays a major role in Herbert Marcuse, *Eros and Civilization: A Philosophical Inquiry into Freud* (Boston: Beacon Press, 1955), together with the *Achievement Principle*, which is in many ways its opposite.

151 I'm sorry that the reader has to regard this as hearsay: I can't find this quote at the time of writing, so let's regard it as a hypothetical statement by any improviser. If any reader finds the source, I would of course be happy to know about it.

152 A parallel to this is perhaps science, which is in many ways a method to overcome the natural, evolutionary limitations of human drives which make you take decisions quickly enough to survive, but doesn't allow you to understand things that demand more work, time and independency from subjective prejudices. We need both. This discussion also calls to mind the title of an essay, although the circumstances of that text were very different, by René Crevel, "The Patriotism of the Unconscious," in *The Surrealism Reader, An Anthology of Ideas*, ed. Dawn Ades et al. (Chicago: University of Chicago Press, 2015). We should accept neither the "patriotism of the conscious", nor of the unconscious.

153 <http://www.ausland-berlin.de>

154 A self-defined aesthetic, mainly of some Berlin improvisers, which is also a loose movement, <http://www.echtzeitmusik.de>.

155 An informal fitting description, I think, of the aesthetics of a generation of EAM (electroacoustic music) composers, often associated with winners of the yearly competitions in Bourges in the 80ies. The expression comes from a composer deeply engaged in the environment but not part of the aesthetics himself.



78. Cloudchamber in concert at Fylkingen: me, Küchen, Runolf

“**directions**”. This thinking was very alien to me.¹⁵⁶ Perhaps I had been unconsciously influenced by my dancer friend, and left the last traces of the groove inherited from free jazz in favour of collage thinking (at least in that concert?).

Other parallels that are close to me can be found again in the surrealist community. We don’t endlessly pursue automatic writing, drawing, playing etc. We also invent methods and games to

“*force inspiration*”, as Max Ernst put it in *Beyond Painting*.¹⁵⁷ We don’t treat the “*inner voice*” as a fixed well of truth or beauty, we also challenge it to develop with methods using outside influences from chance, associations, found objects, collage, game rules, even mathematics sometimes, often in collaborative or collective ways, in order to explore and expand the possibilities of the spirit, in a utopian and revolutionary attitude that mankind is not finished, is not free but has to gain freedom through invention and inspiration in order to develop new and better, more poetic ways of living together.

The shark (the serialist), or as you would perhaps say today, the *algorithmic* composer, perhaps once had a pedagogic function of training the ear of the composer and musician to hear variation through mathematical means. This is fulfilled long ago, as improvisors, intuitive composers and chance operations can reach a very similar aesthetic. The question is why this is still a popular way of composing. I wouldn't think, though, that anyone would see it as the method of aesthetic preference today – it's just one of many relevant methods.

To sum up, there is no way of coming to a conclusion about the contents of the composition method by judging the sound structure alone, although this certainly gives a hint. There might be a similar sound structure, but the composing methods still diverge, which behind the surface also greatly influence the way we relate to the music in performance and as listeners – or maybe not as much anymore? If we use the term “convergent evolution” about compositional memes as well as of biological genes, it is in the sense that the

¹⁵⁶ However, density, form and structure make sense. A colleague said he appreciated how me and Sören Runolf made “forward-leaning” music when I played the Moog and Sören the electric guitar. The concept of “leaning” I can understand, since it relates to gravity. The norwegian composer Ketil Hvoslef said once (if I remember right, in his presentation at the Autunnale festival in Bergen 1993) that he wanted to compose music that makes the audience lean forward instead of backwards. I mentioned the physical concept of “potential energy” (that an object in a high position can fall) as a parallel to the feeling of explosiveness that improvised music can have in “Call For The Hidden Sounds,” *Experimental Musical Instruments* vol. 10 #4 (1995). This in turn reminds me of *André Breton's* expression “Convulsive beauty will be veiled-erotic, fixed-explosive, magic-circumstantial, or it will not be,” in *Mad Love*, (Lincoln/London: University of Nebraska Press, 1987 (1937)).

¹⁵⁷ His examples were from Sandro Botticelli via a quote from Leonardo da Vinci, and his own experience with the surrealist collage and the method of *frottage* (to let structures appear when you use a pencil on a paper laid over an uneven surface). Max Ernst, *Beyond Painting: And Other Writings. Vol 7 of The Documents of modern art.* (Wittenborn: Schultz, 1948).

social situations of them all have become increasingly similar between the four examples.¹⁵⁸ Oppositional methods have now been largely reconciled, and there is another streamlining taking place: the purpose of conservatories and cultural politics is not as much an aesthetic ideal but a career. Idealism is swallowed by the *personality market*.¹⁵⁹ It seems to have happened to a large extent within conservatories now, which include all methods as equal and the goal is to become a composer. Postmodernism, or is it repressive tolerance?, has succeeded.

* * *

To wrap up this thesis, I would like to go through some basic concepts that are important for me in order to examine what they are and mean to me at this time. This text has already hovered over those concepts intimately, as has my whole life with music. I have the opportunity now to go back and rechallenge the way I have treated them so far, which will mean that I critically look at what I have written or thought before. I hope the reader can excuse this introspection and follow me while I try to refresh my view of what **improvisation**, **music** and **instrument** are, what they are to me, and what they could be for humans.

2.4 Analyzing the swedish free improvisation community's initial self-understanding through two contrasting texts

“What is improvisation?” – the 90ies revisited

I want to review two texts written in sweden in the times of the “second wave” (as I would think seems appropriate to call it) of free improvised music in sweden, which occurred during the 80ies and 90ies. They are:

Vad är fri improvisation?, Christian Munthe 1992,¹⁶⁰ and *What is improvisation and why improvise?* by me 1997-99.¹⁶¹

The reason I choose these are that my text is to some extent a reply to some of the ideas in Munthe’s text, and not only should it be necessary to review and reevaluate some of the ideas from both Munthe and me,

¹⁵⁸ Many people don't know this, but the popular term *meme*, which has now achieved new meanings, was originally proposed as a parallel to “gene” concerning the inheritance of traits in culture, by the evolutionary biologist Richard Dawkins in *The Selfish Gene* (Oxford University Press, 1976).

¹⁵⁹ I proposed this term as an extension or expression of modern capitalist economy in “Brott och Vildhet - personlighetsmarknaden och det moderna upproret,” (swedish, “Crime and Wildness, the Personality Market and the Modern Revolt”) *Kristall* (1989), <http://surrealistgruppen.org/bergmark/brott>.

¹⁶⁰ Christian Munthe, “Vad är fri improvisation?,” *Nutida Musik* 2 (1992): 12-15 in swedish; english translation: “What is Free Improvisation?” <http://www.efi.group.shef.ac.uk/fulltext/ftmunt.html>.

¹⁶¹ Johannes Bergmark. “What is improvisation and why improvise?” (1997-1999) <http://bergmark.org/why>.

more than 20 years later, but also see the time in perspective, a time when we both were part of entering the Swedish improvisation scene in different ways. Please note that my point with choosing to review only those two texts here, is to see the ideas and the community in the light of the time and place in which they were formulated on one hand, and from the perspective of reviewing my own attitude since then on the other. If I were to review the topic itself, there is an endless wealth of texts and books reflecting the increase of interest and practice, and development as a genre of the free improvisation movement, as well as musicological and artistic research into the topic, in Sweden as well as internationally.¹⁶²

First some words about that time period. In 1992, there was a great increase of activities around free improvised music, which had been around since the 70ies in Sweden with long-lived groups Iskra (Jörgen Adolfsson, Tuomo Haapala, Sune Spångberg a.o. 1970-1992)¹⁶³ and Lokomotiv Konkret (Tommy Björk, Dror Feiler, Sören Runolf a.o. from 1976, still active and great!), with the enthusiasm and organization from a



79. The board of FRIM 1998

pioneer outsider, Bengt “Frippe” Nordström (who made the first recording of visiting Albert Ayler, among other things), important influence from Don Cherry who long lived in Sweden, and which eventually led to forming the organization FRIM (Fri improviserad musik / Free Improvised Music).¹⁶⁴ One of the energy injections was the arrival to Stockholm of a number of young free jazz/free improvisation-oriented musicians from Umeå (if I’m not mistaken) Arne Forsén, Ulf Åkerhielm, Mats Gustafsson, Kjell Nordeson, (the older saxophone player Lars-Göran Ulander stayed there but was an important organizer of festivals and radio presentations) who teamed up with more or less young musicians in Stockholm: Raymond Strid, Sten Sandell, Christian Munthe, Amit Sen, Niklas Billström, Ivo Nilsson, Johan Petri, Peter Söderberg etc, as well as the older guard of the members of Iskra and Lokomotiv Konkret, plus Marie Selander. The used book store Antikvariat Blå Tornet (owned by Harald Hult, who later increasingly focused on records and, as he moved his business, changed the name to Andra Böcker och Skivor, later Andra Jazz until his death recently) as one of the centers for listening, discussing, importing and releasing records as well as organizing intimate concerts in the store with many international visits. Those were very important for me.

FRIM, which originally started already in 1976, but was more or less dead in the 80ies, was reinstated and started up in new form in the 90ies, organizing concerts and festivals again. **Fylkingen** was always one of

¹⁶² Some names and sources other than the obvious pioneer Derek Bailey (see note below), are Davey Williams, Eddie Prévost, Jack Wright, George Lewis, Tom Nunn, David Borgo, David Toop, Harald Stenström, Per Anders Nilsson, Palle Dahlstedt, Klas Nevrin and Ivar Grydeland. There are many more, of course, and also useful online sources like The Improvisor Magazine <http://the-improvisor.org>, the European Improvisation Pages <http://www.efi.group.shef.ac.uk>, Intuitive Music Homepage <http://intuitivemusic.dk> and the very recent Improvised Music - Open Scores <http://im-os.net>.

¹⁶³ Bo Bengtsson, *Iskra – gränslös musik* (Göteborg: Bo Ejeby Förlag, 2017).

¹⁶⁴ Since then, it has been divided into FRIM-Stockholm <http://frim-stockholm.se> (where you can read some of the history) and FRIM-Syd <http://www.frim Syd.se>, mainly active in Malmö. The last version of the web site while I was still the web master, 2002, I put out again on mine as a nostalgic act: <http://bergmark.org/FRIM/>.



80. Me and Mats Gustafsson (in quartet with Blomkvist and Mallozzi), Fylkingen 2003

the centers for concerts, workshops and record releases of free improvised music (as well as much other new music and intermedia art). Especially the enthusiasm and organizing power of Mats Gustafsson was decisive in this second wave.¹⁶⁵ He and his friends connected with the older musicians nationally and internationally, and was a driving

force in inviting international musicians, making recordings, organizing festivals and also to spread the word and discussions about improvised music, of which this special issue of *Nutida Musik* (“Contemporary Music”) where Munthe's text was published, is one of the results.¹⁶⁶

Nutida Musik is issued by the Swedish section of ISCM, and at this time it was supported by Fylkingen, Statens Kulturråd, Svenska Rikskonsertor and Sveriges Riksradio. On the board were among others, Magnus Andersson and Gunnar Valkare, and Göran Bergendal (Rikskonsertor) and Bo Rydberg (Fylkingen), who are those I can guess would have some interest in improvisation at all. (The others were composers Mikael Edlund and Anders Nilsson). It is interesting that it was *Nutida Musik*, which is usually a magazine for contemporary composed music, that made this special issue, and not a jazz magazine like e.g. *OJ Orkesterjournalen Om Jazz*.¹⁶⁷ I could only speculate why.

It is perhaps important to know that at this time, you could easily count how many musicians that were involved in free improvised music in Sweden. A festival would typically include more or less all of them, 20-30 individuals in different constellations and different styles. There were a few in Denmark as well, but basically none in other Scandinavian countries. An enthusiast could theoretically count everyone worldwide, and some were actually doing that. In this situation, this little collective would most probably feel a great urge to prove their existence as a vital and valuable genre on all accounts, to get acceptance, understanding

165 <http://matsgus.com>

166 <https://www.nutidamusik.com>

167 <http://www.orkesterjournalen.com> – There was an animosity between some traditionally oriented jazz musicians and the free improvisers, so it might have been a way to distance themselves from those to approach the “contemporary music” circles instead (like Fylkingen and *Nutida Musik*). At the same time, they wanted to fight for more playing opportunities in e.g. Fasching, the main jazz club in Stockholm, which was at the time still owned by FSJ, the Jazz Musicians' Association, and claimed that they programmed “jazz and improvised music”, which they felt was hypocrisy. However, there has been some free improvisation concerts at Fasching from time to time, and I've often apprehended it as a social conflict between different audience expectations. The venue is very central, has a bar and restaurant in the same room as the stage and many travelling business people come by expecting to talk and dine with smooth background jazz, while musicians and dedicated listeners get irritated of the noise since what they expect is rather a concentrated contemporary chamber musical experience.

and not the least official support for all their artistic activities. The special issue was most certainly part of this plan.

