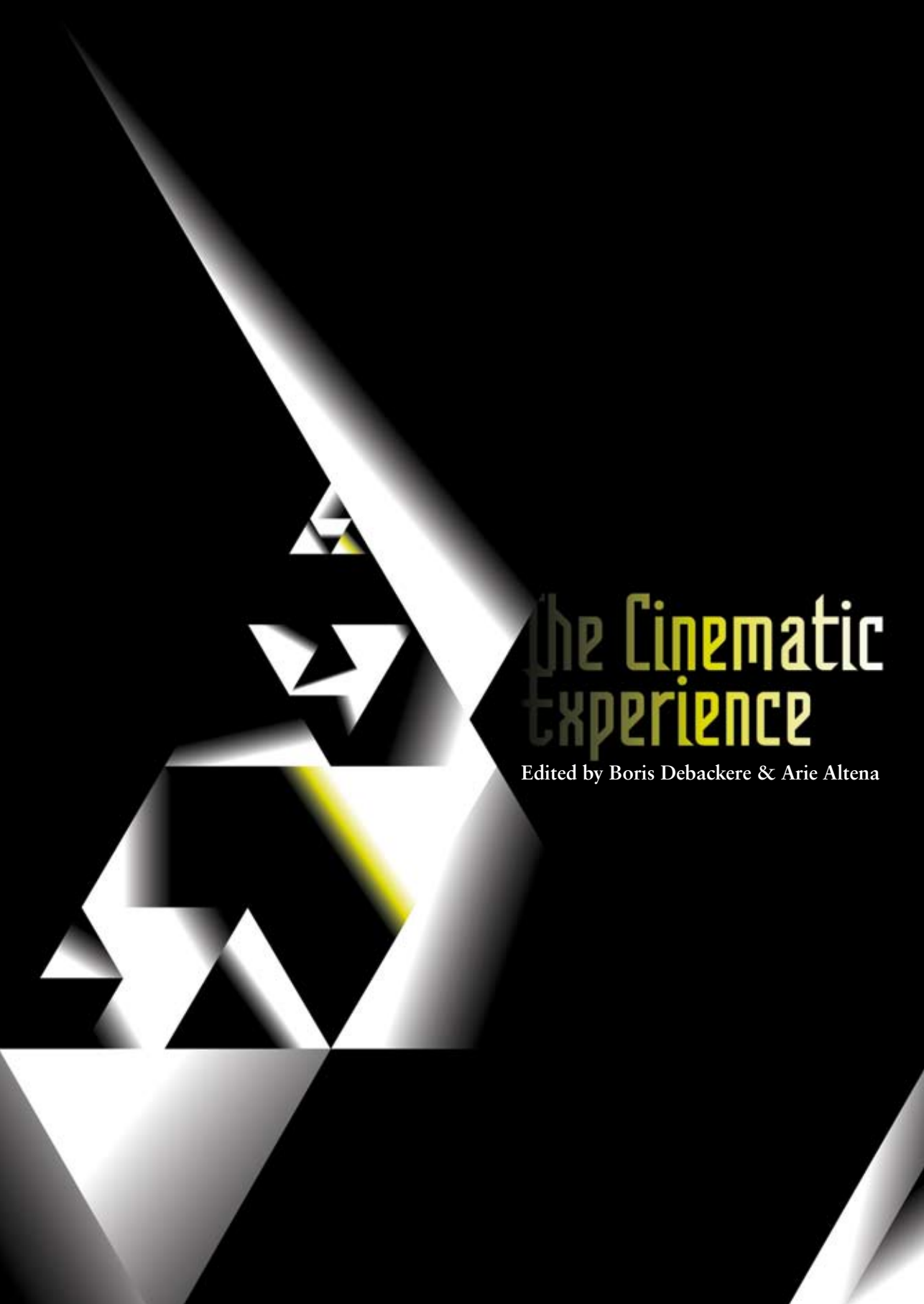
The Cinematic Experience
Edited by Boris Debackere & Arie Altena

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SONIC ACTS XII

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INTRODUCTION

BORIS DEBACKERE

Cinema has stimulated our imagination for more than a century. Numerous successive media strive towards achieving a resembling experience in their audiences: a cinematic impact. Nowadays cinema is everywhere, especially outside the confines of the movie theatre: it exists in all manner of altered forms and has become moreover an essential aspect of contemporary art. The interest that artists have in cinema is nothing new: it can be traced back to the early twentieth-century avant-gardes whoexplored the possibilities of film and initiated the continuing interaction between art and cinema.

What is this particular experience we describe as 'cinematic' that attracts us to the movie theater? In his book from 1916, *The Photoplay A Psychological Study*, Hugo Münsterberg states: "Everybody knows from his own experience that there is a sharp and specific analogy between the film forms and the mental mechanism by which consciousness functions on all its levels." In order to emerge, the cinema illusion asks for imagination. Film functions as a trigger for the mental processes that generate the true inner illusion.

Film fused the magical way of creating movement introduced by the optical illusion toys with the qualities of photography to capture and represent reality. This merger shifted the attention of watching movement depicted to an expressive way of creating illusions by framing the world, structuring time and linking one experience to the next with sensations of images and sounds in space and

time. Only later did the world in front of the camera became a constructed one, based on adopted elements of narration, stage play and music from theater, opera and vaudeville. A fabricated mise en scène to appeal the human imagination chimerically: unreal, imaginary and visionary.

The steady technological evolution over the years updated cinema continuously and consequently revised our cinematic experience. Film is now colour, digital effects, surround sound and most likely American. The present accelerated progress of information technologies are inevitably defining new directions of how moving images will be experienced in the future, going beyond the viewing constellation of today and changing the relation between the creator and his tools.

Classical narrative cinema has explored the medium of film and created conventions to teach the audience how to deal with complex spatial and temporal relations. Cinema became a transparent medium in favour of creating a truly believable, immersive world. If cinema aspires to a state of absorption, what makes it a crucial phase in the desire for a further reaching, increasingly convincing immersive experience through the convergence of cinema, television and networked computers? What are the specific characteristics of this experience and are they still valid for new media like computer games and online 3-D multi-user platforms?

In the evolution of mainstream film there is a traceable emancipation of effects, in its most striking form the 'special effect': techniques that attempt to amplify the audiovisual experience of an unnatural event. Some film genres even subordinate the credibility and continuity of the story in favour of effects. What if the 'core business' of this 'cinema of attractions' is rather the composition of effects where the story only functions as an intermezzo in between the different action sequences? Maybe film no longer remains a transparent medium but finds its immersion in exposing pure audiovisual impulses. Do these composed elements of sound and image in the current digital context have their own 'natural' laws that can give rise to similar immersive qualities like an overwhelming blockbuster movie?

Digital media do not represent, they generate. They are software rather than hardware and unlike any other medium we have ever known, ephemeral: transforming and growing systems in itself. The modular qualities of software enable emergent processes, feedback loops and (re-)generating processes to unfold and flow into a variety of applications where they become dynamic elements. The virtual tool becomes a (re-)active actor in the creative process of producing film.

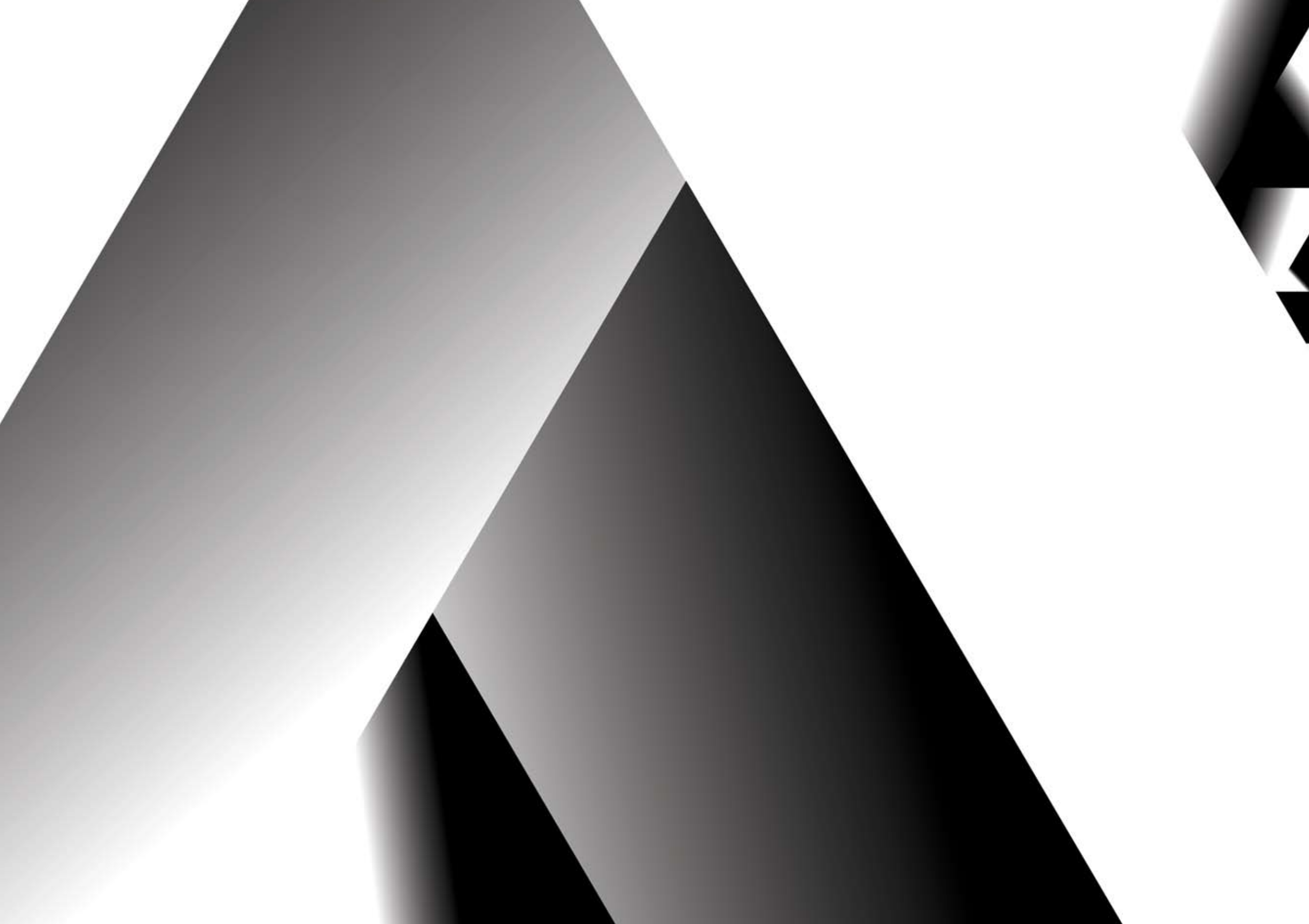
Working and interacting with these kind of dynamic processes given by digital means demands different approaches to those from the era of mimicking media.

Live Cinema; a term originally coined to describe the live musical accompaniment to silent film is today redefined as performing with real-time generative audiovisuals, differentiated from the reproductive character of film. Exploring how to implement and present these active principles that change static objects into dynamic processes and introduce new relationships between the user and the screen based on an interactive way of looking.

The following essays and interviews provide different perspectives on the above-mentioned issues: perspectives from theory, from the history of film and art, and from contemporary artistic practice. They might not provide clear-cut answers to all the questions, or provide an exhaustive overview of all the aspects of the contemporary 'cinematic experience'; instead, they show the work practice, ideas and concerns of some contemporary artists and theorists who are attempting to construct cinematic experiences and reflect on the effect of cinema. The Dutch experimental filmmaker Joost Rekveld theorises about film as a magical sign; Thomas Zummer analyses the function of memory; Lucrezia Cippitelli and Greg Kurcewicz give their thoughts on the history of the avant-garde, Structural Film and its legacy in contemporary art; Randy Jones and Jan Schacher – who both are active in generative Live Cinema – provide a clear outline for a theory of Live Cinema; Rob Vanderbeeken discusses the theme of immersion; finally, the Dutch writer and media theorist Arjen Mulder discusses the reality-effect of film, and filmmaker Gerard Holthuis gives his view on the power of images.

The interviews were conducted in the second half of 2007. Most focus on the artistic practice of the interviewees, often even concentrating on one specific work. The interviews with Frank Bretschneider, Stephen O'Malley and Thomas Köner deal mostly with the use of sound, American filmmaker Ernie Gehr explains how some of his works were conceived, Jürgen Reble talks about his way of working with celluloid, and Jan-Peter Sonntag relates the creation process of his work *612.43WEISS* and how it relates to cinema. Finally, the interviews with Lev Manovich, Simon Ruschmeyer and Tom Rawlings & Ana Kronschnabl reflect on web-specific cinema.

The essays and interviews collected here zoom in on details of artworks and the contemporary practice of live cinema and 'cinematic experiences', as they zoom out to reflect on broader aspects of contemporary culture, science and technology. Let this book be only a start.



The Mechanization of the Magical Sign

JOOST REKVELD

Electric Shadows

The daughter of the Greek sculptor Butades traced the shadow of her lover onto a wall, the night before he was going to war. He died on the battlefield and Butades made a sculpture from the silhouette she had drawn. It was placed in the temple and became the object of a religious cult honouring the soul of the young man, a soul captured by fixing the shadow in its vertical position. In this way, Pliny reveals the myth that explains the origin of painting and sculpture.

Another, even stranger story about the origin of images comes from Plato's allegory of the cave. Humans are imprisoned in a dark cave where forms are being carried around to cast shadows on the walls. For the cave-dwellers, these shadows are the only contact they will ever have with the true world. Plato describes what would happen if one of them were to escape: he should first look at shadows, then at reflections and only afterwards at objects. In Plato's allegory, the light of the sun is the source of truth: humans will never be able to look at it directly. Elsewhere he suggests that pictures, like the shadows in the cave, are amongst the lowest categories of being, furthest removed from the light. [1]

These stories demonstrate two radically different ways of thinking about images. For Plato, they are passive copies of a reality that will always remain out of reach. In the story of Butades images are magically active signs that capture the essence of what they refer to: they capture the soul, not the body.

