

9.9.17.

# The Art of Immersion

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ENGLISH

# The Art of Immersion

# Peter Weibel

## *The Art of Immersion*

### Preface

The first traces of human visualization, that is cave paintings, are evidently conceived as representations of the environment and its inhabitants. The image appeared as a concept of representation. But we have to distinguish between the idea of the image and the technical carrier medium of the image. The media of the first human-made images were the rock and the wall. Over the centuries the idea of the image migrated from one technical guest medium to the next, from wall to canvas. Within this dynamics of different guest media the technical properties and features of the image changed as well.

The fresco painting was panoramic and life-size, whereas the canvas painting was just a window into the world, even a frozen window, a small frame. It is worth noting that already Leon Battista Alberti instructed painters in his *De pictura* (1435) to consider the frame of the painting as an open window. Over the last 500 years the metaphor of the image as a window remained a leading concept: from painting to photography to the TV set and video monitor to film and, last but not least, to the computer screen, which is conceived as a window even more since “windows” became the brand name for well-known graphical operating systems. Our latest digital technology has enabled us to expand the concept of the image by new technical carrier media into many directions.

Cinema was the first visual medium that could imitate motion. This was the most important breakthrough in the history of the image as simulation of life: living organisms are distinguished by the fact that they move, whereas the

dead are motionless. The images started to move. Therefore, they have been referred to as moving images. Since in the beginning the cinema could only depict "life" in black and white instead of simulating it in vivid colors, the next step led to color film. Yet something was still missing from real life, since film was still silent film. Therefore, the next step was sound film. Beginning in the 1930s, we had moving images with sound and color, like in real life. But again, the film screen was still a small window, so cinema extended its frame, its screen, in various formats such as CinemaScope, VistaVision, Circle-Vision 360°, the dome system OMNIMAX, and so on. With digital technology as technical carrier the character of the image changed most radically and could better than ever before simulate reality. Just like in a real-life environment the viewer can interact with the image in a digital virtual environment. The viewer can participate, interact with, and navigate through the image space, sometimes even in a three-dimensional way, like in real space.

With panoramic projections cinema became a virtual environment, and thus resembles our real sensory environment much more than ever before. Cinema became truly immersive. With the moving images and the spectators, who can now also keep their bodies in motion and move around freely while they interact with the image, the cinematographic imaginary triumphs as an acoustic and visual immersive environment. So, what are the effects of the carrier media of our state-of-the-art imagery today and what metaphors are there to conceptualize these images? Are we still intrigued by the view through a window frame or are we



stepping through the doorway of a multi-sensory virtual environment? We are back to a highly technological simulation of cave paintings, that is, of representations of our environment and its inhabitants, but we are now ourselves the first-time inhabitants of our own images. The sensual experience of the art of immersion is the actual peak of cinematographic imaginary because it is the art of performing in an almost perfectly simulated environment. The art of immersion describes the transition from the visual window, in all its historical formats, into a virtual environment.



# Dennis Del Favero

## iCinema Projects for *The Art of Immersion*

### Interactive Narrative

Traditionally, interactive narrative is conceived as involving one-way, or monologic, interaction between two types of sensory and decision-making agencies, one human and the other digital, where narrative mirrors the deliberations of the human agent. The iCinema projects presented as part of *The Art of Immersion* explore how, if both are given relatively independent status, the quality of the narrative experience is enriched, such that it is a two-way, or dialogic narrative between two distinct perceptual and cognitive systems – on the one hand, the adaptiveness and subtlety of the human; and on the other, the speed and scale of the machine. In doing so, they provide a foundation for an ontological theorization and realization of a human-machine narrative in art, exploring it as an interrelationship between two relatively autonomous decision-making agencies able to make dialogic sense of each other's actions – a behavioral dialog that acts as a running deliberation on their mutual interaction.

### Immersive Visualization

Conventionally, immersion in art is conceptualized as enveloping the user in an installation space that acts as a setting for an image. The iCinema projects presented integrate the user's entire body within an image space, where the image is literally a spatial environment within which the user is immersed, dramatically enhancing the immediacy and

potency of the experience. Here the technology recedes in the awareness of the user; it does not impede the natural flow of interaction, thus enabling an unhindered form of communication between the physical and the virtual. The environment's ability to respond to the user's complete range of physical interaction differentiates it from VR head-mounted displays because it immerses and empowers the entire body rather than only engaging the eyes and ears.

## Experimental Aesthetics

Conventional arts-based research has tended to split the configuration of digital aesthetics into three stand-alone dynamics: the creative, the technological, and the analytical. The creative looks at how these dynamics are produced through art. The technological looks at the way they are produced through computing. The analytical looks at the way they are produced through aesthetics. iCinema's research demonstrates how all three modalities can be integrated through an experimental exploration of the way digital aesthetics provide dynamic experiences that are simultaneously creative, technological, and analytical. For example, rather than treating the dynamics of a scene as either artistic, computational, or theoretical, it explores how interactivity integrates each to create an entirely novel way of experiencing, shaping, and understanding a scene. This is seen in *T\_Visionarium IV*, which explores new forms of aesthetics using a televisual database by turning the current television paradigm on its head. Rather than users

passively watching a range of genre-based films, it allows them to edit and analyze up to 350 at any one time, extracted from a database of 40,000 films, projected in 3D across a 360° screen, and in the process creating their own micro-films. Users can select material via a touchpad, using an infinite range of “image associations.” For example, if users select a scene in one of the 350 films where there is a “fiery landscape” or the color “green,” the installation then automatically searches through the database for films with similar scenes, displaying the 350 most similar. The viewer can then edit and save these selections to create up to eight new micro-films made entirely of “fiery landscapes” or “green” scenes, or any combination of the two. Other selections from the thousands available might be “conversations” or “love.” Users can then use these to analyze the patterns underlying the use of these scenes, and/or combination of scenes. This approach to aesthetics allows the viewer to explore a filmic scene as a simultaneously imaginative, technical, and conceptual experience.

# *Deluge*

Dennis Del Favero with  
Volker Kuchelmeister, Terry Smith,  
Stephen Sewell

2016, Interactive installation for panoramic projection  
environment

*Deluge* is an interactive computer graphic installation based on the events surrounding the devastating Yasi superstorm that hit the Australian state Queensland in 2011. It follows a young woman as she explores a series of postcyclonic scenes. In one scene she desperately looks for something she has lost in a landscape where everything has been washed away. In another she tries to stand absolutely still in the middle of cyclonic winds as they tear her clothing apart. As she tests the endurance of her mind and body, she questions what she can really believe when everything she believed in no longer exists. Each of these scenes acts as a “thought experiment” in which she tries to imagine the impossible – what it is like living through a devastating cyclone. By forcing herself to imagine the impossible, she invites us to imagine a world made strange by climate change.

Australian Research Council Investigators: Dennis Del Favero,  
Jeffrey Shaw, Johnny Chan, Terry Smith  
Programmers: Som Guan, Rob Lawther, Alex Ong  
Composer: Kate Moore  
Audio Engineers: Reuben Chapman, Som Guan, Rob Lawther,  
Alex Ong, Ryan Sorensen  
Actress: Hayley Sullivan  
Voice-Over: Sacha Horler  
Costume Designer: Karla Urizar

Production: UNSW iCinema Centre and ZKM | Center for Art and  
Media Karlsruhe, supported under the Australian Research  
Council's Discovery Grant scheme

September: 8.9. / 14.9. / 16.9. / 21.9. / 23.9. / October: 19.10. / 21.10. /  
26.10. / 28.10. / November: 23.11. / 25.11. / 30.11. / December: 2.12. /  
28.12. / 30.12. / January: 4.1. / 6.1.