This explains some of the style of the articles in the issue: explaining all the grounds: historical, artistic, philosophical, with as many voices as could write: not only Swedish but some international as well.

Christian Munthe was on the way to make a PhD as a philosopher at the time. (He is since long a teaching professor in the philosophy department of Gothenburg University just across the street from the entrance to the Academy now.)

Munthe's article has some very good points that I don't have to repeat here. Maybe it's a bit unfair, but for the sake of discussion, I'll focus on the things I'd like to criticize at the moment of rereading it. After that, I'll reread my own old article to see what I think I missed and what I would like to put differently today.

Maybe I should state that what I want to discuss is the concept usually known as "free improvisation" – not the phenomenon of improvisation in general (which is a thousand times more widespread), although the concept of free improvisation was perceived as a lot more unified in those times than now, with much less diversity than now, and much more ideological than now, to speak in general terms. Nevertheless, free improvising has entered the academic circles since then (a progression we are all part of as students of improvisation here at the Academy) and the writing, by young and old musicians and scholars, has increased manifold, within and outside of academia. At the time of 1992, there was more or less only one standard book, still a classic: *Improvisation, its nature and practice in music*, by Derek Bailey, which Munthe of course refers to a few times.¹⁶⁸

The question of genre

Munthe spends some time discussing if free improvisation could be defined as a genre or not. Is it a specific set of sound combinations that you can like or not? Although some people (who might dislike them or like them) perceive it like that, it's not, according to him. He asks the question if it's the same piece of music regardless of how it's made, if a composed piece is identical to an improvised one if it only sounds the same, and he answers yes.

I would object that it's not (when we discussed the possible "convergent evolution" above, I already expressed doubts about that assumption), and it's because the way I see music **as an activity and not as a series of objects**. The character of the music lies in its meaning and significance **among the people interacting** in creating the musical situation, and that is radically different if the musicians have rehearsed a piece from sheet music as opposed to if they are creating it in front of the audience. The audience

¹⁶⁸ Derek Bailey, *Improvisation: its Nature and Practice in Music* (New York: Da Capo Press, 1992 (1980)).

expectation is also radically different.¹⁶⁹ There is also the whole area of social status of the different kinds of musicians, which influences their behavior as well as audience expectations, price range, choice of venue, organizer etc, and the free improviser is somewhere between the classical musician, the jazz musician and the noise musician in this case.

However, Munthe goes on to quote Bailey that free improvisation is “**not a kind of music but a kind of music making**”. Now this is of course very obvious to me, and Munthe agrees as well. I would say, and Munthe does too, that this actually counts for all music genres, and he might

have a point that the difference is that the free improviser adapts this attitude **consciously**. This is because the musicians acknowledge the possibility to revise the playing at any time (whether we do it or not!). Perhaps we are all more or less conscious that it’s theoretically possible to improvise out of any form we find ourselves in, but only free improvisers choose to do it (and not everyone, all the time, obviously).

Munthe also states that the free improviser has to **relate to other genres**, and that she has a background in other genres. This might be true about the first generation of free improvisers, but it doesn’t necessarily have to be of later ones. I think it’s perfectly possible nowadays, at least theoretically, to grow up, in musical terms, with free improvising as the first choice, not much relating to or spending time opposing other genres. In that case, free improvisation will be the first idiom of choice and also of background.

He mentions the **necessity of limitation**, which is almost a cliché that I am also skeptical about since we don’t have to choose limitations – every situation, personality, body, historical and psychological conditions etc – the world – is already limited in so many ways without us having to choose further limitations, it suffices that we choose from positive drives and conditions like the perspectives of desire, attraction, imagination and available resources. The reason he mentions this is probably because of his stress on the **choice**, but he talks only about the choice of sounds, while I can think of a large number of other factors



81. Kalvdans, by Fågelpingis at Nipstvängsministeriet, 2004

¹⁶⁹ I have actually made some experiments to that end, which shows a different way of listening if the audience thinks that they are listening to a composed piece or not. Once in Fylkingen 2009, I performed an improvised piece in an adjacent room, pretending to put on a tape recorder with an old found tape piece made by the unknown composer Ignacy Szczur. Some people believed it, some not. <http://www.fylkingen.se/node/1234> In this case, and also in another when my trio Fågelpingis (in cooperation with the trio Gud₁ Modul₂ in the “Unboiled Orgy” *Sätesbjudning* at Hagateatern in Gothenburg 2003) performed mock composed pieces that were actually improvised, this game also influences the way we played, which is interesting.

resulting in sounds, that are the ways of choosing: choice of playing method, tools, objects, games, associations, using chance, bodily functions, interpretations, mental states etc... music can result from so much more than the **direct** intention of making music.

To focus on the **freedom from form** I think is a blind alley in defining free improvisation. Whatever we think, as soon as we put two sounds together, with any method, we have form, and musical form too, the minute we perceive it as music at all. The ability, and even drive, to look for patterns (*patternicity*, as Michael Shermer calls it, a term especially referring to seeing patterns that are not even there) is probably genetic, and we would need a severe brain damage to avoid it.¹⁷⁰ The interesting thing is when we act within the form in order to challenge it, or to play with it. We can never be free from the ability to recognize form if we want to recognize music.

In Munthe's text, there's a conscious play between discussing free improvisation in a **prescriptive** way, as opposed to a **descriptive**. He focuses on the latter most of the time, which means that many different attitudes and viewpoints within the community of free improvisers have to be acknowledged, although also criticized. Thus we have to acknowledge e.g. that many free improvisors see it as genreless, or being above genres, and it might be true that there is at least a greater possibility to play around with the idiom, or change it at any time, than there is in other music-making methods. Some musicians value only to find their own style and perfect it, others to continue challenging themselves and the audience with **getting lost, to surprise and being surprised**, to be independent of any tradition, even at the same time as such a thing might seem to emerge. This **wildness** has very few places in society: free improvisation is one of them. (To what extent, why and how this is tolerated is a question we might discuss later.)¹⁷¹

The question of newness and of tools

But again, why should we do something "new" all the time? Newness is another cliché, not the least among many cultural institutions that give funding for "new forms". Is there really anything truly new that has no history, no references, or is it only new orders and combinations of the existing past and present? Perhaps we just need to follow the desire to be curious in order to keep the poetical research alive, to leave everything boring and safe behind. This curiosity can take many forms and apply many different methods though, some giving more freedom, some more restrictions, all with the same intent of revealing something "new", at least in the sense of previously unknown. That's the experimental approach.

170 <https://michaelshermer.com/2008/12/patternicity/>

171 One of my first texts about music called for "wildness": "For Wild Music," *The Improvisor* (1993) <http://www.surrealistgruppen.org/wildmusic.html>. At the time, I was very influenced by the anthropologist Hans Peter Duerr, see his *Drömtid, Om gränsen mellan det vilda och det civiliserade* (Järfälla: Symposion, 1982 (1978)). and by the "deep ecology" movement, especially Earth First!.

Experimental, avant-garde, modernist etc are common watchwords that Munthe says are optional attitudes that some free improvisers apply but are no more than “tools” for music making, although he acknowledges that such musicians often see it the other way around: free improvisation as a tool for something else, be it personal development or political change. Both are of course possible, although Munthe (in this article) seems to be on the side of music making being the greater goal.

For me it's not. For me, the poetical experience is the greater goal, with any means necessary. I can think of an endless number of methods for reaching it, of which only a few are musical at all, although free improvisation in music is one of my favorites. I think improvisation is also a very effective and important method, although it can be abused by other intentions, just like anything else.

To keep the freedom of free improvisation, we have to “**improvise the improvisation**” (like someone said “revolutionize the revolutionaries”).¹⁷² We have to create **form in the form**, and **freedom within freedom**, to push further as soon as we get stuck in something that stands still (we always will). Otherwise we get what we've already got: so many established “styles” of free improvisation that define artists, groups, careers etc.

In this sense I think the surrealist poet Benjamin Péret had a very important point when he decisively said “If I had to choose between love and freedom, I would choose love”.¹⁷³ I interpret this in the sense that freedom is an empty concept if there is no desire behind the “free choice”. There is no point of being free to choose if there is no desire to choose anything. And when there is, freedom means that we actually choose it.

The question of freedom

I am a bit surprised that Munthe, as a philosopher, avoided talking directly about the concept of freedom. What are the distinctions between **freedom from** constraints, and **freedom to** do things in this case? Is it dependent on that we have “free will” and are not determined, psychically and otherwise?

As he mentions that some people, even some free improvisers themselves, have the idea that actual free improvisation is impossible, he should mention that one problem here is a semantic trap: the label of this genre which includes the word “free”. It's impossible to avoid discussing in what sense this kind of musicking is free, or not, or in what way at least “freer” than other kinds. The alleged “impossibility” would only be in the sense that we are never free from everything as human beings, never free from historicity e.g. As we have said, to live is to be automatically limited. But if we see ourselves as trapped in a house with only one window, through that window we can see anything, even if it can be hard to actually jump outside.

¹⁷² A search shows that “revolutionize the revolutionaries” was said by Rudi Dutschke, quoted or referred to in Chris Marker's essay film *Le Fond de l'Air est Rouge*, 1977 (thanks Niklas Nenzén for this research).

¹⁷³ This was told to me by Bruno Jacobs and as I remember, it was from a questionnaire. However, I can't find the source right now, and Bruno, when asked today, is not anymore sure it's a genuine quote. If nothing else, I adopt it.

What we see is potential, endless variation, a world of possibilities, the power of imagination. Art, or music, in that sense, is always a **limited as well as unlimited** concept, method or phenomenon. We just have to know what we are talking about. We are totally free to imagine, to see, anything through that window but we are trapped in the physical, economical, social, cultural, mental house (form) of art. It's not a problem, only a problem of syntax, and of focus.

The question of topic

When we talk about music, should we only talk about music? Munthe chooses to do so, and only carefully leaves hints of an expansion of the topic. E.g., he asks two questions in a row, where the second one, without any excuse, severely limits the first: "What, then, is the point of free improvisation? Is it a fruitful musical method?" Why only fruitful, and why only a musical method? Earlier, after the Bailey quote, he stated that "Free improvisation is an artistic method". Maybe Bailey would think so (I'm not sure), but I don't think it's necessary to limit it to that (the confines of art), and Bailey was well aware of musicians like Misha Mengelberg, who explicitly drew parallels to everyday life, and very much improvised with his whole presence (or absence!) as a musician. For me, as I said earlier, I was initially drawn to free improvisation as a result of the parallel to the surrealist concept of "pure psychic automatism," which is not limited to any art form, or to art at all for that matter. As also said, it took some time before I realized the difference between the two: the concepts overlap – there can be one without the other. So the choice to engage in free improvisation for me (although it's obviously very different from most other improvisors) has never been to make music alone, but to keep looking out of that window of imagination for anything inspiring, sometimes to jump out of it too.

Nevertheless, I think I can acknowledge a broader view in his last paragraph, where he boldly states that "free improvisation would be a fruitful method for anyone with a fixed aesthetic idea, in order to induce more obscurity and uncertainty, which is good for all musicians." I would add, "yes – but for anyone" (although not on a permanent basis). But why? He doesn't say. But if I would, I would say, in order to keep your curiosity, expanding the **field of possibilities** – as well as training your critical thinking senses, to keep questioning what you think you know and what you think that you think. In other words, to **sharpen both your irrational and rational survival tools**.

This last paragraph of his also opens two questions: does Munthe still think, then, that music is the sole goal of free improvisation, or is it then (also) a means to the end of "obscurity and uncertainty" in general?