The myths about the origin of cinema often focus on the photorealist qualities of the medium. They emphasize that adding motion, and later sound and color, enhanced the realistic illusion of the static black and white photographic image [2]. The next step in the development of such illusionism would be to enlarge the screen, add smell and stereovision, and physically move the spectator, all of which have indeed been experimented with. Both virtual reality or omnidirectional video add interactivity, in an attempt to further enhance the total illusion. However, it is highly questionable whether the power of film images, or even their realism, ultimately derives from their illusory qualities. This view of cinema firmly places the medium in the Platonic world of miserable copies.

In my opinion, the role of art is to develop new forms of realism, where realism is not understood as some kind of correspondence with an outside world that is already given. Art is a way to actively create the world by making images that somehow 'work'. Picasso reportedly answered to a complaint that his portrait of Gertrude Stein did not very much look like her: *"No matter, it will"*. [3] I would like to explore some facets of an approach to images which emphasizes their artificiality and their power as active, magical signs through which our world is constructed. This approach has been applied to film in a very interesting way, but it did not originate in thinking about film and nor will it become irrelevant when celluloid disappears.

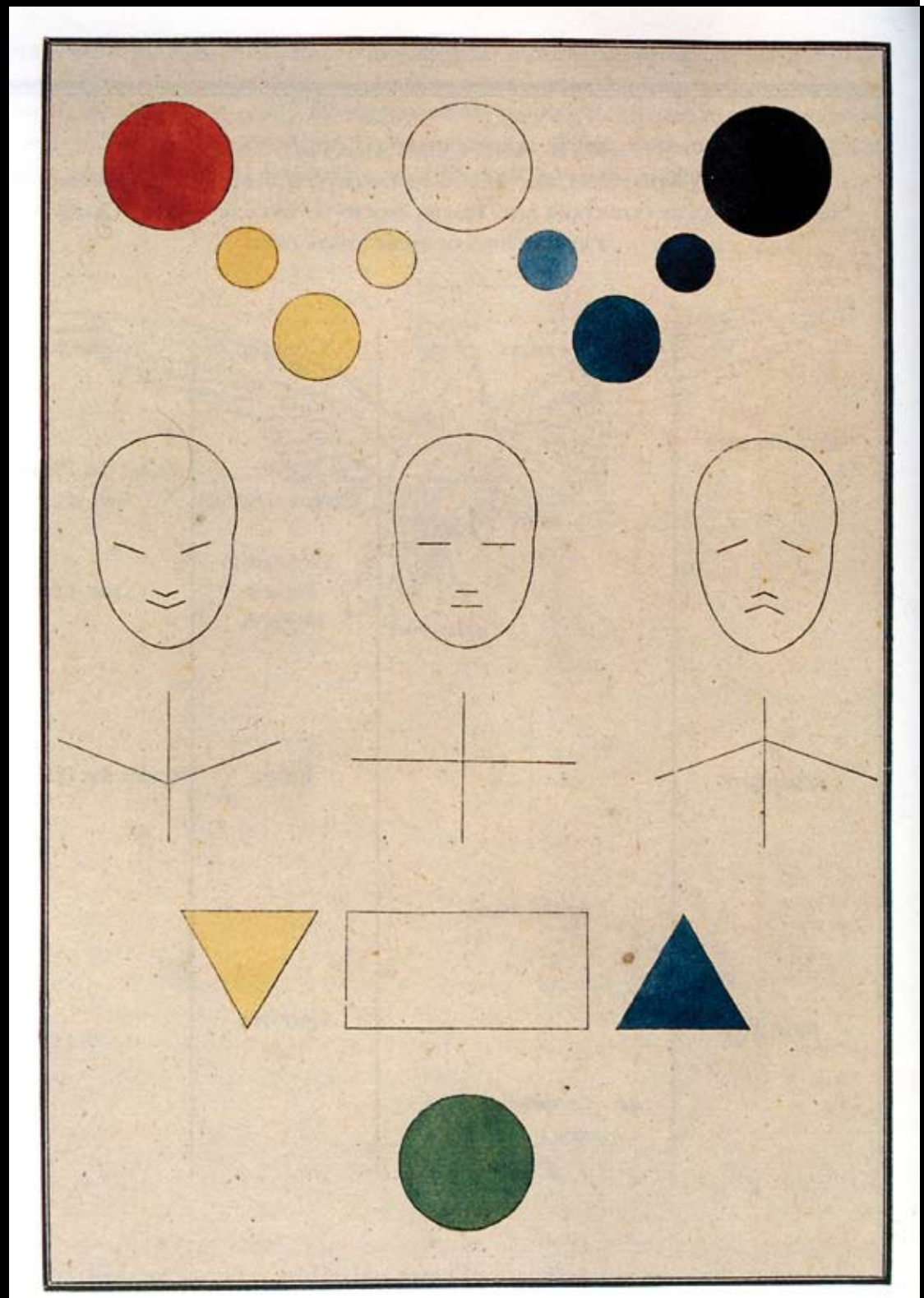
Elements

Euclid's Elements brilliantly condensed the mathematical knowledge gathered by the Greeks up to the third century BCE. Most of what it contained was not seriously challenged until 2100 years after the book was written. Apart from being the foundation of western mathematics, it also firmly established the idea of reducing a field of knowledge to a set of elements and production rules to make combinations of these elements. His book demonstrated the productive power of an inner machinery of postulates and axioms. This scheme was perhaps even more influential than the mathematics he explained with it. Later in life, Euclid wrote a book of optics with a similar structure, and books following the same method appeared in all areas of human knowledge, even including theology and law.

The first practical handbooks for painters were based on a mixture of the geometry from Euclid's *Elements and Optics*, and were written in the form of postulates and axioms. They explained how to construct forms starting with lines and geometrical shapes in the correct proportions. Later on, such books explored more complex theorems including the reconstruction of the optical rays through the virtual window formed by the painting, which was the basis of creating an image in perspective. Light and shadow were introduced and in the final chapters the knowledge was applied to complex scenes, culminating in perspective drawings of either buildings or complicated mathematical shapes. From the Renaissance up until the nineteenth century, teaching methods for painters became increasingly codified along similar lines. The nineteenth century Dupuis method was based on drawing elementary mathematical shapes first, and only after drawing body parts and natural motifs could the aspiring artist start thinking about more complex compositions.

The Dutch artist and theoretician Humbert de Superville was one of the precursors of what is now called the psychology of perception. In his approach, the elements of drawing were taken as the basic elements of aesthetic meaning. He based his theory of the 'Unconditional Signs in Art' of around 1830 on the intrinsic meanings he attributed to the direction of lines. By relating the direction of lines to the upright position of the human body, he derived four basic meanings: active vertical lines, neutral horizontal lines, uplifting 'expansive' lines and depressed 'convergent' lines. He also related these categories to colors and architectural styles. A generation later, De Superville's ideas were taken up by Charles Blanc, whose *Grammaire des Arts du Dessin* of 1867 influenced a number of early avant-garde artists.

Another precursor following a somewhat comparable approach was philosopher Theodor Lipps, who based an elaborate aesthetic theory on the concept of 'Einfühlung' (empathy). According to Lipps we enjoy geometrical forms in as far as we can relate them to the positions and movements of our own body. As a consequence, the meaning of abstract shapes is ultimately dictated by the 'general mechanical laws' that we know intimately through the inner experience we have of our own muscles and joints. [4] Like Superville, Lipps did not just relate the



The meaning of colours, lines and shapes according to Humbert de Superville (ca. 1830), from Jacob Bolten (ed), *Miscellanea Humbert de Superville*, Leiden 1997.

Wearable tactile vision interface by Paul Bach-y-Rita, 1969.

elements of geometry to the human body. Since he was interpreting these forms in the framework of elementary Newtonian physics, he could also apply a host of physical concepts to analyze the meaning of relationships between shapes in more complex configurations.

Early abstract art was heavily influenced by these ideas. Both Paul Klee's *Pedagogical Sketchbooks* and Wassily Kandinsky's *From Point and Line to Plane* begin by discussing elementary geometrical forms. Their interpretations are closely related to those of Theodor Lipps: for instance, Paul Klee considered curved lines as traces of forces acting on a moving point. In a way similar to the old handbooks on perspective, both artists proceeded to build increasingly complex compositions from primary elements. In order to arrive at combinations of multiple shapes, Klee primarily used the notion of pictorial balance developed by Lipps. He demonstrated this concept using diagrams of weights and moments resembling those from high-school physics textbooks. Kandinsky explained similar compositional methods, yet he deplored their lack of sophistication and envied music for its articulated theories of harmony and counterpoint.

At the beginning of the twentieth century artists and perception psychologists were both working from the assumption that complex meanings or effects could be constructed from the meanings of a limited set of pictorial elements. Ultimately, these elements were derived from Euclid, but they had changed in character; they had become elementary visual sensations or elementary entities of paint on canvas, seen as exercising an active influence on the viewer. The artist could engineer the total vibration of the work by making compositions, starting from his inner experience.

Configurations

The pioneers of abstract art were acutely aware of the revolutionary nature of what they were doing, and many testimonies exist to their own doubts as to whether or not they were following the right path. By abandoning the traditional representation of objects and people, these painters discarded an enormously rich heritage of pictorial codes and compositional tools. This left them to their own devices in solving the problem of finding other types of signification. It did not necessarily imply a blank rejection of all kinds of representation; on the contrary, abstraction was often seen as a logical consequence of the desire to represent ideas that went beyond the outer skin of things.

Most of the early abstract artists went through a preliminary stage of Symbolism inspired by Theosophic and other esoteric beliefs. Theosophy, founded by Helena Blavatsky, tried to show the unity of all world religions by fitting them into a framework consisting of a small number of fundamental concepts. Blavatsky often explained the relations between these concepts through graphic diagrams, for which she scoured different religious traditions. The elements of 'the sacred geometry' in these diagrams were thought to convey very specific meanings. The Theosophic movement was sufficiently open to furnish artists with a comfortable context for their quest for a deeper sense, while the detailed interpretation of geometric forms provided a framework for exploring new constructions.

Piet Mondriaan explained his approach to abstraction: "The special – which distracts us from the principle – is annihilated, and the general remains; the imaging of things makes way for the pure imaging of relationships." And in the context of his very reduced graphic language he wrote: "Through the progress of art the laws have reached more and more totality, and they are the great, hidden laws of nature which art establishes in her own way." [5] To express the nature of these relationships, Mondriaan used the terminology of Dutch philosopher Schoenmaekers, with whose ideas he felt a close affinity. Schoenmaekers developed a 'Positivist Mysticism', dealing with the inner essence of reality, while aiming to be verifiable and accessible to the uninitiated, notably through geometric imagination.

Towards the end of his career Oskar Fischinger recounted his motivations for making abstract films, remembering a lecture he gave when he was 19 and first becoming interested in abstraction. He had made a kind of graphical interpretation of two plays: "On large sheets of drawing paper, along a horizontal line, I put down all the feelings and happenings, scene after scene, in graphic lines and curves. The lines and curves showed the dramatic development of the whole work and the emotional moods very clearly." [6] Further on in this text he suggests that the films he later made were in many ways a continuation of this fascination with the purely visual communication of moods and concepts. His early films often invite a symbolic interpretation, the different shapes representing energies or principles interacting on a stage formed by the screen.

Although the general motivation of most abstract filmmakers is similar to that of abstract painters, a major difference is, of course, the element of motion. This shifts the emphasis from more diagrammatic 'static' meanings to the depiction of processes that unfold during a period of time shared with the spectator. Fischinger wrote: "The poetic language of the film must become as flowing as speech, so a visual vocabulary could develop which would allow us to do some thinking in those terms." [7] Filmmaker James Whitney attempted to develop such a vocabulary during the early 1950s when he "experimented to try to codify an ideographic vocabulary or alphabet for the expression of visual ideas. Finally, he was aesthetically and spiritually satisfied only by the reduction of all building components to their simplest form – the dot or point." [8] The dots in masterpieces such as *Yantra, Lapis* and *Wu Ming* suggest many possible interpretations including atoms, bits of energy or individuals.

Many abstract painters and filmmakers believed that the configurations or moving compositions they showed had some kind of direct influence on the spectator. In some respects this returns to the kind of esoteric symbolism discussed above, which in turn goes back to much older, magical ideas that signs do not represent concepts or things by pointing to them, but actively embody

the spiritual force of what is signified. In the lucid and eminently non-magical universe of philosopher Nelson Goodman, paintings or scientific works have the power to create a world by establishing new connections between concepts, or by mapping existing networks of connections to new realms. In the case of abstract art this often happens by way of exemplification: a work of art represents concepts that apply to it. [9]

Entoptics

If there is one overall trend in the discontinuous history of abstract cinema, it is the gradual shift from symbolic, dynamic constructions to the exploration of purely optical phenomena. The pioneers Ruttmann and Fischinger made this shift within the span of their own career, culminating in the flickering color rhythms of Fischinger's *Radio Dynamics* in 1942. James Whitney also made expert use of afterimages and other retinal effects in his later films, and Tony Conrad and Paul Sharits more radically explored such phenomena in an artistic context that was very different from the artists mentioned thus far. Tony Conrad's *The Flicker* of 1965 consists only of totally black or white frames, reducing cinema to an orchestrated stroboscope. The actual filmstrip containing the rhythm of black and white images is just one element of the work: when projected and viewed, onlookers have widely varying visual experiences due to the interferences caused within the retina by light flashing at certain frequencies. This produces subjective color phenomena such as in the films of Paul Sharits, whose projected color rhythms are enhanced, supplemented or counteracted by retinal colors caused in the eye of the beholder. These films were made at roughly the same time that Bridget Riley painted her first op-art canvases. Op-art also plays tricks on our visual system: the finished work does not exist on the canvas or the screen, but in a very literal way it comes into being somewhere between canvas and the mind of the observer.