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*iData*

Dennis Del Favero, Peter Weibel

2017, Interactive installation for panoramic projection environment

*iData* is an interactive computer graphic installation enabling immersive navigation and editorial recomposition of heterogenic data into narrative forms using the ZKM Media Museum archive. Database architecture, visualization, and engagement figure among the key challenges currently addressed in international research to advance innovation and progress in digital domains. *iData*, similar to *mARChive*, opens up new capacity in the field of museological data organization and visualization by delivering a world-first experimental application and platform that assembles a new set of interactive functions allowing for unprecedented flexibility of engagement. The aesthetic and technical features of the project – through which interactive database visualizations are implemented in a fundamentally new way – include, as with *mARChive*, an immersive 360° data browser, a recompositional system, a web-enabled scalable navigation system and the collaborative exploration of data in an immersive space. These advances, which open up new forms of experience and interaction for users while providing an opportunity to track their interactions within the installation environment, give rise to new knowledge in the field of digital aesthetics.

Australian Research Council Investigators: Dennis Del Favero,  
Neil Brown, Paul Compton, Jeffrey Shaw, Horace Ip,  
Sarah Kenderdine, Tim Hart, Peter Weibel

Programmers: Som Guan, Volker Kuchelmeister, Alex Ong

Audio Engineer: Reuben Chapman

Composer: Kate Moore

Archival collection: ZKM | Karlsruhe

Production: UNSW iCinema Centre and ZKM | Center for Art and  
Media Karlsruhe, supported under the Australian Research  
Council's Linkage Grant scheme

September: 8.9. / 9.9. / 10.9. / 13.9. / 15.9. / 17.9. / 20.9. / 22.9. / 24.9. /  
October: 18.10. / 20.10. / 22.10. / 25.10. / 27.10. / 29.10. / November:  
22.11. / 24.11. / 26.11. / 29.11. / December: 1.12. / 3.12. / 26.12. /  
27.12. / 29.12. / January: 3.1. / 5.1. / 7.1.

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# *mARChive*

Tim Hart, Sarah Kenderdine,  
Jeffrey Shaw

2016, Interactive installation for panoramic projection environment

*mARChive* is an interactive and immersive 360° 3D installation enabling immersive navigation and editorial recombination of heterogenic data drawn from 19 of Melbourne Museum's collections into narrative forms. Database architecture, visualization, and engagement figure among the key challenges currently addressed in international research to advance innovation and progress in digital domains. *mARChive* opens up new capacity in the field of museological data organization and visualization by delivering a world-first experimental application and platform that assembles a new set of interactive functions allowing for unprecedented flexibility of engagement. Aesthetic and technical features that revolutionize interactive database visualization include: (a) an immersive 360° data browser presenting multilayered and heterogeneous data; (b) a recompositional system enabling the reorganization and authoring of data; (c) scalable navigational systems with incorporated internet functionality; (d) collaborative exploration of data in a shared immersive space by multiple users; and (e) an intelligent interactive system able to analyze and respond to users' transactions. These advances enable users to manipulate simultaneously multiple databases and multiple data forms according to their interests. Their tracked interactions within the installation environment provide the rare opportunity to investigate patterns in users' exploration of virtual space,

their recombination of data, as well as their engagement with complex forms of digital information. This enables a study of the ways in which aesthetic meaning emerges from interaction – a key area for innovation in digital aesthetics.

Australian Research Council Investigators: Dennis Del Favero, Neil Brown, Paul Compton, Jeffrey Shaw, Horace Ip, Sarah Kenderdine, Tim Hart, Peter Weibel

Programmers: Som Guan, Volker Kuchelmeister, Alex Ong

Audio Design: Sound Design David Chesworth and

Wax Sound Media

Archival collection: Museum Victoria, Australia

Production: UNSW iCinema Centre and ZKM | Center for Art and Media Karlsruhe, supported under the Australian Research Council's Linkage Grant scheme

September: 14.9. / 16.9. / 21.9. / 23.9. / October: 19.10. / 21.10. / 26.10. / 28.10. / November: 23.11. / 25.11. / 30.11. / December: 2.12. / 28.12. / 30.12. / January: 4.1. / 6.1.

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# *Nebula*

Dennis Del Favero with  
Peter Weibel and Elvira Titan

2017, Interactive installation generated by Artificial Intelligence (AI) algorithms

*Nebula* is an experimental cinematic adaptation of the 1835 novella *Lenz* by Georg Büchner. While traditional interpretations of the novella see it as depicting the last days of the writer Jakob Lenz, as he progressively succumbs to madness while trekking across the German Alps, *Nebula* resets the novella as a dream work that explores the conflict-ridden yet inextricable relationship between the human and the natural world, using iCinema's 360° 3D cinematic theater. Büchner, best known for his revolutionary drama *Woyzeck*, was also a biologist and one of the first scientists to argue that all things are interconnected, constituted as they are by the same primary particle matter. *Nebula* accompanies interactively a protagonist as she traverses a spectrum of interconnected dream worlds generated through an AI particle visualization system. Ranging from worlds composed by the microscopic particles of her own body to worlds created by the macroscopic particles of the atmosphere as she floats 30,000 kilometres above the Earth, each world emerges as a door that opens unexpectedly onto the next.

Australian Research Council Investigators: Dennis Del Favero,  
Jill Bennett, Neil Brown, Jeffrey Shaw, Peter Weibel,  
Ursula Frohne, Johnny Chan  
Programmers: Som Guan, Volker Kuchelmeister, Rob Lawther,  
Alex Ong  
Audio Engineers: Reuben Chapman, Som Guan, Rob Lawther,  
Alex Ong  
Composer: Kate Moore  
Voice-Over: Sacha Horler

Supported by UNSW Art & Design UNSW Engineering

Production: UNSW iCinema Centre and ZKM | Center for Art and  
Media Karlsruhe, supported under the Australian Research  
Council's Discovery Grant scheme

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27.12. / 29.12. / January: 3.1. / 5.1. / 7.1.