Perhaps I have demanded too much of his article that probably had to be limited in size, but to expand on these questions would certainly be interesting.¹⁷⁴

¹⁷⁴ Funny enough, as I was walking down from Humanistiska Biblioteket in December 2018, thinking that I should remember to send my text (initially written separately before being integrated and revised here) to Munthe for a

The other question is: why has he gone back to playing jazz songs nowadays (although he actually gladly accepted my invitation to play with him in January 2018 in the Siren Festival, and it was great fun)?



82. Sirenfestivalen 2018

An attempt at a different angle towards improvisation

When I wrote my text, it wasn't a direct response to Munthe's article. To start with, it was a lecture with the same intention as his: to introduce the basic concepts of free improvisation to an audience that knew little about it, in this case first of all the norwegian one, which almost totally lacked free improvisation at the time when I lived there (1992-97). It was part of an attempt to teach, discuss and inspire the norwegian audience about it, and the major part was the festival Oslo Impro, which I organized in 1997, before I left to move back to Stockholm.¹⁷⁵ In the program booklet, both my text, and the festival logo introduced extramusical phenomena as a means of giving free improvised music a perspective larger than music.¹⁷⁶ One question then appears: what is music, or where is it? I still think that these questions have to be discussed in order to discuss what improvisation is. (And we will below – then we are going to quit discussing only sound structures for a while and instead discuss the relationships of those structures to other structures around them.)

In the text, I tried to criticize some basic misconceptions about improvisation, partly in the same way as Munthe, to focus on the conscious intention instead of the impossibility to be free (or the impossibility to have total control), and that improvisation actually is a specific phenomenon which exists in the practice of improvisers.¹⁷⁷

One thing I tried to do, which was outside of the intention or scope of Munthe's article (other articles in the same issue of *Nutida Musik* partly covers that), was to briefly state the historical origins of the free improvisation movement, from jazz. This history is of course very simplified, and it mentions the situation of

possible comment, I met him walking up for a meeting! I told him about this, and he said that his point of departure at the time was "concept analysis", while e.g. a phenomenological perspective could be just as relevant.

175 My encounters and discoveries at the time were that the most active one was no doubt Frode Gjerstad in Stavanger, who opposed the strong ECM style with his more Ornette Coleman-oriented approach and collaborated with a.o. John Stevens, Johnny Dyani and Eivin One Pedersen, and leading young musicians in his *Circulazione Totale* Orchestra, as well as organizing festivals. I also encountered the incredible recordings of Svein Finnerud Trio, notably *Multimal* with the poet Trond Botnen. Also returning from exile in Berlin was Erik Balke. Otherwise there were scattered young students, jazz musicians or composers who were crossing over into free improvisation and that I integrated as much as I could in my festival.

176 The starling, which I after that used for my newsletter, later web-based network "Improvised News Scandinavia", which transformed into the first FRIM website and became the symbol for FRIM. You can see the program and program notes here: Bergmark, Oslo Impro 1997, <http://bergmark.org/stare>.

177 At this point in the web-based text, there is a link to some articles which actually debate the existence of free improvisation in norway shortly afterwards! <http://bergmark.org/improdebatt>.

black musicians in the USA, their association to the struggle against racism and European ideals which also influenced their choice of instruments. Their appreciation in Europe and their impact on European musicians is described as the origin of European free improvisation. The difference between the English and the German pioneers in ways of playing, size of groups and choice of instruments, which also influenced the way the audience were trained to listen, are mentioned. I guessed that the style of the English reflected their character as “polite but anarchistic”, which might be quite prejudiced, but the point was probably true: they strived more for creating “in a free and democratic way” than exploring “states of trance or insurrection” (I was probably relating to black free jazz here, also perhaps a bit prejudiced).

The genre definitions were also related to the choices of instruments, especially the divide between acoustic and electronic instruments. This paragraph could be much more expanded today. The mix between electric and acoustic has increased a lot since then, and, as mentioned above, the live “playability” of electronic instruments also, although “noise music” has developed into such an established genre that it is probably much bigger than the style that used to be called free improvisation, and for the most part, the umbilical cord is cut from it long ago. Probably most noise musicians recognize no relation at all, and they probably don’t say “free improvisation”, they just say “play”. The loud volume as well as the relationship to DJing also changes the communication between the musicians (you could shout into each other's ear without it disturbing the music) and the sense of timing (you could pre-listen to materials you plan to use in headphones before letting them out to the audience, and you can program machines to work by themselves while you're busy with other tasks or preparations). Mixing technology allows you to make complex structures alone, so this is to much more extent a solo art form than traditional free improvisation, which is for the most time collective. That in turn means that the focus to react to the moment almost disappears and the concerts are pretty much planned and independent from external influences.

I also mentioned that there is some rejection as well as appreciation of improvisation from the side of contemporary composed music. At that time, the divide was still very deep, but today I would say that the divide has been bridged a great deal since then. At our Academy, e.g., it seemed to me that the “composers” liked to improvise and the “improvisers” liked to compose very much! This is not only the case of young composer-musicians, but also older established “new music” musicians that have begun to improvise and mix freely with the improvisers in endless combinations in the same “promiscuous” way as they traditionally do. Anna Lindal is a striking example but there are many more.¹⁷⁸

Continuing the discussion of the introduction of improvisation into the classical world, I am still as skeptical against the practices of graphic scores and of conducting, as I was when I wrote the text. The “intuitive music” movement still makes me puzzled, although they can certainly do interesting things sometimes. I have been briefly involved¹⁷⁹ with both this and some conducting activities, with both good and bad

178 <http://annalindal.se>

179 Mainly through friendly contact with *Carl Bergström-Nielsen* and his international network.
<http://intuitivemusic.dk>



83. Gino Robair in front of me in *I, Norton*, Fylkingen 2011

experiences, I would say shortly that the good ones are those that focus on the element of play (like e.g. in the works of Gino Robair),¹⁸⁰ and the bad ones focus on “doing right”. When I’ve had the opportunity, I have chosen to use games of inspiration and interpretation, and discussions, instead of any score and conducting.¹⁸¹ That paragraph could be expanded with much more experience since then.

Then I tried to distinguish what the free improviser aims at: “An improviser wants to be honest and true-hearted in real time (something hard enough), and not only true to an idea.” Today, this sentence raises confusion and questions in me. I can think of many ways of playing that are certainly justifiable and attractive and which go way beyond the individualist expressionism that being “honest and true-hearted” sounds like. There are e.g. many games that could provide ways of expanding your abilities beyond your own self, or your idea of being a nice chum.

I also mentioned the question of genres, and I covered it in much the same way as when I commented Munthe above. In the ending paragraph I wrote: “So, it’s impossible to define free improvisation by stylistic generalizations, but that’s also difficult with other styles. And it **is** a problem only if you need to define, not if you’re going to play.” This focuses implicitly on the free choice, but disregards the discussions of musical intentions that might arise between musicians in a group, and with the audience expectations. E.g., a musician that plays in a group constantly loudly and densely would hardly be approved by the others that he/she makes it a hard time for.

In a short section I asked “Is there a contradiction between improvisation and composition?” Shortly after having written that text, I realized that improvisation is simply a **kind of** compositional activity, as described before. I only had a neutral answer at the time.

I also touched upon the case of ideologies applied to or within free improvised music, and the term “experimental”. I wrote that it’s not experimental in the sense of testing a defined hypothesis, but to “test new ideas and attempts to follow them up”. This could certainly be developed further and is somewhat contradictory. Maybe it’s a parallel to the “question” we are searching in artistic research: there is a difference from scientific research in that an initial necessary vagueness, confusion even, can suspend the formulation of questions until after the answer, or result, is already made. Research and experiment are often linked together, but with the attitude of enjoyment and pleasure as a driving force, it’s a bit far-fetched to

¹⁸⁰ I was part of his *I, Norton, an Opera in Real Time*, at Fylkingen in 2011 – it is actually a really open and flexible game piece. <http://ginorobair.com/inorton/inorton.html>

¹⁸¹ See Appendix 2 for a discussion about this, with a recent example of the dilemma.

speak about experiments. If “improvisation is in its nature experimental”, as I wrote, then you could add that the level of experimentation can vary very much between the practitioners. Munthe also had a similar idea about this.

Speaking of the Alabama pioneers Davey Williams and LaDonna Smith, I mentioned their attitude as wanting to change life as much as music, and music becoming a liberating ritual. Munthe spoke more of the intention of musicians, that might be ideological, not so much about what happens when actually participating in the musical event and what it might mean outside of music itself.

In the last part, I mentioned my connection to surrealist ideas, acknowledging that few other improvisers do. Free improvisation can be compared to dreaming or automatism, as mentioned before, but is of course not the same. I wrote that “for me they are inseparable”, an idealized statement that I wouldn’t do today, except when speaking about myself (which is not entirely clear if I did in the text). I also think I idealized the improvisers a bit: “The important is a ‘real time’ adventure and to meet as free and equal creative individuals.” This is unfortunately not so true in general, although it’s not generally untrue either. To create an aesthetic product and individual career seems to be at least as much a consideration for many improvisers.

I also mentioned, as a matter of fact, that in improvisation, the unconscious plays a greater role than otherwise, something Munthe didn’t. In this paragraph, I contrasted the attitude of Cecil Taylor (striving for trance) with Munthe’s (striving for having a free choice) and suggested that the different views might actually coincide in the practical activity, and that the difference in description just reflects personal conscious preferences. But I think the use of the term “unconscious” calls for more definition of what that is, or at least what it might be in music. The term, initially from psychoanalytic theory, seems to denote quite different mental activities in contemporary psychological theory, e.g. the study of decision making, where you can prove that some decisions are made before being conscious about them. Probably this is the case very much for musicians, and probably, it’s not such a big deal. To see the unconscious as a well of mysterious wonders – or as a hideout for repressed desires – is certainly outdated. The few brain studies that have been done on improvising musicians (by Fredrik Ullén a.o. at Karolinska Institutet) compared to when they perform precomposed pieces, shows that fewer fields in the brain are activated while improvising, than when playing from sheet music.¹⁸² Maybe this doesn’t mean that improvising is a more “stupid” activity, but that it’s less divided. Maybe to ask “what is the source of improvisational activity” is the wrong question: maybe improvising is the natural (meaning, genetically inherited) state to relate to the world: the intuitive reactions are quicker and, because of the mechanisms of evolution, usually statistically apt, although mistakes are bound to happen to a certain extent. It’s a matter of survival. Maybe a more relevant question would be: “how come we can do acts that are **not** improvised?”, i.e. looking for the sources of analysis,

¹⁸² “When the jazz pianists improvise, they have lower activity in the so-called executive systems in the brain, which among other things have to do with attention, than what classical pianist have.” (My translation from Swedish: När jazzpianisterna improviserar har de lägre aktivitet i de så kallade exekutiva systemen i hjärnan, som bland annat har med uppmärksamhet att göra, än vad klassiska pianister har.) “Fredrik Ullén: Han tar det inte piano”, interview by Ann Lagerström, *Medicinsk Vetenskap* 3 (2013).

philosophy, science, advanced planning, complex constructions, collaborations – and conventional compositions. After that, we have to ask the important question “why did improvisation die in western music?,” and “why do people have problems with starting to improvise?” Then it inevitably becomes a question of **repression**: in society, in the mind – and of **liberation**: in society and in the mind. And with that view, we shouldn’t talk about “free improvisation” but perhaps about “**re-liberated improvisation**”, a variety of the concept of the “**return of the repressed**”, as the philosophers from the Frankfurt school¹⁸³ might have put it (originally a Freudian concept).¹⁸⁴

I wrote that I spotted “a **principal** openness that **unpredicted things** might appear at any moment, and are welcome to do it. A kind of amiability and friendliness in principle in the method, to the sounds, the instruments, the fellow musicians, to the moment. You **have** to be able to make music out of whatever comes!” This is again a bit idealized and calls for a comment.¹⁸⁵ The limitations to this are not only exterior intrusions of miserability that the text mentions but also inner (psychic, social) limitations, many previously mentioned here. Moreover, it might sound like a rosy “music of love” the way I put it, and that can of course happen but often I think a better image would be a “concentrated, boiling laboratory”. The musical collaborations can also very well take the form of a kind of violence, of challenge, of suspension and adventure rather than sweet, polite, supportive, “deep listening”-playing.¹⁸⁶

In the end, the question of freedom and choice returns, and I still agree with the major things I said then, and which I have more or less already said here (although I tend to avoid Freudian lingo nowadays):

183 Originating from the *Institut für Sozialforschung* in Frankfurt, it is a group of sociologists and philosophers that formed a collective for critical theory that often united ideas from Marx with those of Freud. Some of the most famous proponents were Herbert Marcuse, Theodor Adorno and Max Horkheimer but many more are associated to the ideas.

