

During the Next Five Minutes-festival in August 2004, a sound representing the colour yellow was sent live via the internet from Tokyo and a sound representing the height level of the river Donau came live from Prague.

Connected! LiveArt

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**connected! LiveArt**

## Connected! LiveArt

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The Connected! Programme is supported by the Netherlands Culture Fund of the Ministry of Foreign Affairs (HGIS Cultuurprogramma), the Ministry of Education, Culture and Science.

The publication of the Connected! Programme was possible with the kind help of the European Cultural Foundation (ECF).



## preface

Recipe for Connected! LiveArt

### Ingredients:

- one city gate dating from 1488
- one media lab that researches /technological culture/
- one gigabyte-connection to the internet research network
- one international network of artists, nonconformists and hackers
- inspired producers
- confidence from funding organizations
- one publication

Preparation time: 2 years

### Preparation method:

First, make sure the city gate is connected to a broadband internet connection. Have faith in the ability of artists to do fundamental research in new forms of interaction and expression. Give the producers enough space to develop a research programme for which the research method has yet to be invented and the results are unknown. Convince national and international funding organizations and governments of the importance of the programme. The result will be an extraordinary series of events, encounters and presentations. Collect all of these activities in a publication. It will show the quest for connecting technology and culture, and the making of a new art form. Be inspired!

Marleen Stikker

Founder Waag Society

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## foreword

During the Next Five Minutes-festival in August 2004, a sound representing the colour yellow was sent live via the internet from Tokyo and a sound representing the height level of the river Donau came live from Prague. A room full of artists were mixing the sound-input on their laptops as an internet-audience and a live-audience in the Theatrum Anatomicum in Amsterdam were watching and listening to the performance. It was with a mixture of surprise and excitement but at the same time irritation that I perceived the performance. It left me with questions such as 'how does an audience understand that the inputs were live?'; 'how does one understand that from so many different places, different locations, a live-concert is realized- is it necessary to visualize that process?'. At the same time I questioned myself as to whether or not it is an added value to know these details and maybe the audience should just listen and enjoy the result of the collaborative process.

In the Connected! Programme these questions were raised by performances and experiments. It was not so much the technical side of realizing a connection in a network but more specially, the social artistic dimension, and how, in a connected performance, it is not only a challenge but also an avenue of research worthy of attention.

Making the connections and collaboration in a network with artists and institutes was much emphasized in Connected! The Making of a LiveArt Exchange. The importance of the involvement by artists, universities, partner-organizations and foundations has been made visible in this catalogue.

In order to really create a programme for the exchange of experiences, knowledge and experiments you need a commitment from dedicated participants and I am really proud that we could get this kind of support from so many people. We will continue to explore 'connected' performances,

installations and presentations in order to raise more questions and to research this fertile field of innovative arts.

I especially like to thank the HGIS Cultural Foundation for their support in realizing the programme. Their understanding of the importance of an international exchange and collaboration was very valuable to us, but also the curiosity HGIS showed for new developments and experiments.

Communication and collaboration via new technologies in the Arts is a challenging field of research. This catalogue will hopefully contribute to the understanding of the dimension of the virtual and physical presence in Connected! Performances.

Floor van Spaendonck  
Head of Programme

## from the editor

*“...at least part of the definition of Live Art has to be its resistance to definition. Maybe it’s called ‘live’ precisely because it hasn’t yet solidified into a category; it is a live process of change and challenge.”*  
– Joshua Sofaer, ‘What is Live Art?’

LiveArt is an umbrella term, a conceptual framework for live arts practice that dynamically slips between the more stratified genres of the performing arts such as dance, theatre, music, and now, games. Its tenet, if one could dare to call it that, is its resistance to representation, to the inscription of meaning, through its embrace of process. Its very liveness and insistence on change and transformation is integral to its practice. The concerns of LiveArt are not about crossing boundaries per se, but favour the dissolution of boundaries into emergent forms.

The Connected! Programme’s approach to LiveArt is all about process - transductive process - the changing of one form of energy into another. Various trajects in the project have investigated the relationship between the digital and the analog, between code and affect, between time and space. Transductive processes occur between humans and the technologies they use to connect to other humans and between humans themselves. They are multiple and multi-dimensional, evoking the sensation of the interval, the in-between of the intensive/extensive, inside/outside, in its möbius strip shapeshift. The fuzzy, distributed affect of live and living connection.

The intersecting of cultural networks through transductive processes, through collaborative exchange, has been a key ingredient in the Connected! Programme. In January 2003 we established a local framework whereby international, transdisciplinary artists and public could regularly meet to evolve a performative aesthetic based on shared virtualities; on co-operative making; on open structures; on knowing-how.

### CONNECTED! THE MAKING OF A LIVEART EXCHANGE

The Connected! Programme spanned a two year period from January 2003 to January 2005. It officially concluded with a celebratory Birthday party for Art in the Theatrum Anatomicum of Waag Society, the local ‘home’-base of many Connected! projects. Although most of the people present at that event agreed with Federico Bonelli’s assessment “that art could have committed suicide in 1984” – the research and the show goes on.

The Connected! Programme had four nested components: Projects, Artists-in-Residence, Sentient Creatures Lecture Series and Anatomic. This book documents many of the activities in these domains; the lectures, the events, the workshops, the performances, the installations, the discourse. Yet, it’s interesting to note that pulling together material for this publication was a bit like trying to capture the wind. Much of the work produced in this two-year period emphasized the real-time process of the making. Documentation of that often fragile, unstable and always already ephemeral process is sketchy at best and marginal to the actualization of the event itself. For many of these artists, documentation is a secondary concern, an afterthought. For others, documenting is an integral process indistinguishable from the event itself.

There are myriad photos in this catalogue of artists behind their laptops. Myriad photos that say little about the levels and layers of codified communication emitted from those unseen screens. These casual, unpretentious shots are images of social networks in progress – the translocal – a feedback loop of the local effecting the global affecting the local affecting the global. Not only does the artwork produced, or better transduced, scramble representational meaning but so too does the process of making. Performance practice that addresses the indeterminate dance-on-the-edge-of-chaos in compositional processes is a felt thing, an experience that doesn’t always translate well in laptop snapshots.

This catalogue has four sections which provide an overview of an expansive, if difficult-to-document programme.

### PROJECTS

The Connected! Programme hosted and/or facilitated several research trajects. Teran and Mann’s LiveForm:Telekinetics was a year long exploration of telekinetic objects that picnicked on three continents. Coleman and Goldkrand’s Vernacular/Music Box took a turn towards re-imagining the architectural space of the Theatrum Anatomicum. Six of Waag Society’s favourite KeyWorx artists participated in a distributed performance during V2\_’s DEAF03 festival. A subsequent masterclass by Doruff during DEAF03 on the theme ‘Collaborative Culture’ was a springboard for the Anatomic initiative.

### ARTISTS-IN-RESIDENCE

This program saw the comings and goings of a cadre of seven artists from Canada, Australia and the USA. Michelle Teran, Mark Meadows, Nancy Mauro Flude (generously co-supported by STEIM), Josephine Dorado, Beth Coleman/Howard Goldkrand and Hellen Sky. Anaya Vajpeyi was our first scholar in residence. Many of them played an active role in the Anatomic community. Nancy Mauro Flude has helped to describe the character of the Anatomic project through her introduction and the editing of several email threads.

### SENTIENT CREATURES

Graham Smith’s series of lectures by artists and thinkers who have shaped art/science collaborations in robotics, consciousness, virtual reality, artificial intelligence and telecommunications drew an avid, dedicated audience over a nine-week period. Smith’s Presence Projector, a device that simply and effectively projected a life-size image of the remote lecturer to his Presence Chair in the Theatrum intensified the discursive theory of virtuality as living practice.

### ANATOMIC

Anatomic was originally conceived as an

experiment in self-organization. We wanted to instantiate conditions whereby young artists interested in networks and networking could evolve their own non-hierarchical structure for exchanging skills. We hoped we could facilitate a group that would direct itself, according to the needs and desires of an always-fluctuating community. Guy van Belle and Arjen Keesmaat, with the help of Jan-Kees van Kampen, were asked to help support this weekly process; to share their considerable technical expertise in the weekly Saturday gatherings and be a ‘gluing’ substrate for a globally dispersed community. Waag Society provided the foundational support of its Theatrum, its gigabit broadband, six laptops, and the six o’clock beer break (refreshing for some, virtual for others).

### RECIPES

And finally, we have included a small sampling of recipes. How-to’s from participating artists that are emblematic of the spirit of the Connected! Programme. Mann and Teran have contributed four LiveForm:Telekinetics pieces from their extensive library of social objects for moveable feasts. Mauro Flude contributes the recipe for a networked cellular experience. Keesmaat and van Kampen have given simple instructions for setting up streams, a crucial technology for connected experiments. Bonelli gives futurist non-instructions for a soluble cinema.

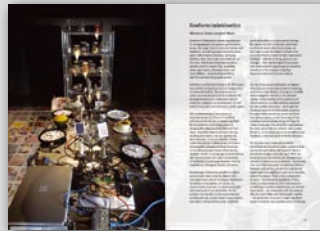
Thank you’s must be given to so many people, from so many places that its impossible to know where to begin and end. Like the möbius strip, the connection between the beginning and the ending, the inside and the outside, becomes a blurred continuity. To all those who connected, many heartfelt thanks from the team here at Waag Society.

*Sher Doruff*  
Editor

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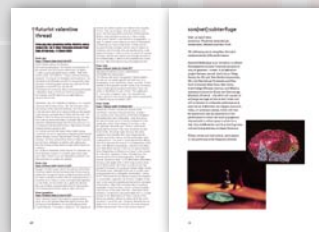
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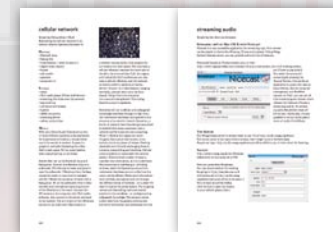
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**projects**



# liveform:telekinetics

MICHELLE TERAN AND JEFF MANN

*LiveForm:Telekinetics* creates experiences in transgeographic temporary performance zones. No longer tied to a terminal screen and keyboard, nomadic groups of social hackers pack mobile feasts of sensors, antennas, robotics, food, and music, and head out on the town. Networked telepresence picnic parties unfold in vacant lots, roadsides, cafes, apartments, alleyways, bars, and hotel lobbies – wherever bandwidth is plentiful and security guards scarce.

Jeff Mann and Michelle Teran's *LF:TK* project is an artistic proposition for a re-imagination of networked reality. The events are not meant as entertainment for an audience, but as experimental and collaborative acts of creativity, research and development of new social forms, and interventions in public space.

Our understanding of what place or situation we are in, of how it functions and how we should act, is largely signified by the collection and configuration of recognizable objects and artifacts we find there. Everyday objects such as clothing, candles, saltshakers, statues, appliances, pictures, dolls, furniture, flowers, dishes, umbrellas, and an endless array of trinkets and gewgaws, possess symbolic functions in our discourse and rituals. They are the physical 'words' in a language of social actions that communicate and make connections of solidarity and exchange between friends, neighbours, colleagues, family, and peers.

Increasingly, it becomes possible to imbue and animate these material objects with microelectronic cells of intelligent behaviour; the ability to remember, to imitate, to communicate, and even to replicate, at least informationally if not physically. On the surface, this has led to mere conveniences: cordless phones, miniaturized music players, and labour-saving kitchen aids, marketed

as shiny baubles in a consumerist fantasy. But below this foil of rational usefulness and brand-aware identity purchase, we can begin to see the deeper outlines of an animistic breed of electronically augmented artifacts – hybrids of thing, gesture, and thought – with psychological dimensions ever more suited to participate as narrative elements in the complex unfolding dance of social and cultural creation.

On top of the social codification of objects and place, is a more recent layer of meaning and value, a signification through an invisible electromagnetic overlay on the physical terrain. A tiny fraction of the spectrum of the airwaves at 2.4 GHz has been declared an open public commons – as though the airwaves were not already public property. In many cities around the world, we find a new phenomenon: a wild flowering of free wireless Internet access points dotting the urban landscape. Unnoticed by most passers-by, what seems like an ordinary cafe or park bench is, to the sharp eye of the stumblers and chalkers, a charmed patch of fertile dataland.

On the one hand, these points can be considered as convenient oases, places to stop and re-fill one's inbox. But beyond that is a structural change to the city itself. With the Internet as its root system, an underground network of data tunnels is formed – wormholes that can instantaneously collapse the distance between end points, portals that may just as easily lead to a neighbour's yard as to the other side of the planet. They create a singularity of place – providing the possibility of live, multi-situated presence. The coalescence or overlaying of socially coded situations via real-time media – the restaurant with the science lab, the hotel lobby with the farmers' market – demands new forms and imaginings about social interaction and possible ways of relating.





What happens when the ordinary objects in our daily life wake up, turn on, and tap in to this upper electronic noosphere? Using wireless technologies as nerve nets, they reach out to form hybrid colonies and cultures. By incorporating TCP/IP, the digital genetic code of the Internet, they can feed on and into the larger streams of internet work cross-pollination provided by the wireless access points.

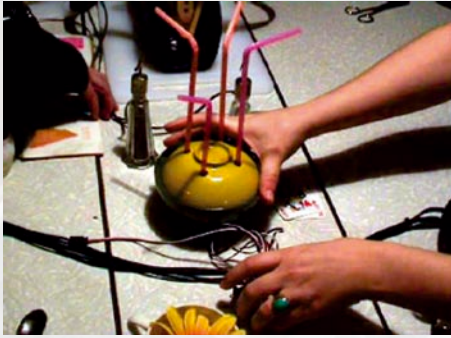
The electronic collapsing and interfolding of place happens then not only on the level of speech-based media – instant messaging, audio chat, and video conferencing – but through a subtext of digitally activated collections of artifacts and the amplification of their function as networks of social communication devices. It is within this context that the *LiveForm: Telekinetics* project proposes to investigate the potential for the invention of new untried processes of interaction, alternative social customs, and modes of work and play.

For a down-under spring lunch on the grass, we choose the lawn of an apartment building beside a small creek. Three of us begin laying out a picnic blanket with batteries, cables, salami, hand-made micro controller boards, cheese, and servo motors, while another uses a powerbook as a high-tech divining rod to scan the air for the mystical sign of the 'inksys'.

One of the building's tenants leans out his window to complement us on our choice of operating system – he's a Mac user too – and gives us some advice on where to get dental work done while visiting Perth. Network and software trouble means we only have a minute or two of contact with our friends lunching across town in a public park. Such is the fragile ecosystem of the connected environment. As we debate the morality of reconfiguring our unseen host's router settings, we sample our freshly-made saltshaker motion sensors, the chorus of robotic singing tea strainers and dancing corkscrews, and several bottles of fine Australian wine.

December in Amsterdam is no picnic, so we meet inside our favourite cafe Latei, the one with the shelves full of vintage flea-market items for sale. With the experience of several other events, our culinary skills have grown, the software is stable, and the network is solid. We have prepared two identical elaborate telemechanical menus; one we bring with us to the cafe in our wicker picnic basket, while the other is assembled in a friend's kitchen, across the ocean in Montreal. There are four place settings at each table. The cutlery is wired to sensors, and the dinner plates have clock dials for selecting different functions. The gestures and rhythms of eating produce a kinetic choreography realized in a spread of motorized objects, concocted from household items, and set on the table. The sensor data is also transmitted live over the network, and is reflected in identical objects on the other side. As the chef hands out plates of couscous in Amsterdam, we jam with the 'forks in a purse' and the twirling playing cards in front of us, moving them in time to the disco jukebox. Through a small screen, we can see their twins in Montreal mimic the moves, with only a short delay. Our Canadian friends have control of the can-can kicking scissors, bowl of looking-straws, and other delights. Overtop of the music, we chat with them through the audio stream as they cook pierogies. Although our intention is not to put on a show for the cafe patrons, a few of the people at other tables wander over – observing the customary protocols of joining a group of strangers in public – and we make some new friends.

The organic and evolutionary nature of social networks and systems is also mirrored in the preparation process for the outings, an important part of the social ritual. The sharing of recipes, shopping, cooking, and party-planning is centred in the 'LF:TK Test Kitchen Laboratory'. Avoiding top-down design, a collaborative evolution of social and technological elements and rituals is presented as a durational performance, an ongoing event, and as an integral part of the dissemination of the work. It is set up in a gallery or other space, as a working laboratory for



the recombinant concoction of networked devices and dishes. Inverting the usual workflow from private artist studio to exhibition space, the gallery becomes a public workspace where installation elements are built up and then brought out into 'real-life' situations in the urban environment.



The lab is complete with soldering irons, hot-plates, electric drills and drink mixers; detritus and debris, discarded objects found, bric-a-brac borrowed, refuse bought at flea markets, Taiwanese toys of questionable function, fruits and vegetables, gin and tonic. Op-amps, transducers, and microcontrollers, speakers, sensors and motors. String, wire, glue, and glowsticks. Strange smells. Weird people.



The artists occupy this space and invite guests and collaborating artists to help in the social construction of connected events. Extensive documentation of the events and experiments is published in the lftk.org wiki, including photographs, blog entries, and illustrated recipes with do-it-yourself instructions – a community cookbook for electric picnics.

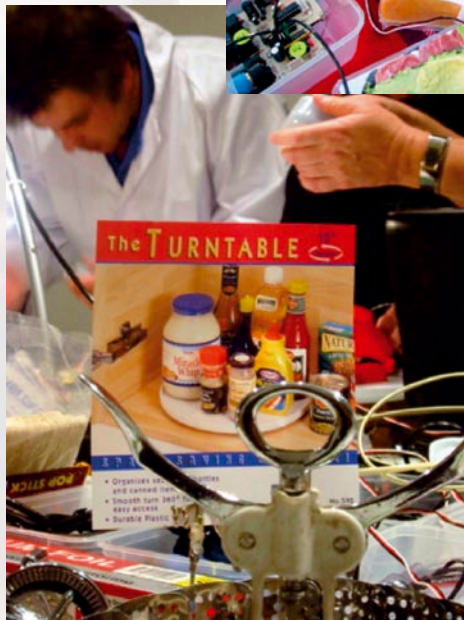
As both research lab and public intervention, *LiveForm: Telekinetics* investigates and creates opportunities for collaborative play and social interaction over distance. It acknowledges the importance of embodied gesture, body language, food, social rituals, and the preparation and physical environment of a gathering place, in creating shared experience.

The process of renewing and re-imagining our social behaviours cannot be discovered by an objectivist scientific method, nor by departments of marketing professionals. It is necessarily a process of experimental irrationalism, a continuous and organic recombination of artifacts and rituals, a conversation without yet a language.

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## If:tk test kitchen: perth

### PREPARATIONS FOR A PICNIC IN PERTH

In September 2004, LF:TK's mobile test kitchen was installed at the Spectrum gallery in Perth. The space showed a white table covered with several kitchen and household objects, toys, tools and electronics. Four people dressed in lab coats were assembling cutlery, cans, corkscrews and clocks, creating new interfaces that expressed functionality, tactility, fantasy and horror. These were the main ingredients for a connected picnic in two public parks in Perth. For this purpose, the gallery had been transformed into a multifunctional environment of a kitchen, an exhibition space and a lab. Though the preparations in this hybrid space seemed part of a secret experiment, the large window at street level exposed this spectacle to curious passers by; their first encounter with the LF:TK.

One of the challenges of 'LF:TK. test kitchen' was to transform their gaze into participation and, more specifically, into (social) play. The project encourages the audience to apply their imagination and sense of play to both the creation of their own interfaces and the process of playful interaction. This focus seems ambitious: most adults perceive playing without the concrete objective of a game as an uncomfortable act, especially when performed in public. Inviting the participants to play could cause the opposite effect: instead of establishing 'affection', it might trigger alienation. How did LF:TK reverse this process? And which aesthetic or social recipes turned out to be effective?

To introduce the participants into the play-mode, the LF:TK preparation process followed the step-by-step approach. During workshops, little social events in itself, the participants could re-appropriate objects like tea strainers, coloured straws, plastic spoons and scissors. Because of their tactility, shapes and colours, these became 'objects of desire',

immediate sources of inspiration for play.

Creating a personalized interface, an object of self-expression, intensified the desire for affective interacting. After a while, a funny process of personification was taking place: the creators started to identify with 'festive straw lookers', 'cork screw men' and 'bugs-in-a bowl', objects that looked alienating at first sight. Their performance was to be continued during two picnics in suburban Perth. As an informal social event, it would be the ideal opportunity for extending the concept of picnic by developing a new ritual: that of connecting two spaces through playful interaction.

But how to develop a new language of interaction, gesture and movement? How to communicate through these interfaces without seeing or hearing each other? In the beginning your vocabulary seems limited, leaving you experimenting with fast and slow movements only: a 'knock-on-door' kind of sensing presence rather than real communication. But after a little while, the rotating and nodding interfaces challenge you to explore the spectrum of intervals, the frequency and the intensity of the movements.

'LF:TK test kitchen' resulted in a pleasantly unpredictable choreography of dancing objects, frantically rotating clocks, waving flowers-in-a-cup, or an army of marching forks. Their language is intuitive and not yet coded. It is a language that expresses spatial and social ambiance, an atmospheric exchange between two spaces.

*Deanna Herst*



## If:tk blog extracts

12/9/2004

**DECEMBER 8TH AT EAT AT Jo's**

Filed under:

eyewitness-Amsterdam

— michelle @ 3:47 pm

Tonight is the first night that everything comes together. The first evening goes through the predictable stages of chaos, awkwardness, frustration, fatigue, interest and joy.

The selected table is closest to the street and the scene attracts a lot of attention from passers-by.

On the table are two pairs of scissors mounted on a rasp that move in a snapping motion, three tea infusers whose mouths open and close, a spinning flower in a coffee cup, four forks that sway from side to side and mounted in a purse, four scanning straws in a bowl, a corkscrew that moves up and down, a salt and pepper shaker with playing cards connected by clips that flutter and spin, several clocks with cupboard knobs as dials and cutlery by their side. It is a combination of objects that creates a beautiful, yet strange arrangement.

Soon everything on the table is moving in what appears to be a random and chaotic mess. I hear laughter on the other end, but no words are exchanged. Lucas suggests a scrabble board to form messages to Montreal via the video conference. We write a customary 'hello'.

Her face is covered with glitter and she



also plays the forks. The forks are very popular. They both say it is really beautiful and then ride away on their bicycle.

I realize that I won't feel any sense of connectivity until I know who I am connecting with. I need to see a body, I need to see a face.

Jeff turns on some JunkieXL. With the layering of music, all the movements start to making sense. The whole table comes together in a choreography of movement. We are pinged through an iChat text message from Montreal saying that they are enjoying the music as well.

A group of three soon sit at the table, play with the objects while eating and seem to enjoy the whole experience. We sit at a table next to them and discreetly observe the scene.

The evening ended with two very peaceful window views from each side of the ocean. A rainy day in Montreal, a quiet evening in Amsterdam. The room was empty again. A female voice serenaded us in Spanish through cafe's speakers.

### **IMPRESSIONS FROM THE MONTREAL SIDE**

Filed under:

eyewitness-Montreal (Michelle Kasprzak)

— MK @ 9:11 am

... the setup in Montreal is quite different (no shared meals around a table, for example).

The telematic objects have been arranged in



a window vitrine, which increases visibility to the public that passes by on busy Boulevard Saint-Laurent, but is a little more formal than the cosy and relaxed atmosphere we observe through iChat at Eat at Jo's in Amsterdam.

This difference is part of the beauty of telematics. You cannot mirror a situation exactly across space. There is slippage, error, and delay. There is uncertainty. It is part of the puzzle to be solved and the fact that the way the Montreal side is set up encourages watching but not necessarily direct participation is interesting. Is telematics a spectator sport?

...passers-by have been knocking on the window and waving, smiling and pointing, and expressing pleasure at watching us perform the installation from inside. It is an impressive feat to even stop pedestrian traffic on Saint-Laurent, and it is pleasing to see that people who are usually so determined to get where they are going will stop and admire the piece in action.

Time is obviously another place where the differences of our shared reality are highlighted - it's time to unwind in Amsterdam after a long day, while I prepare for many hours awake and working by nibbling on lunch and drinking coffee.

The key, then, to the shared reality is not space, since the environments are so different, and not time, since we are hours out of sync. The objects form the conduit through



which we attempt a conversation, physically expressing our moods to each other.

For now, we are still learning each other's moves, and by the end, I'm sure we'll not only be in step, but shaping each other's movements and completing each other's sentences like an old married couple.

12/10/2004

### **IMPRESSIONS FROM AMSTERDAM**

Filed under:

eyewitness-Amsterdam

— michelle @ 9:28 pm

Technology is easy, social is hard.

12/11/2004

### **TECHNOLOGY IS EASY, SOCIAL IS HARD**

Filed under:

eyewitness-Amsterdam

— michelle @ 3:01 pm

Communication is about miscommunication. We hear and interpret according to our desire.

Is the movement only special if there is also non-movement? The work requires repeated engagement, commitment and some personal investment. Is this possible within the conditions we have set up? What is the ideal scenario? Who and what are we doing this for?



The table is full and the room is warm. At first there is expectation and anticipation for the connection. However when this doesn't happen, conversation takes over. We move from one topic to another and sip our drinks.

Margie unconsciously moves her hands over the cutlery controlling the purse object. The forks start to sway back and forth. I find myself enjoying this subtle kinetic layer to our conversation, as the forks become Margie's fingers. If we were connected with Montréal, Margie's fingers would travel across the ocean, her gesticulations inhabiting a distant space.

There is another magical disruption of silence as the bowl with the straws start to move. One straw scans side-to-side, then the next, then the next, as each is tried out. Montréal is making an introduction. Introductions are so important. They have our attention. Because the movement is so deliberate, there is an awareness that somebody in Montréal is moving this straw.

12/12/2004  
**WE HAVE CONNECTION**  
 Filed under:  
 eyewitness-Amsterdam  
 – michelle @ 2:17 pm

People enter more easily into this strange but wonderful inter-object kinetic ritual over space and time within locations where they feel comfortable or expect something different and are willing to spend several hours together.



I anticipate that a social gathering in somebody's home would be the ideal location, a place where you feel safe, where you can relax and enter into a play mode.

Not everybody gets invited to dinner, not everybody gets to be at the picnic.

Last night's experiment within the Theatrum Anatomicum went through the stages of a nice party. First emptiness, then arrival, introduction, tentativeness and discomfort, a sudden crescendo and euphoria, some rest, another surge, relaxation and departure.

We are not entertainers and there is no audience.

There is a definite period of trying things out. Comments that the whole setup is imposing and complex. There is chaos as everything is turned on and left on. Then there is silence.

We start signalling and responding to each other through the objects. I prefer the live movement to the presets. It's quite special when, after period of silence, an object starts to move in an erratic manner that could only happen through human intervention.

Occasionally a face comes into view. It becomes important to see this face. Not all the time, but just sometimes, if not to say 'Yes, I am here'. We reveal our faces back.

There is an interesting transition between



the work being completely inaccessible to suddenly everybody losing their inhibitions and performing some weird kinetic operation around the table.

There is a moment when suddenly everything just 'works'. Everybody is playing together. We see a table filled with hands playing with clocks in Montreal and we are mirroring the same image back. The table is an amazing choreography of sound and movement. Suddenly everybody just 'gets it'. It's great fun.

Somebody comments that for awhile you completely lose yourself but then come to your senses and ask 'what am I doing?'.

Deanna imagines a room filled with objects on tables. The room is filled with people performing kinetic operations. She doesn't want one fork purse. She wants 10, 20, 100.

**DAY 2 AT THE SAT**  
 Filed under:  
 eyewitness-Montreal  
 – Michelle Kasprzak @ 6:54 am

We began slowly, there is always a period of acclimatization.

She is very game and spends a few minutes, marvelling that her actions are being felt at such a distance. This is one of the high points of the day - someone who really gets it and feels the magic.



Perhaps they enter 'assessment mode' and not 'play mode' - they want to talk to each other about what they are seeing rather than be the one in their group to step forward and engage.

Children are never inhibited, however, and consistently children understand that activating the piece involves touching the forks and spoons next to the clocks

...there were magical moments of synchronicity, and other times where chaos took over and things had to be brought back to simple interactions to regain coherency.

12/15/2004  
**DE BALIE CONNECTION**  
 Filed under:  
 eyewitness-Amsterdam  
 – michelle @ 6:18 pm

When we arrive, the cafe is already bustling with Sunday afternoon coffee drinkers.

We casually start to unpack a few things and lay them on the table.

One must also embrace the ritual of preparation.

They eat and talk while the forks move near her in erratic patterns.

People enter through the foyer and are drawn towards the kinetic scene they witness from afar.

It is not long before we have a table filled with people who are either playing or watching.

The intervention has the appearance of something impromptu and transient. This I like. A temporary, fluid, poetic transformation of space. Something that happens quickly and then lingers in memories.

12/16/2005  
**LATEI CONNECTION**  
 Filed under:  
 Theatrum Anatomicum  
 eyewitness-Amsterdam  
 — michelle @ 9:01 pm

Acknowledging that these interactions are transient and brief, I wonder what kind of experience people take away with them.

There is no prying, no probing, no 'usability research'.

There are merely people participating in something together, taking turns watching each other and taking away a story that they themselves now own. Is the story shared with others? Does it make its way into people's dreams? Does it change the way you view a public space? Does it change your assumptions about what is a networked reality? Does it make you laugh later? Do you forget about it as soon as you walk out the door?



## my life with lifeform: telekinetics

It was a bit of a coincidence that I immediately agreed to Waag Society's request to house the *LifeForm:Telekinetics* project. This was because Michelle Teran and Jeff Mann were more interested in a work space per se rather than in the Melkweg as a specific context. I was mainly familiar with Michelle's *Life: A User's Manual*, and was certainly not alone in my admiration for this work. Like *Life: A User's Manual*, I feel that *LifeForm:Telekinetics* once again reveals the narrative, poetic and engaged aspects of communications technology.

The interactive and networked media art that I have seen up till now mainly appeals directly to the senses. However, Michelle and Jeff have added a cerebral layer to their *LifeForm Telekinetics*. At the LF:TK presentation at Waag Society, the Melkweg, de Balie and Latei, the objects' network connection was reinforced with an audio-visual link so that you could see who else in the world was playing with these domestic appliances. Nonetheless, the objects required a certain level of imagination on the viewer's part, and they are clearly poetic rather than functional, and imaginary rather than practical. The point of these objects is not that some action undertaken in Australia or Canada should result in making my sandwich in Amsterdam. However, the impression that this project has made on my imaginative faculties has been far greater than the sensual effect of most interactive work, and this is where I feel that Michelle and Jeff have succeeded in their objectives. They do not aim to function like those playgrounds that fail so dismally in the many houses of the future throughout the world, rather they are trying to show us - the participatory audience - the impact that telecommunications will have on our lives once they permeate social spaces such as kitchens or even bathrooms.


day I would pass their space in the Melkweg as I walked to my office. They often had visitors who were working with them or discussing the project's possibilities or problems. By regularly spending time at their lab, I gradually began to understand the point of their work.

When I first started working here, I discovered that it was not at all unusual to provide space for media artists and other artists who did not immediately lay claim to the Melkweg's stages. Once *LifeForm:Telekinetics* became ensconced at the Melkweg, I discovered that many years earlier, in 1972, Kit Galloway and Sherrie Rabinowitz of Videoheads had also spent some time at the Melkweg and that they too were telepresentation artists par excellence. Their 1980 *Hole in Space* project used satellite technology and a camera-monitor combination to connect the public with Los Angeles and New York City. Despite the many years that separate Videoheads from *LifeForm:Telekinetics*, I have again become aware of the importance of providing space for the development of media art projects in the Melkweg. Contemporary media art tends to focus on networks, and many of these projects are extremely ambitious and demand a great deal of bandwidth. I believe that much artistic research still needs to be undertaken so as to depict our increasingly networked lives without the need for state-of-the-art technology. Everyday life is both 'do-it-yourself' and the most important source of inspiration for art. The same is probably true of the media and the materials that artists use, and it is this approach that, no matter how modestly, enables art to transcend its own boundaries.

*Lucas Evers, De Melkweg, Amsterdam*

It took me a long time to realise that this was what Michelle and Jeff were aiming at. Each





## the music box installation

*Theatrum Anatomicum of Waag Society  
19 August 2004 - 8 September 2004*

In a site as rich with history and its ghosts as the Theatrum Anatomicum, we experimented with a kind of celestial array of sound running across its dome. Darkening the space and filtering any natural light through yellow and orange vinyl, we created an armature from which to hang 16 hand-blown speakers. The sound skips and shimmers overhead. The listener stands beneath. Divided into 16 individual channels (a surround system), the speakers are directly connected to the virtual environment of the Vernacular software interface. The multi-channel system is a sonic reflection of a media mix done with the Vernacular software, which has been developed for this installation in collaboration with programmers from Waag Society. The link created is a translation between a three-dimensional digital matrix of sound and motion into the experience of actual space and time. Music Box is a piece in which we play with ideas about sound, architecture, software interface, and cybernetic motion via the Vernacular software project in real time.

The New York-based artists Beth Coleman and Howard Goldkrand began collaborating in 1995 with the SoundLab Cultural Alchemy project, a nomadic, multi-media event.

Vernacular software is an associative data processor designed by Beth Coleman and Howard Goldkrand with the support of Waag Society, EAI and the Rockefeller Foundation.

*Beth Coleman and Howard Goldkrand*



## babylon resurrected

VERNACULAR & MUSIC BOX BY BETH COLEMAN AND HOWARD GOLDKRAND

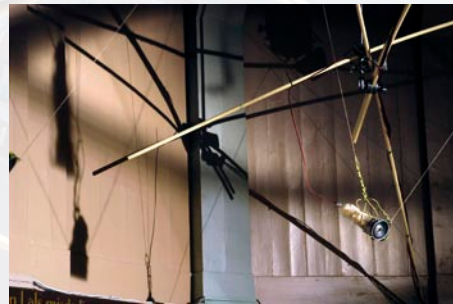
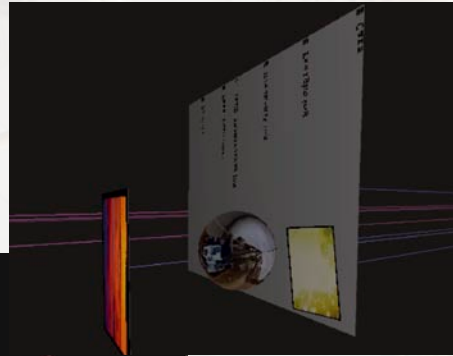
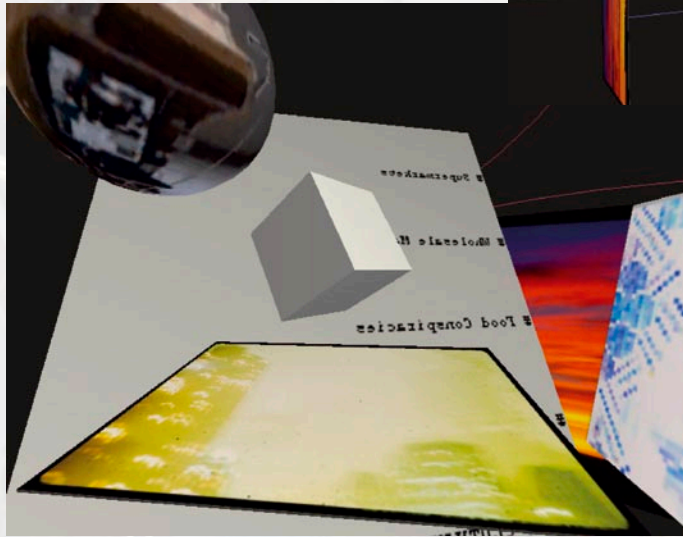
*"I remember January in Tokyo, or rather I remember the images that I filmed in January in Tokyo."<sup>1</sup>*

*"A translation touches the original lightly and only at the infinitely small point of the sense, thereupon pursuing its own course according to the laws of fidelity in the freedom of linguistic flux."<sup>2</sup>*

Soon after machines started talking, humans tried to find ways in which to turn the shifting of gears, the rolling of tape and the hum of electric currents into something they could relate to. And, as our difference engines, storage devices and writing machines evolved into information processors, our interaction with them changed from flipping switches, moving cards and watching dials to typing on a keyboard and watching the changing patterns on a cathode ray tube. When writing code, these user interfaces serve their purpose pretty well. But, in a world where we use PDA, GPS, mobile phones, video cameras and minidisk recorders to map our personal environment, new narratives that define our intimate relationships with our machines are called for. Research into the emulation of human vocal communication by digitising speech is propelling us into a futuristic present where droids such as C3PO (Master Luke! Master Luke!), KIT (yes Michael) or Wikki (beedee-beedee-beedee, yes Buck) provide us with a very servile view on man/machine intercourse. Hardly an adequate way to define the more complex forms of interaction in the new dimensions that the media are continuously opening up. *Vernacular* by artists Beth Coleman and Howard Goldkrand, articulates a different and very eloquent perspective on our daily communications in a networked society. Furthermore it creates a platform from which to really explore the languages that we speak while being immersed in information.