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# *T\_Visionarium IV*

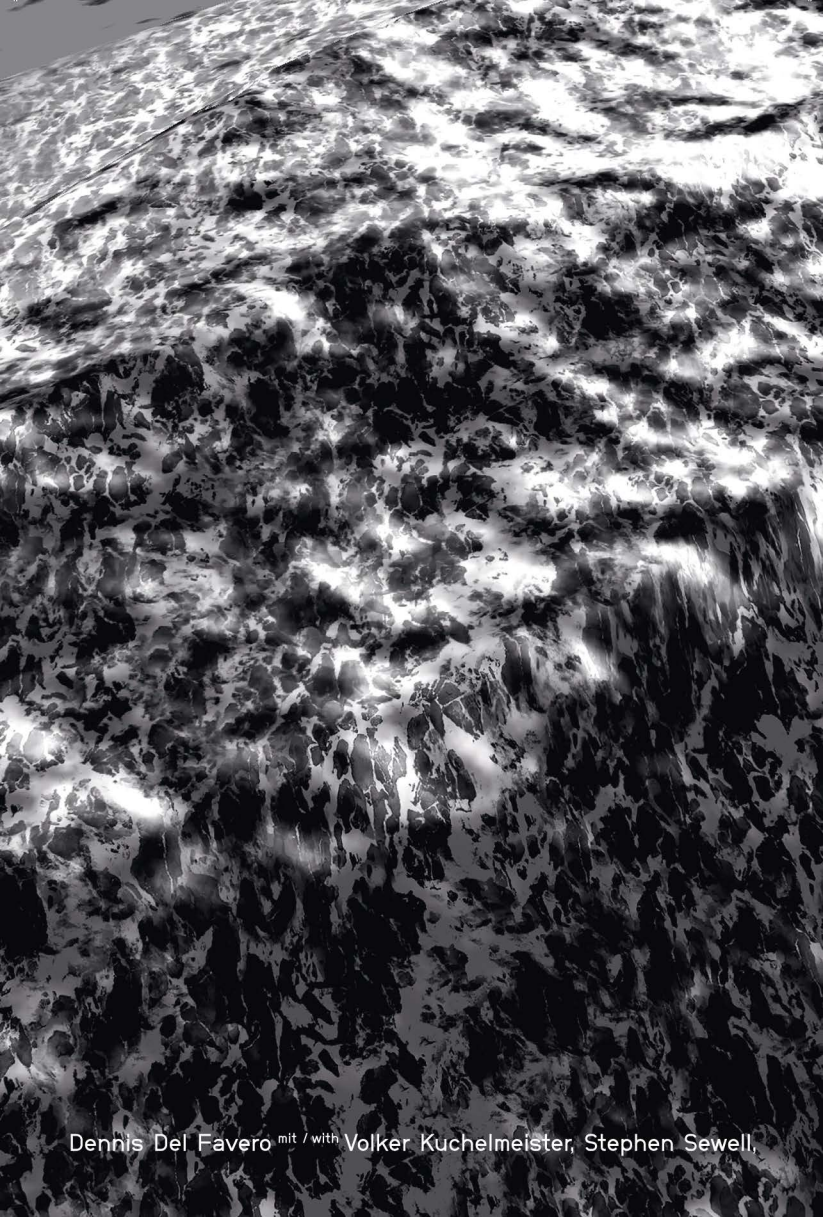
Neil Brown, Dennis Del Favero,  
Jeffrey Shaw, Peter Weibel

2008–2017, Interactive installation for panoramic projection environment

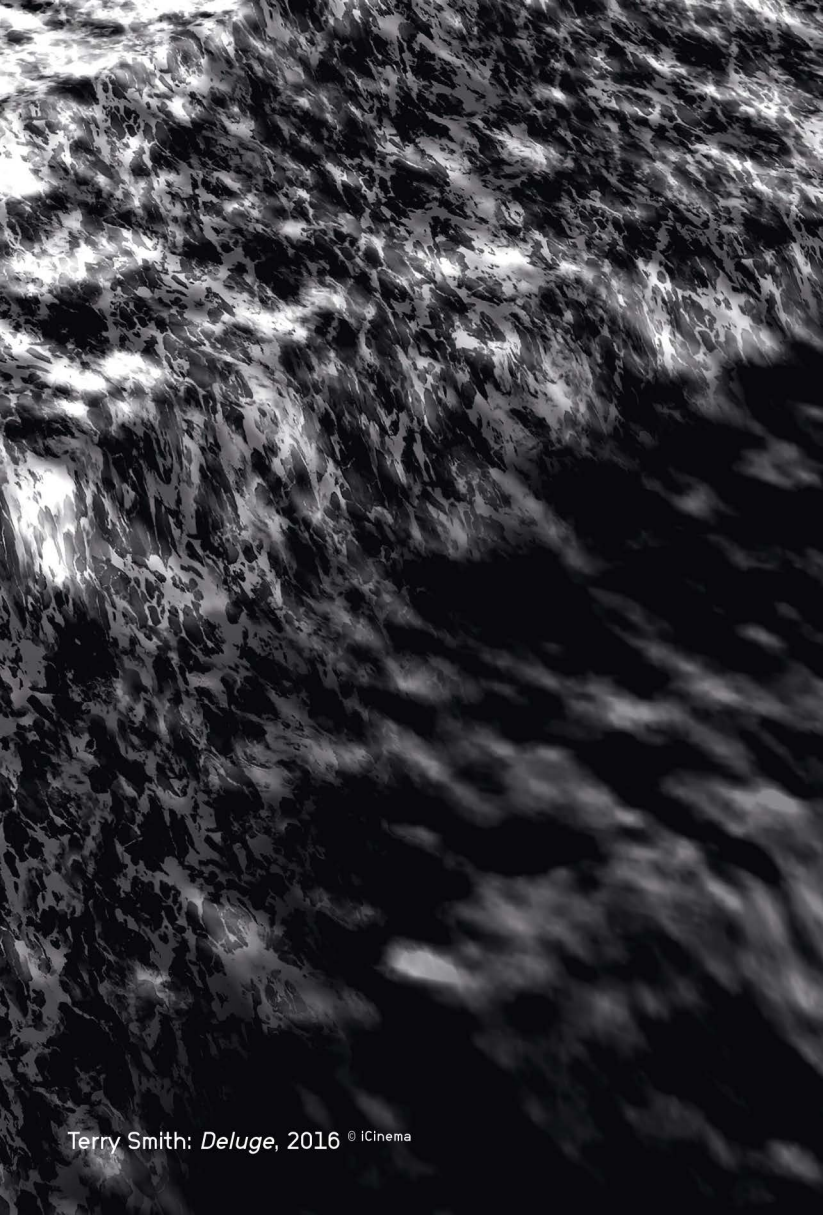
*T\_Visionarium IV* is an interactive 3D computer graphic installation that transforms the visualization of and interactive engagement with multidimensional televisual data. Digital media create and afford new aesthetic forms and structures that are subject to international interdisciplinary research, spanning the arts, humanities, and computer sciences. *T\_Visionarium* provides a hitherto unprecedented opportunity to study emergent forms of interaction with digital resources by delivering an immersive 3D 360° visualization space in which users can interact with a database of approximately 22,000 video files sourced from Australian television programs. Wearing stereoscopic glasses, users engage with data using a handheld interface, repositioning and reassembling images into relational clusters, shaping new cinematic narratives as they move around and through the virtual data image planes. *T\_Visionarium* has resulted in significant innovations in the global theorization of interactive narrative as well as in its application to multimodal technologies, significantly enhancing user engagement with database narrative forms. In its fourth iteration as *T\_Visionarium IV*, it enables users to compose and save up to eight of their micronarratives using any number of the 22,000 video files, while allowing subsequent users to modify these narratives in turn.







