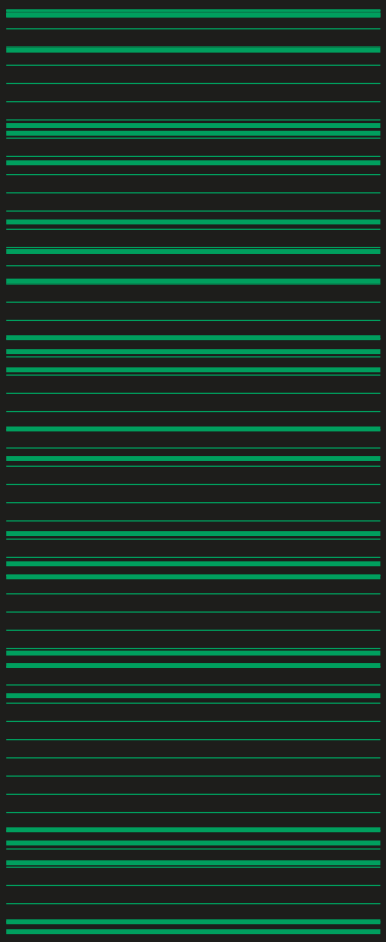
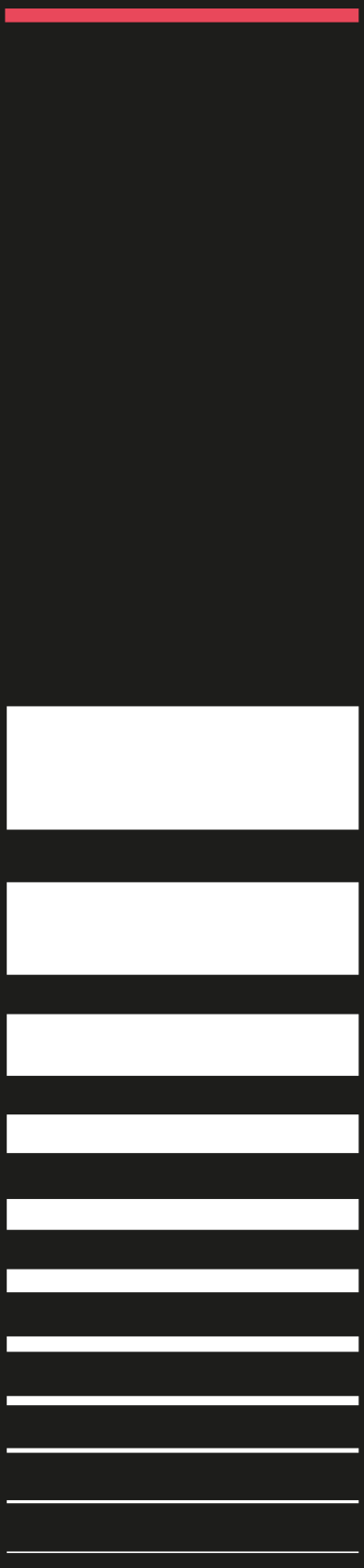




VERTICAL CINEMA

SONIC ACTS PRESS 2013

CONTENTS

FILMS

MAKING OF

MIRNA BELINA

What we usually identify as the indisputable 'temple of film', the Cinema, is not really a given, especially not in the realm of experimental cinematic arts. Yet this is somehow sidelined in the process of re-thinking the possibilities of cinematic experience, mostly because the architectural frame is already there, if only as a convention established a long time ago within the theatrical arts. Actually, the history of experimental cinema and the art of the moving image suggests that the space might very well be the crucial aspect of the total audiovisual experience – something one should always question and take into consideration when producing a work for audiovisual, sensory cinema.

The quest for 'total theatre' that began in the early 1920s was an attempt to activate the viewer by restructuring the traditional theatre stage. Large or all-encompassing stages with audiovisual apparatuses capable of transforming dull linear spaces have been imagined and some have been realised, allowing viewers to be fully immersed in art, bypassing the traditional 'static gaze'. Such visionary ideas of new theatres started with major architectural changes and re-thinking the viewing perspective. Actually, the entire history of 'immersion' from the early days of pre-cinema machines to monumental, total cinema systems like IMAX shows that sonic and visual experiments – as well as experiments in how an audience responds to these – meet in the architectural space where the artworks are presented.

The multimedia history of this 'sensory architecture', outlined in this cahier in an essay by professor, curator and author Timothy Druckrey, provided a setting for our *Vertical Cinema* project in the context of monumental cinematic imaginary. His essay, 'Sensory Architecture and the Cinematic Imaginary', offers a view into large-scale cinematic architectures of the last century. It is difficult to identify or name them all, and interactions between these ideas surely invite more comprehensive research, but we can definitely underscore the historical need to expand the cinematic experience and challenge the frame of the projection – be it in a planetarium with a project like Jordan Belson's Vortex Concerts (1957), a dome like Stan VanDerBeek's Movie-Drome (1965), or in the monumental pavilions of World Fairs, from Brussels in 1958 to Osaka in 1970.

Expo pavilions are among the most interesting sensory (cinematic) mega-structures. A supreme example is the all-encompassing *Poème électronique* by Edgard Varèse, set in the monumental Philips Pavilion (1958), designed by Iannis Xenakis after a sketch by Le Corbusier. We can also investigate further one of the most important presentations of cinematic environments, the *Celluloid City,* named as such by *Time Magazine*, or Expo 1967 in Montreal. This 'electronic phantasmagoria' was the precursor to IMAX many years later (starting with the Labyrinth pavilion by Colin Low and Roman Kroitor), by introducing the incredible multi-screen structures in almost all of its showrooms – notably in the Czech Pavilion with Polyvision, Diapolyekran, Kinoautomat. The Expo in Osaka three years later featured one of the most prominent examples of the 'total environment', the Pepsi Pavilion, which was conceptualised as a multi-sensory immersive laboratory at the intersection of art and engineering. That same exhibition introduced multimedia works by Jaroslav Frič, including Spherorama (with a single-lens slide projector

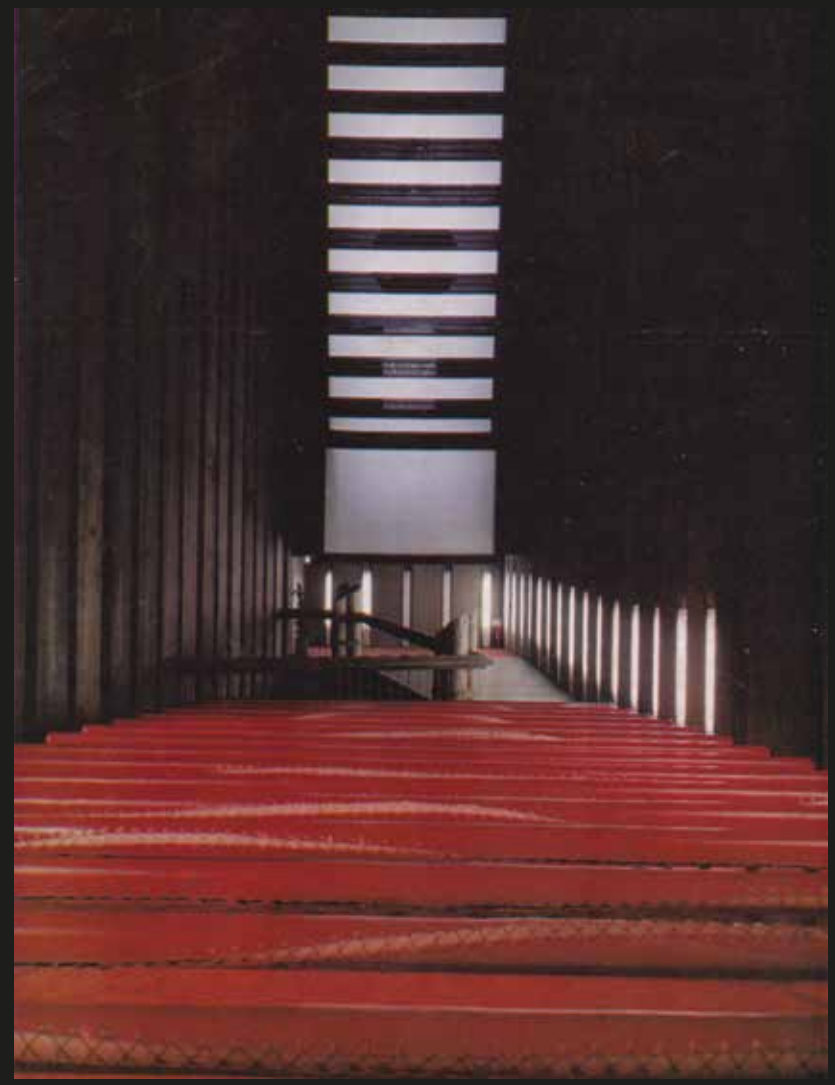
that could project a 360-degree dome image), and finally the incredible Theatre of the Antipodes – Vertical Cinemascope exhibited in the British Columbia Pavilion: a vertical projection assembly created for tall buildings.

Frič's Vertical Cinemascope is a mysterious object that might prompt memories of the black monolith in the magnificent film *2001: A Space Odyssey*, where the dark presence of this vertical object triggers epic transitions in human evolution. Only one image of Frič's monumental vertical project exists, and it is briefly described in an issue of the SCARS journal, which also provided a context for this new exploded artform with theoretical insights ranging from cybernetic aesthetics to synthetic arts. This single vertical image triggered a set of ideas and questions that eventually led to our own *Vertical Cinema* project. We 'abandoned' traditional cinema formats, opting instead for cinematic experiments that are designed for projection in a tall, narrow space. It is not an invitation to leave cinemas – which have been radically transformed over the past decade according to the diktat of the commercial film market – but a provocation to expand the image onto a new axis. This project re-thinks the actual projection space and returns it to the filmmakers. It proposes a future for filmmaking rather than a pessimistic debate over the alleged death of film.

The world premiere of the 35 mm *Vertical Cinema* extravaganza at the Kontraste *Dark As Light* Festival presents ten works commissioned from internationally renowned experimental filmmakers and audiovisual artists. The works are printed on 35 mm celluloid and projected vertically with a custom-built projector in 1:2.35 aspect ratio or vertical cinemascope. All together they comprise a 90-minute programme solely for projection on a monumental, vertical screen.

The participants offer their view of 'vertical axis art', bearing in mind all the media they use to render their new works: most use computers, then the material is transferred to film (a process very much opposite to the current state of film affairs), and in the end the piece is projected vertically. The results of this challenging commission are fascinating.

In his film *#43*, Joost Rekveld observes what happens to a system that is destabilised by 'creative' pixels, drawing inspiration from the set of ideas in biology and mathematics that arose during the development of cybernetics in the 1950s. *Colterrain* by Tina Frank plays with the Synchronator device, which translates sound into RGB video frequencies to create a work of true *visual music* in which the image is literally the sound turned into colour and filmed live using analogue equipment. Johann Lurf embarks on a structural research of a modern pyramid building in his *Pyramid Flare*, a 5-minute work filmed in Prague with a 35 mm camera turned on its side. The 'film as time made manifest' is the centrepiece of Björn Kämmerer's *Louver*, a film that acts as a huge shutter, a louver, playing with light-objects and setting them in motion. The kinetic graphisms of Manuel Knapp's *V~* open a portal into the process of creation from forces of numerical matter, and Esther Urlus' *Chrome* – hand-made on the film material itself – opens a view into the autochrome process, a colouring technique for black-and-white photographs invented by the Lumière brothers in 1903. In their film *Bring Me The Head Of Henri Chrétien!* Billy Roisz and Dieter Kovačič explore the world of cinematic formats based on the genre that experimented with and exploited the width of the screen to display the



Jaroslav Frič, The Theatre of the Antipodes – Vertical Cinemascope, The British Columbia Pavilion, Expo 1970, Osaka, Japan.

spectacular landscapes: Western movies. The landscape of the Moon and its seas is the scape of *Lunar Storm* by Rosa Menkman, who is well known for her glitch aesthetics. *Deorbit,* the first collaboration between Makino Takashi and Telcosystems, takes viewers on voyage from the immeasurable depths of space, visible only as pixels, to micro-space, the celluloid grain itself. *Walzkörpersperre* by Gert-Jan Prins and Martijn van Boven explores verticality as resistance, bombarding a World War 2 anti-tank wall with a barrage of light beams driven by electronic sound.

We hope this cahier fosters interesting perspectives for ongoing explorations of the expanded and exploded monumental filmmaking of future cinema.

Mirna Belina (HR) researches, writes and curates in the fields of experimental film and new media art. She has co-edited several books about experimental film and expanded cinema, and curated many short film programmes for international festivals and venues. She studied literature and philosophy at Zagreb University.

TIMOTHY DRUCKREY

SIGNS OF
ARCHITECTURE AND
THE CINEMATIC
IMAGINARY

> But what was once the universal principle of such frame time in cinema no longer holds. In the fantastic turns and reversals of many recent narratives, whether openly digitized or merely contextualized in the cultural surround of electronic transmission and interactivity, frame time gives way, on several fronts at once, to that flashpoint of mediation I am calling framed time. This is the spatialized configuration of time itself as in its own right a malleable medium.[1]

DREAMING OF A COMPLETE SPECTACLE

Audiences in the pre-cinema era were eager to engage with illusions and images whose configurations were a complex mix of contingency and transition, novelty and suspense, subjectivity and participation, fantasy and spectacle. Indeed the visible and the 'unseen' was always an aspect of the 'media machines' proliferating since the 16th century. The devices emerging in the pre-cinema era surely were engaged with revealing sensory phenomena that animated perception. These attempts involved effects that investigated forms of visibility in the flickering projections and mechanical 'animations' of the Magic Lantern, the compressed transitions of the Diorama, the dramatic zooming perspectives of the Phantasmagoria, re-enlivened succession of the Phenakistoscope, the proliferation of 'philosophical toys' and their whirling zoetropic movements, and particularly the Panorama, 'the first true mass medium […] the first art form to attempt to fulfil the visual needs and desires of anonymous city dwellers' whose "entrance fees financed" artists and new projects'.[2] The Panorama: with its experiential perspectives, its lush platforms and meticulous illusions, its grand scale and scopic centrality (obviously linked to Bentham's Panopticon), with its pedagogical and immersive pretences that:

> […] hinted at the dream of a complete spectacle, of 'total cinema', which some cinematograph pioneers attempted to realize at the start of the twentieth century, a dream finally realized in the 1980s and 1990s by large scale systems such as *Imax, Omnivision,* and the 360-degree cinema.[3]

Even a cursory look at the history of architecture and the visual and sonic arts will make it abundantly clear that there is an intricate linkage between spatial and sonic immersion.

> By 1620, technology to support a kind of 'cinema' was in place […] 'Camera' then amounted to a 'cinematic' room. The room ran movies of a kind. The movies relied on a convergence. Optical, sculptural, and theatrical illusions were squeezed inside the same space. To exploit this visual chatter, their perspective was skewed, turned awry.[4]

In *Atlas of Emotion: Journeys in Art, Architecture, and Film*, Giuliana Bruno writes that 'from the cabinet of curiosity to the lantern, matters of architecture and design shaped the history of precinema' and, in a marvellous section titled, *Geography Dressed in '-orama'* – along with obvious references to the Panorama, Diorama, Kineorama – she writes of the many 'traveling spectacles that preceded the cinema's own spectatorial *embrace* of space and particularly foregrounded the reversible architectonics of film theatres, especially those that played directly on atmospherics'.[5]

The activated, anticipating eye, the mobile gaze, the mobile image were the realisations of media machines through which the 'unseen' or the imperceptible could be both recorded and rendered as uncannily kinetic and temporal. But the 'expanded image' of the pre-cinema is an essential precursor that enlivened the *optifications* and *sonifications* of modernity within a culture in which immediacy, sensory immersion, and differentiated temporality collided with apparatuses and technical imperatives with staggering reverberations. New 'optical theatres' belonged, in the words of Wolfgang Schivelbush, 'to a different existential sphere from the reality in which the audience was sitting'.[6] And similarly, sonic experience, and in particular in regard to the phonograph, came as '[a]n invention which subverts both literature and music (because it reproduces the unimaginable real they are both based on); [it] must have struck even its inventor as something unheard of'.[7] The 'unseen' meets the 'unheard'.

