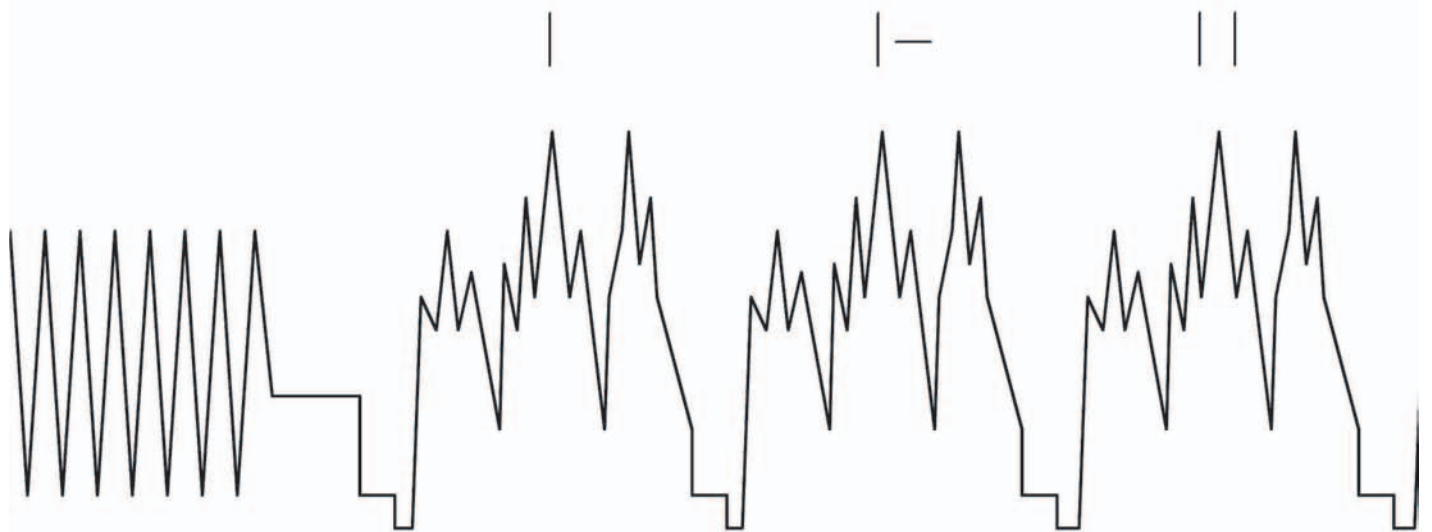


NAZCA | LUME

THE ORCHESTRATION OF LIVE VISUALS IN A SYNAESTHETIC ROCK PERFORMANCE



MIKA TUOMAS MESKANEN | FINAL THESIS | MA IN NEW MEDIA

MEDIA LAB, UNIVERSITY OF ART AND DESIGN HELSINKI, MARCH 2004

ABSTRACT

<i>Department</i> Media Lab	<i>Degree programme</i> MA in New Media	<i>Graduation year</i> 2004
<i>Author</i> Meskanen, Mika Tuomas		
<i>Title</i> Nazca Lume - The Orchestration of Live Visuals in a Synaesthetic Rock Performance		
<i>Level</i> Diploma Work	<i>Number of pages</i> 65	

Abstract

The audiovisual concert "Nazca | Lume" was performed at the Studio Stage of Media Centre Lume on Saturday, 6 March 2004. The concert integrated rock music, moving image, light and scenography into one synaesthetic experience.

This paper is the account of my work as the visual art director of the concert. The focus is on the orchestration of live visuals - an on-stage visual media projection that is edited and mixed in real-time to accompany music and flow of events.

In order to fully master the aspects of live visual performance one needs to take a dual role of a video artist and a video jockey. The video artist prepares the images and uses video, animation, graphics, found footage and photography as means of expression. The video jockey, for his part, is in charge of making images fit in the music during the performance.

Particular to the nature of this performance was the unlikely fusion of such distinct cultural spheres as underground rock music, VJ action and a state-of-the-art venue of contemporary stage arts.

<i>Materials</i> Written thesis, CD-ROM	
<i>Keywords</i> synaesthetic performance, live visuals, video jockey	
<i>Where deposited</i> Media Lab Library	<i>Confidential until</i> Free for all

nazca | lume

A Synaesthetic Post-Rock Experience

Saturday, 6 March 2004 at 20:00

Studio Stage, Media Centre Lume UIAH

CREDITS

Directed by	Mika Meskanen Karstein Volle
Music by	Nazca
Visuals designed and performed by Except <i>Malady</i> and <i>Like a Crutch</i> by	Mika Meskanen Mari Keski-Korsu
Lights and Decoration, TV installation	Lasse Kaikkonen
Sound	Juuso Kujala Aleksi Lukkarinen
Graphic Design	Alexander Budde
Website Design	Karstein Volle
Special Arrangements	Jussi Niemelä
Documentation (video)	Petri Kola Miikka Poutiainen Ville Tikkanen
Documentation (photography)	Eija Mäkivuoti Alexander Budde
Lume Crew	Ilkka Riihikallio Tero Vesterinen
Mac support PC support	Pekka Salonen Tommi Jauhiainen
Thanks to	Oliver Whitehead Mika Tuomola Joonas Auvinen Richard Lapington Essi Aittamaa Satu Lavinen Juha Sompinmäki Antti Hovila Mikko Niemelä

Quotes

I wanted to make a cinema of ideas, not plots, and use the same aesthetics as painting, which has always paid great attention to formal devices of structure, composition and framing.

- Peter Greenaway

You can't write a chord ugly enough to say what you want sometimes, so you have to rely on a giraffe filled with whipped cream.

- Frank Zappa about the 'visual aids'

The club itself used to be a place to inspire young people to go out into the world and make a statement. Now, the experience is one of escape.

- Peter Rubin, world's first VJ

Synaesthesia is the harmony of different opposing impulses produced by a work of art. It means the simultaneous perception of harmonic opposites.

- Gene Youngblood: *Expanded Cinema*, Page 81

Contents

Abstract	2
Credits	3
Quotes	4
Contents	5
Introduction	6
About the author	7
About Nazca	7
A. The Masterplan	
A.1 About the collaboration with Nazca	8
A.2 Lume as venue	9
A.3 Orwell's unexpected intervention	10
A.4 The setlist becomes the script	11
A.5 Stage design and decoration	15
A.6 Lighting design	18
A.7 TV installation	19
A.8 Graphic Design	20
A.9 VJ booth setup	24
B. Sound and Vision	
B.1 Erroris	26
B.2 New Day	27
B.3 Malady	29
B.4 In Féria	31
B.5 Nothing	33
B.6 Apology	41
B.7 Ambition	48
B.8 Micro No. 1	53
B.9 Antiseptic	54
B.10 Real Love	57
B.11 Like a Crutch	59
B.12 In Heaven	60
C. Conclusion	62
Bibliography	
Photography credits	

Introduction

Nazca | Lume was an audiovisual concert that was performed at the Studio Stage of the Media Centre Lume on Saturday, 6 March 2004. The concert was a result of a year long collaboration between the rock group *Nazca* - especially their singer and songwriter *Karstein Volle*, fellow media artist *Mari Keski-Korsu* and myself.

Our goal was to create a *synaesthetic audiovisual performance*. With synaesthetics in this context I mean *interdisciplinary, inter-textual* and *multi-sensorial work of art* (Machon, 2001: 1). We dressed the performance in form of a futuristic underground rock concert – where perceptions and sensations are triggered through enhanced interplay between the music, the visuals, the audience, the light, and the space and the situation.

For this production I assumed the position of a *visual art director*, including stage and lighting design. I focused, in particular, on designing and performing *live visuals* – the on-stage visual media projection integrated to the performance. Ms Keski-Korsu was invited to make a guest performance with her visuals for two songs.

The orchestration of live visuals was a task with a dual role. While preparing the visuals I was a *video artist*, a person who uses video, animation, graphics, found footage and photography as means of expression. At the concert, in live performance situation, I jumped in the boots of a *video jockey*. Video jockey or VJ is “a person in charge of the flow of images that accompanies the music (Dekker, 2003: 24)”. This text is mostly written through the mouth of either a video artist or a video jockey.

About the author

Mika Meskanen (b. 1978) is a video artist, VJ, photographer and media designer. His artistic work has been internationally exhibited in Canada, Cuba, Great Britain, Latvia, Germany, Spain and United States. A great deal of his experience in live visuals stems from participation in Finland's leading VJ collective Amfibio. Along with the collective he has collaborated with musicians and groups like Giant Robot, Nuspirit Helsinki, Quintessence and Darude among others and performed at festivals like Koneisto, Ilosaarirock, Pixelache and Videa in Barcelona. Before joining the ranks of the Media Lab of the University of Art and Design Helsinki he earned a BA degree in Digital Media from the University of Lapland, Faculty of Art and Design. He lives and works in Helsinki.

About Nazca

In their own words: "Nazca was started in Oslo in 1997. They have members from Norway, Finland and Sweden. Nazca's music has been described as dark, moody and intelligent rock. This far Nazca has released two full length CDs, one EP, recorded three videos and played a great number of gigs. Rumba journalist Samuli Knuuti recently elected the Nazca song 'All Good Boys' as his favourite song of 2003."

Nazca are: Karstein Volle (vocals, guitar), Markus Norrena (bass), Niina Saarelainen (keyboards), Samir Geper (drums) and Tuukka Tyvelä (guitar).

Website: <http://www.nazca.net/>

Concert website: <http://www.nazca.net/lume/>

A. The Masterplan

A.1 About the collaboration with Nazca

It all started in the beginning of the year 2003. My schoolmate and Nazca's bass player Markus Norrena had heard that I've been doing these so called visuals. He told me about their forthcoming album release gig in March and that they'd like to have some visual extra to their performance. After being introduced to their music, and convinced about their good cause, I asked Mari Keski-Korsu to join the team. We had been collaborating with video and net art since the Expand media-art happening at Lasipalatsi in May 2001 and I knew that she would be interested in this new project as well.

The first concert we all did together was the release gig of the album called Non Grata at the Chambermusic Hall of the Sibelius Academy, Saturday 22 March 2003. The concert carried a strong anti-war message - the Iraq war had just started and people were very upset about it. Later in this text I tell about one decisive moment during the concert, when we realised how powerful moments one can facilitate by integrating music and visuals. That notion has kept us going.

Between Non Grata and Lume we've done four gigs at bars and rock clubs. We've been spotted at Semifinal, Factory, Domma and Tarmo. Gig after gig we've refined our act, introduced something new and experimented with new ideas. The setting of Lume concert was however very different, more related to the Non Grata concert. Like Karstein said: "It is about bringing low-brow content to a high-brow arena." Indeed, for a performance to be wholly synaesthetic there must be an element of disturbance (Machon, 2001: 6).

A.2 Lume as venue

Designing a rock concert to the Studio Stage of Media Centre Lume is very different from going to some bar and playing there. The Studio Stage, in its initial state is a one huge empty black box. All the building blocks of a great show are there: sound, light, stage elements, projection screen – but what you do with them, is up to you.

At bars and small clubs, the situation is usually totally opposite. Everything is more or less prepared and offered to performers 'as is'. You'll probably have hard time in finding enough space for video projection, the lights cannot be operated and so on. People however come to bars to see friends and have a good time - not to become victims of some control freaks who want to steal their undivided attention and enlighten them with a multi-sensorial intertextual experience. The mindsets of Factory and Lume are miles apart.

It is this notion of *confrontation* and *disturbance*, that British theorist Josephine Machon introduced in her article '(Syn)aesthetics and Disturbance – A Preliminary Overview' that makes exciting to set it up at Lume. It is not usual to experience underground rock music, at a state-of-the-art venue famous for hosting contemporary dance performances, spiced up by VJs – usually encountered making images dance to the beat at techno parties. The setting contributes to the synaesthetic experience as much as any imaginable combination of sound and vision.

Soon after we had marked *6 March 2004* in our calendars as the Big Day, we faced the daunting task of really planning what we were going to with our state-of-the-art big black box.

A.3 Orwell's unexpected intervention

Already in the beginning we saw the Lume concert as kind of a Non Grata concert, Part II. This new effort had similar ambitions and setting as the past one – we wanted to experiment with the confrontation of the high-brow and low-brow, we wanted stage something spectacular to see and hear.

We also wanted to create thematical continuation and follow-up. Pasifist manifesto Non Grata happened at the time of war. One year after, people were full of war, everything had been said about it - so it was time to move on, to more subversive themes. Eventually the theme was found from an unexpected source.

War is peace, freedom is slavery, ignorance is strength.