184 Well – this discussion could of course be deepened further, recognizing that there is a dialectic between wildness and disciplinarianism in consciousness as well as in society that could be productive in terms of inventions and achievements both in the realms of imagination and of civilization. Marcuse recognized that any civilization requires a certain amount of repression, although he rejected what he called *surplus repression*, representing the hegemony of the bourgeois class and its psychosocial structure. See Marcuse, *Eros and Civilization*.

185 The challenge described by the last sentence, though, I still find incredibly exciting. In the film *Apollo 13* (1995), there is a wonderful scene that illustrates this. The technicians on Earth have to find a way to construct a makeshift carbon dioxide filter out of a limited number of objects, within a limited time frame, otherwise the astronauts die. See the clip here: https://youtu.be/ry55—J4_VQ.

To make something out of available resources is now often called “*bricolage*”.

I could add that my workshops (for all ages from kindergarten to universities) are conducted with this attitude of using whatever resources we might have at the place, and sometimes they have been very limited. I never use a kit, the point is to invent and to improvise, and I usually provide a lecture full of inspiring and confusing examples to get the mind going. Mine as well, since I learn a lot from whatever the participants do.

186 I have come to think that I was infected by a kind of “**listening fetishism**” that was fostered in the improvisors’ community, which is reflected in texts from that time. This is of course related to their view of music (meaning musical sound structures) as the ultimate goal for the musician, and thus their focus on recordings, sound quality, silent environments and instrumental virtuosity (“mastering one’s instrument,” “having control” etc). I’ve found that some instances of brutally “not listening” can paradoxically lead to more awareness when playing and more exciting adventures than over-sensitively “listening” until nothing happens at all but the cliché of the bell-shaped dynamic form from nothing to nothing in every piece.

(The term “deep listening” is associated with Pauline Oliveros and her Deep Listening Institute in New York. I don’t intend to discuss her concepts here. <https://www.deeplisting.org>)

For me, this kind of music is about **making** poetical actions, and by doing it **in public** hopefully inspire others to **take** their liberties, as it is rightly called. ‘Freedom’ is empty, but poetry is freedom with erotic substance. So we come from the question of freedom to the will to poeticize **life** and eroticize **reality**.¹⁸⁷

And finally, I tried to define improvisation and free improvisation as **possibilities** and **potentials**, in a way I still find quite adequate, since it calls for our **responsibility** to decide what to do with it, and never to confine ourselves to having found any final solution:

Improvisation is a meeting-place, where it is possible that freedom, the moment and beauty can become identical, the privilege of this kind of music. It is a strength in this beauty, which can integrate chaos, chance and surprises instead of seeing them as a threat.

Free improvisation is a room where you can **expand** freedom, examine the **possibilities** of freedom, experiment with the possibilities of life and **invent new freedoms**. Davey Williams again: ‘Free improvisation is not an activity resulting from freedom; it is an activity **directed towards freedom**’.¹⁸⁸

2.5 A critique of the concepts of music and instruments

Music beyond music

Do I make music? I am in mixed feelings about it, and about the importance of this question. I do some kind of art and regardless of what it is, we return to the **responsibility** for that action, just mentioned in the previous section, and it will return later, as we shall see, in the sense that this responsibility should lead us to decide what to do – in life and in music. I find it sometimes hard to demand the same thing from other people as what I demand from myself. What should people really do and why? The universe will come to an end regardless of how we act.¹⁸⁹ Nature has no morals, only humans do. We exist because evolution gives advantage to those who successfully care about their own species. As we learn techniques and methods to imagine other perspectives than our own, we also get confused about which level to choose perspective from.

187 This reasoning has been misunderstood, maybe because I didn't formulate myself clearly enough, In Harald Stenström, “Free Ensemble Improvisation” (PhD diss., Academy of Music and Drama, Faculty of Fine, Applied and Performing Arts, University of Gothenburg, 2009), the sentence “Freedom is about being able and allowed to do things, not about what one actually does” is quoted out of context and it seems that this is my opinion. This is the author's own translation of the swedish version of the text. My own translation is, contextualized with the previous sentence: “Freedom, we have been taught, is to be able to express ourselves and to be able to choose what to do. It's about being able to, and to be allowed to do things, not about what you actually do.” I wrote this as a contrast to my own opinion, which is freedom as action, as opposed to freedom as potential.

Speaking on this topic, I admire the swedish jazz- and improvising pianist pioneer Lasse Werner, whom I remember having said during a solo concert “It's the privilege of the jazz musician to be able to make a fool of yourself in public.”

188 The quote is from Williams' “Towards a Philosophy of Improvisation / Notes toward a Militancy for Improvisation.” *The Improvisor* 4 (1984): 32-34.

There is no logical a priori, we just have to decide whatever seems appropriate. There is no logical reason to choose either to “maximize pleasure” or “minimize pain”, or to choose myself as an individual as the prime objective, my family, friends, city, country, race, humankind, animalkind, all living beings, this planet as a whole or any other space entity. What feels good is probably what we choose, from learning, culture, personal pleasure or grudge. So how can I argue that my choice of making music is the optimal one?

I think my choice is a mix of some pleasure, some anger, some ancient loyalties, some chance and some learning. All those influence my choices. And the choice has changed over the years, as well as the understanding of myself and the defining of what I do.

I think I’ll stop myself from writing my autobiography in this sense, and just look at the latest definition I made, on the web site I update about the Hell Harp project:

I have definitely decided now that I’m not first of all a musician. I have long said so, but in spite of me having an official status as such [...], I increasingly have the perspective of my work as something like a “**constructor of physical interfaces for inspired auditory exploration**”. This meaning that I see my compositional work in making experimental musical instruments and exploring other, mainly acoustic sources of a meeting of my body with found and made materials and poetic objects whether they are usually called instruments or not. The execution of the composition is identical to the improvisation with the instruments or objects. Being a musician, musical performance artist or workshop leader, are just effects of the exploration.¹⁹⁰

I wrote this at the time when I felt my interest gradually shifted from seeing myself as mainly an improvising musician, to being mainly interested in the instrument construction side of my activity. They have been parallel things since around 1990. In other terms, you could say that my “Berlin period” ended – I had enough of playing on as many places as possible in as many constellations as possible, and began to think that I’d rather play solo and concentrate on realizing all the exciting instrument building projects that I haven’t done yet.¹⁹¹

Musical performance art

Perhaps I don’t need to define my activity as “music” – maybe I don’t actually do music all the time. Maybe I do **more or less** music on different instruments: some are my main **musical** instruments, while others are

189 Actually, as far as we know, the universe will just increasingly drift apart until all galaxies are alone and outside of any possibility to even “know” about each other. More hopeful is perhaps that the universe started from nothing because nothingness is a too unstable state. See the brilliantly fascinating Lawrence Krauss, *A Universe From Nothing, Why there is something rather than nothing* (New York: Simon & Schuster Ltd, 2012).

190 <http://bergmark.org/bosch> as it was until the spring 2019.

191 I more or less actually lived in Berlin on and off 2012-15, and my experience was just that: if you want to endlessly expand your list of collaborators and play on the door in all kinds of venues, Berlin is the place to be.

rather **musical performance tools**. The former is what I would choose if I want to do a concert, often in collaborations, the latter if I want to do a musical performance piece, usually solo. They are not totally exclusive; it's a sliding scale. But if I make the distinction, and I have implicitly already done so here, I should define "**musical performance art**" as something separate from music. I am not aware of anyone else using it as a genre label, I just felt I had to invent the term to distinguish part of my activity from the more purely "musical" one, if there is such a thing at all (and the way I feel, it is). Let's just say that it is an **intermedia** form between music and performance art.

Intermedia is a term coined by Dick Higgins for art forms **between** two or more other art forms, not to be mixed up with "multimedia," in which two or more art forms collaborate on their own terms. I got to know the term while engaged in Fylkingen, who holds intermedia art high.¹⁹² However, I wasn't directly influenced by Fylkingen to "create" a musical performance art as an intermedia, or even as a form of performance art, it was rather a result of my strive for finding a corporeal expression in a surrealist vein: my period with *Butoh* (as a student and collaborator of SU-EN)¹⁹³ as well as the one with jesting and with performance art (possibly also my hatred against *eurythmics*¹⁹⁴ and disinterest in many modern dance forms like e.g. *contact improvisation*¹⁹⁵) were steps that led to this tentative definition.



84. The Fylkingen logo "new music and intermedia art"

The bodily expression has been a constant in my musical activity since I started to improvise, and it is expressed in the way I relate to instruments as well.¹⁹⁶ It is interesting then, that one of the icons of EMI

192 Especially from its internationally renowned art form "Text-sound composition", or "text-sound art", a term coined by Lars-Gunnar Bodin and Bengt Emil Johnson in 1967 and the term used for many festivals that Fylkingen organized. See my "Text-sound-art - a presentation of five of the pioneers working at Fylkingen from 1963 until today," *Ballongmagasinet / Helium 3* (2001), <http://bergmark.org/textsound>.

193 <http://www.suenbutohcompany.net> SU-EN once told me she got the idea one night in Japan to play the piano with butoh methods, but she never developed it, not being a practicing musician. However, the idea was very intriguing to me and I have sometimes tried to use it in improvising workshops, but it has led more to interesting discussions than to a working method.

194 Eurythmics is a formalization of body movements, inspired by the ideas of Rudolf Steiner. It's used as a sort of gymnastics in schools with Steiner pedagogy, and not meant to be (but sometimes used as) a dance expression. I came across it when I studied in Moss, where there was also a Eurythmics academy, and I collaborated with some of them in plays for children (Eventyrteatret 1995-2004), where they also used some eurythmics. We had a great time together, in spite of me being outspoken against this and other ideas related to Steiner.

195 Contact improvisation is a movement of its own in the modern dance world. I have tried it in different workshops and my rejection of it is the formalization of methods and limitations of improvisatory possibilities that I don't find in other forms of dance improvisation.

196 My first ever improvised performance in 1986 involved costume, dance, piano and the voice in a solo on the poetry stage "Poeternas estrad" at Kafé 44, Stockholm. It was labeled "improvised poetry" but actually I didn't utter a

making, Harry Partch, writes his own version of music history as a play between the “corporeal” and the “abstract” – where he himself is a proponent of the corporeal side.¹⁹⁷ Gunnar Valkare also points out that for a very long time in music history, making a difference between music and dance would be pointless, and also suggests that in some contemporary music cultures, they are once again one.¹⁹⁸

For the time being, my main **musical** instrument would be the “Platforms.” Actually, it’s not totally defined as an instrument either. I have two (sets of) definitions: one as an instrument and one as a performance piece. As an instrument, I call it e.g. “evolutionary meta-instrument”, or “the Platforms for amplified objects is something between an extended contact microphone and an amplified stage.” As a musical performance piece, I often label it as a “Surrealist Musical Object Theatre” (and a few times, “Surrealist Musical Puppet Theatre”). This is in order to embrace the visual side (which actually is an aspect of any musical performance, which should be more acknowledged) as well as to take away prejudiced musical expectations, although I wouldn’t call what comes out of the performance **not** music! That’s why I still keep the word “musical” in the term. “Surrealist” refers to the improvised, intuitive, analogical (associative) way of playing, which has no predetermined plot, symbolism or meaning. “Object Theatre” is actually an existing term (related to **puppetry**) which together with the other two terms describes what I do.¹⁹⁹ “Theatre” is something visual, dramatic, that comes out of the play of the objects and the associative stories that the spectator (or me myself) imagines.

EMIs as compositions

Is that a way of defining my music? Why not, if I see my work with instruments and objects as my compositional work, which I’ve realized I do. I make instruments and collect objects for my own music and my own way of playing. If it was for someone else, it would be a different thing.

There is another story that concerns reporting performed improvised pieces to STIM, the Swedish performance rights society. Whenever you report improvised music concerts, you have to give a name to the pieces performed. There are no performance rights paid to nameless pieces. So what to call them? This is usually done after the fact, sometimes with poetic or whimsical titles, sometimes just the names of the musicians, the venue and the date etc. So you have to not only report a performed piece but also register the composition under the same name, so they match. STIM wants us to do it every time. But for the same ensemble or soloist, it’s easier to reuse a title that’s already registered. For solo improvisations, I began to

word.

