

Christa Sommerer & Laurent Mignonneau

Tangible, Audible, Playable, Wearable Interface Culture Student Works at Ars Electronica 2006

One year after its establishment, the Interface Culture masters program was already able to present works by its students at the 2005 Ars Electronica Festival. This exhibition included examples of interactive art, tangible interfaces, intuitive instruments for playing and composing music, acoustic and object-based interfaces, CAVE applications and interactive games. This year's projects can be divided more or less into five thematic clusters corresponding to courses of study in the Interface Culture program:

Interactive Media Archeology

These works deal with media archeology (taught by Gebhard Sengmüller). For example, the interactive installation *re:call phone* shows how a telephone from the 1920s can add new sensor technology and a picture screen to become an interactive tool that lets users experience the history of telecommunications in a playful way. *The Digital Barrel-Organ* combines an old barrel-organ with digital MP3 sounds to deliver a satiric commentary on the pressure to innovate that contemporary musicians face. Other works are *FLOP*, *Ritter der Kokosnuss* and *Metaskop, sCANNED OBJECTS*.

Interactive Artificial Life Projects

Programming courses (taught by Christine Sugrue, Robert Praxmarer and Friedrich Kirschner) familiarize students with generative processes. The results include several interactive installations that deal with the "game of life" theme and computer-generated nature: *Life, Nature, ebenda no.1—coinciding entities* and *Mikrokosmos*.

Fashionable Technology

Another area of emphasis of the Interface Culture program is fashionable technologies (taught by Sabine Seymour) and the development of sensor technologies (taught by Laurent Mignonneau). In a project entitled *No more under cover*, for instance, books that have been out on loan from the library too long gradually change color. Other works include *Enlightened Collection* and *Clothing that arranges the body*.

Intelligent Environments, Tangible Interfaces and Auditory Interfaces

This field (teachers: Martin Kaltenbrunner, Andreas Weixler and Christopher Lindinger) has given rise to projects such as *iShaker* which makes it possible to generate beats and sounds with three iPods, *Atem Raum*, an interactive environment that reacts to breathing, *Title: Shape, Color & Sound*, a tangible interface that combines the worlds of Ittens and Schönberg, and *Scream Point*, an ironic work about interactive photography.

Robotic Interfaces

In a special course by Time's Up (Tim Boykett and Marc9), students get an introduction to the basics of artistic robotics and present a performance by their robots.

This exhibition documents how interactive technologies are coming into increasing use in creative applications and hybrid art projects, and, via innovative recombination of technology and art, are giving rise to interesting prototypes at the nexus of media art, design and R&D.

Ein Jahr nach seiner Gründung konnte das Masterstudiumprogramm „Interface Culture“ Arbeiten von Studierenden bei der Ars Electronica 2005 präsentieren. Dabei wurden Projekte aus den Bereichen interaktive Kunst, Tangible Interfaces, intuitive Musik- und Kompositionsinstrumente, akustische und gegenständliche Schnittstellen, CAVE-Applikationen sowie Beispiele von interaktiven Spielen vorgestellt. Die Themen der diesjährigen Ausstellung gliedern sich grob in fünf Schwerpunkte, die sich auch in den Kursen des Programms von Interface Culture widerspiegeln:

Interaktive Medienarchäologie

Diese Arbeiten beschäftigen sich mit dem Thema Medienarchäologie (unterrichtet von Gebhard Sengmüller). Die interaktive Installation *re:call phone* etwa zeigt, wie ein Telefon aus den 1920er Jahren neue Sensorik und Bild kombiniert und zu einem interaktiven Tool wird, das die Geschichte der Telekommunikation spielerisch erfahrbar macht. *Die digitale Drehorgel* kombiniert eine alte Drehorgel mit digitalen MP3-Sounds und kommentiert so auf satirische Weise die heutige Musikrezeption. Weitere Arbeiten sind: *FLOP*, *Ritter der Kokosnuss* und *Metaskop, sCANNED OBJECTS*.

Interaktive Artificial-Life-Projekte

In Programmierkursen (unterrichtet von Christine Sugrue, Robert Praxmarer, Friedrich Kirschner) wurden Studierende mit generativen Prozessen vertraut gemacht. Daraus entstanden mehrere Arbeiten, die sich mit dem Thema „Game of Life“ und computergenerierter Natur beschäftigen, wie etwa die interaktiven Installationen *Life*, *Nature*, *ebenda no.1—coinciding entities* und *Mikrokosmos*.