*Vernacular* is a piece of software that enables the user to create a digital media mix in a 3D environment. The program opens a palette where the user can input data to create his or her own solar system. Within this personal universe, all kinds of information becomes part of the primordial soup. From a sound file you recorded in the Amazonian rainforest, the piece you wrote for your university assignment, to hacked webcam imagery from the International Space Station and calculations of the Icelandic weather forecast. Everything that can be translated into digital data becomes a cube, a sphere, or a flat square in this little galaxy that is *Vernacular*. By using several prestyled categories (some of which are imaginatively called Mobile, Stealth and Unit) or designing your own, you can assign certain characteristics to your data and create associative taxonomies. Using these categories, the cubes, spheres and flat objects rotate, attract, pull and tilt like planets in space following the 'laws' you have given them. The gravitational pull making sure that they always return to each other's orbits. Based on flocking algorithms, movement in *Vernacular* is reminiscent of the flight of migrating birds, where an individual bird's manoeuvres are in relation to the positions and velocities of its nearby flockmates.

Integrated in the Music Box Installation<sup>3</sup>, *Vernacular* evolved into a sound-installation which consisted of 16 handcrafted speakers constructed out of reclaimed material, hung from a grid made of PVC tubes. Audio could be moved around the room using *Vernacular*. Although the software is a very visual tool for metadata mixing, in Music Box the output of all these elements was translated into sound. Using audio reflects the artists' roots which can be traced back to what Ulf Poschardt calls DJ-Culture<sup>4</sup>, as well as a deeper interest in acoustic space. Much like a DJ mixing, scratching and cutting records on two turntables, *Vernacular* enables the user to appropriate data from various sources and integrate them into the mix.





By unfreezing information out of its original context and placing it in new constellations, data is given the opportunity to remain in constant development. But rather than solely using the technique of collage or montage to compose new narratives, Music Box is about creating an acoustic space where the language of new media is spoken. This space is different from the linear and grid-like organization of reality in visual space. The 'ear world' as Marshall McLuhan also calls acoustic space "is a world of simultaneous relationships".<sup>5</sup> Sound engages you, it envelops and submerges you, it is nonlinear and affective. Nothing is static in the ear world, no fixed objects, no unchanging context, everything emerges from relational dynamics. According to Erik Davis acoustic space opens up new dimensions "of openness, of indetermination, of the affects of the unknown."<sup>6</sup> Music Box resonates with sound and thus provides an affective environment for experiencing this unknown world. *Vernacular* organises the objects in this universe by letting them engage each other according to theories of mobility and variance instead of laws of causality. As such it is in tune with developments in neurobiology, artificial intelligence and chaos theory with its emphasis on self organisation, nonlinear dynamics and emergence. By translating the various languages of the new media into the acoustic space of the Music Box, *Vernacular* opens up a place where the unexpected possibilities of communication and relationships in our hypermediated world are investigated as they come into existence.

According to Walter Benjamin a good translation is not about making an exact copy of an original text. Translation is about changing language itself. By translating, say, a text from Persian into German, the latter is powerfully affected by the foreign tongue and, in fact, becomes more Persian. We must view the way our encounters with informational machines changes the language we speak in a similar way. Instead of letting our computers simulate human vocal sounds, it is our tongue that evolves



as a result of its relation to the talking machine. And, it is not just discourse that is changed. By inhabiting the same space we form attachments that alter our subjectivities as well. As Chris Marker rightly observed, our media are much more than simple recording and transmitting devices. We entrust them with our most intimate secrets, digitally engrave them with our most precious memories and use them to map our personal identities. As such, they have become essential to constructing new forms of subjectivity. In sharing our space with our machines and allowing meaningful relationships to emerge, we evolve into something Katherine Hayles calls the posthuman: "an emergent phenomenon created in dynamic interaction with the ungraspable flux from which also emerge the cognitive agents we call intelligent machines."<sup>6</sup> *Vernacular* provides a translation tool which maps the grounds from where we can start embracing our information technologies in an affective touch. Changing the way we communicate.

#### Wander Eikelboom

Wander Eikelboom is a writer and cultural critic who is currently finishing his dissertation on the imagination of history in fictional audiovisual media.

1 & 2 Walter Benjamin, *The task of the translator*. In: *Illuminations* (Fontana Press, London 1992), p.81

3 On show at the *Theatrum Anatomicum* in Waag Society during the period of the 26 August until 8 September 2004

4 Ulf Poschardt, *DJ-Culture* (Quate Books Limited, London 1998)

5 Marshal McLuhan, *The Medium is the Message. An inventory of effects*. (Penguin Books, Middlesex 1967), p.111

6 <http://www.techgnosis.com/acoustic.html>

## collaborative culture

3-7 March 2003

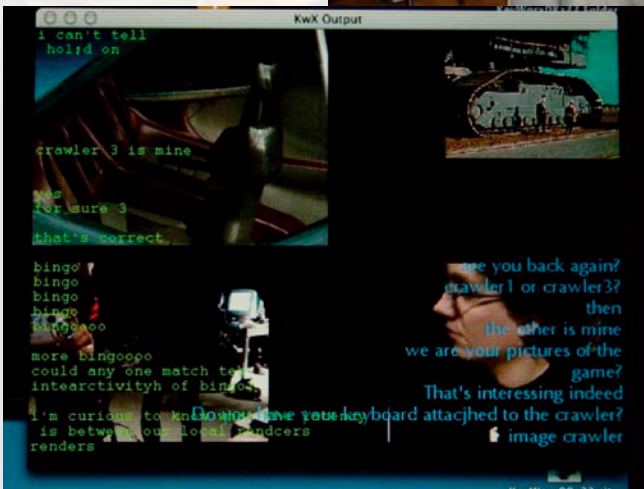
In 2002 and 2003, V2\_ : Institute for the Unstable Media, Rotterdam, hosted a series of four masterclasses entitled *Interfacing Realities*. The workshops were given by Lev Manovich at C3, Budapest, Joel Ryan at ZKM, Karlsruhe, Rafael Lozano-Hemmer at Ars Electronica, Linz and Sher Doruff at the DEAF03 festival at V2\_ in Rotterdam. The following text is an extract from Doruff's call for participation for the masterclass *Collaborative Culture*. A longer text of the same name that can be found in the publication *Making Art of Databases* V2\_/NAI Publishers, 2003.

Interdisciplinarity in current arts practice has several contexts. Two that are relevant to this workshop meld into an analysis of dynamic, collaborative media systems and their emergent aesthetics within the culture of online community.

- Media Context – digitized mediums or modalities such as sound, image, text, touch (gesture) applied and synthesized in software that enables parameter control between media types - sound influencing visuals, text created by image analysis, visualization of abstract data, movement tracking control of audiovisual content, etc. This dynamic, real-time, transmedia interaction produces a perception of generative synaesthetics through linear, causal relationships between media properties.

- Collaborative Context – pandisciplinarity of expertise including the sciences, engineering, technology, interdisciplinary arts, critical theory. Practical (macro-level) collaborative models, variously grained in hierarchical structure, dynamic structure, interaction, intention, communication and authorship, are in many ways consequent with models (micro-level) of collaborative system theory – a non-linear parallel process.





What these contexts have in common are linked interactions between similar and dissimilar types that, arguably, result in new mediums, behaviors, aesthetics. What is of interest is the process of interaction, the energy between the nodes, the dynamic data between properties, the flow between agents. The fusion of these contexts is the foundation of our focus in this workshop which will examine the conditions and qualia of interdisciplinary (rich media), networked, collaboration in relation to how we, as human agents, dynamically process, provoke and negotiate events in distributed, online, interactive environments.

Correlations between technologically enabled, multi-dimensional communication over networks and speculative theories of embodied/cultural cognition (that knowing is not 'brain' centered symbol crunching but a constantly shifting processing of quantum information from outside the body) is indeed fertile ground for debate over database aesthetics, classification and content management. Interactive communication over networks and digital processing of live and archived media, the tools of LiveArt practitioners working in distributed environments, inject a

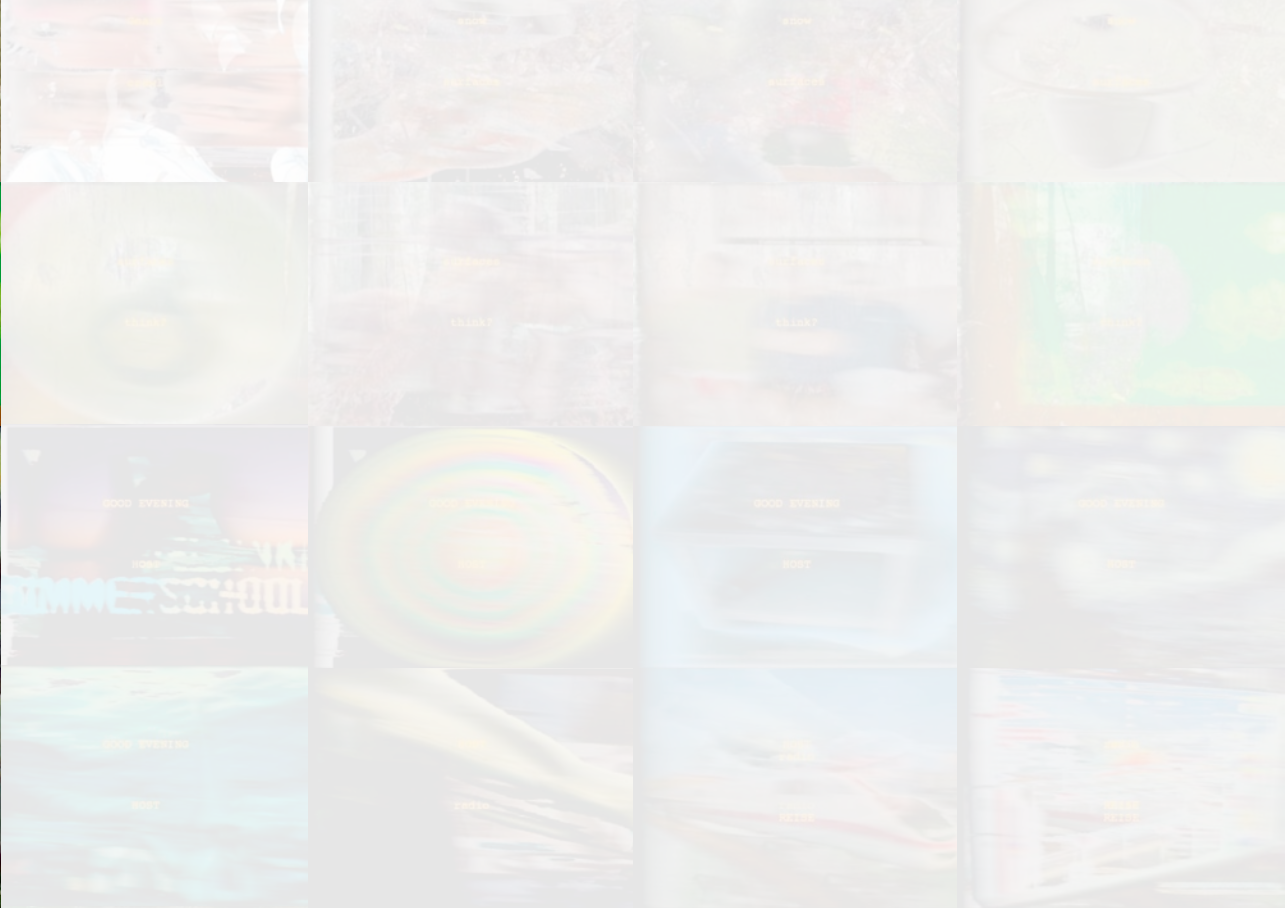
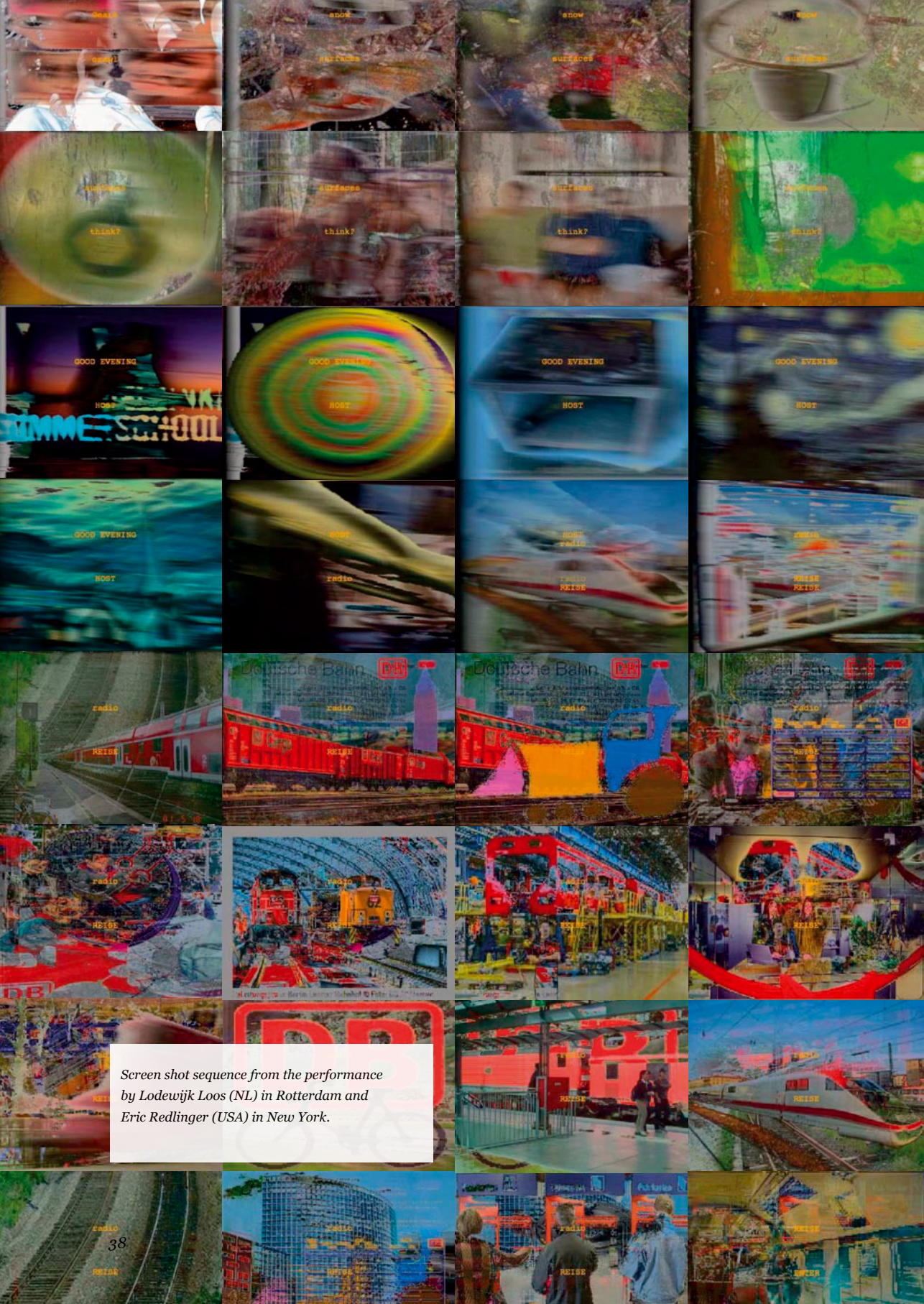
new set of conditions that reflect an emphasis on the the gradient properties emerging from the process that evolve and expand the system itself, eg. emergent datamining.

**PRACTICAL VECTOR**

KeyWorx, developed at Waag Society, (formerly KeyStroke) technology will serve as the primary experimental platform for this research. KeyWorx is an R&D project which enables collaborative distributed environments for multidisciplinary artists to create and disseminate new media performances from a shared workspace to a global audience. Live and archived media can be instantiated and modified by up to five participants in a session. The performance output is broadband streamed and/or beamed to local audiences and web viewers. The meeting and live interaction of diverse personalities and skillsets on a virtual, global stage will serve as a 'petri dish' for an analysis of collective aesthetics.

Group projects in the workshop will involve preliminary designs for collaborative systems that emphasize cognitive/cultural aspects of real time interaction and the interpretation of dynamic interaction.





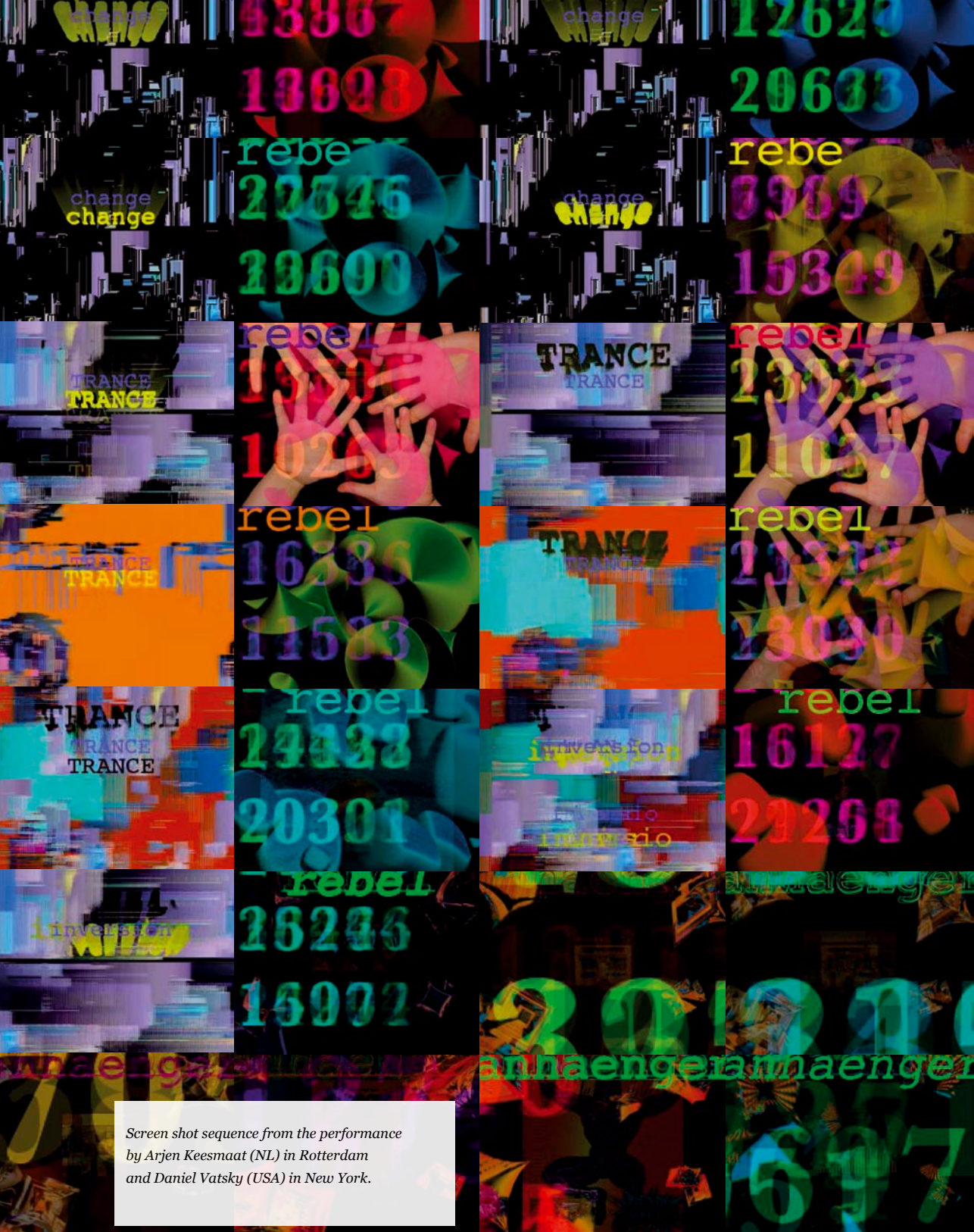
## interfacing radiotopia/keyworx

1 March 2003

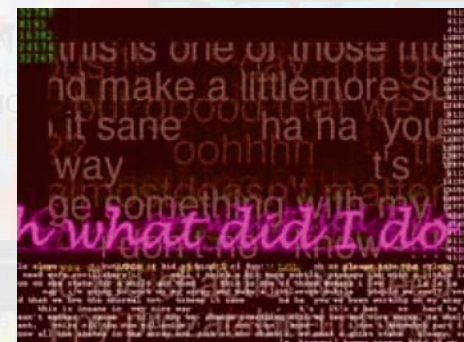
*Interfacing Radiotopia/KeyWorx* was a performance commissioned for the Dutch Electronic Arts Festival 2003<sup>1</sup> by the V2\_ Media Center. The remit was to structure a concept where KeyWorx could be synced with the work of the Austrian new media group Radiotopia who specialize in real time mixing of audio samples up and downloaded to their website by the public. There was to be a live performance in Rotterdam during the DEAF festival. Lodewijk Loos, a KeyWorx programmer and performer and I met with Rubert Huber of Radiotopia in January, 2003. We spent a weekend drafting workable structures that would be compatible with our respective technologies and aesthetic interests. Since Radiotopia wanted to focus on mixing sound from the publicly uploaded samples, it seemed best, after much discussion, to limit the KeyWorx players to visualization. Initially we had thought to split the modalities of sight and sound, as well as the performers, leaving only sound in the Radiotopia location and only visuals in the KeyWorx location. After continued thought and discussion, this seemed an arbitrary and uninteresting course to take. It became apparent on the second day of tossing concepts around that the most elegant, if limiting, solution was the simplest one. Stream the audio from the live Radiotopia mix to the KeyWorx players in Rotterdam and New York. This method would by-pass the risk of writing, and testing, a special plug-in for the event in a two-month period. The KeyWorx artists in both locales would then share the same, real time audiostream as a 'gluing' modality. Radiotopia mixes tend to make extensive use

<sup>1</sup> <http://framework.v2.nl/archive/archive/node/event/default.xslt/nodenr-148172>

Screen shot sequence from the performance by Lodewijk Loos (NL) in Rotterdam and Eric Redlinger (USA) in New York.



Screen shot sequence from the performance by Arjen Keesmaat (NL) in Rotterdam and Daniel Vatsky (USA) in New York.



of spoken word files so this lent an additional hermeneutic stimulus to the visualizers. I initially invited four artists: Michelle Teran (CA), artist-in-residence at Waag Society at that time; Isabelle Jenniches (AU/NL) in residency at Location One in New York; Lodewijk Loos (NL), Waag Society programmer and KeyWorx developer and Eric Redlinger, New York based artist and KeyWorx developer. I asked Michelle to be responsible for guiding the group and growing the concept. Michelle invited Arjen Keesmaat, Waag Society artist/developer and Daniel Vatsky, New York based [Share] artist to join so that each location would have three participating artists. The preparatory process of each artist pair differed in intensity and length but encountered similar conditions and constraints. These were physical, such as the six hour time zone difference between the Netherlands and New York, and others artistic: such as the structure imposed by Michelle on the content. In the article *Collaborative Culture* (Doruff, 2003, 70-98), Michelle Teran writes of her initial conceptual process. That text is quoted here at length:

“In an effort to understand how to work with the Radiotopia material and with ourselves, we had to first ask the following questions.

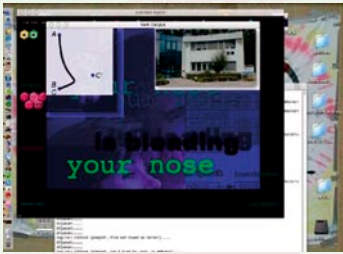
1. What is the nature of the exchange between the two performers connected together over a network?
2. How is each physical space networked? What is the relationship between the three performers in each space?
3. How can the audience enter into this environment?
4. How can the audio and visual environments be connected in a meaningful way?

These questions could not be completely answered until we spent time working together in a KeyWorx space, while, at the same time, working through the Radiotopia material. I have spent two years working in collaborations in KeyWorx. Each exchange that I have considered ‘meaningful’ has developed as a result of the time invested in





Screen shot sequence from the performance by Michelle Teran (CA) in Rotterdam and Isabelle Jenniches (AU/NL) in New York.



a connected environment, working together within a set of conditions or thematic focus.

Our satisfaction has been a result of our commitment to the process and also a level of trust between all those involved [...] Initially each performance pair started off separately. None of us wanted to impose a rigid set of rules for the performance. We wanted to start by first establishing, through practice, our personal connections to the media and methods for working through it together [...] Isabelle and I dedicated one month, 15 hours a week, towards developing the performance. Over the weeks, Isabelle and I experienced the transformation of an initial stilted exchange between ourselves through live media into an elaborate synergetic environment that could not have been possible without the two of us present [...] the system that Isabelle and I developed was adopted by the other four performers. (88)

The problem we felt with using just images as input for a real time media performance such as *Interfacing/Radiotopia/KeyWorx*, is that images have the potential of being too ambiguous. Also the fact that two or more people are working together isn't immediately evident to the 'public' witnessing the visual output. We were wondering if there could be other qualities of the audio that could articulate more the flow of ideas and their visual transformation. We thought that text could be that interface. Audio content, spoken words, physical or emotional responses by the listener, mental visions and other concepts could be interpreted by an individual and then retransmitted as text into the performance. Text also seems more live. (89)"

**MICHELLE TERAN**  
Michelle and Isabelle were seasoned KeyWorx artists at that time. They had an established relationship with the limits of the technology and their co-operative inclinations. They were well aware that mutual commitment was essential to honing the process and that commitment, in the case of KeyWorx, means many hours in translocal rehearsals,

an unshakable patience and a bleeding-edge thick skin regarding technological failure. They allocated the rehearsal hours, which serve as situated patterning, compressing the lived performance space of the screen into a shared temporal zone. *between* Michelle had settled on a method for approaching the compositional process; she'd decided to use a Surrealist game structure as an initial condition of play. It had been decided earlier to give the audience in Rotterdam a participatory and vital role; they could enter each session with sms texting. Along with the Radiotopia sound stream, it would be a universal component between the three sessions. The messaging would be instantiated in all three sessions, though its look, visibility and 'feel' would be idiosyncratic in each.

"This meant that three parallel translocal exchanges within each physical space (a room in new York, V2\_ in Rotterdam) could be connected by the same word, yet could still be unique in their interpretation of that word. We also used a webcrawler, a KeyWorx module that calls up images from a Google by typing in searches. The input of live media directed the visual flow in unpredictable ways. In our performance, Isabelle and I focused on improvised writing, using our generation of text to call up images from Google. During our four hours of non-stop writing, a continuous flow of sms words bounced from my text to hers and vice versa, resulting in a dynamic stream of impromptu word and image associations that were alternatively personal, playful, banal, incoherent, poetic and emotional (89)."  
-Michelle Teran

**anatomic**





## anatomic

<| *don't leave out the non-physical ppl* |>

*Anatomic* 'Related to the structure of an organism' was an open experiential lab held at Waag Society, exploring the creative use of networks and media art in the *Theatrum Anatomicum*, hence the name 'Anatomic'. In these weekly events people around the world would connect via the in-house software KeyWorx, Pure Data programming language, Max/MSP, various a/v streaming software and other collaborative digitized mediums and modalities.

Facilitated by Guy van Belle and Arjen Keesmaat, *Anatomic* consisted of a broad range of artists who were interested in networked collaborative performance. In these weekly gatherings participants investigated the potential of streaming technologies, audio-visual programming languages. Not only did they spend hands-on time with technologies, but engaged in a critical dialogue about the radical new directions that emerged. An artistic community was built, connecting the local collaborative creative forces in Amsterdam with similar groups around the net. An active process of ongoing relationships dissolved and were re-constituted, shifted and shimmered within the weekly lab and *Anatomic* mail list spaces. Examples of these discussions, output and also participation in projects such as: Cassis Caput, the eCulture Fair and the Next Five Minutes is presented in the following pages.

Working at the cutting edge of modern technologies, this group engaged in a broad range of debates in order to gain a deeper awareness about usability and accessibility. In order to demystify the actual networked space in live collaborative situations, a big question was raised about how to make a connected event not just for insiders, but how to translate this synchronous communication clearly to the spectator. The threads around *Deeper Problem Solving Issues and Visualising the Network*

revealed that audience reception should be considered as important as the computer technology itself. These debates also brought to light the political significance of backup communication device programmes such as IRC and graphical interfaces that provide an alternative to proprietary software. The role of the interface being intimately tied to content then turned into a discussion around perception and the embodied experience of digital time when operating collaborative software over long durations. A careful reading of them reveals the gender biases that are hardwired into tactile media cultures.

This section also illuminates particular cultural currents. The artists involved were from non-traditional multidisciplinary practices. They made fruitful connections across fields because of their multiple and diffuse points of origin. As a participant in *Anatomic* I came to understand meaning as dynamic, volatile and open-ended like the software itself. I often participated from remote locations; a contributing factor to my understanding of what networked performance may mean. A memorable comment from Michelle Teran for me sums up the *Anatomic* process. She once exclaimed on the mail list in preparation for an event "don't leave out the non-physical ppl!" Often artists and activists, out of the necessity to experiment with other ways of being-in-the-world have often communicated with the public by augmenting devices that merge physical and virtual space, and trigger collective imagination. For instance, the body being able to manifest presence in more than one space at once is a form of 'teleportation' - an ancient practice in many cultures. This next section highlights how ideas intermix and build on one another. Virtual kinship communities, multinodal spaces, are not new forms but the transparency of these systems at play is. These new technologies allow new insights and consciousness into the 'connectedness' of human phenomena.

*Nancy Mauro Flude*

## @ i chat / chatting thread

**From: fredd, micha, k-zimir**  
**Subject: \An`a`tomic\Re: ichtat**  
**Date: 8-11 September 2003**  
**To: anatomic@waag.org**

**From: fredd**  
**Date: 8 September 2003 12:20:22 CEST**

...we tend to use irc chat as a backup communication device. We can all use freenode.net for example.

On Sunday, September 7, 2003, at 11:09 PM, Guy wrote:  
just a question \_ anyone has an ichtat .mac account ?  
may come in handy...

**From: misha**  
**Date: 11 September 2003 9:53:18 CEST**

icq doesn't allow for a multi chat, icq does.

**From: fredd**  
**Date: 11 September 2003 10:07:10 CEST**

well, we could be more friendly to our Linux/win friends and open for the event an irc channel on freenode. This is also because some feature of ichtat needs registration, and in a tactical media event this is "against etiquette". On mac you can download a great little client that goes by the name of jediknight. On pc/win you may use mirc or similar, and there is xchat standard on Linux distros... then we will open a room on irc.freenode.net #anatomix this is my two ecent anyway... PS Where we meet? today? when?

**From: misha**  
**Date: 11 September 2003 10:11:30 CEST**

there you go nicely put federico. I guess blobby graphical user interfaces by large corporations are not allowed in the tactical media world.

**From: k-zimir**  
**Date: 11 September 2003 11:41:46 CEST**

first everything is allowed. exceptions come later and mostly of moral and ethic reasons. the first exception probably is disrespect. so if it eases your process (and doesn't include disrespect).. go ahead. my opinion. ps: define tactical media world.

**From: misha**  
**Date: 11 September 2003 11:46:45 CEST**

hi niels  
one day we can sit down and have a nice discussion about the implied rules and protocols found embedded in most of our social, political and cultural interactions. I'm not saying that everything is not allowed. I have the opinion that everything should be allowed. I just know the feeling of raised eyebrows and judgment when I open up my g4 power book in ASCII.

**From: k-zimir**  
**Date: 11 September 2003 12:23:49 CEST**

it is not all that. actually it is pretty simple what made me post my comment. I think people make things

themselves a lot more difficult. if there is existing software out there which does the job for you and it is not that you want to "learn" how to make it yourself and it costs too much, go ahead use it. if you can work faster and easier with a visual drag and drop ftp program instead of command line use that. just use what ever you can work with. windows, mac, Linux, Amiga. who cares. I mean Microsoft is evil and it might be something, which is worth it for you to not use windows. but if windows lets you work just fine and what ever side reasons, why not use it? do you know what I mean? and I don't say go the easiest way. I just say, make use of things as you can use them and don't make everything artificially more



difficult to yourself by not allowing this and that. or it might be I just never got introduced to this tactical media world thing, that I don't know the basic idea which might lead to not allowing certain things. which can be okay seen in the total and consequence of the idea.  
m> but right now I have a plane to catch.  
brave.  
m> I'm not saying that everything is not allowed.  
I have the opinion that everything should be allowed.  
this is a word trick. how you mean?  
m> I just know the feeling of raised eyebrows and

@ judgment when I open up my g4 power book in ASCII.  
[ASCII: Amsterdam Subversive Center for Information Interchange]  
why? because you use a machine which is more expensive than other machines or certain reasons? or because you make use of the UNIX os it is using nowadays? or why?

**From: misha**  
**Date: 11 September 2003 12:43:05 CEST**

k>this is a word trick. how you mean?  
one should be able to work with whatever they want. even big brother Microsoft  
well, as a litmus test, why don't you go there open up an

platform users (also SUN geeks for example) and any of them can join with his own machine.  
then, on the other hand, we had enough of religious wars...I remember well the fights between Sinclair users and C64'rs...so please stop, you will not bring me in on this topic anyway...  
by the way, to all interested in this topic of discussion, let's meet on irc: irc.freenode.net #anatomix and let's see who arrives first!  
ciao ciao

**From: pieter**  
**Date: 11 September 2003 13:54:15 CEST**

llo,  
I'll have a try on my ol' HP-UX box  
>then, on the other hand, we had enough of religious wars... I remember well the fights between Sinclair users and C64'rs... so please stop, you will not bring me on this topic anyway...  
still when you ask my opinion on VI vs. emacs... ;)

**From: k-zimir**  
**Date: 11 September 2003 14:06:42 CEST**

Ok. Then I got you wrong. It is good to make all able to participate.  
I didn't wanted to. But to be honest, looking to the fact, with this, you brought yourself on that topic! :)

ibook, and start chatting in iChat.  
better yet, get a girl to walk in, tell her to wear a skirt. and do this and let me know how it went

**From: fredd**  
**Date: 11 September 2003 13:33:21 CEST**

to niels:  
maybe you got upset by something, but my 2 cents were spent to say: let's use a standard, non-proprietary, system to communicate (that's irc). Is reliable and does the job, plus we used it already with success in 23+1. irc is a free protocol, this means that clients may satisfy all



## visualization thread

**@ From: jhopkins, ij, arjen, aymeric, k-zimir, misha, sgballerina**  
**Subject: \An a`tomic\workshop request?**  
**Date: 4 – 7 October 2003**  
**To: anatomic@waag.org**

**From: jhopkins**  
**Date: 4 October 2003 04:42:33 GMT+02:00**

Hallo folks --  
 say, I am wondering if there is any interest among those of you attending this upcoming workshop to generate some visualizations of the actual network architecture of an optimal keyworx happening. I am having difficulties in getting everything straight when I communicate it to eager students new to network-based collaboration... and in constructing a sustainable local set-up in the academy context. I can do it individually, but... like Guy, I am a teacher, and facilitating the process of people learning this crazy stuff is a challenge! We were really disappointed to miss the Prague collaboration, too, but I was away at the funeral of my father, and so our plans to jump in were put back... :( hope you'll be streaming some of the workshop!