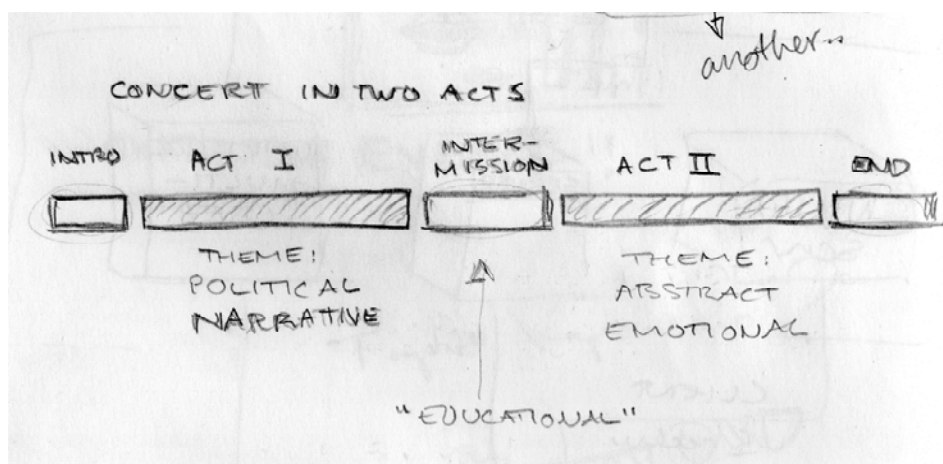
“The three slogans on the white face of the Ministry of Truth” in George Orwell’s dystopian novel *1984* summed it all up – in one, two and three. One: the Non Grata concert was about the war. Two: the Lume concert is about post-war freedom – *the new world order*, like Karstein remarked. Three: ignorance is strength – this probably means that we need to survive to complete the trilogy with another concert in the future.

The sentence *freedom is slavery* and the mental presence of Orwell became an invisible hand that guided and inspired many of the other aspects and issues in design – but not all of them. We never wanted to explicitly state it as a theme. It wasn’t necessary, subversion and mystery was more appealing. But for us it was crucial to have a masterplan, before anything else, it helped us to compile a setlist – the universal script of a rock concert.

A.4 The setlist becomes the script

The dramaturgy of a rock concert is usually communicated through *the setlist* – a list and the order of songs to be played in a concert. A single song the band can play is a building block. After the right blocks have been chosen and put in order, you have a setlist. We used the setlist as a script, a backbone around which most of the other aspects of the performance can be designed.

For the Lume concert we initially thought of having a longer concert in two acts. The acts would have different themes. The first act was meant to be more political and narrative and the second act more emotional and abstract – more rocking, so to say. Between the acts there would be an intermission – a break when people could have a beer or two and perhaps take a glance on the projection screen, where there would have been video loops running. The loops would have complemented the statements made in music and visuals from an educational perspective, the content would be based on (for example statistical) facts. Before and after the concert the audience would also have been treated with loops that created suspense and relief, respectively.



Picture 1. Sketch of a dramaturgical plan.

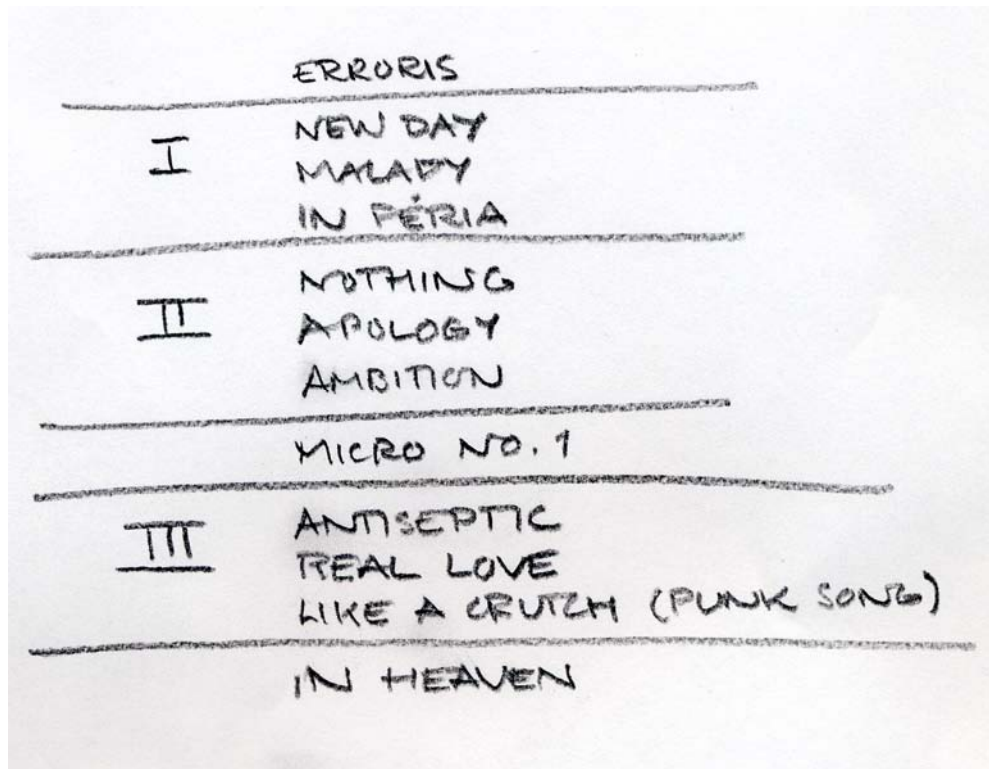
The idea of having two acts was used with success in Nuspirit Helsinki's concert at the Huvila festival tent during the Helsinki Festival in September 2003. The band wanted to offer something special so they played two sets with an intermission. They also invited our VJ collective Amfibio to perform live visuals on a stadium-size LED screen and three plasma televisions.

At Huvila the intermission worked well, because the audience were offered something convenient to do, like to get a drink or to go for a smoke. At Lume on the other hand you couldn't do either of those smoothly. This helped us to conclude that less is more. Having two acts wasn't necessary and definitely not fitting this setting. We had better go for a tight-packed, high-intensity concert. The only problem was that there were about twenty songs to choose from.

One night I wrote the names of all the possible songs on pieces of paper. I spread them around a table and started moving them around and in rows and columns. On my right-hand side I had a computer running iTunes software loaded with Nazca's music. There I tested out different playing orders every now and then. On my left there was my black notebook. Also somewhere visible was Aristotle's *Poetics*. Its mere presence helped to come up with a classic three-act structure. By dividing the set into three sub-sets the flow of the whole concert became more visible, comprehensible and manageable. It helped to build necessary rhythm, continuity and variety to the setlist.

With the kind help of classic drama structures and pieces of paper I came up with a following structure: 1) Intro, 2) Act I, 3) Act II, 4) Intermission, 5) Act III and 6) Outro. This whole consisted of twelve songs only. From traditional hits *TV Prayer*, *Mommydead*, *Insomnia* and *All Good Boys* were all dropped – we were either bored of them or thought that they didn't fit the setting this time.

I showed the list to Karstein next day. He wanted to replace one song with another and one or two changes to the playing order. After that, everything seemed fine to both of us. The band tried it out at rehearsal and felt comfortable with the setlist.



Picture 2. The final setlist.

Along with the setlist I wrote down some remarks about issues important to me. They're based on practical experience of working with Nazca and others. After some elaboration, they turned into guidelines:

- 1) The first song should be performed without visuals in order to allow the audience to focus on the music and performers. We already noticed this at the Non Grata concert.

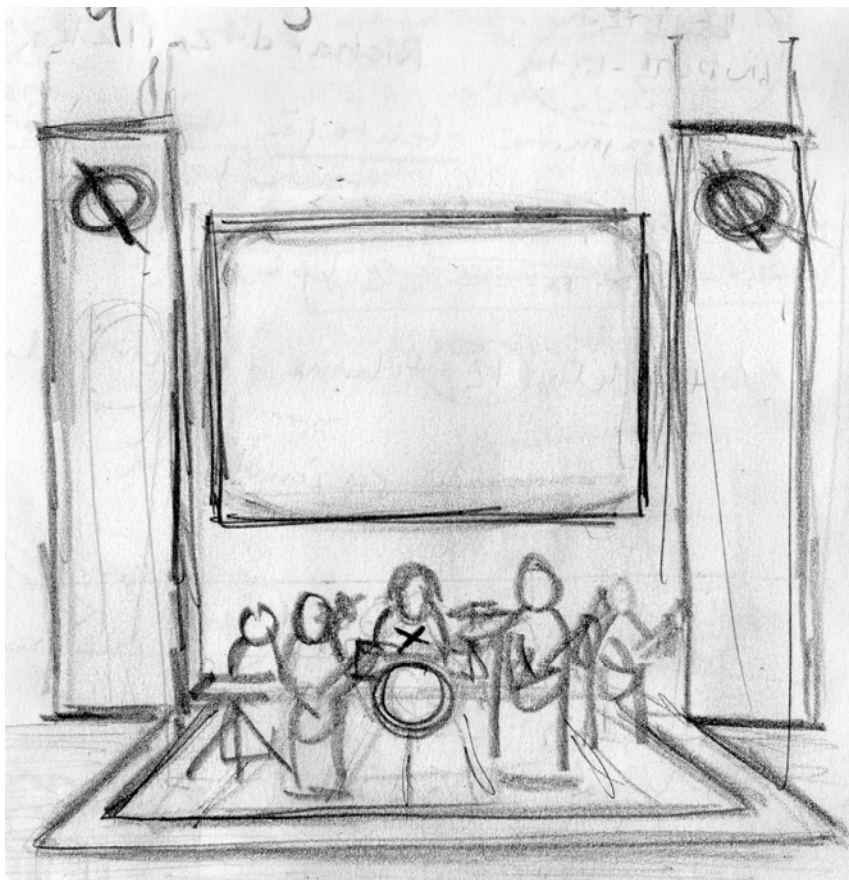
- 2) According to Karstein, the first song also sets the tone of the concert, so choose it carefully. At a club, you need to begin with a loud tune to win the attention. In a classical concert setup you can make a slow start.
- 3) The moment when the first beam from the projector touches the screen has dramatic weight. This became very clear to me at Depeche Mode's concert at Hartwall arena in autumn 2001.
- 4) Give the band moments of their own, don't try to fill everything with visuals or lights or any effects at all.
- 5) Keep an eye contact with the band while performing (VJing). Usually the best position is where also the sound mixing board is.



Picture 3. *Nuspirit Helsinki featuring Amfibio* - Live at Huvila during Helsinki Festival 2 September 2003. Our VJ booth was set up optimally right behind the sound and light mixing tables.

A.5 Stage design and decoration

When I visited the Studio Stage for the first time the first observation I made, was that the place was exceptionally high compared to most of the venues I've been to. I was certain, that this characteristic had to be exploited. This allowed us to build a bit provocative looking stage where the vertical features evoke connotations with symbols of a totalitarian state.



Picture 4. One of the first stage design sketches.

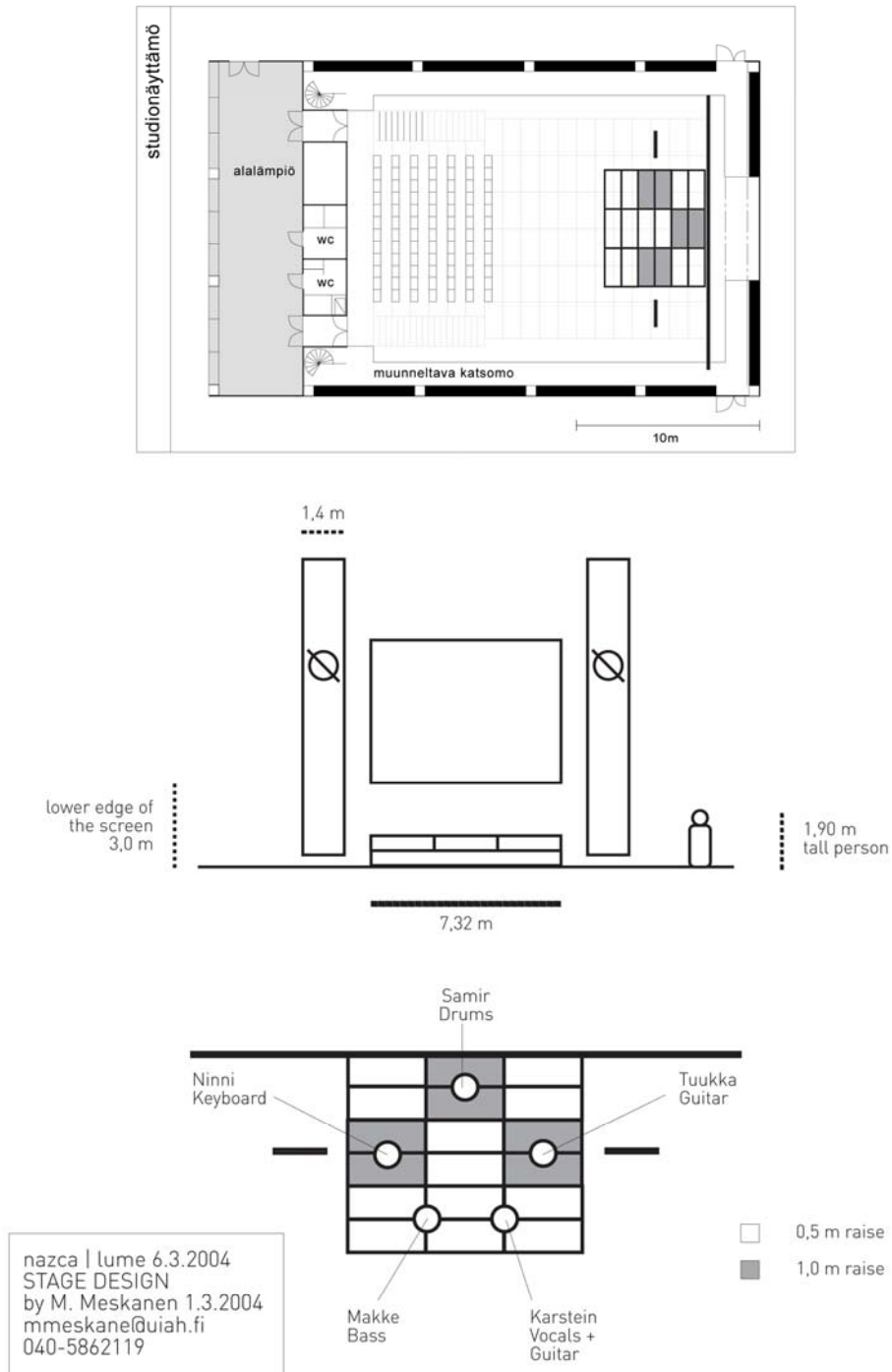
The stage is framed between two banderols decorated with Nazca logos. The flags also emphasise the vertical dimension of the space. The projection is positioned between the banderols, over the stage as if it was a 'single source of propaganda'. In retrospect, it is also curious to see the unintentional influence

of the misc-en-scene in Ridley Scott's renowned 1984 commercial for Apple – another piece inspired by Orwell and resurfaced now, twenty year later.