This differentiated 'real' would be at the core of a fundamental shift in the understanding of media as the 20th century loomed, a century (and beyond) entangled in the consequences of media machines, media theatres, media experiences, already altering the sanguine subjectivities of the techno-utopians of a *fin de siècle* beginning to reel in a sensorium that was technically reproducible and equally uncanny.

> The possible implies the corresponding reality plus something joined to it, because the possible is the combined effect of a reality, once it's appeared, and an apparatus that pushes it back.[8]

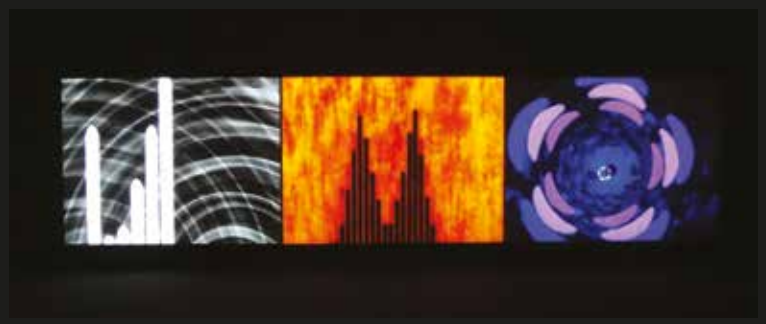
EPISODE: *SON ET LUMIÈRE* OR THEATRES OF THE FUTURE

The 20th century's assimilation of the many theatres of 'immersion' and even of Richard Wagner's *Gesamtkunstwerk*, itself in various guises of the 'total work of art', is yet fully unwritten. It is clear, as Theodor Adorno writes, that in Wagner's phantasmagoria 'the concept of illusion as the absolute reality of the unreal grows in importance'.[9] Arnold Aronson expresses it more directly, suggesting that Wagner's idea was a 'deliberate attempt to control the spectators' perceptions through architecture'.[10] Aronson's important essay 'Theatres of the Future' suggests two trends in future architecture, one based on 'cosmetic futurism' and the other on the 'performer-spectator relationship'. He writes that a number of these

> […] visionaries began with architecture as a basis for theatre. Ironically, the closest many of these ideas have come to fruition is in the pavilions of World's Fairs since the 1930s and in amusement parks, both traditionally the home of futuristic fantasy.[11]

Thomas McLean, *McLean's optical illusions; or magic panorama*, London, 1833, hand-coloured optical illusion disc with somersaults and horseback riding.

Polyorama Panoptique.



Oskar Fischinger, *Raumlichtkunst*, c.1926/2012. New reconstruction by Center for Visual Music (CVM). Three-screen projection, three 35 mm films transferred to HD video, black-and-white and colour, sound, variable loops. Installation view at Whitney Museum.

Of many speculative instances that Aronson cites, a few deserve at least brief mention. Pierre Albert-Birot's Théâtre nunique (The theatre of the present) 'employed a sort of space stage' in which in Albert-Birot's words 'light alone must be the paint' and contain 'all the means and emotions capable of communicating an intense and intoxicating life to spectators'.[12] For Oskar Strnad's Space Theatre (c. 1922),[13] Aronson suggests that the design 'was to surround the spectators with the stage action – to place them at the center […] [H]e wanted the spectators to feel that they were floating or suspended in space'.[14] Erwin Piscator and Walter Gropius' Totaltheater (c. 1927) was, for Piscator, 'a flexible theatre […] which was capable of surrounding the spectators and at the same time would allow the fullest use of technology and other media'.[15] For Gropius, Totaltheater would be a 'mobilization of all spatial means to rouse the spectator from his intellectual apathy, to assault and overwhelm him. Coerce him into participation in the play'.[16] László Moholy-Nagy presents his all-encompassing conception of *Gesamtwerk* in 1925:

> What we need is not the *Gesamtkunstwerk* alongside and separate from which life flows by, but a synthesis of all the vital impulses spontaneously forming itself into the all-embracing *Gesamtwerk* (life) which abolishes all isolation, in which all individual accomplishments proceed from a biological necessity and culminate in a universal necessity.[17]

Almost simultaneously, in 1926 Oskar Fischinger and composer Alexander László created a single film projector, multiple screen performance called *Farblichtmusik* that included coloured light projections from László's colour organ piano, painted glass slides, and film projections provided by Fischinger. László continued to perform for several years using his own slides and lights, and only included film when he performed with Fischinger. However, in the same year Fischinger began performing his own independent multiple projector and multi-screen cinema shows in Germany using up to five 35 mm film projectors, colour filters and slides. He called these performances *Raumlichtmusik*, 'The New Art: Space-Light-Music':

> Of this art everything is new and yet ancient in its laws and forms. Plastic – Dance – Painting – Music become one. The Master of the new Art forms poetical work in four dimensions […] Cinema was its beginning […] *Raumlichtmusik* will be its completion….[18]

Cindy Keefer explains in a text accompanying the three-screen HD reconstruction of Fischinger's multiple projector cinema performances, *Raumlichtkunst* (2012):

> The critics called his performances 'Raumlichtkunst' and praised Fischinger's 'original art vision, which can only be expressed through film'. These shows represent some of the earliest attempts at cinematic immersive environments, and are a precursor to expanded cinema and 1960's light shows.[19]

EPISODE: THE PHILIPS PAVILION

There are many other examples that would attempt to envelop audiences and several included spherical and hemispheric architectures. Notable are Andreas Weininger's Kugeltheater (Spherical theatre, 1927); Jacques Polieri's Théâtre du mouvement total (Theatre of total movement, c. 1957, with an adapted proposal in 1962); Jordan Belson's Vortex Concerts (1957); the 1959 American Exhibition in Moscow which included Charles and Ray Eames' *Glimpses of the USA*; and Otto Piene's speculative Theatre that Moves (1967) in which – in Piene's words – 'any sensual phenomena can be amplified'.[20] But one of the most prominent examples of the 'total environments' was the Pepsi Pavilion at the World Fair in Osaka (1970), as Fran Dyson describes it, 'a Proto-Immersive and Organic Environment' conceptualised as a multi-sensory laboratory on the intersection of art and engineering.

> Organized by E.A.T. founders Billy Klüver and Robert Whitman, the project was led by a core design team that also included Robert Breer, Frosty Myers, David Tudor, and a group of over 75 artists and engineers from the US and Japan.[21]

It was modelled on Buckminster Fuller's Geodesic Dome, and the interior was a reconfigurable 'ecosystem' of sound, light, kinetic 'sculpture', flexible surfaces, spherical mirrors, 'laser deflection systems', 'sound modifiers', live programming'.

> The Pavilion was a work of art with its own unity and integrity, as well as a new unexplored theatre and concert space, a recording studio for multichannel compositions and a field laboratory for scientific experiments.[22]

By 1970 a number of key experimental environments were at play – notably the quickly dispersing expanded field of cinema, Stan VanDerBeek's Movie-Drome (1965), and, pivotally, projects at Expo 67 and the Philips Pavilion (1958). Indeed, already by 1956, Le Corbusier was engaged by the Philips Corporation to construct a pavilion at the Brussels World's Fair. 'I will make you a *poème électronique*', he wrote, 'Everything will happen inside: sound, light, color, rhythm…'[23] Involved for some time in 'visual acoustics', Le Corbusier wrote to Edgard Varèse, 'the illumination will allow flashing drawings to be made from time to time, but occupying space with a striking presence […] It will be the first truly electric work with symphonic power'.[24] The Pavilion, opened in 1958 (with some two million visitors), 'ultimately functioned as a giant speaker enclosure and screen for projection and illumination'.[25] It was designed by Iannis Xenakis (after a sketch by Le Corbusier) whose compositional notation itself was a cross between architecture, graphic notation, and score, and was more specifically based on the use of hyperbolic paraboloid forms already employed in his musical work *Metastasis* (1953–54).

The Philips Pavilion, Expo 1958, Bruxelles, Belgium.

The Pepsi Pavilion, Expo 1970, Osaka, Japan.

> For this project Xenakis was given almost free hand by Le Corbusier, who concentrated mainly on the *Poème électronique*, the multimedia show that was projected inside the pavilion. Whereas ruled surfaces were generally used only for roofs, the Philips Pavilion was probably the first building in architectural history to be designed with this type of surface exclusively. Walls and ceilings merged fluently into each other, resulting in a fluid interior space with a seemingly endless character. The similarity between the plans for the Philips Pavilion and the graphical score of *Metastasis* goes however beyond the formal level. Both creations can be considered as two different hypostases of the same idea, namely the continuous transition between two states.[26]

Edgard Varèse had a long familiarity with experimental music and produced for the Pavilion his *Poème électronique*, a 480 second tape composition for some 325 speakers[27] and 20 amplifier combinations. The speakers provided:

> […] a spectacle of sound and light [with] 'sound routes' to achieve various effects such as that of music running around the pavilion, as well as coming from different directions, reverberations, etc. For the first time, I heard my music literally projected into space.[28]

Additionally, one entered the Pavilion 'to the barely audible sounds of Xenakis's *Concret PH*'.[29] Yet the pavilion was not merely an innovative soundscape, the Pavilion also served as an integrated audiovisual projection atmosphere. As Marc Treib writes in *Space Calculated in Seconds: The Philips Pavilion, Le Corbusier, Edgard Varèse*:

> The visual components of the *Poème électronique* were four: a film (*ecran*, literally 'screen') presenting images illustrating the course of human civilization and threats to its prolongation; colored lighting (*ambiance*) within the pavilion to manipulate atmosphere and mood; simplified shapes superimposed upon the film by projectors (*tri-trous*, so named for the three holes, or *trous,* in the projection device); and three-dimensional forms (*volumes*) to be illuminated with ultraviolet light for maximum effect.[30]

The projection, a sequence of still images, was 'shaped' by filmmaker Philippe Agostini according to the intricately 'calculated' transitions established by Le Corbusier for a thematically sequenced flow of seven sections: *Genesis, Matter and Spirit, From Darkness to Dawn, Manmade Gods, How Time Molds Civilization, Harmony*, and *To all Mankind*.[31] The result was striking:

> The entire *Poème électronique* was strictly controlled by its 8-minute duration (not including the transitional entrance and exit music and the introductory announcements). Le Corbusier (i.e., his studio) produced elaborate diagrams detailing when and where the visual elements would overlap and in precisely what colored lighting conditions. Even the plan of the 2-minute interlude between presentations was meticulously considered.

The Pepsi Pavilion, Expo 1970, Osaka, Japan.

Quite different, then, from his artistic contemporaries' non-hierarchical collaborations in multimedia events self-consciously distinct from the 'spectacle', Le Corbusier's 1958 *Poème électronique* should not be unthinkingly elided with the experimental artistic practices of its period.[32]

EPISODE: MOVIE-DROME

Stan VanDerBeek's Movie-Drome broke the fixed temporal flow of the 'cinema' as a kind of staged multi-screen montage as it exploded the fixed framing and fixed audience positions. The intense mixture of film projection, slide projection, sound projection, and computer animations in the Movie-Drome is why VanDerBeek alternately called it an 'experience machine' or 'the emotion picture'. He wrote in 1966:

> […] my immediate plans call for the development of the 'movie-drome' as a prototype for a new kind of cinema-stage […] researching new techniques and means to 'expand cinema' into a world tool for art and education […] the making of film experiments to test out this concept of a world picture language, and the development of a research center to expand this work into an international art and education form, called 'Culture-Intercom'.[33]

Indeed the 'manifesto' proposes:

> Thousands of images would be projected on this screen … this image-flow could be compared to the 'collage' form of the newspaper, or the three-ring circus … (both of which suffuse the audience with a collision of facts and data) … the audience takes what it can or wants from the presentation … and it makes its own conclusions….[34]

'Montage' becomes Mosaic, not merely spatial juxtaposition but temporal and spatial fracture, not merely a field of images but an array of possibilities, not a theatre but a sphere of probability, not an arena but an agora.

VanDerBeek used phrases like 'movie-murals', 'emotion picture', 'newsreels of dreams', 'a replica of the universe', to designate its lack (perhaps refusal) of closure, and surely links Movie-Drome with open works, open events, heightened by the inclusion of 'the computer' that:

> […] offered the possibility of programming limitless combinations of images and fueled his ability to develop a continuously changing flow of images for the *Movie-Drome*.
> […] Within the spectacle of the *Movie-Drome*, plurality of meaning is not due to differing interpretations of the same filmic images, but rather a more complex process akin to what Roland Barthes, in his pivotal 1971 essay 'From Work to Text', referred to as the *stereographic plurality* of signifiers.[35]

Movie-Drome is also considered one of the most compelling implementations of an 'expanded cinema'. Even with some clear precedents, VanDerBeek's Movie-Drome did introduce the 'new medium of cinema'.

> Recognizing what he identified as 'the limitations of the four walls of theater' and the 'visual boundaries' of painting and sculpture, VanDerBeek sought a medium that would move beyond optical representation and deal with motion and time 'while accommodating all of those other ideas of painting, sculpture and theater'.[36]

Part planetarium, part phantasmagoria, part *Gesamtkunstwerk*, part geodesic dome, part 'communication interface', part memory-palace, Movie-Drome inverted reception theories, relativised the reciprocity between experience and 'narrative' and, importantly, opened a post-perspectival vista shifting the longstanding cinematic horizon that had long clung to the ideas interrogating the space of the frame (and/or its lateral extension), the 'synesthetic' spectacle of abstract colour and sound 'performances', the hybridised cinema of montage. Instead, Movie-Drome dramatised the 'space' of hemispheric perception as an engine of decentralised association and incessant flux.

EPISODE: EXPLODED CINEMA

> Expo 67 is a Celluloid City. In nearly every pavilion of Montreal's spectacularly successful world exhibition – more than 18 million visitors so far – the viewer is the ultimate target of a projector. Sometimes film flutters futuristically above or beneath him; sometimes images lurk and flicker all around him, caroming off walls, whirring on blocks and prisms, on hexagons and cruciforms. Sometimes movies are even mounted on a plain old rectangular screen – but everywhere there is film, film, film unreeling.[37]

Life Magazine's cover text of 14 July 1967: *A Film Revolution to Blitz Man's Mind*, suggests that:

> Pictures are thrown at the spectators with or without words, stories are told without logical sequence; viewers are deliberately thrown off-balance mentally and even physically. Film transmits facts, creates moods, tests moral judgments […] in a visual blitz almost blinding in its implications.[38]

To show the world of Expo 67, CBS News produced, with Willard van Dyke (Curator of Film at MoMA), a special television report, *The Shape of Films to Come* (1968) that included lengthy clips of works by VanDerBeek, the Whitneys, Kinoautomat, and others. The film's commentary begins: 'Today they're making films with computers, tomorrow they'll be doing it with lasers….' Cine-mania was leaving

Labyrinth, Expo 1967, Montreal, Canada.

