

# PERCEPTION IS REALITY

ÜBER DIE KONSTRUKTION  
VON WIRKLICHKEIT UND  
VIRTUELLE WELTEN

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FRANKFURTER  
KUNSTVEREIN

## ARTISTS

### Perception is Reality: On the Construction of Reality and Virtual Worlds

October 7, 2017 – January 7, 2018

Participating Artists: Thomas Demand, Alicja Kwade, Marnix de Nijs, Hans Op de Beeck, David O'Reilly, Manuel Roßner, Bayerisches Landeskriminalamt, Christin Marczinik & Thi Binh Minh Nguyen, Toast

Curated by: Franziska Nori

Together with the participating artists, the exhibition aims to open up various questions surrounding the relationship between perception and the ways we construct reality.

In his work "Wetware", **Manuel Roßner** (\*1989) has digitally recreated the architecture of the Frankfurter Kunstverein. Countless photographs of the interior and exterior gave Roßner the raw data for his illusionistically constructed virtual environment. With the help of VR glasses, the visitor enters a replica of the real room they are in and then proceeds to perceive and react to the changes of this fictitious twin. In this virtual space, there is an enormous sculptural form: a cube in an undefined state of matter, flowing like quicksilver. It breaks through the ceiling and liquefies, and in doing so seizes and floods the entire realm of experience with an explosion. The user can determine the location, timespan, and behaviour of the fluid material using a controller. Roßner uses physics simulators, software, and scientific databases on the Internet as tools to visualize the behaviour of this material in space. He generates the material according to physically exact parameters with the help of simulation tools and programmed effects, but then freely combines and arranges it independently of real physical laws. The surface of the flowing form has the reflective properties of metal and refracts the artificially set lights. The user can change the material's viscosity, from fluid to paste-like, thereby also changing how the form behaves in space. Roßner's visual worlds do not follow

a narrative. They are a pure experience of colour, form, and material in space. In this controlled, virtual space, he redefines the material's properties, thus creating sculptures in a virtually constructed aesthetic simulation. The work's title, "Wetware", refers less to the virtual experience of the fluid form than it does to the user. "Wetware" is a colloquial term used in IT. In contrast to hard and software, it designates a biological life form, which, like humans and their organs, consists mostly of water.

The artist and game developer **David O'Reilly** (\*1985) presents the work "Everything". Here, viewers take a journey without a fixed course through a boundless world. Far from making any claims to realism, it offers us a poetic, philosophical, and holistic view of time and existence. "Everything" is an experience simulator that enables users to adopt changing perspectives in a computer-generated world – be it that of a cell, an animal, a particle of light, a whole continent, or even a galaxy in outer space. There's no story, protagonists, tasks, or even the missions common to video games. O'Reilly developed his work using insights drawn from the British philosopher Alan Watts, who questioned the anthropocentric gaze and the idea that humankind is the centre of all creation. The construction of "Everything" is nonlinear and allows the user to constantly change perspectives. The game can run endlessly. When there's no input from the player, the simulation switches into auto play mode and takes users into the depths of the programmed world. Charles and Ray Eames' 1977 short film "Powers of Ten" also serves as one of O'Reilly's references. The film visualizes the scales of micro and macro systems. We see a journey scaled in relation to the human body at various powers of ten – to the edge of the known universe and back to the core of an atom in a human body. O'Reilly's work follows the thesis popular among some researchers that all biological systems share foundational organizational principles. From atoms, to animals, to trees or even stones and galaxies – all phenomena follow the same principles organized according to the scaling laws. Time, space, and human perception are the essential aspects around which "Everything" revolves. O'Reilly describes his interactive work as a "playable nature documentary". Unlike a documentary film, however, O'Reilly dissolves the neutral observer perspective, preferring instead to invert it so that the player can adopt countless perspectives, be it that of an individual or even of a collective. The point of view can be changed at any time in order to leave the human-centred "I" perspective and become any other life form or phenomenon, and thus to become "everything".

The virtual reality game "Plank Experience" by **Toast** takes the mind/body split to the extreme. Using VR glasses, exhibition visitors once again find themselves in a big city. This time they enter a virtual elevator whose door opens onto a skyline 160 meters up. This is where the parallelism begins.

