Kunsthalle Wien

Museumsquartier

THE PROMISE OF TOTAL AUTO-MATION

11/3 – 29/5 2016

Booklet #Automation

www.kunsthallewien.at

The Promise of Total Automation

The exhibition *The Promise of Total Automation* investigates the fascination for automation. The allure of an automated life not only sustains production, communication and control of finance capitalism, but also feeds alternative dreams and utopias that plead for an ecological relation between human, technology and nature. On the basis of divergent theories, faiths and visions, the artists invited the audience to develop their own take on the topic.

How did the technical system in which we live become what it is? Does an increasing level of automation create an obstacle for the free individuation of the subject, to humanity's political and emotional agency? What about a subject no longer in need of labour, no longer in need of responsibility and self-reflexivity, living in an over-monitored loving environment? Have objects, originally designed to satisfy our desires, by now enslaved us – or will they enslave us in the end? Or: do they simply open new ways of thinking, creating and configuring things culturally, politically and socially that we have yet to explore? Will the faith in "things" and technical objects constitute an authentic and emancipative rupture with the anthropocentric and capitalist tradition, or will it only reinforce this for the sake of capital, and the few; for the sake of the data-colonisation of mind and space?

The artists in the show adopt the notion of a post-human community, consisting of interdependent objects, technologies and beings, as the point of departure for their investigations about desire, affect and imagination, about aesthetics, ethics, knowledge transmission and political responsibility. Production machines, technical objects, images and artworks populate the space, coming from the archaeology of the digital age as well as from fantasies of a technological future.

The "promise of total automation" was the battle-cry of Fordism, the techno-medial apparatus its weapon. However, automation cannot be reduced to an economic-productive process: it is also a sociocultural one. Critiquing its instrumentalisation for the rationalisation of minds and bodies, the exhibition envisions the prospect of automation as an agent of new forms of subjectivities which nourish radical imagination and challenge a new political ecology of things.

Athanasios Argianas

* 1976 in Athens, lives in Athens

Silence Breakers, Silence Shapers (Aberrations on Percussion) No. 9, 2015,
© Athanasios Argianas, Courtesy Aanant & Zoo, Berlin, Photo: Stefan Hähnel

Song Machine No. 7, 2007
Aluminium, Miranti wood, string,
180 x 110 x 110 cm

Collection of Daman Sanders and courtesy of the artist

Silence Breakers, Silence Shapers (Aberrations on Percussion) No. 9, 2015
Electroformed copper, electroformed brass-plated copper, mussel shells, cast bronze, ceramic tiles, fired ceramic, laser-etched finger cymbals, 95 x 400 x 100 cm

Commissioned by NEON Foundation for Culture and Development
D. Daskalopoulos

Athanasios Argianas's work bridges languages, kingdoms and bodies. Language can be written, sung, or translated into musical notation. The animal and mineral kingdoms fluidly move towards one another. A bodily presence, even in absentia, runs throughout the works. Argianas makes objects that can be used for performances that in turn produce data with which to define the shape of future objects. The never-ending production of new connections initiated by the artist during the process of creation is carried forward by the visitors, who are invited to survey and navigate the works not only with their eyes but often with their fingers as well, undertaking a physical and mental journey through a series of milestones the artist has positioned in space.

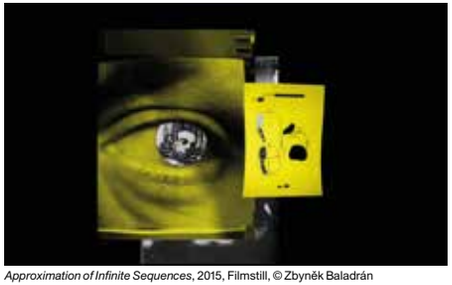
Silence Breakers, Silence Shapers (Aberrations on Percussion) No. 9 consists of a clinically white, L-shaped tiled bench/wall on which a series of oyster shells (some of them natural and others cast in brass), metal cylinders, copper hats and finger cymbals have been placed, their scraggy, iridescent surfaces offsetting their spare support. Each object seems to be awaiting activation. The finger cymbals are engraved with poetic instructions such as "Scrape the ground with this disc, make a sound with your wrist". Reading the words on these small instruments awakens a sense of synaesthesia, an anticipation of the sound of metal clattering across the ceramic surface yet to occur. The structure supports and nourishes the objects: it is only when they are tapped on its white, resonant surface that the work is performed and they come to life. In this sense, it functions like an open, alterable musical score that visitors are invited to navigate through, symbolically and physically, and whose notational configuration they are permitted (and expected) to change.

Song Machine No. 7 is a wood and aluminium sculpture, a hybrid, elegant and precisely handcrafted piece of furniture with an industrial touch. As a machine, it generates meaning, content and body movement. As a sculpture, it combines different styles and densities and materialises multiple ways of occupying space and appropriating the history of forms. The lyrical phrases embodied or engraved on the sculptural forms of Argianas's song machines suggest analogues for a music that unfolds in space, leaving viewers to wend their way along a series of objects, read, and perhaps inwardly hear something. The sculpture articulates its own song in space. Everything is fluid and can be infinitely recomposed and appropriated. Nothing is fixed. Everything is a device or a score: free to be interpreted, freed from any determinism.

"We often have to create parables or myths to understand concepts that are not intuitively graspable within the power and conventions of language. They become metaphors we use as tools like shadows in a cave. The most radical ideas of this century – those that completely overturn our perceptions of the world – usually come from physics. Surely, it's an uncomfortable situation to deal with: the idea that you're not going to have finite answers, that everything is an approximation of something else, and that there are no certainties. I try to keep my choices open outside of myself – to let other factors decide for me – and to embrace contingency." (Athanasios Argianas)

Zbyněk Baladrán

* 1973 in Prague, lives in Prague



Approximation of Infinite Sequences, 2015, Filmstill, © Zbyněk Baladrán

Approximation of Infinite Sequences, 2015
HD video, sound, 6:29 min.

Automated Subject, 2016
Paper, aluminium, Plexiglas, nylon strings, 400 x 500 cm

Courtesy of the artist

Zbyněk Baladrán uses films, diagrams, drawings and texts to create diverse systems for representing knowledge. He uses these forms to make concepts and ideas more sensorially accessible and as a means of fusing philosophical questions with poetic and visual modes of transmission. Many of Baladrán's works are infused with the inner resistance and doubts of a generation that lived through the historical, political and social upheavals that convulsed former Soviet bloc countries in the wake of the events of 1989. Using minimal resources in a decidedly do-it-yourself fashion, the artist constructs new works out of images he appropriates from the monotonous and indifferent flow of the media stream.

Approximation of Infinite Sequences is a video work encased in a peep box. Somewhat reminiscent of a conference presentation or a tutorial interface, it offers a methodical presentation of a series of yellow documents, parts of which have been blacked out and excerpts of which are read aloud by a female voice. The reinterpreted and mounted documents – which have been drawn from public sources – appear to constitute an incomplete archive of forensic research concerning the execution of a stranger (an alien) who has illegally gained access to an offshore industrial platform with the intention to spy. The plot is inspired by Stanislaw Lem's 1959 novel *Eden*, which weaves a tale of the accidental landing of a research rocket on an alien planet and the resulting frictions between the human crew and the native population. This socio-fictional documentary consolidates the conviction that human beings are incapable of thinking beyond a same/other dichotomy and hence trapped in a paradigm of exclusion based on difference and unable to escape anthropocentrism. Normality is the zero-degree of difference.

Automated Subject is a new work created for this exhibition. Loosely based on experiments and projections of the future that Stanislaw Lem and Andrei Platonov developed in their Science Fiction novels, it offers a speculative look at the possibilities of altering, extending or denying the very idea of subjectivity. Human subjectivity has no relevance in the future world these authors depict; humans continue to exist, but the agent of consciousness has been displaced in a broader cosmic and technologised context, as is the case of the vortex in Lem's *Solaris*. Automation is seen as a process of emancipation that radically transforms subjectivity. What the artist has constructed is not an illustration of existing philosophical ideas but rather a weird combination, modulation and appropriation of them intended to address the meaning of automation in the field of consciousness. It is not only about a possible non-dystopian future, but also about the past and the present. The installation consists of a ribbon-like sculpture made of pieces of paper that meanders through the exhibition space at eye level. Visitors are transformed into active readers, forced to continually crane their necks and step backwards and forwards in order to grasp the meaning of the words and images printed on this paper trail.

Like a line of thought the artist seeks to make tangible, the installation is a sort of mental diagram, a labyrinthine cartography made up of superpositions that deliberately splinter, fragment and perforate the artist's discourse.

Thomas Bayrle

* 1937 in Berlin, lives in Frankfurt am Main

Conducteur Galaxi Wiper, 2012/2013, Installation view: Espace Louis Vuitton Tokyo, 2013, © BILDRECHT GmbH Wien, Courtesy Galerie Barbara Weiss, Berlin

Kleiner koreanischer Wiper, 2012
Windshield wiper, two speakers, amplifier, sound, 132 x 80 x 60 cm
Sound collage: Bernhard Schreiner
Sound material: Sunah Choi
Design: Peter Bayrle

Courtesy of the artist and the Barbara Weiss Gallery, Berlin

Thomas Bayrle's work takes an intense look at the aesthetics of machine-driven production. Trained as a weaver and graphic designer, he started designing computer-generated images in the 1970s and used the principle of seriality to hold up a mirror to postwar consumer culture.

His art explores the organizational laws governing individuals and mass society, most notably in his silkscreen prints. For Bayrle, growth and speed, production and consumption, constitute elementary principles defining the present age. He takes a critical look at them, all the while, as a consumer, he also participates in the world they define. His machine-fragments feature running engines as metaphoric stand-ins for the rhythm of life characterizing modern large-scale societies, while also revealing our fascination with technology-driven, functional aesthetics. His "Kleiner koreanischer Scheibenwischer" (small Korean windshield wiper) runs to the tune of a sound collage. The sound material for this track was recorded in several churches in the city of Busan. The sound orchestrates the movement of the wiper blades, which are hooked up to an electrical motor: this is how the critique of automobilization rises to the level of a mechanical ballet turned sacred object.

"The interior of engines resembles the magnificence of cathedrals, because the absolute efficiency governing the inner workings of such machines is just as magnificent as the nave of a Gothic cathedral." (Thomas Bayrle)

James Benning

* 1942 in Milwaukee, lives in Val Verde

Stemple Pass, 2012, Videostill, © James Benning, Courtesy neugerriemschneider, Berlin

Stemple Pass, 2012
HD Video, sound, 121 min.

Pascal's Lemma (After Warhol), 1984/2014
Video, sound, 17 min., computer, desk, chair, silkscreen print on paper, 66 x 71.1 cm

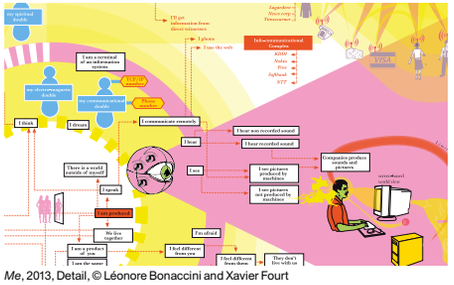
Courtesy of the artist and neugerriemschneider, Berlin

James Benning examines the friction between technophilia and technophobia. As a result of their tension, the moral categories of good and evil have shifted. In this framework, the American filmmaker has been reflecting on Ted Kaczynski, the so-called Unabomber, for quite some time. Kaczynski, a mathematician who lived by himself in a cabin in the woods, was a devoted believer in a nature-centric form of anarchism. From 1978 to 1995, he mailed a total of 16 letter bombs to various people in the United States, causing the death of 3 people and injuring another 23. Before his identity was discovered, the FBI called him the "Unabomber" (university and airline bomber), since he addressed his letter bombs mostly to university professors and executive board members of airline companies. In June 1995, Kaczynski submitted an anonymous and lengthy manifesto to the *New York Times* and the *Washington Post.* It was entitled *Industrial Society and Its Future* and contained an offer to put a stop to the bombings if the papers published his text. On September 19, 1995, both papers did so. In his manifesto, Kaczynkl explains why the ongoing rise of technology in our society should be brought to a speedy end. Henceforth, he proposes, technology should only be used to hasten our break away from a system that only serves powerful elites who use socially sanctioned technology to exert influence on every single citizen. The video *Stemple Pass* shows a reconstruction of the cabin in the woods, where Kaczynski lived for many years. Four landscape shots, lasting 30 minutes each, feature the changing seasons at the spot in Montana where the Unabomber took refuge and penned his manifesto against "technological society".