These pieces attacked the notion that works of art are somehow transparent channels conveying representations. The structure of our perceptual system is part of both the subject matter and the material of these works, and because of the active contribution of the viewer they have been considered a precursor of interactive art. [10] They emphasize the opacity of our sensory organs by triggering them to become producers themselves. This works best using the most basic elements of the medium: graphic rhythms consisting of minimal, geometric shapes, or rhythms constructed with the single film frame as its temporal atom.

Embodied Vision

On numerous occasions the experimental filmmakers Stan Brakhage and Jordan Belson have stated that they consider their films to be faithful records of perceptual experiences. In the words of Brakhage: "I really think my films are documentaries. All of them. They are my attempts to get as accurate a representation of seeing as I possibly can. I never fantasize. I have never invented something just for the sake of making an interesting image. I am always struggling very hard to get as close an equivalent on film as I can, as I actually see it." [11] Most often his 'equivalents on film' resemble phenomena within the visual system, phenomena we are intimately familiar with because they arise in our bodies. Peripheral vision and phosphenes generated by fatigue or pressure on the eyeball are human universals. In our goal-driven practical vision of everyday life such phenomena are ignored because we need a specific frame of mind in order to consciously experience them, just as finding 'equivalents on film' necessitates sidestepping that technical structure of the medium engineered for standard pictorial codes. Brakhage cites as examples the perspective inherent in the camera lens, the tonal range of film stocks and the range of speeds limited by the 24 frames per second timebase. The innocence of what Brakhage called 'the untutored eye' has to be conquered by a painstaking process of re-appropriating the medium. In this respect the cinematic achievements of Brakhage can be compared to what Cézanne realized in painting.

It is a small step from such re-appropriation to an extension of the medium. Jordan Belson built his own machinery to produce images of processes and flows, claiming that this machine enabled him to visualize his mental states. [12] By way of his optical set-up he could formulate images of his inner experiences and demonstrate his perceptions to an audience through film. Between 1961 and 1977 Belson made a series of about twelve films in which he built up a vocabulary of processes, acquiring meaning through their appearance in different combinations in different films.

The video experiments of Steina and Woody Vasulka are part of wider research into the nature of the space opened up by video technology. Their lesser-known early tapes and *Reminiscence* from 1974 are based on video footage of places from Woody Vasulka's childhood in Moravia. Using a Rutt-Etra scan processor, the video image is transformed into an abstract web of lines indicating brightness gradients, resembling "visual impressions, like distant memories ... in which some elements remain vivid and others fade." [13] The result is a stunning space unfolding in unexpected ways out of completely unfamiliar imagery, while remaining unified by the bodily movement implied by the moving camera. In both these works the continuous soundtrack indicates that the video deals with some kind of real-time representation. In a similar way, some films by Brakhage and Belson employ short irruptions of photorealist imagery to anchor the images to our world.

The works mentioned above aim to be records of perceptual experiences, 'demonstrations' of a certain mode of perception made possible through machinery and offering a different perspective on the world. One step further in this line of reasoning would be to make sensory interfaces for the public that interactively mediate such experiences. The most extreme indication of the potential of this approach is the research being carried out into sensory substitution. The field was mainly established by Mexican neuroscientist Paul Bach-y-Rita, who was

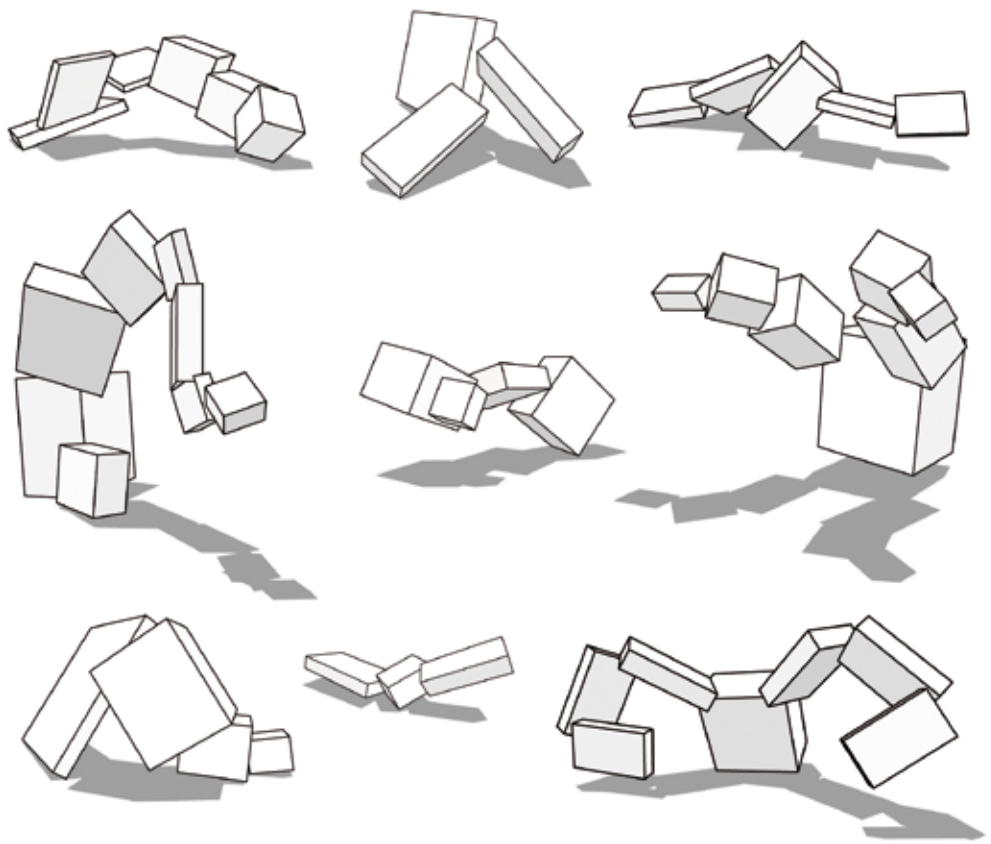


Figure 7: Creatures evolved for walking.

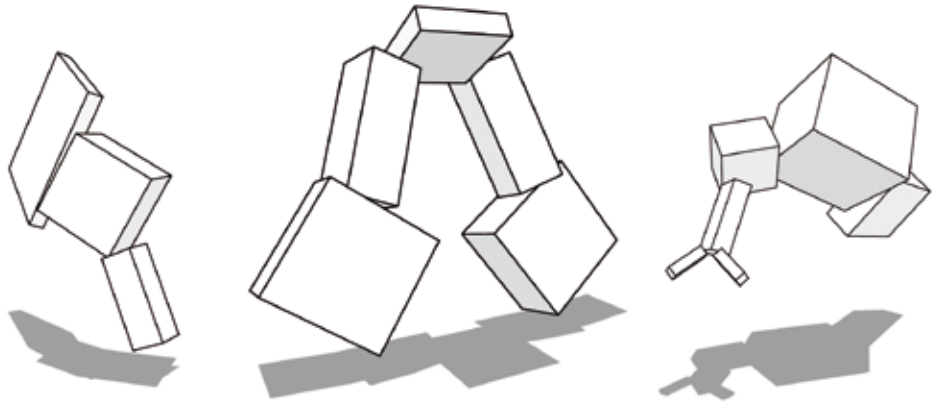
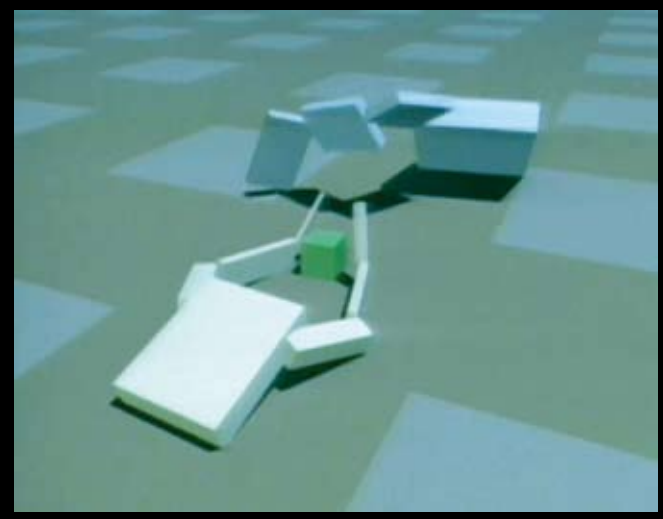


Figure 8: Creatures evolved for jumping.

Evolved Virtual Creatures, Karl Sims, 1994.



Evolved Virtual Creatures, Karl Sims, 1994.

interested in neural plasticity, the ability of our nervous system to remap itself and adapt to radically new sensory situations. His most famous experiments were those in which he attempted to restore the sight of blind people by training them to perceive images through what is called 'tactile projection'. A low-resolution video-image was fed to a 40 x 40 matrix of vibrating pins on the skin, and after many training sessions the blind test subjects reported truly visual sensations. They were not feeling through their skin anymore, but were actually seeing. A similar line of research was started by Leslie Kay, who investigated the possibility of sonar vision interfaces. Both investigations still continue and have led to many proposals for interfaces to restore sight to the blind, some of which are gradually being adopted as equipment gets smaller. [14] Wearable computing pioneer Steve Mann is one of the few who seem to realize the potential of such research for augmented perception, and the invention of new sensory organs. Developing sensory interfaces of this kind could be an artistic enterprise. Instead of multimedia spectacles based on dreams of immersion and totalitarian control over the spectator, this would be an art based on enabling discovery and new kinds of interaction with the real world and its inhabitants.

Artificial Life

Between 1930 and 1935, Laszlo Moholy-Nagy developed his *Space-Light-Modulator*, one of the most important early kinetic art pieces. The work is mostly interpreted as a key example of the artist's preoccupations with space-time, a new vision of space entangled with motion. Yet there is also another angle present. Throughout his writings Moholy-Nagy stressed the idea that many ways of using technology are anti-biological. Therefore, one of the roles of the artist is to contribute to a humanist reflection on technology. These thoughts were triggered by a small book called *Die Pflanze als Erfinder (Plants as Inventors)* written in 1920 by the botanist and philosopher Raoul Francé. One of Francé's ideas was that all biological mechanisms, as well as artificial, are made up of seven basic 'biotechnical elements', each incorporating a basic function. These elements, such as the sphere, the plane and the screw were a major inspiration for the shapes revolving in the *Space-Time-Modulator*. The shadow display generated by the kinetic sculpture makes it a kind of model of the cosmos: a combinatorial machine that continuously produces new constellations of elements.

From the very beginning, pioneers and inventors of the computer were interested in investigating biological processes by devising numerical models. Alan Turing looked at how cells differentiate in embryos, Stanislaw Ulam modeled growth processes, and Johann Von Neumann was the first to formulate a theory of self-replicating machines. In 1987 this field received an enormous boost when Chris Langton organised the first conference on Artificial Life, uniting many strands of research from various disciplines barely aware of the similarities in their respective approaches. One of these strands is the (utterly unscientific) work undertaken in procedural animation, where sophisticated modeling techniques are used to produce animations and special effects for films. In 1983 William Reeves of Lucasfilm developed Particle Systems, a simplified kind of simulated matter consisting of streams of particles that can be pushed around by virtual forces. This has been used to convincingly simulate clouds, explosions and other complex shapes and textures. Also in 1983, Craig Reynolds developed the Boids algorithm, a simulation of the processes governing the flocking of birds and the movements of herds. And since the late eighties L-systems, another set of algorithms inspired by biology, are widely used to realistically model the morphology of plants and trees. [15]

In computer art this interest in complex processes inspired by biology came relatively late. Most early algorithmic art dealt with arrangements of picture elements in a systematic, centralized way. The source of complexity was either information that was fed to the system from the outside, or a stochastic factor within the algorithm. It was not until after the particle systems and boids algorithms were invented that artists developed an interest in such approaches to complexity. Morphogenesis became a major inspiration: biological processes of growth in which complex patterns emerge from simple, local interactions between agents. At the beginning of the nineties computer artists such as William Latham and Karl Sims started to use simulated evolution as another source for emergent creativity. Perhaps partly because of the popularity of coding tools such as Processing, most recent computer art projects seem to be based on interacting swarms or other populations of elements.

Artificial Life is one of the few scientific disciplines open to artists, giving rise to a new breed of scientist/artist able to make meaningful contributions to both fields. With his work on evolved creatures, Karl Sims has been a prime example of this. But visualization and simulation permeate this field at a deeper level too. At the basis of Artificial Life stands the idea that life is essentially a kind of algorithm, an information process that is to some extent independent of the material nature of its support. According to this view there is no reason why life could not exist in a computer or any other medium with the ability to perform calculations. As yet, there is no agreed formal definition of life and for the time being the only life-defining criterion is a variant of the Turing test: if a human observer cannot distinguish between the responses from a human and an artificial entity, then the artificial entity has to be called intelligent. In the same way it is assumed that if a computer algorithm shows 'enough' of the properties of an organism, it actually *is* an organism. This argument is based on mimicry of life, not on analytical understanding that can be crystallized into a scientific theory. [16] Another point is that simulation is not the same as realization, or as Howard Pattee has put it: "We are not warmed by the simulation of thermal motions." [17]

A notion that is especially relevant to much recent biologically-inspired algorithmic art and to artificial life in general is what Jon McCormack has called 'the computational sublime'. Similar to the romantic attitude to nature, 'the computational sublime' instills "simultaneous feelings of pleasure and fear in

the viewer of a process realized in a computing machine. A duality in that even though we cannot comprehend the process directly, we can experience it through the machine – hence we are forced to relinquish control. It is possible to realize processes of this kind in the computer due to the speed and scale of its internal mechanism, and because its operations occur at a rate and in a space vastly different to the realm of our direct perceptual experience." [18] Such feelings of pleasure and fear are the subject of *Simulacron-3*, the first novel dealing with the idea that simulated entities could actually be autonomous, sentient individuals if the simulation is detailed enough. [19] Artificial Life is motivated by the dream of the ultimate magical sign: a sign that is not just animated or active, but alive and beyond our control.