Dennis Del Favero mit / with Volker Kuchelmeister, Stephen Sewell,



Terry Smith: *Deluge*, 2016 © iCinema

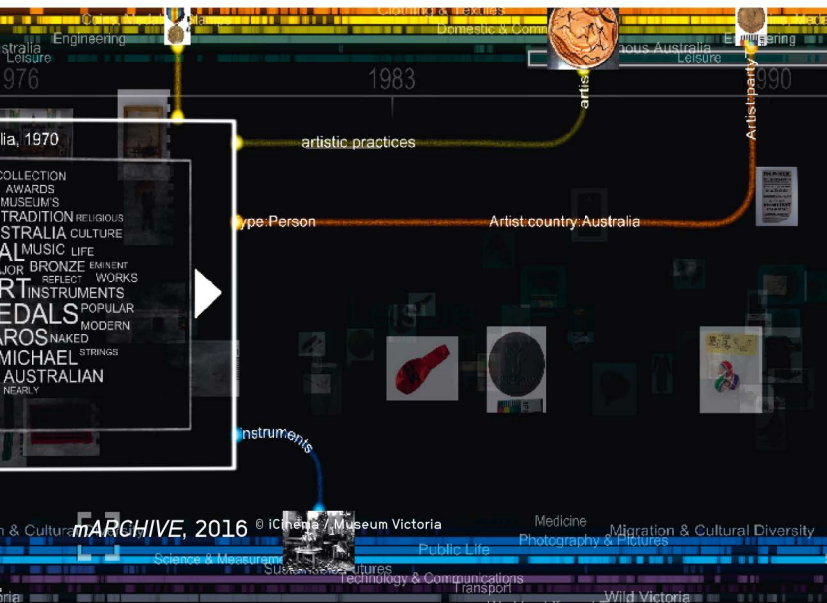




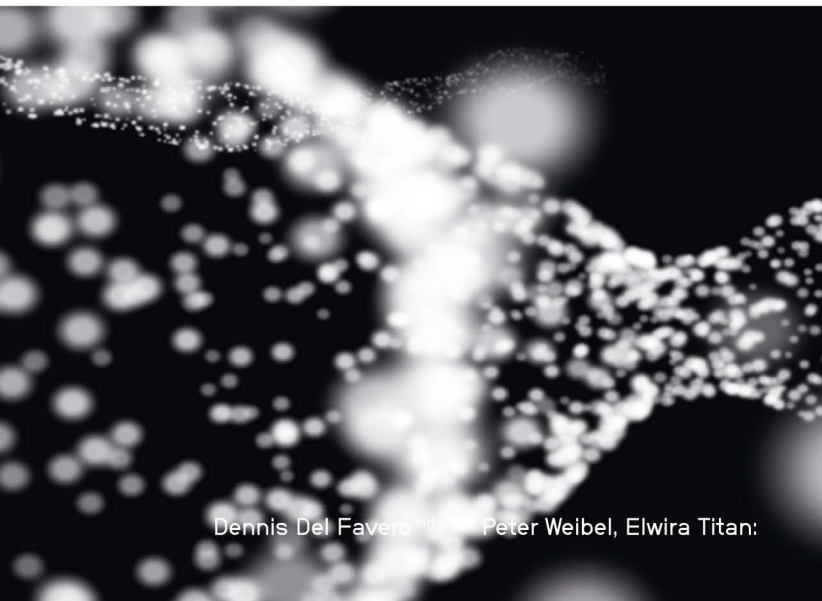
Dennis Del Favero, Peter Weibel:











Dennis Del Favero <sup>1</sup> and Peter Weibel, Elwira Titan:





Neil Brown, Dennis Del Favero, Jeffrey Shaw, Peter Weibel:



*T\_Visionarium IV, 2008-2017* © iCinema



Sarah Kenderdine, Jeffrey Shaw, Edwin Nadason Thumboo:

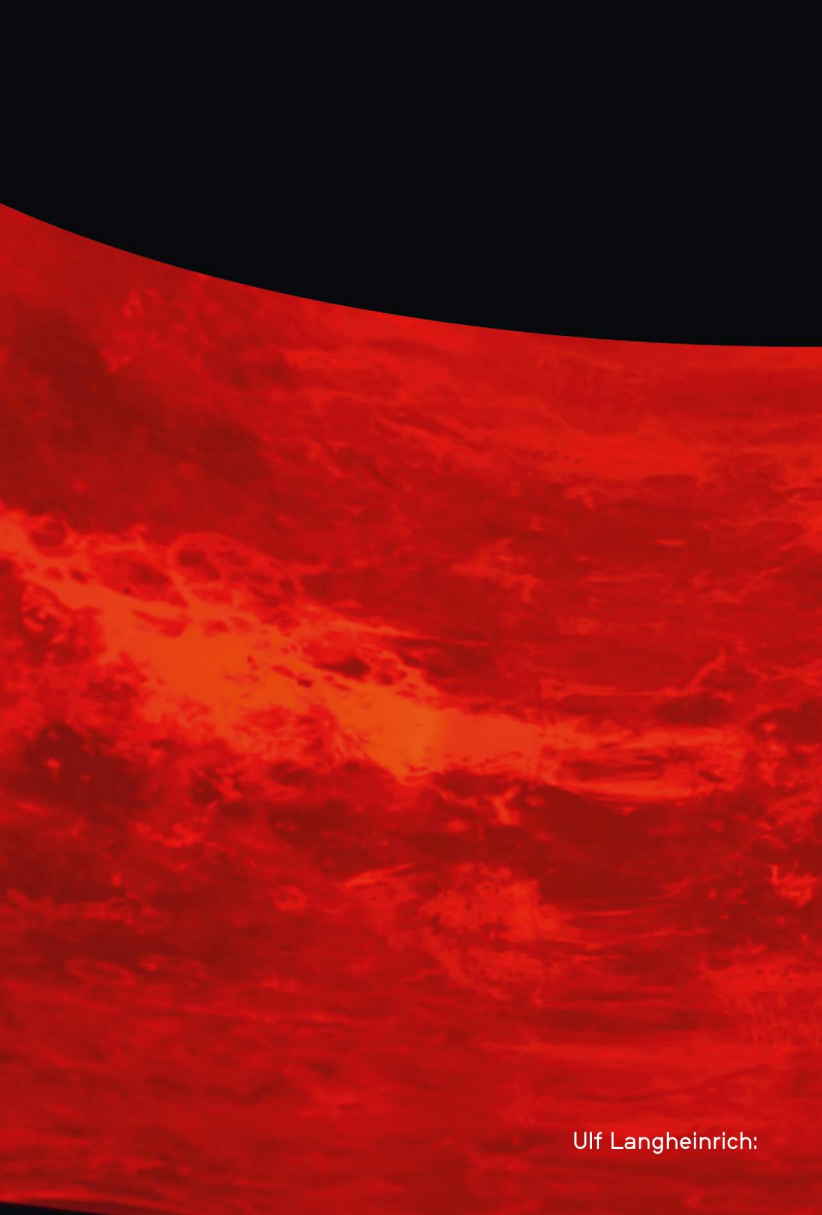


*The Infinite Line*, 2014 © Kenderdine / Shaw

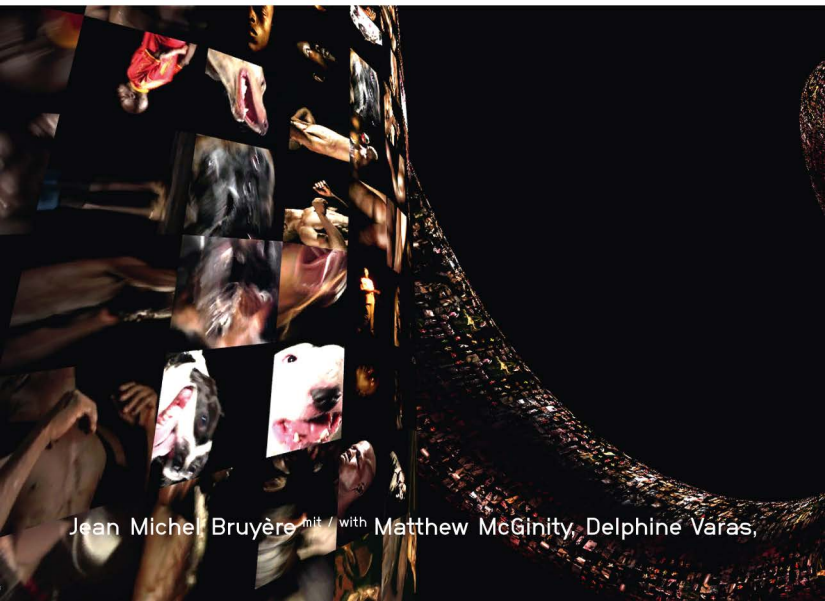
GRANULAR-SYNTHESIS (Kurt Hentschläger <sup>und</sup> / and Ulf Langheinrich):