Willard van Dyke, CBS, *The Shape of Films to Come*, 25 min, 16 mm, 1968.

the insular spaces of experimentation and ploughing into a public sphere inebriated with the incessant presence of moving images. In the frenzied media and artistic atmosphere of the 1960s, Expo's cinematic trajectory is hardly surprising. Indeed the reverberations of McLuhan's categorizations – the 'global village', 'hot' and 'cool' media, 'the medium is the message', etc. – catapulted media discourse into every corner of society. Little wonder that the subtitle of the 1967 book *The Medium is the Massage* is *An Inventory of Effects* – as the 'sensorium' was being radically restaged in a volcanic electronic sphere. And though McLuhan had many detractors, the dispersion of his clichés and eclectic pronouncements were as much a positivist herald as an uncertain omen and became the proliferating 'sound-bites' so dazzling in their prismatic and hazy ubiquity. Nonetheless, the phenomenon of 'expanded' culture was present on an international stage that wildly promoted 'biospheres', modular 'Habitats', a monorail, and a mediaspheric tempo teeming with the 'inventory' not merely of effects, but of the kind of 'scripted spaces' highlighted in Norman Klein's *The Vatican to Vegas*:

> [Scripted spaces are] a walk-through or click-through environment (a mall, a church, a casino, a theme-park, a computer game). They are designed to emphasize the viewer's journey – the space between – rather than the gimmicks on the wall. The audience walks *into* the story […] It is gentle repression posing as free will […] By scripted spaces I mean primarily *a mode of perception*, a way of seeing […] the Vatican paired with Vegas casinos; Baroque cities with Disneyland, […] the Crystal Palace Exposition of 1851 with armchair imperialism….[39]

In a sense, Expo's forays into the 'expanded' senses was a kind of electronic phantasmagoria – and thus fitting that it proffered a nearly immediate future of sensory overload, spectacle, and surfaces poised for what Klein identified as the 'electronic baroque'. At Expo, even

> [t]he most modest pavilion had a 16 mm projector grinding out a brave little documentary, while the grander national and theme pavilions featured multi-million dollar shows which explored the latest optical technology – not motion pictures, certainly nothing which could be called a *movie*, but multiple-dimension films, multi-screen, multi-image, multi-media light and sound experiences….[40]

Judith Shatnoff's essay 'Expo 67: A Multiple Vision' provides a guide to many of the projects/events at Expo. The Canadian National Pacific-Cominco Pavilion's *We are Young!*, by Alexander Hammid and Francis Thompson, is described as a 'cluster of six curved screens, three lower and three upper, combined to a total rectangular screen area of about 3,000 square feet – that's almost seven times the size of an average theater screen'. She writes about the experience: '*We are Young!* was speed, exuberance, vitality. It took off at about a hundred miles an hour and raced through some pretty dazzling optical shocks'. Made in fragmented episodes, the film mobilised multiple arrays of action across the grid:

> […] instead of related parts of an action, different events are juxtaposed, the presentation of content becomes cubistic. Then we work on many more complex levels. Then the language of multi-screen moves into symbol and metaphor.[41]

LABYRINTH

> *Labyrinth* was precisely the kind of future cinema earth city project that a collective fantasy was conjuring in the popular culture of the sixties.[42]

Designed by Colin Low and Roman Kroitor and produced by the National Film Board of Canada, Labyrinth was a cinematic architecture comprised of several 'chambers', and a literal maze. Chamber one was surrounded by eight balconies from which the opening sequence *Childhood, Confident Youth* was projected on the floor and up the five-storey perpendicular wall and included a massive sound system. Labyrinth was five levels and had a gigantic screen nearly 12 metres high creating a looming and huge vertical perspective. 'The perspectives are seen connectively – literal space is replaced by believable film space'.[43] Sensory stability is replaced by sensory vertigo. The second 'chamber' was a:

> […] maze with three prisms in an octagonal room full of mirrors on all the walls, floor, and ceiling. The prisms were made of partial-silvered glass so when the lights were on the audience, it would be the audience reflected back to itself, and when the lights went off the audience and came on in the prisms, it made an infinity of stellar lights, a cosmos.[44]

The third chamber, *Death/Metamorphosis*, had five projectors arranged in a cruciform. Images were alternated, repeated, rearranged in shifting configurations.

THE CZECH PAVILION

The ambitious Czech Pavilion[45] housed four projects: Polyvision, Diapolyekran, Kinoautomat, and a restaging of Laterna Magika, a 1958 project for Brussels by scenographer Josef Svoboda. As such, it was one of most ambitious efforts at the Expo.

Polyvision by Josef Svoboda and Jaroslav Frič:

> […] presented a panorama of Czech industrial life in an eight-minute film that used twenty slide projectors, ten ordinary motion picture screens and five rotating projection screens. While the subjects were usual industrial operations like hydroelectric power plants, steel rolling mills and textile mills, the visual material was presented in an unusual way. The screens were unconventional in that during the show they would move around: backwards, forwards, even sideways. Then there were other projection surfaces formed by steel hoops that spun around so rapidly that they seemed to constitute solid spheres and yet they were not solid.[46]

Laterna Magika by Josef Svoboda:

> The *Laterna Magika* is a theatrical synthesis of projected images and synchronised acting and staging. The set must be mechanically refined for the utmost flexibility in scenic space if it is to use filmic possibilities without being overwhelmed. […] Unfortunately, all of these attempts have been made in conventional theatre plans, which permit only a mere suggestion of the possibilities. In order for the *Laterna Magika* and multi-screen techniques to be fully explored, a special facility must be created.
> […] The multi-screen image is dynamic; just like that of the actor, it can be erased by time. It can reveal and even create space, communicating the scale of man's activities, and then vanish when it is not needed. But, finally, it would be a mistake to consider slide- and film-projection as the principle expressive means of the 'luminous theatre': the most important thing remains the intensity and liveliness of our response to the psychological conditions of the *mise-en-scène.*[47]

Vít Havránek writes that:

> […] the magical part was that the film came to life, it was not pre-taped, rigid, or mechanically repeatable […] granting the film the ability to react to its surroundings.[48]

Alfréd Radok concludes:

> Above all, *Laterna Magika* has the capacity of seeing reality from several aspects. Of 'extracting' a situation or individual from the routine context of time and place and apprehending it in some other fashion, perhaps by confronting it with a chronologically distinct event.[49]

Diapolyekran (mosaic projection) by Josef Svoboda presented:

> […] a ten-minute feature entitled *The Creation of the World.* It, too, employs a multi-screen, multi-projection (only slides) technique reminiscent of Polyekran in its pure film, non-actor features, but in a tighter, shallower, and more stable form. As the illustration suggests, the projection screens form a wall composed of cubes, one hundred and twelve in all. Each cube has two automatic slide projectors mounted at its rear, capable of flashing five images per second, even though the actual rate was considerably slower; a total of thirty thousand slides were used, and the whole operation was computerized. Moreover, each cube was capable of sliding forward or backward approximately twelve inches, thus providing a surface in kinetic relief for the projections.[50]

The moving mosaic splintered and reshaped in a nearly inexhaustible array of possible configurations, and its combinatorial strategy was surely a harbinger of 'the shape of films to come'.

Kinoautomat by Radúz Činčera:

> The Kinoautomat came up with the novelty of handing over to the audience the decision about plot. Using a voting machine (yes/no) under the seats, the filmmaker gave the viewers several opportunities to decide their plot development.[51]

Chris Hales writes: 'Even rudimentary research demonstrates that *Kinoautomat* was the first functional interactive film-delivery system shown to a wide public audience, during its six-month run at the Expo 67'.[52] 'The film, an ironic tale of life in an ordinary block of rented apartments was a delightful example of the outstandingly rich Czech New Wave of the 1960s'.[53] As a first stab at directed audience participation, the film was part projection, part game show, part performance, and part experiment in audience 'democracy'. At points in the film, it was stopped by one of its two live hosts, and the audience was asked to vote on the next sequence. The film was widely popular at Expo and indeed reshown in Prague in 1971 where it was quickly banned by the Communist government – perhaps, as Michael Bielicky says, 'the powers of the time were afraid that the *Kinoautomat* might heighten democratic awareness. After all, during the performance votes were cast according to democratic principles'.[54]

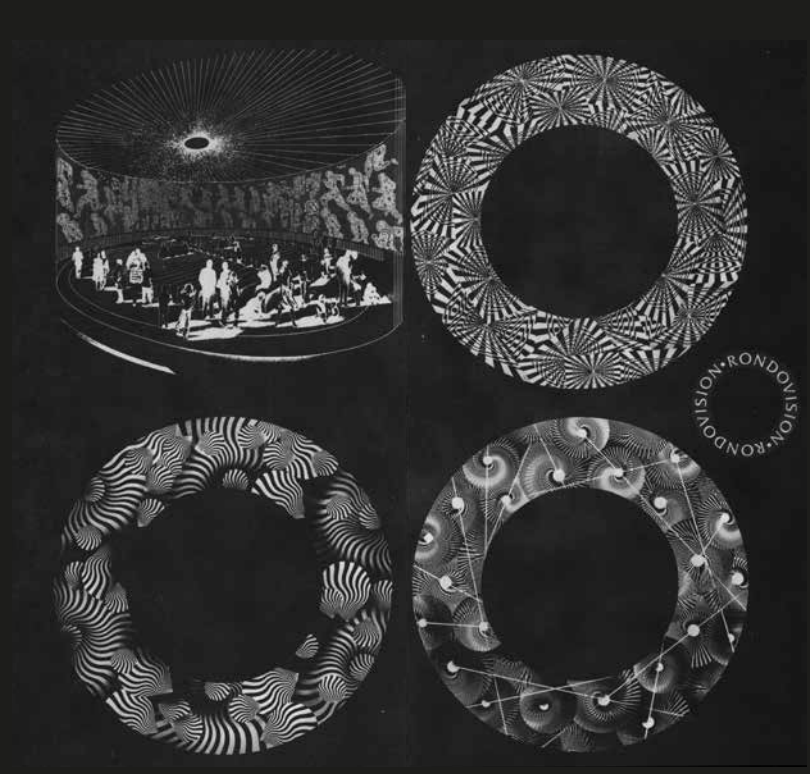
EPISODE: JAROSLAV FRIČ AND SCARS (SCIENCE ART SENSE)

Jaroslav Frič's multi-media productions (primarily for international expositions) are deeply embedded in the explosive forms of the period. His productions Polyvision with Josef Svoboda (1967), Kinoautomat with Radúz Činčera (1968), Spherorama (Expo 1970, Osaka), Vertical Cinemascope (Expo 1970, Osaka), Rondovision (1984) and, especially the founding of SCARS (Science Art Sense), are significant achievements.[55]

> The multimedia art, as conceived by Jaroslav Frič, is a Czechoslovak synthesis of an open structure of spatial and temporal interrelations. None of its forms is a closed aesthetic system converging into the material of the form as a rigid complex. It holds polemics with the romantic exclusiveness of audiovisual elements such as shape, colour, space, sound and music. It is in the proper sense of the word an open work of art; it is the *opera aperta* type,[56] to use the expression of Gillo Dorflese, who thus described the open structure of modern art.[57]

The SCARS group (Science Art Sense) produced major works in the US, Japan, USSR, India, Iran, Canada, and elsewhere. It had a

Josef Svoboda, Polyecran, The Czech Pavilion, Expo 1967, Montreal, Canada.



Jaroslav Frič, Rondovision, 1984, New Orleans.

production staff of some 40 members: composers, cameramen, space designers, AV experts, scenographers, researchers.

> The creative team […] constantly deals with various subjects and relationships of world culture and therefore studies politics, philosophy, art, morals, law, religion, the way of life, material conditions, the human environment of the country for which it creates the programme.[58]

SCARS also published four issues of a 'journal'. It covered projects by the group and their descriptions as well as speculations about international topics relating to film. It also included many references to Cybernetics (particularly to Max Bense's writings or to A.A. Moles' 1966 book *Information Theory and Aesthetic Perception*), even writing:

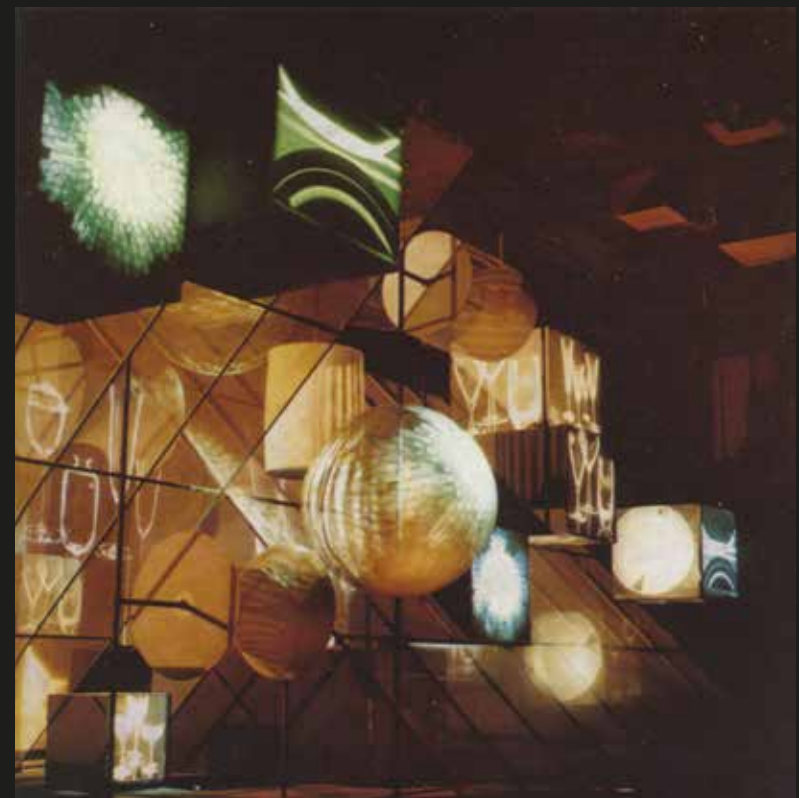
> With regard to cybernetic aesthetics, the main quality of the new forms – spherorama, integro-vision and others – is that it is dynamizing the emotional memory, the personal aesthetic information. At the same time the individual pictures have, as signalling elements, an integral character….[59]

Issue number 3 is the most ambitious. It also opens with an essay by Miroslav Klivar and is followed by 'Some Aspects of Information Theory in Audio-Visual Art', by Jiří Rada. Klivar's text, 'Audio-Visual Art and Human Needs' is a series of reflections on the state of the human condition in socialist society:

> It seems to us that the Czechoslovak conception of audio-visual art in the capacity of synthetic art, whose active participant is the onlooker – one who, in a certain sense, must perform by himself the 'cut' of the sequence, is 'drawn' into the action, etc. – acts directly and significantly in satisfying *the need of intensive inner unity of the personality.* We consider this as one of the main human needs closely connected, among other things, with the need for general and individual assertion.[60]

But perhaps the most intriguing text in SCARS is the description of The Theatre of the Antipodes – Vertical Cinemascope in Issue number 2 (1970):

> The system of the vertical cinemascope offers by its vertical screen views of a monumental vertical perspective of very high buildings. By using a special 'black screen' there can be achieved such effects as for instance having small flying objects projected on the black background which gives the impression of a flight in the dark. This complicated aim has been successfully solved. There are two screens: one high one placed in the rear and another of regular dimensions in the foreground, which allows among others to play with two pictures in the space.
>
> The new forms of the Czechoslovak audio-visual art loosen the rigid bonds to the stage, create a synthesis of art,



Josef Svoboda, Jaroslav Fríč, Polyvision, The Czech Pavilion, Expo 1967, Montreal, Canada.

Radúz Činčera, Kinoautomat, The Czech Pavilion, Expo 1967, Montreal, Canada.

Jaroslav Frič, Heritage of Ages, Montreal, Caracas, Tehran.

Jaroslav Frič, Spherorama, Expo 1970, Osaka, Japan.

exceed polyprojection. The screens are cleverly spaced and architectonically composed. We have seen that there is in fact nothing that could not be realised in these aesthetic experiments, that there are ever new forms. The open dramatic space allows a continuous change in the dynamism of the action, especially the summing-up of the action, the quick transition from various levels of viewing, of the angles of scenes, of the picture sizes a.o.