Within the virtual space, the user is challenged to balance above the depths on a wooden plank. In the real space, the visitor can feel a board under their feet and physically sense wind from a fan. The viewer knows it's an illusion, and yet in that moment the brain and body still react with a fear of heights. The digital world triggers the same bodily and mental reactions as the corresponding experience in the analogue world. As a result of its lifelike simulation, the game is also being used in therapeutic applications to overcome acrophobia. The degree of naturalism is relatively high in the "Plank Experience", but experience with VR technology has also taught us that the brain needs only a few factors to accept a simulation as real. Reason is outwitted, reality replaced by illusion. Constructed experiences arise that trigger intense emotional and physical reactions in the viewer and, according to neuro-scientific studies, these establish themselves in memory as being real.

Given that the brain experiences perceptions in virtual space as real and subsequently stores them as 'real' memories in long-term memory, one can't help but pose several questions about the profound social changes such technologies might effect in the future: Will people become predominantly active in a non-analogue world given the growth of VR technology? What relationship will the virtual environment have on the real one? Will individuals see their actions in the digital sphere as useful and practical extensions of those in the real world, or will they seek to escape into a world of illusions? What will happen to the idea of the political body in public space? And who will ultimately preside over these technologies, these instruments that can influence people's emotions and opinions so strongly? Will it be possible to develop a counter-culture or a pragmatic technological culture in virtual space, or will it be just as heavily regulated by global corporations?

Digital visualizations and representations of crime scenes from the department of "Zentrale Fototechnik und 3D-Tatortvermessung" (Central Photo Technology and 3D Crime Scene Mapping) of the **Bayerisches Landeskriminalamt** (Bavarian State Police) are made available here to the public for the first time with the help of VR technology. These applications enable us to enter crime scenes and examine them independently of place or time from every conceivable position, whether close-ups or panoramic views. The images are produced by combining various different imaging techniques. Their purpose is to make the scene precisely measurable and interpretable.

Another application comes from the context of forensic medicine. 3D reconstructions of victims' bodies can be visually examined from the inside, enabling investigators to use observations about the structure of tissues and organs to make inferences about the nature of external acts of violence. During the Renaissance, new measurement techniques and mathematical models enabled new ways of visually representing space, landscapes, and the insides of the human body. Today, measurements with laser scanners,

photogrammetric technologies, digital mapping, and image editing software likewise enable us to create three-dimensional representations. Thanks to VR glasses, the viewer can glance through a combination of perspectives, a synthesis of cartography, mathematics, and geodesic knowledge. In these precise reconstructions, one can determine the linear relationship to an object in space, visualize it and change the observer's respective position in relation to it.

These new methods of precise measurement were developed according to criteria of plausibility. The images visualize data and information, but they must also enable reliable interpretations and be up to date with the latest scientific developments. The Office of Criminal Investigation's visual world dismantles the Renaissance's central perspective while also supplementing it with an infinite series of possible perspectives. Technological forensics combines temporally different moments. It unifies them into a visual space while serving both as a photographic crime-scene document and as a form of medical evidence in court.

Currently, these technological applications and visual worlds are still reserved for experts: forensic scientists, criminologists, judges, and lawyers. But in the coming years, it is set to establish itself widely and even replace written records. Virtual worlds are now used to verify witness testimonies as well as to compile and reconstruct evidence, as they are accessible at any time. These immersive environments create spaces for experts to meet virtually and examine evidence. They apply both to current and historical crime scenes reconstructed from available documents (plans, photos, blueprints), such as in Hessen's State Office for Criminal Investigation's 3D reconstruction of Auschwitz.

**Thomas Demand** (\*1964) presents the work "Patio" in the Frankfurter Kunstverein. Today, photography is free of the assumption that it undoubtedly depicts an instance of the real world. In a turn by now distinctive of Demand's practice, photography instead presents a reconstructed reality. The starting point is no longer a direct image of reality or an excerpt thereof, but rather places and things that have already been depicted by the media. Demand draws his motifs from mass media, the press, and the Internet. He then creates scale reconstructions of them, using paper and cardboard in his studio. The motif thus becomes a backdrop, and the backdrop a motif: an almost tautological circle in thought where the image makes its own claim on reality. "Patio" reproduces details from the backyard of the house that served as the hideout for one of the most wanted men in America: James "Whitey" Bulger. Bulger lived undetected for more than sixteen years in a humble apartment in Santa Monica until he was captured there in 2011 after several warrants had been issued for his arrest. The events even made their way into the German television program "Aktenzeichen XY... ungelöst". The ubiquitous practice of