Evolving Eyes

Mikhail Matiushin and his friend Kazimir Malevich were both convinced that our sensory organs are still at a rather primitive stage of their evolution. Therefore artists should train their perception to achieve the potential of their senses more fully, and art could offer a glimpse into these new perceptual realms. At the time of his black square, Malevich proclaimed that he had "transformed himself into the zero of form and gone beyond '0' to '1'", meaning that it was necessary to go back to the basic elements of visual reality and make a fresh start. While Malevich was the director of the GINKHUK Institute for Artistic Culture in Leningrad, Matiushin was the head of its 'Section for Organic Culture'. Matiushin conducted detailed investigations into the interdependence of form, color and sound: "But these perceptual and physical experiments – completely formalist in nature – had a more fundamental purpose: the probing of the under-edge of the visible world, the narrow space in which spirit can be detected in matter and in which the laws that govern both are manifest as modifications of form and color. An artist who had learned to observe such transformations carefully and regularly, and to understand them as the products of natural law, could hope to give visual form to the true nature of reality." [20]

Part of artists' fascination with the medium of film derives from the idea that film also carries the possibility of a perspective transcending human limitations, the perspective of a machine, showing us something new about our world from an alien vantage point. The most famous example of this vision of cinema is Dziga Vertov's concept of the 'Kino-Eye'. Variations on this attitude were later expressed by artists such as Michael Snow in his magnificent film *La Région Centrale*, and by Steina and Woody Vasulka in the context of their 'machine vision'-projects.

A criticism of the current approach to Artificial Life is that it implies a unique, godlike perspective, a reductionist ultimate view of reality that is essentially the same as the clockwork universe put forward by Laplace in 1814. It is a universe in which all parts and movements are known. In essence, the working principle of such a machine is the same as the conceptual machinery invented by Euclid in his Elements: an algorithm that generates all statements through logical combinations of the postulates. Since the computer was designed to embody these very same combinatorial principles, it is the perfect machine to simulate such a universe.

After 2100 years of unquestionable authority, Euclidean geometry lost its monopoly when alternatives for its fifth postulate were proposed, at first hesitantly by Saccheri around 1733, but then finally by Gauss, Lobachewsky and Bolyai around 1820. By questioning Euclid's definition of parallel lines they discovered an infinite series of non-Euclidean geometries among which the geometry of Euclid was only a special case. It is a good example of how change is seldom caused by rearranging existing primitives, but more usually by discovering a new one. In the same way, creativity in art or science is rarely characterised by finding new combinations of known symbols, but by constructing new meanings for them: discoveries are semantic rather than syntactic in character.

If Artificial Life is to really offer new perspectives on our world, biologist Peter Cariani suggests: "We will need devices firmly embedded in the real world which construct their own semantic relations, their own primitive features and actions, their own sensors and effectors. If we want them to be creative, thereby enriching and enlarging our own semantic repertoires through their operation, we must give them the structural autonomy necessary for transcending our specifications. When this happens, our devices will have emergent properties relative to us, functions not reducible to what we already know. Our devices will afford us a means of enlarging the basic observables of our world." [21]

The artists I have mentioned were all investigating our world through formal investigations of visual elements. In a sense the history of abstract art could be interpreted as a cultural history of observables, a history of the different types of meaning given to the building blocks of the world. The aim of these artists was to change our perceptions by developing new pictorial codes demonstrating new primitives of meaning. These codes and the new kinds of realism they facilitated were always presented as works-in-progress. In these works the viewer witnesses an open process of the construction of meaning, a meaning which is not derived from a higher entity such as Mathematics, God or Hollywood, but from an autonomous dialogue with the world. Such images are active in the sense that they enable a new construction of the world to happen; images can be 'activist' in the sense that they can invite the viewer to construct their own world and forge their own realism. To have machines create their images for us implies that we need to build devices as limited, open and expandable as we are.

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Joost Rekveld (1970) has been making abstract films and kinetic installations since 1991, originally starting out from the idea of a visual music for the eye. For his films he develops his own tools, often inspired by the lesser frequented streets in the history of science and technology. In recent years his work has been steadily moving off-screen, designing projections and light for various dance and theatre productions. He is becoming increasingly implicated in activities that resemble artificial life and robotic swarms. Besides his artistic work he is also active as a curator and teacher.

HEIGHTENING EXPERIENCE

Interview with Kurt Hentschläger

ARIE ALTENA

Sonic Acts met Kurt Hentschläger on Sunday 25th November, the day after a performance of *FEED* at the STRP-festival in Eindhoven. *FEED* is an immersive performance for Unreal characters, fog, stroboscopes and pulse lights. In the first part, 3D figures are projected onto a screen where they float through a zero gravity world and perform a unified choreography. Their movements create a corresponding, symphonic drone that fills the venue. The second part is a composition for fog, pulse and stroboscopic light, which leads the audience towards a complete loss of spatial orientation. This impression is augmented by a matching soundscape infused with feedback and intense sub-low bass to generate a heightened physical experience. According to Hentschläger, *FEED* stresses the limits of perception, and what evolves is a pure sensation of light projected directly onto the retinas of the spectators.

AA In *FEED*, you set-up a sort of apparatus or 3D-environment to immerse the audience in visuals and sound. That obviously connects it to the Sonic Acts theme of the cinematic experience. What are you trying to achieve with works like *FEED* and *Karma*?

FEED in particular is almost a summary of my interests. It is immersive and non-narrative, yet intense, and it is somewhere in between performance and installation. It follows a dramaturgical arc that comes from theatre, with a distinct beginning and an end. *FEED* expresses one of the main frustrations I have as an audiovisual artist: that video only exists on a two-dimensional plane. Of course, there is nothing negative about video or film-projection as such, they're just always two-dimensional, in contrast to sound which is by nature three-dimensional. When I was working with Granular Synthesis we made quite an effort to overcome the 2D aspect of video with multi-screens that would envelop the audience and fill one's entire vision, so that the audience would be completely enclosed by sound and visuals. The flickering effect employed in the second working phase was a way of stressing the element of light in the projection, in order to 'lift' the images off the 2D-plane and out into the space. This idea is present in all Granular Synthesis' abstract flickering landscapes – I call them landscapes because they have an abstract ambient quality.

As an audiovisual artist, another frustration is that you always fight with the spatial component, with the architecture in which you present a work. You can create a space within the space, an artificial space within a given space, but the given space cannot be ignored entirely. It can be coped with, and it might be transformed, but there are certain things – like the famous exit sign and the abundance of light it usually emits, that one is not allowed to turn off – that blend into your work. *FEED* finally gets rid of that by erasing the given space, and erasing depth of space. You end up in a void.

The void is created because you fill the space with fog and use the stroboscopic light and flickering effect?

The fog obscures the space and with the flicker I 'project' so to speak directly onto the retina. Actually, I take it inside the brain. The actual event happens in your brain. It is the ultimate invasion. An important aspect of this work, and of music in general, is that it first takes over your body and becomes a sensation. It is the same as when you are going to the opera and you start melting away. You do not understand quite why, but you are melting away.

But in opera, for instance, that is also because there is a certain progression in the music that takes you away, as if on a trip.

In *FEED* there is also a progression. There are two very separate parts. The first part is a deliberately classical, a frontal cinematic experience. It is an ambient audiovisual concert, I'd say. In the second part I use the above mentioned flicker in thick fog. People keep asking me how the first part connects to the second. It is a question to which I never really give an answer. Obviously I like the contrast: firstly the audience is in the position of a normal spectator and then the whole thing collapses onto the audience, and the audience becomes the protagonist. In principle what people 'see' in the second part is patterns of interference in their own head. The sensory input is the same for everybody, but no two people will tell you afterwards that they have seen the same things. It is a different experience for everybody. Your brain interprets the sensory input and weaves it into whatever was already present in your head, your state of mind really.

Does that have to do with how fast your brain refreshes?

Obviously, it has to do with how your visual cortex works. I am not an expert in this field, but the more I read about it, the more I think I understand. The brain is a highly dynamic 'apparatus', with many centers all running at their own dynamically changing speeds to process different inputs and outputs. The speed depends on what is needed and when. For instance there are these special moments in your life when you have the feeling that everything slows way down. It feels like slowing down because the brain cranks up the refresh-rate and the image intake speeds up to thousands of 'frames', so to speak. So time-wise, you have this hyper-resolution which allows you to understand what is going on around you, to be able to make the right decision that potentially saves your life or not. This process increases the demand for energy, all the sugar you can muster goes to your brain and the brain can go into hyper-speed. And by the sheer intensity it burns the experience vibrantly into your memory.

Is *FEED* a kind of dream-machine?

In a way, yes, a dream-machine or a mind-machine. Do you remember these LED goggles from the late 1980s? They were throttled because when they blink above a certain frequency you can have a photo sensitive episode or go into a trance. *FEED* willfully goes go into that territory, so *FEED* can induce photosensitive phenomena, seizures, forms of trance. Therefore we need to have all these warnings for the audience. I think it is unfortunate we have to do that, but ultimately I decided to do it because I really want to make sure that people susceptible to epileptic fits will not end up experiencing the piece. Actually, in contrast to all these warnings, *FEED* is very peaceful, whereas the early Granular Synthesis works were not at all peaceful.

I might be making so-called non-narrative pieces, but that is only true to a certain extent, because your brain will always try to connect two things that follow each other. The brain is trained to interpret and create meaning. Trying to make a story from events is almost hardwired into the brain. It is primal and located in an old part of the brain that's assures our survival. In order to survive you have to understand how things are connected. When something happens that is completely alien to you, your brain goes into a sort of hyper-drive mode

trying to find out what it means, is it dangerous or benign? For some people this ultimately leads to an overload and a reset of the entire brain. The more I look at it, it is not the photosensitive part working on the retina that is central to *FEED*, but this potential 'freezing-up' of the brain.

There is an essay on *FEED* by Claudia Hart in which she compares what the audience is undergoing with the death of avatars in the game Unreal Tournament, because *FEED* was created with the Unreal game engine. What do you think of that interpretation?

It is certainly one possible interpretation. Actually, a lot of people tell me things like that. The avatars in *FEED* have no eyes, they are completely inside themselves, they are all the same, but they do not recognize each other. They are a group, but also completely solitary, or one solitary being in eight reflections. It actually comes from a deficiency in the software but I embraced it as fitting for the expression. For me this aspect also refers to technology as a mirroring device: we mirror, or feedback ourselves in technological devices. What we are hooked on is an exhilarating process of expanding and empowering ourselves.

Is it meaningful that you have used Unreal for *FEED?*

No. Unreal seemed to provide an inexpensive and handy means of doing what I wanted. But it came out to be very uneconomical because the game engine software has such an unintuitive interface. I started using it because I was stunned by the existence of all the virtual slaughterhouses without meaning or consequence. It is like a parallel world. I hadn't played games for many years and am still not a gamer. I wonder why so many games are geared towards virtual combat training environments, because that is what they really are.

I chose Unreal because there is, from an artistic perspective, one authentic moment in this rather flat and cold environment: when avatars are shot in Unreal, it looks very organic: the avatar starts moving like somebody having an epileptic seizure before finally dissolving into particles.

I started working on this in preparation for a collaboration with the French Ballet Preljocaj in Aix en Provence. I was trying to find something that gave me the possibility of working with dancers in real-time, without having to edit or render images. I was looking for an intuitive toll for this collaboration. That is why I started working exclusively with Unreal. Actually it worked out quite differently, but this is how it started. I made a sort of epileptic seizure machine.

It was a very spooky experience for me when in the second part of *FEED* some people actually had real attacks, some of them of an epileptic nature. It happened a few times, which was really tough for everybody. This at least connects the two parts in a very bizarre way, which obviously was not planned and not part of the concept. 'Luckily' it happens very rarely. One can fantasize that maybe in ten or twenty years there will be a community of people with long term

FEED, Kurt Hentschläger, 2005-06, performance for Unreal Characters, Fog, Stroboscopes & Pulse Lights, courtesy of the artist.

FEED-side-effects, where it transpires they are able to see certain things, like in a Philip K. Dick novel.

How is *FEED*'s sound generated?

In the first part, the avatars' bodies generate the music. As they move, their motions – actually their joints – are being tracked. They control about twenty parameters of eight software instruments. Eight bodies make eight voices, and that creates a drone. In *FEED* the sound comes from a DVD, because it is just too complicated to have another live element. In Karma, which uses some of the same elements as *FEED*, the sound and image is rendered live. That is why I really like Karma. It is a procedural piece, with no beginning and no end. There is a basic scripted framework, but the rest it is a piece that forever slightly changes.

I made the first version of *Karma* for the CAVE. The CAVE itself is a very unattractive, small space. Once it's switched on though, you get a 3D-stereoscopic effect that's a bit awkward and not really convincing. But what happens with *Karma* is that the space extends through the screen and you see the bodies pass through it as they arrive right there with you in the space. Because *Karma* is a procedural piece, you never know what is going to happen. Sometimes the avatars move together in clusters, sometimes they disperse or even stay away for longer durations. There is no intelligence, it's just a big physics algorithm, but it gives you the impression that these virtual bodies are autonomous.

Karma is a bit of a psychological experiment. As a spectator or player there is not much you can do in *Karma*. The longer you are in there, the less gravity is there. When it is gone, the bodies that hang in a sort of torture chamber start to float. The viewer only has two buttons to use. One is mean-spirited: when you push it gravity returns and sends the bodies crashing to the floor. So do you want to be mean-spirited or benevolent? There is this little bit of interaction, but for the rest you are a spectator.