**From: ij**  
**Date: 6 October 2003 20:50:50 GMT+02:00**

John,  
 This is a very interesting idea that definitely resonates w/ more ppl! I don't know how it would fit in w/ the electronics workshop, but maybe you have to tell me/us? Let's keep talking about it.

**@ From: arjen**  
**Date: 6 October 2003 21:03:33 GMT+02:00**

i join in to the idea,  
 it came to my mind as well already at one point, i think many people have had certain thoughts. some thoughts; i think it would be also really interesting to map streaming connections, chat-clients etc.. as well. Actually all network traffic-traces can be interesting, as in some situations people use a mix of software; keyworx, max, pd, supercollider etc... while backstagecommunicating through iChat, irc or things like that. besides, it would be cool to be able to choose in a range of visualising this; from very realistic (on a real map) to different abstractions.

**From: aymeric**  
**Date: 6 October 2003 21:11:14 GMT+02:00**

a> besides, it would be cool to be able to choose in a range of visualising this; from very realistic (on a real map) to different abstractions

like those traceroutes ? :)  
 realtime hyperinstrument based on traceroutes data

**From: k-zimir**  
**Date: 6 October 2003 21:33:50 GMT+02:00**

well, as long it DOES fit to the workshop. but aymeric's example does not really look to me like something which fits in. looks more like another workshop.

**From: ij**  
**Date: 6 October 2003 21:52:47 GMT+02:00**

unfortunately the movies don't load on my mac. i'd love to see them though, heard how gorgeous they are!

**From: aymeric**  
**Date: 6 October 2003 23:25:15 GMT+02:00**

sure niels i agree, i was just jumping around the topic.

**From: aymeric**  
**Date: 6 October 2003 23:47:38 GMT+02:00**

ij> unfortunately the movies don't load on my mac.  
 ah? these are windows QT6.3 MPEG-4 encoded files. maybe your quicktime player is outdated or maybe you could try to download them on your local disk first ? i don't have a mac, so i can't tell about the right way to deal with it  
 !?!?+++++++ +++ ++ +!!!!

**From: misha**  
**Date: 7 October 2003 00:23:38 GMT+02:00**

i completely agree with this.  
 i would love to be part of it.  
 i've just come out of a two week workshop. for performers, the whole networking concept is so abstract, and it is difficult to show all the options when starting from the beginning that some visualisations would be extremely helpful. this includes trying to relay the information to technicians who have only been involved in vj activities or video/visuals within a theatrical context and little experience in telecommunications and multichannel modes of relaying information.

**From: sgballerina**  
**Date: 7 October 2003 00:37:27 GMT+02:00**

hi isabelle and john,  
 i am also interested in this idea. i am currently artist in residence at 'is theatre ltd' hobart - tasmania. and i

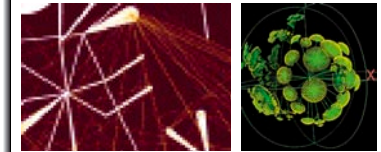
am facilitating a durational performance operation on november sat 22/sun 23rd with about 12 performers here and one of the elements i was considering including a non local keyworx connection with - anatomic and or other people willing to engage via keyworx. I am still in negotiation about what the actual 'theme/parameters for this event may be but' so far i have proposed  
 At the outset of our Operation to conduct a translocal collaboration in built mixed media environments, where body, ether and the technological myth are wedded. I propose a 12 hour event which scans, collects, collates and clarifies our existing notions of theatre. In this zone, this Operation will release the performers and media into other states.

**From: misha**  
**Date: 7 October 2003 00:44:48 GMT+02:00**

this is a constant challenge for me as well.  
 should we also compare notes on the different ways we have tried teaching this 'crazy stuff'?

**From: ij**  
**Date: 7 October 2003 11:47:56 GMT+02:00**

two of my favorites when it comes to visualizing data flow and network structures:  
 Ben Fry's Anemone  
<http://acg.media.mit.edu/people/fry/>  
 ...and if you like italian broccoli you'll love Walrus  
 more on <http://www.caida.org/tools/visualization/>



**From: k-zimir**  
**Date: 7 October 2003 12:08:24 GMT+02:00**

benjamin fry is very nice.  
 ben wattenberg is nice too, i like his music analyser  
<http://www.bewitched.com/>  
 also the sims of berkley did some really nice datavisualisation. they also invented the flat associative database, which the karsokov system actually uses.  
<http://bailando.sims.berkeley.edu/>  
 etc.

**From: sgballerina**  
**Date: 7 October 2003 23:06:46 GMT+02:00**

this is my favorite when it comes to visualizing data flow and network structures





Photos: Alessandra Blasi



Screenshots taken from sister O electric-theatric Operation performance

# photogallery

Date: 17 April 2004  
Location: Amsterdam

The following text is a report by Anatomic facilitator Arjen Keesmaat on the Living Tomorrow field trip.

As a follow-up to the visit of Living Tomorrow in Vilvoorde (near Brussels, Belgium) organised by the Code31, the Anatomix decided to visit a newer LivTom project that had recently opened in Amsterdam.

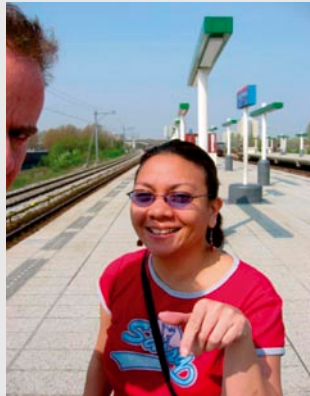
With a group of seventeen people they gathered on a Saturday afternoon to travel to the House of the Future together by subway.



On our way in the subway. Voldemars in foreground, Pit in background



Ehmm. bald guy : your travel agent



Jos and a piece of Mark: it's good weather

Once they arrived at the House of the Future, they soon discovered the scepticism and disappointment of last years Brussels excursion was still present – and strengthened. Instead of an example of radical innovations and implementations of revolutionary ideas about living in the future, the house turned out to be a showcase of 'new' technologies already known for years, and just piled-up in one house. It here and there showed small innovations on a single-machine-level, but often they were poorly implemented. There were also hardly any examples of how contemporary technologies integrate in housing-equipment, and merge together to form new equipment that combines several functions in one device. An example of this is a tagging system for clothes, so that the washing machine knows what clothes are inside, and what programme to wash them with. But the tags are larger than a baby-sock and have to be attached manually, and detached after washing.

The members of our group didn't hesitate to spit-out their criticism, which brought-up interesting issues, and luckily the guide in the house understood this criticism and wasn't afraid to join the discussions.



The House!!!

# excursion to the house of tomorrow



Our host explaining the screen's function. It's positioned half in the kitchen, and is also a touchscreen that you use to order products



People listening



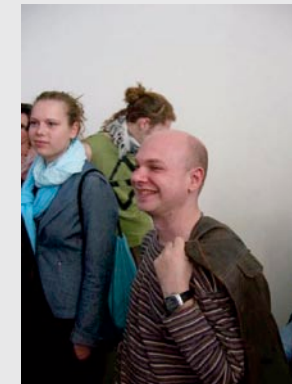
Checking-out the office of the future, and all the gadgets in it



Edo asking the guide difficult questions



Barbara cheking-out some parts of the washing machine of the future



Gabriel and (left) Voldemars' sister (what's her name again?)

One important discussion was about the central computer-system, which controlled the lighting, curtains, music, heating and other factors in the house. The system was fitted with seven preprogrammed states. One member of the group asked: "What if I want to change or add a program, how do I do that?". The guide answered: "You'll have to call and have a programmer come-over to program it for you". This of course was resulted in big laughter, and turned out to be one of the main problems the designers of LivTom didn't (bother to?) solve. According to most Anatomix, programmability is going to be essential for design in the future.

# 23 + 1

Date: 26-27 April 2003

Location: *Theatrum Anatomicum*,  
Amsterdam + Paris, New York

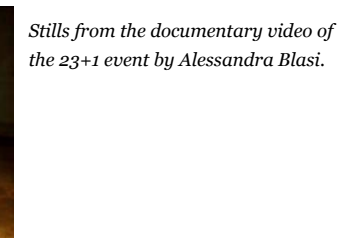
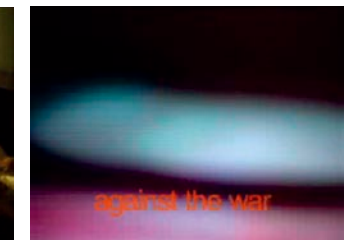
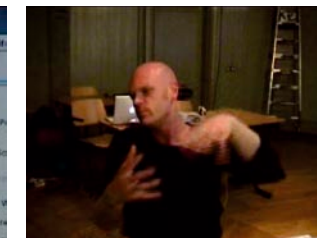
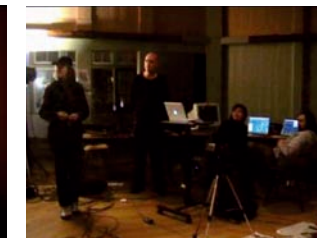
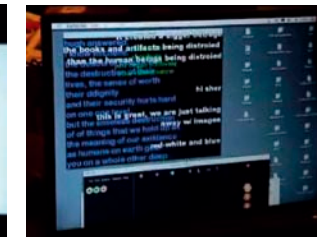
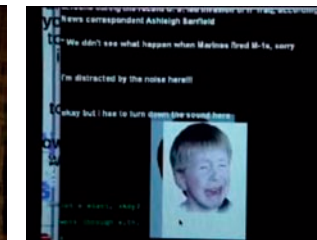
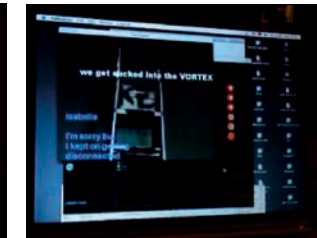
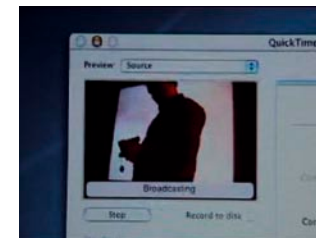
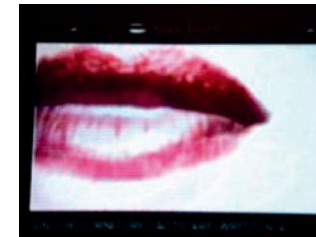
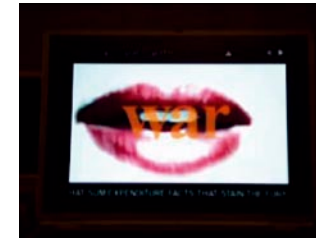
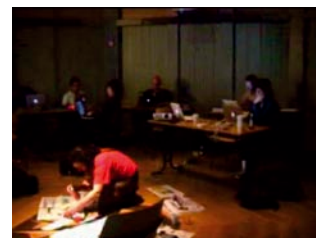
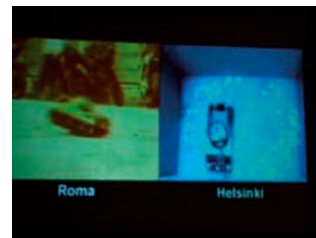
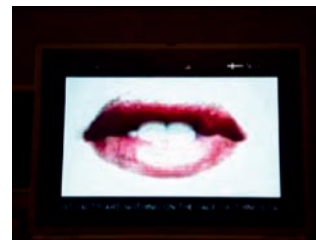
*The following text was the press release sent to artist and activist lists, friends and cultural organizations by Federico Bonelli.*

## 23 hours media purification from the propaganda war + 1 hour of silence for the shame about it

From Amsterdam, all the artists will share the same name, Anatomic. Starting at 11.00 Amsterdam time, we will participate in a 23 hour cleansing process for the transformation of media. Each of us will represent his/her own 'stand', using their own media, performance, software systems. All media will be accepted and eligible for transformation. Our transformation will be guided by group discussions as we work through our process of understanding what is happening now, and how to process that into a personal and new message. During this 23 hours, we will extend our transformation process to other artists connecting from New York and Paris.

When darkness falls, our works will be seeded around the city, distributed as propaganda in public space. After the cycle is completed, we will end with one hour of silence.

We will broadcast our output for 23 hours. Broadcast channels and a schedule will be made available through the Anatomic site.



Stills from the documentary video of the 23+1 event by Alessandra Blasi.

## next 5 minutes

Date: 13 September 2003

Location: *Theatrum Anatomicum, Amsterdam*

For the Next 5 Minutes<sup>4</sup> conference, the Anatomix performed with streams from partner artist groups in Tokyo, Brussels, Sofia, New York, Amsterdam and Prague. There was no initial content, only each others streams, displayed on the Anatomix site, programmed by Daniel Arcé of the Anatomic group. The participants could choose two streams to view at any time. Modifying, adding to, and streaming out again-generated the unexpected. The number of online viewers was underestimated by the coordinators and the streaming server eventually crashed under the heavy traffic.

*The following text is the description of the project managed by Guy van Belle and Arjen Keesmaat.*

### 1. Scenario of the event

We indicate we are ready between 3-6 pm  
We start with a white or black screen everywhere at 6 pm or later  
Every group takes the available rtsp ins  
Every group changes this and adds its own stuff  
Audio and/or video synthesis, realtime and networked  
Every group creates one rtsp out at live.waag.org  
We end with a white or black screen everywhere around 8pm or before  
We have a drink with our audience afterwards (tell your friends)

### 2. Can you specify what software you will be using to convert the streams (Max-pd-KeyWorx, etc.)

### 3. Please situate yourself in one of the sub-themes of n5m4 and discuss this with audio and video and aesthetics:

- Deep Local , which explores the ambiguities of connecting essentially translocal media cultures with local contexts.

- The Disappearing of the Public deals with the elusiveness of the public that tactical media necessarily needs to interface with, and considers new strategies for engaging with or redefining 'the public'

- The Tactics of Appropriation questions who is appropriating whom? Corporate, state, or terrorist actors all seem to have become effective media tacticians, is the battle for the screen therefore lost?

- The Tactical and the Technical finally questions the deeply political nature of (media) technology, and the role that the development of new media tools plays in defining, enabling and constraining its tactical use.

GIVE YOUR INPUT A NAME BUT PROCEED WITH AN IMAGE OR SOUND!!!

### 4. There will be a web interface for your audience at <http://anatomix.waag.org> You will be able to select several streams from the partners' locations.

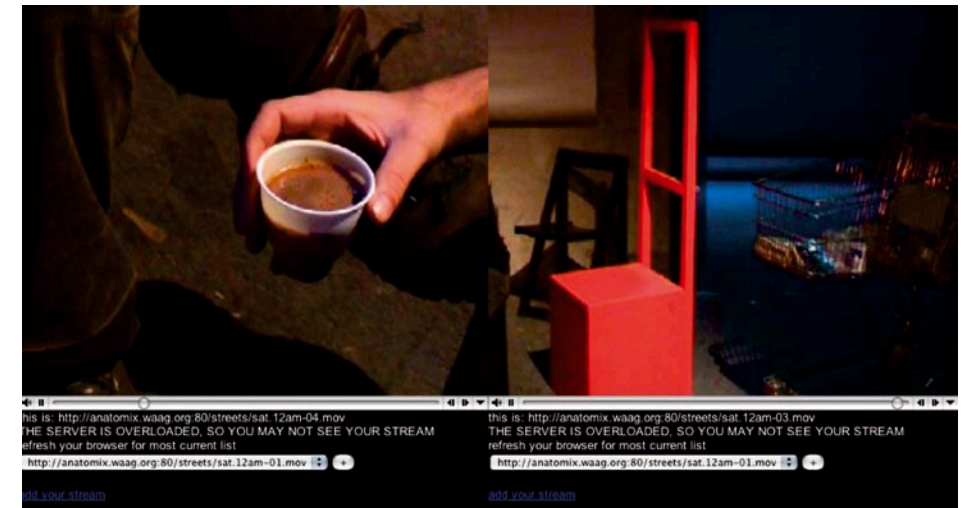


*At the right participants connected in the N5M performance from Brussels (Code31).*

*In Brussels people from Code31 connected from the Looking Glass gallery. In Prague they connected from a small truck, that they situated near a public access point, somewhere in the city.*



*Below is a screenshot from the Anatomix-N5M webpage, where the audience could select two of the eight streams and a time and that way watch the performance on line. Here the page is showing two images from Sofia, showing the space of the performer, who invited a homeless man for a cup of coffee.*



# deeper problem solving thread

@ **From: tanja, sher, misha, willemijn, thomas, marjolein, guy, john, ij, federico, arjen, rene, josephine, aymeric**  
**Subject: Re: \An`a`tomic\call for deeper problem solving**  
**Date: 10 October - 23 November 2003**

**From: tanja**  
**Date: 10 October 2003 14:43:01 GMT+02:00**

Hello All,  
I very much appreciate Arri's remark, this week, trying to clarify on a meta level the happening of sharing streams in live distributed performances directed towards the Anatomic workshop crowd. I guess the momentum for this remark lies in the n5m (next 5 minutes) presentation 'cause that seems to be some kind of milestone for the Anatomic workshops history... This mail is an invitation to discuss and exchange more deliberately on 'visualizing the network' as it was discussed on this list this week. I appreciate the topic but my opinion is that the direction of the proposed solution, 'visualizing the network', will not be sufficient to create a level of understanding between participating parties when in full flow on connecting and sharing streams. I think the issue of participating in this media challenge is much more complex and I feel the timing would be just about right to grab some of the experiences and -indeed- reflect on a meta level and find some vitalizing conclusions, momentum or structures to explore further... Why not organize a gathering to do just -and probably most desirable on l y - that, sometime soon?

**From: sher**  
**Date: 10 October 2003 17:08:33 GMT+02:00**

hi tanya,  
your remarks are timely and i agree that we should initiate some kind of dialogue about this. there are definitely several sides to this issue and it would be interesting to air them. it can be done in an anatomic context (a chosen saturday) or we could invite a larger to public to join this discussion.  
this issue has been raised recently as we're planning a modest performance at the eCulture fair (paradiso venue connected to V2 and waag). in this context, a certain transparency of the process is very important, in my opinion, as well as the content. engaging the audience to participate with sms texting is one technique but it also raises motivational questions. anyway, tomorrow is day one of jeff's workshop so it's not the right moment. if you're attending we could discuss a strategy for gathering around this topic.

**From: misha**  
**Date: 11 October 2003 08:34:18 GMT+02:00**

Hello Tanya, others;  
I would love to be part of this discussion.

**From: tanja**  
**Date: 13 October 2003 10:19:09 GMT+02:00**

Hi Sher and Michelle & all, I was not attending Jeff's workshop - I understand it was prolific and good fun. I hope I can share some of it - coming Saturday... Now: shall we find a way to get together and address the above subject. I am quite occupied with it and developing some notes that I'd like to share -though they are still in Dutch-.  
what about taking a 3 step shuffle: 1. meeting in small circle; 2. anatomic crowd; 3 larger crowd of interested parties.

**From: willemijn**  
**Date: 13 October 2003 22:49:01 GMT+02:00**

Hi Tanja and rest, I've met you last week on anatomic. I'm doing an internship at the waag, and my research is about visualizing multi-user 'information'. The main question is: what information about the groupwork (for instance users present, their actions, connections), about what's happening in a multi-user session, should be visualized and in what way, to better support the groupwork? This can be applied to keyworx then. It really coincides with what you mentioned before, so I'm very curious about your thoughts about this, and those of other people that are familiar with keyworx. I would like to talk to you on saturday about this, and maybe we could do a multi-user session 'with comments' or something like that?

**From: misha**  
**Date: 14 October 2003 01:34:06 GMT+02:00**

Willemijn and rest, This discussion is something that is very close and important to me. I really want to be part of this. However, I might be already in Brussels by next Saturday preparing a performance for the Argos festival. It is possible to do it some other time?  
I mean we could do it online.  
But it might be also good to have this happen while we are together in the same space as I anticipate the conversation to be quite rapid and animated.

**From: thomas**  
**Date: 14 October 2003 10:10:33 GMT+02:00**

At the moment I'm working with a group of the EMMA IMM (interactive multi media) on a collaborative story telling and capturing device (installation) it's meant for vmbo students if your planning a day to have a meeting at the waag for example for discussing it we would love to come and talk about ideas.

**From: marjolein**  
**Date: 14 October 2003 14:35:38 GMT+02:00**

hey Thomas & Willemijn, Interesting stuff... & i'd like to know more about it and talk/discuss with you. i am interested† in both subjects... Willemijn; i did an internship at V2\_lab for designing the structure of online multiuser communication & visibility of online users within an online multi user game <http://www.boschuniverse.org/>  
In online games it's also important to communicate or be aware of other online players, so i guess it will be useful to check a number of online games/ clans/ communities. Thomas; you told me about the project last saturday, but I'd like to hear more about it & talk. Next saturday i can come to the waag /anatomix & tomorrow i will be at the lecture. see you?!

@ **From: misha**  
**Date: 14 November 2003 17:54:22 GMT+01:00**

but don't leave out the non-physical ppl!  
just send a stream, and keep up a chat with somebody to monitor.

**From: guy**  
**Date: 14 November 2003 21:07:42 GMT+01:00**

aha! but don't leave out the non-physical ppl! mmmmm love this - from now on \An`a`tomic\ subtitles: "don't leave out the non-physical ppl!" yes! that is the right attitude! yes tomorrow code31 is doing a stamtmisch in ghent and they want our collaboration - l'union fait la force and since we are in the kingdom baarn and can set up stream-keyworx-anything else...  
this could be the testdrive for the big interface debate hey gert or anyone else could you give an update on things expected etc? I want to give a presentation "perverting semiotix with bits to bite postmodernism in the tail", only online and not from franz josef land (hey look this up in your atlas) even when present in the anatomical tower of power - or not, that is what remoteness/connectedness/networks are all about - no? restriction: everyone can fool around with the stream but! only in the alpha channel (to prevent retorix taking over technological arts) - any other artotechnolika contributions/ideas? ps: off to opening at foam (our best friends) and ccooa (non objective art) - will report on that - hey what is everyone doing tonight - please send in reports!

**From: guy**  
**Date: 17 November 2003 12:00:56 GMT+01:00**

hi everyone, here is a preliminary call for the 22-11 great debate #1 (deeper problem solving issues)  
who wants to:  
- give a 10 minute presentation about problems  
- give a 10 minute presentation about solving issues  
- participate in the kwx+other software realtime illustration group (please specify whether you want to be part of the kwx group or want to participate in the connected audiovisual gang with other software or wanna do something we haven't thought about...)  
- participate in the documentation (qt and wiki notes)  
I will give a 10 minute presentation, suppose sher and tanja want to do this as well, and michelle and other non-physical ppl?  
looking forward to your massive participation next saturday, at good old theatre anatomique 3pm...

**From: ij**  
**Date: 18 November 2003 11:24:56 GMT+01:00**

I volunteer to be online moderator. easiest (for me) would be if remotees could log in via iChat (audio/video or text) and send me their AIM address beforehand.

**From: arjen**  
**Date: 19 November 2003 00:45:15 GMT+01:00**

we will also need a moderator for the discussion - to coordinate the discussion. is there anyone who has experience with this? wants to do this?

**From: jhopkins**  
**Date: 19 November 2003 03:59:08 GMT+01:00**

depends on the medium -- but I have done this rather

often in a variety of online projects. I don't have an AIM account -- how else can one use iChat? Is there a free way with out having to give a lot of personal information to some commercial place? That's why I like IRC better! or iVisit... oh, and, yes, when exactly is the event -- I will be in Arizona on a 2mps microwave connection, and that's about 8 hours behind Amdam, so, if it's too early in the day, well, it's hard to get up at 0400 to moderate!

**From: sher**  
**Date: 19 November 2003 09:05:40 GMT+01:00**

i volunteer for this.

**From: aymeric**  
**Date: 19 November 2003 15:50:03 GMT+01:00**

Tuesday, November 18, 2003, 11:24:56 AM, aym3ric wrote:

ij> I volunteer to be online moderator. easiest (for me) would be if remotees could log in via iChat (audio/video or text) and send me their AIM address beforehand.

iChat ? :S why not just good old IRC ?

**From: ij**  
**Date: 19 November 2003 16:50:53 GMT+01:00**

okay, fine w/ me.  
what's your preferred chat room?  
we usually start around 3pm Amsterdam time (true?) but perhaps we have to move the discussion to 4pm so that you can attend? would be 8am for you -doable? after all you started it -long long time ago.

**From: fredd**  
**Date: 19 November 2003 17:17:44 GMT+01:00**

i'll be there and will keep open a channel over IRC  
i think something like irc.freenode.net #anatomic;) keep cool :))

**From: jhopkins**  
**Date: 20 November 2003 01:39:16 GMT+01:00**

3pm is okay, too, I just didn't want to have to be awake at 0200-0400 or something like that... 0600 - 0800 that's quite okay!  
so, I also vote for IRC, too, I still like that old tech (and haven't gotten a cam that works with ichat yet either...

**From: arjen**  
**Date: 20 November 2003 11:53:43 GMT+01:00**

use any usb cam with ichat: <http://www.ecamm.com/mac/ichatusbcam/>

**From: sher**  
**Date: 20 November 2003 13:55:03 GMT+01:00**

i suggest we begin the online session at about 16:30 a'dam time on saturday. gives us time to set up, etc. probably better for those joining from other continents.

**From: rbeekman**  
**Date: 20 November 2003 09:45:25 GMT+01:00**

unfortunately i won't be able to join on saturday - will the streams of the day be archived somewhere?

**From: arjen**  
**Date: 20 November 2003 22:33:08 GMT+01:00**

it's good that you mention archiving the streams.this is something i (and others) always tend to forget when it's actually happening.  
for people locally involved: i think it's a good idea if we



@ really put effort in documenting the whole discussion, and make sure the stream is really sensefull (no blurry image or crappy sound) i suggest that we use the Waags' (professional) streaming setup with the video mixer etc. This means that i will try to arrange at least 3 camera's present for the event and a set of microphones. We will need someone at the mixing table to direct the image. And we need people to operate the camera's. anyone? in this setup we only need to record the actual mix (which is also the stream), and hardly need to edit video afterwards.

**From: sher**  
**Date: 21 November 2003 09:59:15 GMT+01:00**

hi all, i'm working an agenda for tomorrow and would appreciate thematic contributions from anyone who has them. There are two fundamental threads:  
1) Transparency in performative process  
a. visualization of the network and dynamic contributions of the participants.  
b. role and perception of the audience (active and passive)  
c. development of techniques for structured improvisation  
d. role of trust and commitment in the preparation and performance process  
2) Related to the structure of the organism  
a. Evaluation of the Anatomic structure - how is it working?  
b. Where do we go from here?  
These are broad topics and naturally break down into many subtopics. Any additions welcome.  
Also, those that plan presentations should let me know.

**From: misha**  
**Date: 21 November 2003 10:08:14 GMT+01:00**

i plan a presentation and will address some of these issues in my presentation

**From: Josephine**  
**Date: 21 November 2003 16:27:57 GMT+01:00**

hi! I can contribute to the "techniques for structured improvisation" part -- though I'm coming from improv in an acting/movement perspective...but I figure that might be interesting/transferable as well...

**From: tanja**  
**Date: 21 November 2003 17:16:14 GMT+01:00**

I'd like to contribute to both threads. I'm working on a little plan so I'd not spread over 10 minutes! It is good I'd say if our presentations are structured and snappy so that we can spend time on dialogue.

**From: jhopkins**  
**Date: 22 November 2003 06:17:06 GMT+01:00**

Sorry I've been silent, just tough timing, I just have driven 1500 km across Colorado, New Mexico and Arizona, have arrived, and trying to get settled for the next week... Lots of interesting topics, hmmm, how about (terms which pop into mind as I read the above list)  
-- sustainability of collaborative (human) connection  
-- facilitating events (with newbies) (how to...)  
-- documentation (you had to be there...)  
uh, what else? I'll try to clear my head of these hundreds of km of roads through the West and concentrate on projecting my presence to AmDam tomorrow at 0700 my time...

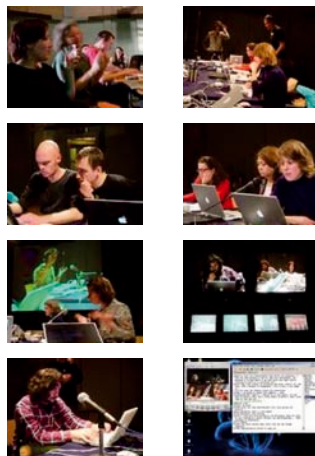
**From: tanja**  
**Date: 22 November 2003 13:15:15 GMT+01:00**  
cheers John! 3 essentials you brought in! Goodmorning later...

### Post Event

**From: aymeric**  
**Date: 22 November 2003 21:52:26 GMT+01:00**  
Hey was a very nice start, hope it's only the beginning for more debates, flames and wars. IRC+QT is a nice config

**From: ij**  
**Date: 23 November 2003 10:50:48 GMT+01:00**  
would be interesting to try different formats as well, like a videoconferencing version w/ each participant having a camera pointed at them +stream for audio. and how that would be different, creating a different kind of space. much fun though, and very cool all the onliners stuck w/ it despite flaky stream in the beginning!

**From: sher**  
**Date: 23 November 2003 12:52:13 GMT+01:00**  
was a great beginning. i'm up for pursuing this with one theme or topic.  
maybe with kw mediators processing the text and streams - perceptible or imperceptible to us as another type of document.  
anyway, thanx to all for your participation and insight.



## cassis caput

Date: 28 June, 2003  
Locations: *Theatrum Anatomicum, Amsterdam + webcams in Berlin, London, New York, Amsterdam and Pincher Creek, CA*

*The following text describing the concept of the project is by Jana Heilmann and Sher Doruff.*

The conceptual and technical realization of *Cassis Caput* as a research phase was predicated on constructing a performance ecology, bridging two continents, it played with the tension between determinate structures and indeterminate potentials. Guy Debord and members of the Situationist International created the idea of the *dérive* a contractual drifting through an urban landscape in expectation of a virtual appointment with someone you have never met – as a device to create conditions of possibility that were thoroughly tangible. Their neo-Marxist political affinities and disdain of commodifiable art practice, the Situationists, nurtured the divide between the aesthetics and politics. In many ways, the convergence of psychogeographies are present in the process of making *Cassis Caput*. Cortazar's descriptions of paravisions and excentration, seminal to the initial research, give a similar perspective. In *Cassis Caput*, the choice of public webcams as found objects/performance spaces was central to creating 'conditions of possibility' from which events and relations may or may not occur. The dancers moved according to scored timelines from which improvised relations with observers, seen and unseen, who functioned as 'strange attractors'. The *dérive* model, the virtual appointment, was between a distant audience and remotely situated performers. The witnessing, the anticipation of fleeting unison gestures from different lands with different time zones captured moments of convergence. The frozen sequences of webcam images, the sense of being surveilled and the knowledge of a common task, enacted simultaneously in real and virtual landscapes were present for all observer/performers. The local passers-by, unaware of an extended

audience of players, amplified the element of random unpredictability and risk.

The qualities of the still image update of webcams with two, five and sixty second intervals, denies the viewer the dynamic, real-time flow of movement that a video camera would provide. Instead, rhythmic sequences of freeze frame images accentuate change by isolating 'samples' and framing them. The absence of movement for the viewers and the absence of feedback for performers, weighed equally in the perceptual distribution.

The helmets read as multiple metaphors – sensory deprivation, protection, aggression, costume, prop and an iconic visual identifier – a means of separating a performer in a crowd, of detecting a performer thru a distant lens. The exaggeration of intrinsic/extrinsic realities engendered by the helmet/webcam dichotomy was the percept uniting the events in the locations.

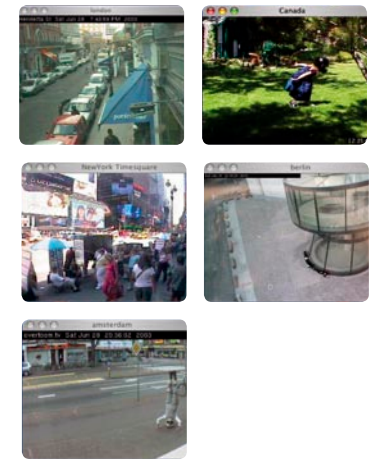
### THE WEBCAMS

For several weeks, public webcams were scouted for their accessibility as site-specific stages. Four were chosen as quadrants for the main projection screen – Times Square in New York, The Deutches Historische Museum in Berlin, a Cafe in London and a street in Amsterdam's Oud West. The URL's for these cams were in KeyWorx. Each camera was programmed to zoom in and out, change from a one camera, two camera or four camera format. The formats and magnification were chosen on-the-fly as the images presented themselves. Another webcam was fixed to the outside wall of the *Theatrum Anatomicum* in the Waag to capture the musician, who played guitar from the square below. This was amplified inside the theatre and mixed with feedback from an electric bass as an ambient soundscape. These images were displayed on a television monitor. Additionally, three laptops scattered among the audience, displayed a seven year old girl in a motorcycle helmet performing the score in Pincher Creek, Canada to complete the six camera installation.



### THE MOTORCYCLISTS

Their task was to take images from their mobile phones and send those images to a Max/MSP/Jitter patch where they were projected on a separate wall of the theater. Data from the transmission was used as source material for sound synthesis that was mixed with the guitar feedback in the soundscape. "We from code31 will do a small intervention. Pieter en Gert will drive on their motorbikes from Brussels to Ghent during the performance. This will take about half an hour the time of the performance. They have electronics on their helmets and a camera on the motorbike. All data/image data is being send to Guy at the Waag. Using a wireless internet-connection using a cell-phone. Guy will receive this data and use it to alter the audio stream that is being created by the guitar player. The visuals will be shown on a small screen. The electronics on the helmets are simple accelerometers and a compass/hooked up to a basic stamp/hooked up to the computer. In Ghent the same evening there is a dorkbot event, <http://dorkbot.org>. People over there will follow the url <http://code31.lahaag.org/>".



### THE SPACES

Every performance location received a score by fax or email. These were exactly timed and coordinated with each other. The performers were given stopwatches and drawings, indicating the movement sequence. Different time zones had to be taken into consideration. The aim was to perform certain parts of the score in unison at very different sites and under very different circumstances.

### THE TIMING

Rhythms, gaps, spaces in between. The refresh rate of different webcams (the image will update from every 5 seconds to one minute) creates a limitation for the perception of dance as time-based art. Every time a body is caught by the camera, the image is a frozen movement.

The performer does not know when the image is being taken. The fragmentation of time within the perceptive process becomes a strong



Amsterdam Overtoom		Sylvie Marianne (white).	28-min-score. Start: 8:17 pm
0-2			
2-4		Enter 1 (white) - stand	
4-6		Enter 2 - stand	
6-8		raise + lower arms very slowly "Flying Astronauts"	
8-10		Bodyshapes lying. First next to each other, then stretch.	
10-12		Sitting positions. Only Sylvie.	
12-14		Head down. Only Sylvie.	
14-16		Head to head for 1 min.	
16-18		Entrance/Exit. Walk with bigs Also stand close to each other.	
20-22		Headstand. Marianne.	
22-24		Dogs. Very slow + fluid along close to street, one close to house.	
24-26		Running one minute. Big + slow. Stay in frame.	
26-28		Sylvie draw shape of body. L. Marianne lie in shape. Exit	
28-30		Sylvie lie next to shape. Exit Both stand in front.	

LONDON		Paloma.	25-min-score. Start: 7:20 pm
0-5		Paloma:	Friend:
5-10		Stand under blue café roof.	
10-15		Walk slalom in between cars.	
15-20		Put head against cars, lantern, other things.	
20-25		Walk down street in zig-zag. Lie in bodyshapes.	
25-30		Walk back up again. Stop in front on street. Stand under blue roof. EXIT.	

influence on the awareness and creation of movement; the performer enters a different time zone. This fragmented time nonetheless is being perceived as real time (flow) within the (real) public space by the passing crowd. The webcam is invisible to the people, the extraordinary timing and strange behaviour of the performer immediately draws attention. In the broadcast space, the differences in refresh rates among the different projections create their own choreography of rhythm.