Pascal's Lemma is another video by James Benning. It shows him typing a text on his old computer where the words are slow to appear on the screen: "Excuse this interruption … I'm breaking into this program from another computer. Don't you see what's going on? … Think for once; you're being manipulated. Brainwashed. This is truly evil stuff. Get up and leave." It looks like Kaczynski's paranoia concerning technology has taken hold of Benning as well. The computerized textual and pictorial material, however, expands still further and includes: Blaise Pascal's writings on mathematics and faith, the longest numerical approximation to *pi*, the news of November 9, 1984, and so on and so forth. Feeding data into the computer, coding and decoding information – such activities here create their own, seemingly closed, system. Linked to a silkscreen print by Andy Warhol that shows the electric chair, the phenomenon of electronic data processing (still considered new and progressive at the time the video was made) comes to acquire a dystopian aura. However, other visual works by Warhol that are part of the material appearing on the computer screen point out more positive aspects of digitalization and the global circulation of information that it entails.

Bureau d'études

* 2002 in Paris, live in Saint-Menoux en Allier



Me, 2013, Detail, © Léonore Bonaccini and Xavier Fourt

Atlas of Agendas - Mapping the Power, Mapping the Commons, 2016
Me, 2013
Market Policies, 2013
Electro-Magnetic Propaganda, 2010
The Eighth Sphere, 2010
Animal and Vegetable Programming, 2006
Government of the Agro-Industrial System, 2006
Print on PVC foam plate, each 80 x 60 cm

Pictographic Grammar, 2015
Print on PVC foam plate, 42 x 29.7 cm

Courtesy of the artists

Paris-based artists Léonore Bonaccini and Xavier Fourt work together under the name Bureau d´études. For the last several years, the group has been producing cartographies of contemporary political, social and economic systems intended to help people to inform, reposition and empower themselves. Their visual analyses of transnational capitalism, which are usually presented in the format of large murals, are based on extensive research. By revealing what normally remains invisible and contextualising apparently disparate elements within new frameworks, this duo's visualisations of covert interests and ententes re-articulate the dominant symbolic order and actualise existing structures that would otherwise remain concealed and unknown.

"Having massively invaded all spheres of society, information science and technology, with its biological and chemical prolongations, is now giving rise to a total 'governmentality' that does not only contradict the spirit of the Enlightenment by concentrating and augmenting the power of domination exerted by a global aristocracy, but also suppresses the very possibility of Enlightenment. The level of bio- and psycho-political management allowed by information science and technology and the level of systemic integration that they make possible suggest that a political autonomy or constituent power today, whatever its nature, can only become critical by segmenting the infosphere, developing non-capitalist markets and setting up revocable hierarchies. The supranational power exerted over the planet and the species by a caste actively working toward its own immortality is reinforced and multiplied by integrated technological systems that facilitate the analysis of complexity, increasing the capacity for the accumulation of capital, augmenting the capacities of action on information-reality, and even paving the way for the administration of future 'human resources' via genetic sorting and non-mammalian reproduction.

If what is fundamentally at stake for humanity is making history, and if this capacity is paradoxically reduced by the development of technological systems, then the segmentation of these systems and the limitation of productive and normative interdependencies would appear to be the precondition of today's politics. Social democracy is entirely contained within the proposition that workers or employees should not destroy the instruments of production and that everything is essentially a matter of changing their use or style of management. Social democracy is finished. By reinforcing dependencies, normalised and normalising technological systems have destroyed any form of autonomy possible. They have reinforced the powers of control, standardisation and transformation of populations. What is at stake today is the (re)creation of sovereign autonomies outside planned futures, outside psycho-politics as staged in the media in every corner of the world, outside salaried labour depending on the worldwide organisation of production or globalised commercial and financial circuits." (Bureau d'études, 2005)

Arthur Gotthilf Robert Burkhardt

* 1857 in Apolda, Germany, † 1918 in Glashütte, Germany

Staffelwalzenmaschine Burkhardt Arithmometer, ca. 1880 - 1900, Courtesy Technisches Museum Wien (Vienna Technical Museum)

Burkhardt Arithmometer, ca. 1880–1900
Wood, brass, 59 x 9 x 19 cm

Loan Technisches Museum Wien
(Vienna Technical Museum)

The arithmometer is an early mechanical calculator invented by Frenchman Charles-Xavier Thomas de Colmar (1785–1870) for which a patent was granted in 1820. As a director of two Parisian insurance companies, Thomas developed the machine with an eye to saving time and enhancing productivity at a time when banks and insurance companies were being called upon to make an exponentially rising number of calculations in the course of their business. Based upon a stepped cylinder mechanism, the machine could perform all four basic mathematical calculations (addition, subtraction, multiplication and division) but also featured a multiplication gear that facilitated more complicated calculations. The device was so commercially successful that Thomas de Colmar became a manufacturer.

Following the expiration of Thomas de Colmar's patent, a similar machine known as the *Burkhardt Arithmometer* was produced in Glashütte by the first manufacturer to specialise in the production of calculating machines in Germany. Despite the similarity of numerous arithmometers developed in terms of size and outward appearance, their internal design varied substantially, in part due to manufacturers' efforts to redefine the character of the machine and thus its possible market. When Burkhardt visited the *World's Columbian Exposition* in Chicago in 1893 he was able to boast that his firm had supplied over 500 machines to customers all around the world. However as far back as 1867, the mathematician Frederick A. P. Barnard had been so impressed by a model produced by Thomas that he saw on display at the *Exposition Universelle* in Paris that he purchased one for his office at Columbia University. By 1900, calculating machines were no longer considered magical wonders; they were being produced on industrial scales: ever since, everyone from payroll clerks to business students, statisticians, government officials, engineers and scientists have used these machines as tools.

Steven Claydon

* 1969 in London, lives in London

Orion (prepared spinet), 2012, © Steven Claydon, Courtesy Sadie Coles HQ, London, Photo: Prudence Cuming

Orion (prepared spinet), 2012
Laminated plywood, inlaid composite, bamboo, barley straw, powder coated aluminium, polyurethane foam, powder coated steel, 155 x 158 x 79 cm

Antenna, 2015
Resin, steel, gold plated copper, 372 x 150 x 150 cm

detector herm assembly, 2016
Circuit boards, electronic components, meteorite, 120 x 50 x 1 cm

Courtesy of the artist and Sadie Coles HQ, London

Steven Claydon's work encompasses a broad range of media. His practice explores issues of materiality and mutability and often focuses on cultural artefacts and their shifting interpretations over time. The three sculptural 'hybrids' included in this exhibition all function as highly charged vehicles of information. Heavy with references to both the essential, material nature of the object in question and its social agency, they attest to their maker's interest in associative methodology. Claydon creates amalgamations of things that take on extensive new languages of signification and performative functions. His sculptural work often focuses on particular technologies and styles, prescribing obscure or mystical allegorical narratives. The artist takes a similar approach to his audio works. He has been involved in experimental electronic music for many years, most notably as a member of bands such as Long Meg, Jack to Jack (with Mark Leckey) and Add N to X.

Orion (prepared spinet) is based on a hollow replica of an English bentside spinet. The spinet is a smaller version of a harpsichord – a musical instrument whose defining feature is the keyboard. The definitive element is missing, the keys replaced with barley straw, and the machinery inside which produces sound absent. Another recreation of a reed flute stands inside, however it too does not serve to satisfy it's assumed agency to produce music, instead it props the lid of the functionless spinet. By playing with functionality Claydon deliberately aims to deconstruct conventional systems of nomenclature or automatic processes of classification. Claydon's oeuvre evokes a web of connections through unorthodox correlations and unexpected equivalences.

Antenna is at once a telegraph-style post, totem pole, artificial tree, radio mast, battered beam and assemblage of readymade and found components. The assorted technical elements and parts affixed to it resemble satellites. The work embodies the artist's longstanding interest in the ways that South Pacific indigenous societies have fetishised manufactured commodities cast off or lost by colonisers and integrated them into their own mythologies. Referred to as a 'cargo cult', many anthropologists have interpreted this practice as a form of resistance to acculturation. The unfamiliar products these people came into contact with under colonial rule, particularly during the 1930s and 1940s when they became first-hand witnesses to a war between technologically advanced nations, were perceived as possessing spiritual qualities. Claydon appropriates and channels this tradition to his own ends, creating an occult or superstitious repository of devices associated with the attainment of knowledge and scientific measurement.

The motif of gold in *Antenna* alludes to the scientific and anthropological histories of the metal. Associations conjured up by the title of the work strip the metal of its everyday commercial connotations and hint at its role in satellite, space and electrical technology as a material used in circuitry and the preparation of specimens for scanning electron microscopy. Claydon's use of gold-plated copper and resin reflects his fascination with alchemy and the significant contribution alchemists made to early modern science in their quest to transmute certain elements and materials into this precious metal. *detector herm assembly* is a new work created specifically for the exhibition that makes reference to both the world's largest particle physics lab (located in the European Organisation for Nuclear

Research, CERN) and Pre-Columbian gold artefacts. It features an abstract torso or figure, bearing what seems to be head, face or mask, incorporating a series of plaques that evoke the artist's source of inspiration. Particle detectors function to observe and record the results of particle acceleration experiments. Accelerators such as the Large Hadron Collider (the world's largest and most powerful particle collider) are equipped with superconducting electromagnets that boost beams of particles at high energies to collide, essentially to study fundamental particles – the basic constituents of matter – and the forces between them. The form of this piece also recalls ancient Greek herm statuary. A herm is an upright, quadrangular stone votive sculpture that may feature a head and phallus. Such objects, whose name refers to Hermes, a god associated with fertility and transitions, were often placed along paths and roads in ancient Greece, especially at points at which they diverged. The metaphors of divergent pathways and colliding particles that Claydon sets up are keys to a deeper understanding of his artworks, which are conceived to generate multiple associations and significations. The 18th century French physician and materialist philosopher Julien Offray de La Mettrie is another of the artist's major points of reference. La Mettrie was the author of *L'homme machine* (Man a Machine), a work in which he applied a machine metaphor to humans that Descartes had used earlier in relation to animals. This book, which was published in 1748, had a significant impact on materialist Enlightenment thinking. An emancipatory expression of atheism and materialism, it asserted that the human body and soul are instances of the same substance and the soul was but a modality of matter.

Claydon fuses a host of diverse materials and ideas into composite objects that invite a seemingly infinite number of readings whilst intimating the emancipatory role of technology.

Tyler Coburn

* 1983 in New York, lives in New York

Waste Management, 2013–2015, © Tyler Coburn

Waste Management, 2013–2015
Found object (epoxy resin, CRT monitor glass and pulverized fiber optic cable from circuit boards) and text

Sabots, 2016
Two ABS shoes, 3D printed at a "lights out" factory, each 20.3 x 8.9 x 8.9 cm

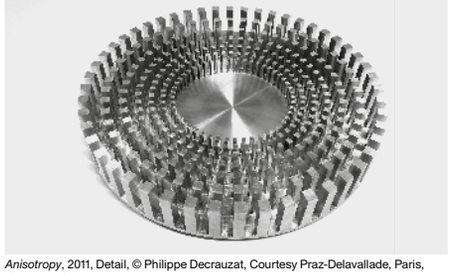
Courtesy of the artist

More electronic devices per capita are manufactured in Taiwan than anywhere else in the world. That's why Taiwan is the leader in electronic waste management and why it invests heavily in the recycling of electronic devices. Tyler Coburn's *Waste Management* is the product of a recycling process that takes the form of a work of art: two artificial stones made of epoxy resin, CRT monitor glass and pulverized fiber optic cable derived from circuit boards. Coburn presents these objects alongside a facsimile copy of the frontispiece of the story *Memoirs of a Stomach. Written by Himself, That All Who Eat May Read. With Notes, Critical and Explanatory, by a Minister of the Interior*. Copies of the facsimile are on offer to visitors. The story is a prominent example of the so-called "it-narrative" – an English literary genre of the 18th century that has objects describe the circulation of things from their own perspective. Under a banner reading "More!" there are pot roasts that circulate, along with brandy bottles and animals of all kinds – all of them objects the stomach has had to deal with. This satirical image of gluttony simultaneously speaks to our contemporary consumption of electronic devices and their recycling.