Picture 5. Screenshots from Apple Macintosh 1984 commercial.

I drew the final designs in Freehand. Lume's architectural drawings were good templates. The stage manager also briefed me about some practicalities. All that helped me to come up with clear and precise plans for the stage crew.



Picture 6. Final stage design drawings.

A.6 Lighting Design

1	Erroris	VIDEO: no video LIGHT: shadows on the screen, red
2	New Day	VIDEO: Black and white graphics LIGHT: policelight
3	Malady	VIDEO: Black and white gfx, some colour LIGHT: white spots
4	In Féria	VIDEO: Colour video, extreme flesh tones LIGHT: Orange/Yellow colour wash
5	Nothing	VIDEO: no video → B&W gfx → B&W photos in the end LIGHT: begins with no light, spots fade in towards the end
6	Apology	VIDEO: B&W gfx → colour photos → colour animation, very saturated LIGHT: white spots → red colour wash
7	Ambition	VIDEO: Colour video, bluish LIGHT: blue colour wash
8	Micro No.1	VIDEO: White text on black LIGHT: spot on N, red searchlight on K
9	Antiseptic	VIDEO: colour video, mostly dark green LIGHT: screen painted green → blinder
10	Real Love	VIDEO: red & yellow gfx LIGHT: red colour wash
11	Like a Crutch	VIDEO: colour animation LIGHT: Lasse improvises
12	In Heaven	VIDEO: B&W gfx LIGHT: blinders + SMOKE → house lights

Picture 7. The lighting design brief.

I built the lighting design document around the setlist. With the stage design drawing and lighting design brief the crew of the Studio Stage were able to build the lights and program the dimmer board. The paper was also the guideline for *Lasse Kaikkonen*, our light operator and ingenious stagehand.

The lights were designed to support the atmospheres created by the music and visuals. We mostly used spots and colour washes only. However, there were a few carefully timed lighting effects – like police lights in *New Day*, searchlight in *Micro No. 1* and silhouette light and blinders in *Antiseptic*. Some smoke was used to give the lights shape.

A.7 TV installation

The same old television sets that have served Amfibio and others for years were used to welcome and guide the audience in and out of Lume. I got this idea one day while sitting in a backseat in of the newer trams. In trams there are LED screens that announce the next stop both in Finnish and in Swedish. From the backseat perspective the row of screens sometimes looks curious. Especially because the texts change in different screens in different times, making an interesting flickering rhythm.

I thought that we could put up a line of say, four televisions to the Gallery hall of Lume. On the screens we would loop simple welcome and farewell messages: “Welcome - this way.” And “Thank you - be seeing you.” The installation would lead the audience to the right direction. It would also comfortably expand our work outside the Studio Stage, making the whole experience more immersive. The video loop was also thematically and aesthetically connected to one part of the concert visuals.



Picture 8. A sketch of a TV installation.

The TV installation was however realised in a different way. Lasse proposed that we had better put the TV's in the stairway and that half of them could only show noise. In that way the installation was also easier to put together as we were running short of cables and adapters, but the idea remained the same and even better.

A.8 Graphic Design

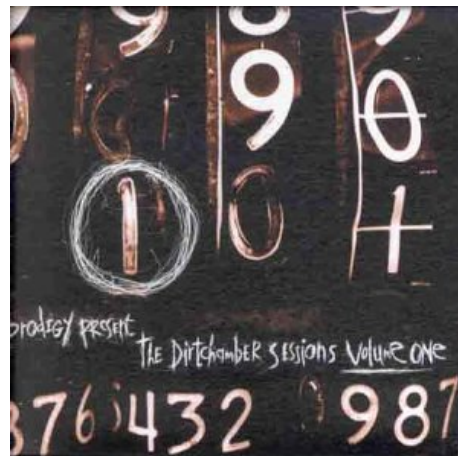
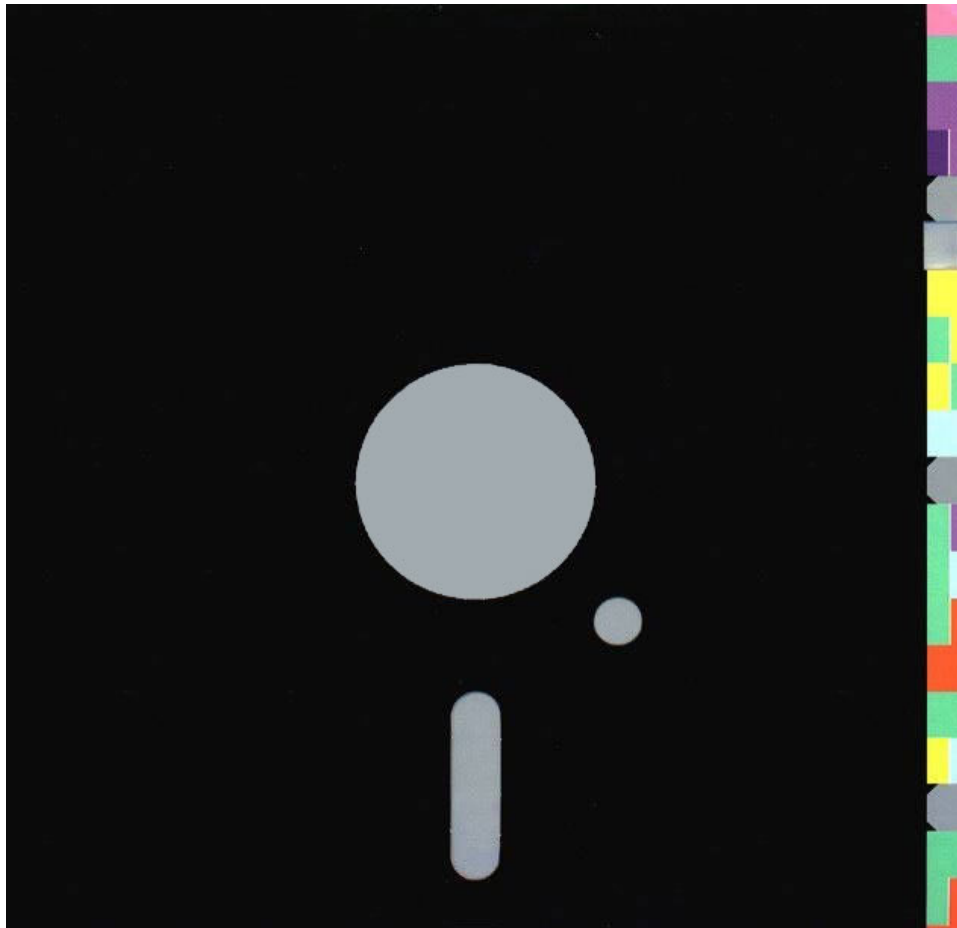
The work also extended outside its temporal and physical limits in form of posters and flyers that were printed and spread around to inform about the event. We were very pleased to get our friend Alexander Budde to work on the graphic design. He did a terrific job and surpassed all our expectations.

The central element in graphic design was a picture of a kind of mechanical number machine. The picture is a composite of photographs taken of dials of an out-of-commission milking machine (See chapter B.5 Nothing for details).



Picture 9. The concert poster designed by Alexander Budde.

The picture also contains a message written in simple numeral code. The clue to its decoding can be found in the text block *free for all*. That also refers to the identically named episode of television series *The Prisoner* (1967).



Picture 10. Record covers that inspired our graphic design and communication. **Top:** Record sleeve of New Order's *Blue Monday* (1983). **Bottom left:** The backside of the sleeve of *Power, Corruption and Lies* (1983) by the same band. Colour code in *Blue Monday* can be decrypted using the colour wheel found in *P. C. & L.* **Bottom right:** CD cover of Prodigy's *Dirtchamber Sessions Vol. 1* (1999). Art director Alex Jenkins has photographed dials of an antiquated petrol pump.

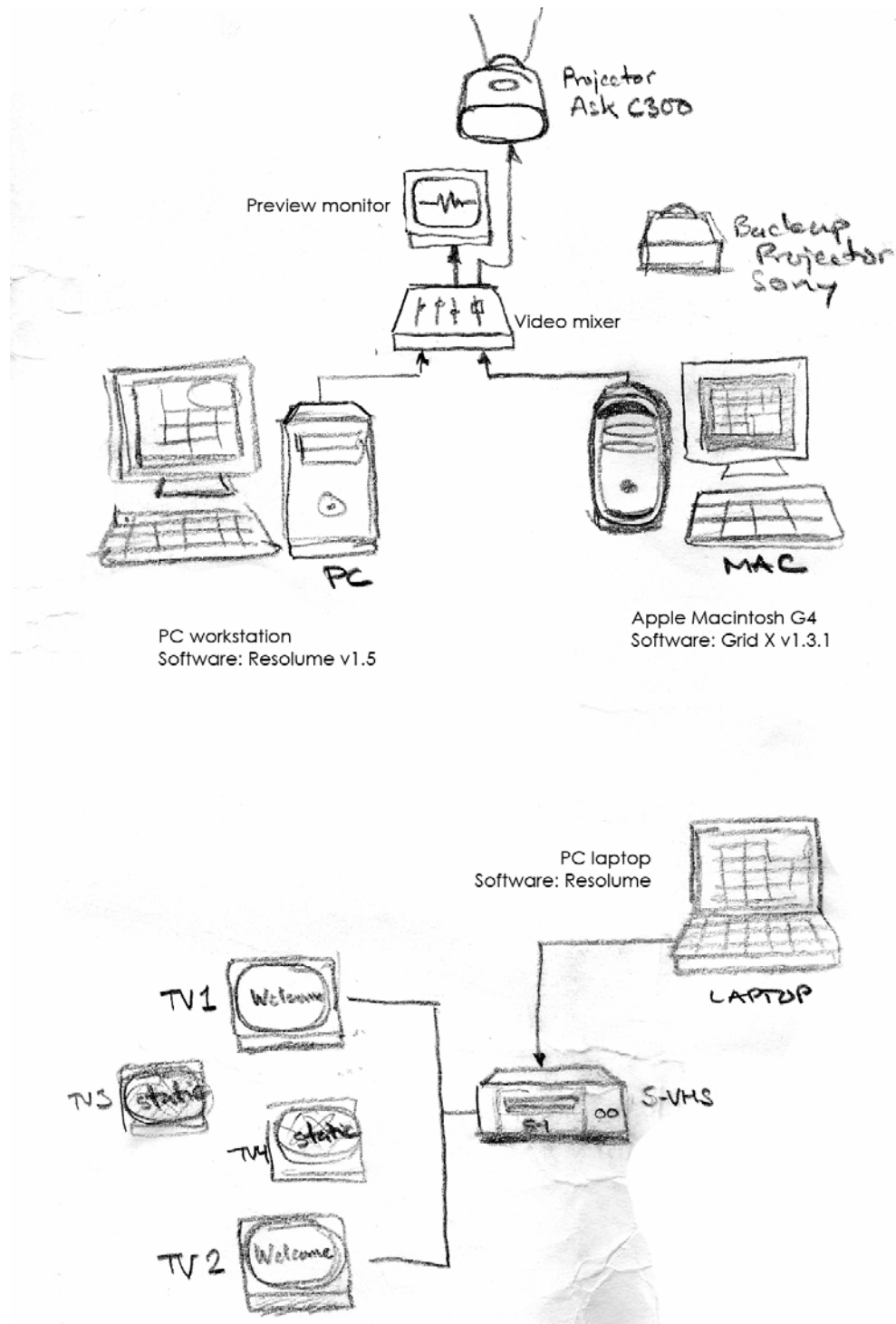


Picture 11. The concert flyer designed by Alexander Budde.