amateur tourist videos was ultimately what led to Bulger's detection. Since 1991 he had been on the FBI's most-wanted list for his involvement in 19 murders, blackmail, unauthorized possession of firearms, bank robbery, criminal conspiracy, and money laundering. Bulger became a public figure, eventually inspiring the novel "Brutal", which Martin Scorsese would base his film "Departed" on. Several other film and television productions would also be based on the criminal's biography, including "Brotherhood", "Black Mass", and an episode devoted to him on "Gangsters: America's Most Evil". The entanglement of a real subject and their mediatized public image become almost tangible here.

Demand's work portrays the conspicuous inconspicuousness of this place: the invisibility of a man who managed to remain hidden in a big city and subsequently adjusted his life to become as unspectacular as possible. This image shirks all expectations of spectacle and depictions of the violence that Bulger and his arrest were linked to. In his work, Demand augments the original mediatized image, inverting the relationship between signifier and signified, word and image as well as the question of the veracity of representation. The motifs Demand chooses often conceal the aftermath of destruction, either human or natural, within them. He seeks out fragments, artificially reconstructs them and empties them of any narrative or human presence. The reconstructions, however, maintain important references to reality: both the one-to-one scale of the set and the dimensions of the photographic space. The viewer's body thus enters into a physical relationship with the work. Demand's works are deceptive, and their 'photorealistic' manner of representation gives the viewer a false sense of reality. His motifs are distanced from reality through several stages of transformation. The viewer's perception is cheated, and they are left to cognitively rediscover and compose what's really real. His image doesn't tell a story. It remains open, producing a space of imagination, interpretation, and poetry.

"The Garden Room" is an installation by **Hans Op de Beeck** (\*1969) especially produced for the exhibition – an immersive space that transports the viewer into a fictive parallel world by entirely analogue means. Op de Beeck produces a room in a room, a lifelike world crafted in monochrome grey. An artificial water basin, plants, divans, and figures are all on view. The basin defines the space; its water has frozen into a glassy, black, reflective surface. The objects and figures in the installation are true-to-life reconstructions, precise reproductions of real existing things and life forms. Yet immobile, everything living seems frozen and lifeless, everything opaque and grey. The light here casts no shadows. The room's grey recalls the graphite of a pencil: the draughtsman's tool for spellbinding reality to a piece of paper. Op de Beeck transports the viewer into a virtual reality, a parallel world. His environments, however, are hardly reconstructions of reality, but rather representations of

interior associative worlds, where the visitors move around the frozen figures. One could speak of an animated still life, an image where work and viewer become one, occupying the same unit of time for the duration of the encounter. The artist devitalizes both image and figure. They are colourless shells frozen in a seemingly lively movement. Mirrored walls expand the real space into a constructed infinity. With everything else poised in sculptural rigidity, it is only the viewer who navigates this “hortus conclusus” as if through a condensed space of memory. The artist brings to life an artificial, immersive space all without the use of VR technology. The objects are three-dimensional still lifes whose motifs are both the absence of time and the way it stands still. The viewer impinges on this world and breaks the illusion through their reflections in the mirrors. In this artificial illusion, the viewer’s physical body encounters the frozen materiality of the sculptures. Life and timelessness confront each other in a three-dimensional backdrop for memories and dreams. Op de Beeck’s sculptures and installations are landscapes you can enter, artificial backdrops for an encounter where the viewer moves as though in a timeless photograph or drawing.