A second piece by Coburn (*Sabots*) consists of a pair of wooden slippers made with a 3D printer. It alludes to the strategy of sabotage. In *The Practice of Everyday Life*, Michel de Certeau defines sabotage as one of the best resistance tactics against any form of hegemony, thus blazing the trail for sabotage as a privileged form of protest art. The word "sabotage" is of French origin and derives from *sabot* (= wooden shoe). Its current meaning goes back to the throwing of wooden shoes into a machine (to destroy it or make it inoperable) or to "travailler à coups de sabots" (to work as though wearing clogs = slowly, leisurely).
The latter, signifying refusal or passive resistance, also belongs to the spectrum of sabotage – just as much as the intended destruction of the machines of production.

Philippe Decrauzat

* 1974 in Lausanne, lives in Paris



Anisotropy, 2011, Detail, © Philippe Decrauzat, Courtesy Praz-Delavallade, Paris, Photo: Martin Argyroglo

Table, 2015
Wood, 78 x 216 x 99 cm

Anisotropy, Sculpture, 2011
Aluminium, Ø 50 cm

Courtesy of the artist and Gallery Parra Romero, Madrid and Ibiza, and Praz-Delavallade, Paris

Anisotropy, 2014
Screening performance with Alan Licht, 40 min.

Courtesy of the artist

Philippe Decrauzat frequently incorporates geometrical compositions into his works of art. The influence of Op art and Kineticism is clearly present in his paintings, films, installations, drawings and sculptures. His works still cannot be reduced to these lines of inquiry. Like much of his recent work, the pieces included in the exhibition are related to the artist's explorations of motion and perception and his interest in representing illusion and the formation of movement by means of parallel waves of line and colour. The titles of the works included in this exhibition testify to his ongoing fascination with 'anisotropy', a term used in fields as diverse as physics, chemistry, mathematics, geophysics, computer graphics, medical acoustics and neuroscience to refer to the directionally dependent property of a thing or material.

Table, is at the same time a table, a sculpture, a display and a model for a stage. It was inspired by a sketch for a table by Josef Albers. Albers, who was involved in the Bauhaus movement, viewed the fusion of art and technology as a positive, dynamic design strategy for improving social welfare. He took part at the controversial 1934 *Machine Art* exhibition at the Museum of Modern Art in New York, in which machine-made, industrially manufactured objects were placed on pedestals to highlight the aesthetic merit of their modern design. He also designed the iconic cover of the catalogue for this show, which featured a close-up image of a smooth, metallic cylindrical ring of ball bearings, an object that evoked notions of movement and engineering and could be appreciated

as sculpture not only for its kinetic, abstract and geometric qualities, but also for the material which it was made of and the surface of its design.

Anisotropy, Sculpture is a free adaptation of a scientific device used in oceanographic research to analyse wave refractions. It is a concentric disk fitted with parallelepipedic rods reminding of a zoetrope, an early animation device. The device took advantage of the phenomenon of persistence of vision to create the illusion that an interior band of still, sequenced images actually moved. Decrauzat has produced a 16mm black and white film of the sculpture in motion shot from various angles that captures its rotation at different speeds. As viewers focus their perception on the moving object portrayed, the film becomes a visual mantra periodically interrupted by shifts in viewpoint and direction that initiates an interplay of absorption and exposure. The rhythm and pattern incites immersion, but its pull is intermittently broken, causing viewers to experience a fleeting sensation of vulnerability. The film, which stimulates associations with the mechanisation and automation that played a part in the development of early cinema, will be featured as a component of a performance also titled *Anisotropy* to be presented during the exhibition in Vienna. American composer, writer and guitarist Alan Licht has been invited to perform live whilst the film is being projected. His musical responses to the graphically and visually striking vortex of the film will constitute an exploration of broadcasting waves: the dynamics of transmission and reception. As with much of his oeuvre, Decrauzat revisits the realm of abstraction in *Anisotropy* as a means of facilitating new approaches to experience and exercise our senses.

The screening performance will take place on March 31, 2016 at brut Wien as part of a collaboration with the Kunsthalle Wien for the exhibition *The Promise of Total Automation.*

Harry Dodge

* 1966 in San Francisco, lives in Los Angeles

fuck me/who's sorry now (consent-not-to-be-a-single-being-series), 2015, © Harry Dodge

fuck me/who's sorry now (*consent-not-to-be-a-single-being series*), 2015
Urethane resin, plywood, paint, socks, nails, glue, Bondo, 61 x 102 x 76 cm

electric skin/rat salad (the inhuman is not what it used to be), 2015
Plaster, paint, wire, steel, alloy tubing, car paint with metallic rainbow flake, 91 x 69 x 81 cm

Courtesy of the artist

love fuzz/many mr. strange (consent-not-to-be-a-single-being series), 2015
Urethane resin, plywood, socks, nails, glue, Bondo, polyurethane rubber, 106.7 x 63.5 x 68.6 cm

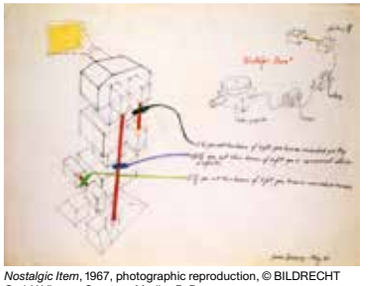
Courtesy of Beth Rudin DeWoody

Harry Dodge is interested in everything that passes through his body and the body in general, whether objects, material products, chemicals, intellectual inputs, sensations or ideologies. Dodge approaches the topics he addresses from a materialist standpoint. The body is the filter through which he raises questions regarding normalisation and individuation in today's techno-medial society. How can we give substance to our relationship in the digital era? How can a technophobe deal with the cyborg reality? What are the consequences of the flattening and dematerialisation of the real on monitors? What determines the depth of a subject, body or thought? What kind of 'other' haunts the dominant subject? Harry Dodge, like the philosopher Rosi Braidotti, asserts that 'the inhuman is not what it used to be.' Both are interested in metamorphic others and nomadic subjects that function as counterparts of the dominant white, male, heterosexual, urbanised, able-bodied subject.

The features of his sculptural creatures are curiously inverted: the front side is the back side, the torso is the head, the nose is the sex. The glossy *fuck me/who's sorry now* is one of a series of dwarf-like creatures that together constitute the artist's *consent-not-to-be-a-single-being series*. Dodge's works create a hallucinatory world where frenetic, visceral composite bodies, objects and machines, collide and are attracted to one another by desires that transcend gender and kingdoms. His creations are a snub to the cybernetic control of our 'pharmaco-pornographic era' that overtakes the body, penetrates its privacy and drives the expansion of bio-politics. "The pharmaco-pornographic regime says: No, no, you can fuck as much as you want, but be sure you take your pill. The management of subjectivity and identity is not so related to the body and the movements of the body, but much more to the very materiality of the body. The level of control has been downgraded to a molecular level. Not having sex on the pill doesn't matter because the pill is also given to improve the quality of your skin, so it becomes cosmetic. Because of the disciplinary regime, in order for you to be properly subjectified, you had to go through these architectures." (Paul Preciado, *Testo Junkie*)

Juan Downey

* 1940 in Santiago de Chile, † 1993 in New York



Nostalgic Item, 1967, photographic reproduction, © BILDRECHT GmbH Vienna, Courtesy Marilys B. Downey

Nostalgic Item, 1967
Graphite, crayon and ink on paper, 55.9 x 76.2 cm

Estate of Juan Downey courtesy of Marilys B. Downey

In the early 1960s, Juan Downey began experimenting with various forms of advanced technology – robots, radio waves, photoelectric cells – to develop interactive installations and performances. With these he wanted to make visible an energy field that is invisible to the naked eye but that nevertheless defines our physical, emotional and ideological environment. Some of his geometrical and yet strangely anthropomorphic sculptures are fitted with sensors that translate energy sources like heat or radio waves into sounds that are then broadcast into space. Such (in the broadest sense of the word) "cybernetic" sculptures visualize systemic feedback loops, thereby beginning to hint at the potential of a networked world. Later on, Downey experimented with dance and the new medium of video, a vehicle that brought more to the fore the way humans interact with energy

systems. *Energy Fields* (1972) shows dancers who are jumping, lying flat on the floor or sitting on the shoulders of their partners. Their bodies are supposed to break up the field of electromagnetic waves, produce acoustic impulses and, beyond that, survey the limits of the invisible network of waves that saturate space.

The drawing *Nostalgic Item* is a study for the eponymous sculpture. The robot-like figure features three distinct beams of light. Whenever a spectator passes his or her hand through one of these beams, a circuit is triggered. Depending upon the beam he or she has interrupted, one of three things occurs: a) A slide projector projects images on the wall. b) The spectator hears recorded music. c) The spectator hears a voice reciting poetry. Formally, the work draws on a simple, almost quaint model of aesthetics, while its internal workings subordinate modern technology to an advanced form of interactivity with the audience, liberating the function of passive observation.

Richard Eier

* 1935 in Vienna, lives in Vienna

Cybernetic Model Eier: Mouse in the Maze, 1956, Courtesy Technisches Museum Wien (Vienna Technical Museum)

Cybernetic Model Eier: Mouse in the Maze, ca. 1956
108.5 x 110.5 x 102.5 cm
Loan Technisches Museum Wien (Vienna Technical Museum)

Today, cybernetics is a familiar word. Fifty years ago, however, when Norbert Wiener published his book *Cybernetics* in 1948, at most only a few specialists had heard of it. Wiener defines cybernetics in the extended title of his book: *Communication and Control in the Animal and in the Machine.* The term cybernetics comes from the Greek word for steersman, *kybernetes*, which becomes *gubernator* in Latin and *governor* in English. What does a steersman do who wants to safely maneuver his vessel to port? He doesn't follow a set plan, but always varies it. He tries to correct errors. At every moment he corrects deviations in relation to the envisaged target. As such, steering the rudder, a cause, produces an effect: a course correction. This effect turns into another cause because there's a new course deviation – which, in turn, produces an effect, namely another course correction.

In 1952, Claude E. Shannon, an American engineer, mathematician and the founder of statistical information theory, built the first model for automatic control systems. In 1956, Viennese computer engineer, Richard Eier built a cybernetic model called the "Mouse in the Maze," which uses a search algorithm and is based on the model of Ariadne's thread. In Greek mythology, the architect Daedalus gives Ariadne a thread, which Theseus uses to find his way to the Minotaur in the labyrinth and back. If there's no thread, then he hadn't been there yet. If there is, it means he is on the right path. If there's a double thread, it means it's a dead end. If three threads meet, it's a circular path. In Richard Eier's model, two two-bit memory units replace the thread. The memory unit for each labyrinth field retains one of the following four options: (0) field not entered; (1) there is a thread – the field lies on the path from entrance to goal; (2) there are two threads – it's a dead end; (3) three threads come together, signifying a loop. Richard Eier supervised the Viennese device into the 1980s.

Cécile B. Evans

* 1983 in The Hague, lives in London

How happy a Thing Can Be, 2014, Videostill, © Cécile B. Evans, Courtesy Radar/ LUA, Wysing Arts Center, Cambridge

How Happy a Thing Can Be, 2014
Plaster, 3D print, wax, 2-channel HD video, sound 9:30 min, Dimensions variable

Courtesy of the artist and Barbara Seiler, Zurich

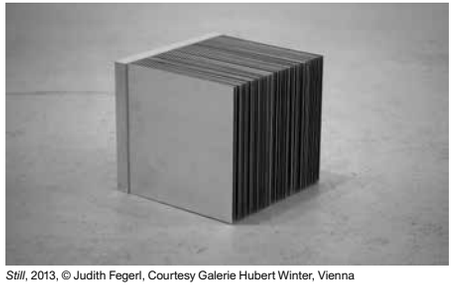
Cécile B. Evans is interested in human emotions, particularly in the context of contemporary life and technology. She uses sculpture, performance, video, collage and computer programming to explore and question the boundaries between the real and the virtual, the physical and the digital. Her work is social and cultural inquiry made palpable, a mining of a host of new age trends and developments that also looks back to the historical past. It makes visible the impact that the Internet has on our relationships with specific objects as well as our perception of space, the body and our environment.

The installation *How Happy a Thing Can Be* was created in the context of 'Product Pleasure', a research project on product perception carried out at Loughborough University. The everyday personal tools that figure prominently in this piece were picked by the artist from a study conducted in 2003 of objects that people reported as being especially emotionally attached to. We register not only the visual appearance of the objects in Evan's installation, but other qualities trigger recognition such as weight, surface texture and tactility. Their smooth surfaces reflect the precision of the 3D printing process used to create them. The protagonists of *How Happy a Thing Can Be* are physical and digital avatars of a pair of scissors, a screwdriver, and a comb – familiar, functional, personal tools. They are also handheld devices that often act and are felt as extensions of the human hand. How do humans feel about such things? Are they merely serviceable objects or are they, like us, capable of having meaningful emotional and sensorial experiences? The manufactured objects the artist has worked with in this piece stand out for their relative immunity to the programmed obsolescence, updates and upgrades that tools are normally subject to. Moreover, they embody a long history of gestures repeated over generations by the people who have used, produced and perfected them.