In the vertical cinemascope kinetic changes can be smoothly realised, e.g., from the monumental size to chamber size, even to a quite small one, and vice versa. An interesting feature is the division of the main screen into 30 movable louvres, by which a continuous change of the size and number of projection screens can be achieved. The combination of real objects is used in front of the screen. This exceeds the classical tradition. […] Even a detail can become monumental […] The open dramatic space allows a more delicate graduation in the simultaneously developing dramatic conflict, a confrontation of the viewing levels 'Up' and 'Down' and the revolving of the vertical screen by 90 degrees.[61]

Alas only one image now exists of this ambitious project to upend cinema. In an enormous range of multimedia spectacles, regularly characterised as having 'no constant frame, […] free composition […] dynamic simultaneity',[62] leaving vertical cinema only to be speculated about. The written outline is hazy but suggestive of a project to upend cinema – aiming it to another axis.

CODA: EXPENDED CINEMA?

Images scatter into data, data gather into images.[63]

The 2002 exhibition *Future Cinema: The Cinematic Imaginary After Film*,[64] proposed the 'surmounting of cinema's traditional constraints',[65] and aimed at the deconstruction of the 'total apparatus of the cinema […] to allow different relations between spectator and screen, different representations/constructions of reality….'[66] Indeed the exhibition (and the accompanying book) was a watershed moment that identified (in comprehensive form) a rupture between phenomenological cinema and ontological cinema. These terms perhaps relate to Jeffrey Skoller's 'actual' and 'speculative', and suggest a shift from the perceptual sensorium to that of the cognitive sensorium – implicit in the cinematic philosophy of Gilles Deleuze. It's hardly coincidence that in 2001 Jacques Rancière wrote:

The movement-image, the image organized according to the logic of the sensory-motor schema, is conceived of as being but one element in a natural arrangement with other images within

> a logic of the set (*ensemble*) analogous to that of the finalized coordination of our perceptions and actions. The time-image is characterized by a rupture with this logic, by the appearance […] of pure optical and sound situations that are no longer transformed into incidents….[67]

Perhaps not *incidents of* but rather *events* in temporal and spatial configurations that abolish the longstanding notion that the cinematic is not merely the interplay of sight and sound in chronological succession but, in Peter Weibel's phrase, 'a calculus of variables', an indeterminate and unrepeatable predicament. Or perhaps, in the words of Guy Debord, in the 1952 text 'Prolegomena to All Future Cinema', 'The arts of the future will entail the shattering of situations, or nothing'.[68]

Timothy Druckrey (US) is an independent curator, lecturer, and writer in the fields of media history and technology. He is co-founder of Critical Press, publishing monographs on technology and identity issues in postmodern culture. He co-edited *Culture on the Brink: Ideologies of Technology* (1994), and *Electronic Culture: Technology and Visual Representation* (1996). He also works as a series editor for *Electronic Culture: History, Theory, Practice* (MIT Press). He curated, among many others, *Iterations: The New Image* in 1993 (editing the book of the same name; MIT Press, 1994), and co-curated *New Media Beijing* in 2006. Timothy Druckrey has lectured at the University of Applied Art, Vienna (2004) and the University of Hartford (2005), and is currently Director of the Graduate Photographic and Electronic Media program at the Maryland Institute, College of Art.

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45 This section in particular and many discussions have benefited from frequent conversations with Michael Bielicky, now a Professor at the HfG in Karlsruhe. Michael generously shared his archive material, including numerous rare publications related to the works of Svoboda, Frič, as well as the SCARS publications. This material also included some rare film, video and other documentation that have been indispensable.
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Image credits

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* Unless otherwise noted, the authors of the films also made the soundtracks.

#43

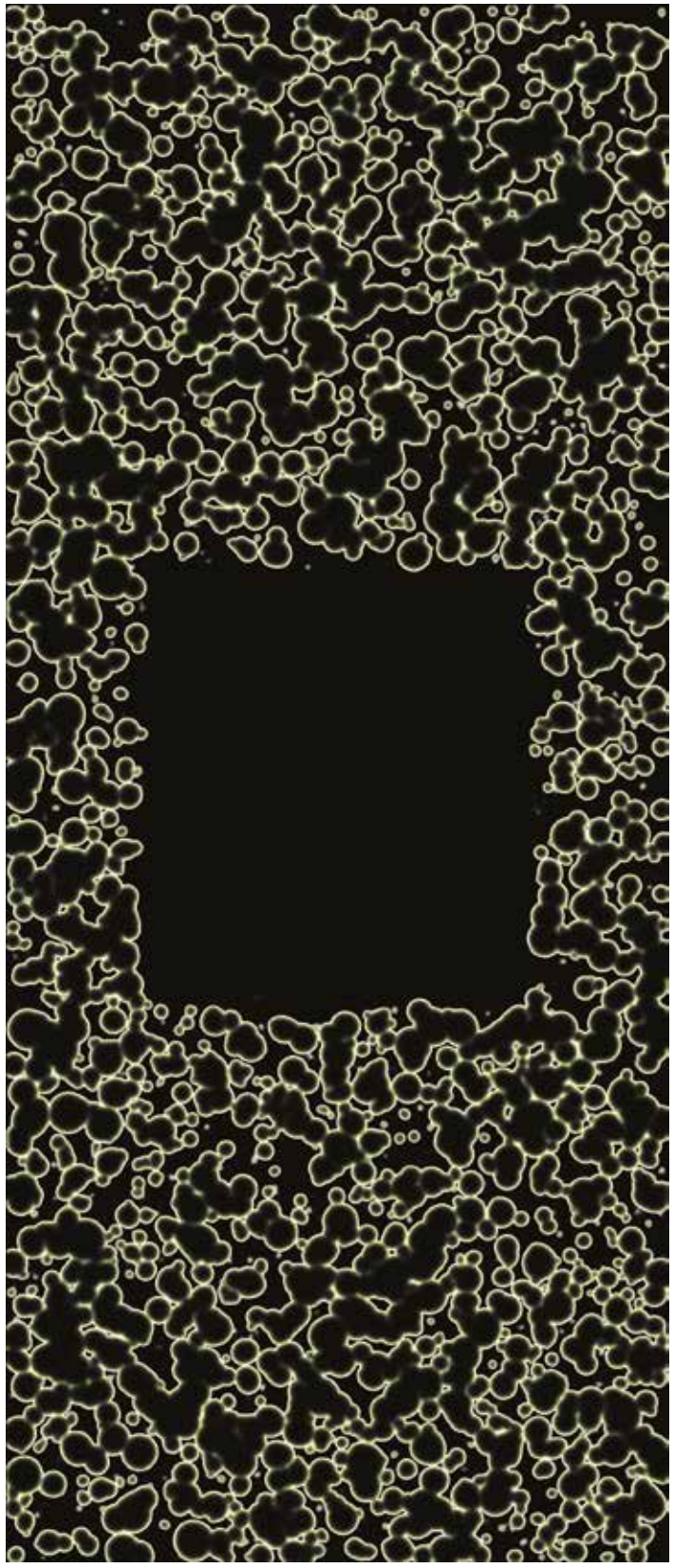
JOOST REKVELD
10'30''
COLOUR

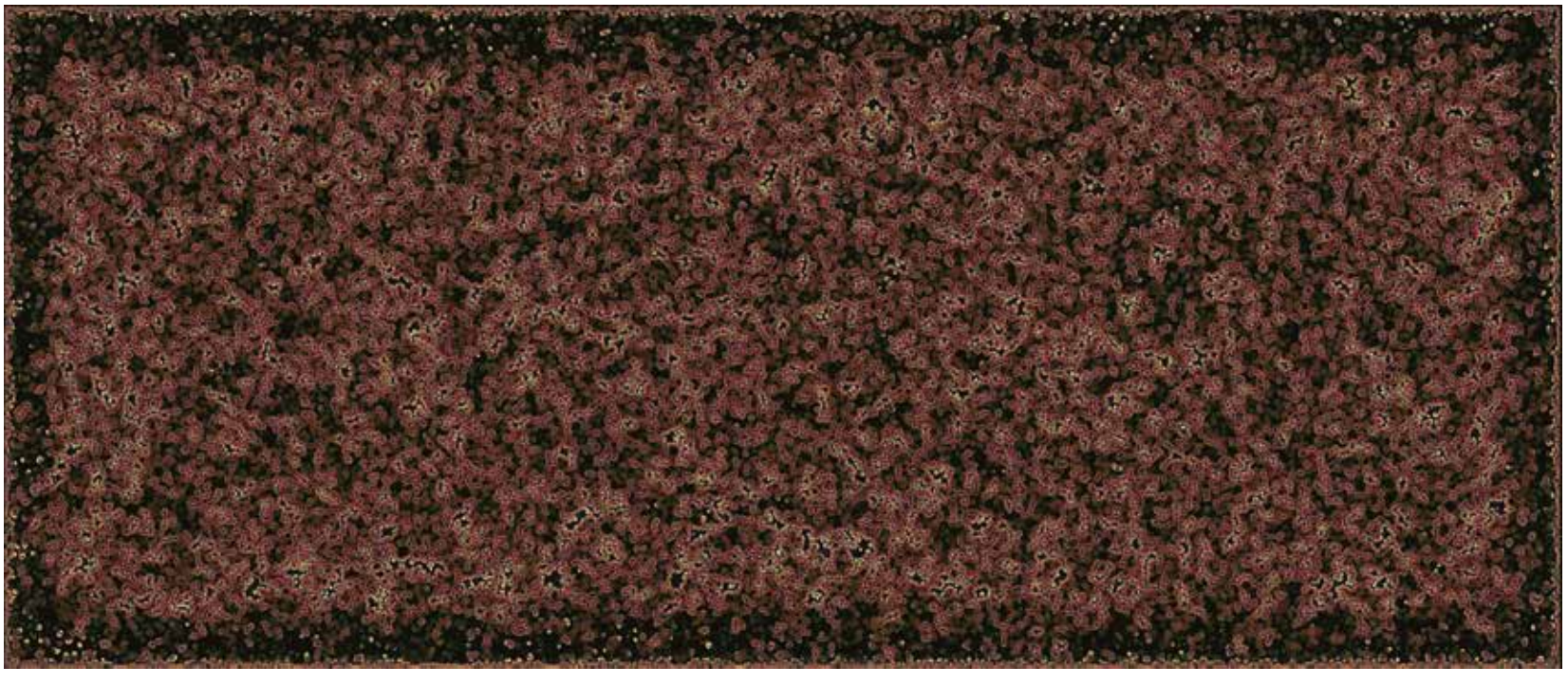
The images in the film *#43* are generated by systems in which the pixels are agents that are, in some respects, comparable to organic cells. These systems are bumped into motion by disruptions that cause a difference between some pixels and their neighbours. These miniscule differences become seeds for processes of decay and growth, an imbalance that embodies a store of energy for the system as a whole, similar to electrical potential. Under some circumstances the cells in the system feed each other so that oscillations or other kinds of order are produced spontaneously, sometimes stable in themselves, sometimes feeding on noise to stay active.

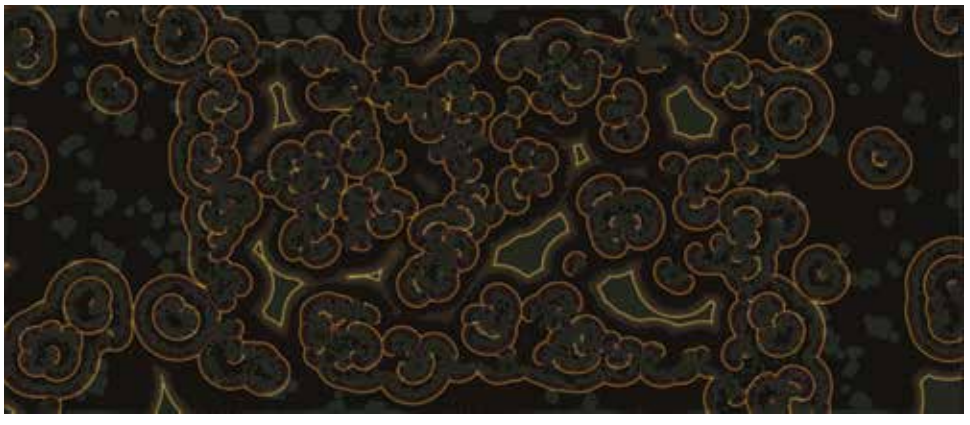
This film is part of a long-running exploration of algorithms that are based on propagation and local interactions. Originally triggered by an encounter with simulations of how nerve impulses organise themselves into oscillations in tissues like heart muscle, for example, the project has since expanded to include an interest in the more general emergence of patterns in time and space out of homogenous starting conditions. These explorations are inspired by a set of ideas from biology and mathematics that first came to prominence during the development of cybernetics in the 1950s and 1960s, and that have since evolved into more recent manifestations such as catastrophe theory, complexity theory and artificial life.

The composition of this film was influenced by the work of logician G. Spencer Brown, who wrote his *Laws of Form* in 1969. The book is a wonderful account of a new kind of logic that lends itself especially well to describe the seeming paradoxes of self-reference.

Joost Rekveld (NL) makes abstract films, light installations, and live projections. He explores the sensory effects of systems he designs, often based on concepts from physics and biology. These systems combine temporary dogmas (in the form of rules or code) with open elements such as material processes or networks of interactions that are too complex to predict. His works are composed documentaries of these explorations. One of his most famous films is *#11, Marey <-> Moiré* (1999). Rekveld also works in theatre, curates film programmes and writes. Since 2008 he has been course director at the ArtScience Interfaculty of the Royal Conservatoire and the Royal Academy of Art in The Hague. www.lumen.nu







BRING ME THE HEAD OF HENRI CHRÉTIEN!

BILLY ROISZ & DIETER KOVAČIČ
SOUND MASTERING: MARTIN SIEWERT
8'17''
COLOUR

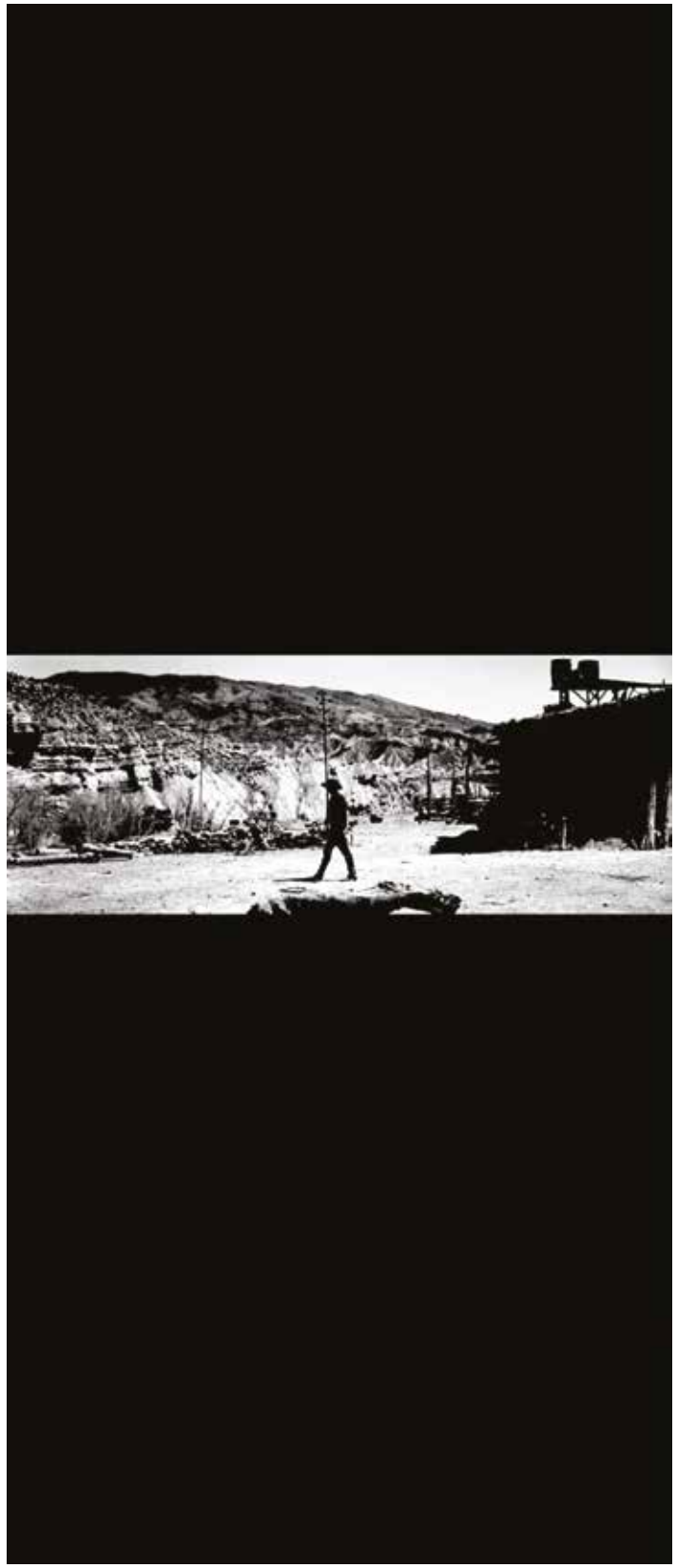
There's no sentiment as bold as the one in a duel shot in cinemascope. There's no emotional drop height as big as in abstract vertical movies.