Do you use art as a way of creating heightened physical experiences?

Absolutely. I would go further and say simply heightened experiences: something that really activates you beyond the means of the pure stimulus. Something that sets you in motion, a process leading a part of you to another spot, point, perspective or connection. I have always loved that art can have this power.
Of course, it is man-made, and in this most indirect way you meet the creatortoo.

Chicago-based Austrian artist Kurt Hentschläger creates audiovisual compositions. The immersive nature of his work reflects on the metaphor of the sublime. Trained as a fine artist, in 1983 he began as a sculptor by building surreal machine objects, followed by works with video, computer animation and sound. Between 1992 and 2003 he worked collaboratively as part of the duo Granular Synthesis. Employing large-scale projected images and drone-like sound environments, his multi-channel performances and installations engage on both physical and emotional levels, overwhelming the audience with sensory information. His most recent solo work is more poetic and further researches the nature of human perception and the accelerated impact of new technologies on individual consciousness.

http://www.hentschlager.info

The Immersive Experience: Aspects and Challenges

ROB VANDERBEEKEN

Introduction

The most elemental characteristic of cinema is probably its persuasive force, which is able to withdraw us from our everyday experience and envelop us in an audiovisual stream. On top of this, technological evolutions and developments in the visual language of cinema always seem to focus on finding new ways to submerge the experienced audience in a cinematographic experience, through which a different world of living images, space, light, words, music or movement might reveal itself. Therefore we can assume that immersion is the thriving force behind the cinematographic experience. It is a starting-point rather than a conclusion, because 'immersion', in spite of the *prima facie* revelation of this proposition, indicates a phenomenon which is as many-sided and complex as the object it attempts to clarify, i.e. the 'cinematographic experience'. Intuitively all we know is that they both presuppose one another, and that they might ultimately even quite simply coincide.

1. A MULTITUDE OF IMMERSION

Immersion: the art of the true illusion

Art has always been an experiment with technique and method, to enchant the spectator. Instruments were and are sought out in order to impinge upon reason or emotion, taking people along through a sea of images, or letting them float on an ocean of sound. Irrespective of the significance of the narrative and semantic information which might be communicated, and not taking into account the visual or auditory authenticity which might be expressed in a work, the individual spectator will either be appealed, or not. Varying from a 'total absorption' in a film, 'getting carried away by the story', to the complete opposite, the unmoved spectator who is thrown upon his own resources. It isn't until the moment of involvement that what is referred to as 'immersion' comes about.

Essentially this turns immersion into a psychological phenomenon, specifically an imaginative experience, initiated and controlled through our senses. The spectator, the listener or the reader,(in one word: the immersant), should not merely succeed in holding on his or her attention to a work. (S)he should also be able to live the fictitious aspect of the work. Even in the case of a purely visual story, the immersant should at least be able to experience the abstract game with shape and color or the image syntax, and thus the artificiality of the work. The central immersive challenge, therefore, is the creation of a convincing and authentic *illusion*.

Even though an illusion is sometimes put on a par with a trick of the eye, a dream image or a fantasy, these rather negative connotations do not necessarily apply here, as the definition of the term 'illusion' related to immersion is limited to the man-made and 'artificial' aspect evoked by an artwork. In order to sharpen the distinction, recall the difference between a hallucination and an illusion. The first is a phantasmagoric invention in absence of external stimuli. An illusion, on the other hand, might well be a genuine, intersubjective fact. This means that it can be completely void of any delusion or imagining.

If immersion is art aiming at a 'genuine' illusion, the subsequent question is how it tries to realize this. How does it manipulate the dissonance between what our senses suggest to our imagination and what each of us usually takes for real? This is the starting-point for any immersive strategy. A general and quite rudimentary distinction in strategies purports to the way the medium is applied. In cinema, for instance, there might be a choice for digital software and special effects in order to come to a representation which is as truthful as possible, in which the medium seems to escape our notice. Another option is a depiction which fully stresses the singularity of a medium. Like film animation, for instance, which stimulates the imagination indirectly through an effect of alienation. [1]

A Brief History of Immersion

Immersion, being the art of the true illusion, is not a recent phenomenon that appeared together with the development of digital CAVES, Second Life avatars, and new audiovisual technology. Its history goes back to the chalk drawings of Lascaux, at least 13 centuries before Christ. These cave-drawings might be seen as an exemplary case of an ancient attempt to present reality in a captivating manner. More 'recent' examples of immersion are to be found in the grand plays in the Greek amphitheater or the exuberant spectacles in the Roman arenas. [2]

With the transformation of cultures (ideologically as well as technically) different approaches to the creation of a signifying and authentic illusion can be found. During the Christian middle ages, for instance, immersive strategies are abundantly present in the religious rituals in churches and cathedrals: the imposing clerical architecture, devotional artifacts, liturgical ceremonies and costumes, the iconography in paintings and sculptures, incense, candles, the large and colorful window-frames figuring saints and angels. It would be blasphemous, for sure, to draw a parallel with contemporary dance raves or CAVE-installations, but the resemblance is striking.

With the rise of industrial technology, new strategies to create a convincing illusion emerge: the panopticon, the kaleidoscope and the rise of cinema, which created an ultimate device for immersion. In its early days, cinema aims at enclosing its audience in a dark room, with the noise of an old projector initiating a sequence of what we can call the pulse of an 'early virtual reality' in black-and-white, silent movies, often accompanied by piano, special effect-sounds and real-time situational noises.

Later on, with the appearance of television, the effect of sensuous captivation of an audience in a dark room decreases, but at the same time there is an increase in presence, frequency, diversity of types of information that is communicated, and of course, an increase of manipulation. As television became more and more ubiquitous, it indirectly triggered the understanding of the virtual

character of what we normally take to be as real, as our reality. With television the philosophical idea of 'simulacra' or a depiction of 'hyperreality' takes central stage. Television functions as an eye-opener with respect to our naive perception of reality as a clear cut domain. It overturns the strict divisions between fact and fiction.

Since more than a decade, we have a new generation of technology. Beamer, internet and electronic CAVE-technology freed the audiovisual experiment from the screen of the television and cinema. The pioneering work of media artists has created a spatial and interactive image, which triggered a spin-off of audiovisual evolutions in other arts, like video art, fine art and performance art. In media art, realizing the experience of immersion became a principal goal of artistic inquiry that lead to the development of virtual worlds, that either are autonomous or aim at invading our public and private lives. Media art mingles the virtual with the real. The creation of the virtual is driven by a passion for the real. But at the same time, the passion for the real coincides with a passion for the virtual: a man-made reality.

This means that today we are surrounded by the art of true illusion. Immersive strategies are becoming omnipresent, almost unnoticed. The effect is like audiovisual quicksand – as we sink in deeper and deeper we cannot recall what shifted us from the former to the next. Now we can ask ourselves, if immersive strategies are becoming ubiquitous and at the same time discreet, so 'real', can we still call it an illusion?

2. IMMERSIVE CHALLENGES

Post-Medium Exploration

A brief historical excursion makes clear that various cultural expressions, often with an explicit religious or political agenda, are penetrated by the immersive challenge. This holds true just as much for the contemporary arts. In all its variety this challenge turns up in most art forms: music concerts, theatre productions, dance performances, visual art installations and, of course, cinema.

Media art is particular because new techniques are often used to realize this immersion quite literally. In order to maximize the impact, we become an immersant in a virtual environment with a reality of its own, closing off our senses. The virtual environment is not necessarily purely digital. Various transdisciplinary experiments combine audiovisual projections on real settings, which at the same time are wired to a virtual space. This ubiquity results in a layered reality, through which we can navigate, communicate and experiment at will, in space and time. Once we are interactively and audiovisually linked up, we can explore the factuality of the fiction, we can reorient ourselves, undergo, resist and discover. The impact of these seemingly casual experiments should not be underestimated, not if we realize that a human being is always the result of the media (s)he uses.

Media art is a very grateful domain for the exploration of immersion because it does not situate itself within the codes of a single medium. Rather than focusing on a particular medium the attention goes out to the technical possibilities and limitations of various media, and particularly the ways they can be combined or mixed. In the end these new, technological developments are an indispensable prerogative for media art. By drawing attention to the condition of several media, media art initiates a detachment between the artwork and its material medium, or at least the classical media, such as painting, drawing and sculpture.

Media art therefore, might be defined as the cultivation of a tension between an artwork and a medium. Specific attention is drawn to the medium, so it might be changed, expanded, and overcome: the transgression. Often this is achieved by investigating specifically the failure, the limitations and disruptions of the medium. Crucial in this respect is the expansive potential of new technology with regards to the existing media. The ultimate goal seems to be a *post-medium* artistic practice. That is, a practice which has freed itself from the immediate conditioning of a specific medium.

Focusing on the immersive challenge, as media art does, paves the way to the post-medium condition of contemporary art because all the available means are deployed in the process. In its turn, this implicates the development of a productive and polyvalent laboratory for the development of new immersive strategies. With regards to cinema, more specifically the cross-over with video art, countless creative extensions might be noted, based on, for instance, remediation (e.g. the drawn videos by William Kentridge), familiar found-footage from news archives (e.g. the zap compilations in *D-I-A-L History* by Johan Grimonprez), projection experiments with 'augmented reality' (e.g. the installation *Under Scan* by Rafael Lozano-Hemmer).

From the perspective of cinematography the post-medium condition is sometimes defined in terms of *extended cinema* or *video vortex*. As a matter of fact the contemporary experiments bring about a whirl of new elements, wiping out the borderlines of disciplines. If we take a closer look at the Belgian work of the media theatre collective CREW, or the artist Lawrence Malstaf it becomes hard to point out precisely to which art form these productions belong. CREW circulates as a theatre company, but they mainly give performances with so-called head-mounted display or immersive cinema in 20/20 vision. Lawrence Malstaf also creates immersive experiments with one-on-one performance-installations. He is more often categorized under the cross-over between theatre and visual art, because he works with architectural and kinetic installations instead of digital and cinematographic equipment.

As a result it can be hard to distinguish between what is art and what isn't. Apparently it is something which is produced with various materials, methods and media, making use of various themes, styles and registers, without necessarily taking them as a subject. This new vagueness might confuse the stereotypical art historian, but for an inquisitive artist it is particularly interesting.

The Living Web, Christa Sommerer, Laurent Mignonneau and Robert Lopez-Gulliver, 2002, courtesy of the artist.

The Beijing Accelerator. © 2006 Marnix De Nijs. http://www.marnixdenijs.nl

Technotopia and Cybertribes

Another challenge for the development of immersive strategies, inextricably bound up with the post-medium condition in the arts, is the increasing democratization of new technologies. Because of the digital revolution new media have become functionally indispensable and hence turned into modi vivendi, which – and this is remarkable – soon are experienced as obvious in spite of their extraordinary innovating capacities.

In the arts, this has induced a metamorphosis and hybridization of the existing media like cinema, music and photography, as well as a remarkable increase in new applications for exploration, such as telematic installations, live cinema, VJ, CCTV, web 2.0, vlogs. [3] These applications are the vehicle of our everyday communication and information procurement and processing, as well as for social commitment and identity experience (blogs, podcasts, wikis, RSS feeds, My Space, hacktivism).

Technology, in whatever shape, rarely takes up a neutral position in our cultural perception. Usually technology is associated with power structures we are not immediately part of, and that often are quite menacing as well: an industrial complex, an economic power, a political or religious ideology, an international market structure targeted towards (degrading) mass production, a military apparatus, an alien or higher power. This explains, among other things, the techno-noir attitude in various writings in philosophy of technology and science fiction literature. In *technotopian* terms the fact that we are surrounded by new media implies a shift from a vertical to a horizontal position: new media are detached from a menacing structure outside ourselves, and they are turning into common, everyday tools. Once democratized new media also stop being the object of our fantasies. Contemporary utopian or dystopian fantasies mainly focus on promising developments which are still far ahead. [4] New media, on the contrary, are operational here and now. Artists experiment with them in order to incorporate them into the registers of the arts, and make them more human in the process.

Because of the horizontal position new media now take, they are gradually allocated a major, new psycho-cultural function. This process might be defined in terms of *cybertribalism*. The term tribalism isn't not so much a reference to eccentric internet communities, orthodox Mac-users or a gang of avatars, but to each and every one of us, going through our lives as netizens, equipped with iPod, mobile phone and a gps-device. We are tribe members and new media function like contemporary totems. Sociologist Emiel Durkheim [5] already described totems as an eclectic collection of objects, with both and edifying and a protective function. A group can use it to symbolize its living environment as well as for personal identification. Sigmund Freud [6] accentuates that these processes of symbolization and identification are used in order to control our deepest desires. Take into account, for instance, the way in which fears and desires are symbolized and channeled in computer games or how they are, sometimes unashamedly, vented in Second Life. As far as identification goes, there is a striking resemblance between contemporary experiments with avatars or with cyborgs and a shaman, who imitates an eagle, for instance, by dressing up and acting as one. In both cases we see creative mechanisms at work to sublimate the fascination for and also the fear of the totem (being fauna, technology).

If new media are contemporary totems, their importance can hardly be underestimated. As a result, when it comes to cultural impact, it isn't odd that the new cluster of digital applications with their new immersive strategies are the canvassing successors of television. The latter is forced to hand on the torch after having taken it over from cinema during the 1960s. Which, by the way, in its turn had overcome the visual arts around the 1920s. This succession, one would think, implies that the visual arts, in as far as media art and its digital experiments fall under them, have returned straight to the heart of our centre of attention. Finally, if new media are totems, is the immersive, audiovisual experiment in media art the contemporary rain dance?

