

# Poetry in Motion – A Synthesis of Art, Technology and Science

## Ars Electronica featured at Automobil Forum Unter den Linden

(Linz, June 28, 2010) Ars Electronica, one of the world's top names in digital art and media, is making its first appearance at VW's showcase venue in Berlin, Automobil Forum Unter den Linden. "Poetry in Motion," an exhibition created especially for the German capital, will run until September 5, 2010. The works that comprise it constitute a fascinating synthesis of art, technology, science and socio-cultural development.

"Poetry in Motion" features kinetic artworks that present mechanical motion as an aesthetic experience. These are interactive installations—visitors are invited to engage in hands-on encounters and marvel at the magical moments that result. Here, technology isn't the usual means-to-an-end, but rather a medium conveying beauty, elegance, grace and charm. Artistic machines created by 10 artists from Europe, Japan and the USA tell stories that make this exhibition a fascinating experience. Thoroughly grounded knowledge of scientific principles in fields ranging from physics to programming languages and robotics provide artists with a whole new way to approach art—through interplay with the rapid progress being made in science and research.

Volkswagen's Automobil Forum Unter den Linden, in light of its substantive and conceptual orientation, is a most appropriate setting for Ars Electronica's first exhibition in Germany. This high-profile venue is a showroom of mobility—here, Volkswagen AG showcases its Bentley, Bugatti, SEAT, Skoda, Volkswagen and Volkswagen Utility vehicles—as well as a place of encounters in which visitors experience an interesting lineup of photographic, artistic and scientific exhibitions.

Automobil Forum Unter den Linden: www.automobilforum-berlin.de

Ars Electronica: <a href="http://www.aec.at/">http://www.aec.at/</a>

## Works & Artists

## Morpho Tower / Sachiko Kodama (JP)

The black material that seems to be alive is a ferrofluid, a liquid medium in which magnetic particles a few nanometers in size are suspended. This means that the fluid reacts to a magnetic field. Here, it surrounds an electromagnet with an enlarged iron core in the form of a helix. This configuration makes it possible for the fluid to seemingly defy gravity and spiral up to the tower's pinnacle.

Sachiko Kodama is a physicist. Nine years ago, she came upon ferrofluid, which was first developed for NASA and is used today to stabilize skyscrapers exposed to very high winds. "Morpho Tower" was created in 2006. The Japanese artist's works have been shown in



leading galleries worldwide including Kyoto and Los Angeles. "Morpho Tower" is on loan from ARtFutura.

### Moony / Akio Kamisato, Takehisa Mashimo, Satoshi Shibata (all JP)

Magical worlds of imagery whose sensuous effects are due to their fragility and transience—in "Moony," Akio Kamisato, Takehisa Mashimo and Satoshi Shibata have conjured up virtual butterflies on clouds of water vapor. The butterflies seem to want to play with those observing them. They entice, signaling a wish to be touched, and yet they withdraw from the observer's approach. They flutter away like creatures from another world, only to reemerge shortly thereafter and begin the game anew.

Akio Kamisato, Takehisa Mashimo and Satoshi Shibata met at the prestigious International Academy of Media Arts and Science (IAMAS). At the 2004 Prix Ars Electronica, they were singled out for recognition with a [next idea] grant for their extremely promising but not yet produced project.

#### Tool's Life / Kyoko Kunoh, Motoshi Chikamori, minim++ (all JP)

Technical implements cast their shadows upon a tabletop. When they're touched, the shadows suddenly come to life and start to form ornamental lines back and forth. Or to bloom like flowers. In contrast to the objects themselves, each shadow manifests a character all its own. With "Tool's Life," minim++ sheds light on everyday objects—not on each one's designated function, but rather on its background and significance.

Since it was founded in 2000, minim++ has produced numerous works and exhibited them worldwide. Minim++ uses simple, everyday objects and events, which are continually modified until they reach the point at which they get their message across.

### Machine with 22 Scraps of Paper / Arthur Ganson (US)

A swarm of birds or butterflies, leaves scattered by an autumn breeze—many of nature's spectacles fascinate us with their inherent harmony. This is what inspired "Machine with 22 Scraps of Paper." Each of these 22 little scraps of paper is affixed to the tip of a vertical aluminum rod, which are then moved up and down by an electric motor. Air resistance induces the paper "birds' wings" to develop a life of their own. And the swarm of birds begins to fly!

#### Thinking Chair / Arthur Ganson (US)

A small yellow chair on a flat, natural stone plate. A chair that suddenly begins "to walk" and does so in what seems to be an incredibly human way. Arthur Ganson had the idea that led to "Thinking Chair" while taking a walk. Near his studio, there's a small rock outcropping on a trail, which he likes to walk around in slow circles, deep in thought, whereby each cycle finds him back at the same physical location but in a slightly different emotional place.