197 Partch, *Genesis of a Music*, first part.

198 Gunnar Valkare, *Varifrån kommer musiken?* (Möklinta: Gidlunds förlag, 2016).

199 <https://wepa.unima.org/en/object-theatre/>



85. Adachi Tomomi and me at Cuba-Cultur, Münster 2005

give the name of the instrument I played: Whalefish, Stringed Stirrups, Singing Coffin etc. After some time, I realized that those instruments were in some real sense actually the compositions I played, although the pieces of course sounded different every time. This is my way of composing, to make an instrument, or rather EMI. Almost always, the instrument is made in one

single version, for myself, to be played by myself, so the composition includes my way of playing my instrument.²⁰⁰ At a seminar in Gent, some speakers talked about compositional tools that could in some sense very well be called compositions in themselves. I suppose it's a similar process: whenever it is used regularly by other people, it ceases to be a composition and becomes a method, or perhaps an instrument, or in some cases even a musician.²⁰¹

On my web site, I still keep a separate part for my compositions,²⁰² and a separate part for my musical instrument gallery,²⁰³ although there are some pieces that fit in both, following the logic just mentioned. Perhaps the least "musical" of my instruments is simply the microphone designed for being swallowed in the "sound performance" (?) "I have been in you, you have been in me", where you can hear the sounds in and close to my stomach.

200 Exceptions are the Stringed Stirrups, that have been made in three versions, and played a couple of times as a duo with Terje Mentyjærvi, and the Platforms, which were originally made for being played with others, but so far only Kristian Bredin, at the Networking Camp concert on Norberg Festival 2009, and with David Bremer at Rösta på Fylkingen festival 2011. In workshops, I often share instruments with the participants. Once, I exchanged all the instruments I brought with those of another EMI maker/improviser, Tomomi Adachi <http://www.adachitomomi.com> in a duo concert at Cuba-Cultur, Münster 2005.

201 *Sound Work - Composition as Critical Technical Practice. The 10th Orpheus Research Seminar*, at Orpheus Instituut, Gent 2016 (I presented the paper "Composition, Improvisation and Experimental Musical Instrument Design"), <https://orpheusinstituut.be/en/news-and-events/sound-work-composition-as-critical-technical-practice>.

202 <http://bergmark.org/eamen>

203 <http://bergmark.org/gall>

And perhaps the **least** “musical” composition on the compositions’ list is “Muzakblocker”, actually a piece of anti-music, or “an audio perfume for self-defense”, designed to block out muzak on public places. But that might be another story.²⁰⁴

What music could be

The question “What is music?” has followed me a long time and is one of my favorite subjects. I wrote a text with that title already 2000.²⁰⁵ That text, despite the title, was not at all any thorough investigation of the subject, it was mainly liner notes commenting the music on a festival of improvised music in sweden 1999, the swedish improvised music scene at the time, and the different styles that I could detect. The question came up though (as it easily does with improvised music), since two of the musicians leading the “FRIM big band” (actually a loose network comprising any active free improviser in sweden at any time) on that festival said

things that seemed in opposition to each other; Sten Sandell: “It is music that we are going to make”; Dror Feiler: “Don’t try to make music!” Regardless of what they actually meant, to say so in a rehearsal situation seems to me most of all to refer to how we relate to the term music in an emotional way as musicians.

It seems fairly common amongst musicians to encounter the attitude that music in itself, or at least “the music I like, or do”, has some inherent powers to do good: to make us into better people, in a way that makes sense to the proponent of the idea. The simplest form of this proposal is that the sound structures of music act on the psyche in a beneficial way, emotionally or intellectually, and makes us morally better or smarter, more fit to handle human situations in a good way.²⁰⁶



86. *SOUNDS -99*, Blue Tower Records 2000

204 “Muzakblocker – an audio perfume for self-defense”, <http://bergmark.org/muzakblocker>.

205 Johannes Bergmark, “What is music?,” liner notes for Sounds 99, Blue Tower Records (2000), <http://bergmark.org/what>.

206 It is also very popular to refer to research showing side benefits from musical learning or listening from higher intelligence or learning abilities in other subjects to emotional abilities and pure health effects. Some of the hype, like the “Mozart effect” have been grossly misunderstood and exaggerated, and the exaggerations abused and commercialized. Moreover, as so often, it’s hard to tell causation from correlation (it might be that musical activities result from other things like a beneficial family situation, which also has other good effects regardless of the influence of the musical activity itself). Ullén (“Fredrik Ullén: Han tar det inte piano”) briefly hints at this problem. Another problem is when doubtful conclusions from such research is used as an argument to politicians for support, instead of arguing that the musical activities have an end in themselves. (If they indeed have – I’m skeptical about a simple argument like that as well – as we have discussed already, music is not only music.)

A listener perspective version of this idea is that listening to music makes us happy, calm, feel good.²⁰⁷

Both of these viewpoints stress strongly, although mostly implicitly, the inherent power of the sound structures as the agent for these effects. But is that really possible to prove?

I've encountered a way, though, that that the same kind of reasoning slightly circumnavigates the need to prove it: the power and meaning of music is hiding somewhere behind the actual sound structures – it's a mystical or spiritual power that causes the music to sound, and which acts through the sound without being reduced to them. This view is almost **animistic**, that there is some kind of life force behind the music which is not reducible to the physical processes. In my article, I touched a bit upon this idea, but, employing a non-supernatural attitude, I didn't accept it fully but turned the attention to the **power of human imagination**, which I still think is on the right track – although not enough.

We should distinguish the definition of music from the definition of music we **like**, or even like to define as “good” music. Also music we hate (and which someone else probably likes) has a strong power over us. It can certainly cause unpleasant (or indifferent) feelings in us without us having to define it as “not music”. Conceptually, music we hate is just as interesting as music we love.

I think we can conclude, so far, that what makes music into music is that there is something “on both sides” of the sound structures, both cause and effect are part of our understanding of it as music. It's not about certain knowledge, it's about an affective relation in the center of our power of imagination. It's a communicative relationship, whether we regard it as communicating with us humans or something else, or just imagined entities.

So let's just, on the way, get rid of one of the most popular as well as abominating definitions of music (which even gave name to a journal): “**organized sound**”. It's too wide and too narrow at the same time – as we have seen, even though sound is at the center, it's not enough to define music as sound only. Even “organized” is questionable: speaking, signals and many more kinds of sound are organized (and communicative as well), but do not normally function as music. And music can sometimes appear in ways that can be regarded as “unorganized” in many aspects: chance operations, soundscapes etc. And how organized is collective free improvisation? When intuitive ways of acting are included in the term “organized”, it loses its distinguishing meaning. How unorganized shall sound be in order to disqualify as music?

The definition I ended the text with at the time was “**Music is a ritual, mainly analogical interaction between human structures and sound structures.**” What was my point?

“**Ritual**”: it means that music is an event which is limited in time and space and has an interpersonal meaning created by the participants together in the circumstances.

²⁰⁷ E.g., some time ago my colleague Herman Müntzing asked the question out on Facebook “Why do we listen to music?”, and many of the replies were versions of this.

“**Mainly analogical**”: I meant that the connections between the structures is by association and not a fixed symbolism. They are dynamic and can change if factors in the network around it changes. That’s why music’s impact can be very different from time to time, and even change to the opposite.

“**Interaction between human structures and sound structures**”: “human structures” is of course a very vague and very broad thing. It includes physical, mental, spiritual structures but could also be ideological, mythological, political, social etc. The mirroring that takes place in music involves the whole of human life and psyche. It’s of course very difficult to point out exactly how this happens because we’re involved on so many levels and the interconnections in the network of relations between all involved factors are extremely complex. But it seems obvious that this communicative pattern is the reason behind the strong power of music.

Is this enough? I have a hypothesis that might be possible to test in some way in the future, maybe with the help of neuroscientists – the famous discovery of the “mirror neurons” that are supposedly active in empathy might be connected to the function of music as well. I have a strong feeling that musical imagination is closely connected to the empathic function: both are an imaginative mirroring of your own way of working upon something or someone else. If you see someone crying you are likely to imagine sadness in yourself – it seems very similar to me to hearing music which feels like it “causes” feelings and bodily motion in yourself. This happens in your imagination: sound structures in themselves are just physical facts. Without prior cultural learning and experience, there’s no reason to connect them to any specific feeling in your memory. You have to project them upon the sounds. And then they “project” back.²⁰⁸

The question is why we need this? Maybe emotional projection is evolutionarily important for us as social beings, and music is one way of training, exploring and developing our senses and emotional imagination and memory together (and alone).²⁰⁹

The “ritual” component can also be described as a **virtuality**. Music is a way of creating a whole imaginary world. In one way, it’s safe and non-threatening. You can build up a world which just starts and begins and all it does is take some of your time, it doesn’t directly interact with your life. Except that it affects

208 In that case, it would seem that people with autism would be less affected by music, which seems obviously untrue. In my experience, I have known many people with autism that are deeply engaged in music or sound art, although there seems often to be a different kind of interest. I especially noticed my uncle (who said he had Asperger's syndrome and played many instruments very well as well as made incredible arrangements), e.g. referring to a musical piece as “snygg” (handsome, neat) a more aesthetic judgement rather than a very emotional one. And a good friend and colleague (also with Asperger's) engages in sound mainly as **signals** in sound environments which he doesn't want to call “music”. This topic would be interesting to investigate further, although the research already made on the mirror neuron system (MNS) actually has detected an imitative motor impulse from **hearing** only (as well as from seeing only) an activity from another person. Confirming my assumption, one study writes in their abstract “Music making with others (e.g., playing instruments or singing) is a multi-modal activity that has been shown to engage brain regions that largely overlap with the human MNS. Furthermore, many children with autism thoroughly enjoy participating in musical activities. Such activities may enhance their ability to focus and interact with others, thereby fostering the development of communication and social skills.” Catherine Y. Wan et al., “From music making to speaking: Engaging the mirror neuron system in autism,” *Brain Research Bulletin* Vol. 82, 3–4 (2010): 161-168. <https://doi.org/10.1016/j.brainresbull.2010.04.010>

imagination and memory in ways that might take you anywhere. What it actually does with us, we should be responsible for. The quote of Paul Nougé towards the end of the text is still very strong in my opinion:

“We are not long in realizing that actually we are not judging something, but taking part in something. [...] Hence, whether we deal with music or some other human event, spirit is at our mercy and we are, in reality, accountable for it.”²¹⁰

What a musical instrument could be – into how to think and live.

Perhaps because I started to shift my focus of interest from playing to making, my focus on the question “What is music?” began to raise the dormant question “What is a musical instrument?”. I was discussing it with a close intelligent friend, and I was suggesting something in the way of “any physical tool that is an extension of the body and used in order to make sound as part of a musical ritual”, she said “no no, if you argue all the time that music is an activity, then instruments should also be activities!” Of course she is right: when I look at the way I make and use my instruments, it becomes even more obvious. They are not instruments unless in musical use. It becomes even more obvious with my sound objects, hundreds of things that were never made with the intention of being played as instruments. But put into this action, of course they are.²¹¹ I believe this way of looking at it also can be a form of *critical technical practice*, and the making of EMIs are definitely part of the compositional processes, as any new instrument must be.²¹² This is true regardless of how the idea develops, where it comes from, what it consists of, as we have seen in my

209 In my review “Gunnar Valkare: Varifrån kommer musiken?,” *Nutida Musik* 269-70, 2018, <http://bergmark.org/Valkare%20Nutida%20Musik%202018.pdf>, I was slightly skeptical about Valkare's insistence on music being an evolutionary trait. However, concerning the definition of music, I appreciated his historically dynamic view that the definition should change according to which culture, or time period, we are talking about. “A logical conclusion about the use of a concept of music, I think, would then perhaps be to use Wittgenstein's model for the difficulty of clearly distinguishing a concept like ‘game’. It can't be described by letting all single instances, and only those, be contained within one definition which is neither too wide, nor narrow [...]. The definition rather becomes a collection of groups that can be described through a diagram where the sets overlap each other. The differences in single definitions are caused by differences in needs and functions within the different groups where music is used or of the individuals that use it.” (My translation.)

210 Paul Nougé, *Music Is Dangerous* (Cambridge, MA: Radical America, Surrealist Research & Development Monograph Series no 6, 1972).