#### THE UNINTENTIONAL AUDIENCE

The performer at the public location performs for at least two simultaneous realities of audience: one being the invited (in the broadcast space) and the other being the 'uninvited' audience, the people that just happen to be there, look out of their windows, stop on their way (as if catching a street theatre performance). A third audience to be considered is the observer of the Internet stream. The performer has to deal with a potentially multi-focused projection to close and far away spaces while only receiving direct feedback from the concrete location. Adding to this complexity the performer is separated from her environment by the helmet-layer that creates an artificial privacy space around the individual.

#### THE SPECTATOR

An extrasensory excitement. As spectators in theatre we are used to following real time action in the illusionary space created for and with us. The illusion might trigger the imagination: a virtual fantasy space, memory or desire. In this case of a media event dispersed over separate and distant locations, the spectator is being confronted with real time absence, dislocated presence and multi-layered real spaces that are being perceived as virtual ones. If theatre can be a sensual experience, this performance is a proprioceptive experience.

#### AUGMENTED PERCEPTION

Helmets are here being used as objects representing human and social autism, political miscommunication, alibis for violence, the

picture of the uniformed and authorized body. The helmet lets us perceive the world in an unusual way: as the head/brain, our most vulnerable organ, is protected, we can act differently and less carefully than we normally would. Our vision and hearing are so narrowed that we are thrown back to our own physicality, whereas external information is mainly filtered out. We have to educate our senses to develop 'antennas' – grow the invisible connections in between spaces and people.

When performing a unison score in different, distant, disconnected physical spaces, the different sites, spaces, passers-by, the weather, the time of day, the refresh rate on the camera – all those elements guarantee unpredictability factors considering the coordination of all different places in one event.

#### PARTICIPANTS

Sher Doruff (media design), Nora Heilmann (performance+movement concepts), Guy van Belle (processing Code 31), Arjen Keesmaat and the Anatomix

Highway Ghent to Brussels: Code 31 (sending images via mobile phones)

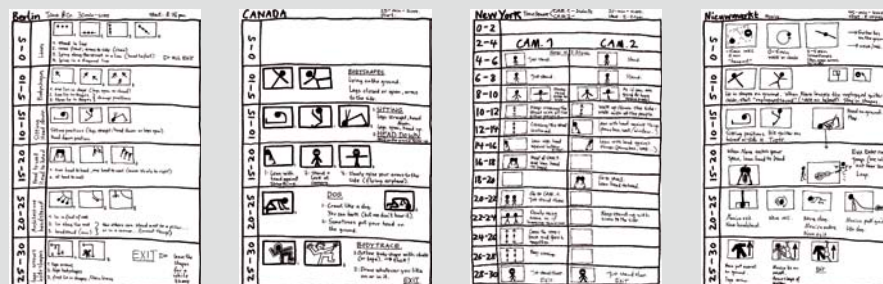
Amsterdam Nieuwmarkt: Monica Page (guitar)  
Amsterdam Overtoom: Sylvie Huysman, Marianne Langenegger

Berlin Historic Museum:  
Jana Heilmann & friends

London Soho: Paloma and Etienne

New York Time Square: Isabelle Jenniches

Canada Pincher Creek: Michelle Teran (camera) & Reina Teran (performance)



## @ futurist valentine thread

**From: guy, sher, josephine, barbie, federico, nancy**  
**Subject: Re: \An' a'tomic\Valentine deSaint-Point**  
**Date: 18 February – 11 March 2003**

**From: guy**  
**Date: 1 March 2004 23:07:35 CET**

Dear Friends, Artists, Art Workers,  
We want to participate in "the futurist reconstruction of the universe and art of noise anniversary" on March 11 with a connected performance entitled 'TIME AND SPACE DIED YESTERDAY'. Please read the following proposal. As long as it is energetic and expressive. You see what kind of futurists we are? As long as they have dynamics everything goes! upload your patches for the programs you want to use: pd, kwx etc...  
The stream will connect to other (connected) participants. Celebration starts on 8.00 pm. Don't be a passéist, be a futurist. And BE there! do circulate federicos announcement now!

ORIGINAL CALL BY FEDERICO BONELLI: As I had the chance to tell to some of you. The 11th of march is the anniversary of two futurist manifestos: the first one is L'arte dei rumori (the art of noises) written by the painter Luigi Russolo and published in Milan with the date 11th of March 1913. For those who don't know yet, you may find a almost decent translation in English <http://www.unknown.nu/futurism/noises.html> The second one is "la ricostruzione futurista dell'universo" <http://www.unknown.nu/futurism/reconstruction.html>  
As Sub lab and with the italian improvisation group "unorosso" we are to organizing a happening with futurist poetry reading, musical improvisation, energy releasing activities. We have learned from them to hate museums, we will never celebrate our fathers with nothing less than the burning of their books to post at their place our creations.  
So, a futurist celebration of the futurist! To assemble our more futuristic research in a futurist spirit and to fight each other. Please if you are interested to perform or to help post here or contact me directly!

**From: sher**  
**Date: 6 March 2004 19:34:13 CET**

thought i'd write a quick note to the women on the team. i think we need to be the real anarchists & find a way to protest the misogynist futurist contempt towards women. we need a subversive action that will surprise the boyz. it would be nice, if there is some concerted effort between us. one thing i do not want to do is glorify the futurists. they are certainly a questionable bunch & their politics have both good & horrible aspects ideas welcome.

**From: josephine**  
**Date: 6 March 2004 21:34:13 CET**

hello! Valentine Saint-Point might be a good starting point, since she opposed Marinetti openly but was still a Futurist in the Manifesto of Lust & Manifesto of the Futurist Woman. "Humanity is mediocre. The majority of

women are neither superior nor inferior to the majority of men. They are all equal. They all merit the same scorn. We are living at the end of one of these periods. What is most lacking in women as in men is virility. That is why Futurism, even with all its exaggerations, is right. To restore some virility to our races so benumbed in femininity, we have to train them in virility even to the point of brute animality. But we have to impose on everyone, men & women who are equally weak, a new dogma of energy in order to arrive at a period of superior humanity. Woman who retains man through her tears & her sentimentality is inferior to the prostitute who incites her man, <http://www.futurist.org.uk/saintpoint/sp.htm>

**From: sher**  
**Date: 6 March 2004 22:19:40 CET**

[http://www.findarticles.com/cf\\_dls/m0425/3\\_57/53286475/p1/article.jhtml](http://www.findarticles.com/cf_dls/m0425/3_57/53286475/p1/article.jhtml)  
The efficacy with which misogynistic Futurist polemic became an unscalable gender barricade was, & is, breathtaking. Even Saint-Point, driven, eccentric, & free-spirited as she presents herself, reveals how necessary it was to internalize the patriarchal rhetoric when she writes in "Manifesto of Lust" (1913): "The satisfaction of...lust is the conquerors' due...It is normal for the victors, proven in war, to turn to rape in the conquered l&, so that life may be recreated" (167).

**From: fredd**  
**Date: 7 March 2004 17:08:03 CET**

Valerie de S.Point is not the only woman in the movement, not even in the pre-war time. Actually I can number some: Rosa Rosà, Enif Robert, Magamal, Benedetta (then wife of Marinetti). I think that to put the idea of woman out of a futurist manifesto & in the "politically correct" that is proper of our time, is not the right step. Marinetti says: "When I said to them: deprecate the woman! They have answered me with trivial insults, like pimps angry because the police stepped in their brothels! But I don't deprecate the animal value of the woman, but the sentimental value is attached to it." His view is connected with the diffuse idea of his time that the woman is complementary of the man, with different characteristic: impulse & sensibility over rationality & activity. In this he is in good company (from Shopenhaur to Nietzsche, to Kraus). Is the woman as "only Ideal, repository of love, of tenderness, the woman-poison, the woman tragical-toy, the fragile woman, obsessive, fatal". In his affirmations Marinetti is having a clear target, that is not to keep woman aside, but to hit the poetry of his time, in particular the high praised D'Annunzio. His point will change slightly during the futurist years. Marinetti & Boccioni in London were photographed with a suffragette manifestation, Valerie de St. Point praise for the futurist woman to be Superior. Is a womanlike superiority, far from the "imitation of the man" or the man like characteristic that are the caricature of femininity. After WWI marinetti writes his political pamphlets, & asks for them: divorce, juridical equality, vote, the son of the state, free love...(see democrazia futurista). I would like to document better this, in counter position to the affirmations of "fake" surprise of the article you pointed, without my books at h& this is the maximum I can do for now :) Anyway, Marinetti was an Italian man, & a lover of woman(s), obviously because of their woman-hood. This is how my two cents of

@ phsichology goes far. & by the way, I think the same :) Nice hint for reflection anyway PS is it not strange that we are still un-comfortable with those lines: "The satisfaction of... lust is the conquerors' due It is normal for the victors, proven in war, to turn to rape in the conquered l&, so that life may be recreated" Is it not this the dark true?

**From: gene**  
**Date: 7 March 2004 20:24:35 CET**

poetic comparison of the task of an artist with the task of a soldier should not be taken as a literal opinion all these artists statements have to be seen in their context somehow, who were they talking to, who were they trying to shock? i'm not interested in having fights about man-woman, i consider myself in the lucky possession of an entire human soul & no man or woman is going to talk me out of it i can see there are man-woman problems in the world, but i choose to consider it a human problem amongst many other human problems, a problem mainly rooted in ignorance, stupidity & unfortunate misunderstanding that is not at all meant as a discouragement for anyone who does find this an important theme in the performance! i dont think we should fight about it, as: was marinetti a chauvinist pig or not? probably was for that time they said very controversial things about important issues they also did some very interesting artworks lets try to catch some of this ambivalence these strange people who happily advocate noise these strange women who moved in this "context totally inhospitable to the participation of women" (going to the extreme with her conversion to islam, which even denies women the possession of a soul) if im not mistaken nour el dine means something like light of eyes or in eyes here lots of info. <http://thegalleriesatmoore.org/publications/futuristalp.shtml>. This misogynist tone, in addition to futurism's nationalist, proto-Fascist tendencies, has encouraged oversimplified characterizations of the movement by apologists & detractors alike. But, as the scholar Cinzia Blum has aptly noted, futurism is rife with paradox & must be considered in all of its contradictions. The origin of these contradictions can be traced to futurism's (& modernism's) inception at the beginning of this century -a time marked by traumatic change: great historical shifts in economics & politics, a breakdown of common ideologies & belief structures, & the erosion of traditional gender divisions." well doesnt that sound just like today? did anyone find anything about this metachorie?

**From: sher@waag.org**  
**Date: 7 March 2004 22:19:10 CET**

just wanted to provoke a bit of thought on this issue. not attempting to inspire a rad feminist demonstration against historical artistic figures. apologies &/or attacks on socio-political-artistic beliefs aren't necessary. i only wanted to raise a point about the mystification of great artists. the same point they themselves made. thanks for the thoughtful replies.

**From: guy@waag.org**  
**Date: 8 March 2004 0:12:32 CET**

but about the futurists in general don't we have to see this as merely historical? the time when they were 'acting' the whole fascism-communism debacle was not yet fought over in the streets, & there was no real

political division! same happening now with a lot of radical points of view: we will be proven wrong a lot & at the same time positioned in categorisations that will be made afterwards wait a couple of years...then the valentine issue I think she had a lot of guts & was very intelligent at that time to already slam it in the face of everyone that sex was not only about procreation. all things we consider contemporary issues & discussions & I do believe the celebration can be as controversial as the source material!

**From: sher@waag.org**  
**Date: 8 March 2004 9:29:26 CET**

interesting point but isn't the historical perspective fundamentally anti-futurist? true, but she was not alone in this. plenty of examples of women, esp in the paris scene at that time who slammed procreation in the face of the establishment, also in very gutsy ways. what is a futurist celebration without controversy.

**From: nancy**  
**Date: 8 March 2004 11:03:29 CET**

the manifesto comes out of real life a catalyst for the transition to a feminist perspective i am impressed by her courage, because if these positions are unfashionable now, they were absolutely off the map in her day. A really brave manifesto. In my own way, i really agree with what she said.



## son(net) subterfuge

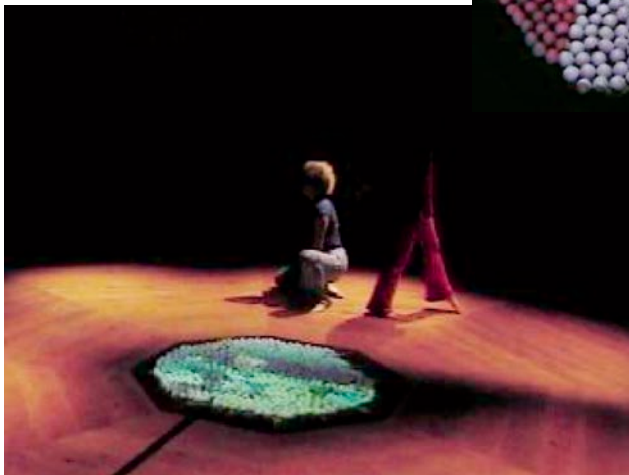
Date: 10 April 2004

Locations: *Theatrum Anatomicum*,  
Amsterdam, Helsinki and New York

*The following text is Josephine Dorado's  
announcement of the performance*

*Son(net) Subterfuge* is an invitation to subvert Shakespeare's sonnets! Interpret/sample/re-mix/re-generate > create. A collaborative project between several institutions: Waag Society for Old and New Media (Amsterdam, NL), the New School University and New York University (New York, New York), InterCollege (Nicosia, Cyprus), and Sibelius Academy's Center for Music and Technology (Helsinki, Finland) - this effort will consist of exchange amongst artists at each locale and will culminate in a telematic performance at each venue. Subversion can happen as sound, video, or movement pieces, which will then be shared and used as material for a live performance in which the work is projected telematically to either space to allow for a real-time collaboration and thus inviting trans-cultural interpretations of classic literature.

Fifteen artists and technicians participated in this performance by Josephine Dorado.



## medi@terra festival athens

Date: 1 February 2004

Location: Athens

Guy van Belle and Arjen Keesmaat presented the Waag Society's Anatomic initiative during the medi@terra festival in a performative context. The performance illustrated much of what was explained. They worked with Eleni Ikoniadou, a young, local and internationally networked media artist.

They choose the text 'rules' by Samuel Beckett from his novel 'Malloy', interpreting them in a networked and communicative way, yet always consistent with the ideas expressed in the text. The text was interpreted through algorithmic manipulation via 3 computers running the following software: KeyWorx, Max-MSP-Jitter and OSC. An important feature was the live connected presence of Prof. Akihiro Kubota from Tama Art University Tokyo. In accordance with the exhibition theme - hypertext - the performance illustrated current hyperlinked and realtime text and media interaction.

*The following text about Connected and networked performances is by Guy van Belle.*

Nowadays we live in an era where text as such has disappeared only to reappear either in a richer context together with code, images, sounds, or in limited situations like on a telephone screen. But altogether it forms one chaotic map of active textual objects that act and interact along multiple paths: it makes and breaks sentences, transforms them till they catapult you into the chaos of information and communication.

For the technological artist, it is not an environment where "everything goes and nothing works", but rather a complex construction where, cautiously, activities are set up, with their own unknown, fragile expressivity.

It is a daunting task to invent an area, where form and content come together and allow affective and expressive gestures. Bolter pointed out the striking similarity between the fluidity of hypertext and that of Homeric oral performances, referring to Ong's earlier description of orality as "additive rather than subordinative" and "aggregative rather than analytic".

But on entering in a collaborative space the multiplicity of presences resembles more a noisy train station than a serene concert hall. And still when we try to perceive this, something new emerges from the cracks and clicks sliding off the links.

Maybe the new agenda for hypertext is much more related to what we know of social and cultural interaction within this networked context, than to the technical origins of hypertext? Or again, to make sense of it all, how do we have to 'orient' our local interactions, in order to let the bigger structure emerge?

Of course, the purpose is to start a new structure that accommodates a new online creativity, a new presence, a new ecology of expressivity. It seems like a daunting task, and not related to reality. But still, if reality is but an extension of the virtual ways in which we live now - like Flusser stated, we cannot avoid research into the hidden ways in which nowadays hypertext and connected performances unfold.

We have to believe that experimentation and research is essential to reflection on creativity.

### URL

<http://www.mediaterra.org>

## happychaos

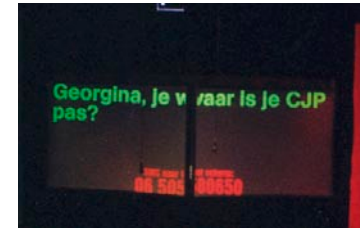
Date: 8 May 2003

Location: Stadsschouwburg, Amsterdam

*The following text was posted on the Anatomic wiki by Dirk van Oosterbosch.*



*Just before the finale of the event happyChaos Offensive! (OFFENSIEF!) an issue between Theo van Gogh and Abu Jahjah climaxed and became a full-scale media event. happyChaos OFFENSIEF! was dealing with the ideals of a new generation. As a way to focus on these confrontational emerging ideals, a final debate was planned between Boris Dittrich, a D66, democratic member of the Dutch parliament and Abu Jahjah, spokesman and founder of the Arab European League. The debate was to be lead by Theo van Gogh, columnist and filmmaker. The audience could participate in the debate by sending sms messages to the screen on stage. Jahjah, knowing of van Gogh's reputation – that of being strongly opposed to fundamentalism and making a habit of insulting people– refused to debate under van Gogh's moderation. Van Gogh agreed with this and said he would stand down as the debate's moderator, but not before 'explaining' to the public just why he would stand down during this debate. Then, just at the moment when the final debate would start, van Gogh took the moment and the media attention to call Jahjah the pimp of the prophet, during his little explanation. Jahjah stood up and left, refusing to debate. Van Gogh, excused himself and left as well. Exit debate. All what was left was a trail of media rubble and rouse, all tumbling over the incident.*



### SMS QUESTION&COMMENT

The final debate will be held in the main hall and on the center of the stage stands half a boxing-ring. A series of two speakers have to compete with each other in three rounds. During these debates the audience can participate in this battle by sending SMS comments or questions. All SMS-messages are filtered (screened) and divided in comments or questions (and answers). The comments flow on the screen like in a news-feed-stream. The questions can be triggered by the debating-leader/referee to appear on the beam. People are asked to also give their name and can be called back by the debating leader if he thinks it is relevant.

### URL

<http://www.happychaos.nl>

What we are gonna do.

Ixopusada, that's the five-person-collective in which I do things, are asked to do all marketing, publicity and designing. So "we" are gonna make the posters, the website, the flyers, the e-flyer, decoration inside the Stadsschouwburg, introduction movies and some beam-shows during the evening. That last part is my department: the beam-show. I don't really know a better word for this: it's not really VJ-ing for I will not do something on music and it's also not real art, for I take the whole evening as a design problem.

There were three plans that could have been realized that evening, which I want to connect with anatomics. Two of these proposals have been shot dead. The last one is going through and might be an anatomixopusada thing!



## eCulture fair

Date: 23 October 2003

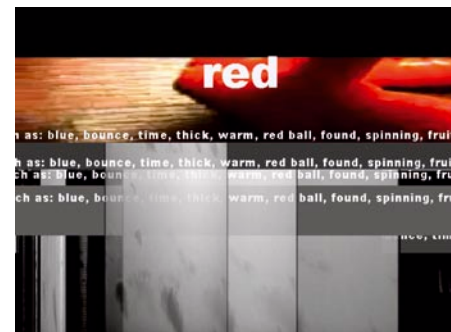
Location: Paradiso, Amsterdam  
and V2, Rotterdam

The Anatomic core team presented a Connected! performance during the opening party of the eCulture fair. The main venue was Paradiso where the one-hour performance followed the Mode Show - a wearable technologies fashion collection.

Three locations were connected to two distinct KeyWorx sessions to create a live composite image and sound for the eCulture fair audience. The sound artists were situated in Paradiso where three screens displayed the VJ'ed images as they were streamed and processed.

The performance was structured such that sound would be generated from Paradiso by Jan-Kees van Kampen and Fokke de Jong and streamed to Waag Society and V2\_. The remote locations streamed live video in response to SMS messages sent by audience members. The videographers responded to commands, texts or words input by the KeyWorx VJ's providing a content palette for mixing, remixing and recontextualizing.

KeyWorx artist pairs: Lodewijk Loos and Guy van Belle; Isabelle Jenniches and Arjen Keesmaat; videographers: Louise Both and Josephine Dorado.



@ From: isabelle jenniches  
Date: 21 October 2003 13:11:47 GMT+02:00  
To: Guy  
Cc: Lodewijk, sher doruff  
Subject: eCulture fair performance

Hi Guy,  
Late but hopefully not too late -let me fill you in on some thoughts around the eCulture fair performance. The general setup follows the DEAF03 performance in that we have three performer-pairs that work together in each their own way. Binding factor is again the SMS message module. The audience can send messages to control the live video images coming in from the Waag building and V2, Rotterdam. Josephine (in Rotterdam) and Louise (in de Waag) are operating the live cameras according to the commands sent by the public (in Paradiso). The live video images are being streamed and form a second important element.

The three performer pairs have each their own specialty: Jan-Kees and Fokke are creating the soundscape, using the SMS in a speech renderer. They are audio-only. Ask Jan-Kees for his website where he has posted some audio samples. Otherwise Arjen has some on his harddisk.

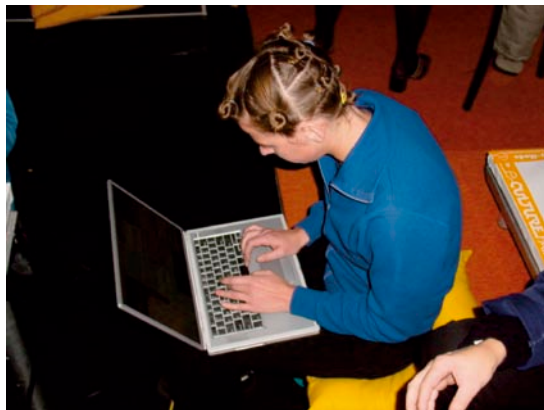
Arjen and me are one of the two visual KW sessions that will be projected in the Paradiso. We will use the video images, simple graphic elements and evtl. audio visualizers. Here a snapshot (doesn't show all that much as you miss the movement...)

Suggestions concerning the session between you and Lodewijk: I noticed that you were really into writing text during our brief connected sessions in Anatomic couple weeks ago. You might consider describing what you see in the video images, making up fictive stories... let yourself be guided by both your fantasy and the actual images. I think this could be very nice as I don't think Arjen and me will use text.

Next to the SMS and the video there is another element that should return in both visual sessions: a "ticker", similar to the newsticker on CNN, it informs the audience on how to interact, which number to send the SMS to to control the cameras.

When rehearsing w/ Arjen I found that because of all these given ingredients the patch becomes full quite quickly, so the art lies in how we treat the same elements differently. Both sessions might use the video image and an audio visualizer for example, but in completely different ways.

I hope this fills you in a bit, I hear that Lodewijk should be at de Waag today in the afternoon -grab him to talk things over and if possible do a KW session with him, so that tomorrow we can focus on how we all play together. Let me know if you have any questions, I'd be happy to answer them!  
gr,i.



## keyworx/embodiment thread

@ **From: sher, john, isabelle, nancy, michelle, dirk, federico, ameryic**  
**Subject: KeyWorx test**  
**Date: 25 November – 1 December 2003**

**From: willemijn**  
**Date: 24 November 2003 17:47:43 CET**

hi all,  
 for my thesis-research about collaborative work, I would like to do some user-tests on keyworx. Therefore I am looking for 3 persons who want to help me with this. The test will take place at the waag. First you'll have to fill in a questionnaire. Then there will be a multi-user session with keyworx, during which I want you to comment out loud about what is happening and what you're doing. This will be filmed for later review. After that there will be another questionnaire, and finally an 'after-review'. In total this will last about an hour. I would like to do this in the week of the 1st of december, whenever suits everybody best. Are there people here that would like to participate in this??

**From: misha**  
**Date: 24 November 2003 18:22:53 CET**

Hi Willemijn  
 this will of course affect the outcome, because part of a multi-user session is being able to go into the zone, which doesn't happen if you are explaining the mechanics of the process.  
 will this still be useful?

**From: ij**  
**Date: 24 November 2003 18:51:19 CET**

HA! the pitfall of the lab experiment.  
 we shall see.

**From: willemijn**  
**Date: 24 November 2003 19:03:43 CET**

you don't have to explain the 'mechanics' or anything else, just describe what you see & do! So the rest of us can follow... :-)

**From: nancy**  
**Date: 24 November 2003 23:30:40 CET**

well i think it may affect your research fundamentally, so how to accomodate this? if you are also having to have to accomodate people/particular structures/apparatuses not in the zone of the environment – in this case you are suggesting keyworx. collaborative networks are about being present over an amount of time, remembering to also tune into the other people you are connecting with. I had this very disconnected experience in the last sister O Operation, the level of connectedness and presence we had experienced in the 6 months lead up often in 3 crns of the globe. this was not there at all on the public day- we were all required to be in and out of the software due to audience, cameras, not just in the keyworx zone. this was not the case this meeting because this other aspect was not taken into consideration.

**From: jhopkins**  
**Date: 25 November 2003 6:46:19 CET**

absolutely -- this is related to the issues we covered last weekend -- that the presence of even a passive observer has the capability to shift the entire event. So that, well, this is the problem with 'research' as a concept -- something about re-producing or re-ducing something in a form for easier consumption by people who are not willing to enter into the process itself and be changed by it...

(I don't want to sound too hard, but this assumption is what drives academia, media, curation, and other forms of reductionist ways of going that have stripped the life out of many dynamic processes. I suggest that embodied experience be substituted for field research. Substitute anecdotes for clinical trials, substitute dialogues for news.) I was doing a workshop in Finland where, without my prior approval, portions of it were to be broadcast on SubTV, a national channel. Although the production crew was students from the same school, things entered into a crisis where it was clear that the people running the cameras and lights and so on were forcing themselves to be less than human in order to serve the structure of centrally-controlled media broadcast, while the students in the workshop got to critically experience that in-human separation, they also activated themselves to subvert the process by involving the media people in dialogue. One woman was brave enough to take! her own camera and be interviewed, and allowed herself to actually enter the 'space' of the workshop... very interesting dynamic which illustrated the inherent conflict between distributed systems and central command-and-control systems... okay, I'm blathering...

**From: dirk**  
**Date: 26 November 2003 11:53:37 CET**

No, you're not. I think this specifically addresses the subject some of us of anatomics had to deal with a few weeks ago, when somebody of the national educational (!) radio tried to make a weekly report on what we were doing. Apart from the fact that this reporter was himself not familiar at all with the concept of interactivity, that is didn't listen (which is most awkward for somebody from radio background) and that I think he didn't like it in the first place, that he had to work on Saturdays, apart from that I agree that there is maybe a fundamental clash between new media-makers (radio, television = BROADCASTERS) and newer media makers (the interactive collaborative kind = narrow = intimate casters). But to also respond to Nancy and Sher's comments: I don't at all think it's impossible to describe processes and experiences of the second kind in media of the first. There are also good newspaper articles and books being written about television. But then again, it's important to see this distinction and act with respect accordingly. At the moment the IDFA festival is going on in Amsterdam. I think if we want to find good observers that can translate our interactive experiences to a middle ages medium (television/radio etc) with respect, we should first go looking there. However I am afraid all this might a little off topic, regarding the recording and observing of the keyworx session next monday. As I understood it, Willemijn primarily is planning to do a user interface test. And though you could discuss the methodology of this "scientific" research test, I don't think



@ it's up to labrats (us in this case) to question and critique it in forehand. (As if we want to excuse ourselves in forehand to the possible failure of the system). another 2 cents... (anatomic gets rich this way :) ... we don't need funding at all ! )

**From: sher**  
**Date: 26 November 2003 12:01:56 CET**

i also agree with john. reductionist approaches don't work for relational dynamics. interestingly, varella, mr. embodiment, has charted a methodology he calls phenomenological reductionism that aims at describing 'experience'. this is one of the big issues with processual dynamics and perception - the validation of experience, which much of science (still caught in the dualistic split between subject/object), still views as unchartable.

**From: nancy**  
**Date: 25 November 2003 23:17:33 CET**

Yes indeed phenomenology comes into this, and it is also about having an understanding of 'ethnography'. Since, translating experience is about paying attention to how positions are negotiated. It is a question of where do we stand when things are shifting. Becoming involved in the analytical process as a performer during the event has important strategic implications. 'Observing is a full-time role which precludes even taking responsibility for sound recording or camera operation'. Gay McCauley states this in her work on ethnography of rehearsal 'that there are serious methodological problems for someone who has a major creative involvement with the production also attempting to observe and analyse the whole of the process, and to work out how the act of writing is tied up with the act of bearing witness to the experience' of [in this case] the live keyword process.

**From: sher**  
**Date: 26 November 2003 10:55:42 CET**

it is precisely the instability of the epistemological ground that underscores the processual. in a very pragmatic sense, it's difficult to multi-task inside and outside of the keyword frame. but i just think we need to open up our understanding of 'observation' in the first place. i'm certainly interested in how one would describe the 'zone' because i have observed its possibility. but can you isolate the virtual frame from the environment that surrounds it is this just another observation and one i wouldn't want to devalue.

**From: misha**  
**Date: 26 November 2003 11:01:11 CET**

observed yes, but experienced?  
this is a big difference.  
twelve hours in the 'zone', minimum requirement that should explain it a bit.

**From: unorosso**  
**Date: 26 November 2003 11:40:27 CET**

We had a great 23 (well actually about 20). I have thought that over and over. I wonder what conclusions (or thoughts) you have about that experience. I have read Peter Brook book "there are no secrets" and experienced some of the theatrical improvisation work made with this method. The base is the "carpet", a space/time, that you enter in a clean state. In this space/time you will look for energies and awareness. Is

like entering a incredibly more complex space than the connected one. I propose 3 new experimental points/ rule-of-the-game:

a) the connected event has no public outside the connection:

the viewer must experience something. The appeal of a connected event is much in the flow of ideas/ communication/forms. To see it you must still be part of the net. b) physical awareness.

In a performance there must always be some corporeal input as a start element: voice, dance, spoken world... it has to be made in the space/time of the transformation and it has to be prepared/perceived as a energetic item. c) space use If we mix to many forms in one we don't necessarily define one. The anatomic theatre is a perfect "empty space". We should keep this in mind and try to divide the occupation of the space from the communicative use of the same. these are my 2 cents.

**From: sher**  
**Date: 26 November 2003 12:01:56 CET**

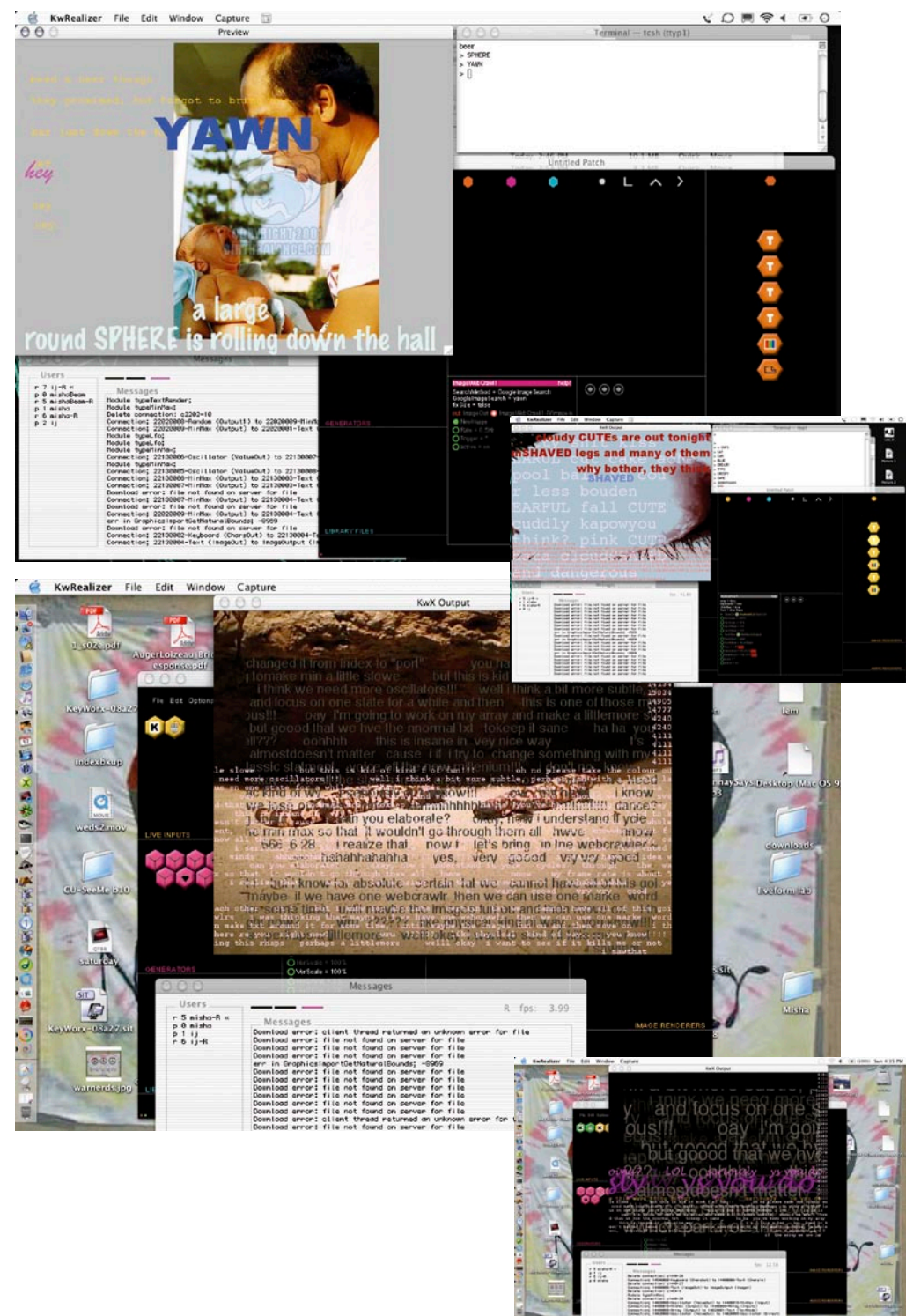
never been twelve hours in the 'zone', admittedly, but observation is itself experience. i think you should be careful of qualitatively measuring your experience with others experience. distinguishing between them makes more sense to me.

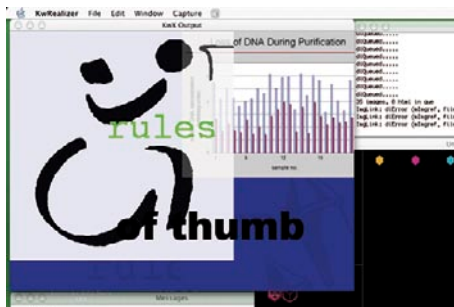
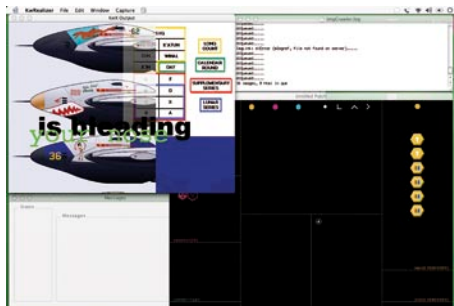
**From: aymeric.mansoux**  
**Date: 26 November 2003 20:48:43 CET**

FB> We had a great 23 (well actually about 20). I have thought that over and over. I wonder what conclusions (or thoughts) you have about that experience.