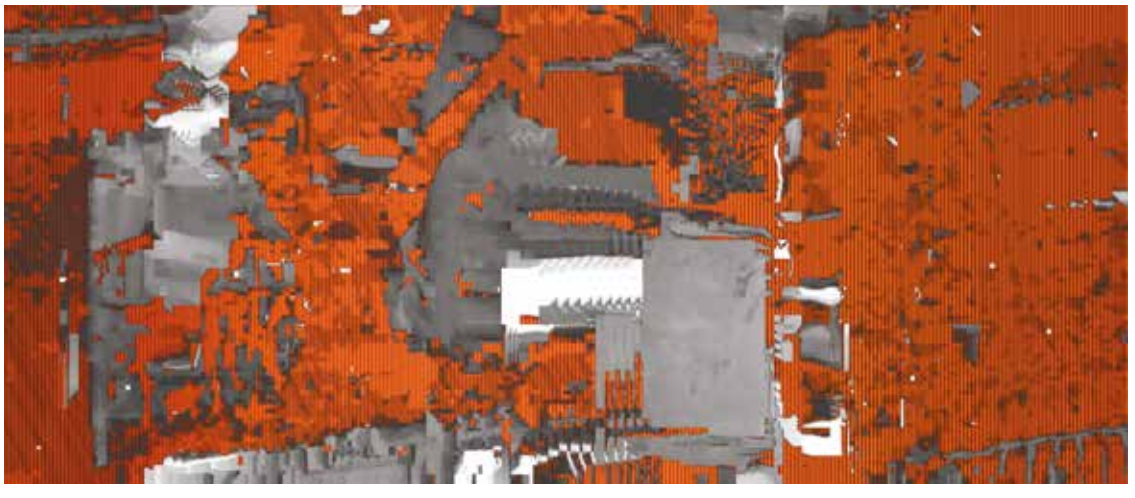
Billy Roisz and Dieter Kovačič explore the world of cinematic formats based on the genre that experimented with the width of the screen to display spectacular landscapes: Western movies and their wide span of (male) heroism between life and death. The music and imagery of *Bring Me The Head Of Henri Chrétien!* are thus based on Westerns and their soundtracks. Spaghetti Westerns such as *Once Upon a Time in the West* with their distinct epic atmospheres were a great source of inspiration and artistic booty. The largely abstract soundtrack amplifies and structures the story of challenge, conquest, success and failure.

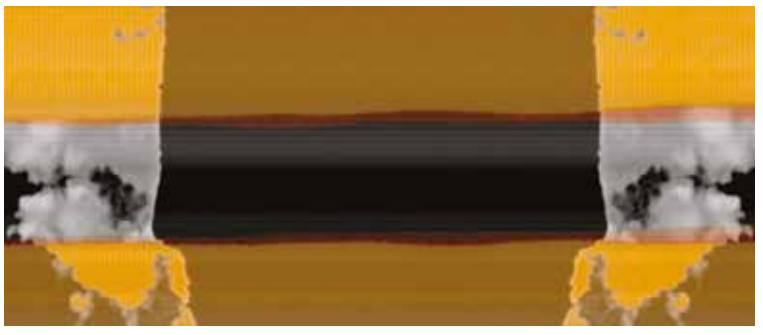
Visually, Billy Roisz' disquisition about the colours of 1960s and 1970s movies layers harmonically with Dieter Kovačič's mostly monochromatic research into structural patterns in duels and carriage rides. The film is screened in vertical cinemascope and takes the format into account in several ways – e.g., the opening shot (pun intended) that morphs from horizontal to vertical cinemascope, or the panning shot across a horizontally mirrored landscape that makes the vertical display window act as a scanner – amplifying details in a decelerated movement. Finally, and in spite of all formal and aesthetic playfulness, *Bring Me The Head Of Henri Chrétien!* is nevertheless a classical Western movie. And its sequel could be a zombie movie with a similar title – who knows…

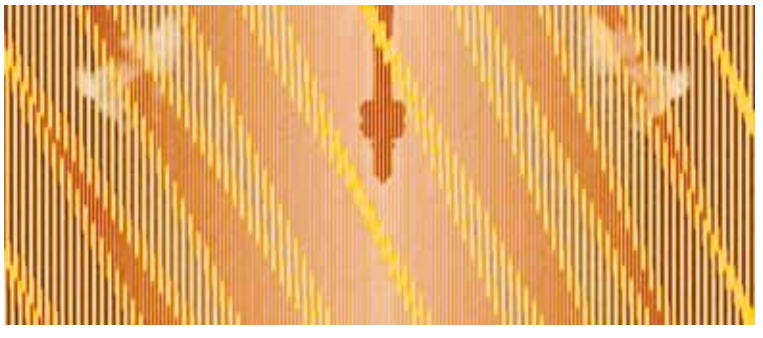
Billy Roisz (AT) specialises in feedback video and sound-image interactions, using various devices and instruments such as video mixing desks and a self-built video synth. She experiments with video and sound in the context of performance, installation, and cinema. www.billyroisz.klingt.org

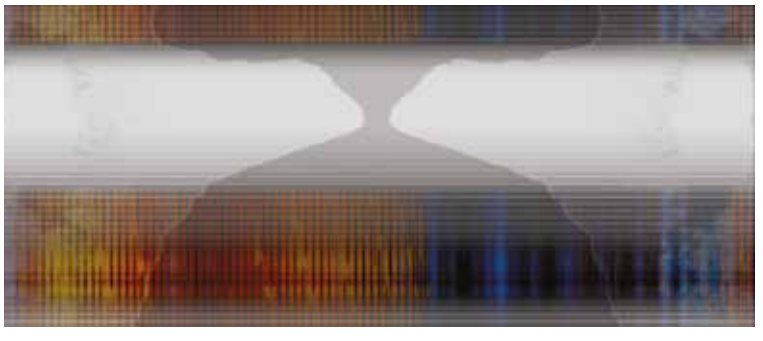
Dieter Kovačič (AT) is an avant-garde musician. After appearing on several compilations documenting the Viennese avant-garde scene of the late 1990s, he released his first solo album in 2000. He makes music for theatre, opera, video, and installations. dieb13.klingt.org











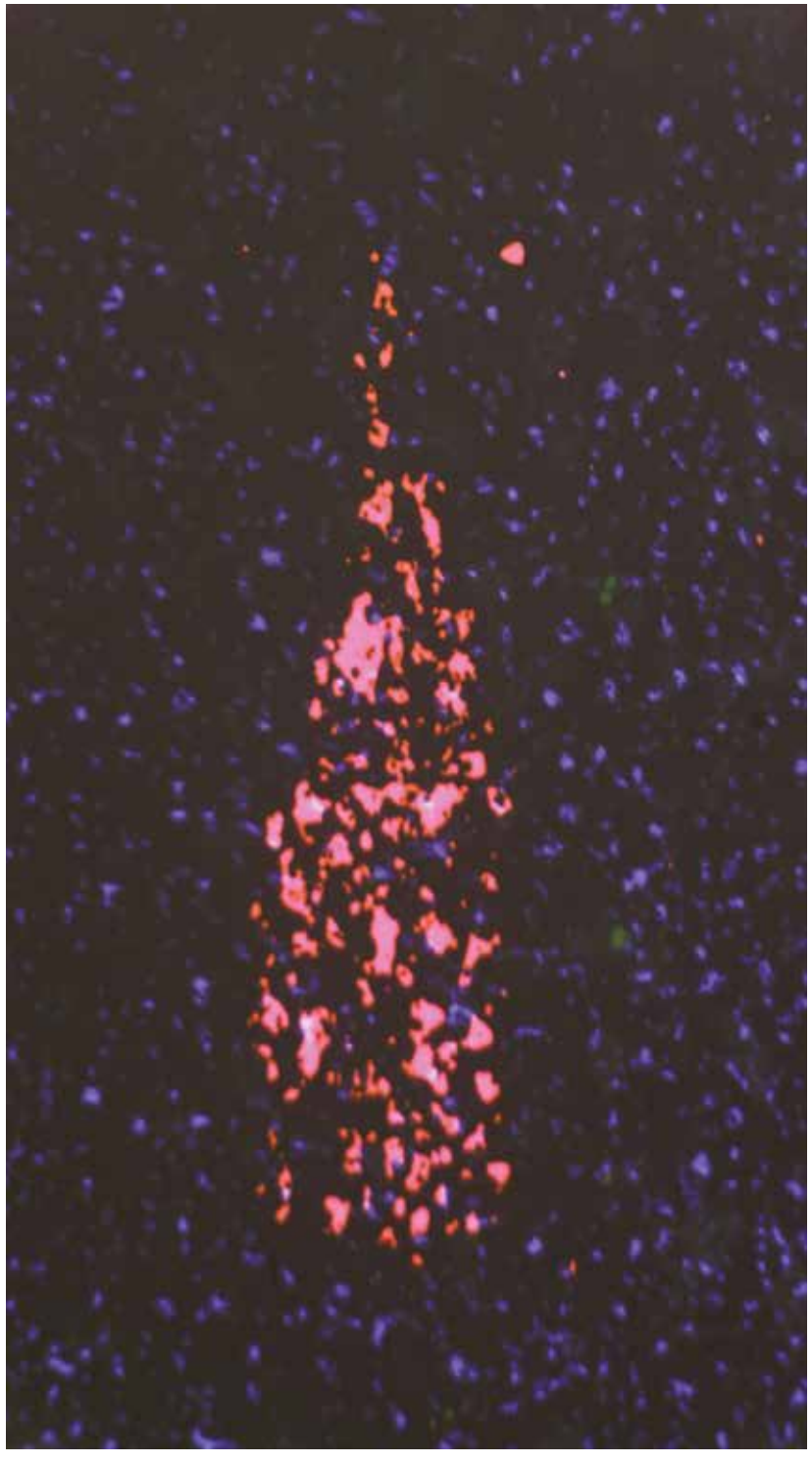
CHROME

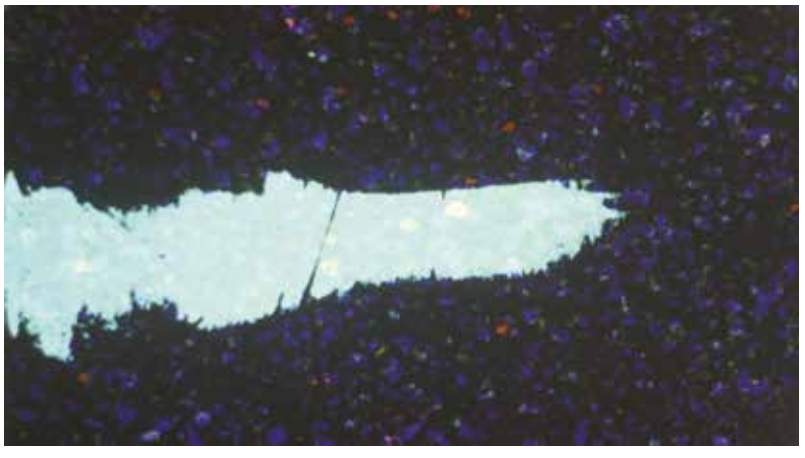
ESTHER URLUS
SOUND: HUIB EMMER
7'40"
COLOUR

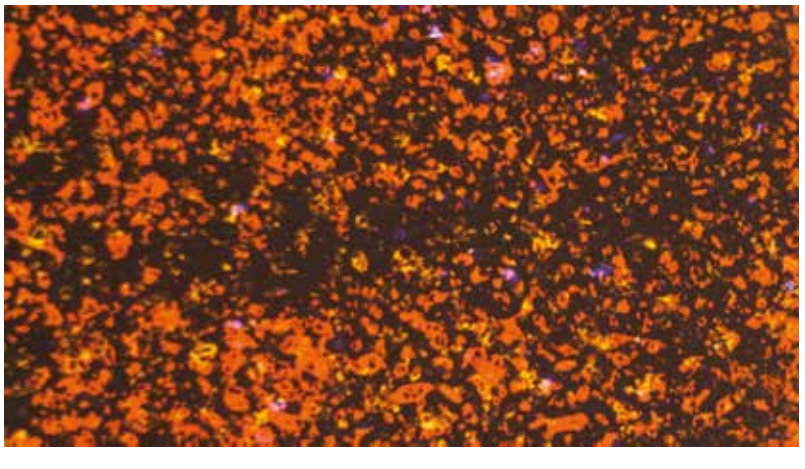
Chrome is inspired by the autochrome process, a colouring technique for black-and-white photographs invented by the Lumière brothers in 1903. In the autochrome process, microscopic grains of potato starch dyed red-orange, green and blue-violet act as colour filters. At normal viewing distances, the light coming through the individual grains blends together in the eye, reconstructing the colour of the light photographed through the filter grains. In *Chrome* the images created by this process are 'amplified', as if they are viewed through a microscope: a constantly moving noise of grains that forms shapes and outlines. The images have been created by applying homebrew film emulsion in grain structures to transparent 16 mm film with an airbrush. The resulting filmstrips have then been exposed and developed to black-and-white images. Layer by layer these images have been transformed to colour, resulting in teardrop-shaped figures that seem to be falling and fragmenting.