Fashionable Technology

Ein weiterer Schwerpunkt des Interface-Culture-Programms ist Fashionable Technologies (unterrichtet von Sabine Seymour) sowie die Entwicklung von Sensortechnologien (unterrichtet von Laurent Mignonneau). Beim Projekt *No more under cover* z. B. verfärbten sich Bücher graduell, die zu lange aus der Bibliothek ausgeliehen wurden. Weitere Arbeiten sind: *Enlighted Collection* und *Clothing that arrange the body*.

Intelligent Environments, Tangible Interfaces und Auditory Interfaces

In diesen Bereichen (unterrichtet von Martin Kaltenbrunner, Andreas Weixler und Christopher Lindinger) entstanden Projekte wie *iShaker*, bei dem mit drei iPods Beats und Sounds generiert werden können, oder *Atem Raum*, ein interaktives Environment, das auf Atmung reagiert, und *Title: Shape, Color & Sound*, ein tangibles Interface, das Ittens und Schönbergs Welten kombiniert, während *Scream Point* eine ironische Arbeit zur interaktiven Fotografie ist.

Robotik-Interfaces

In einem speziellen Kurs von Time's Up (Tim Boykett und Marc9) konnten Studierende die Grundlagen künstlerischer Robotik kennenlernen und selbst eine Performance ihrer Roboterresultate vorstellen.

Diese Ausstellung dokumentiert, wie interaktive Technologien immer mehr auch in kreativen Anwendungen und hybriden Kunstprojekten Anwendung finden können und sich durch die Neukombination von Technik und Kunst interessante Prototypen im Zwischenbereich von Medienkunst, Design, Forschung und Anwendung ergeben.

Doris Diensthuber / Christian Meixner

re:call phone—An Interactive Telephone Station

This installation consists of a telephone station equipped with a 1950s-style wall model phone and a monitor. The user activates the rotary dial to navigate through the history of the telephone and telephoning, whereby combinations of dates serve as phone numbers. The information dialed up is displayed on the monitor; plus, users can listen to informative texts being played through the earpiece of the receiver. A listing of telephone numbers provides an overview of the available topics, ranging from the early days of the telephone to the current state of the art, and also including bizarre and humorous anecdotes about the phone in art and research.



Bernhard Pusch

The Digital Barrel-Organ

An updated barrel-organ is the centerpiece of this project. It features fully digitized playlist management, human resources management and social skills, which enable the modern barrel-organ entrepreneur to administer his musical affairs in a more effective and thus profit-maximizing way.

This project is a satiric take on the pressures of resource optimization and individualization in an increasingly digitized world. In these times of mobile MP3 players, even barrel-organists have to come up with something new: the digital barrel-organ!

www.indivigital.at

Christina Heidecker

FLOP

The 3.5" disk was the most common data storage medium of the 1980s. Now, 20 years after its heyday, *Flop* attempts to revive this medium. A video sequence is saved to several disks. In order to view the whole video, the user has to insert one disk after another into the computer's drive. The content of the video is a collage recreating the atmosphere of the '80s.

This labor of Sisyphus recalls the inconvenient steps required to work with a computer a mere 20 years ago. The installation provides a stark contrast to the hurried, often impatient way we deal with digital media today, and encourages visitors to chill out and take their time.



Taife Smetschka

Ritter der Kokosnuss (Monty Python and the Holy Grail)



“1st soldier with a keen interest in birds: What?

Ridden on a horse?

King Arthur: Yes!

1st soldier with a keen interest in birds: You’re using coconuts!

King Arthur: What?

1st soldier with a keen interest in birds: You’ve got two empty halves of coconut and you’re bangin’ em together.”

This installation consists of a video projection of a clip from “Monty Python and the Holy Grail” and two coconut halves. By bangin’ em together, installation visitors can start both the video and a race between two knights of King Arthur’s Round Table.

Irmgard Falkinger-Reiter

SCANNED OBJECTS

Visitors to the installation can use a scanner and a printer to create their very own object-collage. The printed-out image of it is then loaded into a tin can that the visitor can take home as a souvenir. In this way, a momentary, ephemeral experience during a visit to an exhibit can be preserved for all time. Whoever decides to open the can and confront these memories can do so, but the image is then subjected to external influences of weathering, degradation and decay.