I spend way more time online than offline. I use IRC and other network communications protocols everyday. Some of my works are made only online (a friend of mine and i signed on a label for music we did together ... but we never met eachother) For those points i haven't seen any new elements in the 23+1 session. Indeed, the transition was smooth for me, it was "just" another channel opened in a collaborative network performance/work. So i'm not sure the time element was so important. Now, I think the real deal is linked to massive human online behaviours. During such a performance i noticed it was starting like a usual oldskool coding party, there were people, there were skills, tasks and micro projects flying around a nice "menu" (pronounce in french ^\_^). then at some point i didn't notice, the whole "clean" setup has shifted into a new object. There was material to use all around, everyone was getting stuff from other "unknown" performers, to use it again, to remix it, to spread it in other ways. data overdose. The data just took the ownership control of the performers. We became just nodes in a big creative network. anonymous items. it was not human anymore, in some point we nearly reached one of the old artificial creation process rule: no authors. At the same time the slave became the master. Stage 1: human performers control tools to interact with transformed data/media Stage 2: data/media performs feedback control on humans and turn them into transformer items. The great excitement (and also frightening) about such performance is the way you can loose yourself in the data flow.

FB> I propose 3 new experimental points/rule-of-the-game: a) the connected event has no public outside the connection:





FB> the viewer must experience something. The appeal of a connected event is much in the flow of ideas/ communication/forms. To see it you must still be part of the net.

This is already the way it's working. In such setup being passive spectator or active performer doesn't make sense. Just like sand, you're only one piece of an upscale physical process working on an upper level. Now i don't think you can "see it", feel it for sure, but "see it" I think it's on another level we can't access. And that's why it's mostof the time pretty related to network visualisation. We ALL know that it tends to something "bigger" somewhere else, but it doesn't belong to our "world". <play> 2001 a space odyssey soundtrack </play> the other important fact, is that we know "it" is, but we also know that by playing with "it" we loose ourselves in "it". "it" could be a conceptual mind jail sooner or later (maybe it's already one ...)

FB> b) phisical awareness.  
In a performance there must always be some corporeal input as a start element: voice, dance, spoken world... it has to be made in the space/time of the transformation and it has to be prepared/ perceived as a energetic item.

mmm... not sure about this one ...  
how do you want to create an energetic input in a land where nothing and everything may have the same digital value ? Maybe this is true for subjective information that would act like a stimulus on a specified target ... but is it really important to have a starting point as anything is already a starting point by itself? stop making bridges ! :P

FB> c) space use  
If we mix to many forms in one we don't necessarily define one. The anatomic theatre is a perfect "empty space". We should keep this in mind and try to divide the occupation of the space from the communicative use of the same.

that's the point buddy ! :) the hyper media mixing can't be compatible with any guideline, it runs out of control when it reaches some threshold i can't define yet ... it's not about to define network creation but to understand human procedural creation. Now concerning the theatre it's both the best and worst anatomic friend. On one hand it's very handy to have a central node where everything is managed but actually it still remains too "local area". I think next step would be not one theater but theaters, and finally no theaters at all. Focusing on a physical place is from my point of view a big error when the purpose is to study virtual spaces ... once again bridges ... Whatever can be said, collaborating or performing online with people next to you or people "on your screen" are two things completely different and i doubt those two "one" together will lead us to the "three" we're all looking for. (see anatomic vs deep problem saga)

FB> these are my 2 cents.  
next thread will be pay-per-view.

From: nancy  
Date: 26 November 2003 23:01:12 CET

of course it is not impossible, but there are implications

@ and considerations to keep in mind which change the event itself in the act.

From: willemijn  
Date: 27 November 2003 15:45:02 CET

Hi All,  
it's nice to see you're all enjoying yourself as a result of my question...!  
However, my situation is still the same...! In order to receive my MSc degree I MUST do a usability test. So, since I would really like to get that piece of paper after all these years of hard work, I'm still loooking for 3 persons to help me out here! (takes about one hour, sometime next week?) =Anyone?

From: dirk  
Date: 28 November 2003 11:41:49 CET

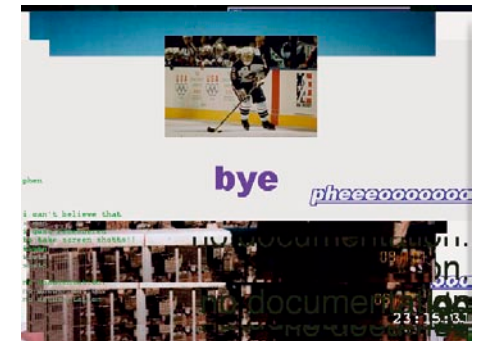
That's also exactly what I meant. You need to be a very good documentary maker and think it through very thoroughly to be able to produce a good representation... and to do so without stepping on too many toes (!)AND ... but I don't think I have to point that out to these subscribers ... this translation should never even try to be close to substitution. It could provide nice additive reflective value though. Sorry, that's one of my recurring issues: the addressing of a particular public. Forgive me for my paternalistical high-culture standpoint, but I don't like soccer. And I do think that deliverance of a message (culture) can be so much richer when it is NOT for everybody. That's what I mean by "narrow"casting opposed to broadcasting. Popular culture means the biggest common shared market driven interest, content and form spilled out over all of the audience. And while I admire the professionalism of people who can deliver in that manner, like Steven Spielberg, I don't think that's the most interesting way to go. I like narrow casted, intimate, messages, where you'd give the receiver also immediate controls to react upon, just like in a face2face conversation between friends.

From: jhopkins  
Date: 1 December 2003 3:41:27 CET

this is why I do 24-hour events often, it pulls people physically beyond their normal frame of reference, and creates an evolutionary social fabric (survival ;) there then is no possibility other than to be a participant, either locally or remotely or a combination of the two. or, since observation is deeply synergized with that-which-is-observed, maybe there are no audiences anyway... ever...

From: sher  
Date: 1 December 2003 12:36:29 CET

it's interesting that most people would agree on the enfolded role of the observer to the observation, a concept which also dismisses the idea of objective reality - an issue is still hotly debated as we tend to experience reality from that old subject/object binary. in everyday living, we still tend to see a table as a table siting over there and not a form that we are bringing into existence with our perception of it. so it's no wonder we still make the distinction of 'audience', even though, as you say, the observer synergy challenges that notion. or just rearranges it by leveling everything as observation. (Everything said is said by an observer - Maturana)



KeyWorx screenshots made by Isabelle Jenniches and Michelle Teran.

# art's birthday

Date: 16 January, 2004  
Location: *Theatrum Anatomicum, Amsterdam*

This was the concluding event of the two year Anatomic program. A marker perhaps, more than a definitive closure. Guy and Floor gave speeches. Nat baked a honey-cake-for-art. The Station performed its first networked composition. There was a connected radio piece *edit, which day is it* (Amsterdam, Brussels, Tokyo) with additional Station sounds and Federico's intervention.

Aymeric performed and there were presentations Gabriel, Dirk and Fokke, and a second networked composition by The Station. Then there was Floor's cake-for-art.

*"Art's birthday is over this year but ... we believe like Federico that art could have committed suicide in 1984"* – xgz



A contextual note from Robert Adrian: *Art's Birthday Party is a celebration in memory of Robert Filliou who declared, on January 17 1963, that Art had been born exactly 1,000,000 years ago when someone dropped a dry sponge into a pail of water. 10 years later he celebrated Art's 1,000,010th birthday in the Neue Galerie, Aachen.*



# supercollider3's anatomic days

Date: 19-20 December, 2003  
Location: *Theatrum Anatomicum, Amsterdam*

Jan Kees van Kampen guided participants through the coding structure of the SuperCollider platform for audio synthesis.

(coding is like typing a letter to a friend who then sings it) - xgz

SuperCollider was written by James McCartney over a period of many years. It is now an open source GPL'd project that runs on Mac OSX and GNU/Linux. There are three main websites in use by the SC community: the SourceForge project site, James McCartney's SuperCollider Home Page and the The SuperCollider wiki (everything you need to get SC3 up and running as well as lots of user contributed stuff).



## in-filth-tration festival

Location: *cinema ZED/STUK, Leuven*

*The following text is a report  
from Arjen Keesmaat.*

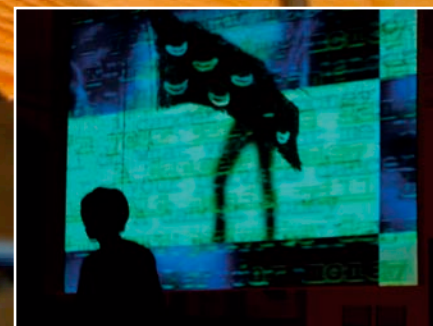
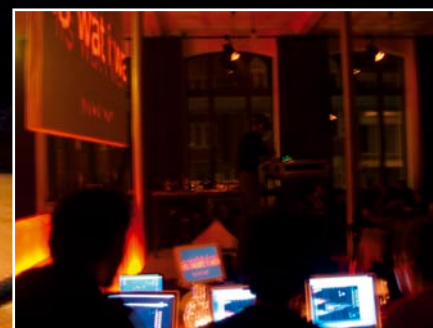
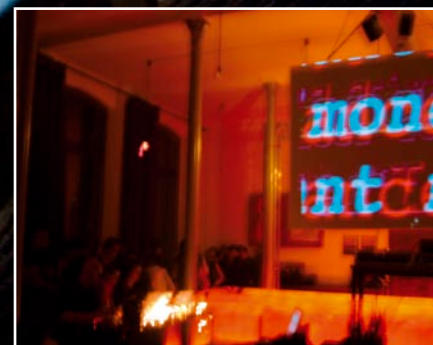
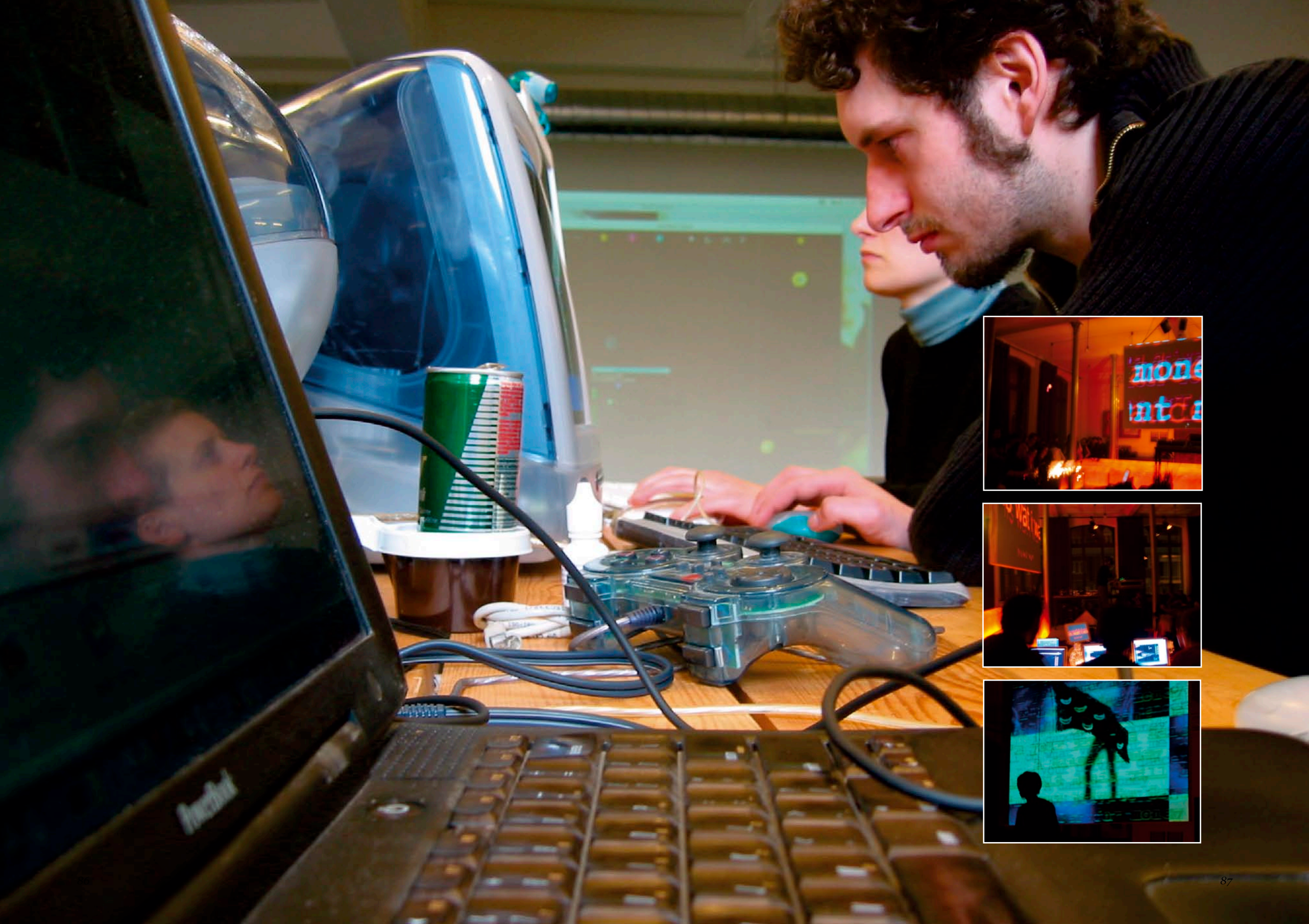
Invited by Karen Vanderborght (FatalImageFatale.org) who programming the In-Filth-Tration part of the Cinema ZED festival, Thomas Boonstoppel and Arjen Keesmaat went to Leuven, Belgium for Waag Society to host a KeyWorx workshop for VJ's and filmmakers.

They worked for two days with a group of twelve people to learn the software, and to create a collaborative performance. They worked towards a final presentation on the last night of the filmfestival, in the club of 'het STUK' in Leuven.

The group agreed on a common theme "The Arse of Evil", as a reaction to the growing 'war on terrorism'; on politicians and media using the term 'Axis of Evil' all the time.

They individually gathered images and movies from the web, their personal collections and other sources, and brought these together in the 'key-space', composing a shared statement that was finally presented to the audience as a collaborative VJ-performance during the final party. Not used to working as a VJ in teams of four people, most of the group members had to set aside their experience as a VJ, to learn to work in a networked environment in which others can influence/change what you're creating.









## electronics workshop

*The following text is a report from Arjen Keesmaat.*

In this two day workshop, Jeff Mann taught the Anatomix some of the elementary components of electronics using Basic-Stamps and how to program them. He had one goal in mind: the control of a toy-racing track with electric cars using this Basic-Stamp.

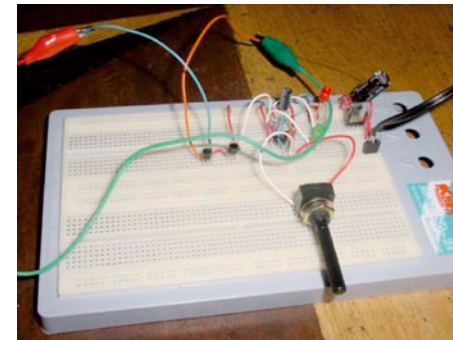
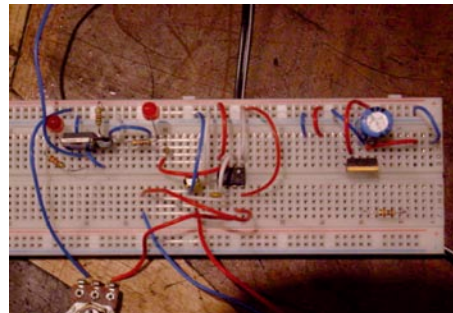
Jeff began by first explaining how the race-track works, how the electromotors in the racing cars work, and how the transformer works that makes the whole thing run on 220 volts. While doing this he introduced some physical laws, for instance Ohm's law, that allows us to calculate and understand what's happening in the circuits.

The next step was to introduce the transistor, the voltage-regulator and some other related parts, that enabled the Anatomix to start building their own circuits on a breadboard. A breadboard is a kind of circuit-board that doesn't need soldering, so it allows for very fast and easy adjustments. He then introduced the Basic-Stamp, which is a chip, actually a very small computer, capable of performing very simple tasks, but also very easy to program with your own software. The Anatomix learned how to create a stable power supply for the Basic-Stamp on the breadboard, using a standard power-adaptor, the voltage regulator and some other parts. Then Jeff showed how to hook-up their computers to the breadboard using a standard serial-port interface (RS-232), in order to be able to program the Basic-Stamp from a normal PC or Macintosh.

Using some additional parts like potentiometers, they eventually were able to control the racing cars not with the standard analog control-interfaces, but with the digital Basic-Stamp, using the potentiometers as an interface.



Although it may seem a very long detour for accomplishing such a simple task, for the Anatomix it opened a window to controlling hardware (electromotors) using their personal computers. A few steps further it enables the controlling of hardware over the Internet, using simple electronics parts that cost only a few euros. All this finally resulted in a competition on the racing track, testing to see whether everyone's circuit was able control the race-cars well enough to compete or even beat standard controllers that come with the race-track kit. Additionally, they tested to see whether a circuit board with a Basic-Stamp controlled by potentiometers was better able to control the racing-cars, than using the computer to control the basic stamp. The Theatrum Anatomicum is still scented with the smell of burned transistors.





# imagine interface

Date: 18-21 July, 2003

Location: Looking Glass Space, Brussels

Code31 Workshop hosted by fo.am and supported by Waag Society. Facilitated by Jonah Brucker-Cohen, Katherine Moriwaki and Code 31.

*The following text was the announcement of the workshop by Code31.*

Imagine Interface is a three-day workshop intended to bring artists, designers, coders and performers together to exchange knowledge and join forces. New forms of merged media arise from merging skills. Syn-energetic code-design-art-performance. The aim of the workshop is to collaborate towards the end product of an installation and exhibit in the Looking Glass gallery. Working -with- and -in- the space, using all available potential contained within (bodies/brains/electronics).

The Looking Glass gallery is a closed space of 10 by 6 meters with a large window looking out on the Dansaertstraat in the center of Brussels. During the three days passers-by will be able to observe processes taking place inside. After our 3-day development-cycle, the space will be abandoned, and our installation exhibited for one week.

1. Each participant is asked to come with an in-progress project (by preference) a problem you cannot solve, but which keeps your head spinning & searching.

2. Each participant is asked to bring his/her toolkit of goodies; code, electronics (working and/or non-working), wood, glue, paper software, paint, etc. This is so that we will try to work with the supplies that each participant brings. It will be like a potluck. Bring whatever you imagine you will need for this workshop. Keep in mind that you may collaborate, swap and exchange materials and some of it might be used in the exhibition. It may help

to think of bringing some items which can be contributed to a sort of electronics/parts compost. Everyone can get their things back at the end of the exhibition. We will take care there is a sound foundation of supplies.

## URL

<http://code31.lahaag.org/>



**artists-in-residence**  
**sentient creatures**

## michelle teran

### RESIDENCY

January 2003

### BIO

Michelle Teran lives and works in Amsterdam, Berlin and Toronto. As a media artist, she examines technological networks and how they are overlaid within social networks and everyday (social) spaces. She creates performances, installations and online works that are concerned with issues of communication, surveillance, psychogeography, presence, intimacy, social ritual, collaboration and public participation. She has talked, performed, exhibited at events and venues throughout North America, Europe and Japan such as Transmediale05, ISEA(02), BEAP(04), DEAF (00/02/04), Impakt (03), Argos Festival, Vooruit, Images Film and Video Festival, Transmediale Salon, Performance Space, PICA, Banff Centre for the Arts and also on the World Wide Web.

She was recently nominated for the Transmediale05 award and received Prix Ars Electronica honorary mention within the interactive art category for her ongoing performance 'Life: a user's manual', a work developed in 2003 during an artist-in-residence at Waag Society. FM Buzz Sessions, sonic compositions of wireless transmissions, was commissioned by MDCN for Sonic Scene. In 2004, with Jeff Mann, she completed commission within Waag Society's Connected! Programme, for LiveForm:Telekinetics, a collaborative project develops experimental connected social spaces using streamed media, sensor-based and kinetic objects.

### URL

<http://www.ubermatic.org/misha/index.html>



## artist statement

### GETTING LOST

My air proposal dissolves into thin air within 72 hours of arriving in Amsterdam when I accidentally discover the kitchen camera of the Waag Restaurant downstairs. I am in the media lab demonstrating to Sher the wireless X10 cameras that I have transported from Toronto. When I turn off the camera, ghost-like apparitions, people in aprons who emerge intermittently from the white noise, replace the live colour images of the inside of the lab. It is a brief moment in disjointed reality that nags me for months. I get lost and go on a trip. Instead of taking the direct road, I choose the scenic route.

I spend my time within Waag Society foraging like an opportunistic feeder. I watch, record what is going on around me, the projects, the hours that people keep. I look out the 'castle' window and observe the rhythms of the square; the yellow bikes, the tour groups, the buskers, the market, the protests. I observe how the outside affects the inside. I sit next to Sher. She is probing but supportive. She says "Oh, is that what you are doing?", each time I come with a new story, an additional piece to the puzzle. I join the others and become a silent screen-dweller. I stay up late, alone, and feel the building's energy. I make insignificant and unspectacular creative gestures that don't appear in newspapers, nor make critics knock on my door. I travel to Germany, Croatia and Japan.

I think about and explore spaces. I discover invisible worlds by intercepting wireless surveillance video streams, hidden views that I scoop from the air. I explore physical objects within networked spaces, by visiting homes, cafes, street corners, gardens and parks with wireless internet. I think about radio geographies and how they restructure the city. I wonder where we 'are' in reference to this. What does it mean to inhabit a (media) space? If I intercept a wireless CCTV stream, do I enter the space, or does the space enter me? I take

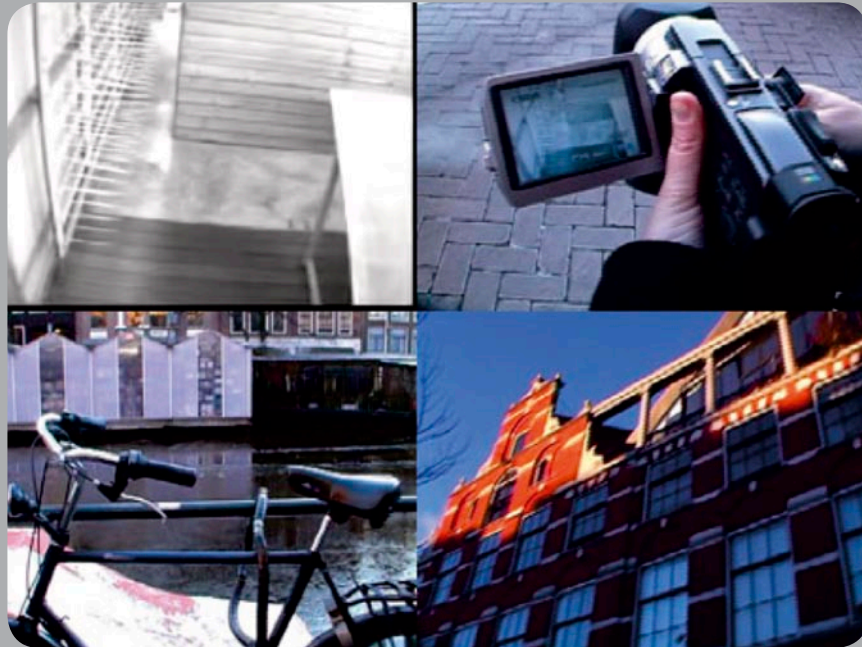
pictures and make short videos. I walk through the city. I witness and am inspired by Dutch Visual Theatre. I create a symphony in my head while I watch flowers bloom in a friend's garden. I read Perec, de Certeau, Goffman, performance/theatre/dance history and science fiction. I spend two months discussing/arguing with Jeff about the nature of hybrid spaces and the possibilities for a networked reality.

I join Anatomic and participate in artistic interventions that are fun but never quite work. We create a social network aided by copious beer drinking and shared dinners of take-out food within the Theatrum Anatomicum. I use KeyWorx as a sketchbook, a communication space that links me to ij, stationed at Location 1 in New York, six time zones away. In the winter months, we create a recipe for collaborative story telling and take others along for a ride. We perform this publicly during the Dutch Electronic Arts Festival, February 2003.

As artists we need to get lost. We need to contradict ourselves, be ambiguous and unpredictable. We need to make promises that we don't keep.

My AIR was about getting lost, and, in the process, I found new ways.

*Michelle Teran*



## space one

*michelle:* In a room there is a floor made out of a hard material, like a concrete. The walls are made out of 2x4 wood panels. In the front is a table with a metal frame. The door is open, there is a reflection from the sunlight. The sun beams shadows on the floor. There are a series of steps that you must go up as you enter the space.

*marco:* Ik zie een monumentaal stuk Amsterdam. Dat wel. En ik zie allemaal boten drijven in het water. Alles reflecteerd in het water. Ik zie een wittige ijslaag op de weg liggen en de weg is erg druk. Er rijden veel auto's. Ik zie ook veel mensen die nieuwsgierig naar ons kijken. En de lucht is heel helder. De lucht is heel zomers eigenlijk.

I see a monumental piece of A'dam. I see boats floating on the water. Everything reflects in the water. I see a white layer on the road. The road is busy. There are a lot of cars. People are looking at us curiously. The sky is clear. Actually the sky looks like summer.

## project

### RADIO 100 WALK LIVE RADIO BROADCAST

9 January 2003

For one hour I walked with one other person through an area of Amsterdam. Interior surveilled spaces and street views were described at the moment they were discovered by phoning and breaking into a live radio broadcast. This radio intervention was created in collaboration with Radio 100 and [now defunct] pirate radio station.

*Co-walker:* Marco Meijer, Waag Society  
*Radio program:* the playgarden  
*by* Hanneke de Feyter  
*Guest:* Diederik Boel

Marco and Michelle exit a shopping mall and enter a street by the flower market.

(dials radio 100)

*Michelle:* Hi, we have our first camera.

*Marco:* Describe what you see on the screen.

*Michelle:* I think I will wait until

I describe it on the radio.

*Marco:* But the second time you

describe this, it will be different.

(observes monitor)

*Michelle:* You know it is quite disorienting trying to figure out what that actually is. It looks quite new.

*Marco:* It looks cold, it looks quite icy, almost as cold as it is here.

(phone rings, it's Radio 100)  
describes Space 1

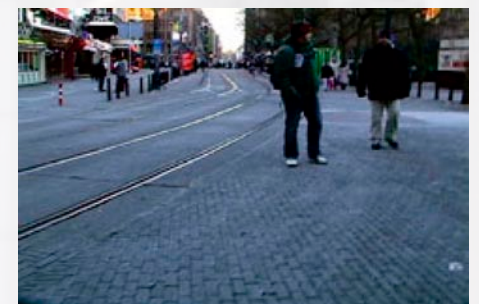
*Marco:* You know what I like about this? I found a space here on the street that is similar to the interior space that you were describing.

(points to a place on the street)

*Marco:* It's actually quite amazing.

*Michelle:* Walking through the streets like this, you realize that these spaces are everywhere.

*Marco:* It's so private, you're not invited





and still you are in.  
*Michelle:* It's more interesting finding private spaces than a clothing store, for example.



*Michelle:* I was once recording an elevator space in Berlin, and it was completely still, empty. Suddenly, after 5-6 minutes two women passed in front of the camera and then exited quickly through the side door.  
*Marco:* I know of a French film where for 50 minutes there's nothing but a still shot of a farmer's field. There's nothing happening and suddenly two birds fly across.



*Michelle:* So you are lulled into a hypnotic state of readiness.  
*Michelle:* In an essay by French philosopher Michel de Certeau he talks about the act of walking as the ultimate act of 'placeness'. A 'place' implies stasis or stability, whereas 'space' is an intersection of mobile elements.



*Marco:* And you are one of the mobile elements.

(camera is located)  
*Michelle:* Okay, let's see where we are.

*Marco:* Let's see what you got.  
*Michelle:* We have to get a little closer. Here we go.

*Marco:* Oh, it's a bar. I guess it's the bar across here.

*Michelle:* The Café Los?

*Marco:* We should check if this is the Café Los. (goes to check) No, it is not the Café Los.

*Michelle:* That guy looks like my brother.  
 (calls Radio 100)  
 describes Space 5

(looks through shop window and watches a man working)  
*Marco:* Wow, this looks weird. This looks like a showcase. You can actually walk in and see how these people are working.  
*Michelle:* Looks like they are on display.  
*Marco:* Woah it's cold!!!  
*Michelle:* Here we go.

(observes monitor)  
*Marco:* That's a restaurant. Shall we call?

(calls Radio 100)  
 describes Space 6

*Michelle:* I think it might be in there. I think it's The Grill Room.  
*Marco:* But it's a huge place. It must be this thing. Shall we walk in?

(Marco laughs when he sees a video surveillance sign)

*Marco:* There, you can see for yourself then. Who's there?

*Michelle:* Well, I think that is you. [the restaurant] is not very popular.

*Marco:* It's not even open yet. Oh, it is open.

*Michelle:* Yes, but it just not very popular. They put up a video camera to watch an unpopular place.

(they continue walking, but are unable to find another camera before the hour is up)

URL  
<http://www.ubermatic.org/radio100/>



## space five

*michelle:* The first thing that I see, at the bottom of the frame, are all the labels of the types of soft drinks that this bar has available. A man with a long braid has just stepped into the frame. He looks like he is counting money. He's just walked out. There is a slightly kitsch and ornate lamp that hangs from the ceiling. There's a cigarette machine by the corner. The building outside looks like bank. You can see it quite well through the window. Several cars have just passed by. There is a bicycle that is locked on the corner. There is an exit sign by the door.

*marco:* Deze straat is heel erg donker, ik zie een aantal bouwvallen. Ik sta vlak voor een bouwval. De ramen zijn dichtgemetseld en ingegoooid. Het is erg donker. Het uitzicht van deze straat; Je kijkt recht op de oude kerk af met een mooi verlicht jaartal en aan de andere kant kijk je uit op een andere toren. En er hangt een soort groen geel -eigenlijk ook een soort kerk teken van de Amro bank. Het hele gebouw wijst naar boven. Er is hier ook een achter uitgang van een hotel. Ik kijk door het raam. Ik zie en hotel kamer. Het ziet er een beetje grimmig uit. This street is pretty dark. I see decrepit houses and am standing in front of one right now. The windows are bricked over or smashed in. If you look to the right you see an old church. To the left you see a tower. There is a green and yellow sign. Actually it's a sort of a church sign as well. It's from the Amro bank. The whole building points towards the sky. There is also a back exit of a hotel. I peek through the window and see a hotel room. It looks a bit grim.

## mark stephen meadows

### RESIDENCY

July - September 2003

### BIO

At the bottom of it all, I'm a painter that writes. I also design interactive systems, develop emerging forms of narrative, invent artificial emotion software, lead groups of designers into burning buildings, and get them out again, unscathed.

I spend my days inventing new AI / AE products for a company I co-founded in 2004 (Area10), help product companies invent new software, help game companies invent new characters, and I'm also the co-founder of Traction, a non-profit arts organization that shows interactive and electronic artwork at a range of venues around the world.

The work of the last decade has included work as Artist-in-Residence at Xerox-PARC, as Creative Director for a venture of Stanford Research Institute, and as a co-founder and Chief Creative Officer of a VR and Internet company named Construct (which we sold in 1998). My time in art and research has been spent at the point where reading, interactivity, and visual art intersect. Since 1987 I've been selling my artwork in galleries and museums throughout the United States and Europe and in that time I've received awards from Ars Electronica, the Cooper-Hewitt National Design Museum, and the National Information Infrastructure (NII) highest honors, among others.

In 2002 I wrote my first book, *Pause & Effect; The Art of Interactive Narrative*. In May of 2003 I hitch-hiked to Baghdad during the US-led invasion of Iraq and wrote a book about that, too. I'm currently concluding a travelogue of Sri Lanka in which I interview Tamil militants, heroin dealers, and government officials. These travel-based books are portraits of countries, or cultures, and are an amalgam of paintings, photos, illustration, and writing.



Mark Stephen Meadows

I'm currently based in Los Angeles where I spend my days painting, writing, sailing, playing the concertina, and lecturing in Europe, and North America.

### URL

<http://www.bore.com>

[http://www.bore.com/w/st\\_elmo/](http://www.bore.com/w/st_elmo/)



## project

This project is an interactive portrait. It is an exploration into new territories of narrative, interface, and entertainment. It weaves artificial intelligence, real-time 3D, ubiquitous computing, and a form of interactive cinema into a single theatric presentation.

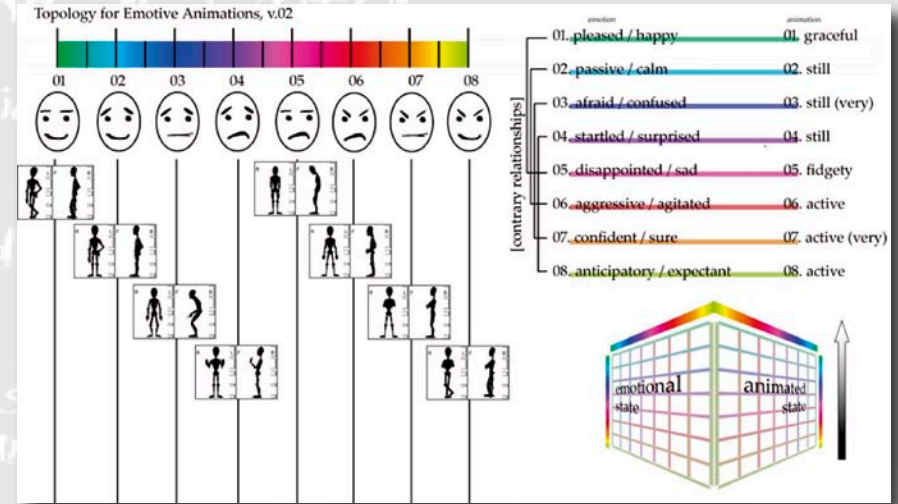
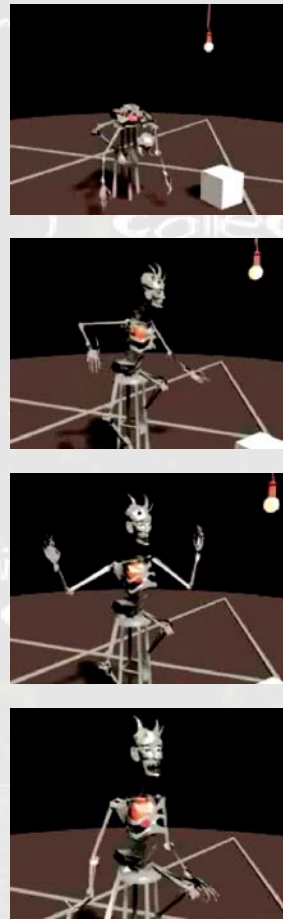
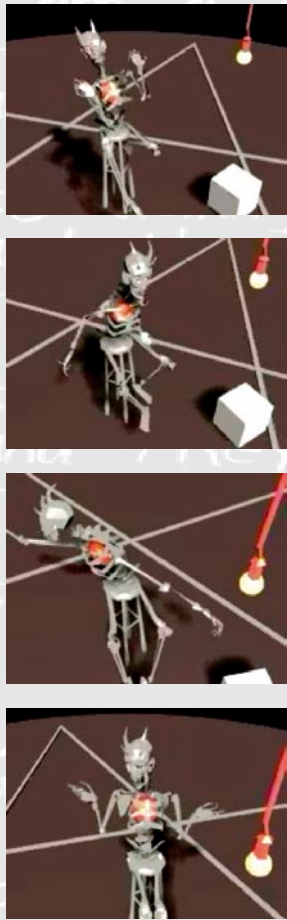
Comic book or movie characters can now tell their stories themselves via an interactive form of cinema. The animated character appears on the computer screen (online or via CD) and talks with the user. This character answers their questions, makes jokes, provides opinion, and tells a story that is relevant and contextual to their existing content. Technically, the project is based on real-time 3D technologies and a backend database that relies on artificial intelligence and emotion approaches for natural language processing (NLP).

Practically speaking, the project is made out of two primary parts; 1) the platform, or the technology, and 2) the character, or the content.

Simply put, the character talks and moves. What the character says is based on the story and the interaction with a person. This influences the emotions which in turn influence the animations.

This is currently implemented as an XML stylesheet template, with parameters coming from a Java servlet connected to an SQL database. The code is open source and platform independent. It is able to sustain conversations with individuals, groups, or other AI packages.