Near to Op de Beeck’s installation, one finds the work “Swing” by **Christin Marczinik** (\*1988) & **Thi Binh Minh Nguyen** (\*1987). The VR installation uses a swing as the controller. Via VR glasses, the user can experience an artificial landscape far beyond the exhibition space’s restrictive walls. The use of one’s body determines the intensity of the virtual experience. The faster a user swings, the higher the view extends over a world of images that makes no claim to realism, but rather uses painted paper collages as an aesthetic metaphor. The VR installation plays with the intensification of the illusion via bodily perception and its deception. The sense of balance while swinging situates one’s body in space, though one’s visual perception is focussed on a visibly constructed world and is totally dissociated from the real environment. Synchronizing image and movement produces a plausible illusion despite its visual abstraction. The swing as interface intensifies the bodily experience so that not only the sense of sight, but also one’s sense of balance is activated. The work intentionally uses the motif of the swing, which since ancient times has stood for the desire to overcome gravity and to disengage from the real world. Here, these associations culminate in an open metaphor for the possibilities of virtual reality.

**Alicia Kwade** (\*1979) presents the installation „Gegebenenfalls die Wirklichkeit” (‘possibly reality’) developed especially for the Frankfurter Kunstverein, which takes up the central themes of the exhibition and highlights them from a conceptual and sculptural perspective. The work revolves around contemporary art’s engagement with matter and its digital transformation. The installation is dominated by a partially finished granite sculpture. The natural

stone was recorded using 3D scanning techniques, and the digital data from the surface measurements was transmitted to a milling machine, which then created an exact copy of the original. The artist stopped the process during the course of milling. This gives way to a sculpture that hangs in the balance between its natural and technological form. The walls are covered with printouts of the mathematical coordinates produced by the scans of the original stone: 30,000 sheets in total, some of which are also stacked on the floor or sealed in copper time capsules. The source code is a mathematically precise description of the ordinary form, the information about the object transferred between machines without any human assistance. The code encapsulates the form, making it potentially infinitely reproducible. Looking at the sculpture itself doesn't enable any decisive interpretation. Does the object still have something of its natural form, or is it still an unfinished work in progress, and if so which part is still in progress? The object fills the viewer with doubt. It triggers a short-circuit in what we think we're seeing. Kwade takes herself out of the process of realizing the form. Nature provides the model; the machine scans, measures and reconstructs. Viewing alone isn't sufficient for a decisive interpretation of the work and fills the viewer with doubt about whether reality is beginning to seem synthetic, or whether the synthetic is beginning to seem real.

The work also relates to classical works like Michelangelo's "Non-Finito". Rodin would later establish this as his own style, declaring the incomplete an autonomous form and subsequently liberating himself from Naturalism. Kwade, by contrast, shifts the focus in her work. She transfers naturalism, authorship, and reconstruction to the machine, which is now the primary agent and realizer of the form. The incomplete, unperfected form that was determined by external conditions of the material and its dimensions in Michelangelo's case becomes a technological process for Kwade. Giuseppe Penone's "Essere Fiume" also stands as a reference here. Penone's work consisted of two identical stones: one, which was formed by time and the flow of water over the riverbed, the other by the artist's hand. Nature and artifice, model and copy, nature and humans as producers of form in concert with the material.

In his works, multimedia artist and sculptor **Marnix de Nijs** (\*1970) investigates the effects of interactive technologies on the viewer's sensory and bodily perception. His work brings the human body into a direct relationship with machines by allowing the body to experience itself as an extension of machines and intuitively decide how they are physically used. In the interactive installation "Run Motherfucker Run", the user runs on a sort of treadmill in front of a projection that occupies the whole field of view. Only through their physical actions can viewers activate the various 3D scenarios and decide which one they want to follow.

The installation directly couples the physical act of running with the interactive visual world and its acoustic landscapes. The projection shows a combination of film and 3D images of a gloomy, urban Rotterdam. Various night-time scenes appear, and all lack the faintest human presence. Via the technological transmission of their movements, the user becomes their own interface. In the spirit of McLuhan, Marnix de Nijs' treadmill becomes an extension of the human body.

The installation aims at a bodily experience between digital and analogue as well as dissociation between mind and body. The tempo at which the viewer uses the treadmill has a direct impact on the intensity of the aesthetic experience. The physical exhaustion is real and experienceable, though the effect is only visually simulated since the viewer doesn't cover any ground. Who's driving who? Can cause and effect be clearly distinguished here in the relationship between man and machine. The feeling of being on the run is a main element of the experience and epitomizes the feeling of imminent danger. Should the user unexpectedly stop running, the treadmill won't, and will subsequently throw the user to the ground. Speed and risk become bodily sensations and are a central part of the experience.

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