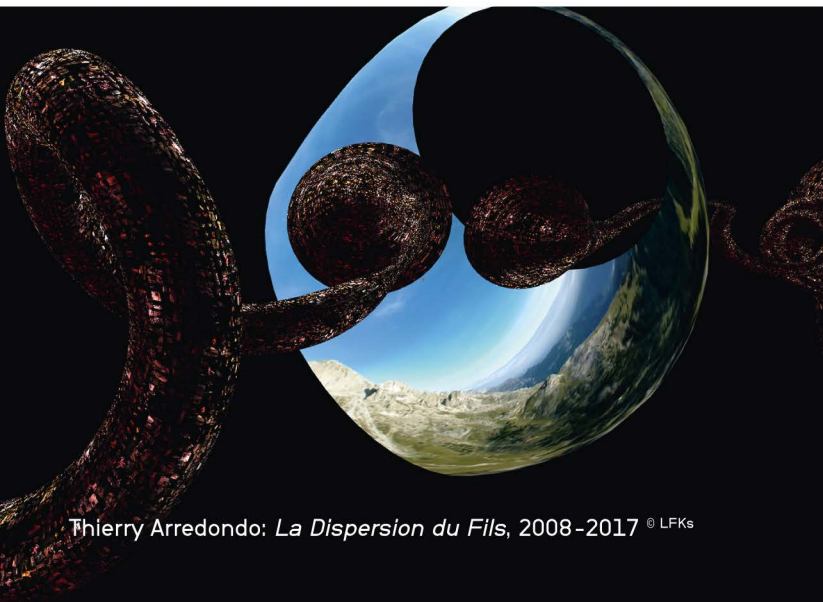
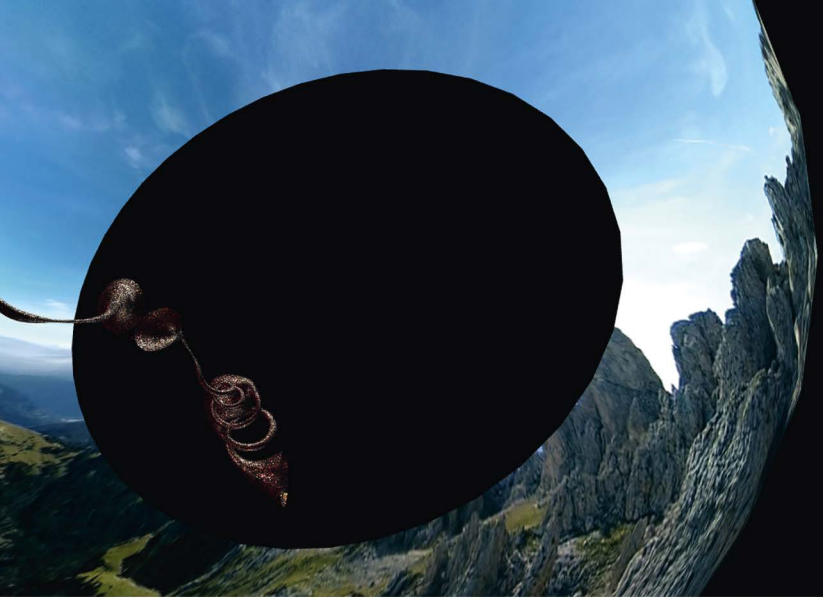




Ulf Langheinrich:



Jean Michel Bruyère mit / with Matthew McGinity, Delphine Varas,



Thierry Arredondo: *La Dispersion du Fils*, 2008-2017 © LFKs





Lead Software Engineer: Matthew McGinity

Distributed Video Engineer: Balint Seeber

Programmers: Jared Berghold, Robin Chow, Som Guan, Ardrian Hardjono, Gunawan Herman, Tim Kreger, Rob Lawther, Thi Thanh Nga Nguyen, Alex Ong, Balint Seeber

Co-Ordination and Interaction Design: Dennis Del Favero, Volker Kuchelmeister, Matthew McGinity, Jeffrey Shaw

Audio Software: Tim Kreger

Production: UNSW iCinema Centre and ZKM | Center for Art and Media Karlsruhe, supported under the Australian Research Council's Discovery Grant scheme

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## Jeffrey Shaw

### *Making New Machineries of Immersive Visualization to Make Art Anew*

An essential aspect of new media in all its forms is its immersive quality. This was heralded in the histories of panoramic painting, the cinema and of installation art, and it is now reaching new levels of transformational experience in the immersive digital visualization systems of virtual reality and augmented reality. Globally, many renowned media artists have been at the forefront of this development, and this exhibition offers many successful and engrossing examples. Immersive systems today are part of a growing tendency to mobilize the viewer and stimulate embodied cognition through multimodal, kinaesthetic and somatic hypermedia. This is accompanied by shifts in critical theory that emphasize performance, distributed experience and the materiality of the digital. *The Art of Immersion* exhibition shows seminal works for panoramic projection that bring about intense levels of audience engagement and proprioception, whose contents range from abstraction to narrative and from the archival to the social.

A central feature of the exhibition is the 360° 'Advanced Visualization and Interaction Environment' (AVIE). As originally conceived by Jeffrey Shaw, this panoramic projection theater belongs to a long trajectory of artistic experiments that he has undertaken since the late 1960s, and derives from his interest in expanded cinema and immersive interactive visualization. Works like *Corpocinema* (1967), *Diadrama* (1974) and *Heaven's Gate* (1987) are closely linked to the development of the panoramic projection environments EVE (1993) and PLACE (1995) – both of them direct forerun-



ners of the current AVIE–setups. The original frameworks for immersive experience that were developed by Shaw and members of the ZKM | Institute for Visual Media supported the creation of many ground–breaking works by the Institute’s artists–in–residence. Elaboration of these panoramic technologies and artworks later took place at the UNSW iCinema Centre in Sydney, at City University’s ACIM Centre in Hong Kong, and by Bernd Lintermann at ZKM.

AVIE’s open access and distribution has facilitated cooperations between artists and institutions and numerous coproductions such as with Epidemic. In the heterogeneity of the many works that have been created for AVIE one sees also the large range of ways in which its fully immersive spaces of representation can be configured and articulated. This includes the construction of polychronic narratives, re–combinatory databases, proprioceptive and kinesthetic investigations, adventures in virtual heritage, and more. Like the cinema itself, AVIE sets out to be a unique, propitious and inspirational platform where manifold aesthetic (as well as scientific and educational) experiments can be conducted.

# *The Infinite Line*

Sarah Kenderdine, Jeffrey Shaw,  
Edwin Nadason Thumboo

2014, Interactive installation for panoramic projection environment

*The Infinite Line* proposes new modes of spectatorship in the performance of poetry. Continuing the tradition of the literary movement *OuLiPo*, the “workshop of potential literature,” this interactive installation gives visitors the opportunity to recombine the poetic ensemble of Singaporean poet Edwin Thumboo. 27 seminal poems are redefined as polyvocal readings, which de- and reconstruct his original oeuvre, creating renewed vectors of meaning.