More specifically: Client side: this is an applet running in a browser frameset, which uses realtime-3D (specific plugin TBD). The applet grabs an XSL template off the server, which represents a character. The applet takes input from the user (e.g., "Hi, how are you?"), and transacts little bits of XML with its server (basically, SOAP). Applying parameters from the server response, the applet uses the template to generate HTML, and inserts that



into browser frames: SWF for looping audio, X3D for animation, and text response (“Just fine, thanks.”) representing the character. Server side: a Java servlet manages sessions, using XML for transactions, then calls stored procedures in an SQL database. All the data is in XML: character personalities, AI rules, natural language grammars and dictionaries, etc. All multi-lingual, open source, purely XML, Java, SQL, depending on the layer involved. The Java and SQL is structured to be multi-threaded, so it can scale from open source platforms up to a big server farm running something like Oracle Application Server.

A fuzzy logic controller that represents a matrix of emotions for each character, changes based on the current trend in the dialogue or monologue. The emotional transitions feed into animation planning: gestures, speed, lighting, posture, position relative to user/camera, etc. Also, the AI rules are fairly intuitive in terms of commonplace psychology: stimulus / response, association, optimism / pessimism, deduction, grammar, etc. In the emerging field of interactive narrative there is a common argument about the balance between the dramatic arc and the amount of control that the reader, or user has. Many pieces of interactive narrative exist in a state

of being that is potentially interactive, but that interaction is exploited at the cost of the narration and that narrative’s dramatic arc. We believe that there is a balance that can not only be struck between these two, but that this balance can actually leverage the other side to dramatic or interactive benefit.

In terms of this implementation the character is able to talk about a range of topics with a general trend towards telling a story. This story can be interrupted with questions. The type of question determines the type of interaction, and so the character will start to drift from monologue to dialogue as the questions demand less narrative and more interactivity. Opinion serves as a fulcrum between them.

Functionally, the character moves from telling a story (monologue) to answering questions about the specifics of the story (opinion) to engaging in short bursts of traded conversation (dialogue).

*Mark Stephen Meadows*

## nancy mauro flude

### RESIDENCY

February – August 2003

### BIO

Nancy Mauro-Flude a.k.a. *sister O* is a performer, writer, & tactile media artist. She contributes to urban mythology, virtual kinship communities & new narrative architecture [often] in networked experiences via dance, electro-noise, radio, writing, a/v streaming collaborative performance. Linda Dement describes Nancy's work as 'a generative collision of net technology, riot grrl, dance, open source programming, feminism, vaudeville and the concerns of the psyche, her work weaves together transcendent practices of many kinds while feeding from the rot and beauty of contemporary daily life'. In her performances she sets up various transmission sites which recode texts / bodies from the well written archetypes to other possible methods of ordering the world, she is a hacker of narrative. *sister o* has a commitment to sound and movement and wants to release the subversive anarchy of language.

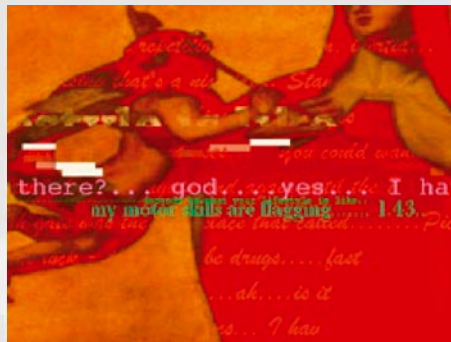
She holds a Master of Performance Art from DasArts: advanced research institute of theatre & dance studies [2004], Amsterdam & an Honours 1:1 scholar at the Department of Performance Studies, The University of Sydney [2000]. She received her Coaching Certificate from at the Institute of Somatic Movement Studies in Amsterdam [2001] where she now works as an assistant; she is an associated researcher at the Institute for Networked Cultures [HvA]. A developer of /etc eclectic tech carnival and a host on Radio Patapoe PTP.

### URL

<http://sistero.sysx.org/>



Nancy Mauro-Flude



## artist statement

In 2003, I was artist-in-residence in the 'Connected Project' where I learnt to use the collaborative software KeyWorx with Michelle Teran. I was exploring the potential of translocal collaboration. Initially I would learn from the patches that Michelle would make in response to concepts I would hash over for instance, mapping the act of mesmerism (the vaudeville practice of channelling) and the ecstasy St Teresa. St Teresa practiced a form of a subversive wireless practice; her body was a receiver whose direct connection with the divine allowed her to deftly manoeuvre in and around the church hierarchies at the time. With this idea of transmission and reception in mind, I wanted to experience what a translocal connection meant for me. I asked Linda Dement in Sydney to join our collaborative sessions, as we were in Amsterdam. Together in different time zones, in hemispheres we would dive into lengthy durational sessions working partially with prepared media, as a platform for more spontaneous media play and modification. The software is quite dense; it needs patience and willingness for things to take their own form, in order to make KeyWorx meaningful. This was an intimate time of experiential learning about networked collaboration. We were embedding digital stills and video with text, personal narratives, sound filters, modifiers and image renderers in order to transform the image into an ephemeral mutating realm.

Transforming well known images into other states, and ways of being understood I found myself using the software as a way to open iconic constructs out of their confinement. For example, via KeyWorx we 'released' a Qtime I had made from Rijk's Museum of the sculpture St. Isabelle and 10,000 maidens. The story behind the image really moved me; the Huns killed these women primarily because they were nomads. I also thought it spooky that the sculpture was by 'anonymous'. I imported the Qtime into the patch without thinking, and then this compulsion took

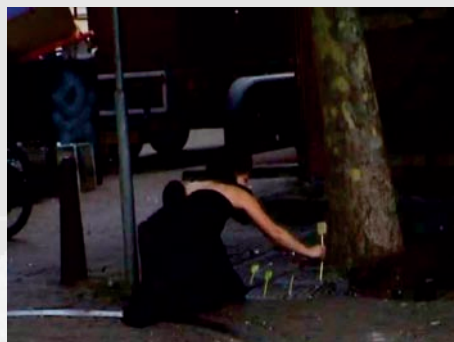
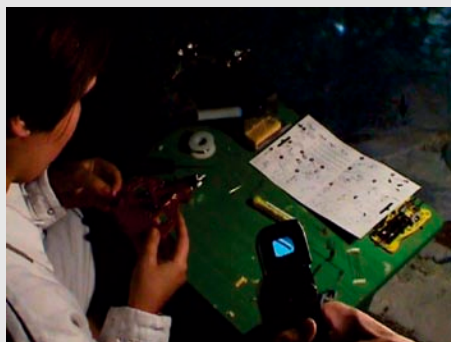
over. The session lasted around 4 hours, there was a mutual feeling of emancipation, that media was released into another state

The residency time included a galvanizing 3-month empirical research in the sth. Colombian jungle, at the Society for Ethno medicine - exploring ancient media of sound, dance, plants, in a world where body, ether and myth are wedded. A place where I was immersed in practices of teleportation, virtual abstraction and bodies in augmented, place, space & time. We also managed to conduct one translocal collaboration between the *sister O* collective (Linda Dement in Sydney and Michelle Teran) in Amsterdam at the Colombo Cultural Institute.

On return to Amsterdam we continued the series of online meetings & activities tailored towards the development of the *sister O* electric-theatric Operation an 8 hour translocal durational performance at theatrum anatomicum/ in Waag Society for New and Old Media in Amsterdam and Artspace in Sydney Australia.

Nancy Mauro Flude





## project

### SISTER O

Date: 17 August 2003

The *sister O* project is a series of live performance operations with KeyWorx software - here I am particularly interested in the combination of the 'high-class' act of a scientific medical 'Professor' - and the sleight-of-hand magician, mesmerising routines. *sister O* is someone who, when she is vibrated enough, comes to the vertical plane from the under water database, I am her channeller, her divinator, her conduit.

*sister O* is a resonator of physical & virtual cellular networks, a digital media divinator, and a conduit for the underwater database [Here, subjugated knowledge's that are unvalidated and censored surface themselves & are mobilised], a morphing creature who multiplies, and resonates in individual ways depending on the place. She often conducts Operation's via the cellular network in a trinity (usually in collaboration with Michelle Teran and Linda Dement) in order to mobilise information that is kept under the surface, the underwater database. *sister O* is a collective who waxes, consolidates and dissolves on reefs of contradictions. Her Operations sew together often opposing militant positions, medicine and debauchery, such as; shamanic punk rock performance in anatomy theatres, aristocratic graffiti acts, old ladies knitting and swigging beer amongst children who play with light seeking robots. Glitches, scars, intervention and interference are access points to open up, start a conversation with others. One of the great realisations of this particular *sister O* 'electrik-theatrik Operation was the different ways that *sister O* appears: as a piece of text, as knowledges manifesting in the underwater data base via KeyWorx, a beer can, a musical composition, a key, an oyster, a conch shell, a girl - singing, knitting, dancing or playing the bass guitar, a woman straddling a vibrating sub-woofer, graffitiing the street in a cabaret dress. *sister O* valued

the interconnection between the devices that augment ones experience of the world. No one element of the operation was preferred over another, *sister O* paid homage and valued the different registers, tools and manifestations we create in order to survive in this world.

Performance installations merge militant positions and public and virtual space via digital data flows and analogue interventions. These performances are based on real-time digital media processing of images and text with KeyWorx software. The *sister O* Operation zone is where things are transformed, tapping in the electromagnetic imaginary. Media moves through different portals and manifests into different forms. *sister O* conducts 'Operation's' in order to shift cultural dimensions of electricity & electromagnetism from cyclic patterns of inertia to spiralic lines of force with her computer as a divination tool. As control & eradication of ancient practices by the western medical institution of; bodies, sound, dance, plants & herbs is undoubtedly one of the most enduring & effects on those who generate life & the formless world of the dead & undead. She transmits and receives various data flows to and from vexed places to anoint; creating movement and conversation where there is apathy and stagnation working through the vast memory environment composed of matter, data and code.

The residency was funded as a part of 'Runway: Professional Development Initiative from the Australia Council New Media Arts Board. The *sister O* project was a DasArts IT field work project mentored by Michelle Teran.

### URL

<http://sistero.sysx.org/operations/operatingtheatre.html>

## josephine dorado

### RESIDENCY

October 2003–April 2004

### BIO

Josephine Dorado is a New York-based media artist, performer and writer. In her work, she explores the extension of the performance environment with technology, sometimes utilizing movement-based, sensor-driven synthesis and networked telepresence. In 2003–2004, Josephine was a Fulbright scholarship recipient and an artist-in-residence at Waag Society for Old and New Media in Amsterdam, wherein she presented the networked performances *Son(net) Subterfuge* and *Viroid Flophouse*. She has also written and performed several plays and one-woman shows, which were performed at various venues in New York and Florida, such as the Knitting Factory, Cornelia Street's poetry series, and Nuyorican Poets Café. Educational theater has also been a facet of her repertory and includes a commission by the governor's board to write a domestic violence prevention play for young adults. Josephine has choreographed for the stage as well, and credits include playwright Mac Wellman's *Whirligig*, *Dracula* and *Tallahassee*. Current projects include *m3*, which examines the intersection between dance, architectural design and interactivity; and *Gravity Vogel*, which incorporates aerial dance with interactive sound poetry.

### URL

<http://www.funksoup.com>



## artist statement

The residency at Waag Society proved to be a fruitful ground for experimentations in distributed performance, dance and improvisation. *Son(net) Subterfuge*, the first performance in the series, was an invitation to take one of four Shakespearean sonnets and remix it as a sound, video, or dance piece. These pieces were then streamed and projected during a live performance that happened simultaneously in Amsterdam, Helsinki and New York, to allow for a real-time online collaboration and thus inviting trans-cultural interpretations of classic literature.

The second performance was *Viroid Flophouse*, an exploration of playable art in an online gaming environment, which incorporated dance, motion tracking, streaming technologies and telematic performance, within the common theme of 'virus'. *Viroid Flophouse* was created collaboratively by Waag Society for Old and New Media and participating universities in ADaPT (Association for Dance and Performance Telematics).

Research into improvisational methodologies was also explored, focusing specifically on improvising structures for multidisciplinary content. Not only was the residency an opportunity to investigate these topics but it was also a place to cultivate future collaborations and community partnerships, through involvement in regular lectures such as the Sentient Creatures series and other workshops and performances held throughout the year.

*Josephine Dorado*

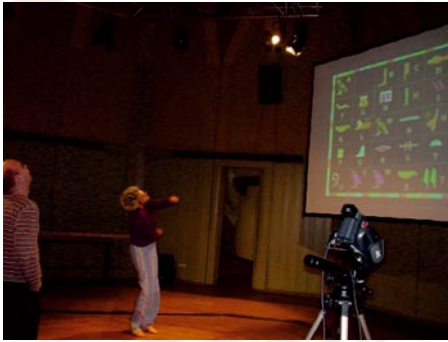


## project

### VIROID FLOPHOUSE

Performance: 26 April 2004

Locations: Arizona State University (Tempe, AZ), Nottingham Trent University (Nottingham, UK), Waag Society for Old and New Media (Amsterdam, NL)



The *Viroid Flophouse* was an exploration of playable art in an online gaming environment, which incorporated movement, motion tracking, streaming technologies and telematic performance, within the common theme of 'virus'.

It was a hybrid game/networked performance environment created by ADaPT (Association for Dance and Performance Telematics) which includes among others Arizona State University (Tempe, Arizona), Nottingham Trent University (Nottingham, UK), and Waag Society for Old and New Media (Amsterdam, NL).



The sites functioned as rooms in the 'flophouse', in which on-site participants could interact with remote participants.

The ADaPT members involved in this production included a team from Arizona State, spearheaded by John Mitchell, a small team from Waag Society headed by Josephine Dorado, with additional input from Johannes Birringer (Nottingham Trent University).

Previous renditions of the project focused on the telematic extension of dance performance within an online gaming infrastructure, via streaming and projected media integrated with live performance.

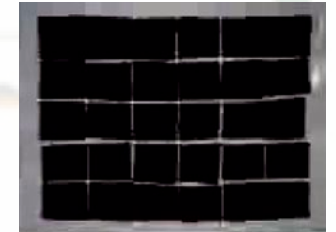
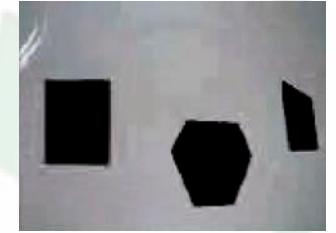
In our rendition of the project, the goal was to enhance the interaction by incorporating the sending and receiving of OSC data (Open Sound Control protocol) combined with motion capture, into the scenario.

The incorporation of OSC (Open Sound Control) data transmission over a network, in combination with motion capture via softVNS, enabled the sites to communicate the performers' positions to each other. That data, in turn, could be used to control game events.

This was a significant step for ADaPT. Previously, performances had integrated streaming and movement-triggered media synthesis but until now, they had not experimented with the sharing of motion capture data over a network.

Once the technical details were in place, there were also some pertinent discussions within the ADaPT group regarding the human-human connection in an online gaming environment: how the remote and local gamers work together in order to achieve a goal, what kind of social cooperation or negotiation is experienced, and how that is represented in the mediated and physical space.

Subsequently, the game structure was developed and was based on the action of the remote and local gamer 'sharing' the same space. In other words, the gamer in Arizona and the gamer in Amsterdam had to position themselves in the same virtual gaming space in order to get to the next level. The game was played by Arizona and Amsterdam players in this fashion, with supplementary commentary being streamed in sports commentary style, from Birringer.



## beth coleman & howard goldkrand

### RESIDENCY

April – August 2004

### BIO

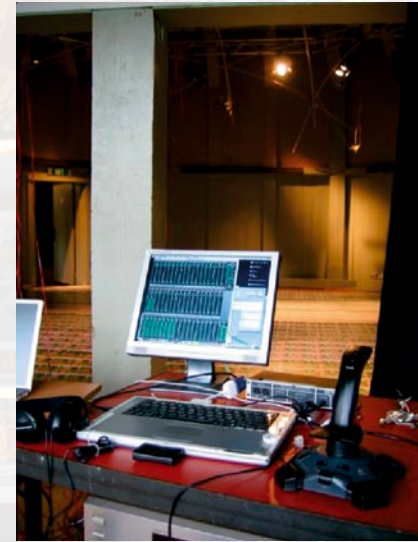
The New York based artists Beth Coleman and Howard Goldkrand began collaborating in 1995 with the SoundLab Cultural Alchemy project, a nomadic, multi-media event. Their work takes on multiple forms and genres, including sound, media sculpture, software, installation, site mappings, and text. In 1997 Coleman and Goldkrand created a SoundLab for the Whitney Museum of American Art Biennale.

Howard Goldkrand's sculpture and installation work have been exhibited at the James Cohan Gallery, Andrew Kreps Gallery, Mirror's Edge international exhibition with curator Okwui Enwezor, P.S.1 Museum of Contemporary Art, Artist's Space, Studio Museum of Harlem, the Ludwig Museum, Köln, List Gallery, Massachusetts Institute of Technology List Gallery, Henry Art Gallery Seattle, New Museum, with architects Johnston and Mark Lee, EAI, and Exit Art. He was a 1999 artist-in-residence at P.S. 1 museum of Contemporary Art and a 2001 artist-in-residence at the Chinati Foundation, Marfa, Texas. Goldkrand is a 2003-04 Rockefeller New Media Fellow. His work in media includes the Vernacular Software project as well as film and video installations for Nike, the Red Hot Organization, The Tribeca Film Festival, among others. He received his B.A. from Wesleyan University and Oxford.



Howard Goldkrand (l) and Beth Coleman (r)

Beth Coleman (M. Singe) works often in the media of sound and text. Her work has been exhibited internationally at P.S.1 Museum of Contemporary Art, Mirror's Edge international exhibition, Venice Biennale 2004, ARC/Musée d'Art moderne de la Ville de Paris, Massachusetts Institute of Technology List Gallery, EAI, Lincoln Center, and with architects Johnston and Mark Lee. Her music has appeared on labels such as Mille Plateaux, FOR 4 EARS, Law and Auder, Intakt, and SoundLab Records. Her written work has been published in artist catalogues for Chris Ofili, Ellen Gallagher, and Nari Ward. Coleman is a 2003-4 Rockefeller New Media Fellow. She is a professor of New Media and technology cultural at Massachusetts Institute of Technology.



## artist statement

Having keys to the castle, we had a strong desire to translate digital signal into analogue. This might seem perverse, but the name reads, "Society for Old and New Media." Somehow it seemed important to take the winnings of virtual and make a stake in actuality. Not that the two states are without relation, but it was worth the wander to make the most of both by cross-infecting. Wiring the Theatrum Anatomicum into a massive Music Box was an amazing experience. On the hardware front, we loved setting up two scaffolds in the TA for the installation, and we also really loved the good spirits of all the programmers being paid in chocolate for carrying the scaffold up the stairs (bedankt Margreet). Our heartfelt thanks to Katrin Korfmann, Pfeifer and Jens, who helped provide support structure for the work as well as leading us to Sanders and the glass atelier where we constructed the speakers. Of course without the tender machinations of Sher, Floor, Fokke, and JK it would not have been the same. We could only have wished for less rain, but then we would not have been real, temporary Amsterdammers. Ah, well.

*Beth Coleman and Howard Goldkrand*

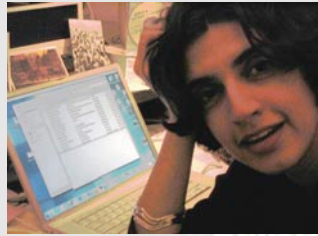
## ananya vajpeyi

### RESIDENCY

September - November 2004

### Bio

Ananya Vajpeyi is a Scholar of Peace, 2004-05 with WISCOMP: Women in Security, Conflict Management and Peace, a non-profit think-tank based in New Delhi. She has an M.Phil. from Oxford University, where she was Rhodes Scholar (1996), and a Ph.D. from the Department of South Asian Languages and Civilizations at the University of Chicago (2004). She is a writer and historian, and lives for the most part in India. After her residency at Waag Society, she will be a fellow in residence at the School for Advanced International Studies of the Johns Hopkins University in Washington, DC. This is her third visit to Amsterdam in the last three years.



Ananya Vajpeyi

## artist statement

In August 2004 I began a new post-doctoral research project with WISCOMP: Women in Security, Conflict Management and Peace, a non-profit think-tank based in New Delhi. In my research for WISCOMP, I look at so-called "relief" camps for the internally-displaced people in India, i.e., for Indians who become refugees within their own country due to political conflict -- communal violence, ethnic strife, separatism, insurgency and so on.

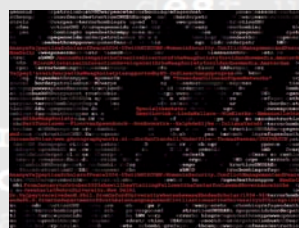
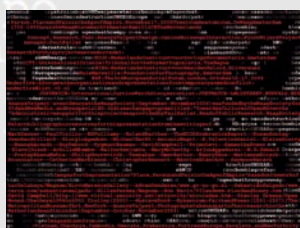
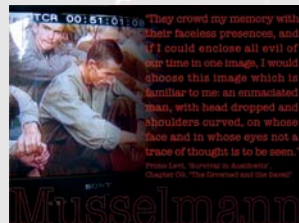
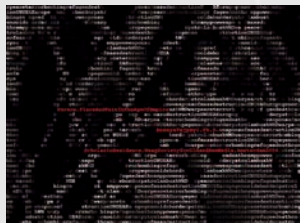
During my residency at Waag Society, I plan to investigate the relationship between visual images to come out of camps and camp-like spaces in Europe during the 1990s -- mainly the death camps and rape camps discovered during the Balkan wars -- and public perceptions of and reactions to genocidal violence. I hope to look at photographs and video footage from the ethnic cleansing and genocide that took place in and around Sarajevo in the early 90s, Srebrenica in the mid-90s, and Kosovo in the late 90s. I want to reconstruct some of the debates that took place in the European public sphere at the time in which these images were evaluated from different perspectives: as information, as news, as reminders of terrible historical episodes like the Second World War, as calls to humanitarian action, as the drivers of political and military processes, as media events, and sometimes as art. I also want to look into the recording and broadcast of the trial of Serbian dictator Slobodan Milosevic, who is tried in a courtroom in The Hague that is one of the most heavily mediated or media-rich spaces in the contemporary legal world.

In 2002, when violence of a genocidal nature broke out in the state of Gujarat in India, horrific TV reportage and photographs in newspapers and magazines shocked the entire nation. However, there was no public discussion about the necessity or propriety of these very graphic images of violence and its aftermath. What can we say about the use and abuse of such explicit and horrible visual material? Did it mobilize public opinion against the state government lead by Gujarat Chief

Minister Narendra Modi? Did it galvanize civil society into providing relief to the victims and survivors of the carnage? Or did it reduce the violence against Muslims in Gujarat to just another news story that held the public attention momentarily before giving way to the next event? Such questions have yet to be raised in India. In the last two years, documentary films coming out of Gujarat have faced problems with the Indian Censor Board. Any public outcry, however, has been focused on issues of censorship and freedom of expression, not on the content, style or critical function of such film-making, or on its legal value as testimony. I hope that by analyzing the European case, I will gain some comparative insights into the work and effects of images of extreme violence in India.

Ananya Vajpeyi

## Person, Place And Pain In The Age Of Empire



Screenshots taken from the presentation on 17 November 2004





## project

On 17 November 2004, Vajpeyi presented work-in-progress to an audience of designers, new media practitioners, internet theorists, artists, photographers, photography curators, software programmers, educationists, university professors, academics, indymedia activists, researchers and other members of Waag Society's larger community. For the presentation, Janine Huizenga, creative director of Waag Society, and Björn Wijers, an interaction developer at Waag Society, created an experimental design component for Vajpeyi's theoretical intervention. Vajpeyi's tenure took place in the framework of the EU-India Economic Cross Cultural Programme project *Towards a Culture of Open Networks* which is jointly carried out by Waag Society, Sarai/CSDS (New Delhi) and Public Netbase (Vienna). The results of her period of intense study and interaction in the Netherlands will be published jointly by Waag Society and the European Union. Since leaving Amsterdam, Vajpeyi has taken up her next assignment as Visiting Fellow at the School of Advanced International Studies, Johns Hopkins University, Washington DC. From January 2005, she will be with the Center for Law and Governance at the Jawaharlal Nehru University in New Delhi.

## hellen sky

### RESIDENCY

January 2005

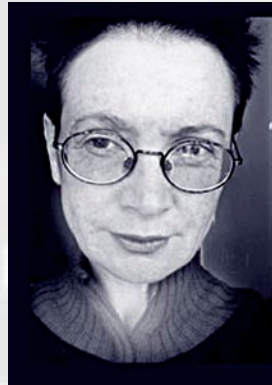
### BIO

Hellen Sky is the co-founder and co-director of Company in Space (CIS) and was the co-founder and Artistic Director of Dancehouse from 1991–2001. She is currently a Fellow of the Australia Council for the Arts - Dance 2004-2006 and was a nominee of the inaugural 2005 Leonardo Global Crossings Award. Her transdisciplinary practice has evolved through performance and image-making extended through new technologies. She collaborates with artists, scientists, performers, academics, designers, writers, architects and interface programmers to devise total choreographies, between media and technology systems.

Her previous work with Company in Space, *Escape Velocity* (telematic) presented in Data Dancing (London), Downloading Downunder (Amsterdam), SIGGRAPH (Florida), MDDF2 (Monaco) and Digital Now (Hong Kong), posed the question: Where do flesh, fragile bone, senses and perceptions fit into the new geographies of the late 20th century? More recent work such as *CO 3*, explored real time motion capture performed in Future Physical, ICA (London), and Arnolfini (Bristol), explored concepts of presence, and identity within virtual reality. *The Light Room*, a new-media movement opera, premiered at MIFA 01 & 02 (Melbourne Museum) engaged physical and virtual architectural worlds as a metaphor for life bridging the cusp of 20th and 21st centuries.

### *Making Light of Gravity* - poetic

*ARTiculations*, 'liquid papers' on embodiment and technology has been presented in symposiums in Australia, Korea, and the USA. It has been further developed through Waag Society's artist residency program For additional information about the Leonardo Global Crossings Award, please visit <<http://leonardo.info/isast/awards.html>>.



Hellen Sky

### URL

<http://www.companyinspace.com>

## artist statement

In September 2003 I was a participant of Time Space Place, an annual national workshop for transdisciplinary performance artists facilitated by The Performance Space, Sydney, New South Wales., PICA (Perth Institute of Contemporary Art) and ANAT (Australian Network for Art and Technology). The project was funded by the recently collapsed New Media Board of the Australia Council and held in the rural setting of Wagga Wagga New South Wales. Australia.

Media artist Michelle Teran was one of the international facilitators and briefly introduced the KeyWorx software into the workshop mix. This was a timely connection - artist-to-artist and artist-to-software - a shared sense of potential for a fluid, real time, dramaturgy. A dramaturgy between computer libraries of video and sound objects and other live inputs such as camera, voice and movement; evolving interfaced systems for a series of performed lectures - Liquid Papers, poetic Articulations - on the body, culture, technology and spaces of sensory perception.

From Wagga Waaga New South Wales to Waag Amsterdam a connection was made. On New Years Eve 2004<sup>1</sup> I travelled with my nine year old son Flynn - to Re-Connect - with Michelle in Amsterdam at Waag Society, for a three week artists residency and collaboration using KeyWorx to develop real time media scores for the *Liquid Papers Series*, one strand of my Australia Council Dance Fellowship from 2004 - 06.

We had packed suitcases with foreign currencies, game boys, PS 2, cameras, projector, spoken texts scripts, books, discs and scribbles, a library of thinking about embodiment, intelligence, knowledge, consciousness, and sensory perception and in the carry on luggage, laptop, and hard drive, stored banks of sound, image, texts, digital libraries developed for the first of the Liquid paper series: *Making Light of*

<sup>1</sup> With the support of ANAT

*Gravity*: my body is a pix cell - embodiment in intelligent camera based technology systems presented in The Art and Technology Symposium in Utah 2004, "Arts of the Virtual: Poetic enquiries in time space motion"<sup>2</sup>

Through metaphor, the spoken and media texts draw analogies between the intelligent perceptual and sensory systems of the body and the intelligent technology systems that extend and alter our perception of who we are and what it is to be present, as we straddle the boundaries of physical and networked data simulated worlds.

Hellen Sky



<sup>2</sup> To be published by Extensions: The Online Journal for EmbodiedTechnology in Volume 2: Mediated Bodies: Locating Corporeality in a Pixilated World. UCLA Department of World Arts and Cultures

# project

## LIQUID PAPER - PERFORMANCE

Date: 18 January 2005

I also packed a question "What is the Weight of Language?" posed from the perspective of already being an idiosyncratic, synaesthetic cyborg.

How then to poetically use language, to catalyze a process and nonlinear form, (a fluid dramaturgy), as a choreography between movement, text, images and sounds, using KeyWorx software and patches as a real time intermediary for spatial projection as video and sound?

Michelle and I sat at the table in the Waag Society apartment overlooking the square, the canals, the red light district, the Waag castle, the intermittent connection to the Waag wireless hub. We drew mind maps of words, pens to the page. Streams of thoughts about the languages of the senses, technology systems, social systems, structures, the flow of ideas, imagination, art and culture, the movements between moments, ideas, rhythms and patterns. From the page to the digital screen, DNA chains of words became layers/veils – animated via KeyWorx patches; considering parameters of motion and scale, so words would dance, in time, in space We installed a sound mixer, a microphone a camera. We improvised with speaking; new and accumulated words, intuitively from the page, or triggered from the screen, stirring in sound files from *The Light Room*, animations from *Escape Velocity* - mixing them with other scripts. We trod the streets, late at night along the banks of canals capturing light on water, feet on stone, threading them into the digital weave. We shifted spaces to the air waves, connecting radio transmissions with Nancy Mauro-Flude, radio patipo.

We played, too briefly, late one night in Theatrum Anatomicum with spatial and audio projection along the circular walls and into the

adjacent room. Michelle, sitting at the table inside the projection like a digital sorceress mixing media from the computer cauldron layering past and present in an intelligent sensing - my voice, her patches, converting the 1280 x 854 pix cells matrix into brain waves as I moved between the architectures of language, table, window, walls, a dance in light in shadow, beginning to make sense.

We trailed another version of this duet between speaking and media projection in a public sharing hosted by The Amsterdam School of the Arts.

Recently in Melbourne, in the next performed version of the Liquid Series, I further developed the spoken texts, the performance environment, taking the work from the Waag to its next stage of integration of media and performance.

# diary waag amsterdam stories

She is gazing from her third floor attic window. Outside an ancient castle, turrets like dunces caps reach towards the night sky... They have flown for days through grids of longitude and latitude, hemispheres north and south - crossing borders - Melbourne, Sydney, Los Angeles, Frankfurt, Amsterdam to get connected - here to there. Seasonal global tidings the world spins on a tsunami tilted axis they miss by degrees, hot to cold that precise moment, that marks this new year no sound of the captain counting down, 10, 9, 8,, the pop of the corks, the toll of bells and whistles days later Alert, we look down, from the hub of Waag, to canals and streets of red lights arching its seems like we might be under attack, string after string of chinese fire crackers, ricochet like amplified drum rolls, filling the air with the smell of gun powder clouds of smoke,

I am a candle  
YOU CAN LIGHT ME UP OR BLOW ME OUT.  
My body is pix cells  
My body is code,  
Lumens are my wax  
The screen is not a surface but the

red paper skins rest on cobble stones like rose petal piles of autumn leaves soft under treading feet. paper trails from Dancing dragons, the year of the rooster crows, They open the castle's door The light spill of day passing through massioned slits narrow guards against arrows of another time The spiral ascension on wide worn wooden stairs he says, instinctually, without social guard... its stinks. its the cold dank smell, of history still seeping from the stone, as it sweats and chills, through time passed, and passing still... Channels of water still flow through dark tunnels beneath... she sees the canals as arteries carrying precious cargo, arterial networks, blood through the veins connecting heart of city to mouth of port, a body mass rescued from the sea By day by night they digitally weave senses, The movement between words and images, luminous flows He is immersed in other worlds, under ground playgrounds,

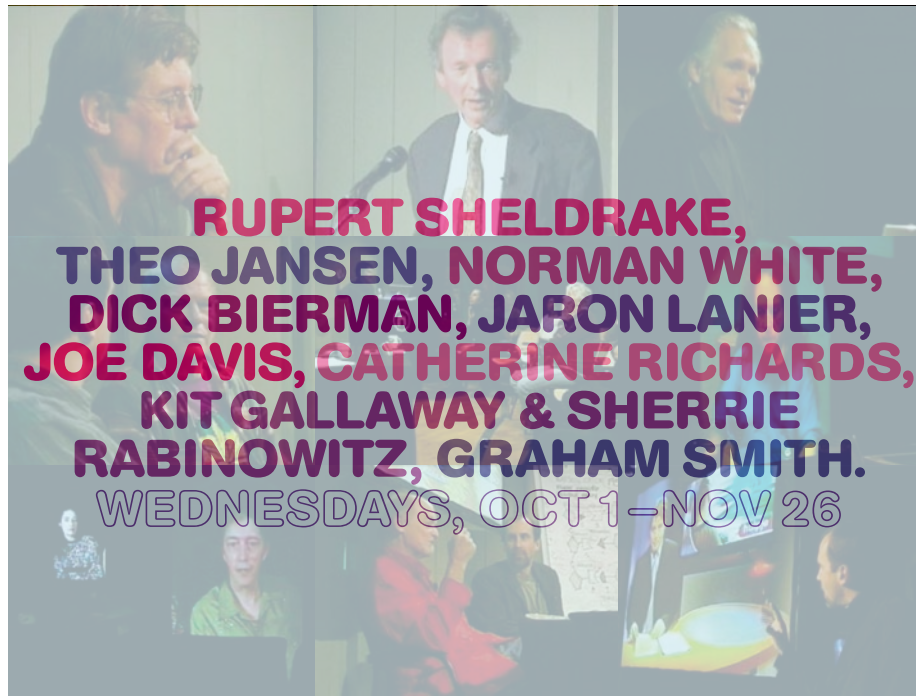
Sounds from the loft above from weaponry (afforded so far) from the vender of the armoury.

His Single player digits, firing fast, attack and destroy, navigating through multiple levels of virtual battle fields his body sweat



lecture series

# SENTIENT CREATURES



## introduction

Artificial Intelligence (AI) is a field continually on the edge of becoming more than a dream – yet after billions of euros and decades of research, the goal remains just that – a dream. Although huge leaps have been made in the quest for an artificial form of consciousness the task has remained out of reach, with every step forward, it seems, the problem becomes twice as complex. This may be due not just to our basic understanding of what intelligence is - how can we create something that we do not fully understand? Like the recent discovery of “dark matter” and “dark energy” in the field of Cosmology that has forced mainstream scientists to rewrite textbooks, AI may have many onion-like layers, unimaginable to us in our present understanding of the field. The quest itself may turn out to be the ultimate goal.

The Sentient Creatures lecture series brought together a cross disciplinary group of scientists and artists in the fields of robotics, human consciousness and telecommunications to talk about AI and its possible effects on society; how it may emerge and the philosophical issues it impacts regarding the nature of consciousness. The lecturers are not conventional AI researchers. They are a mixture of artists and scientists, pushing the boundaries of contemporary thought through experimentation and creation. The scientist needs creative ideas for new experiments and problem solving and the artist needs to work with scientific principles in order to create new work, a fact especially true for those working in new media. Both artists and scientists share the goal of giving us new insights into the nature of reality and both bring a unique set of “eyes” to the question of the development of AI in the 21st century

In two of the lectures, a new invention of mine was used called the Presence Projector to bring Jaron Lanier and Kit Gallaway and Sherry Rabinowitz into the Waag’s Theatrum Anatomicum via a videoconferencing link

from California. The Presence Chair is a simple device that uses a hidden beamer (video projector) to project a life-sized image of the remote lecturer into the curved back of the chair. By using human, visual psychology instead of brute force computer power, the unit created a realistic sensation of “presence” for the audience. In fact one woman told me after the lecture that she had come a little late and after getting a seat and watching me interview Mr. Lanier for fifteen minutes, did she finally realize that I was talking to an empty seat. The sensation of presence was so strong that she assumed he was in the room. Like the motto from the MIT Media lab “demo or die”, the experience of using new ideas and technologies in the lecture series was a powerful demonstration of how this technology will influence us in the future.