In Evans's video, these three objects co-exist and live as humans do: they walk, bleed, scream and go to bed in a world in which human beings are absent. Nevertheless, to judge from their complaints (we serve as a thing or die into a thing . . .), they seem to be the victims of human domination over the environment. The word 'faculties', which is repeatedly spelt out loud throughout the video, refers to the inherent or learned powers and abilities that characterise both humans and things. What are the faculties and powers of objects now, what will they be in the future?

Judith Fegerl

* 1977 in Vienna, lives in Vienna



Still, 2013, © Judith Fegerl, Courtesy Galerie Hubert Winter, Vienna

Amnion, #1, 2007
Machine-grown object (16 weeks), sheep's wool, paraffin, 98 x 42 x 30 cm

Amnion, #2, 2013
Machine-grown object (9 weeks), sheep's wool, paraffin, 98 x 42 x 30 cm

still, 2013
Heat-sink, aluminium, 62 fins, 30 x 32 x 28 cm

still, 2013
Heat-sink, aluminium, 31 fins, 30 x 32 x 28 cm

still, 2016
Copper, 225 bars, 30 x 30 x 30 cm

Courtesy of Gallery Hubert Winter, Vienna

Judith Fegerl creates a relationship between the organic and the inorganic that conceives of physical embodiment and objective existence not as antagonists but rather as states linked by a process. *Amnion* is a machine-grown object. A knitting machine created it above and beyond the efficiency standards of industrial engineering within several weeks. Its speed slowed to an almost imperceptible crawl, the circular knitting machine inexorably labored to produce a tubular form made of wool and paraffin. Moreover, this potentially endless stocking sat fastened and horizontally squeezed between bolted, slowly revolving flat bars made of steel whose rotation caused it to slowly transform itself into a double helix or an umbilical cord. The result of this process of production, which ignores any notion of economical time management, is an abstract-anthropomorphic organism that releases into the world immediate associations with corporeality. Like a feminist alternative to the idea of the "bachelor machine," which overcomes natural reproduction and thus, in the end, mortality as well, Fegerl's abstractedly laboring apparatus designs something that seems to have a life of its own.

Entitled *still*, three sculptures made of aluminium and copper stand in stark contrast to the previous organic object made of wool. Fegerl took metal cooling elements and replicated them – two made of aluminium, one of copper. They resemble machine-made readymades and – being objects without function – simply flaunt their industrial aesthetics. Conversely, they also remind us of minimalist art as their presence in the exhibition space integrates viewers into an imaginary coordinate system composed of objects, environment and viewers.

Melanie Gilligan

* 1979 in Toronto, lives in New York and London

The Common Sense, 2015, Videostill, © Melanie Gilligan, Courtesy Galerie Max Mayer, Dusseldorf

The Common Sense, 2015
Installation, powder-coated tubes, videos, sound, variable dimensions and duration

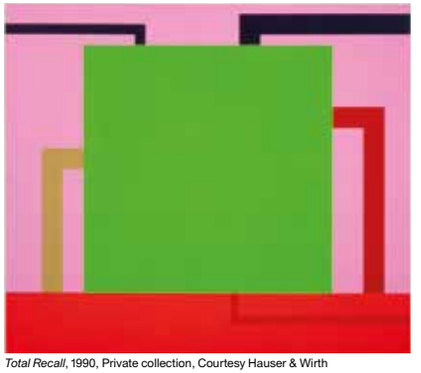
Courtesy of the artist and Galerie Max Mayer, Dusseldorf

Melanie Gilligan is an artist, writer, and filmmaker whose work offers a critical perspective on modern society that is especially evident in the disturbing dystopian film worlds she creates. *The Common Sense* is a three-part experimental sci-fi drama that exploits the conventional (and almost addictive) format of television mini-series to probe a host of contemporary issues related to life under the capitalist system and reflect on modern technology. The project conveys a canny understanding of the ways in which cutting-edge apparatuses are profoundly altering our intersubjective relations and modes of communication, as well as providing new ways of instilling market logic on unwitting consumers and workers. Inspired by feminist science fiction, recent riots, and the rise of social movements around the world in response to untenable living and labour conditions provoked by global capitalism, Gilligan explores alternative pathways to social transformation.

The axis on which the plot of *The Common Sense* turns is a future technology that enables a person to share someone else's bodily experience: in other words, to live out their emotions and physical sensations. 'The Patch' is a 'neural entrainment device' that when worn on the roof of the mouth allows the bearer to directly experience the physical sensations and feelings of another person. Like all forms of contemporary smart technologies, it is compact in size and features a sleek, minimalist surface that disguises its internal workings. At the outset of the series, the 'Patch' has existed for ten years. During that time, relations between the self and the other, the individual and the collective, and individual subjects and their means of economic survival have been radically altered. Gilligan's series questions how such changes may lead to reframing the models of collective decision-making and collective action. At one dramatic point in the story it is discovered that the widespread use of the 'Patch' has produced a biological transformation of humans' brains that changes the ways in which they use their capacities. The physical state of individual existence has been technologically remodelled. The ability to share the sensations of other people in other situations has supplanted concepts such as empathy and solidarity. Although emotions and affections still exist, they are often troubled and occasionally out of control. Drawing upon neuroscientific research, Gilligan purposefully focuses on affective states rather than other facets of human consciousness to drive home the message that the human brain cannot be reduced to a cybernetic machine.

Peter Halley

* 1953 in New York, lives in New York



Total Recall, 1990, Private collection, Courtesy Hauser & Wirth

Total Recall, 1990
Acrylic, Day-Glo paint, Roll-A-Tex on canvas, 216 x 246 cm

Private Collection. Courtesy of Hauser & Wirth

Electric Slide, 2014
Acrylic, Day-Glo paint, Roll-A-Tex on canvas, 203 x 229 cm

Courtesy of Jablonka MaruanI Mercier Gallery, Brussels

Primary Factors, 1998
Vinyl letters, 440 x 1095 cm

Courtesy of the artist

Peter Halley's large paintings of fluorescent geometric shapes are simultaneously autonomous colour field experiments, abstractions of technical networks and representations of abstract machines. When the artist began to exhibit his work in the late 1980s, abstract painting was considered to be more or less a form of decoration. Nevertheless, he persevered with the genre, consolidating his vision by incorporating references to French post-structuralist theorists who shared his concern for the nature of social spaces in a post-industrial society. Halley has succeeded in re-functionalising the formal language of abstract painting, which had been struggling to find its place for several decades. His paintings speak of isolation (cells) and networking (conduits), the essence of atomised communication in the digital era. They convert form into sign without losing their autonomy. In terms of composition, his pieces are always strikingly similar: a rectangle painted with Roll-A-Tex containing one or two smaller rectangles. The enclosed rectangles are usually divided by bars the width of standard masking tape. Another, narrower, canvas – often crossed by a horizontal bar – is attached to the bottom of the larger canvas, constituting both a symbolic base and a disruption from the rest of the painting. The conduits are often the only elements that break the symmetry of his compositions. From this reduced vocabulary of forms, Halley achieves infinite variations and associations. The presence of a single line dividing a rectangle evokes a window; multiple lines evoke the bars of a cell. All these various evocations meet: the architecture, either real or virtual, is a gateway to the world, but also a prison.

For this exhibition, Halley has created a mural based on a flowchart used by psychologists to rank people numerically on the basis of their psychological traits. Printmaking has offered the artist an opportunity to experiment outside of the rectilinear formalism of his painting and incorporate references from the outside world such as cartoon images and found graphics.

Channa Horwitz

* 1932 in Boyle Heights, Los Angeles,
† 2013 in Santa Monica

Sonakinography Composition 1,2,3 and 4, Drawing in Miniature, 1970, © Channa Horwitz, Courtesy Private collection, Berlin, Photo: Jan Brockhaus

Sonakinography Composition 1,2,3 and 4, Drawing in Miniature, 1970
Ink on green paper, 47 x 66.5 cm

Courtesy of Michael Müller, Berlin

In the late 1960s, Channa Horwitz began to develop an artistic language deliberately constrained by the simplest of rules – a strategy to which this language owes its freedom. All of her subsequent works have since been based on the numbers one through eight and on a color code assigned to each digit. The artist uses the metric of American-style graph paper to chart the factor of time as a graphic unit and movement in time as a corresponding pattern of colors. The interplay between these elements creates structures that translate relationships between time and space into abstract compositions.

Among Horwitz's best-known works are the drawings in the series *Sonakinography*. She worked on them from 1968 onwards, almost up to the point of her death, creating countless variations of the 23 compositions that make up this series. Each of these drawings can stand on its own, but they can also be read as musical or choreographic notations, thereby allowing them to be turned into a concert, a dance performance or a spatial installation. The title of the series is composed of the Greek words for sound, movement and notation. Color, lettering and geometrical elements combine to form pictorial compositions suggestive of diagrams; alternatively, they can also be understood as instructions for movements. Her schematic aesthetics may seem pared-down or reductive, and yet, behind her self-imposed confinement to a set of abstract rules lies hidden a great wealth of artistic expressivity.

Joseph-Marie Jacquard

* 1752 in Lyon, France, † 1834 in Oullins, France

Aufsatz zu Jacquard Webstuhl, um 1805, Courtesy Technisches Museum Wien (Vienna Technical Museum)

Jacquard loom attachment, ca. 1805
64 x 64 x 100 cm
Loan Technisches Museum Wien (Vienna Technical Museum)

Jean-Marie Jacquard invented the first programmable mechanical loom to employ a punch card system around 1805. Born into a family of weavers and having worked as a child in weaving workshops, he conceived his invention as a means of improving the daily lot of workers in this trade. Nevertheless, its introduction provoked a violent response on the part of weavers fearful of losing their jobs, which, in fact, this machine was about to rationalise. In 1806, the weaver's guild in Lyon instigated the organisation of a public execution in that city during which a Jacquard loom was smashed to bits and burned and threats were made against the inventor's life. Resistance in France to Jacquard's loom is only one of many instances of social unrest brought on by the incorporation of machines into production processes during the 19th century. It was only after the loom found acceptance in England that it was fully implemented in France. Jacquard's programmable loom, which was the first machine to exploit the principles of the binary system, established a separation between hardware and software and a precedent for the basic architecture of any machine processing data: the functions of a mechanism are guided by a sequence of holes punched into a card. When the pattern coded on a card changes, the machine responds accordingly. In the case of a Jacquard loom, which is equipped with hooks that control the threads used in the weaving process, whenever a hook encounters a hole, a change in the pattern of the weave is initiated. Charles Babbage, the creator of the difference machine, was greatly inspired by Jacquard's punch card system.

Geumhyung Jeong

* 1980 in Seoul, lives in Seoul

CPR Practice, 2015, © Geumhyung Jeong, supported by Arts Council Korea, Seoul Foundation for Arts and Culture, Akademie Schloss Solitude (Stuttgart/Germany), co-produced by SPIEL ART FESTIVAL Munich, 2013, Photo: Jiwoong Nam

CPR Practice, 2013
Performance, 60 min.

Courtesy of the artist

The works by South Korean choreographer and performance artist Geumhyung Jeong are characterized by unusual or even unpleasant interactions between the human body and the physical objects surrounding it. The artist regards her body and the human body in general as having the same value as the objects and props with which the body comes into contact – intentionally or unintentionally. Her performances bring up to date an ecology of things that even today has not progressed beyond the realm of theory: the human being stops trying to exert dominance over but rather interacts respectfully and affectionately with its non-human environment. The human being is not rehabilitated by machines but takes care of machines, no longer manipulates them in his or her own interest but shares emotions with them, even has feelings for them. Automation is not seen as instrumental progress, or as a tool of enhancement but as an extension of thinking, acting and feeling.

CPR Practice stands for cardiopulmonary resuscitation – in other words, for CPR training through heart massage and mouth-to-mouth resuscitation. In a simulated emergency situation, Geumhyung Jeong tries to revive a doll that apparently can no longer breathe. But the medical training exercise becomes a sensual and paradoxical game about love and desire, loneliness and death, subject and object.