The picture side of the flyer also contains an encrypted message. If again, one converted the numericals to alphabets, following text could be read:

ERRORIS NEW DAY MALADY IN FERIA NOTHING APOLOGY
AMBITION MICRO NUMBER ONE ANTISEPTIC REAL LOVE LIKE A
CRUTCH IN HEAVEN

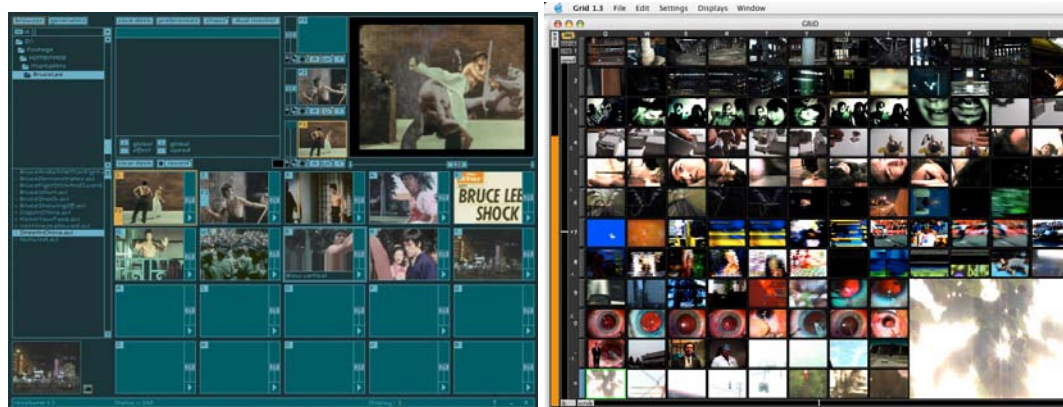
A.9 VJ booth setup



Picture 12. Technical drawing of the VJ booth's setup including routings of video signals.

Before I conclude this chapter I need to say a few words about the technical setup that is needed before the visuals can be performed. I call the place where a *video jockey* puts together his equipment a *VJ booth*. At Lume, everything that was needed was set up to the gallery of the Studio Stage. The visuals were run from one PC and one Mac. The PC was running special VJ software called Resolume and on the Macintosh we had Vidvox Grid, the equivalent Mac software. There was also one laptop that fed the video loops to the TV installation in the stairway. The video signals from both machines were routed to video mixer before reaching the projector itself.

Lume's own video projector wasn't too bright, so we used it only as a backup. Surprisingly, Media Lab's Ask C300 projector provided enough power even at the projection distance of about sixteen metres and at the very edge of its focus area. Unfortunately there was a slight defect in the image, but we didn't let it bother us.



Picture 13. Left: Resolume interface (PC). Right: Grid (Mac).

At this point the masterplan is complete. The concert is staged, all the elements are in place and ready to move according to the script. It is time to discuss about the visuals now. In the next chapter I will go through the concert as it was performed.

B. Sound and Vision



Picture 14. A projection screen can also be used as a lighting element.

B.1 Erroris

Addresses my fears of a totalitarian society as a result of "security measures". On how certain forces are using terrorism as a backdrop for pushing for more police, less civil rights, more prisons. Pushing paranoia to quell any criticism. Minimising the possibility of dialogue. "And there will be dangers, so don't talk to strangers."

- Karstein Volle

The concert starts with *Erroris* a very slow and dark tune that set the mood for the whole performance. There are no visuals yet, for a good reason. In my opinion, it is good the band space of its own right in the beginning.

B.2 New Day

Not every day works out.



Picture 15. Performing *New Day* at Lume.

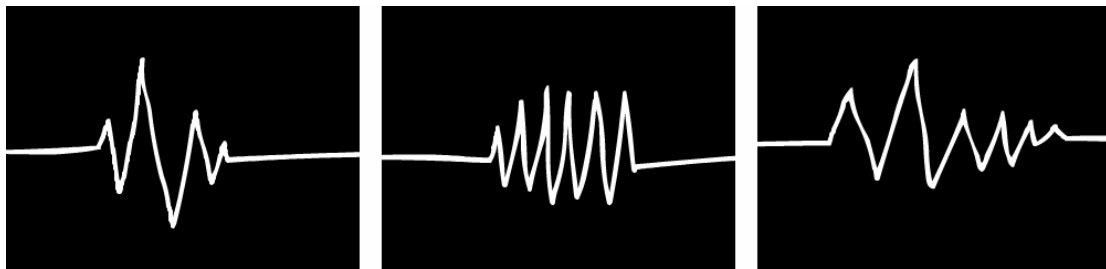
The visuals for *New Day* are one of the first we ever designed for Nazca. They were first performed at the Non Grata concert in March 2003 and have been played at all gigs since. The animations have evolved a bit and the live performance varies a lot, but that's what makes it great fun. The song is also that kind of hard rock, that captivates the audience with its sheer intensity.

At Lume we wanted to start the visuals with a bang. When the first wave of electric guitar walls hit the audience's ears I triggered a black and white ma-

nipulated video clip of a rocket launch. That is followed by naïve, hand-drawn white graphics on black. I drew the animations in Flash using digital drawing pad (Wacom). The style owes a bit to Anton Corbijn and Depeche Mode – how they performed *Black Celebration* at Hartwall Arena, Helsinki in autumn 2001. Karstein however noted that he thinks this has elements similar to *Blue Monday* promo video from 1983.



Picture 16. Screenshots from one animation loop for 'New Day'. I took some words and one-liners from the lyrics and made flashing text loops out of them. When played on the screen faster and faster the animation gets almost a subliminal flavour. Audience is of course very aware of this, so this effect is done with a tongue in a cheek.



Picture 17. Screenshots from three animation loops for 'New Day'. In live situation I often like to play these in sync with notes from keyboard. Hand drawn graphics that imitate an oscilloscope combined with genuine live triggering give a feeling of live performance to the video

Despite the energetic, straight-forward character of the song I also wanted to put some slightly narrative elements into the visuals. It is nothing short of a storyline, but there's animation of kite-flying on a beautiful day that turns into a thunderstorm and some about the game noughts and crosses.

B.3 Malady

A very abstract song. Uses abstract imagery to convey emotion. Again, using ambivalence and loaded words to maximize reading possibilities. "The cup is floating, fill it up. The cup is sinking, fill it up."



Picture 18. Performing *Malady* at Tarmo, 31 January 2004.

Although one of my favourites from Nazca's latest demo recording *Malady* was very difficult to visualise. Its abstract character called for abstract visuals that would encourage each and everyone in the audience to read and interpret the song in their own ways. *Malady* has been in the band's regular setlist since the Factory gig in autumn 2003. It has been visualised with found footage that Mari found from some marine biology website. Those video clips show microscopic but colourful sea-life like amoebas floating around. We also

scanned some images from Rupert Sheldrake's book "A New Science of Life" to give an extra twist to the biological imagery.

All this material looks and feels great but for this concert I had wanted to create original footage instead of sampling. I had a vague idea of engaging in a dialogue with the abstractness of the song with a kind of a growing and changing suprematistic painting. It would be composed of primitive shapes like squares and circles in primitive colours. The shapes and colours would react to different rhythms and moments in the song and the composition of the picture would change over time and create an illusion of progression and drama.

However I never got these ideas realised in a form I would dare to present. I did a dozen tests and three or four video loops in Flash, but I was never satisfied with results. The loops worked rhythmically well, but they were outright boring and looked like done-in-Flash-in-five-minutes kind of animations.

So what happened inevitably was that I deleted all the files out of frustration and Mari and I decided half an hour before the concert that she would perform her live mix of the good old amoebas. They still looked great and they still respond emotionally to the song. What happens with this song remains as a future challenge, but I will surely take a look at early 20th century modernistic painting for inspiration.

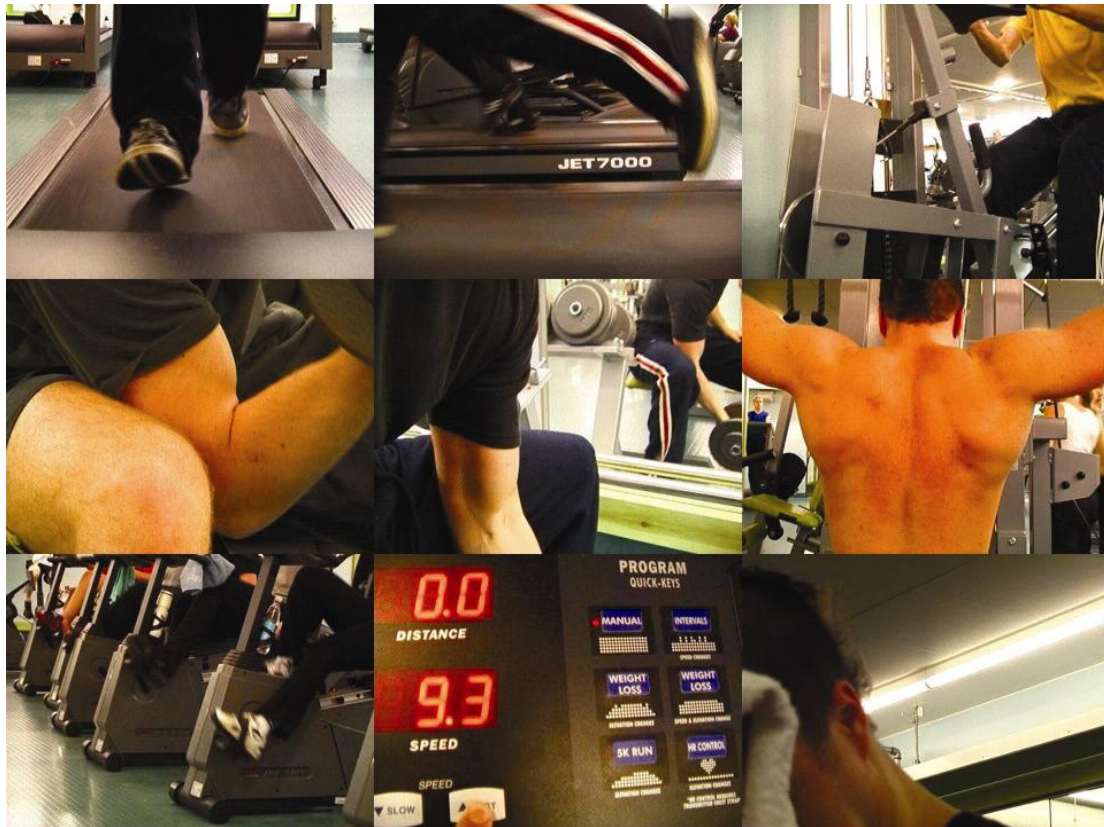
B.4 In Féria

The tension between desire and blatant commercialism. How our deepest needs are exploited. How we are made to fear being unattractive, out of style, not wealthy enough. Just think how pretty war will be when CNN will film those fantastic new cool weapons US wants to try out?



Picture 19. Performing *In Féria*.

The third and last song with previously seen visuals. *In Féria* also concludes the first act and does it with quite a punch on senses. Video clips for *In Féria* were created already for the Non Grata concert in March 2003. The setting is simple: *go to gym, pump some iron and become more attractive*. All the material was shot in one day at the student gym in the centre of Helsinki.



Picture 20. A collage of screenshots from *In Féria*.

In Féria visuals are usually always performed differently. We prepared the video clips as seamless loops. Altogether we had fourteen loops to play with in live situation. This is very close to club-like Vjing when you want to get into same wavelength; mood and rhythm with the music and instinctively trigger or mix video loops.

In order to achieve this wavelength, one needs to have a proper eye-contact with the musicians. It is about performing together. The optimal position would be opposite the band, on the same level, and not too far away from them. Usually this spot is where the mixing board is. At Lume I wasn't too happy with the visual performance at this point, I think I felt a bit disconnected from the band and because of that I couldn't immerse myself into the situation as well as I could have.

B.5 Nothing

Originally about confrontation with own apathy. After 9-1-1, changed to a song about our moral apathy, the way we so easily accept whatever facts are fed to us. The way we so easily swallow this good guy/bad guy-idea. More terror will come, because we haven't dealt with the root of terror.

Undereducation, poverty, epidemics and conscious preserving of the status quo, overconsumption in the west based on looting whatever we can wherever we can. If we don't clean up our act, we'll pay a heavy price.



Picture 21. Performing *Nothing* at Lume.

The last time before the Lume concert when *Nothing* was played was at the Non Grata concert a year ago. The nature of the performance was totally different then. That day was the third day of the Iraq war and in this song the anti-war notion of the concert culminated. *Nothing* was preceded with a one-minute silence for the victims of the war. Mari and I had set up four old television sets in front of the band facing audience. Those TVs had been turned off until this moment. In the gallery of the concert hall we had the other end of an extension cord that was rigged to the television sets and a VHS tape with news footage from BBC World recorded earlier the same day. At the right moment we plugged in the extension cord and all four televisions were

turned on. As they were manually tuned beforehand, one by one they started to show the war footage from the tape. All these things combined – silence, self-turning on television sets and news footage from the war created such an overwhelmingly deep, concentrated and hypnotising atmosphere to the concert hall that I don't think we will ever surpass that moment in intensity.



Picture 22. Performing *Nothing* at Non Grata Concert, 22 March 2003.

After the silent moment, we unplugged the TVs and the band started to play the song in the darkness. Towards the very end, when the song takes a cheerier twist we played some missile-camera footage from the Kosovo war that was found from such an official source as the NATO website.

This time, the Lume concert was very different deal. We wanted to play *Nothing* for the first time since Non Grata for a couple of reasons: firstly it hadn't been played for a year. Secondly, it is a very sensitive and progressive tune

that requires that kind of concentration from the audience and the performers that it works better in a concert-like situation than in a club environment.

Thirdly, the song was famous from the Non Grata concert, so playing it again at Lume would create a nice continuum and a link to that past event.

With all these observations taken in consideration, we wanted to give this song a totally different treatment this time. The war was no longer the issue, people's minds probably couldn't absorb any more such straightforward anti-war propaganda - so another point-of-view was needed. Eventually we decided to take the song back to its abstract roots. Where the abstraction and language meet, there are the numbers.



Picture 23. Peter Saville's record cover designs inspired the visuals also.