Using an immersive 360° panoramic projection environment visitors engage with 27 life-sized video recitals by Thumboo. The application software allows visitors to reassemble a matrix of individual lines of poetry in a “live” rereading of key texts: the viewer uses a physical microphone as a pointing device, enabling him or her to move a virtual microphone in front of the lineup of Thumboo videos. Whichever figure of Thumboo the microphone points to will be activated to perform the reading. Moving the microphone from one clip to another will interrupt the ongoing reading at the conclusion of a phrase and jump-cut to the reading from the newly chosen clip. The Thumboo videos always continue their readings from the point at which the previous viewer stopped them. The resulting indeterminate assemblages of sequences/fragments of Thumboo's oeuvre of 27 poems offer new optics and an infinite number of interpretations of these poems, and of the man.

*The Infinite Line's* most immediate analogic antecedent and inspiration is Raymond Queneau's *Cent Mille Millions de Poèmes* (1961) – a poem printed in such a way that every line can be separated and re-arranged. This artwork is also allied to the old parlour game of *Consequences*, to the Surrealist *Cadavre Exquis* and to the radical cut-up techniques of William Burroughs and Brion Gysin, while Brian Eno's generative *Reflections* (2017) offers a recent musical parallel.

*The Infinite Line* provides the viewer the opportunity to infinitely explore the manifold recombinatory permutations of these 27 poems, and thereby constitute an emergent meta-poem, an Oulipoean 'potential poem' without end; a condition of total poetic immersion that is embodied by Thumboo's surrounding multiple presences and in the interactive engagement of the viewer as re-author.

Software: Leith Chan

Production: ALiVE/ACIM City University of Hong Kong

October: 11.10.–15.10. / November: 15.11.–19.11. / December: 20.12.–23.12. / January: 24.1 / 25.1. / 26.1. / 27.1. / 28.1.

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# Richard Castelli

## *In fact*

In fact, everything started with immersion.

Animals would never have been able to survive without the ability to perceive their surroundings in their entirety.

While morphological change has narrowed predators' field of vision, this has also brought them the benefit of better spatial perception – thanks to which they are able to judge distances, making them better hunters.

Art has developed along the same path: starting from the immersive environment of the prehistoric cave, and proceeding through the window principle that is found in frescoes and in paintings that can be more easily transported by their rich owners, to arrive at photography, cinema and television, the last one playing on the brain's unique ability to project its owner in an environment much smaller than himself.

Panorama and dome painting, however, have survived to all of these developments, although they require special architecture.

There are many forms of immersion: visual, acoustic, and audiovisual. The exhibition *The Art of Immersion* at the ZKM | Karlsruhe focuses on immersion in the form of panoramic images that are expanded through the new dimension of stereoscopy, a process that is able to generate 3D animated panoramic images – thanks to the AVIE architecture developed by Jeffrey Shaw and the iCinema Centre in Sydney.

Some of the works presented are films that have been created specifically for this medium, including Ulf Langheinrich's *ALLUVIUM*, Jeffrey Shaw's *The Infinite Line*, an immersive project by Granular-Synthesis that is entitled <360> and was originally conceived for 15 screens and has been adapted for 3D, and *La Dispersion du Fils* by Jean Michel Bruyère / LKFs, a generative work that creates a constantly changing space in real time and is made up of 22,000 fragments from more than 600 films related to the Greek tragedy of Actaeon.

# <360> GRANULAR-SYNTHESIS (Kurt Hentschläger and Ulf Langheinrich)

2002–2017, Audiovisual immersive environment

<360> is an abstract composition, an analogue and digital architecture that immerses the audience in modulations of light, color, and sound. At times flickering and whirling, at times subtly pulsing and meditative in nature. Conceived as a hybrid structure it blends material and immaterial elements to create an ambiguous space, an in-between space, illustrating the liminal possibilities of digital technology to enable a mythologically charged contemplative space. Visitors initially find themselves in a simple animated line horizon displayed on a 360° band of projection screens. A surround sound field, grounded in shifting subsonic frequencies, corresponds to and synchronizes the visual events building over time. The music and sound of <360> is best understood as a gyrating sonic mass of individual layers that appear and vanish rather than as discrete sound events at localizable positions. Sound always feels that it is inherent in the image and vice versa, they are both conceived and composed together. The overall structure and length of the piece supports the perception of an endless continuum. Absolute darkness and silence in the given space are prerequisite for this work; the light source of <360> being the surround videoprojections. Reflecting the rapid advances in computer technology back in 2002, <360> builds on cinematic scale and dramaturgy to create an abstract theatrical experience

in which electronic flocs replace the traditional performer  
and redefine physical space.

Images and sound: Granular-Synthesis

Software development and image integration in AVIE: Nikolaus Völzow

AVIE hardware design, integration and installation: Marc Chee,

Robin Chow, Damian Leonard, Densan Obst

Production: Granular-Synthesis and Epidemic, Paris

September: 9.9. / 27.9. / 28.9. / 29.9. / 30.9. / October: 1.10. / 4.10. /  
5.10. / 6.10. / 7.10. / 8.10. / 31.10. / November: 1.11. / 2.11. /  
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# ALLUVIUM

## Ulf Langheinrich

2010, Audiovisual immersive environment

*ALLUVIUM* is a digitally generated sonic and visual landscape. It is based on research into pixels and particles resulting in fields of noise matter. It is defined by qualities such as consistency, density, liquidity, tension, and opacity. Noise in all those qualities is not only the obvious visible phenomena of moving dots but also the underlying source of their distribution in the virtual 3D space. Metamovements such as rotation and zoom act as an “undercurrent” while the viewer’s attention is occupied with the remolding of dots into their various states and qualities.

Langheinrich’s focus is the aesthetic potential of media machines – software and hardware: the contradiction between the promise of the perfect illusion and the limits of a specific display apparatus. The friction between the desire for the absolute and the failures of hardware reveals the true nature of media setups. In exploring the limitations lies the potential; the failure is the truth.

Images and sound: Ulf Langheinrich

Software development and image integration in AVIE: Nikolaus Völzow

AVIE hardware design, integration, and installation: Marc Chee,

Robin Chow, Damian Leonard, Densan Obst

Production: Epidemic, Paris and UNSW iCinema Centre, Sydney

This work was inspired by and created for the AVIE developed at the UNSW iCinema Centre and designed by Jeffrey Shaw.

September: 27.9. / 28.9. / 29.9. / 30.9. / October: 1.10. / 4.10. / 5.10. / 6.10. / 7.10. / 8.10. / 31.10 / November: 1.11. / 2.11. / 3.11. / 4.11. / 5.11. / 8.11. / 9.11. / 10.11. / 11.11. / 12. 11. / December: 6.12. / 7.12. / 8.12. / 9.12. / 10.12 / 13.12. / 14.12. / 15.12. / 16.12. / 17.12. / January: 10.1. / 11.1. / 12.1. / 13.1. / 14.1. / 17.1. / 18.1. / 19.1. / 20.1. / 21.1.

Screening times are listed in the calendar at the back of the exhibition brochure.