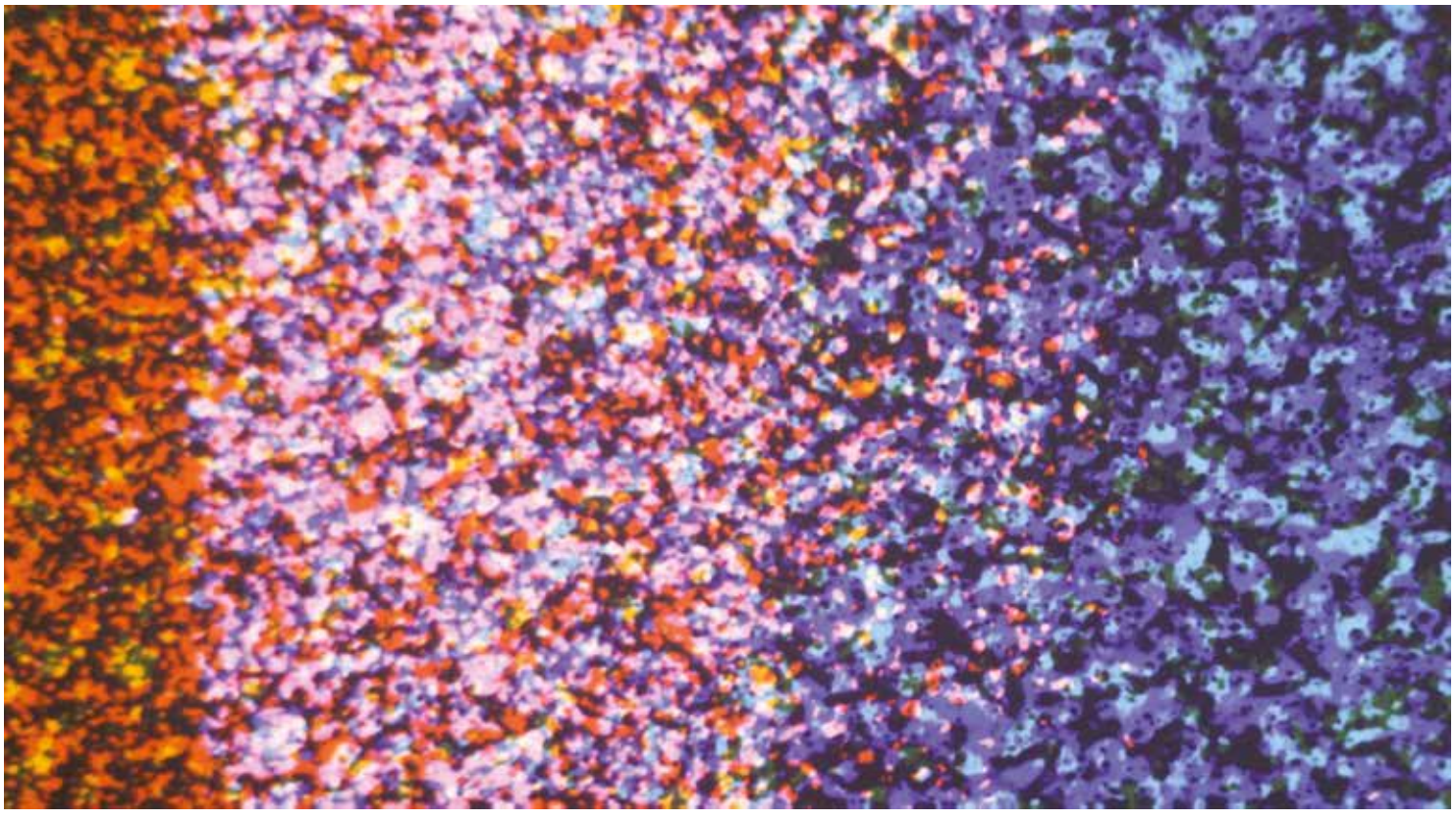
The super-enlarged grain structures create unrecognisable shapes and apparitions. The soundtrack was created with Huib Emmer, who created an electronic adaptation of a musical piece dating back to the time of Auguste and Louis Lumière, the pioneering days of photo- and cinematographics.

Esther Urlus (NL) makes Super 8, 16 mm and 35 mm films and installations. She creates new works by kneading the material, and by trial, error and (re)invention. She is the founder of the WORM.filmwerkplaats, a Rotterdam-based workshop and lab for experimental film and the DIY approach; this is one of the few places left in Europe where work can be done with Super 8 and 16 mm film. Her previous film, *Deep Red* (2012), also investigates colour mixing processes. estherurlus.hotglue.me









COLTERRAIN

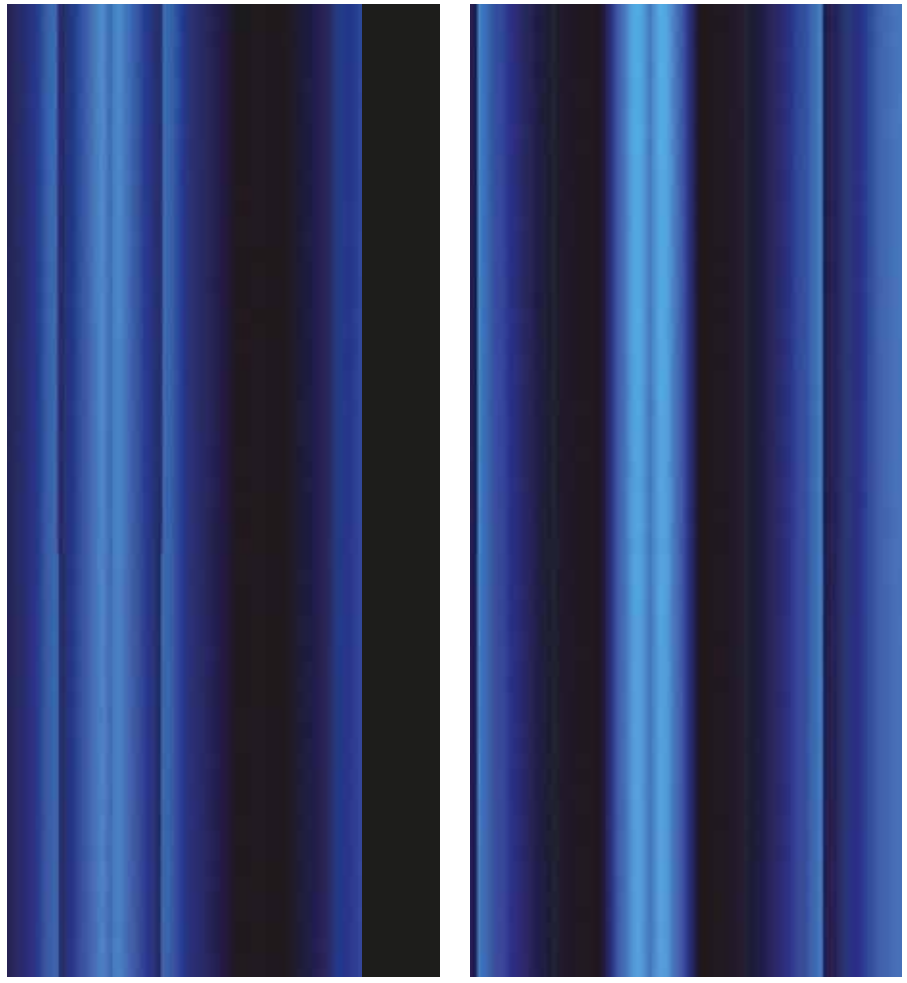
TINA FRANK
SOUND: COH
AUDIO TO VIDEO: GREGOR GÖTTFERT
10'20''
COLOUR

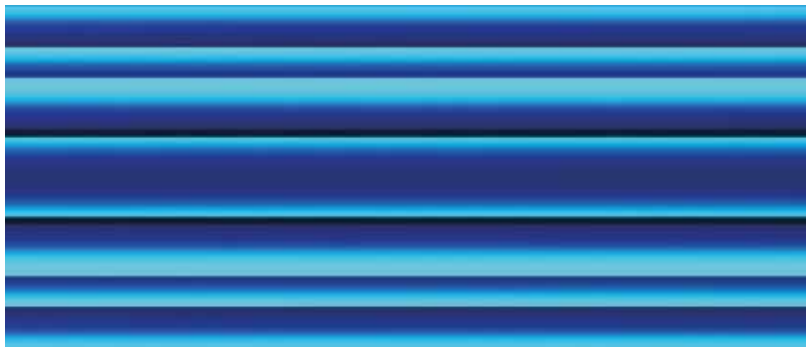
my tv has no picture, just vertical colour lines… sound is fine…

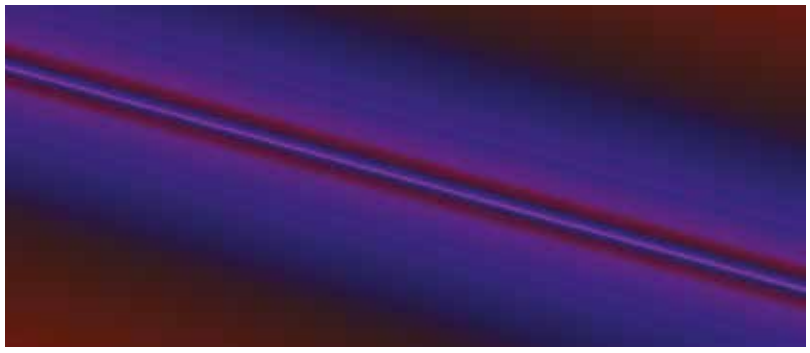
Colterrain, the title of this film, refers to a colourful landscape, a terrain described by lines similar to geographic mapping – in this case a mapping of sound. What you hear is what you see, literally. The audio was transmitted through a Synchronator device that translates audio frequencies into RGB video frequencies. With this method, the image is actually the music turned into colour and filmed live using analogue equipment. Listening to the sound evolving, one becomes a witness to colourful movements. At some point we no longer know which comes first: is it the lines going inwards or outwards, or the colours crawling up or down? And why are human beings so strongly connected to moving lines anyway? A line implies action because it is created by a dot moving from one place to another. The moving line becomes a field, which in turn is an area of colour. Like Rothko's *Colour Field* paintings, *Colterrain* also strives for an intense experience between viewer and image.

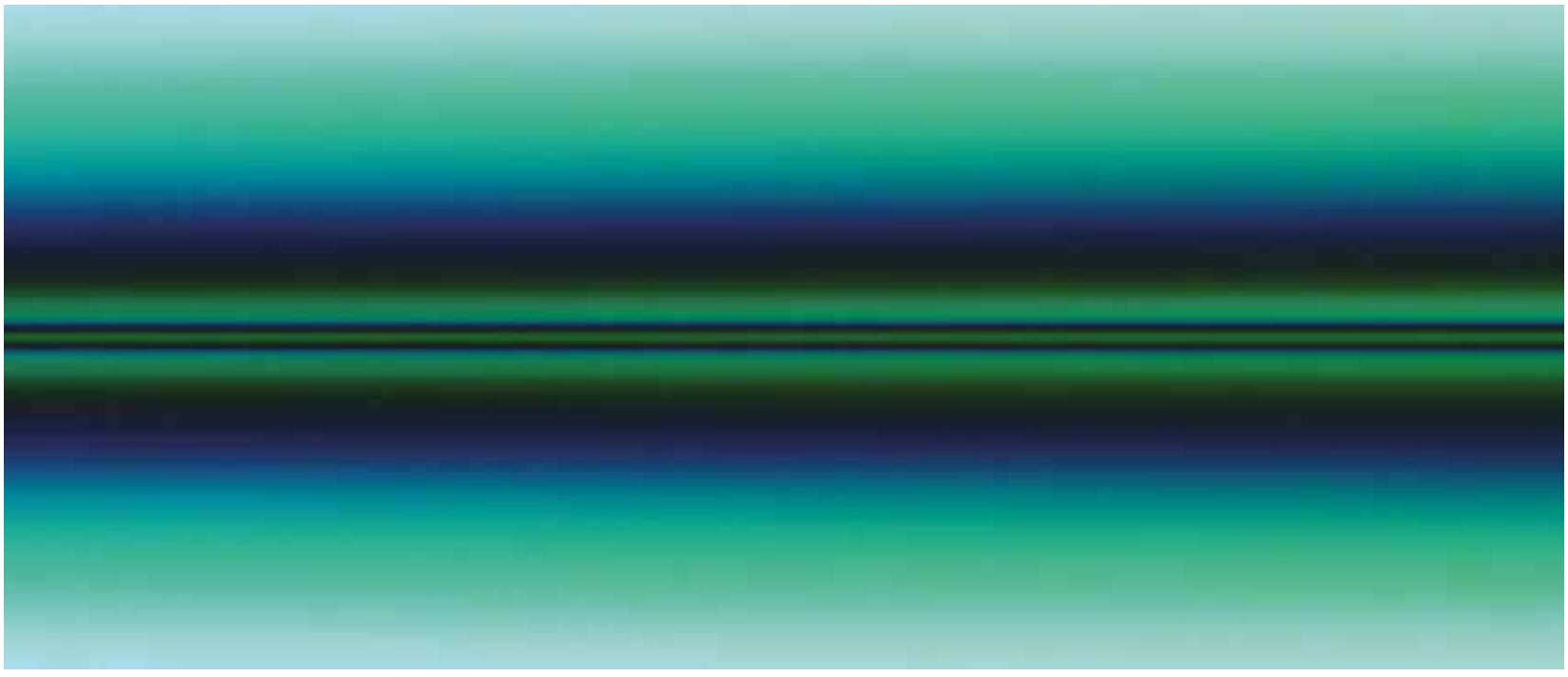
Colterrain intentionally plays with the vertical nature of the *Vertical Cinema* project. The visual split in the centre of the screen becomes a portal to other dimensions, a visual door to the world of sound.

Tina Frank (AT) is a graphic designer and media artist working as a professor of visual communication and the head of the Department for Graphic Design and Photography at The University for Art and Industrial Design in Linz. She started working with video and multimedia in the mid-1990s and has performed live at many music, film and multimedia festivals with musicians from the electronic music scene around the label Mego. Her video works, e.g., *Chronomops* (2006) and *Vergence* (2010), explore the boundaries of human visual perception and are shown regularly at exhibitions and festivals. tinafrank.net









DEORBIT

MAKINO TAKASHI & TELCOSYSTEMS

DRUMS: BALÁZS PÁNDI
17'30''
COLOUR

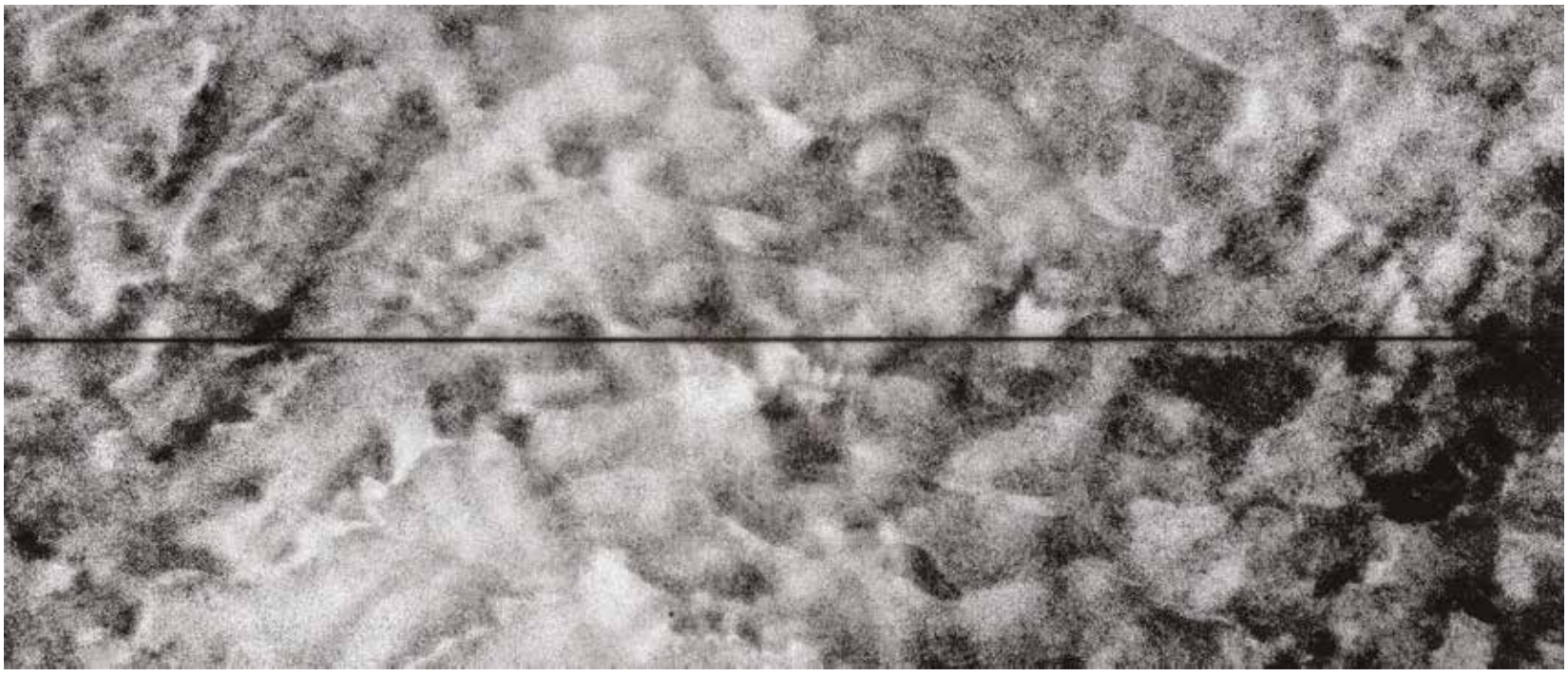
The myth of Icarus whose waxed feather wings melted away because he flew too close to the sun is an early record of an object falling back to Earth. A more recent atmospheric entry is that of the modular Russian space station Mir on 23 March 2001. The debris scattered over an area of more than 1500 kilometres in the Pacific Ocean.