The performance will take place on April 7, 2016 at brut Wien as part of a collaboration with the Kunsthalle Wien for the exhibition *The Promise of Total Automation.*

David Jourdan

* 1974 in Martigues, France, lives in Vienna

Untitled, 2016, © David Jourdan

Untitled, 2016
Offset print mounted on chipboard, 100 x 140 cm

Courtesy of the artist

David Jourdan's *Untitled* makes use of an advertisement of a newspaper for its paperless occurrence, in which the physical daily is confronted with its immaterial format. In the last decade, most newspapers have experienced size reduction. The large broadsheet that has long been the mark of serious print journalism has downsized to handier formats. With its shrinking size, the newsprint as a substantial object folded under the arm or sticking from the pocket already lost consistency in favour of the screen at hand.

The given ad offers insight into *Der Standard*'s savvy take on e-paper. The transition from newsprint to newsfeed has triggered all sorts of speculations about upcoming transformations, such as the death of print, the substitution of newspaper companies for multimedia conglomerates, the rise of nonlinear storytelling or the endless drift and redistribution of news via countless blogs and content aggregators.

The slogan that *Der Standard* chose to hype its digital makeover strikes a cautious note: *Fast so gut wie Papier* (almost as good as paper). The format of the print indeed struggles to fit in the little screen of the tablet or the smartphone. Only one tenth of the content featured on the front page of the newspaper's salmon coloured print edition can be displayed at a time on one of these devices.

Jourdan's enlarged reproduction is printed by an overnight online printing service, mounted on a particle board and a significant part of the image is cut out. The latter is relegated offscreen, *marginalised*, and gets us to size up the interval between what is given to see and what remains to be scanned, scrolled or skimmed through.

Barbara Kapusta

* 1983 in Lilienfeld, lives in Vienna

The Bracket and the O, 2016, Detail, © Barbara Kapusta

The Bracket and the O, 2016
Poem, vinyl letters, pieces of jewelry

O's Vocalization, 2016
HD 16:9 video transferred to Pal 4:3, sound: Chra, 10:56 min.

Courtesy of the artist

Things are inanimate objects forever doomed to a passive existence unless a person takes them on and attends to them. But what would happen, if someone gave to things and letters and sounds the ability to speak so that they can describe and tell us about the world from their own perspective? Who is talking to whom, and when am I being talked to by something? And for whom or, equally, with whom am I speaking when I am talking to things?

Barbara Kapusta invents fictitious object-persons, things with human characteristics, talking entities. An arc and a circle are having a conversation

about how their forms are changing and how they are turning into a chain link, how the chain links turn into a necklace that finally ends up being a piece of jewelry, which then forms an alliance with the human body. A thing, a zero, a circle, a ring, a touch. While the conversation between the bracket and the “O” is moving through space in the form of a text projected onto the walls, the video piece shows the chain links organically coming together as if propelled by their nature, then crossing the orbit of the darkened room and finding their form: “Watch me, how I start to crack, and to move, and to turn.” The things mutually attract one another, transform themselves, communicate with one another and their environment. The bracket is thrilled: “The very smallest of our parts, atoms, elements, units are moving …. We are animated, O!”

Barbara Kapusta’s works revolve around the relationship between subject and object and their real or fictitious possibilities of exchange. Are we being led and directed by objects? Do they talk to us? Objects want to be touched because it is only then that they know they are alive.

Konrad Klapheck

* 1935 in Dusseldorf, lives in Dusseldorf

Der Chef, 1965, © VG Bild Kunst Bonn / BILDRECHT GmbH Wien, Photo: © Museum Kunstpalast - ARTOTHEK

Der Chef, 1965
Oil on canvas, 110 x 160 cm
Collection of the Museum Kunstpalast Foundation, Dusseldorf

Konrad Klapheck’s paintings navigate between Surrealism, Pop Art and Neorealism and remain undefinable. The German artist has been painting “object pictures” since 1955. These large-scale paintings present everyday objects such as vacuum cleaners, irons and especially typewriters in an uncanny manner. In 1965, André Breton writes the following about Klapheck: “The instruments he depicts are chosen from among our closest auxiliaries, but the aim is to pierce through the specific use for which they are intended in such a way as to reveal their magnified image.” These objects become unusual creations, sometimes threatening, sometimes dominant, cowardly, old-fashioned or droll. In oddly isolated, timeless compositions without perspective, the objects are removed from their original purpose. Human traits appear to have been assigned to them. Konrad Klapheck conceives these paintings as human portraits. The machines are personified and the human beings objectified – both parties swap characteristics in a constant exchange. This gives Klapheck’s paintings an openness that makes them legible on different levels – the level of history as defined by a postwar perspective or that of a psychological, philosophical point of view. “Using my machine pictures, I was able – without having to look – to rediscover the past, and to deal with the problems of living in the present. Another painting lay under each successful painting; this other painting could only be inferred and gave meaning to what was taking place on the surface.” (Konrad Klapheck)

In this way, Klapheck’s world of things flourishes and becomes a branching system of symbols: typewriters refer to fathers or politicians; telephones articulate anonymous warnings. Sometimes the objects pictured in the paintings look threatening and seem to compete with human beings. *Der Chef* (1965, ‘the boss’) is a variant included in the series on typewriters along with *Der Herrscher* (1966, ‘the ruler’), *Der Diktator* (1967, ‘the dictator’), and *Der Gesetzgeber* (1969, ‘the lawgiver’) – all of which use the typewriter as a symbol for administrative and economic power as well as for the rule of authority in postwar Germany. The machine becomes a throne and the lever a scepter. Klapheck’s paintings use precision and a sense of mystery to express the fascination modern human beings have with machines, but also to make visible our paradoxical love-hate relationship with them.

Běla Kolářová

* 1923 in Terezín, † 2010 in Prague

Alphabet, 1964, Courtesy Kontakt. The Art Collection of Erste Group and ERSTE Foundation

Large Fastener (Scattered) II, 1971
Assemblage on cardboard, 76 x 74 cm

Alphabet, 1964
Silver bromide photo print,
29.2 x 39.5 cm

Kontakt. The Art Collection of Erste Group and ERSTE Stiftung

In her photographs, photograms, collages, and assemblages, Běla Kolářová mainly puts on display those things that are small and seemingly unspectacular. Material assemblages made of her own hair, makeup, writing or sewing utensils, encounter serial object-pictures putting to good use a variety of vintage socialist household items. Kolářová’s photographs show constructivist or kinetic objects in movement, while her object-pictures show serially arranged snap-on buttons, eyelets and other fasteners. All of these objects are mundane household items, many of them things associated with domestic femininity. By subtly modifying them to make them appear strange, and by staging them directly, without mediation, the artist manages to imbue them with a stunning presence. As such, these seemingly mute objects exit their purely utilitarian mode of existence and enter the world of signification: in *Alphabet*, they take shape as the structural elements composing our language – letters. The artist wishes to be as close as possible to her objects. That’s why she experiments with a variety of image-processing techniques – from photographs to photograms to wax impressions that can be turned into silkscreen prints.

These intimate but also precisely composed arrangements present a world of labor defined by handicraft and other domestic activities. This world seems to conceal a mystery. Expressing itself through the lens of constructivist aesthetics, it furthermore manages to pull its own weight in the face of the dominant, machine-driven and masculinist socialist art forms that were prevalent at the time of its creation.

Nick Laessing

* 1973 in London, lives in Berlin

Galvanic Reaction X (Zinc), 2015, © Nick Laessing

Galvanic Reaction VII (Copper), 2013
Copper, 100 x 140 cm

Galvanic Reaction X (Zinc), 2015
Zinc, 100 x 140 cm

Galvanic Reaction XI (Copper), 2015
Copper, 100 x 140 cm

Prototype II (after US patent no 6545444 B2 by John Bedini), 2009
from the series *Free Energy Research*, 2009
Plexiglas, 12V batteries, copper wire, magnets, electronics, 180 x 70 x 30 cm

Talk Radio with John BediniI (excerpts from the 1980s US talk radio show *Open Mind*), 2009
from the series *Free Energy Research,* 2009
Audio recordings, Tesla reel-to-reel tape player powered by 12V battery, 30 x 15 x 5 cm

Courtesy of the artist

Nick Laessing delves into the world of amateur scientists, mathematicians and enthusiastic experimenters through his investigations of forgotten, mysterious or unsung scientific inquiries and technological inventions. Particularly inspired by the poetic pursuit of these figures and their devotion to almost inconceivable ideas, he likewise follows a romantic, insatiable desire to go beyond conventional science and not only share the stories of those who have inspired his own explorations, but also revive a sense of utopianism and marvel at the possibilities that lie somewhere between the hazy realm of science fiction and reality. His interest in history, research on short-lived or obsolete machines and interrogations into electrochemical phenomena all serve as catalysts for works in media as diverse as film, drawing, sculpture and installation that often entail the reconstruction or creation of a specific device.

Galvanic Reaction, a series related to Laessing's experiments with alternative methods of making batteries, is comprised of a number of copper and zinc plates. An electric battery is a device for converting chemical energy into electrical energy. One conventional example is the single galvanic cell battery. Electrical current can be produced by means of a galvanic chemical reaction, the results of which is the corrosion of materials involved in the process. Voltage is produced when two dissimilar metals are brought into electrical contact with one another, the nobler metal driving the corrosion of the more active metal and the passive metal remaining relatively unharmed. In contrast to secondary cell batteries, primary cell batteries cannot be recharged. They are designed for single-use and do not have capacity to reverse an electrochemical reaction. By employing chemical reactions as a means of creating form, Laessing sacrifices control over the final appearance of his work. In addition to revealing the complexity involved in the creation of energy, these works are also notable for their striking patinated surfaces.

Prototype II is one of a number of utopian sculptures related to the artist's ongoing research on the free energy movement and its main objective, which is to find, or generate, alternative sources of power. Laessing's clear Plexiglas apparatus is based on a machine built by John Bedini, an American who has been designing machines since the 1970s. Bedini is considered to be the first inventor to have successfully applied for a patent for a 'free energy' machine (albeit granted with the caveat that he was not to refer to it as such). *Prototype II* is based on a 'back EMF permanent electromagnetic motor generator' for which Bedini was granted U.S. patent no 6545444 B2 in 2003. It has been claimed that this device is capable of charging a bank of batteries to produce a state of 'over-unity' (otherwise known as free energy) by providing more power to the batteries than required to keep them running. Laessing designed and built *Prototype II* on the basis of information and advice extrapolated from numerous Internet sites devoted to replicating Bedini's system and conversations with electrical engineers. *Talk Radio with John Bedini* consists of an audio track composed of excerpts from a 1980s radio talk show focusing on a discussion of Bedini's machines played on reel-to-reel tape player. The reel-to-reel player used in the piece runs on energy provided by batteries charged by *Prototype II*. Laessing melds science and art in his work, in which energy is filtered by design, experimentation and the imagination.

Mark Leckey

* 1964 in Birkenhead, lives in London

Pearl Vision, 2012, Installation view, © Mark Leckey, desiderata (in media res), Madre, Naples, 2015, © Mark Leckey, Courtesy Cabinet, London, Photo: Amedeo Benestante

Pearl Vision, 2012
Video, sound, 3:07 min.

Courtesy of the artist, Gavin Brown's enterprise, New York, Gallery Buchholz, Berlin/Cologne/New York, Cabinet, London

A hand is typing the letters D, R, U, M on a computer keyboard. Instead of keystrokes, though, we hear drum beats. Then the camera pans to one of the video's protagonists: a reflective chrome snare drum made by legendary drum maker 'Pearl' sits in an empty room. Mark Leckey sits down at the drum, turns the snare drum off/on and starts drumming to the rhythm of the soundtrack. A female and a male voice are reciting various text passages over and over, where the mechanical repetition of "on/off" above all reminds us of the binary code of computers. The camera is circling the snare drum

in ever tightening revolutions, even though it is never actually seen as a reflection in the drum's surface, because the artist has partially integrated the drum into the video as a digital animation. Later on, the 3D animation will orbit the darkened room by itself.

In *Pearl Vision*, Leckey approaches the object of his desire by staging it like a fetish. Due to the reflections, it looks like he merges with the snare drum; sometimes we think we see him inside the drum. In turn, the instrument seems to have taken possession of him as well. "Take off/it's on…" – ambiguously chants the soundtrack, until in the end the "me and you, me and you!" promises the absolute synthesis of the drummer, who has by now shed his clothes, with his sexually charged instrument. The techno-animism at play in the video is heightened by the use of a rear projection machine, seemingly generating the moving image out of nothing and hinting at the discreet presence of a ghost in the machine.