Bernhard Schorner

Metaskop



Everyone’s seen them—these tiny image viewers in the form of miniature television sets. Not so very long ago, these plastic TVs could still be purchased as souvenirs. The images available for viewing were mostly the sights of sightseeing tours and typical motifs of places frequented by tourists. The classic content of this medium is a metaphor of emptiness, an information vacuum. To offer an ironic depiction of this point of view, *Metaskop* totally dispenses with a picture; all that’s

to be seen is the name of the image. The *Metaskop* works with meta-information about the picture not on display. For example, instead of representing Venetian gondoliers, the viewer can only read the word “gondolier.” The tiny image viewer’s inner life has been eliminated and replaced by an LED displaying crawl text. One might regard this as a sort of *reductio ad absurdum*, or simply as Simplicity. Supported by www.plastiskop.de

Andreas Zingerle
Metakom

A shift of communication from classic real-world venues in society to new domains situated in virtual spaces is now taking place. This piece of sculpture visualizes the current state of virtual communication through analog, mechanical movements. The motion of the sculpture is not designed to be triggered by individuals but rather by society as a whole.



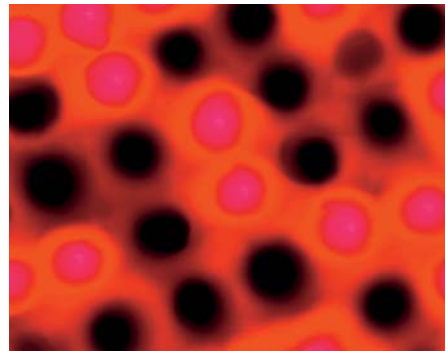
Cassandra Melhorn
ebenda no. 1—coinciding entities

ebenda no. 1 is an interactive environment consisting of a red glowing organic object mounted within surveillanced space. About a hundred light cells on the object display the visitors' distance to other visitors in the exhibition space, based on mapped coordinates. As two visitors approach one another closely, the number of activated light cells increases. In this way the visitors can influence the predefined lighting system as contributing participants in the evolution of a hybrid society. *ebenda no.1* sensitizes the physical body in difference to the immaterial construction of being.

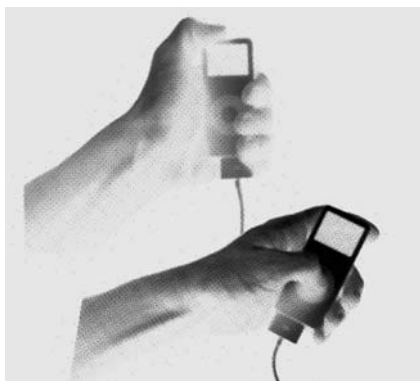
http://www.periodic-garden.net/ebenda_series/

Mika Satomi
Life()

Life() represents a classic Cellular Automata simulation *Game of Life* as a daily scene of a city. A visitor is embedded as an inhabitant of this city. As the visitor looks around, his/her eye gaze is detected, which navigates him/her through the space. Each step of the visitor has an influence on the neighboring cells, while the existences of other cells have an influence on the visitors' gaze. This simple simulation is challenging the complexity of our life.



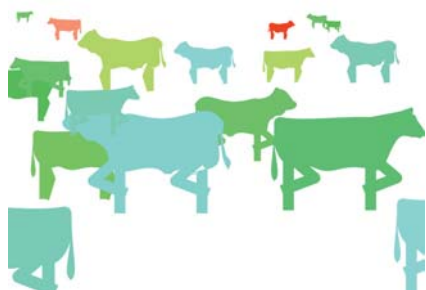
Gustavo Morant Garcia / Franziska Parschau
iShaker



The iPod is more than just an MP3 player; it's a cult object, fashion phenomenon and expression of a person's attitude towards life. Nevertheless, its memory capacity is getting bigger and bigger, and its content, in turn, ever more trivial. The iPod has become the instrument of compulsive collectors, the object of choice of those torn between an unfulfilled freedom of choice and an inability to make a choice. But what if the iPod could activate people? To take action. To make decisions. To be creative. Don't just play back music; creating music together is our motto! We make music! With the iPod. Any form of movement is welcome. And we thus come full circle: the *iShaker* becomes the "I shaker."