Visuals for *Nothing* were built around numbers. It all started from two points. First, I was, for unknown reason, fascinated by record cover of New Order's single from 1987 *Thieves Like Us* – designed by famous Peter Saville himself. The second inspiration was a peculiar object from my everyday reality – a mechanical milk counter that Lasse found years ago and has since been sitting around our shared flat.

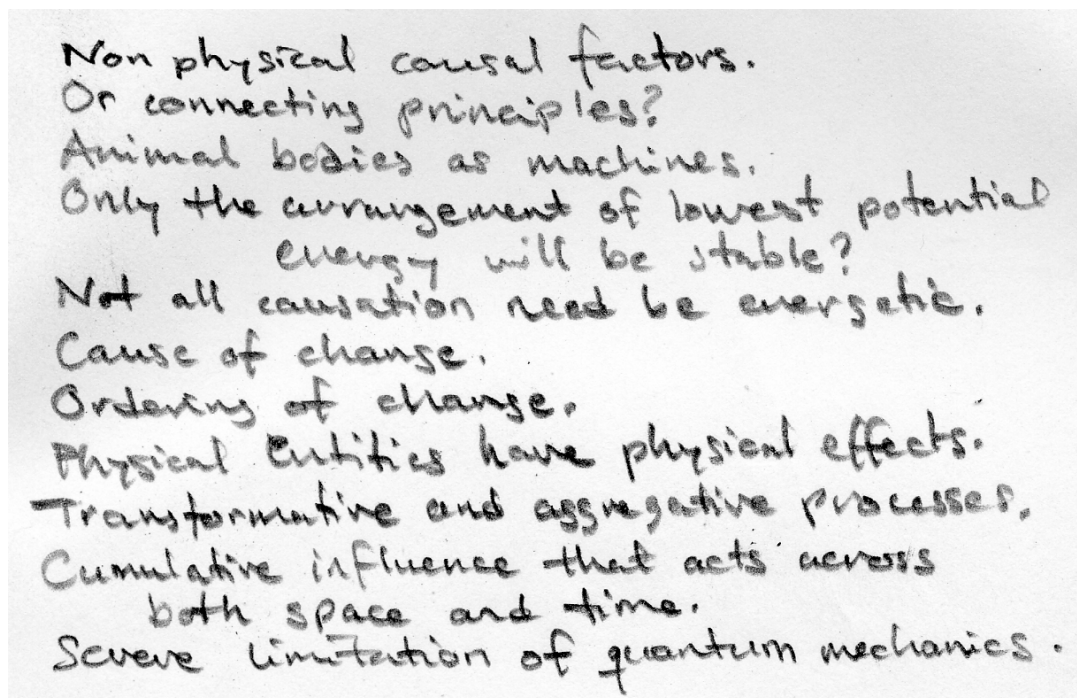
Quite a few of the central ideas for the concert started from thinking about numbers. I will discuss the ideas behind the poster and flyer design later, but they all relate to concepts of abstraction and creating a sense of mystery.

I started designing my new visual interpretation of *Nothing* from its structure that is very progressive – it begins from something very small and quiet to something almost spectacular in a fashion that resembles contemporary instrumental rock like Godspeed You! Black Emperor. That is how we decided that the song starts from dark and that only three, rather fragmentary, visual sequences follow the momentum the song creates and towards the end visual intensity increases.



Picture 24. A script that creates a fractal out of given words and numbers. Some people associated this sequence with microfilms, others with newspapers or media in general.

For the first sequence I initially had an idea of signs without meanings – that means numbers without explanations. I wanted a clean and graphical look, black and white and lots of randomness to emphasise the confusion – and in contrast – mathematics and order. This could be achieved in Flash software with some programming. As I'm not too expert with Flash's programming language Actionscript but know it well enough to be able to edit scripts, I browsed around the internet for open source scripts. Eventually I found perfect examples at leviated.net gallery and modified a script called *Emotion Fractal* to suit the style and behaviour I desired for this occasion. I made a few Flash programs with numbers and some with numbers and words mixed.



Picture 25. Excerpts from the book *A New Science of Life* by Rupert Sheldrake were used in visuals for *Nothing*.

I borrowed text from aforementioned Rupert Sheldrake book "New Science of Life" but I broke the sentences into words and let the program mix and place them in random with the numbers. In order to keep the style consistent with the poster, I only used numbers from one to twenty-six.

However actionscripted Flash animations do not by default convert to video clips, so I needed a third-party extra software to do this conversion. I asked an old friend and colleague in London, Juha Sompinmäki for information about such software and he pointed out a program called SWF2Video. With it I was able to render proper video files out of Flash files.



Picture 26. The milk machine's counter and its dials.

For the second sequence I prepared a video loop from material previously shot on video from the milk machine counter. For the videoshoot we had needed to connect a some kind of a motor to the counter in order to make the numbers revolve smoothly. Lasse innovatively solved this problem by connecting an old mixmaster to the machine – the first one fried itself during the process, but the second mixmaster was powerful enough to drive the machine.

If had had more time at my disposal I would have elaborated more on this milk machine number loop. I envisioned a grid full of these numbers, growing slowly and eventually filling the screen at different speeds so that it would look like a massive mechanical calculator machine. Now, as I didn't

have resources to go for such a consuming post-production effort in this time-frame, I trusted that a simple and repetitive videoloop would create the same effect.



Picture 27. Screenshots from *Nothing*.

The third sequence I created took the place of missile-camera footage we used in the Non Grata concert. In the finale part of the song I wanted to open the visuals a bit and introduce new elements raise the intensity once again. For this I used my own black and white photographs I had taken in summer 2003 in Latvia. On top of the images of empty blockhouses and bunkers crumbling into sea I superimposed similar text and number animations as in the first sequence. This wraps the song and closes the dramaturgical loop in this song.

0:50 (PIANO)
(16')

0:16 GUITAR STARTS

INTRO

0:32 I'm sorry for the way I am
(33') They never taught me how to be
I'm sorry for the way I look
they never taught me how to see
I'm sorry for the way I feel
They never taught me how x 2

1:05 CHORUS:
(32') Embarrassing and bothering
The things you never wanted to feel
So soothing and comforting
Are you sure that you are real?

CHORUS

1:37 A viewpoint from the other end
(41') Gets near life behind your eyes
A well-meant comment from a friend
turns into tight and strangling ties
Duality is in your genes
No matter how you want to be
Fragmented and broken
Your hands form your memory

VERSE

2:18 CHORUS:
(44') Embarrassing and bothering...

CHORUS

3:02 VIDEO IMAGE FRAME SHOWING...
(49')

2001 STYLE
'TECHNO TUNNEL'
fade to white
gold yellow

BRIDGE

3:51 I'm sorry x3
(16') so sorry

"IF PROPERLY DECODED, THE FIRST IMAGE WHICH WILL APPEAR IS A 'CIRCLE'"

VERSE

4:07 YELLING...
(24')

RADIOTELESCOPES TURN UP...
VIDEO NOISE
BLACK
WHITE CIRCLE

FINAL CHORUS

FADE TO AMBITION

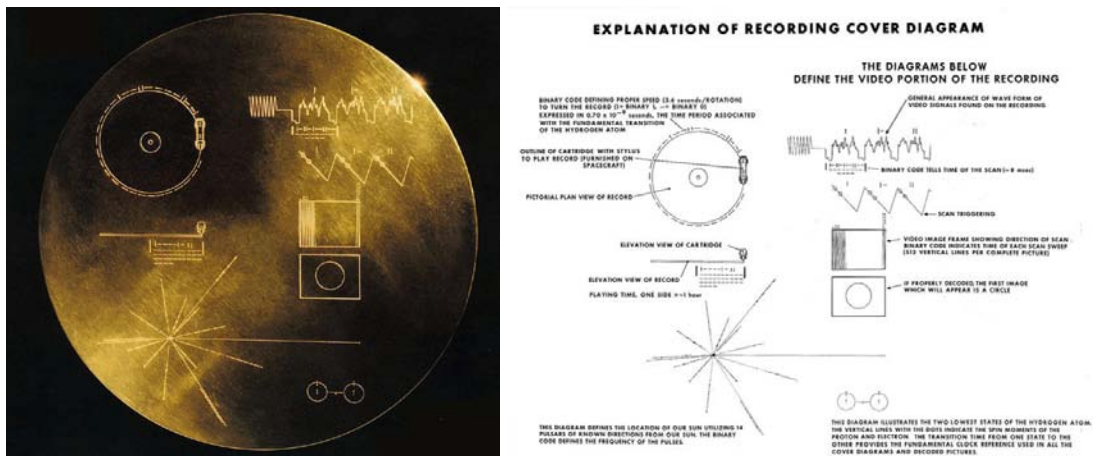
141

Picture 28. The notes for Apology.

B.6 Apology

Paying penance in every way for existing.

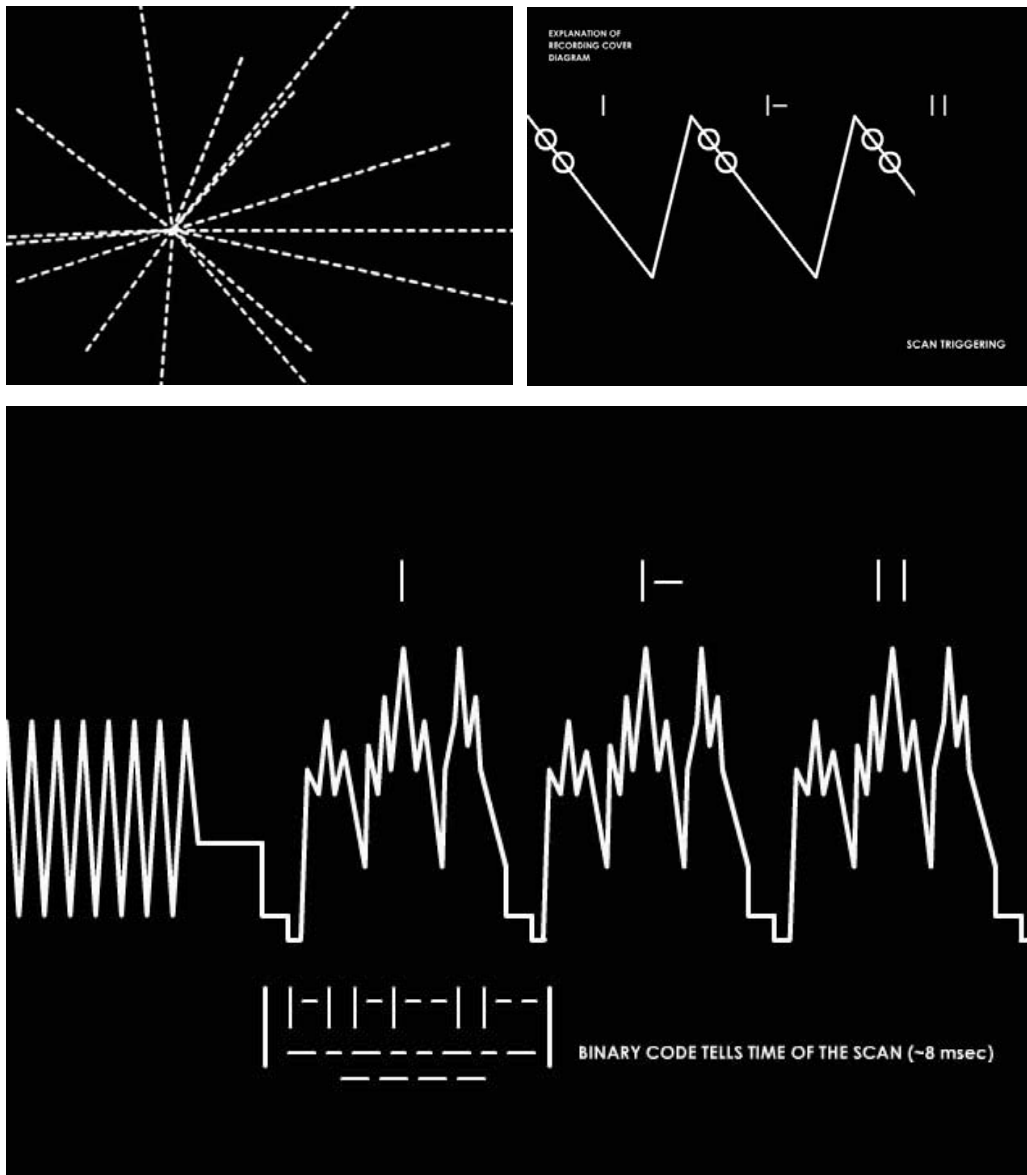
That is what Karstein said about the song a year ago, when we were preparing for the Non Grata concert. Later it was revealed that Apology is a song that “had to be written” and it is actually very personal. That was the point when I wanted to create visuals that are totally in contrast against that notion – spectacular and cosmic. Already at Non Grata we showed images of the Nazca lines in Peru (enormous drawings on the ground, that are alleged to be messages to extra-terrestrials). In addition to referring to band’s geographical namesake the idea of a message to outer space expanded. Then I remembered the one most famous messages to space – the Golden Record – designed by Carl Sagan himself and sent out with Voyager spacecraft in 1970’s.



Picture 29. The cover of Golden Record and its explanation.

The cover diagram of the record was highly inspiring. I decided to construct a storyline with the elements found on the record. All this fit into the overall dramaturgy of the concert as the second act was supposed to have emphasis on narrative visuals.