Tobias Madison & Emanuel Rossetti

* 1985 in Basel, lives in Basel and Zürich
* 1987 in Basel, lives in Basel and Zürich

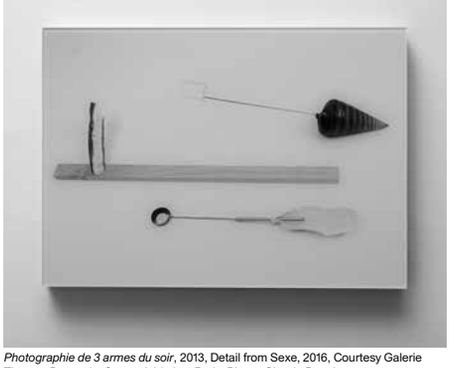
NO, 2013, (c) Tobias Madison & Emanuel Rossetti, Courtesy Karma International, Zurich

Zabracadabra (the long trudge), since 2013
Cardboard boxes, electrical equipment, lamps, sizes vary
Courtesy of the artists and Karma International, Zurich

Cardboard boxes are packaging materials, containers for transport and objects in their own right. Tobias Madison and Emanuel RossettI collected cardboard boxes in Hong Kong, where lots of cardboard gets recycled and resold, especially cartons used for fruit transport. They turned these cube-shaped cardboard containers into the basis for a lighting system that was originally envisioned for Kunsthalle Zürich, when the lights in its upper gallery had to be replaced due to technological deficiencies. Each carton contains a light bulb along with the electrical equipment necessary to make it light up. The two artists take objects and remove them from their destined purpose by extracting them from the recycling process and by redeploying them elsewhere. Accordingly, the cartons are made to fulfill a function that contradicts their original one, though the new function can be a part of other possible ways to make use of them. For one, they are elements in an exhibition and as such they can lay claim to the status of art objects, all the while, as functional objects, they also serve a definite purpose within the confines of the art institution. Tobias Madison is interested in this not-fixed-but-negotiable status of the art object as it circulates throughout the world of exhibitions, and which, if it is reproduced or copied, can also be injected into other, larger contexts. The art object is supposed to be self-sufficient, an object for its own sake, but, in the present case, it also raises the issue of the institutional frame into which it is integrated and within which it is being put on display. That's why the lighting cartons (which look like improvisations riffing on the omnipresent light boxes so fashionable in the art business ever since the advent of Minimal Art) are arranged in such a way as to recall a different spatial blueprint – that of a space likewise linked to the production of art. Their arrangement invokes this space by copying it with the help of symbolic placeholders. The place of production is thus inscribed into the place of presentation, and conversely, is activated by the latter's electrical power supply.

Benoît Maire

* 1978 in Pessac, France, lives in Paris



Photographie de 3 armes du soir, 2013, Detail from Sexe, 2016, Courtesy Galerie Thomas Bernard – Cortex Athletico, Paris, Photo: Giorgio Benni

Sexe, 2016
Bronze, bubble level, computer mouse, credit card, crystal, diasecs mounted on oak, dice, elm, flint, gaboon, glass, hammer, ink on paper, jasper, letraset letters, metal, marble, oil paint, plaster, pyrite, quartz, resin, soap, shell, sticker, stainless steel, terracotta, walnut juice, wood, 170 x 330 x 320 cm

Courtesy of Galerie Thomas Bernard, Cortex Athletico, Paris

There is a kind of elegant anxiety to Benoît Maire's sculptural works, a near-animistic quality in the conjunction – and sometimes even the collision – of the forms and materials of which they are composed. Arranged together on two plinths in a gallery, they set up a wave of syntactical rhythms and patterns that are continually reiterated, rephrased and transposed. Maire's work questions the presumably known. It seeks to unravel Western systems of knowledge and the values we draw from them. The artist makes adroit references in his work to art theory, philosophy and science and their corresponding rhetoric, symbols and figures that nevertheless occasionally remain frustratingly opaque to the viewer. He is less interested in elucidating theory than he is in posing questions regarding how we go about constructing and unfixing meaning. He frames one of his answers in the form of objects he refers to as 'measuring tools' and 'weapons' that may be construed as facetious winks to Duchamp's *3 Standard Stoppages*. In this series, a curiosity object floats within framed pieces of glass, a spiral shell is impaled on a delicate metallic rod and an index finger points mysteriously upwards. One object appears to be a handle of smoothed ceramic. Another consists of a cuttlefish bone affixed to a wooden rod weighed down with a piece of quartz. How these measuring tools might function, and what they might measure or evaluate, remains perplexing. They seem to be tongue-in-cheek commentaries on a culture obsessed with numbers, amounts and records, in which knowledge has become a commodity. Dice frequently appear as symbols of random systems in the compositions of Maire's serigraphs or as elements of his three-dimensional works. In each piece he creates, as well as within his oeuvre as a whole – both of which are sustained by an interplay between synecdoche and antinomy – the sum is always greater than the parts. Allowing incomprehension and instinct to coincide, the demand for correct, measured answers is substituted for a more seductive proposal: one in which

narratives remain indeterminate and interpretation is left completely open to the viewer.

Mark Manders

* 1968 in Volkel, Netherlands, lives in Ronse, Belgium

Finished Sentence (August 2010), 2010, © Mark Manders, Courtesy Tanya Bonakdar Gallery, New York and Zeno X Gallery, Antwerp, Photo: Brian Forrest

Finished Sentence (August 2010), 2010
Iron, painted wood, offset print on paper, tea bags, 99.1 x 251.5 x 130.8 cm

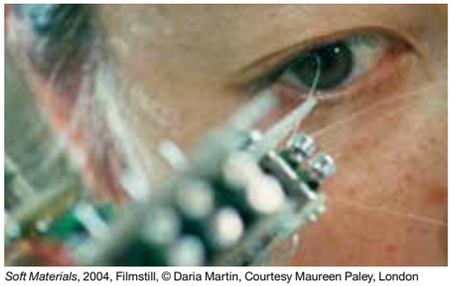
Courtesy of the artist, Tanya Bonakdar Gallery, New York and Zeno X Gallery, Antwerp

The overarching concept of a "self-portrait as building" informs Mark Manders' oeuvre. Often imbued with a dual sense of melancholy and wonder, his individual works, whether installations, drawings or sculptures, are but parts of a larger, comprehensive and ongoing project. The artist's projections of fictive architectures carry an enormous creative potential in that they guide him to follow certain paths, the motive for which he refers to them as machines. Although created within this fictional space, the artist uses real objects in the real world in his work. Since 1989, Manders has been laying out an ever-expanding ground plan in which each new work is assigned a specific location. Over time the "ground plan" expands when each new work is assigned a place; thoughts figure as the corridors, the stairways, the sheds or outbuildings in which each new work is located. The artist's interests thus lie with an exploration of the architecture of the mind and body. He is fascinated by the way humanity has been shaped by innumerable individual decisions and the relationship of the human body to this process. Language, often used in the form of fragile poetry as an element that unites and reconciles body and mind plays a role, structures the works and constitutes them.

In *Finished Sentence (August 2010)* Manders carefully balances two rather disassociated objects and merges them into a Kafkaesque whole – a sculpture that has a decidedly mechanical, yet organic, sensibility. What at first glance might appear as nothing but a collection of tea bags and a phonograph, upon closer inspection a type of machine or instrument emerges. These disparate elements are linked by a system of meandering iron tubes. What is the connection between them? It is as if the tea bags contained some form of power that could be harnessed, wired and transmitted. Manders, who is enamoured by the ingenuousness of things, writes with objects, translating words into visual elements. His objective is "to make something that is just as beautiful as a plant, or a computer". As others have done with language, Manders likens his work to machinery. The very title of the work included in the exhibition implies the expression of language. The word phonograph, which was derived from Greek root words meaning 'sound' and 'writing', hints at one of the references in play. Manders has stated that his delicate arrangement of upright tea bags "most resembles a wordless word", ensuring, however, that "an emotion still speaks from it". Teabags take time to infuse and soak, and bags in general connote containers explicitly used to carry things. It is the bemused task of the viewer to decipher, read and finish whatever meanings and messages are carried by the evocative *Finished Sentence (August 2010)*.

Daria Martin

* 1973 in San Francisco, lives in London



Soft Materials, 2004, Filmstill, © Daria Martin, Courtesy Maureen Paley, London

Soft Materials, 2004
16 mm film transferred to digital file, sound, 10:05 min.

Courtesy of Maureen Paley, London

Daria Martin's film *Soft Materials* was filmed at Zurich University's Laboratory for Artificial Intelligence, which has since been closed. It was there that scientists designed and studied humanoid machines. These robots were programmed in such a way that their actions were not governed by a pre-programmed computer-"brain". Instead, they could learn from their experience of their own physical body and from interacting with their environment. *Soft Materials* shows some of these machines make contact with a dancer and an actress. Together, robots and humans explore their bodies and build a playful relationship. In the course of this choreography, the machines – simple, almost quaint-looking constructs – seem to acquire a life of their own as they react to human movements. Their sensory systems are patterned on animal characteristics; for example, one of the robots, whose sensors look like little rods, imitates the perceptive abilities of an insect. By interacting with the human bodies, which seem vulnerable, the robots lose their possibly threatening potential in favor of acquiring a human-receptive quality. *Soft Materials*' slow dance movements and its cinematic aesthetics of keeping an intense focus on the actors' bodies also brings to mind experimental dance performances of the 1960s and their choreographic synthetizing of humans with the abstract world of objects.

Shawn Maximo

* 1975 in Toronto, lives in New York

Going Green, 2016, © Shawn Maximo

Going Green, 2016
Wallpaper, 356 x 491 cm

Shawn Maximo creates images of future possible living spaces. Therefore, he often superimposes a normative spatial idea (for instance a food court) – a sort of topos – with another apparently unrelated function (for example hospital care), to suggest a new type of living experience that seems logical although it does not yet exist. The resulting futuristic images look at the same time familiar and uncanny. They represent new lifestyles in overly monitored landscapes. Even if dealing with architectural theories and behaviourist psychology and working with elements of architecture, design and space, the artist

mainly produces flat images – in the form of animations or wallpaper – employing rendering techniques. They seem to be naturally compatible with the technological interfaces on which they will be featured.

Early twentieth-century modern architecture was grounded in a progressive (and emancipatory) vision of the contemporary, machinist´s society that had emerged in the wake of industrialization, and its perceived mission was the broad-scale organisation of collective life. Maximo takes this paradigm to a new level, exploiting contemporary post-industrial, technical and social conventions to create multi-functional spaces that are more than simply 'machines for living in'. Rooted in the interplay between mathematical rationality and emotional impulse, they recall the organic architecture of Frank Lloyd Wright, who viewed a house as something akin to a living organism – the merging of people's needs with a spirit of place – and was convinced that buildings profoundly affected and even modelled the people who lived and worked in them. Today's smart cities and intelligent architecture are extensions of the American architect's vision. Nevertheless, though the spirit of place may be omnipresent in Shawn Maximo's landscapes, they are devoid of human inhabitants.

Maximo has created a new wallpaper design for this exhibition that features what purports to be a window onto the production floor of a factory devoted to green technologies situated at some unspecified point in an ambiguously automated future. The assembly line robots at work here are quite different from the first industrial robots implemented by General Motors in the 1960s. They bring to mind the observation that "while computerisation has been historically confined to routine tasks involving explicit rule-based activities, algorithms for big data are now rapidly entering domains reliant upon pattern recognition, and can readily substitute for labour in a wide range of non-routine cognitive tasks. In addition, advanced robots are gaining enhanced senses and dexterity, allowing them to perform a broader scope of manual tasks" (Derek Thomson). The ramifications of automation are not merely technical but also social and cultural. Will technological innovation disrupt labour markets by making workers redundant? Will it transform subjects into mere consumers? The robots depicted in Maximo's wallpaper produce environmentally friendly products. If other kinds of commodities are produced on these assembly lines one day, will this alter the logic of exploitation?

Régis Mayot

* 1970 in Metz, lives in Saint-Laurent-les-Tours, France

JEANNE & CIE, 2015, Photo: Guy Rebmeister / CIAV Meisenthal – France

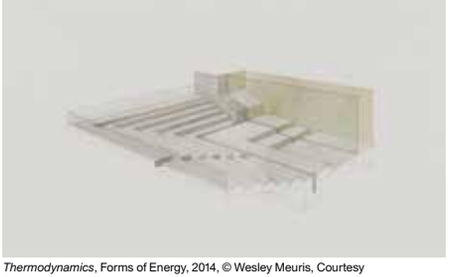
JEANNE & CIE, 2015
Mould-blown glass, 16 x 15 cm,
25 x 170 cm, 25 x 21 cm
Centre international d'Art verrier (CIAV), Meisenthal, France
Series of three pieces based on vintage glass-blowing moulds in the collection of the Centre international d'Art verrier.