Hypericonography

A third and last immersive challenge is independent of the creative crossing and dispersing of media in the arts. It is to be found in the event of visual language itself. *The Cremaster Cycle* by Matthew Barney makes clear how the sign language of the image has developed into an entangled and self-referential visual account, which is able to catch our attention in a very particular way, directing it back to a purely visual event. [7] This phenomenon can be referred to as *hypericonography* because it calls upon an excess of hermetic signs and subjective symbols without any direct and systematic references to an encompassing narrative storyline. They are used to create a different world, without immediate access points. In this way a visual account becomes fascinating, something to be discovered and decoded, but in the end it stays unmanageable. The shown events are impossible to situate, even though they evoke several meanings. *The Cremaster Cycle* presents us with men, women and other creatures which seem to depend largely on themselves, merely 'doing something or other', which doesn't seem useful. Nevertheless it seems to be important somehow. Interaction takes place mostly without words: copulating people, hugging, mutilations and murders, fights, gambling, sports. We are also guided through environments which absorb our attention and places breathing history and culture. The Empire State Building, a rodeo arena, the horse tracks, race circuits, uninhabited islands, fuel stations. Countless undefined objects pass through the screen. They resonate a multitude of emotional and cognitive references, giving them a ritual character. We see ambiguous gender symbols, typical and meaningful consumption goods, sportswear, cars and machines, vague political and religious attributes, mysterious objects surrounded by smoke curtains, insinuating the presence of freemasonry, shamanism, or occult brotherhoods.

The enigmatic nature, typical of hypericonography, provides an efficient method to evoke immersive experiences. The audiovisual dream balances precise-

Nemo, Lawrence Malstaf, 2005, courtesy of the artist.

ly between familiar and unfamiliar, it toys around with displacing and condensing and it also leaves us sufficient time to take in the ontological weirdness into our sensuous experience. At set times new and surprising elements are added to the baroque spectacle, so we stay alert, curious about the revelations promised by the undertone. The purpose of hypericonography is stupor, rather than pleasure, which is realized through provocation, misguidance and enchantment.

Hypericonography is typical of our time. Because of television and cinema we, as experienced spectators, are highly refined when it comes to the dismantling of, and puzzling with images. Semiotics provide us with numerous ranges of referential frameworks, offering a clear explanation of the visual language. Often they are so compelling that the multiple layers of the image are reduced to codes. As a result we read images rather than look at them. The hypericonographic artist, in his turn, tries to deviate our visual literacy, by confronting us with fascinating delusional worlds, which don't allow for easy decoding. If the purpose of iconography in its original, Medieval-religious sense, was to instruct illiterates on Biblical stories through images, contemporary hypericonography is an undertaking to confuse visual literates and semioticians in a veritable tower of Babel, thus getting them involved in looking at a pure game of colors, spaces, shapes and casually resonating symbols.

The self-referential sign game of hypericonography might also be interpreted as *psychotic* iconography. This clinical term is not meant pejoratively but as a way of clarifying the artistic quest. The psychotic experience, in as far as it might be imagined by anyone, is generally accepted in its stereotypical variant as inaccessible, but creative and astonishing. The self-experience is said to be distorted and fragmented. There would be a different, wayward and often far more direct, yet detached experience of the surrounding environment at play. Language is undone of its normal, communicative function and it comes to life as a dissolved experience of words and letters. In literature, the writings of James Joyce in *Finnegans Wake* (1939) are sometimes referred to as psychotic language reconstructions. Joyce created text fragments, not so much with a beginning and an ending, but most of all with a duration. The subsequent sentences evoke one another and relate back to one another. They do not develop a classical narrative storyline, but they create, as Joyce puts it, a wayward 'stream of consciousness' through an association of language fragments and alienation. It is no coincidence that Joyce found inspiration in the strange, alluring world of experience of his schizophrenic daughter Lucia.

Like Joyce, hypericonographic image artists pervert our codes of interpretation. They target our semiotic reading codes in order to liberate and safeguard the image of logics and interpretations. An iconoclasm, in some ways, which isn't realized through the destruction of images, but through the creation of fresh,

untamable images. This enables a return to the pure, virgin image, which allows us to lose ourselves uninhibitedly once again. Visual pioneers develop a poetic, subjective mythology. The introspective spectator, in his turn, is provoked to distinguish authentic expressions in this mystery of images thrown at us by the screen.

In conclusion, hypericonography is more than a reformatory reaction to the reductive semiotics of art and film studies, it is also a beacon of resistance against the numerous attempts to replace the passive 2-D image as an immersive medium by spatial installations, equipped with generative or interactive extensions. Also in this respect it embodies a return to the image. Albeit an image in which we lose ourselves, because it is so unfamiliar.

NOTES AND REFERENCES

1. This distinction draws upon the division between 'immediacy' and 'hypermediacy', as stipulated in Jay David Bolter & Richard Grusin, *Remediation/ Understanding New Media*. MIT Press, 1999.
2. For an extensive overview on the history of immersive strategies, see Oliver Grau, V*irtual Art: From Illusion to Immersion*. MITPress, 2001.
3. As an example, I refer to two other artists. Marnix De Nijs tries to generate immersive experiences with spatial, kinetic machines equipped with digitally manipulated, audiovisual projections, like his *The Beijing Accelerator*. Christa Sommerer and Laurent Mignonneau created a spatial, interactive installation called *The Living Web*, which is used as an immersive internet-CAVE. Both examples represent a paradigm shift with regard to immersion because they offer an interactive 3D alternative to the visual 2D account of cinema.
4. Think of transhumanist scenarios, for instance, starting from technosciences such as nanotechnology and robotics, or biosciences such as stem cell research, DNA-therapy and cloning. An interesting documentary in this respect is *Technocalyps* (1999) by Frank Theys.
5. Emile Durkheim, *The Elementary Forms of the Religious Life*, New York, Free Press, 1948.
6. Sigmund Freud, *Totem and taboo*, 1913. http://www.bibliomania.com/1/7/68/
7. Concerning hypericonography, there is a strong parallel with the contemporary theatre cycle *Tragedia Endogonidia* of Romeo Castellucci. Hence, this phenomenon does not restrict itself to video art. Other video artists that aim at an immersive experience by means of hypericonography are Shirin Neshat, Jesper Just and Eija-Liisa Ahtila.

The first part of this essay is based on the symposium Immersion. The Art of The True Illusion, which took place on 11 October 2007 in Arts Centre Vooruit in Ghent, as an initiative of the academic collaborative platform Interface. (http://www.ugent.interface.be). Special thanks to Prof. Dr. Christel Stalpaert, and also to Eva De Groote, artistic programmer of Vooruit.

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DRONES ARE A DEFEAT OF TIME AND SPACE

Interview with Stephen O'Malley
ARIE ALTENA

This interview took place by telephone on Monday 26th November 2007, a week after we had talked in person following a performance by KTL at DNK-Amsterdam. Stephen O'Malley is probably best known as the guitar player with drone metal band Sunn (for which he also designs artwork) and as KTL with Pita (Peter Rehberg). At the time of the interview he was confirmed to play at the four hour drone event that will open the Sonic Acts XII festival.

AA I was struck by the variation in KTL's different live performances. I listened to about five of the downloadable mp3s and, as far as I could tell, it seemed that Peter Rehberg more or less follows the same sound and that you improvise around it?

SO'M That project involves quite a bit of improvisation. It is still a young project, although we have already put into it an enormous amount of work. KTL was formed to create music for a theatre piece by Gisèle Vienne and Dennis Cooper, entitled *Kindertotenlieder* after Friedrich Rückert's cycle of poems that Mahler set to music. The work process took many, many hours of rehearsal, preparation and production work. Through that process, Peter and I got to know each other musically pretty well, so we decided to do some gigs outside of the theatre

piece. The difference between the two presentations of KTL is that the live version tends to be more aggressive and spontaneous, while still using themes that we created for the theatre piece. The theatre performance has less amplifiers and less volume, and contains more polished clarity in its execution. We have the live archive online so that you can follow the development of two people improvising together over time.

How does the theatre production work on stage?
I understand that you are there playing the music?

In the script, a concert is happening in front of a group of people. We play on stage, inside the play. So there is an extra layer because another group of people is observing that interaction: the theatre audience. I have always been intimidated by the audience in concert situations. Playing concerts allows me to explore the volume and mass of sound in a way I cannot in my studio or during rehearsal. But I do not really like being in front of people when I perform. That is part of the reason why Sunn uses shrouds and other filters to blur the relation with the audience, and it is also why KTL blurs that relation by using a lot of smoke on stage and using a lighting strategy. In the theatre performance, that filter is already in-built, there is a level of distance and interpretation that the theatre audience has to go through. These implied levels of perceptual interference are interesting because they are just psychological. I appreciate the layers and filters that either separate me from the audience or allow the audience to re-orient with respect to what is happening. Smoke and lights are basic theatrical tools to achieve this. We use fog and lights to filter and blur the perception rather than for accent or to create contrasts.

Kurt Hentschläger describes how he used fog in his installation Feed to make the audience lose their orientation and immerse them in an experience.

The disorientation certainly happens. Outside on the street, while you are driving, fog constitutes an element of danger. But as long as you are in the safety of an enclosed, prepared space you can remove the feeling of danger and allow your brain to fill-in the blanks. The fog is a huge lens blurring what is happening between you and the stage. You might not see where the sound is coming from or who is creating which sound, or if there are any people on stage at all, or if that even matters. It allows you to have a different sort of experience, one that attempts to defy the need of logical analysis.

You mentioned how you work with the sound's mass and volume. Do you ever work with the space in which you play, as every space differs both architecturally and acoustically?

Working with the acoustic space is one of the foundations of our music. I have talked a lot about this over the past few years, but the more I talk about it, the more I have the feeling I do not really have the knowledge. The compression ratio and the acoustic value of spaces obviously differs: an outside tent is totally different from an underground rectangle. With Sunn we prefer to play in an archaic space with a wooden or stone underground. Using a space for resonation is something that I do not know on the level of acoustical physics, it comes more from an intuitive feeling, from using things, from listening. It is closer to something like surfing than it is to wave physics: you are encountering a large physical event and you are riding it and playing with it. When I am playing with feedback I feel like I am part of a circuit that I can manipulate in various ways.

It's the level where you feel that something will happen when you play a loud D, but nothing when you play a loud C.

A low C-sharp is usually a good one, on most hollow stages. The combination of a C-sharp and D also works well. But the tonic note that we seem to use all the time is A. Even a low A is a clarifying sound. It is resonant and powerful in the sort of venue that we play a lot. I have explored these things a bit more in working with visual artists in installation settings. Then there is more preparation time than just two hours of sound-check. I feel that it is a field that I can spend a lifetime on, and maybe I will. The resonance of sound in space is probably one of the oldest concepts of music, maybe even going back to before proper rhythmic and melodic structures arose. Sunn has been really lucky to play in a few churches and cathedrals over the years - that has always been an awesome experience. Not only because of the initial resonation and reverb from a mass of stone and wood, but also the way the resonances compound over time. You can build up this physical resonation: after half an hour there is so much more going on. The density of that made me understand why such a space is considered spiritual and holy. If you are able to compose music that does this with voice over just a period of ten minutes, that is real transcendence.

Where does your interest in drones come from?
It seems to play a role in almost all your projects.

The original interest was in the pure physical energy. For me, drones are tied to an exploration of sound, an exploration of how much information can be present in a seemingly static presentation. In fact, it is hardly static at all, but in the language of music it can seem that way. I am also interested in the aspect of falling back into your consciousness through music, and getting away from the rational and logical parts of your thought processes, allowing your subconscious

to take over when you listen to music. Drone music allows that to happen almost in a meditative way. Somewhere closer to a drug, or a religious, spiritual or ceremonial experience than entertainment. Primarily, I listen to drone music when I'm actually playing. I like the experience of being in the sound, in the energy, in the moment, and then coming out of it. That moment might be ten minutes long and feel like an hour, or might be two hours long and seem to only last five minutes. Depending on how you let your subconscious focus, drones can really manipulate the sense of time. Drones are a defeat of the parameters of how you experience time and space.

La Monte Young understood very well how to deal with drones. He really had it nailed down with his *Dream House*, which has cushions and incredible plush carpeting so soft that you can sit down on it, and are encouraged to do so. It allows the listener to really experience the drones. I think there is even a kitchen there that serves food and drink. And then there is another room that has books and other things that you can use if you need to get your brain back into normal mode. Probably the best way to get your brain back into linear mode is to start reading.

Do you see images when you play or listen to drones, or is it just sound?

I am interested in music because it has inseperable visual aspects for me. Or maybe it sparks imaginative aspects in your brain which seem visual, whereas you are really only exploring the sound. The interpretation of sound goes beyond the audio part, beyond the physical part, and into the visual. Visual parts of your brain are being stimulated by sound because the sound is so engaging.

How does it then work when you make a soundtrack for a film, like you did with KTL for the silent movie Phantom Carriage by Swedish director Victor Sjöström?

That project came together very quickly (removed comma here) because the budget was quite small. We worked in a really broad way trying to compound the emotional sense of oppressive dread which runs throughout the film. It is just one emotion, but I think that when our music is applied it really emphasizes that aspect in the film. I was trying to capture a mood which partially comes through the visuals and certainly comes through the acting and the scenario. Because it is monochromatic, the film is more open to interpretation by sound. There is so much room for addition in this situation. I like the tension created between the seemingly disparate style of musical interpretation to this classic work of film.

To talk about sound in visual terms is very creative and very basic. With Sunn we are always doing that. We are not saying things like: "why don't you hone in on that 64 - 68 modulation". I have done that with other projects. When we play back rough mixes in the studio, it is instantly so visual – visual scenarios happen in the head for all of us. Until a few years ago I was using a lot of metaphors to describe what we were doing. That has always been part of the picture for people who listen to our music. But then people said things like: "Isn't your music like a black swamp where you are being sucked down", and using other suicide and death-related metaphors. Actually, my musical experience is an intensely pleasurable one, which does not have anything to do with death or suicide.