Deorbit is an observation mission with a mind of its own. It too is a rebellious entity – with a mission to reconstruct knowledge retrieved from space-objects orbiting planets in faraway systems. If we imagine Icarus, let us picture him with a camera, his lens scanning the universe, the most immeasurable depths of space, its outer edges visible only as pixels and black RGB values. The information he sends back comes in tiny packages, bits of data. These compressed images are sucked into the black hole of film, devoured by the universe of grain, and burned onto the celluloid surface. The scanned and observed universe is restructured into a new cosmos in the machine.

Our cosmos is made of the collisions between the two extremes – immeasurably macro and micro. *Deorbit* is a journey that starts at one end, in the vast darkness of the outer rim of space, and passes over the Earth's oceans, mountain ranges, and deserts, and ends at the other, smashing into the atoms of the celluloid grain itself. It is a transfer from analogue to digital and back again, from massive to subatomic and beyond.

Makino Takashi (JP) is an experimental filmmaker who lives and works in Tokyo. He creates and exhibits films that make full use of all film and video techniques, treating images and music as elements of equal importance. He has received international awards for his films *Generator* (2011), *Emaki/Light* (2011), *Still in Cosmos* (2009). makinotakashi.net

Telcosystems (NL) is David & Gideon Kiers and Lucas van der Velden. In their audiovisual works they research the relation between the behaviour of programmed numerical logic and human perception of this behaviour. Their installations and films focus on self-structuring and generative processes, and they interact with these processes in real-time in their live performances. Their films *Loudthings* (2008) and *Vexed* (2012) have received many awards internationally. www.telcosystems.net



LOUVER

BJÖRN KÄMMERER

6'00''
COLOUR
SILENT

'What are we watching?' is the first thing viewers of *Louver* might ask themselves. Connoisseurs of Kämmerer's work are aware that we are possibly witnessing a perceptual illusion caused by the mysterious hypnotic 'two-dimensional' movements of a light-object. Our distracted senses are unable to determine if we are observing the 'real thing' or abstract patterns of 'digital light'. Here, we might also try and seek structure, some mathematical point where the movements are conducted, so they can reveal the meaning of the image. But it soon becomes apparent that the subject is Time itself: the time that is needed for the mysterious patterns to develop their own rhythms, and then to disappear into the dark frame from which they emerge. What was once a glittering screen of light grids now appears to us as a one-dimensional dark universe of the unknown.

Louver is a grid, a raster, it can also be a shutter, a way to control the amount of light. There is something hauntingly cinematic in the set-up of this film. First, the format is created by the structure, challenging the vertical with four images on top of each other, moving horizontally, and then acknowledging that the filmed object is a form of light, as is the film itself. And that is what we are actually observing: a movement of light that collapses into an endless stream of associations in the viewers' mind. If that isn't film, then nothing is. (Mirna Belina)

Björn Kämmerer (DE/AT) studied at the University of Arts and Industrial Design in Linz and at the Academy of Fine Arts in Vienna, graduating from Harun Farocki's film class. In his films he often challenges the ideas of abstraction and representation, geometry and motion, removing (static) objects from their everyday context and setting them in motion.
www.bjoernkaemmerer.com

LUNAR STORM

ROSA MENKMAN
4'15"
COLOUR

The surface of the Moon seems static. Though it orbits the Earth every 27.3 days, with areas of it becoming invisible during this rotation, it is always (visibly or invisibly) above us, reassuringly familiar. The Moon is the best known celestial body in the sky and the only one besides the Earth that humans have ever set foot on.

The Seas of the Moon (Lunar Maria), consisting not of water but of volcanic dust and impact craters, appear motionless to the naked eye. Here, volcanic dust forms a thick blanket of less reflective, disintegrated micro particles. But on rare occasions, beyond the gorges of these Lunar Maria, and only when the lunar terminator passes (the division between the dark and the light side of the moon) a mysterious glow appears. This obscure phenomenon, also known as lunar horizon glow, is hardly ever seen from Earth.

Beyond the gorges of the Lunar Maria, the Moon is covered with lunar dust, a remnant of lunar rock. Pummelled by meteors and bombarded by interstellar, charged atomic particles, the molecules of these shattered rocks contain dangling bonds and unsatisfied electric connections. At dawn, when the first sunlight is about to illuminate the Moon, the energy inherent to solar ultraviolet and X-ray radiation bumps electrons out of the unstable lunar dust; the opposite process occurs at dusk (lunar sunset). These electrostatic changes cause lunar storms directly on the lunar terminator that levitate lunar dust into the otherwise static exosphere of the Moon and result in 'glowing dust fountains'.

Rosa Menkman is a Dutch artist/theorist who focuses on accidental visual artefacts in analogue and digital media. The visuals she makes are the result of glitches, compression, feedback and other forms of noise. Although many people perceive these accidents as negative experiences, Menkman emphasises their positive consequences.
rosa-menkman.blogspot.com






PYRAMID FLARE

JOHANN LURF
5'30''
COLOUR
SILENT

Among the most mysterious man-made structures ever built, the pyramids still challenge scholars and provoke pseudo-scientific theories. Most architects have abandoned the idea of recreating a pyramid in modern times: first of all, it isn't efficient as a building, and secondly, any content that might be assigned to it could hardly ever counteract its grandeur and ambition. So one could rightfully ask: Why build one today?

Pyramid Flare is the second in a series of experimental films about modern pyramids all over the globe. It was filmed in Prague and documents a pyramid-shaped building that is now mostly used as musical theatre. Filmed with a 35 mm camera turned on its side, *Pyramid Flare* is a five-minute exploration of basic cinematic elements – film formats, structure, movement, time.

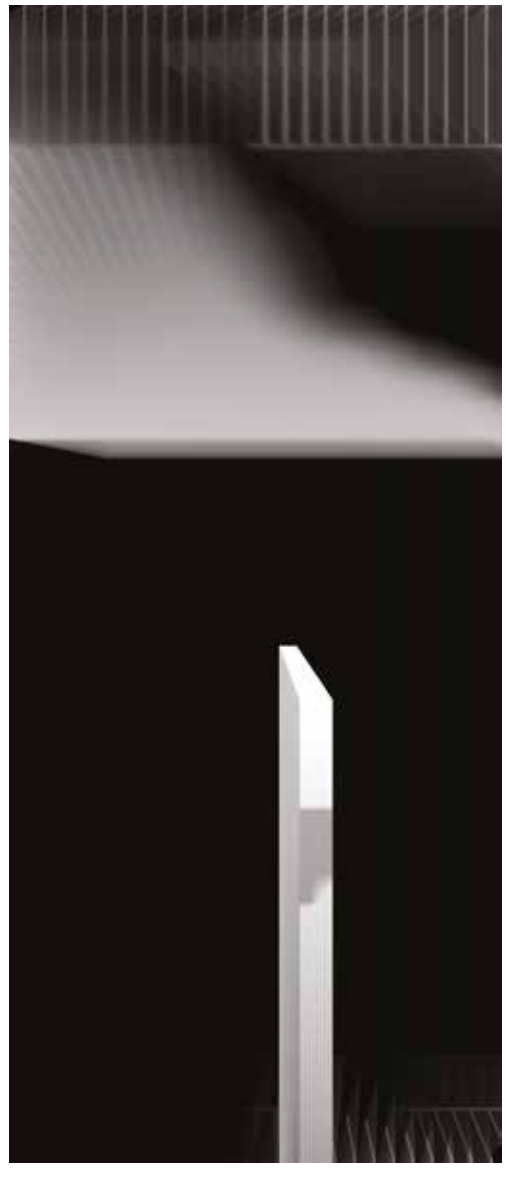
The 'pyramid series' plays with these notions, each film takes a different approach to modern pyramid structures, and they all document the pyramid over the course of 24 hours. Structure is one of the keywords of the project, pointing to the mathematical structure of the pyramid and to the filmmaker's approach to filming it. In *Pyramid Flare* the camera changes position every 20 minutes to capture the pyramid and the sun hovering above. It slowly circles the building, searching for the angles that keep the pyramid in the centre of the frame. Indeed, this conversation directs the film, leaving the director and his subjective point of view 'out of the picture'. (Mirna Belina)

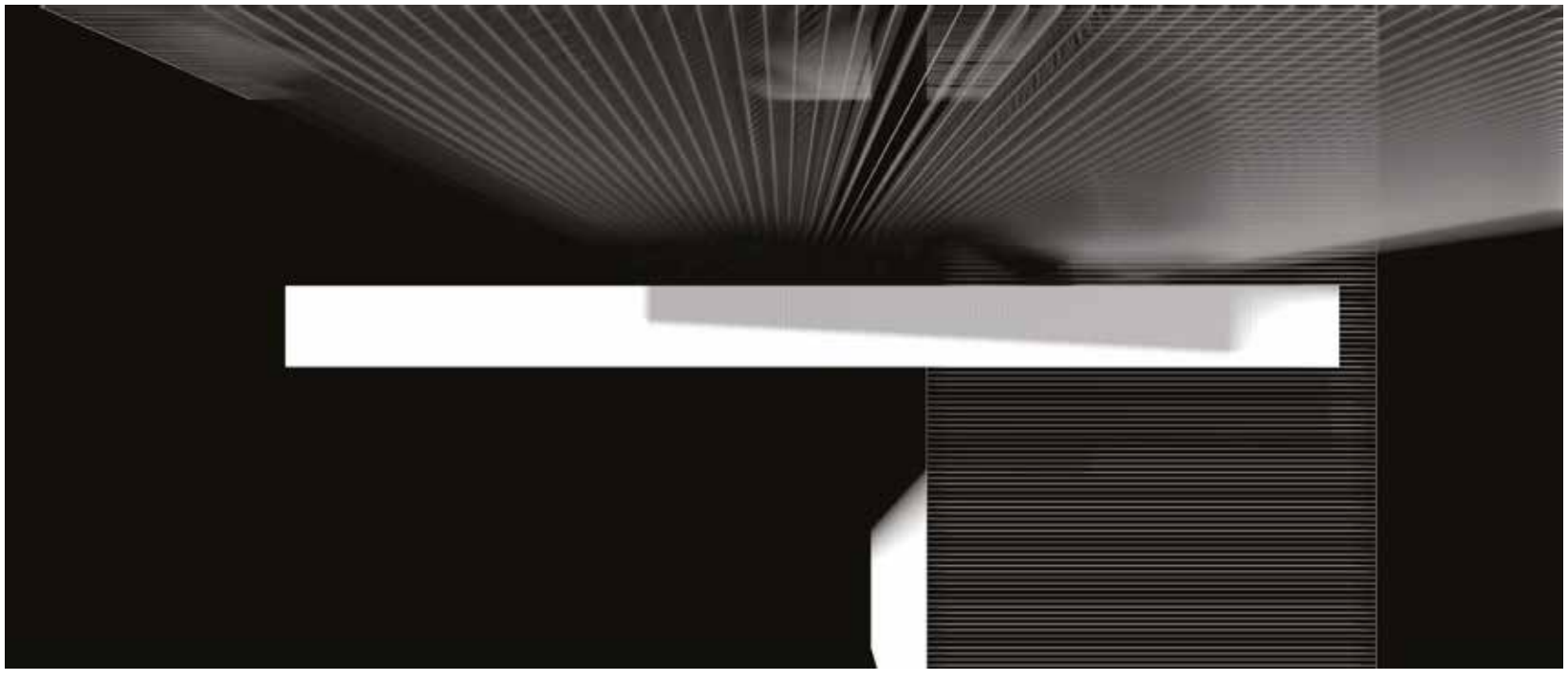
Johann Lurf (AT) studied at the Academy of Fine Arts in Vienna, and the Slade School of Art in London, graduating from Harun Farocki's film class. His films *Vertigo Rush* (2007), *12 Explosionen* (2008), *Kreis Wr.Neustadt/A to A* (2011), to name but a few, have been screened and won awards at numerous international film festivals. www.johannlurf.net

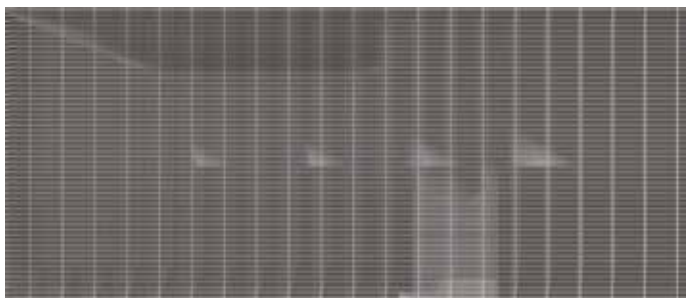
MANUEL KNAPP
9'20''
B&W

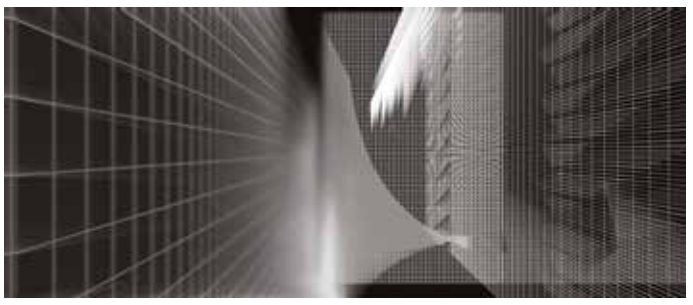
The vertical plan of *V~* demonstrates – in the sense of presenting evidence as well as in the sense of a projection – the process of creation from forces of numerical matter. Geometric objects constantly create and destroy themselves. Our perceptions are challenged by an immense diversity of forms that arise without following the evolutionary logic of a genesis, but continuously recreate themselves in a sublime flow of force through extinction; lines and surfaces appear and expand according to invisible rules, they vibrantly blend into landscapes, disappear and develop new formations. One can speak of an ecstatic sound production as well as a negative vitalism that stages the (auto) generation of numbers and their ephemeral composition as the expressiveness – a sensuality of expression – of software codes. In early ancient times, *mathemata* meant what we could learn from things and what they meant. Only later was the term related to working with numbers. It seems that the numerical has been hiding in objects for a long time, and the kinetic graphisms of Manuel Knapp can thus be understood as an old lifeform that has been moving and eating its way steadily through dark space since the beginning of time. (Marc Ries)

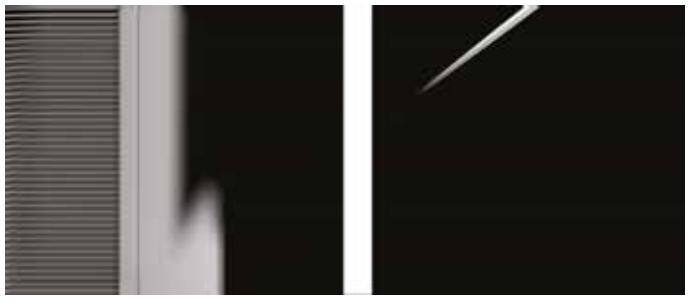
Manuel Knapp (AT) works in between visual and sound art. He studied painting and graphics at the Academy of Fine Arts in Vienna, and computer music and electroacoustic media at the Institute for Composition and Electroacoustics in Vienna. He has been active as a noise musician and visual artist since the 1990s. www.manuelknapp.com