211 I detect a similar attitude in the brilliant and inspiring text by Gino Robair that he shared with me in 2012. “In the hands of a percussionist, everything is a percussion instrument. That's one of the great things about being a percussionist. The world is your instrument.” and “Goals: 1. To be able to make music at any time and in any situation, without the aid of specialized tools. 2. To play an instrument in more ways than were originally intended by its designers; to find the hidden voices of an instrument. Questions I ask myself when evaluating the musical potential of an object (not necessarily in this order): Can it be bowed? Can it be struck? Can it be blown into? Can it be rubbed (fricative)? Can it be prepared or modified temporarily? Can it be broken? Is it OK to break it?” “Any player can play any instrument at any time in any manner they choose (as long as it's not destructive to the instrument—unless it's OK to damage the instrument)” and finally “Keep an eye out for things in the immediate environment that you can use musically. If you see something that you think cannot be used musically, take that as a challenge and make it work.” Gino Robair “Expanding the Instrumental Vocabulary of the Improvising Percussionist”, written in 2006, <http://ginorobair.com/expandinginstrumentalvocab.html>.

examples above. As said, the idea in my case **never** came from creating a specific type of sound – but as soon as they started doing sound, I often gladly accepted and integrated it. **The instruments created the music** (with some help from the maker-player).

The construction of a EMI can be seen as an improvisation, with its back-and-forth dialectics. There is a close relation between improvisation and EMI design, as we have already seen: whoever has invented a new instrument, if it's not basically modelled on the playing technique of an existing one, can never know for certain

- **how it's going to be played** – this also depends on the purpose of playing, the musical sound ideals etc, or

- **how it's going to sound** – which is of course also related to the playing techniques chosen.

In order to start the discovery of how it will be played, how it will sound, and what music that is going to be made on it, there is only one choice: to **improvise**. And when you do, you are hopelessly restricted to your learned sets of behaviors and habits of how to approach physical objects from a sound-making perspective. However, you develop and invent the specific ways to play through

- **physical feedback** from your body relating to it

- **sound feedback** while playing

- **surprises or chance** occurrences that might be due to your initial limited knowledge of the instrument.

So even if you have created the instrument yourself, you still have to learn how to play it, what music to make on it, etc. The instrument is both deeply personal but also unknown. It teaches you, it's a constant feedback process, even during a performance – perhaps **especially** during a performance. This process can be defined as a **compositional** process, although it might not result in a specifically set composition, but to an interplay between player and instrument.

EMI making might very well have a critical, utopian aspect – more in the **making**, than in the products. I'd like a utopia of inspired makers meeting up and experimenting together, sharing and inspiring each other for new exciting solutions. This might not only be a “critical practice” but just as much an **intuitive** or **poetical** one (which is not necessarily the same thing). Or back and forth.

The critical aspect is not as much in technology as in the **sociological-mythological** aspect: why something is made, and made in the way it is. How it is used. To what degree the method itself is a critique against, or an alternative to, the cultural environment or society. Improvised music and EMI-making can be critical

212 A term coined by *Philip Agre* in his work on the creation of the artefacts of artificial intelligence: “Toward a Critical Technical Practice: Lessons Learned in Trying to Reform AI,” in *Bridging the Great Divide: Social Science, Technical Systems, and Cooperative Work*, ed. Geof Bowker et al., (Erlbaum, 1997). I came across this term and discussion through the earlier mentioned “Sound Work, Composition as Critical Technical Practice, Orpheus Research Seminar 2016”, at Orpheus Institute, Ghent.

methods, encouraging people to do, invent, make instead of accepting experts, virtuosos, hierarchy and established ways. They might also conform to just the opposite, which I think careerism is.²¹³

It does not yet become music when a structure of sounds (composition) is constructed, but when this structure is in the center of an action that creates, and happens within, a network of relationships including social ones, the ritual which simultaneously affirms, explores and celebrates those relationships that define the group as a society, at least a temporary, or virtual such.

So there is critical potential in there, depending on the kind of ideal for criticality the group or society has. These ideals are not directly depicted in the sound structures, nor in the instrument designs – however indirectly reflected in them. Let's not forget though, the poetical element in this ritual as well: the utopian character of society-making also has a utopian character of poetical structures, which expands the possibilities of what human life can be about, focusing on not only rationality in society building but imagination, play, beauty, pleasure or adventure.

For me both these perspectives are essential, in talking about any human endeavor: the surrealist, or poetical approach, and the critical, including a skeptical/scientific approach as well as critical theory and political-ideological viewpoints. They are different thinking methods that complement each other but neither one of them is superior to the other in all cases and situations: there is a prior concern, based in a broad epistemological understanding of complementary methodologies which might be called the art of living: identifying and deciding when each method is relevant without hierarchically dismissing the other. A critical method of analyzing the musical ritual has to be combined with a poetical viewpoint, and they should look at each other too, with their own specific methodologies.

²¹³ Does it mean I don't have a career? Of course I do, in a sense. What I mean with careerism, though, is when you are a slave to the career stress (that I'm sure most of us feel) and forget about other concerns, when all you strive for is to get all the gigs, be on all the festivals, all labels, all magazines and only play with people that might enhance your career, or invite people who might invite you. When the contents of your art is not sharing or inspiring, but selling.

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Video files

Video 1: The Hell Harp: first tryout in the building process, April 2018. Also: <https://youtu.be/4X6d7Ccr9O8>.

Video 2: Building at home, December 4-6, 2018. Also: <https://youtu.be/bgCwvccWpd8>.

Video 3: Preparing for the first public work-in-progress performance December 6th, 2018. Also: <https://youtu.be/mRrZzyhGbYc>.

Video 4: The first public work-in-progress performance December 6th, 2018. Also: <https://youtu.be/HPT27pzjYGk>.

Video 5: Mounting and sound checking the Hell Harp, Second Tryout, March 30th, 2019. Also: <https://youtu.be/WA71jpOaDOQ>.

Video 6: Trying to enter the Hell Harp, March 31st, 2019. Also: <https://youtu.be/eR5KlgiGHL4>.

Video 7: Finally entering the Hell Harp, March 31st, 2019. Also: https://youtu.be/Cgahim_xerU.

Video 8: Playing the Hell Harp, struggling to get out, and cutting it down, March 31st, 2019. Also: <https://youtu.be/qN2oj5nPKTQ>.

Video 9: Exam concert, May 26th, 2019. Also: <https://youtu.be/TOY8BcRFUP4>.

Image credits and full descriptions

Photos or sketches by me; public domain or unknown, unless otherwise stated.

Front cover: Hieronymus Bosch, *The Garden of Earthly Delights*, Museo del Prado, Madrid, detail of the Harp, third panel (Hell).

1. Hal Rammel and me playing the saw in his backyard around 1990. In front of him is a Waterphone, in front of me Rammel's own Triolin. Photo © by Gina Litherland.
2. Acrobatic Music playing the Stringed Stirrups with Jaga Jazzist at Blå Jazz Club in Oslo around 1995. Closest is Terje Mentyjærvi.
3. Fretlessarméen at Halina's Cafe, Moss, around 1995. Me voice, Terje Mentyjærvi guitar, Harald Beckstrøm cello.
4. Hieronymus Bosch, *The Garden of Earthly Delights*, Museo del Prado, Madrid, full picture (except the paintings on the outside of the panels that show only when you close the panels or walk around it).
5. Selfie after the visit to the Prado exhibition in 2016.
6. Hieronymus Bosch, *The Last Judgment Triptych*, Musea Brugge, City of Bruges, Groeningemuseum, detail of the Harp, central panel (Purgatory).
7. Hieronymus Bosch, *The Last Judgment Triptych*, Musea Brugge, City of Bruges, Groeningemuseum, full picture (except the paintings on the outside of the panels).
8. Cover of "Hieronymus Bosch, The Paintings".
9. Hieronymus Bosch, *The Garden of Earthly Delights*, Museo del Prado, Madrid, detail from the third panel (Hell).
10. 1st sketch: calculating the "costume".
11. 2nd sketch: considering construction alternatives.
12. Using the body for sketching a life-size image.

13. 5th sketch: Illustration of the development of ideas from crisis (the feeling that I miss something) to catharsis (solution to the problem).
14. 3rd sketch: The life-size sketch on the wall.
15. 6th sketch: further solutions: hanging everything from the ceiling, with weights for the tension, and work notes.
16. 7th sketch: in a discussion with Luc Kerléo.
17. 8th sketch: details and calculations of materials for the costume.
18. 9th sketch: more detailed adjustments of the costume construction.
19. Development of the costume, trying out sizes of the rings.
20. Development of the costume, trying out the vertical parts.
21. Costume hanging in strings for the first time. From the first tryout in A304, April 3rd 2018.
22. Me hanging in the Hell Harp for the first time, April 3rd 2018, still 1 from Video 1.
23. Me hanging in the Hell Harp for the first time, April 3rd 2018, still 2 from Video 1.
24. Piezo PreAmp-Wiring by Jo Frgmnt Gryš.
25. Thinking about how to solder preamps.
26. Costume with bridge materials.
27. Trying out hanging with buckets over my bed at home.
28. Contact microphones on the bridge strings.
29. Contact microphones on the costume strings.
30. From the first public work-in-progress concert December 6th, 2018, still from Video 4.
31. Hanging again at home.
32. The strings attached to the pole with double loops.
33. Contact microphones plugged into preamps plugged into the mixer.
34. Still 1 from Video 8, struggling to get out of the Hell Harp.
35. Still 2 from Video 8.
36. Still 3 from Video 8.
37. Bloody Sunday.
38. Still from Video 9, Exam concert, Lindgrensalen May 26th, 2019.
39. Audience view, Exam concert. Photo © Ludwig Tr.
40. The entrance sign to Fylkingen, Stockholm.
41. Johannes Bergmark and Lise-Lotte Norelius playing amplified prepared piano, piano tuning equipment, objects, machines and electronics in “Komma i stämning” (In the Modality), at Fylkingen, Stockholm 2016, <http://bergmark.org/preparedpiano>. Photo © by Björn Nährström.
42. Poster for the Horse concert series, London, by Adam Bohman, 2013.
43. Poster for Sonic Hypnotic concert, Tu Centrum, Szczecin, Poland, with Luc Kerléo, Tippi Tillvind and me 2018.

44. Poster for concert with me and Hal Rammel, with an illustration of a magic performance by the Davenport Brothers and a drawing by Davey Williams, Emergency Theater at the Occult Bookstore, Chicago, probably 1990.
45. Working in my kitchen on the Kaleidochord, ca 1999.
46. Fylkingen's foyer, me working in the bar.
47. Martin Klapper – Johannes Bergmark duo at "R.P.T. party edition XIX" at Mayhem, Copenhagen 2015.
48. Butter Bass.
49. Stringed Stirrups, played at Tempting Failure 2016, Day 7, at Hackney Showroom, Hackney Downs Studios, London. Photo © by Julia Bauer and supported by Tempting Failure CIC and Arts Council England.
50. Singing Coffin in Mimer at Norberg Festival 2002. Photo © by Frederik Hilmer Svanholm.
51. Metal Harp.
52. Finger Violin.
53. Brillolin played at Klubb Kanin, Trondheim 2000. Photo © by Lasse Marhaug.
54. Veloncell Marcel (and Whalefish) at Oslo Impro, Musikkteatret, Vestbanen 1997.
55. Whalefish.
56. Platforms setup at a concert with Erotic Boulders at Echo Curio, Echo Park, Los Angeles 2009.
57. Kaleidochord, exhibited in Fabulous Sound Machines in Tulliehouse Museum and Art Gallery, Carlisle 2005.
58. *I Have Been In You, You Have Been In Me*, performed at Tempting Failure 2016, Day 7, at Hackney Showroom, Hackney Downs Studios, London. Photo © by Julia Bauer and supported by Tempting Failure CIC and Arts Council England.
59. Long Strings with Sculptures, including sculptures made by Jimmy Dahlberg, for the performance *Den okända familjen!* at LAT63 art arena, Frösön 2017. Artistic idea, director: Andreas Brännlund. Photo © by Torbjörn Aronsson Länstidningen Östersund.
60. Playing two saws at once: Pikaterä Speliplari to the left, and Sandviken Stradivarius.
61. Micro Moog combined with voice played at Fylkingen.
62. A panorama of projects neither described in the text, nor in the footnotes: Double Trumpet; Damplify; Blow Fish (at the Sound Symposium, St John's, NF, Canada 1996. Photo © by Greg Locke); Suspended Box with feedback string in "*Soundcheck, Room Service, Resting Circuits & Semla Med Varm Mjölk, a sound environment*," Suspended Metal Sheet in long string, in *Sprelltima i klanghagen*; Reel-to Reel recorders with Tape Loop, in "*Soundcheck*"; Nagelfar; Clown Trumpet; Maiden Crown and Clay Didjeridoo; Sound Fishing; The World's Longest Violin? at Skomvær Lighthouse; Hedgehog and Silver Tongue; Mubil; Ginger Bread Trumpet; Down and Up; Sprelleperson in *Sprelltima*; Play the Bridge for the Fish!; Sploink; Stringed Wheel; Glass Shade Bells.
63. Cover of *Freudian Chocolate Box* by Adam Bohman, me and Adrian Northover 2013, <http://bergmark.org/FreudianChocolateBox>.
64. Twenty-two selected sound objects 2019.
65. Playing the doll from Copenhagen in Tallinn Art Hall, concert in the SOOLO series 2016. Photo © by Rene Jakobson.
66. Playing another wooden toy with Erotic Boulders, at Cafe Metropole, Los Angeles 2006. Damian Bisciglia behind me. Photo © by Wild Don Lewis.
67. Playing the spinning wheel in Tallinn Art Hall, concert in the SOOLO series 2016. Photo © by Rene Jakobson.
68. Playing the kangaroo in Tallinn Art Hall, concert in the SOOLO series 2016. Photo © by Rene Jakobson.