I made a drawing where I wrote down the lyrics, marked the different parts of the song, made notes about the durations of the parts and started to build a simple script and storyboard around this drawing. Soon I came up with a simple rhythm: the verses are about *the instructions how to decode the message* and the chorus parts are about the actual *images on the record*. I started to work in Flash according to this plan, I took elements from the record cover and its explanation diagram and remixed them a bit, so that the still graphics and text would animate nicely and fit the overall flow of images.



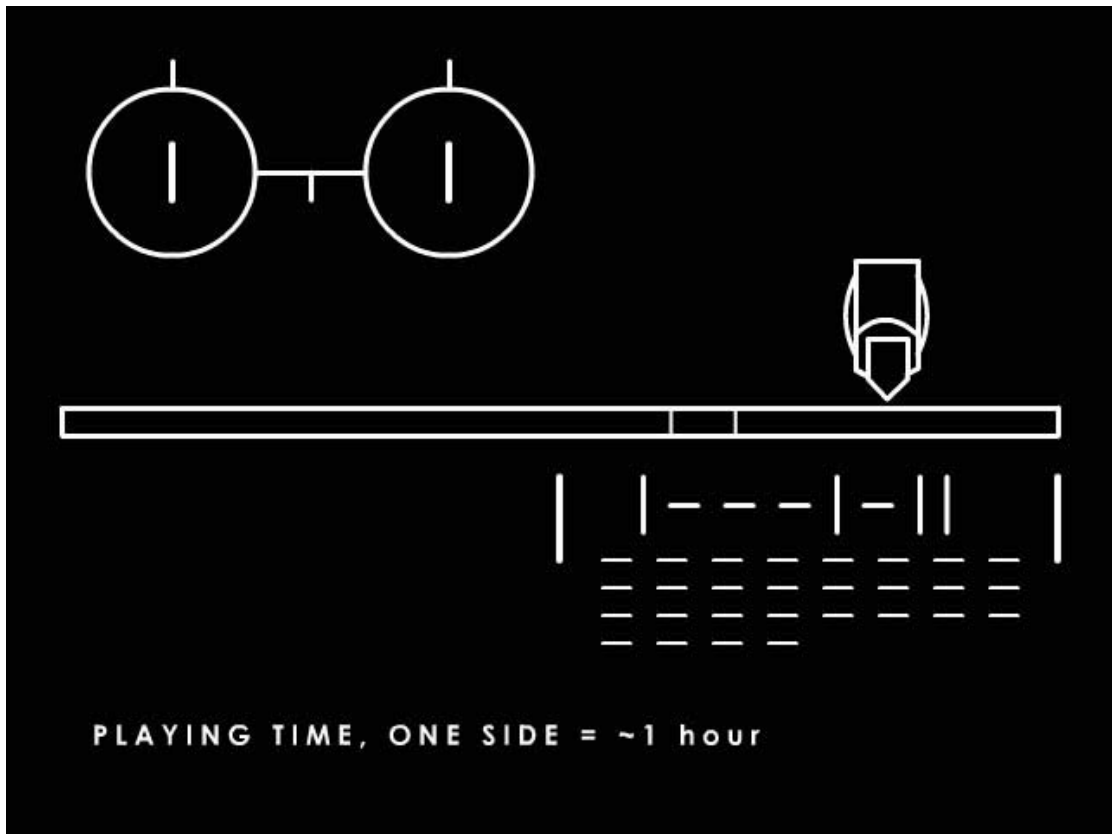
Picture 30. Screenshots from the first verse of *Apology*.

When the first chorus starts, the very technical looking, black and white graphics change to toned photographs. Here I wanted, again, to refer to Non Grata as the photographs are the same. I added the crosshair grid on top of due to consistency – we all remember how all the pictures from Apollo missions and such had this grid. People, I think, sub-consciously attach the crosshairs to pictures about space. With small touches like these a single image can have a plethora of cultural references in addition to just looking nice.

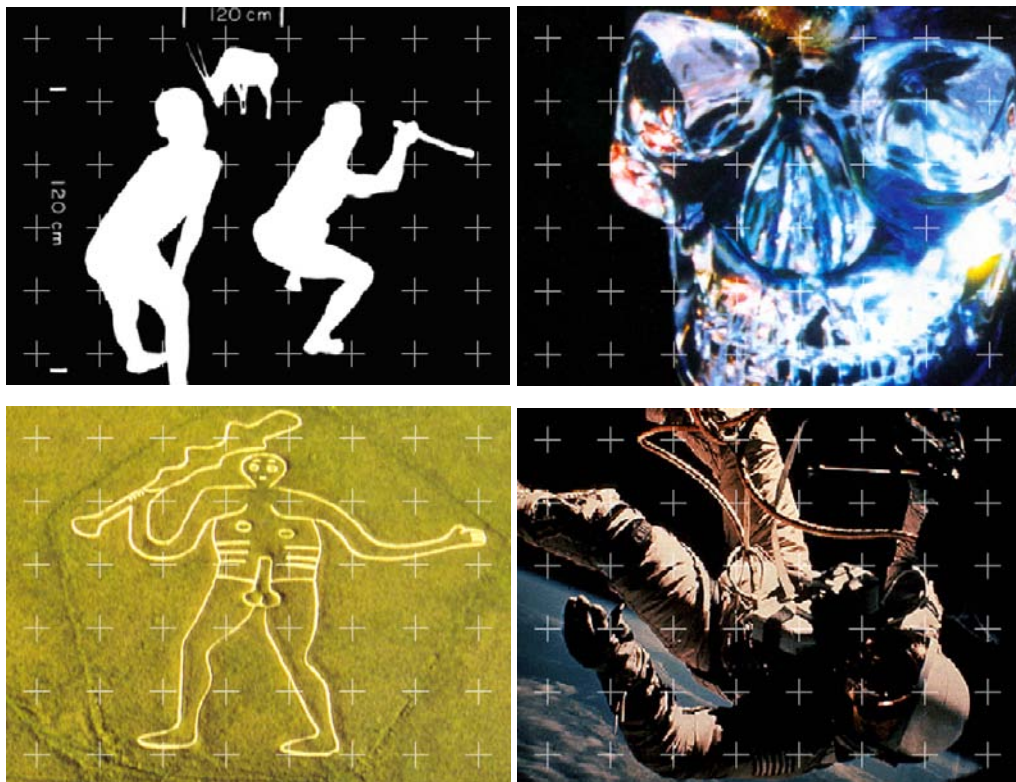


Picture 31. First chorus. Nazca lines.

The second verse introduces the record itself, spinning, but it isn't evident before the needle drops from the top right-hand corner on the record surface and starts to move towards the centre. The graphics in the top left-hand corner add another layer of detail to the composition and contribute to the scientific realism of the animation.

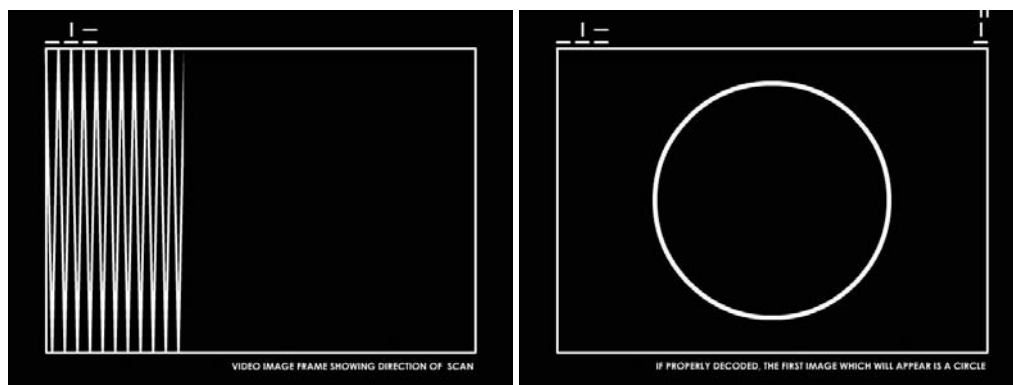


Picture 32. Second verse. The record is playing.



Picture 33. Second chorus. The images from the Record.

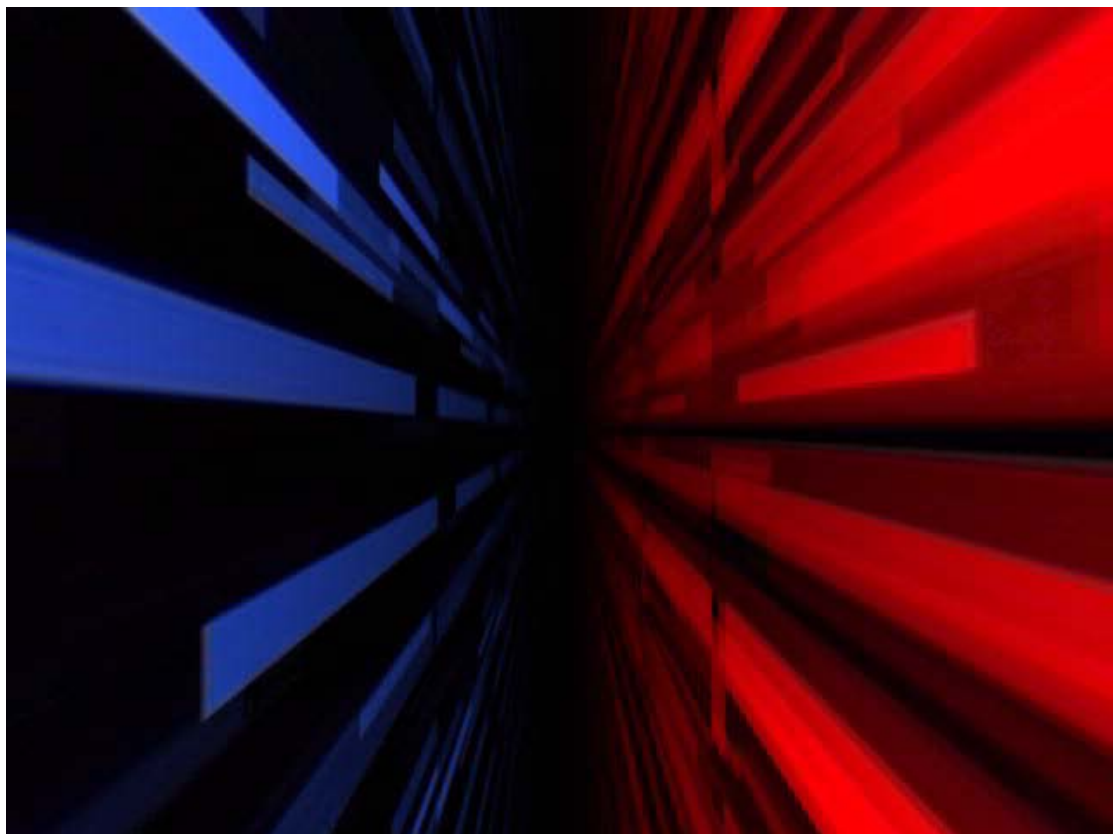
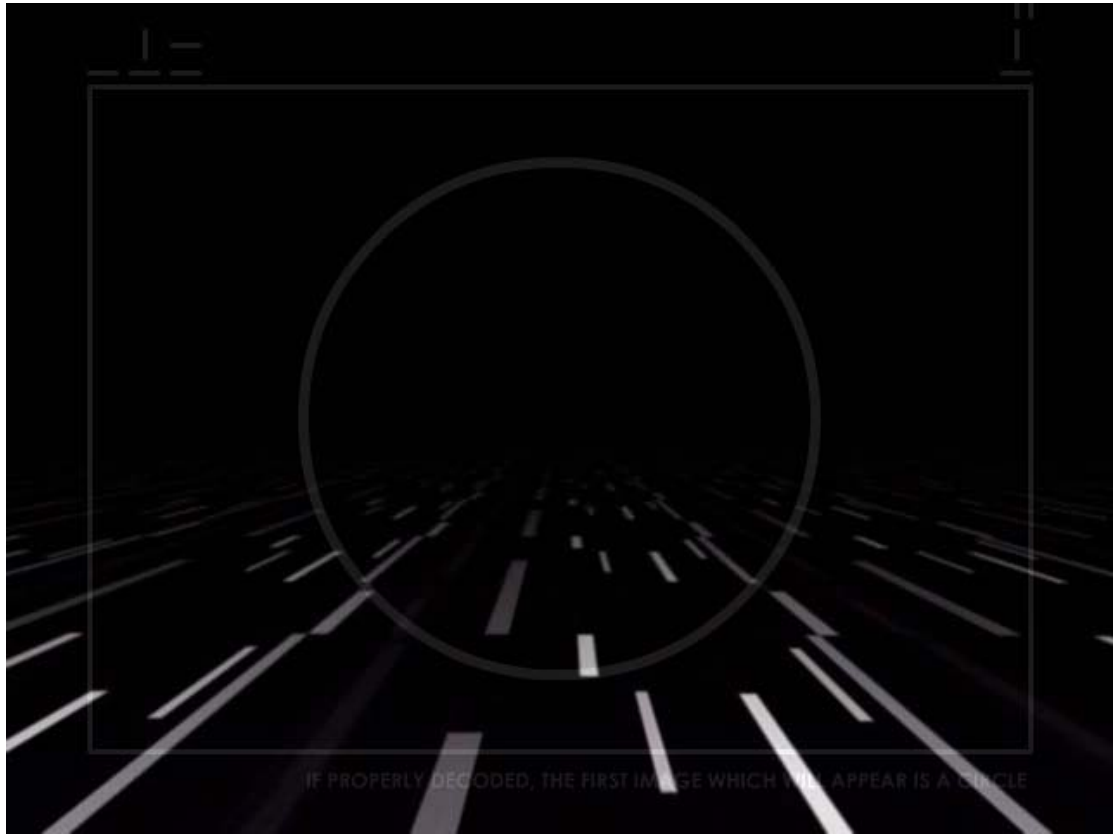
Soon the verse is followed by the second chorus. It is similar to the first chorus, but now most of the pictures are from the actual Golden Record. I selected the most representative ones that would tell about the evolution of the species from hunters to astronauts through the eternal cycle of Eros and Thanatos (the pictures of crystal skull and warrior with erection). This is where the two storylines meet and the visuals take another turn. Before the chorus turns into the bridge – we see the last glimpse of instruction. The circle closes: “If properly decoded the first image that will appear is a circle”.