# *La Dispersion du Fils* Jean Michel Bruyère/LFKs with Matthew McGinity, Delphine Varas and Thierry Arredondo

2008–2017, Generative installation for panoramic projection environment

*La Dispersion du Fils* exploits the vast library of images and sounds conducted by Jean Michel Bruyère and the LFKs collective between 1999 and 2007, concerning the tragedy of the Greek hero Actæon, by assembling them into a single immense object: the entrails of a dog; a form of writhing infinite cynema. The viewer enters the viscera of Harpyia, one of the fifty hounds of Actæon, just after the hunter who had come upon the naked Artemis bathing had been turned into a stag by her, and mistakenly torn apart and devoured by his own pack of hounds. In *La Dispersion du Fils*, one travels to and fro between dog and star, viscera and æther. One witnesses the transfiguration of animal body into celestial body, and back again. All around the viewer revolve and recur the memories of Actæon, borne by the dogs that search for him. In this way, Actæon persists, rent in pieces, fragments of his own experience, suspended in a matrix of blood and spite. The work exploits nearly all of the films that Jean Michel Bruyère has conceived and directed for LFKs on Actæon's tragedy during the last ten years. A great deal of the footage, however, was reedited for *La Dispersion du Fils* by Delphine Varas and it has a new soundtrack created by Thierry Arredondo. The material of *La Dispersion du Fils* is taken from over 600 films and organized, among other

things, in canine intestines, in a sidereal beast, and in a meteor shower by Jean Michel Bruyère and Matthew McGinity, who was the software engineer of the AVIE system. The technology of AVIE allows us to return to a place we have never been, to the archaism of Artemis and Actæon, by paths never before taken. It permits our own imperceptible ascent towards an unattainable destination. Ultimately, it allows each of us our own anabasis.

Software design and graphics: Matthew McGinity

Editing and post-production: Delphine Varas

Music and Sound: Thierry Arredondo

ZKM Panorama Camera excerpts shot and stitched: Bernd Lintermann

iCinema software development: Xin Guan, Ardrian Hardjono, Jared Berghold, Alex Kupstov, Matthew McGinity

AVIE hardware design, integration, and installation: Damian Leonard, Robin Chow, Marc Chee, Densan Obst

Production: LFKs, Marseille; Epidemic, Paris; UNSW iCinema Centre, Sydney; Le Volcan –Scène Nationale, Le Havre  
This work was inspired by and created for the AVIE developed at the UNSW iCinema Centre and designed by Jeffrey Shaw.

September: 8.9. / 9.9. / 10.9. / 27.9. / 28.9. / 29.9. / 30.9. / October: 1.10. / 4.10. / 5.10. / 6.10. / 7.10. / 8.10. / 31.10. / November: 1.11. / 2.11. / 3.11. / 4.11. / 5.11. / 8.11. / 9.11. / 10.11. / 11.11. / 12.11. / December: 6.12. / 7.12. / 8.12. / 9.12. / 10.12. / 13.12. / 14.12. / 15.12. / 16.12. / 17.12. / January: 10.1. / 11.1. / 12.1. / 13.1. / 14.1. / 17.1. / 18.1. / 19.1. / 20.1. / 21.1.

Screening times are listed in the calendar at the back of the exhibition brochure.

# inSonic2017: *Immersive Future*

Thursday, 7 December 2017 – Sunday, 10 December 2017  
ZKM\_Cube, ZKM\_Lecture Hall, ZKM\_Media Theater  
Free admission

With support from the culture program of the European Union, the *inSonic2017: Immersive Future* festival will take place at the ZKM from 7 to 10 December 2017. Through this festival, the ZKM | Karlsruhe, the Institut de Recherche et Coordination Acoustique/Musique (IRCAM) in Paris and Karlsruhe University of Arts and Design (HfG) want to foster a critical discourse on new, cutting-edge immersive technologies: at the festival, state of the art technology are to be shown and current artistic approaches and contemporary methods are to be discussed. Academic and non-academic works that have been selected by an international jury will be shown. The festival will be accompanied by an extensive concert program, which will include some debut performances. The concerts will take place in the ZKM\_Sound Dome, a dome-shaped speaker setup designed for immersive spatialization. Throughout the entire festival, audio-visual installations for multi-channel setups can be experienced at the ZKM.

# Program

Concerts ZKM\_Cube, ZKM\_Media Theater

Thursday, 7 – Saturday, 9 December, starting at 8 pm

Symposium ZKM\_Lecture Hall

Thursday, 7 December, 2–6 pm

Friday, 8 – Saturday, 9 December, 10 am–6 pm

Sunday, 10 December, 10 am–1 pm

Installations various venues at ZKM

Thursday, 7 – Saturday, 9 December, 10 am–8 pm

Sunday, 10 December 10 am–6 pm

A more detailed program is available at: [www.zkm.de](http://www.zkm.de)

Within the framework of:



Co-funded by the  
Creative Europe Programme  
of the European Union

interf<sup>aces</sup>

In cooperation with:

**ircam**  
Centre  
Pompidou 40

Staatliche Hochschule  
für Gestaltung Karlsruhe



# Program The Art of Immersion

## Opening Weekend

### Friday, 8.9.

7-8 pm Deluge  
8-9 pm iData  
9-10 pm La Dispersion du Fils

### Saturday, 9.9.

10-11 am Nebula  
11 am - 2 pm iData  
2-4 pm La Dispersion du Fils  
4-5 pm ( B r e a k )  
5-6 pm <360> Performance  
with Live musik

### Sunday, 10.9.

10-11 am Nebula  
11 am - 3 pm iData  
3-6 pm La Dispersion du Fils

## September

### 13.9.

10-12 am Nebula  
12 am - 4 pm iData  
4-6 pm T\_Visionarium

### 14.9.

10-12 am Deluge  
12 am - 4 pm mARChive  
4-6 pm T\_Visionarium

### 15.9.

10-12 am Nebula  
12 am - 4 pm iData  
4-6 pm T\_Visionarium

### 16.9.

11 am - 1 pm Deluge  
1-4 pm mARChive  
4-6 pm T\_Visionarium

### 17.9.

11 am - 1 pm Nebula  
1-4 pm iData  
4-6 pm T\_Visionarium

### 20.9.

10-12 am Nebula  
12 am - 4 pm iData  
4-6 pm T\_Visionarium

### 21.9.

10-12 am Deluge  
12 am - 4 pm mARChive  
4-6 pm T\_Visionarium

### 22.9.

10-12 am Nebula  
12 am - 4 pm iData  
4-6 pm T\_Visionarium

### 23.9.

11 am - 1 pm Deluge  
1-4 pm mARChive  
4-6 pm T\_Visionarium

### 24.9.

11 am - 1 pm Nebula  
1-4 pm iData  
4-6 pm T\_Visionarium

### 27.9.-29.9.

10-11 am ALLUVIUM & <360>  
11 am - 5 pm La Dispersion du Fils  
5-6 pm ALLUVIUM & <360>

### 30.9. + 1.10.

11-12 am ALLUVIUM & <360>  
12 am - 5 pm La Dispersion du Fils  
5-6 pm ALLUVIUM & <360>



**October****4.10.–6.10.**

10–11 am ALLUVIUM & <360>  
11 am–5 pm La Dispersion du Fils  
5–6 pm ALLUVIUM & <360>

**7.10. + 8.10.**

11–12 am ALLUVIUM & <360>  
12 am–5 pm La Dispersion du Fils  
5–6 pm ALLUVIUM & <360>

**11.–15.10.** The Infinite Line

**18.10.**

10–12 am Nebula  
12 am–4 pm iData  
4–6 pm T\_Visionarium

**19.10.**

10–12 am Deluge  
12 am–4 pm mARChive  
4–6 pm T\_Visionarium

**20.10.**

10–12 am Nebula  
12 am–4 pm iData  
4–6 pm T\_Visionarium

**21.10.**

11 am–1 pm Deluge  
1–4 pm mARChive  
4–6 pm T\_Visionarium

**22.10.**

11 am–1 pm Nebula  
1–4 pm iData  
4–6 pm T\_Visionarium

**25.10.**

10–12 am Nebula  
12 am–4 pm iData  
4–6 pm T\_Visionarium

**26.10.**

10–12 am Deluge  
12 am–4 pm mARChive  
4–6 pm T\_Visionarium

**27.10.**

10–12 am Nebula  
12 am–4 pm iData  
4–6 pm T\_Visionarium

**28.10.**

11 am–1 pm Deluge  
1–4 pm mARChive  
4–6 pm T\_Visionarium

**29.10.**

11 am–1 pm Nebula  
1–4 pm iData  
4–6 pm T\_Visionarium

**November****31.10.–3.11.**

10–11 am ALLUVIUM & <360>  
11 am–5 pm La Dispersion du Fils  
5–6 pm ALLUVIUM & <360>