#### Machine with Concrete / Arthur Ganson (US)

The idea is as simple as it is fascinating. And the diametrical opposite of what one normally expects. "Machine with Concrete" uses 12 cogwheels to so radically decelerate the rotational speed of an electric motor that the last cogwheel can be encased in concrete. The entire machine consists of a motor-driven axle, one end of which is stuck into a concrete block. Cogwheels, gears and reductors transmit the angular momentum of an electric motor into the concrete block. The first cogwheel takes approximately 14 seconds to complete one rotation; the last one—the cogwheel encased in concrete—needs no less than two trillion years With his "Machine with Concrete," Arthur Ganson reminds those partaking of it that the human being is the only creature on Earth to build machines that (are meant to) outlive their creator. And that the world, despite its purportedly fast-moving pace, changes very, very slowly.

### Margot's Other Cat / Arthur Ganson (US)

"Astronauts on the Moon" is ones first impression upon beholding "Margot's Other Cat." Yet the external appearance of this installation gives no hint at all of outer space. It consists of a small model cat and a miniature chair attached to the end of an approximately 30-centimeterlong aluminum tube. Pushed to the left or right, the cat repeatedly bumps against the chair, which makes the chair fly through the air in a high arc. But somehow as a delayed reaction. In "Margot's Other Cat," Ganson seemingly deactivates the laws of nature—here, Earth's gravitational field.

Arthur Ganson is one of the best-know creators of kinetic sculptures. He was born in 1955 in Hartford, Connecticut and studied at the University of New Hampshire. He has exhibited his works at the Massachusetts Institute of Technology and at museums and galleries throughout the world. His "Machine with Concrete" brought him international renown.

#### Absolut Quartet / Jeff Lieberman, Dan Paluska (both US)

"Absolut Quartet" was inspired by the tradition of musical automatons. This six-meter-long installation made a name for itself with an appearance in a commercial for Absolut Vodka. "Absolut Quartet" consists of three robotic musical instruments; completing the foursome is an installation visitor, who prescribes the musical motif. Software developed in collaboration with composers uses this sequence as a point of departure for the computation of a three-minute piece. Here, the user-input sounds don't serve as a melody; instead, they're interpreted as a set of rules. Finally, the piece is performed by a robot orchestra. A marimba is played by firing balls with incredible accuracy from several meters away at the instrument's five-centimeter-wide wooden bars; 42 robot arms and a hundred rubber balls keep the sounds coming. Harmonies are provided by a wineglass organ whose 35 hand-made glasses are played by high-tech robot fingers covered by rawhide tips soaked in a special solution that displays the same properties as water but doesn't evaporate. The rhythm is delivered by a percussion section consisting of a djembe, a cajon and various basins. The theme of Jeff Lieberman and Dan Paluska's "Absolut Quartet" is human-machine interaction.

Jeff Lieberman is a gifted all-rounder: moderator, actor, musician and artist. He's fluent in more than 12 computer languages and familiar with the operating system of every computer



made since 1983. Dan Paluska studied robotics at the Massachusetts Institute of Technology and carried out a wide array of research projects having to do with mobile robots. In his collaborations with numerous artists, he has employed kinetic machines as well as a variety of other media. Lieberman and Paluska were honored with an Award of Distinction in the 2008 Prix Ars Electronica's Interactive Art category for "Absolut Quartet."

### Nemo Observatorium / Lawrence Malstaf (BE)

Belgian artist Lawrence Malstaf will unleash a cyclone right in the middle of Automobil Forum. Rousing and hypnotizing at the same time, "Nemo Observatorium" puts installation visitors under its spell. Using five fans and a walk-through PVC cylinder, Lawrence Malstaf creates a localized tornado in which the installation visitor occupies the eye of the storm. Nevertheless, the effect is incredibly calming. The chaotic spectacle suddenly becomes a uniform, almost hypnotic sensory impression.

Lawrence Malstaf was honored with a 2009 Golden Nica in the Prix Ars Electronica's Interactive Art category. The Belgian artist began his career by studying industrial design and then worked in the theater. His efforts evoke multi-sensory physical experiences that are by no means limited to the audiovisual. His current work occupies a place at the nexus of design and stage set design.