Picture 34. The chorus turns into the bridge, the circle closes.

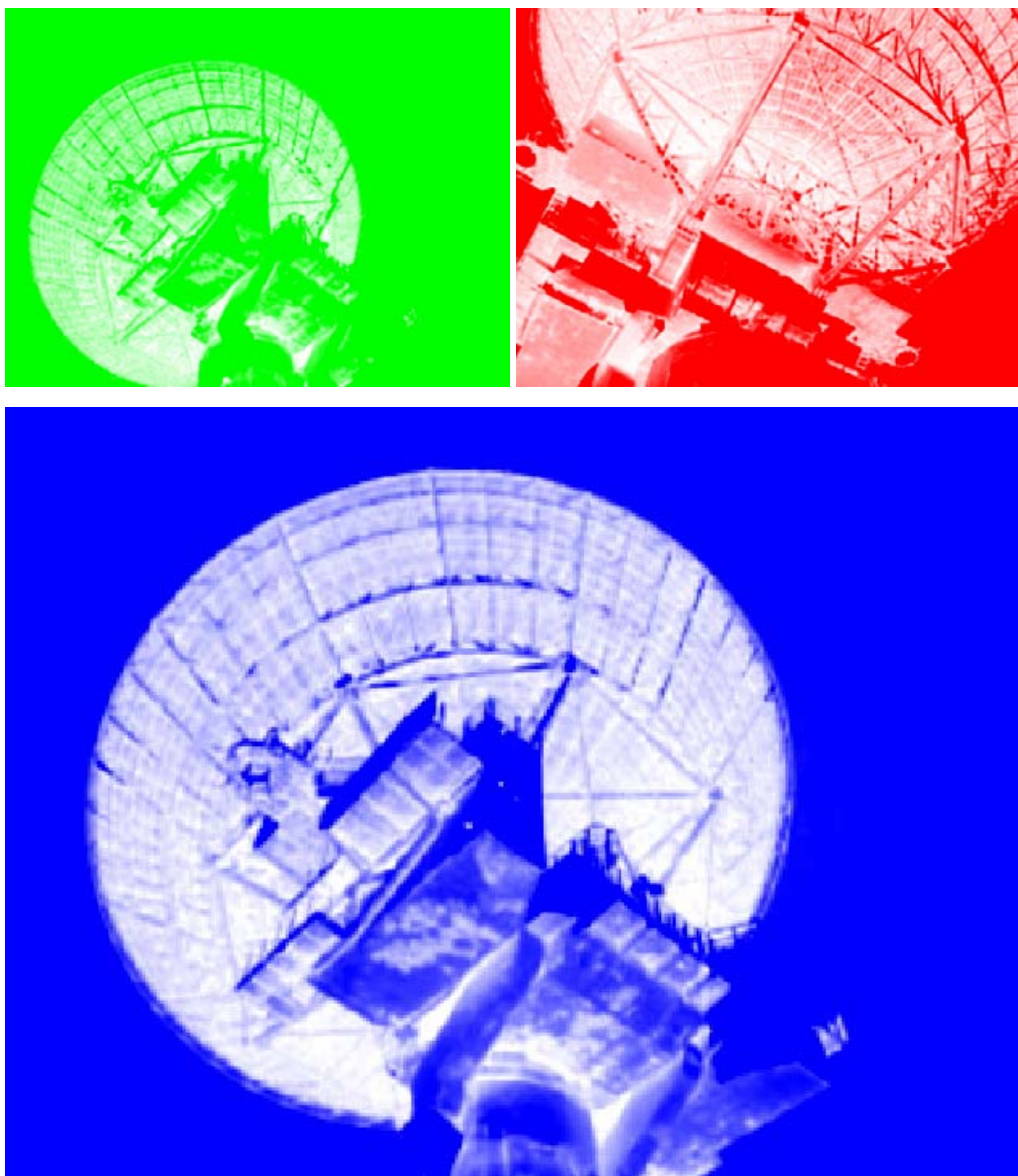
I find the bridge part of the song very beautiful and emotional. For it I wanted to create my own homage to the famous *stargate corridor* sequence from 2001: Space Odyssey. Also, because of the sheer width of the projection screen at Lume, the flight through the corridor could almost be felt physically.

The corridor scene was made in 3D Max in a very simple manner: I modelled a scene with two parallel planes, textured them with video (taken and manipulated from an abstract short-film of my own called A. B. & C.) and made the camera fly between the planes. As I haven't been using 3D Max for about five years I needed to keep it simple, also luckily my classmate Satu Lavinen was around then and assisted in setting up the scene and animation.



Picture 35. The circle fades out and we take a trip through a *stargate* corridor.

As the bridge and the corridor sequence reaches its end the image fades to pure blue. Karstein starts shouting in the microphone and a series of heavily colour manipulated images of a rotating radio telescope fills the screen. This is the finale of the song, the telescope and its backdrop dances to shouting as if it was relaying the voice out of space or listening to echoes or replies to the message. Whatever the interpretation, the purpose of these final images was to re-establish the connection between the music and visuals and wrap it up.



Picture 36. The finale. A giant radio antenna reaches for the sky as if expecting a response from the outer space.

The live performance of this piece was a special case – there wasn't much room for improvisation. Because I wanted the live projection at this point look and feel like carefully prepared music video or short film I edited the whole piece on top of an audio track from the studio recording of the song. This allowed me to be precise with the rhythm, balance and timings in the visuals. However, as Nazca don't use MIDI click, their live tempo varies. In order to solve this problem I divided the video into seven separate sequences: 1) Intro, 2) 1st Verse, 3) 1st Chorus, 4) 2nd Verse, 5) 2nd Chorus, 6) Bridge and 7) Finale. All the sequences had a few seconds of leeway in case the band would play a bit slow. I also had an option in Grid software to tune the playback speed on the fly.

With these preparations - in the live situation I only needed to trigger right sequences at right moments, monitor the tempo and be ready to adjust the playback speed in the software. This method allowed us to combine the best characteristics live improvisation video mixing and linear video playback.

B.7 Ambition

Careerism gone bananas, once you reach the top, you realise you had no purpose for this goal, other than reaching it. Empty ambitions.

Ambition concluded the second act. Nazca and Mari and I had already performed this song twice before, but for this occasion I wanted to create new visuals for this song. The old version showed some underwater features and lots of sharks (shot by Jussi Niemelä in the Bahamas). However we all felt that all these nice images were a bit in a wrong place then, so extensive rework was inevitable for Ambition.



Picture 37. Screenshot from *Ambition*. Joonas posing as the bad guy.

As usual, the ideas for this piece accumulated over time and took inspiration from many sources. The focal point was the huge mountain of landfill in Kumpula. My flatmate Lasse and I often passed this hill while going to nearby student gym. We had been thinking about doing some videoshoots there – we still had snowsuits and everything we bought for Kalvo’s performance at Kunsthalle Helsinki in February 2003. Then we just didn’t yet know what to do.

Someday this February, Karstein and I were having a coffee in Kipsari and while he went for refill I suddenly came up with a simple script for a video for *Ambition*: there would be two guys, one with a white flag and one with a black flag. The white guy would climb to the mountain and plant his flag to the summit. After he’s gone back, the other guy would go for the summit with a black flag and throw the white flag down. The black guy is happy and

descends. But it's not over – the white guy returns to fetch his flag and goes back to the top. He returns the favour and tosses the black flag away. Then he stays there and guards his claim. The black dude doesn't agree so he sneaks up and throws the white dude down the hill by force. Seeing the competitor taking a plunge, the black dude rejoices and leaves his flag there. But for the white guy that was the last drop, with sheer willpower he makes it to the top for the last time only to set the black flag in fire.



Picture 38. Screenshot from *Ambition*.

This little story aims at creating strong metaphors around the lyrics. It is influenced by childhood memories of games like king-of-the-hill and capture-the-flag. The image of a burning flag also has strong connotations from news and television. I wasn't sure what kind of flag should be burned, so Karstein proposed one with the band's logo on it. I agreed.

Shooting the video for *Ambition* was probably the funniest part of this whole production. We had this loose script, a camcorder, snowsuits, the flags and

Lasse volunteered as one of the actors. One evening, when we were preparing all the props, the third resident of our flat Joonas suddenly emerged from his room with an old gasmask on his face “Ok, let’s go to make that film!” was his comment. He looked really impressive with that mask, so I instantly decided that he should be the bad guy and that we should do the shooting straight away.



Picture 39. Screenshot from *Ambition*.

So, at midnight we went to the landfill site, climbed over the fence and set the camera up. There was a strong construction site light pointed at the mountain, so it was possible to shoot video there even those hours. We spent maybe two or three ours on the mountain and improvised our way through that loose script. It took some time to frame pictures carefully in the camera. I didn’t want to show any of the construction yard surroundings – the idea was to achieve an illusion of a peculiar, desolate and surreal location.

Lasse and Joonas put a lot of personal energy in their on-screen performance with spontaneous moves and gestures. Twice we had to hide from the police and Securitas – luckily nobody interfered, it was restricted and highly dangerous area after all. On the other side of the hill there was a fifteen metre drop to the dig site.



Picture 40. Screenshots from *Ambition*.

All this work resulted in about forty minutes of footage in total. About sixteen minutes was remotely usable and from that I cut a rough, four-minute edit in Premiere that was the basis of live concert projection. I showed this preview to Mari and Karstein and they loved it – especially the strange mix of powerful imagery with burning flags and gas masks combined with very grainy, lo-fi home video style and all the childishness and humour in it. It seemed that all this spontaneous work would pay off I went on with editing.

The final piece was prepared in a way similar to *Apology*. Several video sequences were prepared to match the music. The cuts didn't have to be as precise as in *Apology*, but despite that I still wanted to make the cuts fit the music tightly. The special moment I paid extra attention to was the introduction of the gas mask guy. He should step to the picture simultaneously with the threatening sound of distorted bass that starts the second verse of the song.

With all this absurd play finished on the screen and the flag consumed by fire the act two closes – it is time to change the focus, it is time to put the band in front again.

B.8 Micro No. 1

Armageddon imagery, written in 1998. Alternative title: 'We'll party on Doomsday – "People change, countries change, armies change, governments change".'



Picture 41. Mr Volle addresses the audience with a megaphone.

Microsong Number One has traditionally been perhaps the dramaturgically most important song of the setlist. It is a kind of brief intermission that creates a chill moment and a bridge from one part of the concert to another. The main idea of this number is that Karstein grabs a megaphone, steps down from the

stage and goes around the audience preaching through the device, while Ninni plays sound loops to create ambience.

From the point-of-view of the whole experience – or synaesthetics – this is about switching the tone, mood, rhythm, theme and focal point. At this point the focus is on the audience and its interaction with Karstein. We used a red searchlight to add an aura of authority on Karstein. That was the only effect – any visuals or any other activity somewhere else would have distracted the audience.

This is the calm before the storm, from here on the concert starts to gather momentum to the third and final act, that rocks!

B.9 Antiseptic

An antiseptic is used to remove infection.

Antiseptic is definitely one of my favourite songs from Non Grata album. I like the dynamics inside the song – how it slowly grows from menacing and haunting until the hell almost breaks loose towards the end. The main hook here is suspense, the rising intensity and the suppressed anger that is expected to break loose. The visuals needed to support all these developments with sophistication and power when summoned.