**4.11. + 5.11.**

11–12 am ALLUVIUM & <360>  
12 am–5 pm La Dispersion du Fils  
5–6 pm ALLUVIUM & <360>

**8.11.–10.11.**

10–11 am ALLUVIUM & <360>  
11 am–5 pm La Dispersion du Fils  
5–6 pm ALLUVIUM & <360>

**11.11. + 12.11.**

11–12 am ALLUVIUM & <360>  
12 am–5 pm La Dispersion du Fils  
5–6 pm ALLUVIUM & <360>

**15.–19.11.** The Infinite Line

**22.11.**

10–12 am Nebula  
12 am–4 pm iData  
4–6 pm T\_Visionarium

**23.11.**

10–12 am Deluge  
12 am–4 pm mARChive  
4–6 pm T\_Visionarium

**24.11.**

10–12 am Nebula  
12 am–4 pm iData  
4–6 pm T\_Visionarium

**25.11.**

11 am–1 pm Deluge  
1–4 pm mARChive  
4–6 pm T\_Visionarium

**26.11.**

11 am–1 pm Nebula  
1–4 pm iData  
4–6 pm T\_Visionarium

**29.11.**

10–12 am Nebula  
12 am–4 pm iData  
4–6 pm T\_Visionarium

**30.11.**

10–12 am Deluge  
12 am–4 pm mARChive  
4–6 pm T\_Visionarium

**December**

**1.12.**

10–12 am Nebula  
12 am–4 pm iData  
4–6 pm T\_Visionarium

**2.12.**

11 am–1 pm Deluge  
1–4 pm mARChive  
4–6 pm T\_Visionarium

**3.12.**

11 am–1 pm Nebula  
1–4 pm iData  
4–6 pm T\_Visionarium

**6.12.–8.12.**

10–11 am ALLUVIUM & <360>  
11 am–5 pm La Dispersion du Fils  
5–6 pm ALLUVIUM & <360>

**9.12. + 10.12.**

11–12 am ALLUVIUM & <360>  
12 am–5 pm La Dispersion du Fils  
5–6 pm ALLUVIUM & <360>

**13.12.–15.12.**

10–11 am ALLUVIUM & <360>  
11 am–5 pm La Dispersion du Fils  
5–6 pm ALLUVIUM & <360>

**16.12. + 17.12.**

11–12 am ALLUVIUM & <360>  
12 am–5 pm La Dispersion du Fils  
5–6 pm ALLUVIUM & <360>

**20.–23.12.** The Infinite Line

**26.12.**

11 am–1 pm Nebula  
1–4 pm iData  
4–6 pm T\_Visionarium

**27.12.**

10-12 am Nebula  
 12 am-4 pm iData  
 4-6 pm T\_Visionarium

**28.12.**

10-12 am Deluge  
 12 am-4 pm mARChive  
 4-6 pm T\_Visionarium

**29.12.**

10-12 am Nebula  
 12 am-4 pm iData  
 4-6 pm T\_Visionarium

**30.12.**

11 am-1 pm Deluge  
 1-4 pm mARChive  
 4-6 pm T\_Visionarium

**January****3.1.**

10-12 am Nebula  
 12 am-4 pm iData  
 4-6 pm T\_Visionarium

**4.1.**

10-12 am Deluge  
 12 am-4 pm mARChive  
 4-6 pm T\_Visionarium

**5.1.**

10-12 am Nebula  
 12 am-4 pm iData  
 4-6 pm T\_Visionarium

**6.1.**

11 am-1 pm Deluge  
 1-4 pm mARChive  
 4-6 pm T\_Visionarium

**7.1.**

11 am-1 pm Nebula  
 1-4 pm iData  
 4-6 pm T\_Visionarium

**10.1.-12.01.**

10-11 am ALLUVIUM & <360>  
 11 am-5 pm La Dispersion du Fils  
 5-6 pm ALLUVIUM & <360>

**13.1. + 14.1.**

11-12 am ALLUVIUM & <360>  
 12 am-5 pm La Dispersion du Fils  
 5-6 pm ALLUVIUM & <360>

**17.1.-19.1.**

10-11 am ALLUVIUM & <360>  
 11 am-5 pm La Dispersion du Fils  
 5-6 pm ALLUVIUM & <360>

**20.1. + 21.12.**

11-12 am ALLUVIUM & <360>  
 12 am-5 pm La Dispersion du Fils  
 5-6 pm ALLUVIUM & <360>

**24.-28.1.**

The Infinite Line

## The Art of Immersion

9.9.2017–28.1.2018

**Curated by** Peter Weibel, Richard Castelli, Dennis Del Favero \ **Location:** ZKM\_Atrium \ **Project management:** Jan Gerigk, Bettina Korintenberg \ **Technical project manager:** Jan Gerigk with Thomas Schwab \ **Head of curatorial department:** Philipp Ziegler \ **Exhibition graphic design:** 2xGoldstein+Fronczek \ **Construction team:** Martin Mangold, Volker Becker, Claudius Böhm, Mirco Fraß, Rainer Gabler, Gregor Gaissmaier, Ronny Haas, Dirk Heesakker, Daniel Heiss, Christof Hierholzer, Werner Hutzenlaub, Gisbert Laaber, Marco Preitschopf, Marc Schütze, Martin Schläfke \ **External companies:** Essential Art Solutions, Immersive Realisation Pty Ltd. \ **Team Epidemic:** Florence Berthaud, Chara Skiadelli, Claire Dugot, Matthew McGinity, La Fabriks \ **Team iCinema Center:** Damian Leonard, Alex Ong \ **Institute for Visual Media:** Bernd Lintermann, Jan Gerigk, Manfred Hauffen, Volker Nowicki, Nikolaus Völzow \ **Directorial department:** Anett Holzheid, Tobias Klingemayer, Adrian Koop, Desiree Weiler \ **Public relations and marketing:** Dominika Szope, Regina Hock, Alexa Knapp, Stefanie Strigl, Sophia Wulle \ **Video studio:** Christina Zartmann, Moritz Büchner, Martina Rotzal, Frenz Jordt \ **Museum communication:** Janine Burger, Banu Beyer, Regine Frisch, Sabine Faller, Barbara Kiolbassa \ **Event managers:** Viola Gaiser, Manuel Becker, Hartmut Bruckner, Hans Gass, Wolfgang Knapp, Johannes Sturm, Manuel Weber \ **Office managers:** Ingrid Truxa, Anna Maganuco, Sabine Krause, Alexandra Kempf, Elke Cordell, Silke Sutter, Dominique Theise \ **IT support:** Uwe Faber, Elena Lorenz, Joachim Schütze, Volker Sommerfeld \ **Shop and info desk:** Petra Koger, Daniela Doermann, Tatjana Draskovic, Sophia Hamann, Ines Karabuz, Rana Karan, Susen Schorpp, Jutta Schuhmann, Marina Siggelkow

In cooperation with:



EPIDEMIC

With support of:



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