### Drawn / Zachary Lieberman (US)

"drawn" awakens pen-and-ink sketches to life. Freed from the paper on which they were created, the lines and forms can be animated via the installation visitor's hand movements. "drawn" is, to some extent, an update of the "blitz sketches" technique used by filmmakers to animate individual images in order to create the illusion of a drawn figure running off a piece of paper. Specially developed software augments a video signal in real time and generates a seamless, organic and almost magical world of spontaneous and improvised performances via hand and ink.

Zachary Lieberman's works utilize technology in a playful and puzzling way to thus approach the essence of communication and to shift the boundary between the visible and the invisible. Lieberman is an alumnus of stints at the Ars Electronica Futurelab, Eyebeam and the Dance Theatre Workshop, where he encountered the possibilities afforded by technology in conjunction with the choreographic process.

#### Perfect Time / h.o. (JP)

"Perfect Time" focuses on time itself, its inexorable passage, its presence and its transience. A "wall" of trickling sand forms a flat surface onto which multicolored images are projected. If the sand runs out, they disappear. If an installation visitor tries to touch them, they dissolve. Visitors thus become active protagonists—without their participation, the virtual world remains a hidden realm.

h.o. is a Tokyo-based international artists' group whose 14 members bring mutually complementary skills to the collaborative process. Their concept art is a mix of media art and digital techniques. Their name is derived from the chemical symbol for water, H<sub>2</sub>O. The



centerpiece of the group's work is an interest in various forms of interpersonal communication and critique of a society that concentrates strictly on information. The members are Hideaki Ogawa, Satoshi Onodera, Shota Ishimura, Sakura Toyabe, Tomonori Kondo, Yukiko Okamura, Kaori Honda, Yuichi Tamagawa, Mizuya Sato, Yoko Minagawa, Yuichiro Haraguchi, Emiko Ogawa, Junichi Yura, Taizo Zushi and Ayano Urabe.

#### Garden / Kohei Asano (JP)

Poetic, playful and fleeting—Kohei Asano's "Garden" is a virtual one. It blooms only as long as visitors in the installation space keep tossing confetti into the air. The more they throw and the faster they do so, the prettier, more luxuriant and more colorful the garden gets. Celestial sounds underscore the dreamy effect as the floor of the installation space morphs into a carpet of blossoms.

Kohei Asano studied art at the Tokyo Institute of Polytechnics. He prefers to describe his works with three words: communication, community and computer-interaction. His installations always call for those partaking of them to get actively involved—painting, dancing or singing. What is of particular importance to him is that strangers viewing his works come together and, for a brief time, develop a feeling of community.

### Spacequatica / The Sancho Plan (UK)

"Spacequatica" invites you on a journey of discovery like you've never experienced before. Imaginary 3D underwater worlds teeming with robot sharks and other exotic creatures form the visual backdrops of musical adventures during which the user navigates via drum pad.

In their audiovisual media works, the artists' group named The Sancho Plan investigates realtime interaction between music and video, and the artistic potential of this coupling. Via a well-coordinated combination of animation, sound, music and technology, the artists conjure up fantastic worlds in which animated musical figures are activated by electronic drum pads.

#### Flow 5.0 / Daan Roosegaarde (NL)

"Flow 5.0" is an interactive landscape made up of hundreds of fans that react to sounds and movements. As they pass by, installation visitors interact with the fans and thereby create landscapes full of transparency and artificial wind. Through the installation's interactive power, visitors experience themselves as a collective part of a dynamic interplay with space and technology.

Studio Roosegaarde undertakes encounters with interactive art that explores the dynamic relationship among architecture, human beings and technology. Frequently located in public spaces, these installations let visitors blend with their surroundings and become a unitary whole. Founder and creative director Daan Roosegaarde lives and works in Rotterdam. His works have appeared at such leading museums as the Victoria & Albert Museum and the Tate Modern in London and the National Art Museum in Tokyo.



### The Inherent Beauty in a Failed Attempt to Reconstruct / Jonathan Schipper (US)

The evidently most important moments of life are nowadays banished to video where, via REWIND button, they can be viewed over and over again. In this sense, birth and death seem to be separated only by the push of a button on a video recorder. Jonathan Schipper's ironic and fascinatingly beautiful installation captures the moment at which a teacup crashes to the floor and breaks into hundreds of shards. Computer-controlled robot arms enable the viewer to stop the action, to rewind and advance the tape, and to observe what occurred from various points of view. Nevertheless, the cup will never return to the way it was before its collision with the floor. In reality, once something is destroyed, it can't be reconstructed.

Jonathan Schipper's works are frequently destructive. They remind us that natural systems are as complicated as they are sensitive; accordingly, it's no simple matter to reproduce them once they've been destroyed. Schipper studied in San Francisco and Maryland. He has exhibited his works at leading galleries worldwide.