Timm-Oliver Wilks, Harald Moser, Thorsten Kiesl, David Purviance
Nature

As philosophical concepts, what's natural (derived from nature) and what's not natural reflect human beings' relationships to their environment. In this context, "environment" signifies "not I," that which is external to human beings. The installation entitled *Nature* treats human beings' relationships to their environment, and also deals in a very extraordinary way with negative aspects of this, for example, environmental pollution. The aim is to produce a visualization of modern-day environmental problems.



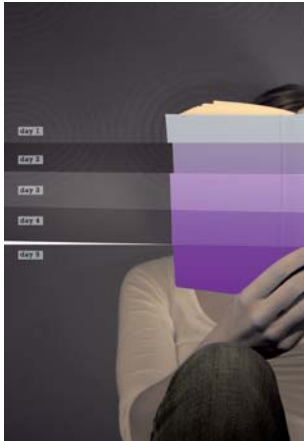
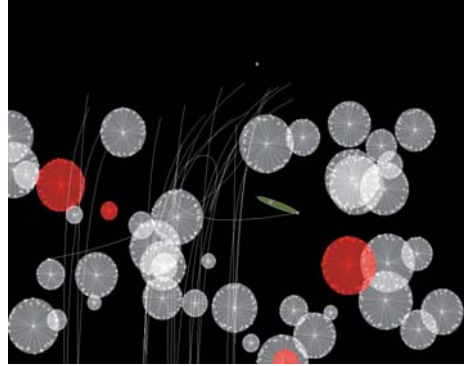
Hannah Perner-Wilson
COWSInTHEfield

COWSInTHEfield was made as decoration for a party with an Austrian theme. Cows and electric fences are both typical Austrian things to me, and using an electric shock for visual interaction is an interesting experiment. This installation presents nostalgic Austrian childhood memories to be experienced again.

Susanne Posegga
Mikrokosmos

Mikrokosmos, programmed in Processing, is a life simulation that's launched on the basis of various random parameters and then, with no possibility of external intervention, runs as long as it takes for the system to collapse.

Various species behave according to simple dictates: reproducing, eating, growing, dying. *Mikrokosmos* is a graphic work and, at the same time, an experiment. How long does the system function? Is its ruin the result of overpopulation or extinction?



Angela-Maria Holzer, Harald Moser
No more under cover

Books which are overdue at the library can no longer hide next to their non-overdue neighbors on the shelf. The time-aware cover gives them away at a glance: as time passes, the color of the cover changes continuously from an innocent white on day one to a guilt-ridden deep purple on day five. The specifics (length of the interval, colors) can, of course, be customized to different needs.



Irmgard Falkinger-Reiter
The Enlighted Collection

A collection of hand-knitted garments made of unusual materials such as gauze bandages, wires and aluminium foil. Technical components are added, e.g. LEDs, sensors and batteries. The sensors react to different environmental influences by lighting up the LEDs. Garments illuminate as soon as someone approaches or noise increases, making the wearers more visible.



Hannah Perner-Wilson

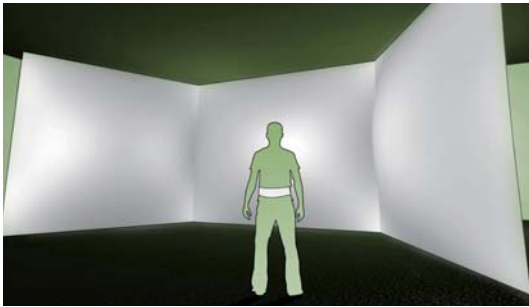
Clothing that arranges the body

Clothing that arranges the body is a garment made up of pockets that connect their content with the outside via the flow of electricity. Instead of regular plugs and plugholes the electrical current flows through material fastenings such as poppers, hooks and buttons. The garment's appearance playfully approaches the wearer's use of electronic devices within close proximity of their body.



Thomas Wagner / Andreas Zingerle / Christina Heidecker

AtemRaum (Breathing Space)



Thoughts and feeling like happiness, grief, security and loneliness influence and change our breathing. In these hectic times in which people are under incessant pressure to perform, checked by constraints and harried by fears, most of us don't even notice what a state of distress our breathing is in. The purpose of this installation is to make visitors conscious of unconscious breathing and especially of breathing with the diaphragm. AtemRaum is designed to

let people experience breath and foster an approach to it characterized by self-awareness. We want to achieve this through the use of sound and the haptic experience of the movements of the exhibit's walls.