Courtesy JEANNE & CIE / Design Régis Mayot / Edition CIAV – Meisenthal, France

For the last fifteen years, the Centre international d'Art verrier (International Glass Art Centre) in Meisenthal, France has been collecting vintage moulds once used in glassmaking. Most of the 2,000 moulds now stored in what is referred to the *Moulothèque* were once used in the production of thousands of everyday tableware items. In 2011, the CIAV granted French designer Régis Mayot a three-year residency at its workshop to explore the creative possibilities of this collection. The *JEANNE & CIE* series grew out of the designer's decision to work with the form of the moulds rather than that of the objects they were once used to create. This entailed making sand casts of the vintage moulds that were subsequently used by professional glass blowers to create new intriguing objects with an unexpected mechanical beauty. The series was named *JEANNE & CIE* after the name engraved on the hinge of one of the vintage moulds. For the artist, these objects evoke Vulcan's forge, Jules Verne's stories and the progress and miseries of the industrial revolution. They are simultaneously sculptures, fetish objects and testimonies of a bygone era of industrial history.

Wesley Meuris

* 1977 in Lier, Belgium, lives in Antwerp



Thermodynamics, Forms of Energy, 2014, © Wesley Meuris, Courtesy Private collection

Thermodynamics, Forms of Energy, 2014
Pencil and watercolour on paper, 57 x 66 cm

Private Collection Fam. Van Oers - De Déene

Biotechnology & Genetic Engineering, 2014
Pencil and watercolour on paper, 58 x 68 cm

Courtesy of the artist and Annie Gentils Gallery, Antwerp

Case R-Y3.001, 2016
Wood, Plexiglas, glass, neon lights,
approx. 260 x 950 x 420 cm
Courtesy of Annie Gentils Gallery, Antwerpen and Galerie Jérôme Poggi, Paris

Exhibitions, the forms they take, the formats in which they are presented, their function to communicate knowledge and the spatial, institutional and ideological systems in which they are embedded are Wesley Meuris's main subjects of inquiry. Seeing and knowing, which have always been the two major instruments of power, have assumed an even greater role in the era of techno-medial systems. Meuris is interested in the ways in which the powers organise and direct visual perception. Classification, modelisation, communication and presentation systems therefore form the crux of his multifaceted projects and complex works. In 2012, the artist created the Foundation for Exhibiting Art and Knowledge (FEAK), a curious entity devoted to the analysis of display systems designed for art fairs, temporary exhibitions and museum galleries and the educational purpose of these. The existence of the foundation and its true identity have long been kept secret. FEAK serves as an umbrella framework for Meuris's ongoing explorations of the architecture and infrastructure of institutions that conserve, research, communicate and exhibit the tangible and intangible heritage of humanity. It operates on the principle upon which all of Meuris's work is based: exploring the thin line between dissimulation and exhibition, invisibility and visibility, documentary and fiction.

The sculpture *Case R-Y3.001* created for *The Promise of Total Automation* is a display unit that does not feature anything. It is an empty, white, freestanding structure fitted out with bright neon lights and shiny glass panels conforming to standard notions of exhibition display design that engages its surroundings, structuring the architectural space in which it has been situated and directing the circulation. A showcase with a pedestal to one side stages its own emptiness. The nothingness exhibited becomes an object in and of itself,

leaving viewers caught between the desire to see something ostensibly on display and the vision of themselves reflected on the glass panels. His play with specular structures and self-reflexivity, which could potentially go on forever, alludes to a rather obsessive facet of the art market and the art production sector. What spectators actually see prompts them to think of what they do not see on a visual as well as metaphorical level. What and who is behind the stage? What kind of mechanisms are at play in the organisation of space and dissemination of knowledge? The two works on paper included in this exhibition make use of the same combination of fictional abstraction and historical information, institutional critique and utopian experiment.

Wesley Meuris sheds light on the more disturbing aspects of display and presentation systems. His sculptures emanate an almost imperceptible air of critical skepticism regarding the architecture they emulate.

Samuel Finley Breese Morse

* 1791 in Charlestown, Massachusetts, USA, † 1872 in New York

Morse Relief Writer, 1849, Courtesy Technisches Museum Wien (Vienna Technical Museum)

Morse Relief Writer, 1849
Open, weight drive, key operator, hand crank to slow the gears, solid discs for paper rolls, the first one used by the Austrian State Telegraph Administration, e.g., between Vienna and Olomouc, Brass, 36 x 22 x 37.5 cm and 7.5 x 11 cm, Manufacturer: Robinson, USA

Loan Technisches Museum Wien (Vienna Technical Museum)

A telegraph is used to send coded messages over geographical distances. To do this, the transmitter and receiver do not move objects back and forth between their respective locations, and speech, as in telephonic communication, is not involved. Telegraphy comes from the ancient Greek *téle*, remote, and from *gráphein*, to scratch, to write. The oldest form of telegraphy was visual and applied in ancient times, when people used such things as smoke to send messages. With electrical or electromagnetic telegraphy, also called Morse telegraphy, the characters are transmitted as Morse code. In 1837, the inventor and painter, Samuel F.B. Morse, developed the first commercially viable telegraph for writing (Morse telegraph). His colleague, Ernest Vail, developed a new transmission code for this telegraph, the Morse code, which transcribed letters, numbers and punctuation marks into a series of dots and dashes (or short and long pulses). Morse code is considered the pioneer of digital communication.

Initially, the signals transmitted in Morse code were scratched by a steel stylus onto a moving paper strip. The late 19th century saw the use of color writers to write the Morse code in ink on the paper strips. At the same time, type-printing telegraphs could already print plain text. As a result of technological optimization, the telegraph could soon transmit about 200 words per minute, which made it commercially viable. In 1843, the first telegraph line was laid between Baltimore and Washington. In 1851, the first cable was installed between Dover and Calais, followed in 1866 by another linking England and the United States. In circa 2000, the use of telegraphy for commercial purposes and in transport came to an end. The *Morse Relief Writer* shown in the exhibition was the first Morse telegraph used in Europe. In Austria, this model was used around 1849 to send messages between Vienna and Olmütz.

The telegraph is a technological object that not only allows us to amplify human abilities, in the sense of a prosthesis; it also gives human beings a ubiquitous power, so that we can take action beyond the confines of our own bodies. Electricity and its applications, such as electric telegraphy, gave rise to political utopias wherein a controlled and technologized ubiquity would transform society as a whole.

Gerald Nestler

* 1964 in Brixlegg, lives in Vienna and London

HOT POTATO. No Risk No Fun in the Dark Pool, 2013, © BILDRECHTE GmbH Wien, Vienna, Courtesy Gerald Nestler

HOT POTATO. No Risk No Fun in the Dark Pool, 2013
Neon text work, 173 x 246 cm

Predatory Glitch, 2010
Audio track of live audio coverage of the 'Flash Crash' of May 6, 2010 (voice: Ben Lichtenstein, TradersAudio), Sound: Szely, 12:37 min.

The New Derivative Order, 2016
Poem, vinyl letters
Courtesy of the artist

Gerald Nestler is an artist and writer who combines theory and text with video, installation, sound and performance to explore the finance economy, its strategies and its consequences on the social realm. More specifically his work addresses the "derivative condition" of contemporary life, in which the methodologies, narratives and fictions of finance-based regimes dictate the conditions of the present on the basis of pre-configured expectations for the future. He is developing an "aesthetics of resolution" as a counter-strategy to open up potentials for revolutionizing social and technological relations shared between individuals, groups and institutions. In the exhibition, he presents three works related to questions pertaining to risk and probability, venture and uncertainty as well as to the politics of security and automation – as operative techno-regimes for the allocation of appreciation.

The neon text work *HOT POTATO. No Risk No Fun in the Dark Pool* is a circular meditation on the temporary radical swings in the market value of stocks provoked by rogue algorithmic operations. Another titled *Predatory Glitch* – an audio track of live audio coverage of the so-called 'Flash Crash' of 2010 – deals with the collateral fallout caused by the displacement of humans by automated trading agents. The poem *The New Derivative Order* offers insights into the black box of market capitalism. It is a computer system that speaks, a technologically created super-being that feeds on us and talks to us… "Oh baby! How you nourish me!"

"Today's derivative markets – and it is these markets we are referring to when we speak of production of risk as an evaluation of expectations – facilitate rapid-fire executions of trades based on projections of future value by means

of automated processes. In this context, risk does not signify an unexpected or unknown event that must be averted or planned for but rather the calculated potential of a possible future. This homogenising principle not only affects goods, services and raw materials. If individuals, acting as human resources and thus as calculable (calculated) risk, enter the service of a market economy that has subscribed to the primacy of politics aligned to this 'technology of the future', they themselves become derivatives of a horizon of expectation. In such a scenario, the promise of automation leads to a ritualised future that cancels out its own present state." (Gerald Nestler)

Henrik Olesen

* 1967 in Esbjerg, Denmark, lives in Berlin

how do i make myself a body?, 2008–2016, (C) Henrik Olesen, Courtesy Galerie Buchholz, Berlin/Cologne/New York

how do I make myself a body?,
2008–2016
Collage and acrylic on Masonite board,
105 x 83.5 x 0.5 cm
Courtesy of the artist, Gallery Buchholz, Berlin/Cologne/New York

Henrik Olesen explores the systems of power and knowledge to uncover their authoritarian and normative logics, and point out their effects on the perception and control of bodies. The human body as a social and sexual body is determined by a system: what is a female body, or a male, a heterosexual or a homosexual body? Bodily practices are – also – ruled by the body of laws.

In his set of works *how do I make myself a body?* Henrik Olesen takes on the tragic biography of the English scientist and mathematician Alan Turing (1912-1954), who theorized about self-learning machines and created the Turing machine. As such, he designed the foundations for A.I. and computer algorithms. Recognized for his numerous inventions and theories but hated for his homosexuality, he was condemned in 1952 by the British authorities to submit to treatment with female hormones. He fell into a depression, presumably as a result of the hormone treatment, and committed suicide two years later.

In 1936 Turing published his theoretical model of the machine that was to constitute the basis of all future computers. His diagram reduced calculations to a series of symbolic configurations based on the yes/no logic of the binary code. All modern computers derive from the implementation of this mathematical model-machine, which makes algorithms intelligible. The Turing machine is universal – nothing but pure function. It provides a virtual system for simulating the behavior of another machine – and maybe also the body, which is a kind of machine. As such, this machine, for Olesen, also mirrors how body images are produced and negotiated. It evokes the dream of a chosen but absent body.

how do I make myself a body? collects texts on the Turing machine, cybernetic models, tools Alan Turing, and the body as a social construct and brings them together on seven black panels and one white one. Olesen flattens and fragments the body and its planes – both, physically and psychologically – thereby opening up perspectives on a virtual body that is imagined and self-determining. The various ways in which to approach this new body are represented by the following figures: body without organs, body of the family, body under the influence of drugs, body of the master/body of the slave, organized and not-organized body.

Adam Osborne & Lee Felsenstein

* 1939 in Bangkok, Thailand, † 2003 in Kodaikanal, India
* 1945 in Philadelphia, USA, lives in Palo Alto

Personal Computer Osborne 1a, 1981, Courtesy Technisches Museum Wien (Vienna Technical Museum)

Personal Computer Osborne 1a and Monitor NEC, Character Display, 1981
51 x 34 x 21 cm, Monitor 37 x 34 x 31 cm

Loan Technisches Museum Wien (Vienna Technical Museum)

The *Osborne 1* was the first commercially available portable all-in-one microcomputer. It was developed by Adam Osborne, designed by Lee Felsenstein and released in the spring of 1981 by the Osborne Computer Corporation (OCC). A microcomputer – otherwise known as a personal computer (aka 'PC') – is a small-scale computer intended for individual, general-purpose use that employs a microprocessor as a central processing unit (CPU). Advertisements claimed that the Osborne personal business computer was "designed, built and priced with one objective: to make you more productive in your work, your business, or your profession *now*". The size, capabilities and relatively affordable price of the machine made it an extremely successful product. This unit, which weighs approximately 8 kg, was designed to be closed like a suitcase that could be stowed beneath a standard airline seat. Its specifications include a screen, keyboard, dual floppy disk drives, and several interfaces.