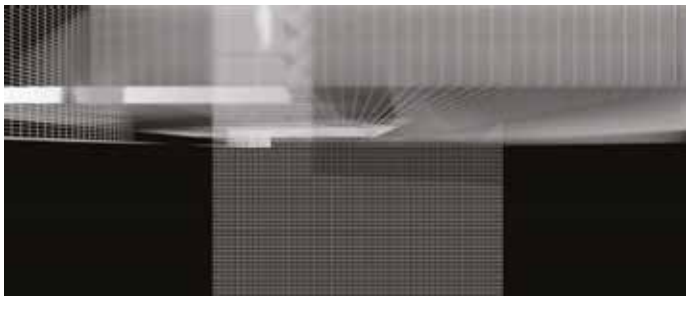


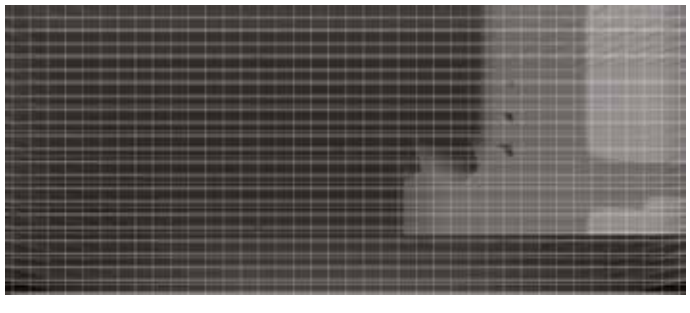


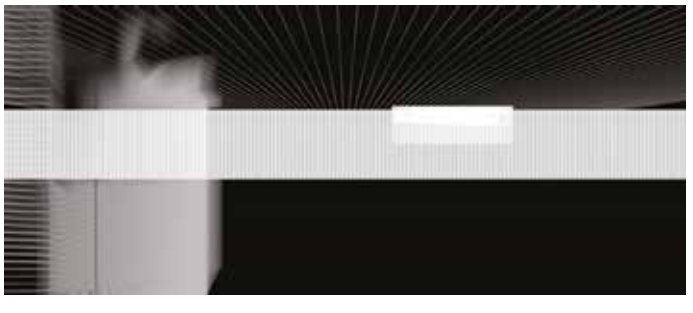












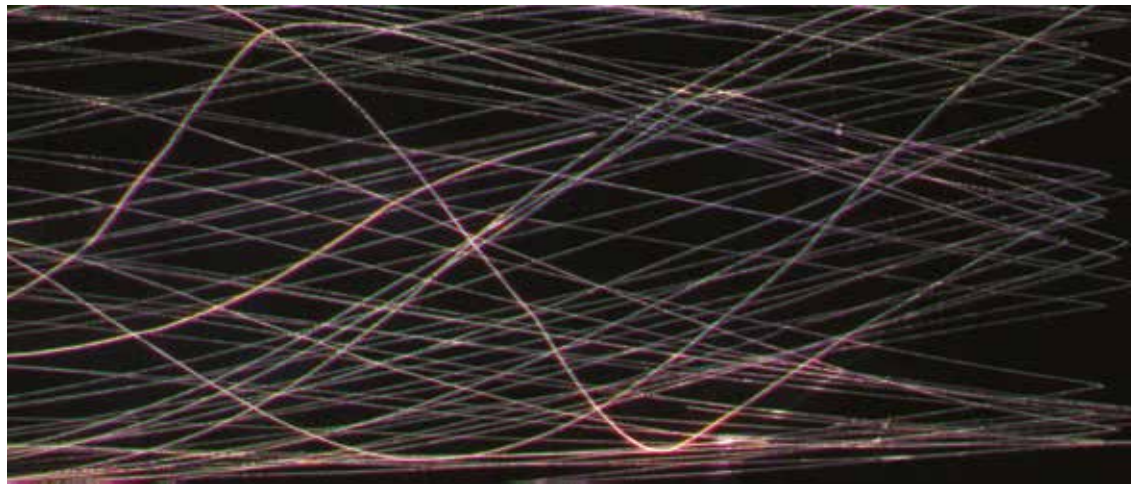
WALZKÖRPERSPERRE

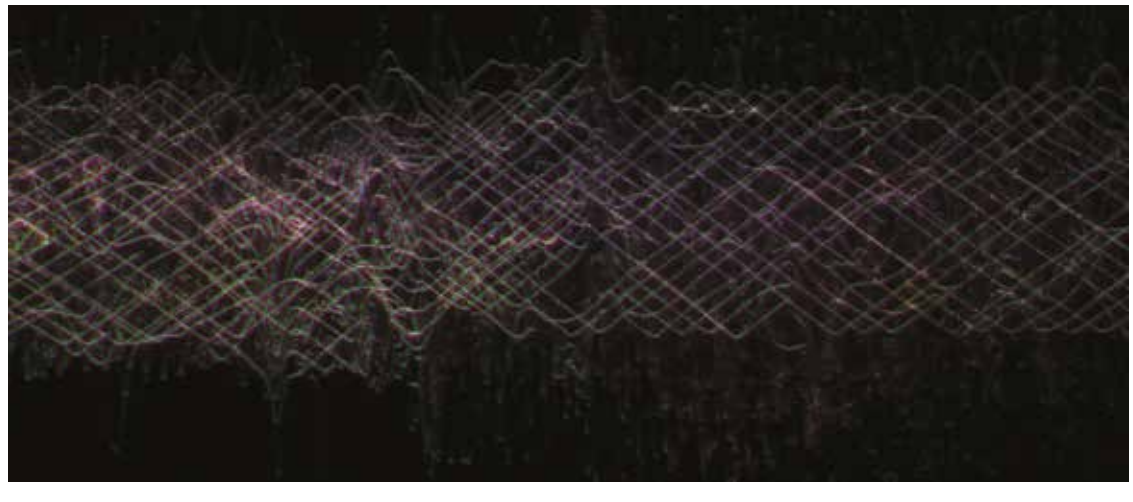
GERT-JAN PRINS & MARTIJN VAN BOVEN
11'11''
COLOUR

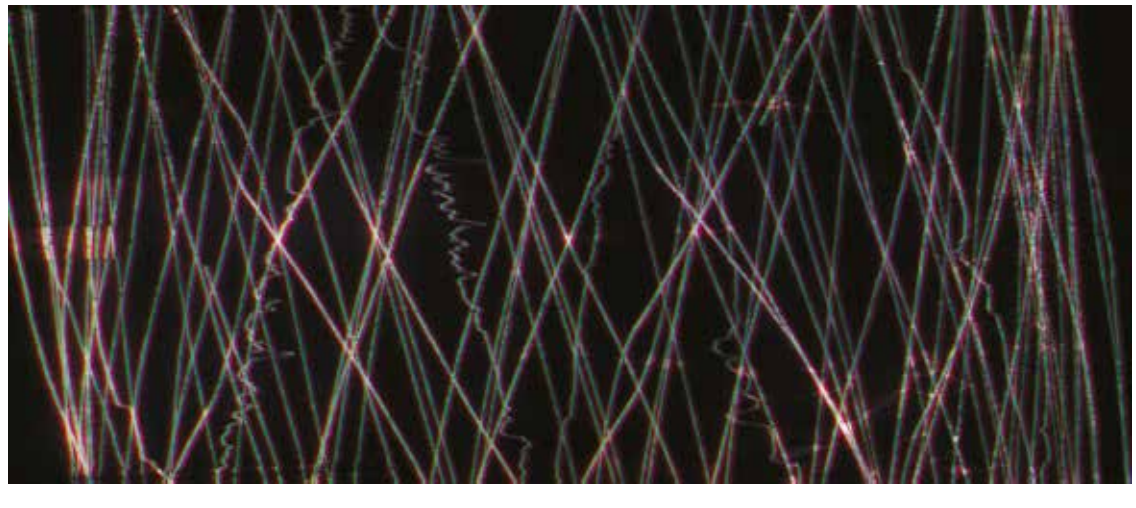
Light and sound engraving on weathered concrete created by scanning the architectural elements of a bunker wall. Verticality as a concept of resistance. The freezing of time to its absolute limit, made visible as a monolith. This resilient anti-tank wall from the Second World War was used as metaphorical time block in which it served as a projection screen for the imagination and musical expression of resistance. Thus the *Walzkörpersperre,* itself an object of conflict zone and delay tactics, became exposed to a barrage of light beams driven by electronic sound. The wall, weathered by time and nature, reveals itself in a complex game of asymptotic lines, scratches and light planes.

Gert-Jan Prins (NL) focuses on the sonic and musical qualities of electronic noise and investigates its relationship with the visual. His works includes live performances, sound-installations, compositions, electronic circuits, and collaborations with composers, musicians and visual artists. www.gjp.info

Martijn van Boven (NL) combines the techniques and possibilities of modern image processing and creation within the context of expanded cinema and early computer generated films. His work includes video-installations, films, collaborations with composers, and live cinema performances. He has been head of Interaction Design at the ArtEZ Institute of the Art since 2012. www.474746.org







PRESERVATION, PRESENTATION, EDUCATION

ALEJANDRO BACHMANN
& MATTEO LEPORE

The Austrian Film Museum is constantly considering and discussing the practical and theoretical aspects of film and moving image presentation. The notion of media specificity is part of this discussion. Any institution dedicated to preservation and presentation is confronted with the issue of 'how to pass on, how to transmit' that which has been preserved to ever-changing audiences: How will a film – or video – be shown, where will it be shown, and what are 'historically adequate and inadequate' forms of presentation? All of these issues are linked to the idea of standards – of production, projection, distribution, etc. – that were historically current and have profoundly affected how works were made and perceived.

Thus, our interest in *Vertical Cinema* was twofold. On the one hand it allowed us to apply certain means to a new and different end: A preservation-related technology (our Arrilaser, normally used to transfer films back to film after digital restoration) would now bring 'new moving image works' to life. On the other hand, it involved us in a project that, in itself, is an examination of film industry standards, an attempt to explore how such standards can be flexed, broken or disregarded as a whole. The idea of creating analogue, 35 mm film works for a 'vertical cinema' appealed to us, because it also includes the issue of what can be done with an 'old' standard that the industry has swiftly and all too easily brushed aside as redundant.

The aim of the *Vertical Cinema* project was to present a screening of 10 commissioned short films on a vertical screen, using a projector rotated 90 degrees and with an anamorphic Cinemascope 1:2.35 aspect ratio. Several of the artists involved in the project have a digital and/or video background and regularly use visual fx and digital effects software. The Austrian Film Museum provided support and

expertise with the purpose of adapting and migrating these digital files to film, partly adopting the techniques of standard digital intermediate post-production.

When printing a digital sequence on film, linear images have to be converted to logarithmic ones. The colour range (as well as several other aspects) of analogue film differs immensely from that of video images. The clips therefore have to be re-graded for analogue film, aiming to reproduce the general look of the original work as closely as possible, while at the same time acknowledging the specific traits that the use of analogue film adds to the work. During this most delicate phase in the process, direct communication with the artists is fundamental. It allows the works to come as close to the original vision as possible while at the same time mediating the inevitable transformations inherent in this migration. Once printed, artists who are used to seeing their pieces presented with a video projector are often surprised by the look of their works.

Technical equipment used: Grading performed on Assimilate Scratch. Recorded with Arrilaser.

Film stocks: Vision3 Color Digital Intermediate Film 2254; Vision Color Print Film 2383; Kodak Panchromatic Sound Recording Film 2374.

Each film was laser-recorded on colour fine grain internegative film at 4K (3656 x 3112) Cinemascope standard. The development, printing and processing were realised at Listofilm, Vienna. To ensure long-term access to the works produced within the project, the intention is to deposit and preserve all film negatives at the Austrian Film Museum.

www.filmmuseum.at

Alejandro Bachmann is Research Assistant at the Austrian Film Museum since 2010 and responsible for educational activities with schools and universities. He co-curates the *In person* film series and is a regular author for *Kolik Film*.

Matteo Lepore is a member of the Digital Restoration Department of the Austrian Film Museum.

PROFESSION: PROJECTIONIST

ARIE ALTENA

Filmtechniek is a small Dutch organisation that developed the apparatus that will be used to project the 35 mm *Vertical Cinema* works. Based in Rotterdam and run by film enthusiasts, it specialises in open-air film projections for film festivals and village fairs. Filmtechniek screens classic movies on 35 mm, and restored prints accompanied by live music. They can handle unusual formats and different projection speeds, and they love displaying the projectors, taking them outside the projection booth. In a sense, by remaining close to the projector during the screening and attending to all the little details they keep the old profession of 'projectionist' alive.

Filmtechniek's main field of interest is 35 mm film, although it does digital projection as well. It regularly collaborates with visual artists on 16 mm projects in the art circuit, and engages in special projects, including the screening of multi-screen expanded cinema works. Such screenings are complex and necessitate close collaboration between the projectionist and the maker, who often has very precise demands. 'That only makes it more fun', says Erwin 't Hart, one of Filmtechniek's projectionists. Respect for the material and for the filmmakers' requirements is their primary concern.

Sonic Acts asked Filmtechniek to come up with a way to project 35 mm film vertically. Filmtechniek was keen to cooperate as it has staff who do unusual things with a film projector. The task fell to technician Nico Komen, who did most of the technical development for *Vertical Cinema*, and who welcomes any challenge involving a film projector. A vertical film could be screened by printing the image vertically on the filmstrip and using a normal projector, but Sonic Acts and Filmtechniek discarded this option, as it does not make optimal use of the filmstrip. A second proposal, also rejected,

was using mirrors. This would result in the loss of too much light. Filmtechniek then suggested simply laying the projector on its side, but it quickly became clear that projectors are not built to be placed on their sides. It is all about trivial issues – little parts moving in an oil reservoir that don't run smoothly if a projector is on its side. Eventually they found and bought a projector that did not have the problems of a mechanical projector: a Kinotone FP30E that uses an electronic stepper motor. An electric motor such as this is not gravity bound.

The greatest challenge during the development, Dick Moesker, director of Filmtechniek, said, was trying to anticipate all the possible problems, and then determining if the envisioned problems were indeed problems. He wondered how a projector that was specially built for vertical projection would function, and mentioned IMAX, which uses 70 mm film that runs vertically through the projector. Erwin 't Hart noted that there have been many formats in film history that were used for a couple of years, but somehow never 'made it', including formats that used the filmstrip vertically. There are technical precursors to *Vertical Cinema*. Nevertheless, almost all film is horizontally oriented, like our human field of vision.

Working with analogue projection is a specialised field, especially now that digital projection is the norm. The staff at Filmtechiek believe that there is a future for analogue film as more and more artists rediscover the beauty and possibilities of 16 mm film and 'the more expensive' 35 mm. They are committed to achieving technically perfect screenings, as the impressiveness of a film also depends on the circumstances: darkness and the correct arrangement of projectors and the public. Only then can a screening become a true event.

Based on an interview with Dick Moesker and Erwin 't Hart
www.olb.nl

Arie Altena (NL) is a member of the Sonic Acts curatorial team. He studied literary theory and regularly writes about art and technology.

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Editor
Mirna Belina

Kontraste Cahier series editors – *Sonic Acts*
Arie Altena, Nicky Assmann, Martijn van Boven, Gideon Kiers, Lucas van der Velden, Annette Wolfsberger

English editing
Mark Poysden

Translation
Annette Wolfsberger, Gideon Kiers

Design
Bitcaves

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1017 SG Amsterdam
The Netherlands
info@sonicacts.com
www.sonicacts.com

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