The Sentient Creatures lecture series explored not only AI but also how the web is evolving into a new entity unlike any other. The lecture hall in the Waag where the events were hosted only held 60 people yet many more logged online to see it streamed live and thousands have downloaded the lectures from the Waag Society archive since then. This dissemination of knowledge to anyone in the world with an internet connection is the real meaning behind the series. Like AI, the web will evolve in ways we cannot foresee and as I pointed out during the lectures, this huge interconnected database we have created has become so complex and diverse that it could turn out to be the “womb” that AI will appear from. How AI evolves is not the important question, the real question is if we will even be able to perceive such an entity once it does emerge? Like the people in Plato’s Cave we must be aware of our own limitations regarding what AI is and not let our preconceived notions and prejudices mask our vision.

Graham Smith

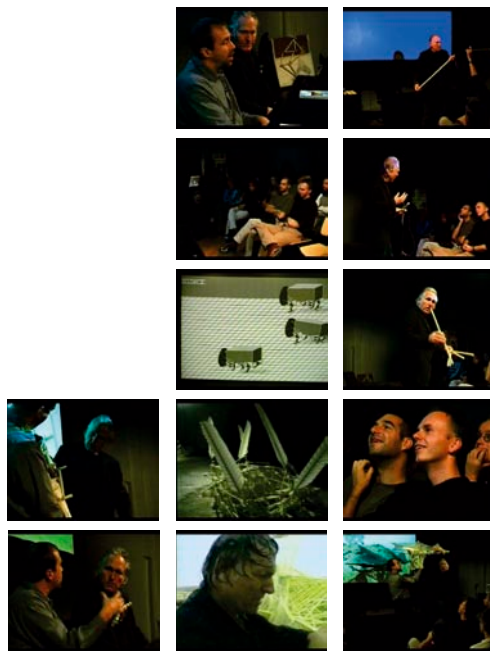
## norman white

Norman White is a creator of robotic art and has been a leader in this field for over twenty-five years. He is an example of an artist who transcends the conventional boundaries between art and science as he is both the computer programmer and fabricator of all aspects of his work. His award winning *Helpless Robot* senses when someone approaches it and asks the viewer to help 'it' by rotating the machines left or right. All is well until the person tries to leave, at which point it begs them to come back and continue. The robot then begins to become nasty, emitting verbal insults and ever more demanding instructions. Viewers eventually are forced to flee as the machine has the digital version of a nervous breakdown, driving home the idea that the more we use technology the more it takes on a dominant role - the machine version of passive/aggressive behavior. If AI ever does achieve its objectives of creating a conscious machine, then the work of Norman White may prove to be far ahead of its time as a metaphor for the future.



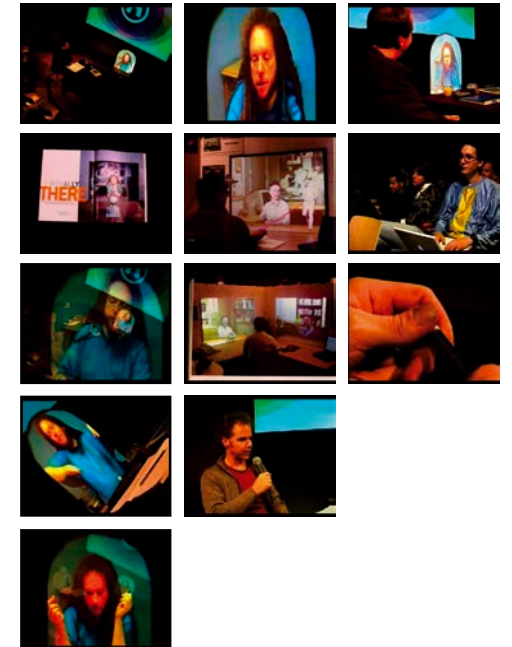
## theo jansen

Theo Jansen is an artist who creates herds of organic/mechanical beach robots out of the simplest of building material - plastic pipe. Using evolution as a guide, his creations have evolved over the years from the simple to the incredibly complex. They walk on the beach using dozens of legs and use the wind as their energy which gives them an almost organic quality. To the uninitiated person walking the beach, the sight of such a machine roaming the waterfront must seem both strange as well as natural as they seem to have a life of their own and blend into their environment. Recently Mr. Jansen has incorporated one liter plastic soda bottles to store compressed air as an energy storage system and air pistons that act as muscles for the beasts. He has, as well, devised a very simple form of computer logic using compressed air and on/off valves allowing the robots to take on ever more complex tasks. His work shows that complexity is more a matter of evolutionary processes rather than a brute force approach to problem solving - something AI should look at more closely.



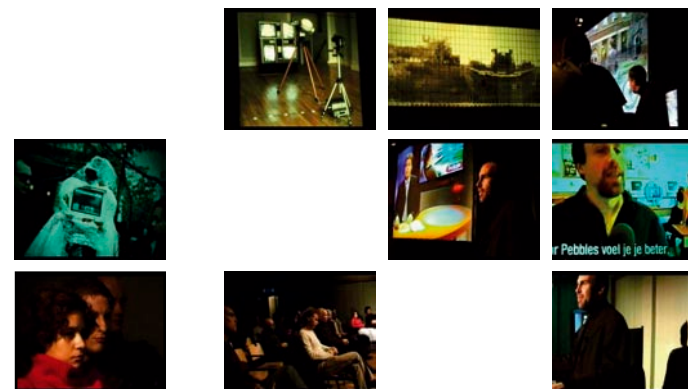
## jaron lanier

Jaron Lanier is a pioneer in both computer science and the arts, as a musician. His work in the late 80's in the field of virtual reality defined both the term and medium. In the 90's he has focused on 'telepresence' and is the chief scientist at the National Tele-Immersion Initiative project that uses the Internet 2 as its backbone. Mr. Lanier has been at the leading edge of technological change for over twenty years and has seen his early work in virtual reality evolve from crude two-dimensional patterns to hyper-real three-dimensional worlds with thousands of people online, interacting simultaneously. He is a leader in developing new, innovative computer programming concepts and his work could ultimately effect the field of artificial intelligence. We are a 'virtual world' to a robot as it creates a real time, 3D model to navigate what people describe as the 'real world'. One of his many talents is the ability to communicate complex ideas in both his writing and lectures. He does not shy away from philosophical thought regarding the effect of the technology he has helped create on society, helping shape a debate around key issues such as the birth of virtual reality and telepresence. As both an artist and scientist I feel Jaron is the perfect person to help us understand some underlying issues around robotic life.



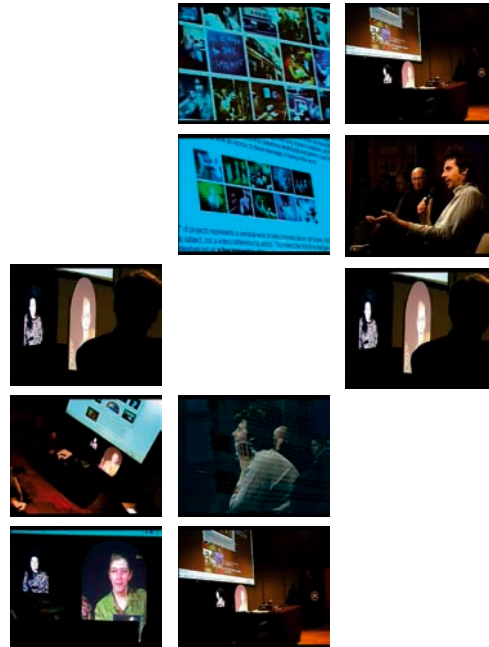
## graham smith

Graham Smith is an artist/inventor who currently holds the position of Chief Scientist at the company Telbotics which uses an advanced videoconferencing technology called PEBBLES to link sick children to their classrooms. He has been building robots and telepresence art for over twenty years and was a researcher at the world renowned McLuhan Program in Culture and Technology at the University of Toronto in the early 90's. As a researcher at the institute Marshall McLuhan founded, Mr. Smith explored the effects of advanced technology on society through a series of robotic art works, research programs and lectures. It was during this time that Mr. Smith began research in the field of consciousness and his work continues today as he builds various robotic sculptures and telepresence display devices. As a creator of advanced robots as well as a media theorist he is well positioned to discuss not only what AI may look like but also it's possible effects on society in the future.



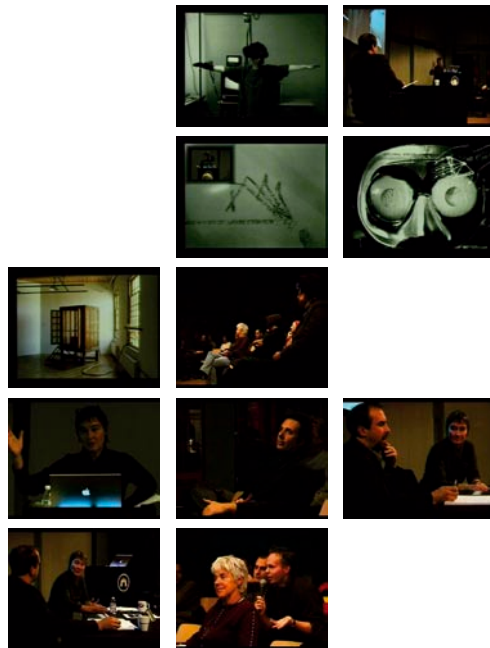
## kit gallaway & sherrie rabinowitz

Kit Gallaway & Sherrie Rabinowitz are pioneers in the field of telecommunications arts and have been active in the field since the 1970's. Their 1976 piece *Hole In Space* was the first artwork to use videoconferencing to link two distant locations in a physical manifestation of the 'Global Village'. Unannounced the piece was switched on and shoppers at the Lincoln Center in New York and a department store in Los Angeles were suddenly faced with a literal tear in the fabric of space and time as they watched the sun set 3 hours early. Their work expanded in the early 80's when they opened the first 'Electronic Cafe' for the Olympics in LA which linked numerous sites around the city/world together via email; a common occurrence today but a revolutionary thing then. Their work in the field of communications arts has won them numerous awards and they are both considered visionary thinkers in this field. They are well suited to consider the implications of AI and it's role in the telecommunications revolution.



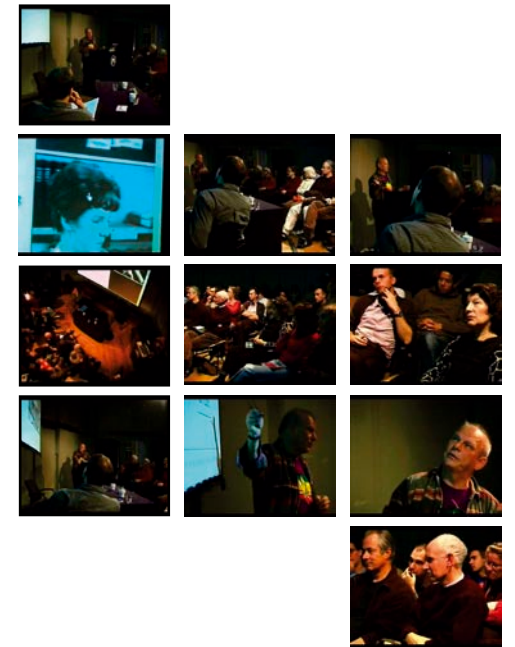
## catherine richards

Catherine Richards is one of Canada's leading new media artists and is currently an artist in residence at the National Research Council of Canada as one of the first artists in their innovative art/science program. Her work goes back to the early days of virtual reality at the Banff Centre for the Arts in Alberta, Canada where she explores the limits of the virtual body. Her later works centered on the effect of electromagnetic fields on the human body, the illusion of perception and plasma fields as metaphors for human emotions. Ms. Richards' work has always pushed the boundaries between art and science, a theme she has been exploring for most of her artistic career. Although not specializing in the field of AI, her work focuses on the effects technological environments have on human social structures, an issue of huge importance when looking into the effects of new AI technology. As both an artistic and scientific pioneer, Catherine Richards is in a unique position to debate the possible role AI may have in the coming decades.



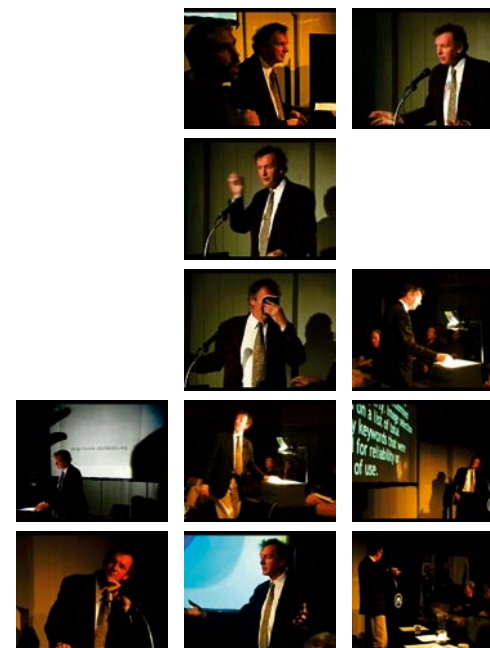
## dick bierman

Dick Bierman is a world renowned expert in the field of parapsychology and is a professor of Psychology at the University of Utrecht as well as an assistant professor at the University of Amsterdam. He is one of the founding members of the Global Consciousness Project (GCP) out of Princeton University's Engineering program. The GCP consists of a series of computers around the world which constantly monitor random number generators to determine any changes. This information is sent in real time back to Princeton. Through this process the GCP has shown that randomness seems to be affected by the human condition and is not a steady state system as defined by conventional scientific thought. Mr Bierman's research in this area has profound implications for AI, as human thought patterns may be able to affect such systems thus altering their behavior much as the act of observation affects Quantum systems.



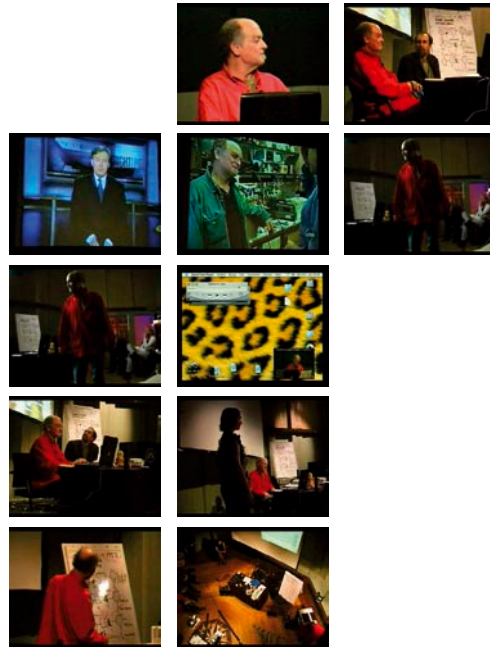
## rupert sheldrake

Mr Sheldrake is a trained biologist and one of the world's leading experts in the field of consciousness and extrasensory perception. His literary works include *A New Science of Life* (1981), *The Presence of the Past* (1988), *Seven Experiments That Could Change the World* (1995) and his most current work *The Sense of Being Stared At* (2003). Throughout his career, Mr. Sheldrake has pushed the boundaries of scientific thought focusing his research on consciousness and how it shapes human thought patterns. As an expert in consciousness of all forms he is well positioned to explore the question of how AI may evolve and its possible manifestations. If AI becomes a reality in the 21st century as many predict, Rupert Sheldrake's work will prove to be immensely valuable in understanding how AI may eventually evolve into Artificial Consciousness (AC) with implications not yet imagined.



# joe davis

Joe Davis is an artist in residence at MIT's Rich Lab, an institute exploring the genetic makeup of DNA. In the 1980's and early 90's he was a professor at MIT's Center for Advanced Visual Studies (CAVS) where he explored new concepts in telecommunications art, robotics and space art. His project *New Wave Ruby Falls* which was designed to project an artificial Aurora Borealis from the orbiting space shuttle was under construction when the 1986 Challenger disaster cancelled all space art projects. His later work included an attempt at communications with extraterrestrial lifeforms using body bio rhythms (Poetica Vaginal) and a continual series of artworks using DNA as a sculptural material. Mr. Davis's work explores the outer boundaries of both the art world as well as the scientific community and as such he offers a rare insight into the debate as to the effects of AI on humanity.



## URL

<http://connectmedia.waag.org/media/index.php?path=SentientCreatures/>

**OCT 1: NORMAN WHITE.**  
 The Canadian artist Norman White will talk about his award winning sculpture 'The Helpless Robot', which asks for your help as soon as you come near it. White wanted this machine to be able to assess and predict human behaviour. It was built from plywood, angle iron, proximity sensors, a modified 80386 computer, and custom electronics. The result is a robot that speaks French, Spanish and English. Its synthetic voice invites people to move it 'as they like'. White made the robot between 1987 and 1996. <http://www.normill.ca>

De lezing van kunstenaar Norman White gaat over zijn sculptuur 'De Hulpeloze Robot', die om hulp vraagt als je in de buurt komt. <http://www.normill.ca>

**OCT 8: RUPERT SHELDRAKE.**  
 The British biologist Dr. Rupert Sheldrake has been exploring concepts in global consciousness for over two decades. In the Netherlands he is known for his conversation with Wim Kayzer in the VPRO series 'A Glorious Accident' (1993), amongst others. Otherwise he has gained a reputation for his experiments in paranormal phenomena and animal intelligence. Dr. Sheldrake calls his critics 'dogmatic skeptics', and himself a 'healthy skeptic', 'open minded and interested in evidence'. He will discuss the possible emergence of new forms of consciousness, as described in his latest book, 'The Sense of Being Stared At' (2003). <http://www.sheldrake.org>

De lezing van de Britse bioloog Rupert Sheldrake gaat over het mogelijke bestaan van nieuwe vormen van bewustzijn, zoals beschreven in zijn recente publicatie 'The Sense of Being Stared At'. <http://www.sheldrake.org>

**OCT 22: DICK BIJRMAN.**  
 Professor Dick Bierman teaches Parapsychology at the University of Utrecht. He will talk about his involvement with the Global Consciousness Project (GCP) which started at Princeton University in 1998. Now, 75 researchers the world over collaborate in the project. The GCP projects aims at understanding the unexplained effects of a global concentration of attention, like at 9/11, on the behaviour of material sensors. A possible interpretation is that the findings of the project show physical evidence of the existence of a 'global consciousness'. The notion of a global consciousness is present in many eastern traditions, but also in the thinking of C.F. Jung. <http://noosphere.princeton.edu>

Professor Bierman is bijzonder hoogleraar Parapsychologie aan de Universiteit van Utrecht. Hij zal spreken over zijn betrokkenheid bij het Global Consciousness Project, waarin onderzoek wordt gedaan naar een 'mondiaal bewustzijn'. <http://noosphere.princeton.edu>

**OCT 15: THEO JANSEN.**  
 The artist Theo Jansen uses simple materials to give birth to wind powered beach creatures. Plastic pipe and air become 'organic intelligence'. He lets his huge skeletons walk on the beach. Jansen has been developing his herd of animals over the past twelve years. They have inspired various Dutch poets, like Leo Vroman, Toon Tellegen and Simon Vinkenoog. <http://www.strandbeest.com>

Beeldend kunstenaar Theo Jansen zal spreken over zijn 'Strandbeesten', reusachtige organische robots in de vorm van fantasiedieren die zich voortbewegen op de wind. <http://www.strandbeest.com>

**OCT 29: CATHERINE RICHARDS.**  
 Catherine Richards is one of Canada's leading new media artists and is currently exploring the relationship between the body and technology at the Department of Visual Arts at the University of Ottawa. She will be talking about concepts of Post Humanism and the role this theory will play in determining our relationship to intelligent machines. [http://www.innovation.ca/innovation2/bio\\_richards.html](http://www.innovation.ca/innovation2/bio_richards.html)

Catherine Richards is een vooraanstaande Canadese nieuwe media kunstenaar. Momenteel doet zij onderzoek naar de relatie tussen het lichaam en technologie aan de afdeling Visual Arts van de Universiteit van Ottawa. In haar lezing zal ze posthumanistische concepten bespreken en hun mogelijke rol in onze verhouding tot intelligente machines. [http://www.innovation.ca/innovation2/bio\\_richards.html](http://www.innovation.ca/innovation2/bio_richards.html)

**NOV 5: JARON LANIER.**  
 Jaron Lanier, computer scientist, author, visual artist and composer, coined the term 'virtual reality' in the 1980s. He was CEO of one of the first companies to develop this technology. Currently he works as the lead scientist of the National Tele-Emerson Initiative. A coalition of universities research applications for Internet 2 in this project. His talk will be about his recent computer science project Phentropics. In this project, pattern recognition is used to connect components of software systems. <http://www.well.com/community/jaron.lanier>

Jaron Lanier bedacht de term 'Virtual Reality' in de jaren tachtig. Zijn lezing gaat over het project Phentropic Computing, waarin door middel van patroonherkenning verschillende componenten van softwareprogramma's aan elkaar verbonden worden. <http://www.well.com/community/jaron.lanier>

**NOV 12: KIT GALLAWAY AND SHERRIE RABINOWITZ.**  
 Gallaway and Rabinowitz will be talking about their 25 years of experimentation and performances using communications technology and the implications for the internet generation of artists. Co-founders of the 'Electronic Cafe', one of their well-known works is the project 'Hole-in-Space' (1980). The public walking past the Lincoln Center for the Performing Arts in New York, had a surprise encounter with shoppers in a department store in Los Angeles. They could see and hear each other as if they were meeting on the same sidewalk. <http://www.ecafe.com>

Kunstenaars Kit Gallaway en Sherrrie Rabinowitz zullen een lezing geven over hun 25-jarige ervaring met communicatietechnologie in hun performances. <http://www.ecafe.com>

**NOV 19: JOE DAVIS.**  
 Mr. Joe Davis is a research affiliate at the MIT Department of Biology. His work centers around artistic research in molecular biology and bioinformatics with the aim to create 'new biological art forms'. He has done experiments to find out if soundwaves are stressful to bacteria, and translated the vaginal contractions of ballerinas with the Boston Ballet into text, music and radio signals. His lecture will be on his recent work with cyborg sculptures and DNA based artworks. [http://www.viewingspace.com/genetics\\_culture/pages\\_genetics\\_culture/gc\\_w03/davis\\_joe.htm](http://www.viewingspace.com/genetics_culture/pages_genetics_culture/gc_w03/davis_joe.htm)

Joe Davis is verbonden aan de afdeling biologie van het MIT. Zijn werk omvat experimenten met de stressgevoeligheid van bacteriën voor geluid. Zijn lezing gaat over zijn recente werk met cyborg sculpturen en op DNA gebaseerde kunstwerken. [http://www.viewingspace.com/genetics\\_culture/pages\\_genetics\\_culture/gc\\_w03/davis\\_joe.htm](http://www.viewingspace.com/genetics_culture/pages_genetics_culture/gc_w03/davis_joe.htm)

**NOV 26: GRAHAM SMITH.**  
 Graham Smith is a robotic artist who specialises in videoconferencing and virtual reality. He was director of the Virtual Reality Artist Access Programme within the University of Toronto's program in Culture and Technology in the 1990s. In 1997 he founded Telbotics, a company specialising in videoconferencing technologies. Smith is host of the Sentient Creatures lecture series. He will be talking about his recent robotic invention Pebbles, that enables ill children to be virtually present in the classroom, and the role new media may be playing in the evolution of new technological life forms. <http://www.telbotics.com>

Graham Smith is kunstenaar en uitvinder, en gastheer van de Sentient Creatures lezingenserie. Hij houdt een lezing over zijn robot Pebbles, die zieke kinderen virtueel aanwezig laat zijn in het klaslokaal. Ook zal hij ingaan op de rol die nieuwe media kunnen spelen in de evolutie van nieuwe vormen van technologisch leven. <http://www.telbotics.com>

Images taken from the original announcement leaflet for the lecture series

**recipes**



## bowl of lookers

*LF:TK recipe by Jeff Mann and Michelle Teran*  
 I made the four servos in the green Hema bowl originally as a base for four lipsticks that would turn up and down. But preparation time was running short, and somehow the idea seemed too complicated and fussy. Michelle looked at it and decided to do a festive party straw looker variation. I liked the simpler approach, and the subtle personality of the straws looking around.  
 –Jeff Mann

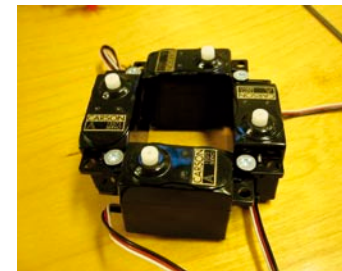
### INGREDIENTS

- 4 r/c servo motors
- 4 x screws plus bolts
- 1 bowl plus lid (from Hema)

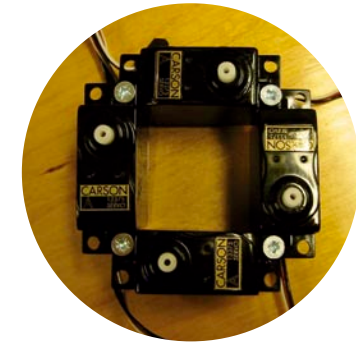
### TOOLS

- screwdriver
- drill

### BUILDING INSTRUCTIONS



*Connect the four servos together as illustrated.*



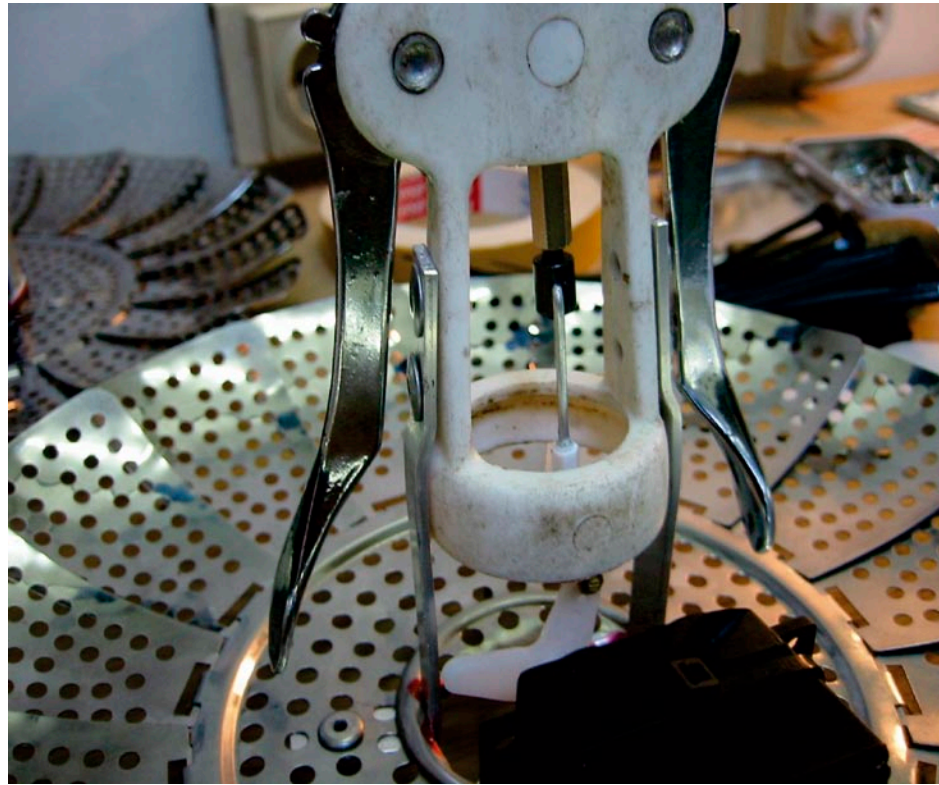
*Drill four holes to put straws through bowl. Place four bendable straws on servo motor shaft.*



*Drill a hole on the bottom of the bowl large enough to pull all four cables through.*



*Replace top of bowl and voila.*



## corkscrew man

*LF:TK recipe by Jeff Mann and Michelle Teran*  
 When I was a child, my favourite thing in the kitchen was the 'corkscrew man'. For LF:TK, I asked Alex to put a motor on one so we could make him dance! He decided to use the vegetable steamer as a base - another of my childhood favourites as it turns out - which looked great. In the second version, he even made the steamer open and close as the corkscrew man jumps up and down.  
 -Jeff Mann

### INGREDIENTS

- wine corkscrew
- plastic ties
- 10 second glue
- threaded connecting nut (for use with threaded rods)
- 3 mm screws and bolts
- 10 x 2 mm aluminium bar
- 1.5 mm steel rod
- double sided tape

### TOOLS

- m<sup>3</sup> taper bit
- drill
- clamp
- metal cutters
- metal saw
- felt pen

Level: MEDIUM TO DIFFICULT (depending on your experience with some of the tools)  
 Preparation time: 2 hours  
 City of origin: Amsterdam

### BUILDING INSTRUCTIONS

Use a pair of pliers to break off the screw part from the corkscrew.  
 You can use a bench clamp to get more leverage.  
 Break enough off to be able to remove the leftover corkscrew handle from the main body.

#### Making an extension

*Drill a 2.5 mm hole on the recently broken end. Make some threads in the hole using a m<sup>3</sup> taper bit.*



*Put a spot of glue inside, wait a couple of seconds and then insert a 3 mm screw. Leave about 1.5 cm of the screw sticking out and then cut off the top using a saw. Take 3 mm threaded connecting nut, put a spot of glue inside and then connect to the screw.*

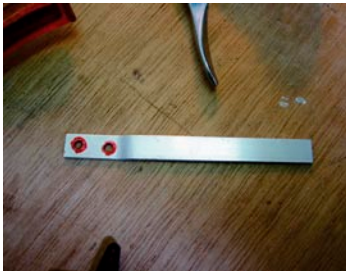
*We need to make hole on the side. This can be done either by drilling a hole on the side of the threaded connecting bar (prior to connecting the screw) or even better using a ready made found in a model shop.*



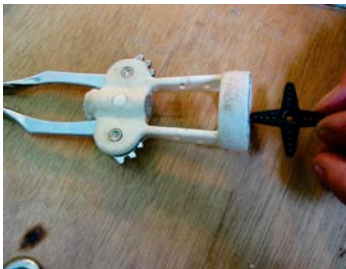
*Drill two holes on each side of the corkscrew (note: easier to do with plastic).*

The next part is the legs.  
*Take the 10 x 2 mm aluminium bar.*





Measure the bar to match up with the holes  
Place bar in the clamp and then bend slightly  
into the following shape. Hold in place and mark  
where the holes should be. Drill the holes.



The next part is the feet  
Estimate where to make the feet. The servo, which  
will be used to lift the arms up needs enough  
room on the bottom to move. Mark where the feet  
should be bent on the aluminium bar. Line up the  
bars and make a mark on both of them. Bend at  
90 degrees by connecting the bar to a clamp.



#### Working on the base

We're using a vegetable steamer for the  
base. Use metal cutter scissors to cut a circle  
in the middle of the steamer. Careful not to  
damage the steamer. Take your time.  
Holding it out by the outer ring  
gives you the most grip.



Bend over the sharper bits to avoid  
danger of cutting your fingers.  
Should also be level so that the feet will line up flatly.



Fix the one leg to the corkscrew using 3 mm  
screws. This is only for placement so that we  
can determine where to drill the holes on the  
feet that will then be screwed to the steamer.



The feet fit underneath the steamer. Try to  
line it up with the holes of the steamer.  
Make a mark on each side where to screw the hole  
Take it apart again to drill the holes.

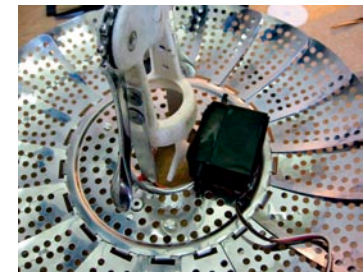


Screw the legs into the side of the corkscrew  
You can either use a flat head  
screw with bolt or a rivet

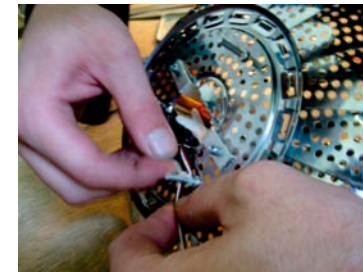


Insert one leg through the circle. Screw in one leg.  
Then insert the second through the circle and screw  
that in too. It's a bit fumbly, but you should get it.

#### Connecting the servo motor to the base



Screw in the plastic cross to the servo  
Take some double sided tape. Position servo  
motor on top of steamer with double sided tape  
Use the holes within the steamer and fix the motor  
using plastic ties. Fix also the servo cable with  
the plastic ties. Feed the servo cable through the  
hole and then tie it to one of the steamer's legs.





Connecting bottom head of corkscrew to top hole of servo cross

To do this we need some more ready-made parts from a model store.



Insert the metal screw through the top hole of the servo cross, tighten with a bolt and then place the place cup over top.



Now we need to estimate the length of the post that will connect the bottom of the wine opener to the top of the servo.



Take a 1.5 mm steel rod and measure the distance with enough additional length for the plastic tube. Bend one end at 90 degrees. Put some glue inside and then mount it and leave it for 10 seconds.

Connect post to the top and bend it through the hole so that it doesn't slip out and voila.



## howboudacuppa

LF:TK recipe by Jeff Mann and Michelle Teran  
I fell in love with the little tea strainer in the '2 dollar' store in Perth. Perforated stainless steel has become one of my favourite flavours, and this tea strainer's pointed nose gives it a real character. We bought a bunch of them, and Pauline took them on in the LF:TK kitchen during BEAP. With the help of Arjen, she fashioned them into a beautiful little animal that sits inside the thali dishes Michelle found. Be careful not to tighten the bolts too much, it needs a good deal of 'play' to really show its typically chaotic movements. Many people comment that it reminds them of the man-eating plant in 'little shop of horrors'...-Jeff Mann

### INGREDIENTS

- 1 silver tea infuser
- 1 silver thali dish
- 1 40 mm aluminium tubing
- 2 m<sup>3</sup> screws, length: 6 mm
- 2 m<sup>3</sup> nuts
- 1 standard RC servo motor
- 1 plastic connector

### TOOLS

- drill
- screw driver
- saw
- clamp

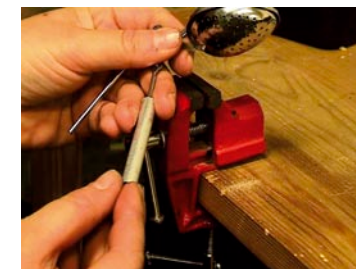
Level: MEDIUM EASY

Preparation time: 1 hour

City of origin: Perth

### BUILDING INSTRUCTIONS

Cut the spring off the tea infuser so that it flips around. Cut a 4.5 cm length of thin aluminium pipe.



Insert the front arm of the infuser into the aluminium tubing and gently flatten one side.