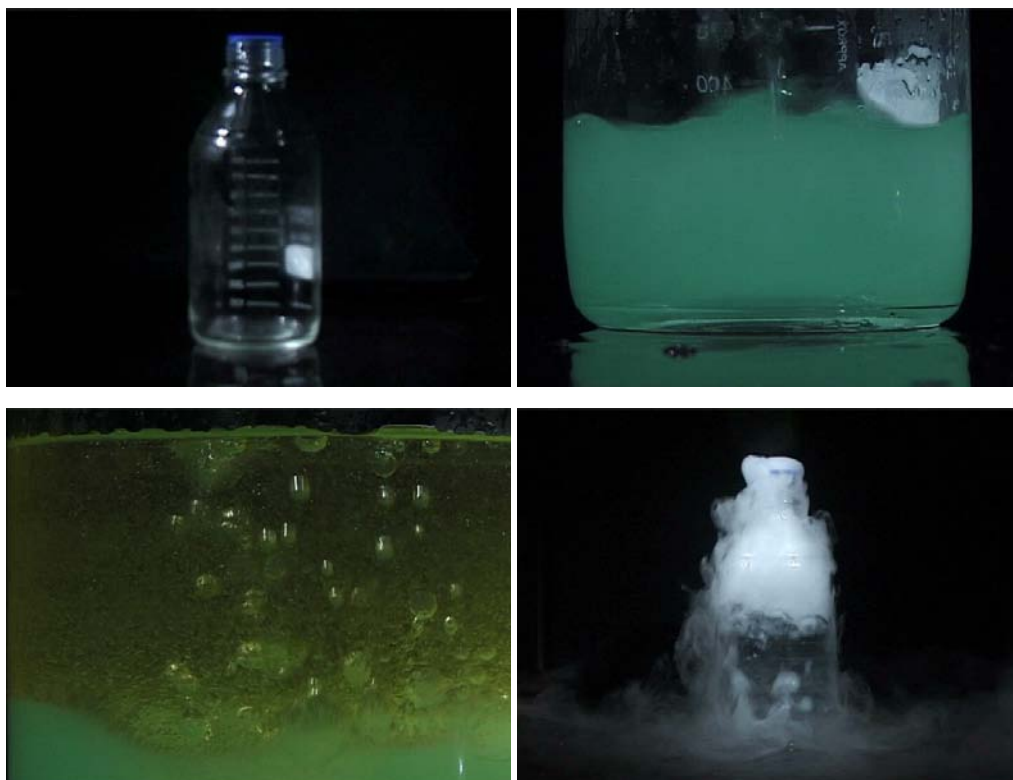


Picture 42. Performing *Antiseptic*.

Visuals for *Antiseptic* are as much about the lights as about video. For long time we had wanted to use blinder lights at a certain point of the song. With all the resources of Lume we finally got a chance. We also could paint the screen with light and darken the stage so that the band would appear as silhouettes against the screen. The projection and the light would also become a seamless visual element behind the band.

The idea behind the visuals is very simple. There is a bottle, not just any bottle but a kind of a bottle that chemists use. The bottle is being filled with more and more disgusting liquids. When the music reaches its climax the audience is blinded with purifying, bright stage lights (a pair of blinder lights). After that we see white smoke pouring out of the bottle, that has now been cleaned of impurities.

For the videoshoot we built a miniature studio in our kitchen. I set up a camcorder on a tripod, two Dedolights, put a black suitcase on table to act as a dark backdrop and folded some neutral density filter foil under the bottle to make the floor look dark but reflective. Joonas, who studies chemistry then designed and operated different kinds of combinations of liquids and dry ice.



Picture 43. Screenshots from *Antiseptic*.

In the post-production I had to use some special measures. All the bubbles and smoked moved very vast in real-time, but I wanted a smooth, fluid motion in the picture. Slow-motion photography is not unfortunately possible with a camcorder as it is with film camera – the recording speed is fixed to 25 frames per second. However there's a trick around this: Single video image is composed of two consecutive fields. Separating the fields results in 50 frames per second, but the vertical resolution is halved. In this case motion was more important than resolution, so I used this technique to create video sequences

that run at half of the real-time speed without compromising the smoothness of the motion.

B.10 Real Love

Uses the concept of 'Real Love' for what it is, a dead cliché. Real love means everything and nothing to everybody and no one. That is not saying I don't believe in real love, but I doubt you can find it in any media outlet. "Such enchanting words, falling from your mouth. Moisten lips with this. It's filthy, but it's real love."



Picture 44. Performing *Real Love*.

For *Real Love* I basically came up with two visual metaphors: a) Magnetic Poetry b) Fast Food. Main clue in the visuals for this song are animated words from the lyrics scattered around the screen using the same Flash script

as in *Nothing*. The script breaks up sentences into words and recombines them with new meanings, this is what Magnetic Poetry is about. Towards the end of the song graphics and typography gets messier and random 'noise' is added. This reflects the *inflation of the concept of love*, what the song is about. Fast food related colour scheme was used to give animations an extra layer of meaning and brute visual force. To contrast with the sharp typographical style, I also mixed in animations of flying lips that jeer at the audience. The lips and fangs belong to Mari.



Picture 45. Screenshots from *Real Love*.

B.11 Like a Crutch (Punk Song)

About using all your time to make up excuses for doing nothing at all. If you choose to read it that way. "Paint yourself into corners, write yourself into a block."



Picture 46. Performing *Like a Crutch*.

Like a Crutch was the rock climax of the third act and the whole concert. As Mari had been working on her Barbie animations for this song I was obvious

that she would make a guest appearance at this point. I also asked Lasse to improvise with lights so that the performance would have looser, more spontaneous feeling. About the ideas behind the Barbie visuals I cannot say anything. I didn't demand any explanations from Mari. I just think it was a great show!

B.12 In Heaven

Coversong from the film Eraserhead, written by Peter Ivers and David Lynch.



Picture 47. Performing *In Heaven*.

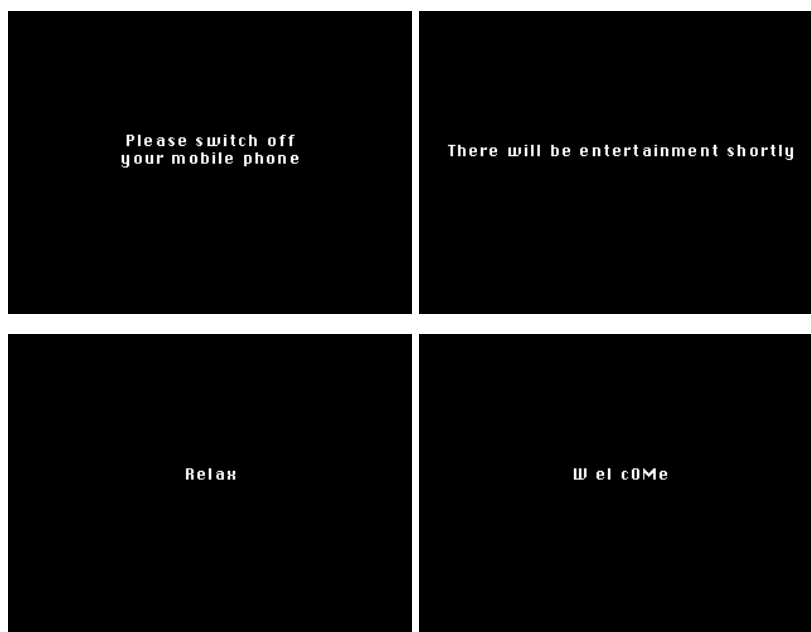
The very last song of the performance. Concludes the whole event with chilled melodies and soothing lyrics. Chills almost turned into thrills as Kar-

stein needed to take an extra guitar tuning break before starting playing. That is something that might well happen in live situation.

I was lucky enough to be able to react to this with visuals. We had prepared a kind of a goodbye text to be shown here. Because it fit the situation, I let it roll while Karstein was still tuning the guitar – taking advantage of playing with the dynamics of an unexpected event.

The text loop was written by Karstein. It was meant to resemble 1984 computer screens (actually I even used the Macintosh system font of those days). The text sequence is actually a *fucked-up hospitality machine* that becomes more and more confused and eventually crashes. The same machine also welcomed the audience on the TV screens at the entrance.

In Heaven ends, house lights fade in. The concert is over. The hospitality machine reboots itself just in time to farewell the audience as they get back upstairs and leave the place.



Picture 48. Screenshots from the *fucked-up hospitality machine*.

C. Conclusion

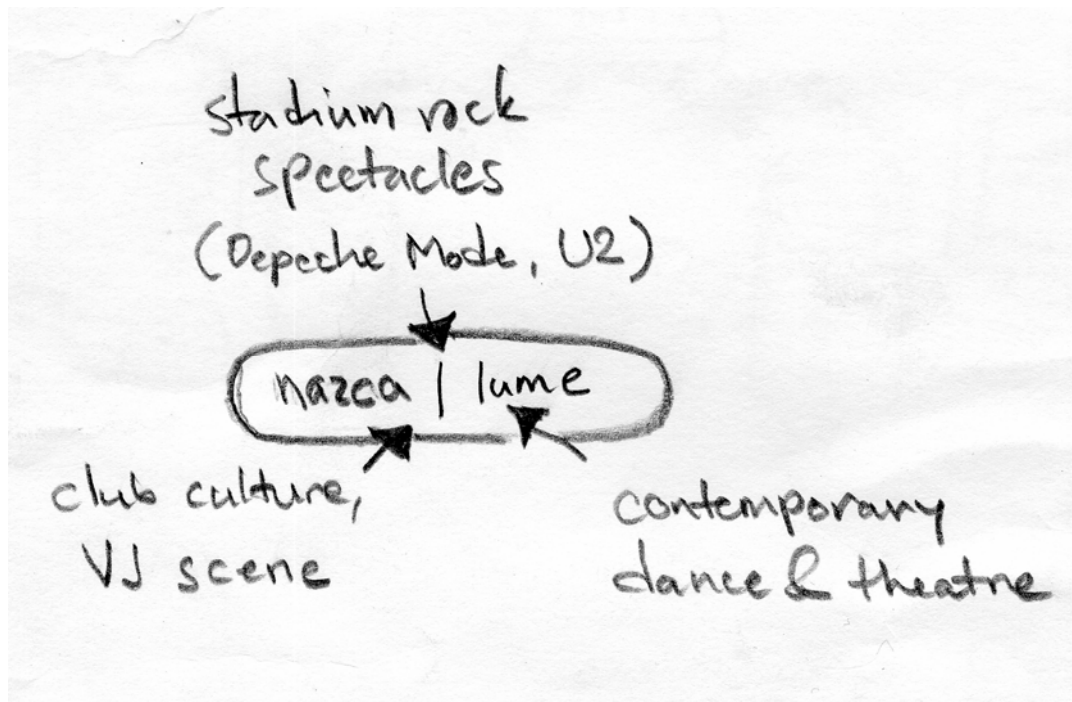
Now looking back, I feel the concert was an overall success. The house was packed, we counted that there were about 200 people present. The official capacity of the Studio Theatre is 96. I am not the right person to talk about the audience's reaction to the concert, but most of the feedback I got was outright positive.

About my own performance as the video jockey - technically it was flawless, but not among the best ones I've had. A lot of issues contributed to a bit stiff live mixing. Too long physical distance from the band was one factor. You cannot go with the flow, if you are not in the same mental bubble with the players. However, the concert was well planned and we are already experienced performers, so think that only few could spot any difference.

Nazca | Lume was the biggest and most complex concert we have staged and performed so far and everybody who was involved got valuable experience that will be of use in the future. I also want to thank everybody for their time, effort and energy, for making this event possible.

As the last words I will point out some directions, how this work could be contextualised and studied in the future developments.

I can very easily position Nazca | Lume as an work of art into a convergence of three cultural spheres. As the performance speaks the language of rock and audiovisual spectacle – it is related to big and commercial rock experiences that are offered by groups like U2 and Depeche Mode.



Picture 48. Nazca | Lume in convergence of three cultural spheres.

The visual component of our work however stems from very different production culture. VJ scene has evolved hand-by-hand with the rise of the DJ (Dekker, 2003: 24). Grassroot VJ movement is a sub-culture and usually related to clubbing and techno music. *Hacker ethics* is the driving force of most VJ culture instead of money.

The concert setting was however very different from typical rock concert or club. This was intentional as we wanted to stage the performance as a classical concert or theatre or dance performance – both more representative of acts that Lume’s Studio Stage usually hosts. As a work of art Nazca | Lume deliberately consolidated these *harmonic opposites*. I believe that these decisions contributed to the synaesthetics of the experience just as much as any possible fusion of sound and image.

Bibliography

Aristotle: *Poetics*.

Dekker, Annet: *Synaesthetic Performance in the Club Scene*. Conference paper, Cosign 2003: Computational Semiotics. University of Teesside, Middlesbrough, Great Britain.

Machon, Josephine: *(Syn)aesthetics and Disturbance – A Preliminary Overview*, in *Body Space & Technology Journal*. Brunel University, 2001.
<<http://www.brunel.ac.uk/depts/pfa/bstjournal/1nol2/Josephine%20Machon/>>
Link verified 22 March 2004.

Orwell, George: *1984*.

Sheldrake, Rupert: *A New Science of Life*. London: Blond & Briggs, 1981.

Youngblood, Gene: *Expanded Cinema*. New York: P. Dutton & Co., Inc., 1970.

DVD references:

Corbijn, Anton: *One Night in Paris – Depeche Mode Exiter Tour 2001*.

Kubrick, Stanley: *2001: A Space Odyssey*.

Online references:

Lamminmäki, Harri: *Parempia hidastuksia?* An online article.

<<http://www.hut.fi/~hlamminm/dv/hidastus/>> Link verified 22 March 2004

Scott, Ridley: *1984 (Apple Macintosh 1984 Superbowl Ad)*

<<http://www.apple.com/hardware/ads/1984/>> Link verified 22 March 2004.

The open source Flash scripts used in *Nothing and Real Love*:

<<http://levitated.net/>> Link verified 22 March 2004.

The Golden Record of the Voyager.

<<http://voyager.jpl.nasa.gov/>> Link verified 22 March 2004.

Photography credits

Alexander Budde:

Pictures: No. 14, 15, 18, 19, 21, 26 B, 41, 42, 44, 46, 47

Juha Huuskonen:

Picture No. 22

Lasse Kaikkonen:

Picture No. 26 A

Eeva Melvasalo:

Picture No. 3