69. Playing the big brass spiral in “SOLO-festivalen” at Galleri 1, Uppsala. Photo © by Girilal Baars.
70. Playing a chalk on a slate in “BZZZ International Sound Art Festival”, Harp Art Lab 2016. Photo © by Mikael Ericsson.
71. Almond grinder, decorative windmill, miniature leather boot etc mounted on the Platforms, concert at LEAP, Berlin w Lou Mallozzi and Tomomi Adachi 2013. Photo © by Julián Roncal.
72. “Original Bohman spring”, green zipper, music box piece, butter ball tool, hand-held massage tool, leather boot, windmill, hacksaw blade, ruler, tomato cutter etc sticking out from the Platform at Altes Finanzamt, Berlin 2013.
73. Playing the fan for outdoors grilling, Dome Of Visions, Nordic Music Days, Copenhagen 2015. Photo © by Lars Bjarnøe.
74. Hal Rammel and me in Madison, Wisconsin 1990, playing Hal’s instruments Triolin and Aerolin, behind are saws, on the floor gopychands, melodica, Waterphone, another Triolin and Hal’s Bamboo Fiddles.
75. Holding a welcome speech for the Fylkingen 70 years anniversary festival Jibboli, 2003 <http://bergmark.org/jibbolii>.
76. Cloudchamber, Safaris, Fylkingen Records 2002 <http://bergmark.org/CloudchamberSafaris>.
77. Workshop diploma with stated musical “parameters,” 1992.
78. Cloudchamber in concert at Fylkingen: me, Martin Küchen, Sören Runolf.
79. The first board of the reborn FRIM, 1998: me, Mats Gustafsson, Andreas Andersson, Martin Küchen, David Stackenäs, Hans Olding, Sören Runolf, Stefan Wistrand.
80. The quartet SLIP at Fylkingen Jibbolii festival, with me, Jaap Blonk (supposed to be by the microphones), Mats Gustafsson, Lou Mallozzi (not in picture), 2003.
81. *Kalvdans*, by Fågelpingis, Nipstvángsministeriet 2004 <http://bergmark.org/Kalvdans>.
82. Poster, Sirenfestivalen 2018.
83. Gino Robair in front of me in the performance of *I, Norton* at Fylkingen 2011. Photo © by Öykü Peksel.
84. The Fylkingen logo “new music and intermedia art”.
85. Adachi Tomomi and me at Cuba-Cultur, Münster 2005.
86. *SOUNDS -99*, Blue Tower Records 2000 <http://bergmark.org/SOUNDS-99>.
87. Small toy elk, Colourscape, Åbo 2012. Photo © by Stefan Crämer.
88. Poster for Contemporary Music Concert at Druskininkai Church, Lithuania, concluding the DAR-residency 2018.
89. The objects I found in the woods, used as “score” for my piece *Digestion (for Cecil Taylor)*.
90. During the concert. Kazimieras Jušinskas (saxophone), Domantas Razmus (percussion), Kristupas Gikas (flute), Monika Kiknadze (viola), Simonas Kaupinis (tuba) and Kristupas Kmitas (percussion). Photos © by Tomas Terekas.

Names mentioned

e = emi maker
 m = musician, composer etc
 p = photographer
 w = writer, editor etc
 o = other: painter, educator, scientist, organizer, technician, friend, film maker, actor, choreographer, imaginary person etc

Adachi, Tomomi e m
 Adams, Tony E w
 Ades, Dawn w
 Adolfsson, Jörgen m
 Adorno, Theodor w
 Agre, Philip E. w
 Andersson, Andreas m
 Andersen, Isak e m o
 Andersson, Magnus m w
 Aronsson, Torbjörn p
 Ayler, Albert m
 Baars, Girilal m p
 Bailey, Derek m w
 Balke, Erik e m
 Bark, Jan e m w
 Baschet, Bernard e m
 Baschet, François e m w
 Bašić, Nikola e
 Bastien, Pierre e m
 Bauer, Julia p
 Beckstrøm, Harald e m
 Bengtsson, Bo C. w
 Bergh, Elsbeth e m o
 Bergmark, Birgitta (my mother) m w o
 Bergmark, Johannes e m p w o
 Bergmark, Torsten (my father) w o
 Bergström, Fredric m o
 Bernstein, David w
 Bertoia, Harry e
 Billström, Niklas m
 Bisciglia, Damian e m
 Biskup, Jindřich e m
 Bjarnøe, Lars p
 Björk, Tommy m
 Bjørnseth, Jon Halvor e m o
 Blonk, Jaap m
 Bochner, Arthur P. w
 Bodin, Lars-Gunnar m w
 Bohman, Adam e m
 Borgo, David w
 Bosch, Hieronymus o
 Botnen, Trond w
 Botticelli, Sandro o
 Bowker, Geof w
 Bredin, Kristian m
 Bremer, David m
 Breton, André w
 Brännlund, Andreas o
 Burian, Zdeněk o

Burwell, Paul e m w
 Butler, Ken e m
 Cage, John e m w
 Cardell, Jan e o
 Carling, Bengt e m o
 Carroll, Bob w
 Chadbourne, Eugene e m
 Chambers, Wendy Mae e m
 Cherry, Don m
 Christensen, Greta e m o
 Cifariello-Ciardi, Fabio e m
 Coleman, Ornette m
 Collins, Nicolas e m w
 Comte de Lautréamont (Isidor Ducasse) w
 Cowdell, Paul m w o
 Crevel, René w
 Crämer, Stefan p
 Cyrino, Marina e m w
 Dahlberg, Jimmy o
 Dahlstedt, Palle e m w
 Darreg, Ivor e m w
 Davies, C.A. w
 Davies, Hugh e m w
 Dawkins, Richard w
 Day, Bryan e m
 Demaine, Krystal w
 Descartes, René w
 Duchamp, Marcel o w
 Duerr, Hans Peter w
 Dunaway, Judy e m
 Dutschke, Rudi w
 Dyani, Johnny m
 Eastley, Max e m w
 Edenborg, Carl-Michael e m w
 Edlund, Mikael m
 Elggren, Leif e m w
 Ellis, Carolyn w
 Ennerling, Pelle o
 Ericsson, Julie o
 Ericsson, Mikael e m o
 Eriksson, Henrik (my uncle) m o
 Eriksson, Joel m o
 Ermke, Andrea e m
 Ernst, Max w o
 Feather, Neil e m
 Feiler, Dror m w o
 Fijalkowski, Krzysztof w
 Finnerud, Svein m
 Forsén, Arne m
 Forshage, Mattias m w o
 Franquin, André e w
 Freud, Sigmund w
 Fullman, Ellen e m
 Fuzzy e m
 Försch, Ferdinand e m
 Gasser, Les w
 Ghazala, Reed e m w

Gikas, Kristupas m
 Gjerstad, Frode m
 Goehr, Lydia w
 Goldscheider, Ludwig w
 Grainger, Percy e m
 Grydeland, Ivar m w
 Grys, Jo Frgmt m o
 Guhl, Andy e m w o
 Gustafsson, Mats e m o
 Haapala, Tuomo e m w
 Hagberg, Anders e m
 Hallett, Sylvia e m
 Halling, Tomas e m w o
 Harris, Steven w
 Harrison, Lou e m w
 Higgins, Dick m w
 Hoel, Sverre e
 Homler, Anna e m
 Hopkin, Bart e m w
 Horkheimer, Max w
 Hult, Harald o
 Hvoslef, Ketil m
 Jacobs, Bruno m w o
 Jakobson, Rene p
 Johnson, Bengt Emil m w o
 Jormin, Anders m o
 Jušinskas, Kazimieras m
 Kahlo, Frida o
 Kaupinis, Simonas m
 Kerléo, Luc e m o
 Kiknadze, Monika m
 Kjerstadius, Tobias o
 Klakegg, Bjørn e m
 Klapper, Martin e m
 Kleinmann, Eric Wilhelm e
 Kmitas, Kristupas m
 Krauss, Lawrence w o
 Küchen, Martin e m
 Lagerström, Ann w
 Lagerström, Cecilia o
 Landman, Yuri e m w
 Lenin, Vladimir w o
 Leonardson, Eric e m
 Lewis, George m w
 Lewis, Wild Don p
 Lindal, Anna m
 Lindström, Mats e m
 Linfert, Carl w
 Litherland, Gina m p o
 Locke, Greg p
 Lucier, Alvin e m
 Lumet, Sidney o
 Lytton, Paul e m w
 Lützw-Holm, Ole m o
 Mallozzi, Lou e m
 Mandal, Petra e o
 Marclay, Christian e m o
 Marcuse, Herbert w

Marhaug, Lasse m p
 Mariën, Marcel w
 Marker, Chris o
 Markusson, Thomas m o
 Mayas, Magda e m o
 McLaughlin, John e m
 Mengelberg, Misha m
 Mentyjærvi, Terje e m o
 Metheny, Pat e m
 Midbjer, Peter o
 Moore, Barrington Jr. w
 Mossenmark, Staffan e m o
 Mumma, Gordon e m w
 Munthe, Christian m w
 Müntzing, Herman e m
 Möslang, Norbert e m
 Nenzén, Niklas o
 Neumann, Andrea e m
 Nevrin, Klas m w
 Nilsson, Anders m
 Nilsson, Bo m
 Nilsson, Ivo m
 Nilsson, Per Anders e m o
 Noetinger, Jérôme e m
 Nordeson, Kjell m
 Nordström, Bengt "Frippe" m
 Norelius, Lise-Lotte e m
 Norman, Thord e m o
 Northover, Adrian m
 Norton, Andrea w
 Nougé, Paul w
 Nunn, Tom e m w
 Nährström, Björn p
 Olding, Hans m
 Oliveros, Pauline m w
 Olofsson, Fredrik e m
 Onda, Aki e m
 One Pedersen, Eivin m
 Panhuysen, Paul e m
 Parker, Evan e m w
 Partch, Harry e m w
 Peksel, Öykü p o
 Péret, Benjamin w
 Petersen, Erik e m
 Petri, Johan m
 Prévost, Eddie m w
 Qvarnström, Gunnar w
 Ra, Sun e m
 Rabe, Folke e m w
 Rammel, Hal e m w o
 Razmus, Domantas m
 Reichel, Hans e m
 Reverdy, Pierre w
 Robair, Gino e m w
 Rohner, Felix e
 Roncal, Julián p
 Rose, Jon e m w o
 Rosemont, Franklin w
 Roussel, Raymond e w
 Rowe, Keith e m
 Runolf, Sören e m
 Sandell, Sten m w
 Schick, Ignaz e m
 Schlaug, Gottfried w
 Schlosser, Peter o
 Schopenhauer, Arthur w
 Schärer, Sabina e
 Scelsi, Giacinto m
 Sebbag, Georges w
 Selander, Marie m
 Sen, Amit m
 Seuss Geisel, Theodor e w
 Shermer, Michael w
 Small, Christopher m w
 Smith, LaDonna m
 Spock m o
 Spångberg, Sune m
 Stackenäs, David m
 Stalin, Josef w o
 Star, Leigh w
 Steiger, Rod o
 Steiner, Rudolf w
 Stenström, Harald m w
 Stevens, John m
 Strid, Raymond m
 SU-EN o
 Svanholm, Frederik Hilmer p
 Swedenborg, Emanuel w
 Szczur, Ignacy m o
 Söderberg, Peter m
 Sørensen, Camilla e m o
 Tankred, Kent e m o
 Taylor, Cecil m w o
 Terekas, Tomas p
 Termen, Lev e m
 Thörn, Pär e m w o
 Tillvind, Tippi e m o
 Toop, David e m w
 Tr, Ludwig p
 Trotsky, Leon w
 Tudor, David e m
 Turner, Bill w
 Ulander, Lars-Göran m o
 Úlfarsson, Halldór e
 Ullberger, Jacob e m
 Ullén, Fredrik m w o
 Valkare, Gunnar e m w
 Verne, Jules w
 da Vinci, Leonardo e m o
 Wagner, Eliad m
 Wan, Catherine Y. w
 Waters, Richard e m
 Webern, Anton m
 Werner, Lasse m
 Wilde, Johann e m
 Williams, Davey e m w o
 Wistrand, Stefan m
 Wittgenstein, Ludwig w
 Wolff, Robert Paul w
 Wright, Jack m w
 Yoshihide, Otomo e m
 Zappa, Frank e m
 Zapparoli, Marta e m
 van Zeil, Wieteke w
 Zipse, Lauryn w
 Zubrzycki, Sławomir e m
 Åkerhielm, Ulf m
 Örabäck, Anton o

Appendix 1. 31 objects.