*Gently hammer the front hinge pin so that the arm becomes immobile*



*Clamp the second arm down and use a hammer to bend the end into a hook. Don't make the angle too sharp, or it will bind on the servo arm - try bending it around a small bolt or screw. If the angle is still too sharp, you can widen it with a small file. You'll probably need to bend the arm over a little bit at the point where it attaches to the crosspiece, so that it will line up with the servo arm and move smoothly.*

*Now we work on the servo motor*

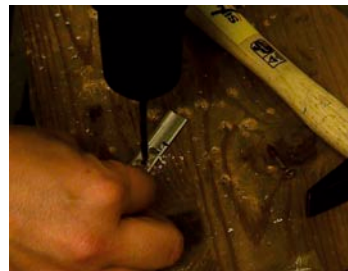


*Select the plastic connector resembling a cross, that comes with the servo motor. Leaving the arm with the largest hole, cut three arms off the cross shaped connector which comes with your servo, then use a Stanley knife to tidy up the edges. Now screw to servo. NB: make sure your infuser arms are positioned for maximum*

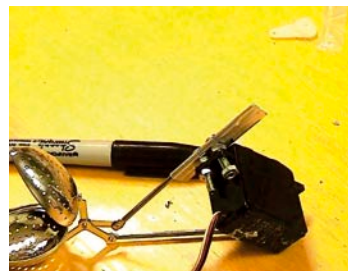
*motion before attaching the second arm.*



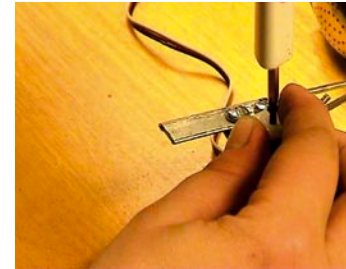
*Screw two holes into the tubing to line up with the holes already on the servo. Before screwing your tea infuser onto the servo you will need to slice off the ridge adjacent to the holes so that the tubing sits flat.*



*Now attach infuser to servo using the two screws and four nuts, but not too tight. In the picture below, the nuts are on either side of the holes in the servo motor, but later we found it's better to put them both on one side and tighten them together so they won't fall off, but still allow the strainer lots of 'play'. Assemble as illustrated. Test it with the servo on; if you hear any buzzing from the motor you should try to adjust or bend the arms a little so there isn't any stress in the movement.*



*Crop the aluminium pipe to line up with the servo bottom. Saw the extra steel pipe from the infuser almost, but not quite level to servo bottom.*



*The unevenness causes an interesting motion.*

*Drill a hole in the thali dish big enough to fit the servo cable through. Place infuser in its new home.*



## the scissors

*LF:TK recipe by Jeff Mann and Michelle Teran*

It took me about a week to design this one. I guess I let my perfectionist tendencies have some free reign, but after about twenty-seven trips to four different hardware stores and five kitchen shops to find \*just the right\* bolts, scissors, and metal pieces, plus many hours of playing with the mechanics of it to get the sizes and placements correct, I'm glad of it. In the end I think it looks - and acts - simple yet elegant. It can be played manually, but I think really comes into its own with programmed movement sequences to bring out the contrasts of rolling/stopping/reversing. With two or more of them together, some amazing choreography is possible - I suggest a down-tempo, beat-oriented musical accompaniment, perhaps some 'ambient dub' or similar. -*Jeff Mann*

### INGREDIENTS

- bannister (railing) holder
- 12V dc gear motor
- epoxy cement
- pair of stainless steel scissors
- 1 cm x 7 cm piece of aluminium
- flat stainless steel grater (rasp from Hema)
- 1 x 50 mm tea-wagon caster (from Gamma)
- an assortment of hardware items

### TOOLS

- clamp
- hack saw
- mitre box
- centre punch
- drill
- 3 mm tap

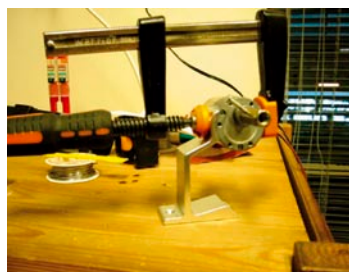
Level: MEDIUM DIFFICULT

Preparation time: 3 hours

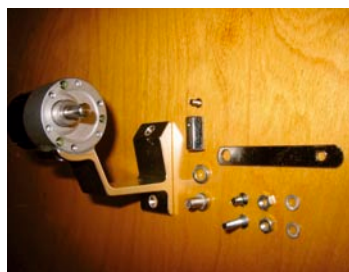
City of origin: Amsterdam

### BUILDING INSTRUCTIONS

*Sand metal parts well with coarse emery cloth and epoxy bannister holder to motor as illustrated. Let dry for at least 20 minutes.*



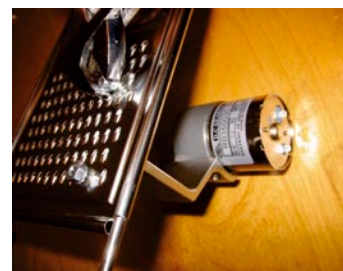
*Cut 7 cm length piece of metal using the hack saw. Aluminium is OK, but a chrome-plated piece matches the rest of the hardware better. File or grind down the metal edges to make them smooth. Drill two holes as indicated. Assemble the following hardware items.*



*This motor has a 6 mm shaft. For a shaft coupler, use a hex coupler for 6 mm threaded rod. Drill away the threads half way into the shaft coupler using a 6 mm drill bit. Next drill a 2.5 mm hole on the side of the shaft coupler about four mm from the side you have just removed the threads from. Finally you must create threads in the hole using a 3 mm tap.*



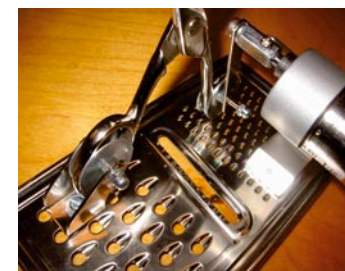
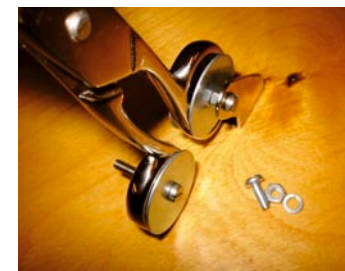
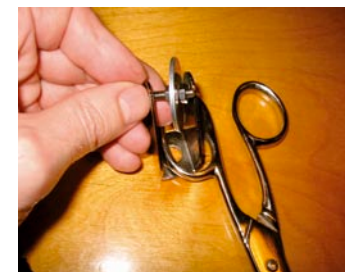
*Connect the shaft coupler to the motor shaft as illustrated. Screw the bar to the shaft coupler as illustrated.*



*Place and position bannister on the grater. Mark where the holes should go and then mark again using a centre punch. Drill holes into the grater as indicated using a 5 mm drill bit. Since you are drilling into metal, use a bit of oil. Attach motor to rasp as illustrated.*



*Take a caster and remove the wheel from it. Drill a hole on each side. Assemble as illustrated.*



# cinema solubile

Recipe by Federico Bonelli

Out of the routine of the professional art-maker GENIUS lies ready to be awakened. It can be awakened by immediate, irrational, no-seat-belts-allowed creative action. This is the Futurist credo.

Cinema Solubile is cinema that dissolves - instant cinema. A movie to be conceived, acted, shot, edited and seen in 24 hours, and afterwards destroyed. A small tribute to the futurist manifesto of cinema. 'Immediatismo' means to follow the impulsive action and demonstrate the essence of geniality. To apply immediate creative action to a complex, time consuming technical practice such as cinema is hard. It requires elasticity, improvisation, freedom, will, tenacity, preparation and courage. Analogy, synthesis, speed, generosity, and all giving bursting life are the main ingredients of the process. Futurism is and will always be a slap in the face of those who wish to judge, and given to those who dream to do.

## THE GAME

The time of the game is 23 hrs. 11 artists working with images and film are invited to make a no budget film in this space of time about an unpredictable subject. The game can only be performed on the 10th and presented on the 11th at precise times.

- 1) Setup the space with splinters of the futurist and act them out to stick in everybody's feet from 20:11 onwards. Free choice of 'assaggini'. A noise/tuning group of futurists has to float on the soundwaves in the room, allowing unpredictable resonations. Awakened by the rhythmic figures of the music, futurist poetry will be read in the original languages (Italian, Russian).
- 2) At 10:11 PM sharp the 11 participants are requested to put a piece of paper 'in a hat' with a two liner subject for a film. From the same shuffled hat each of them will take their story-trace, and from then on be on their way, with or without a dv-tape, to make their film.

Only rules are:

- the film has to be no budget.
  - the film has to be thought, shot, edited and shown in 23 hrs time, then it will be destroyed.
  - the film has to be visible as a film, by the audience seated in a dark room watching a screen.  
If it is requested by the maker, the soundtrack can be performed live (as in silent movies) by the provided improvising band (unorosso).
  - film duration cannot be longer than 6'33" and 11 frames (per sec).
- 3) The filmmakers are allowed to start producing their clip right after taking the subject from the hat.
  - 4) The day after, at 9:11 pm the works have to be given back to the jury that will gather in the cinema. They will be shown at once in the order they have been assigned in front of the public. The viewing will be broadcast on the internet to connected audiences.
  - 5) The jury will be chosen, according to futuristic ideals (see 'Manifesto del Teatro di Varieta') by the organizer(s). The prize will be awarded at the end of the process to the winning artist. All films made by the participants will be destroyed after the viewing, on stage, by the makers and never seen again.

## MATERIALS

If you are not able to read Italian, you may find quite indecent English translations of major futurist manifestos here:  
<http://www.unknown.nu/futurism/>

For a specific reference read:

Abstract Cinema  
<http://www.unknown.nu/futurism/abstract.html>  
The futurist cinema  
<http://www.unknown.nu/futurism/cinema.html>

A slap in the face of public taste: David Burliuk, Alexander Kruchenykh, Vladimir Mayakovsky, Victor Khlebnikov  
<http://www.unknown.nu/futurism/slap.html>  
You can also browse the excellent:  
<http://www.futurism.org.uk/futurism.htm>  
For other translations, pictures etc., and find the translation of the manifesto about the Variety theatre! Refer to [www.submultimedia.tv/unorosso](http://www.submultimedia.tv/unorosso) (will become cinemasolubile.org) if you like. Be there or be not.

Federico 'il cane' Bonelli

**CINEMA SOLUBILE**  
Immediatismo Futurista

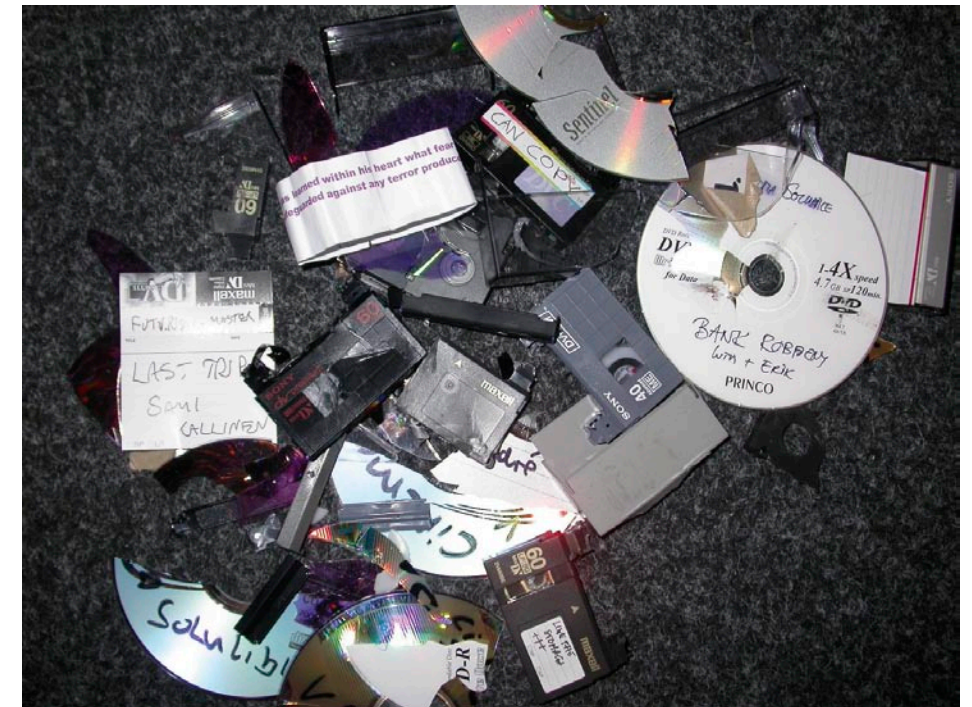
11 filmmakers  
vs THEIR GENIUS  
against  
the futurist manifesto  
of CINEMA:  
11 short films to be MADE in 23 hours  
to be SHOWN and then **destroyed**

UNOROSSO  
7 years for 2 evenings  
[www.submultimedia.tv/unorosso](http://www.submultimedia.tv/unorosso)

immersive analogic multimedia experience  
-R[E]VOLUTION by Libera et al.

Waag Society  
Feb 10 2005 - 11:20:30 de waag

metakweg  
Feb 11 2005 - 20:00 metakweg theater



# streaming video

Recipe by Arjen Keesmaat

How to setup a video-stream using QuickTime Broadcaster and Waag Society's Streaming server.

What you need:

- a Macintosh computer running OS X 10.3 or higher.
- QuickTime Broadcaster, freely downloadable from <http://www.apple.com/quicktime/broadcaster/>
- an internet connection
- a camera attached to your computer



How to stream:

- Open QuickTime Broadcaster, press if necessary the 'show details' button, so you see the window as shown in the image.
- Press the 'Video'-tab (1), and choose the camera that is attached to your computer (2). Then choose the right settings. In this example we assume you have an upstream of over 720 kbit. Change the resolution and bit- and framerate settings, so that the stream will fit in your bandwidth. This requires some tweaking and trial and error. We chose to use MPEG-4 in this example. This is usually a good choice.

In this example we chose to use the MPEG-4 codec, which usually is a good choice and have set the bitrate for video to 512 kbit/sec (4). Keep in mind that audio will take-up extra bandwidth. Also you shouldn't completely fill-up all your bandwidth, as that will result in stuttering image and sound.



- Next, press the 'Audio'-tab (1) and select the right settings for the audio. Select your audio input (5). This can be the microphone of the camera, or any other device listed in the menu. Again we choose MPEG-4 for the audio codec (6). For good quality we set the 'Rate' to 44.100 Herz, with a sample size of 16 bit. Click the 'options'-button (7) for additional settings.



We have set the bitrate to 128 kbits/second (8), and the output sample-rate to 44.100 kHz. These are high-quality settings. Again, adjust these to fit your bandwidth.

- Then select the network tab (1). We are going to use the Waag's Streaming Server. This means we're going to use 'Unicast' transmission. Select Automatic-Unicast in the transmission pop up-menu. Then fill-out the address in the server field: qt2.waag.org, and think up a file name for your stream. This can be anything. You don't need a login name or password for this server, so now you can press the Broadcast button. You are now streaming!!!

Now to see if it is working, open QuickTime Player, and select 'Open URL in new player' under the 'File' menu (⌘+U). In the address-field, fill out the following address: rtsp://qt2.waag.org/FILE.sdp, where FILE is the filename you gave your stream. If everything went right, you now receive your stream! Give the above address to anyone you want to watch the stream. This can be relatives on the other side of the world.

Any problems that occur can be caused by network settings and firewalls. If Broadcaster seems to stream fine, but QuickTime doesn't receive anything, make sure that the 'Transport Settings' in the QuickTime Preferences are set to use port 80 (or http).

Happy streaming.

# cellular network

Recipe by Nancy Mauro Flude

Resonating the cellular network in an electric-theatric Operation by *sister O*.

## HARDWARE

- Marshall Amp
- bass guitar
- video beamer / 3000 lumens x 2
- digital video camera
- bucket
- sub woofer
- speakers
- computer x 2

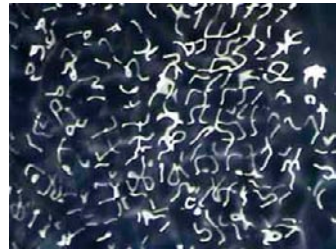
## SOFTWARE

- water
- VLC media player (Video-LAN Server)
- streaming live video over the network.
- sequined top
- old dance hall dresses
- lipstick
- ADSL connection
- streaming Server
- cables: audio/video

## METHOD

With your favourite girl friends set up two or three different operation sites (see below for importance of location), choose which one is the sender & receiver. Suspend a projector vertically displaying live video feed in each space. Put on some lipstick, wear a sequined top, or old dress.

*Sender Site:* set up the Marshall Amp and bass guitar. Connect this Marshall Amp to a subwoofer. Fill a bucket of water and place it near the subwoofer. Vibrations from the bass causes the water to move and re-energize cell life. Vibrate the container of water with a bass guitar. Sit on the subwoofer with a video recorder and microphone capturing the a/v of the vibrations in the water. Connect the DV camera to the computer with VLC media software, then connect to the server and send to the receiver. The a/v output of the vibrations are sent in an audio and video stream to



a receiver remote station that projects the a/v stream into their space. Not only does a cellular vibration resonate the inner side of the skin, the intra-cellular fluid, the organs and interstitial fluid membranes; you also have a cellular vibration over the network so there's a shift in patterns of inertia.

*Server:* Output: to a video beamer, hanging vertically, pointed down onto the floor.

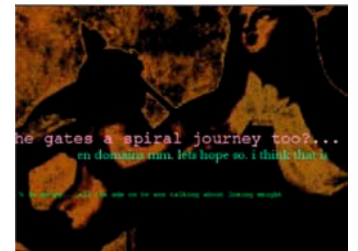
*Sound:* Output from the computer into a sound mixing board. The mixing board is output to speakers.

Networks will not mobilize until subjugated knowledge have been brought to light from the underwater data base, and opened to the elements of an electric-theatric Operation, a bunch of nodes & data flows being transmitted & received that cause movement over a network and by those who are connecting. When it vibrates the organs you know it's good, like a punk rock concert, or an archaic church as places of release. Meeting physically and virtually exchanging flows & currents, transmitting and receiving. Cellular communication is underneath the nervous system. There limited number of ways to manifest this information, as it is underwater. Find some way of mobilising it, of finding its flows. *sister O's* Operations around the underwater data base are not unlike how the motor nerves efferent fibres carry information from the brain and spinal cord out through the different levels of the body - or in *sister O's* case it's mainly the social sphere. The outgoing nerves and descending tracts are located anterior to the vertebrae - or underground as subjugated knowledge. The sensory nerves collect data from the greater environment and carry information and awareness into the

Central Nervous System from the cells. Much of the time, *sister O* is like Ophelia; serpentine and hyper aware and connected, existing on the horizontal plane. It's familiar for her to be in the underwater database, mediating the horizontal and vertical. When her cells are resonated enough, she comes through to Operate in the 'vertical' world and with this brings part of the data-base of with her.

## IMPORTANCE OF LOCATION

An Operation site can be everywhere. *sister O* once chose the Waag castle in Amsterdam that has the 'Theatrum Anatomicum' inside in collaboration with *sister O's* Australian station at Artspace, an old historic gunnery in Sydney. The Theatrum Anatomicum was Europe's first dissection theatre where the butchery of women and criminals by the Western Medical regime took place. This was a time when the essential role of 'midwifery' and related botanical and anatomical technologies was regulated away from those who give life - women. *sister O* believes that the ghosts who died in this space 200 years ago had some unfinished business. These locations generated complex relationships with space and traced multiple inter-relations via this translocal level. For instance, the movement to Australia two centuries ago initially consisted of agents discriminated against by the convict trade of the colonials whose actions also butchered one of the most ancient and sophisticated cultures alive today. It is often the case now and throughout history, that marginalised identities are often misrepresented and mistreated in technologically mediated public spheres. Therefore place is significant for these elektrik-theatrik Operations.



# streaming audio

Recipe by Jan-Kees van Kampen

## STREAMING MP3 ON MAC OS X WITH NICECAST

Nicecast is a very accessible application for streaming mp3. Your stream can be played in clients like Winamp, iTunes and mplayer. Using Waag Society's Icecast server, you can provide audio for lots of listeners.

Download Icecast on Versiontracker.com, or visit:

<http://www.rogueamoeba.com/nicecast/> (this is a trial version, for a full working version



you'll have to pay (a bit)). You select the source for streaming by pressing the 'Source' button, this can be an application's output, but also an Input Device, like the computer microphone, or a FireWire camera. At 'Info', you can put all info concerning your stream that's relevant for listeners. Choose a streaming quality. It's always a quality/bandwidth trade off (of course). Optionally, it's also possible to let you audio pass a chain of Audio Unit Effects.

## THE SERVER

The Waag Icecast server is always ready to use: it's at <http://audio.waag.org:8000/>

The mount point is the name of your stream, don't forget to put a forward slash.

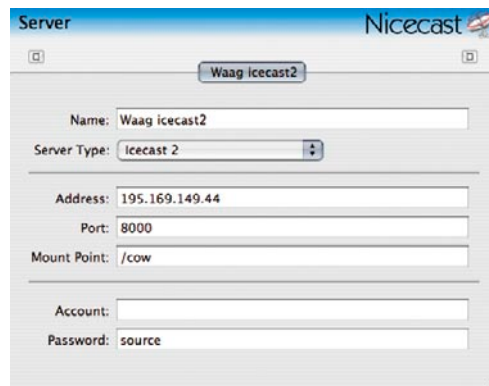
People can type: <http://audio.waag.org:8000/yourMountPoint.m3u> in their client for listening.

Example:

<http://extern.waag.org/jk/str/NiceCast>.

webarhive 07/20/2005 06:37 PM

Now you press Start Broadcast, You can check whether it's working by going to: <http://195.169.149.44:8000/status.xml> or <http://audio.waag.org:8000/status.xml> which is the same :) Your stream should be visible, click the link to open the stream in your default player/client.



# soundbites

A recipe in code by Jan-Kees van Kampen

```
underlined text is hyperlink (click)
// this file is always at:
http://vacca.goto10.org/sc/txtwms.txt
|
get a recent build for of SuperCollider for OSX @
http://cooper.wesleyan.edu/~david/SC3/CURRENT\_SC3.tar.gz
-----
command-. (period) = stop the synth

select code in between brackets ( ), (you can double click just before or after a bracket),
or, in case of single lines, put the cursor on the line,
then press enter (not return) to execute it.
-----
// OSC-Style messaging (most compatible with other OSC clients)

// execute this first
s = Server.local.boot;

// a SynthDef, basic building block, to be sent to the server
(
x = SynthDef("edosynth2",{ arg out=0, freq=3000, modindex=0;
var modulation, signal;
modulation = LFNnoise.kr(20,modindex,0);
// arguments of a sinus oscillator(+ default values): freq=440.0, phase=0.0, mul=1.0, add=0.0;
signal = SinOsc.ar(
// freq: amplitude modulation of frequency modulator
SinOsc.ar(freq, 0, modulation, [200,LFNoise.kr(3,5,200)]),
// phase: modulation by a noise generator
LFNoise.kr(0.3,0.5,0.5),
0.2
);
Out.ar(out, signal)
},
// lag times of the arguments (interpolation time when changing argument values)
[0,7,0])
)

// send it to the server, so it is available for playing
x.send(Server.local);

// the server contains no synths
s.queryAllNodes;

// make one (here we specify the nodeID (the Synth place in the tree of execution) explicitly)
s.sendMsg("/s_new", "edosynth2", 1001, 1, 0);

// there's a synth running on the server
s.queryAllNodes;

// changing parameters
s.sendMsg("/n_set", 1001, \modindex, 200);
s.sendMsg("/n_set", 1001, \modindex, 10000);
s.sendMsg("/n_set", 1001, \modindex, 3000);
s.sendMsg("/n_set", 1001, \modindex, 700);
s.sendMsg("/n_set", 1001, \freq, 50);
s.sendMsg("/n_set", 1001, \freq, 100);
s.sendMsg("/n_set", 1001, \freq, 1000, \modindex, 70);
s.sendMsg("/n_set", 1001, \freq, 1900, \modindex, 100);
s.sendMsg("/n_set", 1001, \freq, 200);
s.sendMsg("/n_set", 1001, \freq, 0);
s.sendMsg("/n_set", 1001, \modindex, 300);
s.sendMsg("/n_set", 1001, \freq, 120);

s.sendMsg("/n_set", 1001, \freq, 1, \modindex, 6000);
s.sendMsg("/n_set", 1001, \freq, 1, \modindex, 6000);

// free the node (synth)
s.sendMsg("/n_free", 1001).queryAllNodes;
```

## // Using a Task to play patterns that control a synth

```
(
// by using t_trig, instead of trig as argument name, we make the trigger value to go back to zero
// by default it just stays where it was last
t = SynthDef("trigTest", { arg t_trig=1, freq=440, freqdev, dcy=1;
  Out.ar(0, SinOsc.ar([freq, freq+freqdev], 0, Decay2.kr(t_trig, 0.005, dcy)));
}, [\tr, 0.01] // lag the freq (lagtime: 4s), \tr creates a TrigControl for trig
).send(s);
)

// here we create a Synth object to talk to directly
// a Synth object is a language side representation of the Synth Definition on the server
z = Synth.head(s, \trigTest);
z.set(\t_trig, 1, \freq, 500);

(
  ~freqCtl = 440;
  ~freqdevCtl = 10;
  ~dcyCtl = 0.2;
  ~tiCtl = 0.2;

  // this is a Task for repeated triggering of the synth,
  // taking patterns or static values to control the synths parameters
  r = Task({
    loop({
      z.set(\t_trig, 1,
           \freq,    ~freqCtl.asStream.next,
           \freqdev, ~freqDevCtl.asStream.next,
           \dcy,     ~dcyCtl.asStream.next
      );
      (~tiCtl.asStream.next).wait;
    })
  })
)

r.play;
r.stop;

r.play;

// using environment variables for changing parameters on the fly
// here we use patterns for dynamic parameter control
~freqCtl = Prand(8 * [400,400,440,400,392,448], inf);
// 2nd array contains weights here
~freqCtl = Pwrand([400,200,440,400,392,448], [2,1,1,4,1,1].normalizeSum, inf);
~dcyCtl = 0.7;

~freqCtl = 1400;
~dcyCtl = 0.00013;
~freqCtl = Prand([400,400,440,400,392,448], inf);

// 2nd array contains weights here
~dcyCtl = 0.1;
~freqCtl = Pwrand([400,440,nil,200,3000], [0.5,0.2,0.2,0.1], inf);
// offset from freq for right channel (see SynthDef), stereo !! :)
~freqDevCtl = Prand([100,300,600], inf);
~freqDevCtl = Prand([10,30,600], inf);

~freqDevCtl = Prand([0,0,0,300], inf);

~dcyCtl = 0.1;

// change timing (delta Time between triggers)
~tiCtl = Pbrown(0.04,1,0.01, inf);

~tiCtl = Pbrown(0.01,0.5,0.01, inf).asStream;
~roll = 8;
~tiCtl = Prand([0.1,0.2,0.2,Prand([0.05,0.04,0.1], ~roll),0.2], inf);
~roll = 2;
~roll = 7;
~roll = 13;
```

```
~freqCtl = Prand([1400,400,440,200,100,exprand(4000,7000)], inf);
~freqCtl = Prand([1400,400,440,880,200,100], inf);

~tiCtl = Pseq([Pbrown(0.2,0.3,0.01,3), Pbrown(0.1,0.2,0.01,3)], inf);
~dcyCtl = Prand([0.2,0.03,0.07,0.2,0.05], inf);

~tiCtl = Prand(0.5*[0.3,0.21,0.11,0.11], inf);
~dcyCtl = ~dcyCtl * 0.02;

// stop the routine (btw. the routine (Task) runs in the Language (SCLang), not the server )
r.stop;

// free the Synth (its place then becomes available again on the server)
t.free;
```

## //// JITlib // execute one line at a time

```
Server.killAll;
ProxySpace.push(Server.local.boot);

x = ~out.play;
~out.fadeTime = 0.01;

~out.clock = TempoClock(1.0);
~out.source = { Ringz.ar{Impulse.ar(1, 0, 0.3), 3000, 0.01} };
~out.add{ Ringz.ar{Impulse.ar([0.5, 1], 0, 0.3), 1000, 0.01} };
~out.add{ Ringz.ar{Impulse.ar([3, 5]/2, 0, 0.3), 8000, 0.01} };

~out.fadeTime = 4;
~out.source = { Ringz.ar{Impulse.ar([4,9], 0, 0.3), 3000, 0.01} };
~out.add{ Ringz.ar{Impulse.ar([3, 4]/2, 0, 0.3), 8000, 0.01} };
//Low
~out.add{ Ringz.ar{Impulse.ar([1,2]/2, 0, 0.3), 100, 0.09} };
//snare?
~out.add{ Ringz.ar{Impulse.ar([3, 4]/2, 0, 0.3), 600, 0.01} };

~out.add{ Slew.ar{Impulse.ar([3, 4]/2.1, 0, 0.3), 6000, 4000} };

// random bass
~out.add{SinOsc.ar(LFNoise2.kr([0.2,0.2],50,70),0,0.3)};
// take it away
~out.removeLast
~out.fadeTime = 0.1;

~out.add{SinOsc.ar(LFNoise0.kr([8,3],50,70),0,0.3).clip2(0.3) * 0.2};
~out.removeLast

~out.removeAt(0);

~out.add{RLPF.ar(LFSaw.ar(LFNoise0.kr([8,3],50,70).round(12),0,0.3).clip2(0.3), 500, 0.8,0.1) };

// random eeriness
b = NodeProxy.audio(s, 2);
y = b.play;

b.source = { SinOsc.ar([350, 900], 0, 0.01) };
b.fadeTime = 7;
b.add{SinOsc.ar([1350.exprand(2500), 1900.exprand(300)], 0, 0.01) };

b.removeLast;
b.removeAt(2);

b.add{ Mix.arFill(4,{SinOsc.ar([1350.exprand(2500), 1900.exprand(300)], 0, 0.01) }} );

b.source = { Mix.arFill(4,{SinOsc.ar([1350.exprand(2500), 1900.exprand(300)], 0, 0.01) }} );
```



```

b.fadeTime = 1;

// add something to the rhythm
~out.add({SinOsc.ar(LFNoise0.kr(LFNoise0.kr(MouseX.kr([1,1000],[1000,1]),100,1010),0,0.1)});

~out.add{ Ringz.ar(Impulse.ar([3, 4]/2.5, 0, 0.3), 500, 0.01) }

~out.removeLast;

~out.removeAt(0);

// take it easy
~out.source = { Ringz.ar(Impulse.ar([1,2]/1, 0, 0.3), 70, 0.3) };
b.source = {SinOsc.ar([1350.exprand(2500), 1900.exprand(300)], 0, 0.01)};

b.add{Mix.arFill(4,{SinOsc.ar([1350.exprand(2500), 1900.exprand(300)], 0, 0.004) }) }

b.removeLast
b.removeAt(2);

//low
b.add{ Mix.arFill(3,{SinOsc.ar([20.exprand(70), 30.exprand(100)], 0, 0.03) }) };

//mid
b.add{ Mix.arFill(16,{SinOsc.ar([750.exprand(2500), 1900.exprand(300)], 0, 0.005) }) };

//hi
b.add{ Mix.arFill(24,{SinOsc.ar([1350.exprand(7500), 10000.exprand(3000)], 0, 0.001) }) };

b.removeLast;

{
t = Task({
loop{
b.add{ Mix.arFill(24,{SinOsc.ar([20.exprand(90), 20.exprand(90)].midicps, 0, 0.003) }) };
choose([1,2,3]).wait;
b.removeLast;
choose([1,2,3]).wait;
}
});
}

t.play;

t.stop;

~out.removeLast;

~out.add({SinOsc.ar(LFNoise0.kr(0.2,100,110),0,0.1)});
~out.add{ Ringz.ar(Impulse.ar([1,4]/5, 0, 0.7), [2000,1200], 0.01) };
~out.add{ Ringz.ar(Impulse.ar([3,5]/5, 0, 0.7), [800,500], 0.01) };

b.add({SinOsc.ar([350.exprand(700), 250.exprand(900)], 0, 0.01)});

// release the synths
b.fadeTime_(8).release;

~out.fadeTime_(7).release;

//this resends the last synth
~out.send;
b.send;

~out.free; //this frees the group, not the play synth x
~out.clear; //this neutralizes the proxy, and frees its bus

//this neutralizes the proxy, and frees its bus
~out.clear
b.clear;

```

## credits

Waag Society, the artists and partner-institutes of *Connected! The making of a liveArt Exchange* would like to thank the following sponsors and supporters for their kind assistance and contributions.

### Projects

#### LiveForm:Telekinetics

*Realised by:*

Jeff Mann and Michelle Teran  
in collaboration with Isabelle Jenniches,  
Alex Schaub and Arjen Keesmaat

*Partners:*

- Melkweg
- Biennale of Electronic Arts of Perth (BEAPO4)
- Societe des arts technologiques (SAT)
- De Balie
- Latei

*Supported by:*

Canada Council for the Arts, Mondriaan  
Stichting, HGIS Cultuurprogramma

*Special thanks to:*

Just van den Broecke, Graham Smith,  
Michelle Kasprzak, Edo Paulus, Nancy  
Mauro Flude, Lucas Evers, Eric Kluitenberg,  
Deanne Herst, David Klinkert, Simon Piette

#### The Music box installation & Vernacular

*Realised by:*

Beth Coleman and Howard Goldkrand  
supported by EAI, Rockefeller Foundation,  
HGIS Cultuurprogramma

*Special thanks to:*

Wander Eikelboom. Fokke de Jong,  
Margreet Riphagen, ODO7.com  
and Jan-Kees van Kampen

#### Collaborative Culture & interfacing Radiotopia/KeyWorx

(Dutch Electronic Arts Festival 2004  
by the V2\_ Media Center)

*Realised by:*

Sher Doruff in collaboration with Isabelle  
Jenniches, Arjen Keesmaat, Lodewijk Loos,  
Eric Redlinger, Michelle Teran, Daniel Vatsky,

*Partners:*

Location One/ NY (residency at that  
time of Isabelle Jenniches)  
Share/ NY

*Supported by:*

HGIS Cultuurprogramma, V2\_ Media Center

*Special thanks to:*

KeyWorx-team, V2\_ publishers

### Anatomic

*Realised by:*

Guy van Belle, Arjen Keesmaat and  
all Anatomic-participants

*Partners:*

- Athens(GR) – Fournos; Manthos Santorineos
- Boulder (USA) – University of  
Colorado; John Hopkins
- Brussels (BE) Code 31; Gert Aersten
- Brussels (BE) – foam; Maja Kuzmanovich
- Brussels (BE) – Looking Glass  
Space; Annemie Maes
- Manchester (UK) – Futuresonic;  
Drew Hamment
- New York (USA) – [Share] digital media  
lab; Eric Redlinger and Keiko Uenishi
- Prague (CZ) – MediaArtLab
- Centrum Pro Soucasné Umení
- Prague (CZ) – Milo<sup>1</sup> Vojtechovský
- Reykjavik (ISL) – Haraldur Karlsson
- Riga (LVA) – RIXC; Rasa
- Smite and Voldemars
- Sao Paolo (BRA) – FILE – Festival
- Internacional de Linguagem
- Eletronica; Paula Perissinotto
- Sofia (BGR) – Bulevart
- Association; Lyobov Kostova
- Tblissi (GEO) – maf\_Media Art Farm
- Tokyo (JPN) – Tama Art

University; Akihiro Kubota  
Toronto (CAN) – Interaccess,  
Kathleen Pierry Adams

*Research:*

Alessandra Blasi, Vrije Universiteit  
Amsterdam

*Supported by:*

Mondriaan Foundation, HGIS  
Cultuurprogramma, Amsterdams  
Fonds voor de Kunsten

**Artists-in-residence**

- Michelle Teran (CAN) supported by the Canada Council for the Arts
- Mark Meadows (USA) supported by the HGIS Cultuurprogramma
- Nancy Mauro Flude (AUS) supported by the Australian Council New Media Arts Board
- Josephine Dorado (USA) supported by the Fulbright Foundation
- Beth Coleman- Howard Goldkrand (USA) supported by EAI, Rockefeller Foundation
- Ananya Vajpeyi (INDIA) supported by EU-India Economic Cross Cultural Programme
- Hellen Sky (AUS), Company in space, supported by the Australian Council New Media Arts Board

*Partners:*

STEIM KeyWorx/SensorLab 2003,  
The New School University, New York  
University (New York, New York)  
InterCollege (Nicosia, Cyprus), Sibelius  
Academy's Center for Music and Technology  
(Helsinki, Finland), ADaPT (Association for  
Dance Performance Telematics), Arizona  
State University (Tempe, Arizona)  
Nottingham Trent University (Nottingham,  
UK), Wayne State University (Detroit,  
Michigan), HVK/ Theaterschool-  
Amsterdam. ANAT, Time Space place

**Sentient Creatures lecture series**

*Realised by:*

Graham Smith in collaboration with  
the stream team, Rob Linders

*Lecturers:*

Dick Bierman, Joe Davis, Kit Gallaway,  
Theo Jansen, Jaron Lanier, Sherrie  
Rabinowitz, Catherine Richards,  
Rupert Sheldrake, Norman White

*Supported by:*

Canadian Embassy (The Hague),  
Telbotics Inc. (CAN)