A few years ago I would have said that the music is a mirror: what you see, is what is in your own head, in your own imagination. But over time I realized it is more complex and psychological. You can certainly trigger, or rather suggest, certain types of images or moods. It is what we did with *The Phantom Carriage*. We used heavy long tones, blurry sounds, lo-frequency stuff. I guess that is a threatening sound, it is foreboding: something is going to happen and it will be a big event, because only a big event can make such a sound. Such subconscious thinking still rules the imagination in some ways, which is fine. People say it is heavy, but heavy just means that the density is high. It can be negative, but heavy can also be an incredibly dense positive emotion, a dense joy or dense confusion. A heavy mood is simply a mood of an incredible density.

Stephen O'Malley is a musician and designer. He is a member of the drone metal group Sunn, and plays in Ginnungagap, KTL and Lotus Eaters. Amongst his many other collaborations there are those with Greg Anderson, Dylan Carlson (Earth), Oren Ambarchi, Masami Akita, Attila Csihar and the visual artists Banks Violette and Nico Vascellari.

http://www.ideologic.org

Notes on Cinema and Prosthetic Memory

THOMAS ZUMMER

Pre/face

When we cannot remember, remarks Deleuze, "*sensory-motor extension remains suspended, and the actual image, the present optical perception, does not link up with either a motor image or a recollection image which would re-establish contact. It rather enters into a relationship with genuinely virtual elements, feelings of déjà vu, or past 'in general' (I must have seen that man somewhere...), fantasies or theatre scenes (he seems to play a role that I am familiar with...). In short, it is not the recollection-image or attentive recollection which gives us the proper equivalent of the optical-sound image, it is rather the disturbances of memory and the failures of recognition.*"

Employing a lexicon clearly indebted to Bergson, Deleuze's discussion of the technically reproducible image traces the contours of a 'perceptual prosthesis' that is not only complementary (to perception) but supplementary, an attentive re-cognition that binds the 'index' of objects--which necessarily include the 'image' of time, in all of its modes--to an actual contiguity, a 'real' connectivity between 'world' and 'subject.' Such proximate binding is secured through an intercessionary technology (photography, cinema, radio, digital), as mediation of corporeal interior and exterior, "*otherwise the recording can take place, but remains unknown.*" [Lyotard]

Small Syntagms, Ends of Formulae

One morning almost twenty years ago, I received a small package in the post my sister. She is a bit younger than me and we are very close. In this package was an envelope containing a number of medium format black and white photographs with a short note explaining the circumstance of their retrieval. She had been taking a course in photography and darkroom techniques. She is also a scientist and an engineer with a strong archival interest, and had been looking for family photographs to secure, annotate and restore. As she was surveying the random caches and accretions of photographic stuff lying around our parent's home, she came across an old roll of 35mm film, exposed and undeveloped, that had fallen in behind one of the drawers in an ancient cabinet. The film was approximately twenty years old but all of the images were recovered, and it was this collection that she had printed and sent to me. They were remarkable for a number of reasons.

I have an uncommonly good memory, and I remembered precisely the events depicted by these photographs [fig. 1]. They had been taken, in turns, by my mother and my aunt Emeline, with an Argus C3 35mm camera. It was late summer at my grandparent's place on the shore of Lake Huron, in Arenac County, just outside the small village of Au Gres, Michigan. I am the subject of many of these pictures; I was around three years old, and also present were my grandmother, and my infant sister. It was what cinematographers refer to as the 'golden hour', and the sand was beginning to cool; the water is calm, and the sound, subliminal and musical; I was standing on a towel, a checkerboard pattern of green and white with a series of complementary black lines. I have a stone in my mouth. It is a small, smooth, well-rounded and polished green sedimentary stone, a form of littoral precipitate of which I am still particularly fond. I still have the stone. There is a boat-hoist behind me, on the right side of the photo; it is hand-built out of wood and welded angle iron, painted forest green. My posture is a bit curious in that I look as if I am doing a 3-year-old's imitation of Max Schreck in Murnau's *Nosferatu*. There are a great many other details which come unbidden to my recall. But what is most curious is that I was — as I am still — unable to secure this photographic image, to *suture* it into to the same order of memory as those events. I cannot in any sense 'put myself into' the image, or think through it, such that it is bound to the same time and circumstance that I recall. I am similarly unable to 'consume' this image, to integrate and make it a part of me, to secure it's prosthesis as my own, an invisible and unrecognized insertion of the photographic as memory. For me, it confers only a salient and exterior supplementarity, something like the 'disturbance' that Deleuze alludes to, something that for me constitutes a paradox in being both lost and found at the same time, a coextensive contradiction which renders the artifact uncanny, in a strict sense, though it is less a surplus than a surfeit of familiarity.

There is a second photograph [fig. 2], also taken by my aunt Emeline. This one is taken in the house where I grew up in Saginaw, Michigan. It is in my parent's living room, around three in the afternoon, and I am a bit older than in the previous photo. The composition is a gentle diagonal, and I am sitting on a couch that had been, for some unknown reason, covered in plastic. It was probably a drop-cloth of sorts, since my father was moving a doorway at the time, and doing some plastering and painting. Above the couch, there is an ornamental shelf, three tiers, carved in black walnut, and there were two framed prints, one on either side of the shelf. At the far end of the room there is a stone fireplace. I am facing the camera, with a strange expression on my face, not only because of the flash of light, but also because I am annoyed. The camera had startled me, interrupting my observation of the events occurring outside. I had seen something through the window that was quite unusual in our neighborhood at the time, and which was, for me as a young child, absolutely novel: strolling along the sidewalk, unaccompanied and at a leisurely pace, were two large black dogs. Something in my countenance must have impressed itself upon my aunt's photographic impulse, and she snapped a picture. Twenty years later, as I looked at the photograph of this event, I noticed, just visible in the lower portion of the framed print to the right, the heads of the two dogs, reflected in the glass frame. While this is, in many ways, a triviality, one that is both private and only available through the testimony of a witness of unverifiable veracity, it also, in this minute provisionality, touches upon certain philosophical issues concerning the relation between contingency, cognition and mediation.

The photographic artifact is an intercessionary technology which habitually intercedes to conjoin memory, event, person and interest. In my case, these photographs had never accomplished that linkage, and consequently never figured as an element in the organization of this specific experiential memory. These photographic artifacts instead demarcate their inconsumability by making salient the interval — some twenty years — which strains, and, in the end makes impossible their recuperation as an artificial memory naturalized as my own recollection. Never having been inscribed into an order of private memory, these images are, in themselves, a continual disturbance, what one might call an auto-deconstruction, where their proximate familiarity is foregrounded as a méconaissance, and also rendered, again, uncanny.

In the field constituted by the superimposition of artifact and recollection, still other orders of memories are attached, that must derive from a time much later than that. A memory of the image of Murnau's frightful vampire, for example, which inspires another recognition in the precise disposition of my fingers, a memory, much later, of an 'event' much earlier. The cohabitation of these different orders of memory is in every sense, an impossible relation, enabled through the intercession of a plural, technical, reproducibility, yet they are apprehended and consumed readily, without a pause, the strangeness of their interplay thoroughly naturalized.

Sur/face

How does one think of oneself? Here I put forward no rhetorical question, no reverie concerning identity, no measure of culpability or responsibility or worth, no reflective psychoanalysis, not even in a folkloric sense, no joke, but a literal question in relation to the technical reproduction of images. Commenting on photography, Sigmund Freud remarks: "In general people's appearance does not show that they are anything, even less what they are." Walter Benjamin voices a similar concern when he alludes to a certain poverty of photography: "Even if one has a general knowledge of the way people walk, one knows nothing of a person's posture during the fractional second of a stride."

For all of its increasing sophistication, the camera, mobile or static, analog or digital, remains an instrument of citation, a "writing in/of movement and light" that secures only the most minute movement as it flashes by. Still, when we see what a camera has recorded, there is nonetheless a reflex, hardwired within us, that engages to perceive movement, and even reflection, as substance, a reflex which compels us to seek recognition in response to an other, that other seen as having appeared either within the frame of the image or operating at its presumed point of origin. Facial recognition, for example, is one of our earliest unconscious accomplishments, and the camera intervenes in that, to present a technically reproducible shadow, an apparition of presence, one that operates at the same time as an index of loss.

Benjamin's substitution of an "unconsciously penetrated space" where prosthetic perception introduces us (via the camera) to an "unconscious optics" (and to similarly unconscious impulses) but only at a remove, in a certain proximity, outside the image or scene, coupling the compulsion to repetition with the promise of recuperation. An uncanny doubling of the camera's unconscious

[fig. 1], [fig. 2]

optics with our own impulses takes place here, a technico-philosophical sleight of hand that purports to secure the entirety of the real. Photographic and cinematic perception is folded back into our own experience as an artificial memory, a naturalized and subsumed prosthetic, which holds forth the proleptic promise of recall, even as its disturbance circumscribes a doubled site of loss.

What we had thought were sensations have become ghosts, transfixed in a flash, mere afterimages. There is a phantasmatic, as well as a prosthetic, aspect in the naturalization of the cinematic: we are haunted by images, traces of an elsewhere that we have made our own, domesticated fragments that we have compelled to enter into strange and familiar relations, different economies of sense. Presence is deferred to an impossible proximity, but not lost entirely.

What happens when the phrasing, or parsing, of such *phantasmata* appear as having already taken place, where there is an anteriority revealed, brought to light, within the paradoxical necessity and impossibility of the prosthetic? The anterior embodiment is then revealed in a 'disturbance' of memory, where memory is so close and intimate, secret and secreted, that it is only from the greatest and most severe distance that one may catch it in the merest flash of an image.

Inter/face

By itself, photography is little more than a technical intercession, a process of recording onto a sensitive emulsion a stabilized image generated by a chemical interaction with light. It is within the materiality of this photo-chemical field that the image is 'caught' as an evidentiary trace, demarcating presence and absence, making immanent a relation between what has disappeared and what persists, a relation that we name 'index'. In this 'immanence' the artifactual image also exercises a promise. By occupying the place of an absence, photography induces a presumption of presence, as if what had passed away has not abandoned us entirely, but persists in the reiterated promise of its recall. As if an event, or a person, having once been present before the camera, cannot ever entirely disappear. But, at the very same time that it constitutes a promise, the image is also a deception.

One forgets that an image is a form of consciousness, that its cognitions and re-cognitions are contingent, and that its mediation has a profound and radical historical character. Moreover, the permeability between media (remediation) is such that they continue to share a common ground in perception. One does not encounter the world (however much it is re-presented) except as an already embodied and culturally embedded subjectivity. The body's perception of itself constitutes a psychic substrate, and the unconscious somatic memory organizing lived experience is, in turn, modified by technologies, forming technical substrates of unconscious memory. Optical devices, for instance, alter the experienced scale of an observer's body, while at the same time changing the apparent place of that transformation, affecting ideas of spatiality and temporality, causing us to perceive things as closer, larger, or more similar, in relation to our own perceived bodies.

Perception, linked to technological instruments, stubbornly apprehends different phenomena according to the most familiar tropes and habitual conventions of pictorial representation. Telescopes, microscopes, fluoroscopes and cameras are organized according to tacit preconceptions wherein somatic inscriptions become naturalized. Similarly, notions of inference and continuity, succession and consequence derive from the body's physical and cognitive disposition in the everyday environment. The observer's lived experience takes up residence in media, one 'dwells' in the technical. Here, in this interstitial 'non-place', distinctions between actual and virtual are phenomenologically negligible, and the naturalization of prosthetic perception is fully realized as attentive re-cognition.

Sub-surface

Recently, I have been having some difficulty with my hands. I experience the onset of a numbness in the thumb and first two fingers of both hands. In exploring the possible reasons for this condition, I had a set of x-rays taken. The resulting images revealed that I have two extra, fully formed ribs in the upper thoracic region, at T1/C7 [fig. 3]. These unique supplements are likely contributors to the loss of sensation as there are major nerve pathways in close proximity, which may have become compressed.

The relation that one has to one's own body via the evidentiary trace circumscribed by an interceding technology is most curious. Perhaps this relation is a species of re-cognition that takes place in relation to other forms of reflection, akin to the sort of relation to oneself accomplished via a mirror, or apprehended in the gaze of another? Or is it a deictic marking of time and disposition related to the archiving of identity, or to the related recursive monitoring of various surveillance systems? What is the somatic relation between images and sensations, especially within situations where transmission and reception are coextensive, where one participates in a 'live' imaging of the body (as in a sonogram or electrocardiogram) even when such evidentiary traces of somatic conditions are superimposed with virtual, probabilistic, normative or generalized models? The photographic image is naturalized as a prosthetic perception, that is, as a natural and real percept, conveyed by a technical vehicle, and therefore secured in memory, forming patterns of reflection inscribed as our own.

A fundamental shift in the notion of the image seems to have overtaken us: there appears to be an abandonment of discrete objects, a winnowing away of the notion of objectivity itself. The world multiplies and reproduces itself, its artifacts and representations, in a concatenation of coextensive images. In this pluralized field distinctions between real and virtual, or between technological and biological, become increasingly blurred. This shift comes about in a cultural and technical transformation that re-maps the emphasis from analog construction to digital (de)construction. Photographic images can be accessed and transformed, pixel by pixel; cities are disassembled by gerrymandering or eminent domain,

communities and social networks are replete with names and images which performatively problematize friendship, responsibility, sexuality, subjectivity, culture, and tradition. Within these transformations questions arise concerning the relation between bodies, identities, systems, and technologies. Are we networking, or are we networked? Are we ourselves networks? In the movement from the ubiquity of technical reproducibility to the inevitability of ambient findability, where and how do we find ourselves? A region of surfaces of indefinite extension has become hybrid and heterogeneous, variable and permeable; intimately linked to destabilized subjectivities, pluralized, a field of images distributed and deferred in space and time. The boundary, or interface, between the biological and the technical has become porous and permeable, such that it is increasingly difficult to trace or define the limit points of integration and interaction of entities.