The design was based largely on the Xerox Note Taker, a prototype developed at Xerox PARC, a research and development facility in California. At the peak of the *Osborne 1*'s popularity, OCC was shipping over 10,000 units a month. In the end, the company was a victim of its own success. The irony of its marketing slogan 'For anyone who wants to get ahead. For anyone who doesn't want to be left behind' is not lost on anyone familiar with the history of the machine. The *Osborne 1*'s greatest weaknesses were the diminutive size of its display screen (only 13 cm) and its limited disk drive capacity. OCC's premature announcement of two new models brought the sales of the *Osborne 1* virtually to a halt, leaving the company with a significant inventory backload that contributed to its rapid demise. This phenomenon, described in detail in Adam Osborne's book *Hypergrowth: The Rise and Fall of Osborne Computer Corporation*, came to be known as the "Osborne Effect".

Julien Prévieux

* 1974 in Grenoble, lives in Paris

What Shall We Do Next? (Séquence #2), 2014, Videostill, © Julien Prévieux, Courtesy Galerie Jousse entreprise, Paris

MENACE 2 (Machine Educable Noughts and Crosses Engine), 2010
Oak, plywood, metal, canvas and clay balls, 200 x 180 x 70 cm

Collection Frac Basse, Normandie

What Shall We Do Next? (Séquence #2), 2014
HD-Video, sound, 16:47 min.

Courtesy of Galerie Jousse entreprise, Paris

Julien Prévieux's *MENACE 2 (Machine Educable Noughts and Crosses Engine)* was inspired by an early example of a machine based on the principle of reinforcement learning created out of 304 matchboxes by Donald Michie in 1961. Reinforcement learning is an area of machine learning inspired by behaviorist psychology concerned with how software agents ought to take 'actions' in a given environment so as to maximize some notion of cumulative 'reward'. Its objective is to teach machines how to eventually figure out how to make the best choice among options in a given situation through a process of trial and error. Reinforcement learning is of great interest to researchers working in a wide variety of areas that include game theory, control theory, operations research, information theory, simulation-based optimization, statistics, and genetic algorithms.

Technological apparatuses require a set of gestures to use them. Keys want to be pressed, dials turned, switches flipped. Digital technologies have broadened this repertoire and replaced the mechanical pressure of fingers on machine parts with the soft sliding of fingers across screen monitors. However, in contrast to the pressing of keys, these new gestures are considered an integral component of digital technologies: swiping – that sliding movement across smartphone or tablet computer screens – was already the subject of a patent application before the first devices that were able to make use of the gesture had even been produced.

Julien Prévieux's video *What Shall We Do Next? (Séquence #2)* shows a group of dancers engaged in movements necessary to operate the latest or even not yet existing digital hardware. Every performer in turn announces when a patent application was filed for every gesture at issue. As this stylized human-mechanical ballet proceeds, the dancers discuss – in terms of speech as well as movement – how technology governs social interactions. Even inventions designed to simplify the interaction between humans and devices that were never produced are included in this choreography. Some of the gestures presented seem familiar; others appear fictitious since they lack the gadgets they refer to.

In an earlier performance, the dancers had still presented gestures conceived by science fiction film directors who had wanted to transpose their imagined future technology and the way it was to be used into the sphere of the not-yet-familiar, the absolutely novel. With *What Shall We Do Next? (Séquence #2)*, the turn away from the pressing of buttons and keys has already capitulated to the corporate appropriation of those movements that are necessary to operate certain devices. Who owns the movement of the hand if the company holds a patent on it? Are persons still users of devices or have they become device components? In the final analysis, the phrase "think different" (elevated to the level of company slogan by Apple in the early 2000s), has also turned out to be a kind of metabolizing appropriation of the body of the consumer.

Magali Reus

* 1981 in The Hague, lives in London

Leaves (Clay Writ, July), 2015, © Magali Reus, Courtesy The Approach, London, Photo: Plastiques Photography

Leaves (Scout, April), 2015
Milled and sprayed model board, aluminium tube, polyurethane rubber, powder-coated, zinc-plated, phosphated and blackened aluminium and steel, polyester resin, 39.5 x 14 x 49 cm

Private Collection, London

Leaves (Amber Line, May), 2015
Milled and sprayed model board, aluminium tube, polyurethane rubber, powder-coated, zinc-plated, anodised, phosphated and blackened and etched aluminium and steel, bolts, 44 x 16.5 x 77cm

Courtesy of the Rubell Family Collection, Miami

Leaves (Tip, October), 2015
Milled and sprayed model board, silicone rubber, pigments, phosphate aluminium tube, powder-coated, brushed, blackened and anodized laser-cut aluminium and steel, 38.5 x 48 x 12.5 cm

Leaves (Harp, January), 2015
Milled and sprayed model board, phosphated aluminium tube, silicone rubber, pigments, powder-coated, zinc-plated, etched and anodized laser-cut aluminium and steel, bolts, 42 x 61 x 15 cm

Courtesy of the artist and The Approach, London

Magali Reus's work is as much concerned with materials and technologies as it is with overcoming the subject-object dichotomy. This artist is interested in "making the relationship one has with an object an emotive as well as physical set of exchanges". Dislocation regularly figures in her oeuvre: she frequently uses everyday objects as a point of departure, transforming their original functions by means of sculptural intervention. She is fascinated with the shift that occurs when they are transported into the highly coded interpretive space of the gallery.

Leaves is a series of outsized sculptural padlocks mounted in a row more or less at eye level along the gallery wall that beckon the spectator and invite closer

inspection. What are these ordinary, recognisable, yet dissimilar objects? Unlike the locks we are accustomed to, these have no obvious function. There is nothing around them to lock up and their shackles are even broken. They are enigmatic and somewhat abstract objects protruding out of a gallery wall with personas that strike one as falling somewhere in between the human and the mechanical. Their outer casing has been pierced with peepholes or partially stripped away and reveal curious inner mechanisms that would normally remain concealed by a protective 'skin'. The artist's predilection for industrial materials and techniques (aluminium, steel, powder coating, blackening, anodising and laser cutting), as well as for perfectly refined surfaces, is reminiscent of the 1960s West Coast minimalism. Reus's locks hint at the possible existence of some sort of narrative or system just beyond our grasp that is partially indicated by numbers, dates and letters wedged alongside or placed on top of these objects' coiled springs, combination cogs, grids and layers. Although Reus's *Leaves* mimic the physical characteristics of locks and evoke their mechanical function of hiding or keeping things secure, their titles and the illusory information they provide underpin the subjectivity the artist has ascribed to them. Reus strives not only to open up the 'black box' of a tool she is representing (in this case, a lock), but also to elevate it by giving it an emotive, elusive subtext. Reus offers the viewer the possibility to engage with these 'things' at a deeper phenomenological level.

Program

All events and guided tours in the context of the exhibition are free with a valid entrance ticket!

Sunday Tours
The Algorithm of Discovery
Kunsthalle Wien Museumsquartier

Every Sunday at 3 pm visitors are invited to join a guided tour to learn more about the consequences of automation.
(In German and English)

Thu 14/4 & 28/4, 6 – 9 pm
Serious Séance
(Wireless Series)
Kunsthalle Wien Museumsquartier

On two evenings Gerald Nestler, Brigitte Ratzer, Judith Fegerl, Peter Fleissner & Katja Mayer will act as "mediums" to explore the spiritual side of technology. Do the combined imaginative powers succeed to change the exhibition?

Registration:
dramaturgie@kunsthallewien.at

Performances
In collaboration with

brut

Wed 30/3, 6 pm
Philippe Decrauzat in conversation with Nicolaus Schafhausen. (in English)
Kunsthalle Wien Museumsquartier

Thu 31/3, 8 pm
Philippe Decrauzat & Alan Licht
Anisotropy
Concert performance
brut, Karlsplatz 5, 1010 Wien

Kunsthalle Wien and brut present Philippe Decrauzats film *Anisotropy* accompanied with a live performance by New York guitarist and composer Alan Licht.

Thu 7/4, 8 pm
Geumhyung Jeong
CPR Practice
Performance
brut, Karlsplatz 5, 1010 Wien

In her piece *CPR practice* the South Korean choreographer and performance artist tries to reanimate a puppet, which seemingly stopped breathing. The medical training session merges into a paradoxical play of love and desire, solitude and death, subject and object.

Music
Fri 8/4 & Sat 9/4, 10.30 pm
Electric Spring Festival

ELECTRICSPRING

As part of this year's *Electric Spring Festival* Asfast, Infinite Pal, Ull Kühn, Christine Schörkhuber aka Canned Fit, Viennoise and Tagtool will play at Kunsthalle Wien. In cooperation with the MuseumsQuartier and the City of Vienna.

Free admission, www.electricspring.at

Filmscreening
In collaboration with Filmarchiv Austria

METRO KINO KULTUR HAUS
FILM ARCHIV AUSTRIA

Wed 11/5, 8 pm & Thu 12/5 & Fri 13/5, from 6.30 pm
Total Automation
Metro Kinokulturhaus

With the accompanying film program *Total Automation* the Filmarchiv Austria and Kunsthalle Wien address the promise and the consequences of total automation. A selection of films visualize the complexity and the potential of the relationships/relations between man and technology.

Wed 11/5, 6 pm
Curator´s tour with Anne Faucheret and Tomáš Mikeska
Kunsthalle Wien Museumsquartier and Metrokino Kulturhaus

Colophon

Exhibition
Kunsthalle Wien GmbH

Director
Nicolaus Schafhausen

CFO
Ursula Hühnel-Benischek

Curator
Anne Faucheret

Exhibition Management
Juliane Bischoff
Hektor Peljak

Construction Management
Johannes Diboky
Michael Niemetz

Technicians
Benl Ardolic
Frank Herberg
Mathias Kada

External Technicians
Harald Adrian
Hermann Amon
Dietmar Hochhauser
Alfred Lenz
Danilo Pacher

Art Handling
Marc-Alexandre Dumoulin
Johann Gröbner
Scott Hayes
Lazard Lyutakov
Johann Schoiswohl
Andreas Schweger
Stephen Zepke

Marketing
Dalia Ahmed
David Avazzadeh
Katharina Baumgartner
Adina Hasler
Victoria Rahsl (Intern)

Press and Communication
Katharina Murschetz
Stefanie Obermeir

Fundraising
Silvia Keller

Event Production
Gerhard Prügger
Dramaturgy
Andrea Hubin
Vanessa Joan Müller
Eleanor Taylor

Education
Isabella Drozda
Martin Walkner

Educators
Wolfgang Brunner
Daniela Fasching
Ursula Leitgeb
Martin Pfitscher
Michael Simku

Assistant CFO
Sigrid Mittersteiner

Finances
Mira Gasparevic
Doris Hauke
Natalie Nachbargauer

Visitor Service
Kevin Manders
Christina Zowack

Exhibition Booklet

Publisher
Kunsthalle Wien GmbH

Text
Anne Faucheret
Vanessa Joan Müller
Eleanor Taylor

Translation
Cathy Lara & Associates
Art Office

Editing
Katharina Baumgartner
Isabella Drozda
Vanessa Joan Müller
Katharina Murschetz
Martin Walkner

Design
Boy Vereecken
Antoine Begon

Print
REMA LITTERA PRINT
Ges.m.b.H.

Kunsthalle Wien GmbH
is Vienna´s exhibition space
for international contemporary art
and discourse.

Many thanks to:
Ferdinand Bakanic, Paul Bernard, Ewald Bilonoha, Alexander Hahn, Karin Harrasser, Thomas Heher, Kathl Hofer, Andrea Hubin, Ernst Kieninger, Kira Kirsch, Marie Klimešová, Helmut Lackner, Jacopo Lanteri, Birgitt Lerch, Tomáš Mikeska, Otmar Moritsch, Matthias Nothnagel, Katharina Seidler, Anna Steiger

LEITUNG:
YOSI WANUNU, HAIKO PFOST, SABINE MARTE, OLIVER STOTZ, BERND EISCHEID, JOHANNES WECKL

REI-GEN

WERK-X.AT

(THE MAKING OF A POST PORN SCHNITZLER)

AB 10.03.2016

© Kunsthalle Wien. Foto: Andrea Fichtel, 2014

+TON +BILD

The Projection of Art

Für: Kunsthalle Wien, Tate Modern,
Ars Electronica Linz, Brucknerhaus
Linz, MuseumsQuartier Wien, Kunsthaus
Bregenz, Swarovski, Zumtobel ...

www.tonbild.at
office@tonbild.at
+43 (0) 664 15 34 917

Information

More information on guided tours and programs you find here:
kunsthallewien.at
blog.kunsthallewien.at
facebook.com/Kunsthalle Wien
instagram.com/Kunsthalle Wien
twitter.com/Kunsthalle Wien
#Automation

Kunsthalle Wien GmbH
Museumsplatz 1
1070 Wien, Austria
www.kunsthallewien.at
+43 (0)1 521 89-0