They are:

- **Ping pong balls** (but probably not the same ones as then)
- **Artificial sunflower**
- **Small barbie doll** (but the head has been cut off and stolen!)
- **Bass piano hammer**
- **Small rubber toy skeleton** (but a new, and bigger one! Actually, very much older, it's a toy from my childhood that I brought into the collection when the other one disappeared, probably stolen. Me and my childhood friend Pelle Ennerling used to play that the skeleton was the father to *Emil i Lönneberga*, screaming EMIL! more and more loud, as we shook the skeleton more and more until it jumped away in anger into the air...)
- **Jordan tooth brush with a keyboard printed on it**
- **50 cm long green zipper** (now screwed to the surface and integrated into the instrument)
- **Wooden fork**
- **Orange plastic comb**
- **Double-sided comb from mongolia**
- **Typewriter brush**
- **Small plastic horse**
- **Two wooden pigs** (they broke but I repaired them)
- **Small toy elk** (which for some reason always gets a privileged position at the same spot on the instrument while other objects have to lie around waiting to be picked up)
- **Grey balloon** (but replaced by new ballons as they often break)
- **Rubber bands** (also always need replacing)
- **Sand paper** (also being replaced sometimes)



87. Small toy elk, *Colourscape*, Abo 2012

- **Wheel knife for cakes**
- **Arm trainer** (usually integrated into the instrument attached to the clamp, hanging down and played under the table held in place by a foot – nowadays mostly replaced by another one that has just one spring)
- **Rusty old hand corn (or coffee) grinder** (which gave the name to the earlier text)
- **Back itcher with wheels** (I think identical to the “hand-held massage thing” described above)
- **Back massage rod** (it was very useful in so many ways until it broke when some curious workshop participants used it too violently. I always allow my instruments to be played but sometimes accidents happen when I’m not careful to follow when they do risky things. The green plastic hand made fantastic sounds on the hacksaw blades similar to the wooden coathanger described above, and the orange ball with spikes on it could be scratched against many things, but it also made a low rhythm when bounced back and forth (it was mounted on a spring) and the hand part attached to the resonating board. Now only the ball is left and the hand probably stolen somewhere.)
- **Similar ball** (actually lots of balls of all kinds of materials are used: small glass beads, tennis balls, super balls, a broken golf ball, big stone balls etc, anything I find)
- **Onion or tomato slicer** (many new ones since that one)
- **Wooden tool with rippled square surface** (have also found many at flea markets, mostly in sweden)
- **Egg slicers** (any I can find, especially if they have a metal frame)
- **Metal comb**
- **Long spring** (still the same “original Bohman Brothers spring”, now integrated into the new instrument)
- **Long piece of spiraled traced metal for the making of screws**
- **Small jingles in a bag**
- **Miniature saw** (the one that got lost and then stolen and that I got back in the PS in the old article, see <http://bergmark.org/corngrinder>).

Appendix 2. The Druskininkai experience.

Commenting on chapter 9 of Lydia Goehr, *The Imaginary Museum of Musical Works* (New York: Oxford University Press, 1992), I wrote this reflection (slightly corrected), which seems relevant here, although I'm sorry it's a bit lengthy:

Goehr's text about the *Werktreue* was interesting to me since it concerns things I've been occupied with a long time, and still am: the falseness and the oppressive ideological contents of the "musical work" concept. I feel I only borrow, cynically or "under protest" the labels of "composer" and "musician", and many of the concepts associated with them, like "work", "professionalism", "quality", even "music" etc. It is essential to me to have a critical standpoint outside of those. "For the sake of music" as many musicians like to say (I've heard it not long ago even at seminars at our Academy), but with another meaning. Not music as a spiritual benevolent force outside of humans (although this preconception can be useful sometimes in some senses), but actually music as a definition of a human activity.

These concerns actualize themselves often. I will take a recent example to show this in practice. It mirrors so well many things Goehr mentions.

In September 2018, I was invited as a "guest composer" to the DAR residency in Druskininkai, run by the lithuanian composers' society.²¹⁴ There were also three other "composers" there, and we had at our disposal a group of six student musicians on acoustic instruments from the conservatory in Vilnius that were trained in performing composed music as well as to improvise. We had regular rehearsals with them, about every other day. Now, I'm not the kind of "composer" that writes sheet music for musicians, I don't write for other people at all, as a general rule. What would I do? I wanted most of all the personal meeting with the musicians decide, I wanted to keep it open. I did some simple improvising exercises to get to know them, and found out that they all are extremely good improvisers with no preoccupations about this at all. We could just form an improvising group together and that would have been just fine. But at the same time I wanted to use the confidence and the opportunity to do something that would be worthwhile for everyone: the musicians, me, the concert audience. So after many conceptual discussions in the rehearsals, I skipped the very easy-at-hand but unsatisfactory solutions of graphic notations or conducted improvisations – to me such things would have felt false and a step back rather than forward. They wouldn't liberate anything but just establish the musicians as clever slaves. I wanted to use ideas that would inspire and surprise, and give something more than usual free improvisation, but have it as a basis.



88. Poster for concert concluding the DAR-residency

214 <https://www.artdruskininkai.lt/en/residents-2018/>

I was also thinking of Cecil Taylor, one of my absolute heroes, who had passed away not long before, and his idea that a composition must be “digested” by the bodies of the musicians. He often worked on rehearsals with his groups but in performances never used “paper to divide”. In this way, the communication and enjoyment of the musicians could be given free rein.

The solutions I found out were very nicely given to me through dreams and nature. In this way, I couldn’t blame my consciousness too much.

One was an exercise in time: play with simultaneous contrasts of half-time and double-time, interpreted intuitively and keeping it up also in contrast to each other. This gave interesting dimensions to our playing and I liked it.

A walk in the woods nearby gave me so many interesting and beautiful objects to collect that I wanted to use them for an interpretative game that would be part of the composition. The musicians wouldn’t see them until during the concert, and I would put them in front of them in order for them to interpret musically for one minute each.



89. The objects I found in the woods, used as “score” for my piece “Digestion (for Cecil Taylor)”

The other dream was that we should all hold our breaths for 30 seconds just before starting to play.

Now, I was reminded of this “work” as I read Goer’s writing about the avant-garde dilemma: “It is difficult to challenge in [sic!] practice in a radical way that one at the same time participates in.”²¹⁵ – concerning Cage’s theoretical goal conflicting with his practical acceptance. It was precisely this that happened to me. I

215 Lydia Goehr, *The Imaginary Museum of Musical Works* (New York: Oxford University Press, 1992), 261.

only did a hint at something else outside, to the woods, to play, to interpretative improvisation where the interpretations were of things from nature, not notes written by me – but the objects were still chosen by me, and my choice was accepted and not challenged by anyone. Everyone played along with my idea as disciplined workers doing their work well. So how much did I let them voluntarily remain clever slaves anyway?

There is a significant difference between performers who comply with a notation which specifies that they play what they will for as long as they want, and in so doing perform the composer's work, and performers who improvise freely around themes because that is what it means to produce their sort of music. What is absent in the second case, but what is present in the first, is the performer's commitment to *Werktreue*.²¹⁶

– that's exactly what I mean, that was my situation. I was still listed as a "composer". Why did I allow this? Was I afraid of insulting the organizers that invited me as such, or did I still feel I should take responsibility for the method that I still was the one to choose, and they all willingly accepted? Was it a vain flirtation of me to tell the musicians right before: "Just enjoy and don't give a fuck about anything!"



90. At the concert – musicians: K Jušinskas, D Razmus, K Gikas, M Kiknadze, S Kaupinis, K Kmitas

"So why does it remain so difficult," she asks, to escape the paradox of remaining within the status quo and opposing it with all the means and terminologies that it provides.²¹⁷ The reason she seems to overlook a bit too much (not entirely) is the social one, in my view. As long as there is no social base for a real change of cultural practices, there is no means to make the oppositional moves bear fruit. They become just aesthetic traits of "avant-garde works" and backstories to read in a concert program or liner notes, or perhaps even in history books.

This seems to be the non-spoken paradox for a Dror Feiler (who is a friend and one that I admire in many ways) type of composer-musician. He operates on all levels (improvises solo, in groups and composes for

²¹⁶ Goehr, *The Imaginary Museum*, 263.

²¹⁷ Goehr, *The Imaginary Museum*, 269.

orchestras etc), and just writes his radical texts with a lot of exclamation marks. Fine, but I haven't seen him really address the paradox that he is in the middle of. He believes in the power of the music itself, whatever that is (it often seems to be loud noise), to radicalize the audience through their senses. "This might be a slow way to change the world, but at least it's a peaceful one," I've heard him say. I see no doubt, no skepticism, no criticism of the cultural sphere. For him as a politician, it would then suffice to fight for more cultural support and to fight for the status of his particular art form, as he does as a member of the FST board (the Swedish composers' society, and many other assignments before that). I think that lacks a real vision and I can't engage in such activities. And Goehr seems to echo exactly my thoughts here:

Publicly expressed discontent is focused on issues of government support of the arts and the lack of adequate funding for music education. Few express discontent with the basic way of looking at classical music, but that is because people are still generally unaware of how they do look at this music.²¹⁸

This is exactly my feeling from most of my colleagues, and I would include all music genres in the above statement (Dror is just one example that is easy to refer to because of his outspokenness) when you look at the spontaneous expressions in forums like the composers' email list (FST-listan) or on facebook, or in chatting at concerts. That's the easiest thing, and in one deeper sense, the most meaningless.

My experience at Druskininkai became in one sense a final choice for myself: I am perfectly aware of the paradox, and if I don't refuse completely, this is the best I can think of, to leave the easy ways out, to respect the musicians' abilities, not to challenge them in a threatening way but hopefully teasing their sense of play and inspire them with poetical means. This is the best way to acknowledge their real talent to make music in this situation, as far as I can see.

In politics, I still agree with one thing that Leon Trotsky wrote, contrasting Lenin to Stalin (when speaking about alliances in war): never lie to the masses (the public), a defeat should be called a defeat and not a victory, when you're forced to retreat because of lack of power. In this sense, I know I make lots of compromises every day, but they are compromises and should so be called. I don't agree with the music culture, neither the "fine" one (descendant from the romantic-classical ideals), nor the "alternative" ones, that still seem to wish they were just as rich and famous as the most rich and famous ones in the mainstream genres, although they also defend their "underground" position that they seem all too comfortable with.

I don't believe in the "slow" revolution of avant-garde music, I think it can just reflect the sentiments in and of a community. I wish for a totally different **kind** of community with a different **kind** of musical culture which has none of the star- genius- career thinking of today's music market and personality market. I wish play, sharing, inventing, inspiring, to be central. This has to be said openly, at least, otherwise it will never happen.

218 Goehr, *The Imaginary Museum*, 272.