Penesta Dika / Tomor Elezkurtaj

Shape, Color & Sound

This work is about creating simultaneously "audible images" and "visible sound" through tangible shapes/objects. The concept is based among others on the color-circle of J. Itten, the twelve-tone-technique of A. Schönberg and on elementary geometrical shapes of Euclidean Geometry. The main objects for this tangible Interface, made for the Reactable, are three geometrical objects, whose surfaces represent a tone and a color. The users can create simultaneously visual and



acoustic works that can be, among other things, rearranged, saved and played overlaid.

Bernhard Schorner/Franziska Parschau
The Polaroid Effect

The Polaroid Effect is an installation that deals with a problematic issue: the transitory nature of media. The point of departure of these considerations is Polaroid's decision to cease production of its extremely popular SX-70 film. The question we pose in light of this is whether the disappearance of a medium necessarily means its complete and final obliteration. The installation is based on photographic material developed right on the wall. Due to the effects of sunlight, the images disappear during the course of the exhibition. That which fades away is no longer viewed, no longer needed. The cycle of deterioration begins.



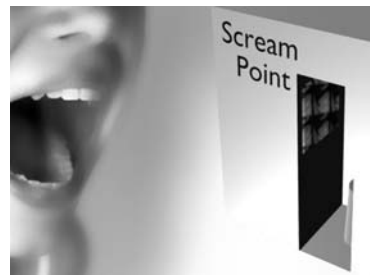
Timm-Oliver Wilks
serial_killer



serial_killer is a real-time computer game featuring a touchscreen interface. It integrates visitors to the exhibit venue into the game's plot/action, exploits them and, unbeknownst to them, sets them up as one another's opponents. Real and virtual worlds get mixed together and juxtaposed so as to contrast their various characteristics and consequences. The installation is thus a play on the continually arising discussion of violence in computer games and the capacity to differentiate between virtual worlds and the real one.

Sebastian Dietrich/Harald Moser
Scream Point

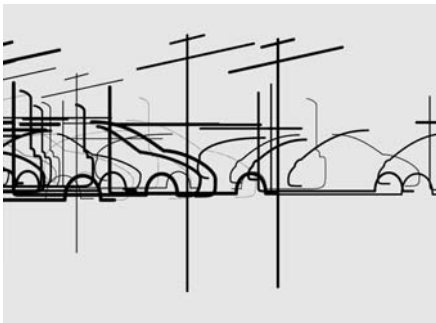
Unlike the familiar photo machines for taking passport photographs, portraits and fun cards, the *Scream Point* doesn't charge you any money for this non-existent personal consultation. Instead it demands a show of emotion. How?



CAMPUS

You have to shout at the *Scream Point* in order to receive a result or a photograph. The appearance of the *Scream Point* will correspond to that of its models placed in front of, or inside, train stations and shopping centres. But inside it, a different process takes place. Instead of the usual mirror you will find a screen that shows your picture. The reproduction of yourself is, indeed, completely blurred. The only way to sharpen the picture is to shout loudly. As soon as a certain decibel level is reached, the reproduction becomes sharp and freezes. When you leave the *Scream Point* you will get the Internet address, where you can find your picture and download it.

Hannah Perner-Wilson **Kein Gedankenloser Transport (Not Mindless Transportation)**



How do we experience mobility in a context that goes beyond using it without giving it a further thought? Can we look at traffic and transportation from an enlivened perspective? *Kein Gedankenloser Transport* is a series of three real-time animated films that offer a particular take on human mobility. The aim here is to impress upon viewers that every single person is a part of this traffic, and that this freedom of movement doesn't mean freedom from having to think about how we do it. This work was conceived to be shown on large-scale video display screens in public.

Time's Up **It's Alive!**

Taking its title from Australian Media Artist Alex Davies' oft-repeated exclaimed response to moving objects, *It's Alive!* (with a possible extra "eek!" for authenticity) asked a group of students to investigate movement *outside* the realms of the digital. Real movement in real space in real time. An informational overload in the form of videos and machine art anecdotes was the seed for a discussion and development process which led into a four day long, intensely immersive workshop at the Time's Up labs. The main course of action scripted to the students was "try. fail. try again. fail differently."