Reactive, Projective, Virtual

In 1923, Ivan Pavlov describes the reflexive orienting response of human test subjects to sudden noises or shifts in the relative luminosity of objects. Cinema provides a splendid example. One's pupils dilate, the brain's alpha activity diminishes, and there is a constriction of the small capillaries: attention is drawn to novelty in the perceptual environment. It is not surprising that cinematic strategies of audiovisual composition, editing, and *mise-en-scene* also operate in this register.

The human visual system, recognizing a change in luminosity as a change in form, gives unconscious credence to our investment in the fidelity of cinema's flickering sensibilia. We have already reacted to a moving image, the trace of a person, for example, as if he or she were present. We presume the deferred presence of somebody as having been, at some time, present before the camera, such that the device, (unintentionally), or someone else behind the camera (intentionally) has observed and faithfully secured the indexical image of the person or event represented.

The camera itself, unseeing, has been prosthetically inserted between the original subject and the intending eye of the operator, so that it circumscribes and subsumes the space of the spectators' perception. A 'camera-eye' holds place for, and simulates, the presence of the eye of the spectator, in such a way that there is a presumed coextension, an identification and mapping, between the apparatus, the originary operator, and the present spectator. This serves as an evidentiary trace of photographic verisimilitude, a technically reproducible access to the real.

The camera's penetration into human recognition also occurs when we look at a photograph of some person or watch a character in a movie. As the film unfolds before us, there are moments of sympathy or dislike, times when our hearts may race, or our breathing become shallow, hairs stand on end, and we become aroused, or terrified, or burst into laughter almost before we know it. It is as if the shadows before us have some privileged link to a present that has not passed away, but which, once having taken place and arrested in the trace of the image, is present at every moment, and continues to persist, holding place for the potential recuperation of the real.

[fig. 3]

It is in this sense that cinema is promissory; there is a strange prolepsis (anticipation, but also cognition) concerning technical reproducibility in this social configuration. While the figures on the screen may be insubstantial phantoms easily distinguishable from corporeal reality, the experience of motion in the cinema, at a physiological level, cannot be distinguished from the experience of real motion. Christian Metz, too, has noted the perceptual basis for the assertion that motion in the cinema is not a re-presentation, but a presentation, not the re-experience but the experience of motion, since the very same perceptual mechanisms that process real motion and apparent motion are brought into play in both cases. Those same mechanisms for discerning the real enable our investments in the play of shadows, and there is an uncanny commutability between one register, the physiological, and another, the phantasmatic, such that there is a real engagement, and investment, in the illusions of the specular, and the (impossible) promise of their recall.

Mimetic Cartography

In the 1990s neurophysiological studies of the motor systems in the brains of monkeys and of humans revealed the existence of a class of neurons with attributes that were described as 'mirror properties'. Recent studies of the motor neuron system in humans and in the anthropoid apes indicate that there is a strict link between the motor organization of intentional actions and a capacity to understand the intentions of others. If a person reaches down and grasps a stone, or a flower, a certain series of neurons fire. This activity is regular, predictable and observable. The remarkable thing is that if another person observes this activity, the very same series of neurons also fire in the same way. Where the conventional model for learned behavior, mimicry, or empathy, posited a rapid process of reasoning to account for observed actions, the model of mirror neurons presents a faster, simpler and more efficient means.

While there are many implications in this, I will cite just one. Volunteers at the University of California, Los Angeles, were selected for a series of experiments using functional magnetic resonance imaging (fMRI) systems. Participants in these tests were presented with three kinds of stimuli, all contained within video clips. One set of images, for example, showed a hand grasping a cup against an empty background. The designers of the experiment had wanted to determine whether human mirror neurons would distinguish between several types of 'grasping' a cup (to drink, to remove it, to possess it) and they demonstrated that the human mirror neuron system did indeed strongly respond to the different intention components of the represented acts. What is remarkable is that there was no distinction made on the part of the designers of the experiment between an action presented 'live' and one presented in a video clip.

Consideration of the relation between actual bodies and mediated, represented bodies was outside the scope of these experiments, but the implications for understanding what happens between different orders of embodiment—physical, substantive, virtual—are compelling and unavoidable. It is interesting to note that philosophers in the phenomenological tradition had long ago posited the necessity of experiencing something within oneself in order to truly comprehend it. The implications of this research, not only for questions of pleasure, pain, sympathy and empathy, but for notions of mediation, immersion, transmission and virtuality are both fascinating and troubling. Notions of mimesis, in the classical sense, having to do with aesthetics, realism or simulation are recast, as are the 'cartographic' principles involved in the apprehension of the flickering shadows and sensibilia of cinematic, transmissive or digital projection, the recognitions of bodies, avatars, voices, traced, shaped, and constrained, within a diffuse and permeable field where distinctions between biological and technological bodies may no longer pertain. What sorts of communities, bodies, selves, will emerge in the confluence of these registers?

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612.43WEISS IS ALMOST CINEMA, IT STOPS JUST BEFORE IT REALLY BECOMES CINEMA

Interview with Jan-Peter E.R. Sonntag
ARIE ALTENA

The artistic roots of German media artist Jan-Peter E.R. Sonntag reach back to minimal- and concept art, as well as to new and experimental music. In installations, videos and sound works (such as the different versions of *Minimal Disco*), he examines human perception of light, sound and space. He is extremely interested in both scientific and philosophical issues, and reflections on the history of modernism lie at the centre of his work. He has also collaborated with scientific laboratories, especially for his SonArc::project, in which he searched for the essence of electricity and the possibility of domesticating lightening.

Sonic Acts met Jan-Peter E.R. Sonntag in Middelburg, in the hours prior to his *612.43 WEISS* work opening as part of an exhibition at the Kabinetten of the Vleeshal. We started by discussing this audiovisual installation, but Sonntag hit upon many other issues as well, from modal jazz and the use of multiphonics by trombone player Albert Mangelsdorff (Sonntag used to play the trombone and currently prepares a work on Mangelsdorff and the Munich Olympics) to German media theory and the relationship between art, academic research and scientific think-tanks. This edited version of the interview primarily focuses on *612.43 WEISS* and the subject of cinema.

AA *612.43 WEISS* is a work with very slow movement. It is about Stalingrad and uses the Schubert song Der Leiermann as source-material. Can you explain in more detail what it is about?

JPS I have been working on *WEISS* for ten years. All my works take a long time to develop and all go through many intermediate stages. The genesis of this work goes back to when I was asked to participate in a conceptual theatre piece dealing with the theme of pathos. I was asked to find a visual solution for depicting Stalingrad. That was a really heavy thing, and that is why *WEISS* deals with Stalingrad.

At the time I was really interested in narration. That was special for me, because I used to hate storytelling in the visual arts. I was always more interested in the conditions of perception and the conditions of what art can be. Such a conceptual approach fits very well with the tradition of music, because music is very abstract. But I found out that narration always has a connection with modernism. On a certain level narration and the conceptual approach deal with the same thing. You can see it in the way the experimental filmmaker Stan Douglas deals with narration inside modernism. I also discovered that I like to talk and tell stories. In my work I am playing with this history of modernism and the avant-garde. I feel in no way part of popular culture. I was never interested in mass media culture or mainstream cinema, I grew up liking jazz and experimental things. Since I was a student I have been mainly influenced by the avant-garde artists. In that sense I am really an academic artist: being influenced by for instance John Cage, and always by way of books, theories and recordings.

On the other hand I do like some aspects of Hollywood films, especially the music and the dramaturgy, because of the effect they have on you as a viewer. Steven Spielberg is a master of playing on the emotions. I do admire how these effects are made; it has a lot to do with pathos. Yet intellectually I am more on what you could call the Adorno-side, thinking "I can see I am influenced by the effects, but I am also a victim of this emotional movement that is created". In *WEISS* both these things – pathos and the history of modernism – come together. As for the title: 43 refers to the historical moment, and 612 is the number of the hotel room in Switzerland where I was staying when I started to work on *WEISS*'s visual part.

So you are positioning yourself between these two sides, on the one hand the pathetic effect of the cinema, which mostly comes from the sound, on the other hand the critical mode of Adorno and the intellectual history of modernism? Why choose Schubert?

I decided to compose a variation on Franz Schubert's Der Leiermann for the theatre project on pathos. But as I wasn't asked to do the music for the production, it became a piece on its own. The main point is that *WEISS* uses the recording of Hans Hotter singing Der Leiermann. Hotter was Nazi Germany's favorite heroic tenor. He was the voice of a certain kind of hopeless Romanticism. As Schubert's *Winterreise* is a climax of Romanticism in music, *Der Leiermann* is the climax of *Der Winterreise*. It describes a completely hopeless situation, and is a highly-charged historical symbol for the sensitive Romantic ego. The 1943 Hotter recording is very famous: some people say that in the background you can hear the bombs falling on Berlin. It is a good mythical story. At the time of the recording the circle closed around Stalingrad. Stalingrad symbolizes the turning-point of World War Two, it is a collective tragedy. So you have totally opposite symbols: the sensitive ego on the one side, which is a total Romantic thing, and on the other side there's this collective tragedy. For me this connects with Adorno, because he argued that even Schönberg and high-modernism actually continued the tradition of Romanticism. *WEISS* then shows Adorno's idea that you cannot continue the Romantic tradition: the Romantic ego fails in a totalitarian regime. That is why Adorno and the Frankfurt School say we cannot make this kind of art anymore. Stalingrad signifies the end of a Romantic idea of the individual, which was continued in modernism. But this is secondary, because I am not Adorno. It was really interesting to work with these highly-charged symbols like *Der Leiermann* and Stalingrad.

To represent Stalingrad I took a picture of the area from a book showing a snow desert and an isolated person. If I had called the work *Amundsen* you probably would have imaged a polar station, therefore the installation includes a single sentence so that you see it is Stalingrad and hear Hotter singing. I show a historical coincidence. By bringing together the picture and the highly emotional music I create a narrative structure that we know from Hollywood.

On seeing *WEISS*, an intellectual art lover in an 'Adorno-state' will say, "ah, I cannot like this, it is manipulative, it's like Spielberg". But at the same time such an art lover will think, "But is is a strong concept, so I am allowed to like it". The piece gives people a sentimental feeling, but they think they are only allowed to like it because it has a strong concept.

It was interesting to note at the last Venice Biennale that the video-works people spend the longest watching were using music from Wagner's *Parzival*. But nobody mentioned the music, everybody talked about how emotionally effective it was visually. Whereas as a musician, you know it comes from the music. It is the effect Hollywood always uses.

Is that because sound is primary, it envelops and binds you most directly to the world?

I don't think sound is primary in my work, but sound certainly works more directly, especially these clichéd sounds that create second-hand emotions. We know how to read that kind of music. A cliché is a language. Schubert is the model for this sort of romantic sound.

612.43WEISS, Jan-Peter E.R. Sonntag, 2004-2007, cabinet version, 30 June 2007 - 8 September 2007, Kabinetten van De Vleeshal, Middelburg, *3m x 1,2m free hanging screen, single channel video, two channel sound, grey walls and floor, text on the wall, computer, beamer, 20-19.000Hz soundsystem, bench.*

Can you explain further what you did with the visuals and the sound?

I started working on the visuals when I was in Switzerland. I went up to Mount Pilatus in a snowstorm and took photographs. All you can see on them is white. But when I opened them in Photoshop, I could 'see' that there was a slight difference between various whites. The digital camera had been able to read something that I could never see in reality. It could discern the next mountain in the white.

For *WEISS* I started with the photo of Stalingrad. I normally have it on a large format, five by two meters. I think of it as an oil painting. I put layers of white on top of the picture, because when you come out of a snowstorm, all the information you have is 'white'. The snow flakes are white dots. They are programmable objects in a layer of the picture and there are four hundred in total. I had a computer program written for the snowstorm, it makes the snow flakes swirl around, and I used another program for snowfall. We took quite a time looking at how a snowstorm behaves in reality. The snow flakes move around in the picture according to these programs. There are different layers, but all the layers just take information away, they do not add new information. We shoot white layers into a photo that is already quite white. We do not manipulate the historical footage as the snowflakes are a layer on top of the picture. The white flakes create little holes in the digital grey and white on the original photo.

A photo is a still, a frozen moment, and film creates movement from a series of these. Our eyes will scan over a still photograph for some time, but at a certain point – and this is psychological – we begin to get tired and no longer focus. Yet, when there continues to be a stimulus on the photo, like a moiré or a white noise, you are psychological stimulated to keep focused. That is exactly what I do in *WEISS*. It is a photograph, yet there is movement functioning as a stimulus to keep your eyes focused on the picture. Your whole brain is triggered to think that the picture is totally static, because it is not registering any change of real information, but you still have the stimulus of the changes as a sort of potential information. I was really interested in doing this psychological experiment, to create this static, abstract atmosphere.

For the music I used an old mono recording of Hotter singing *Der Leiermann*. I cleaned the recording and remixed it to match the aesthetic of the visuals. But you still recognize the voice of Hotter. In the original composition there are two motives, one is the singer's melody and the other is the piano playing the repetition of that melody. I cut those out, so only the underlying piano chords were left. In this song Schubert wanted to imitate the sound of the hurdy-gurdy, and it uses a bourdon-tone with a sixth-interval. The song almost loses its chord progression and becomes modal. Of course *Der Winterreise* is a cycle of songs,

but this last one, *Der Leiermann* is really modern in its use of a sixth-interval. I took this sixth from the recording and used a computer program to stretch it. I created a really long interval from the first chord. It sounds electronic now, although it is actually a piano. In other words, I made a minimal version of *Der Leiermann* based on my piece and my own perspective on sound aesthetics.

Both the visual and sound concept of *WEISS* are based on throwing information out, to bring in a minimal movement in the microcosm of what is left. As a viewer you don't necessarily have to know all that. You can walk in, read one line and look at it. You might like it because it is minimal, totally white, because it is like a Turrell-space, just a color-field. You receive sensory information and it has this emotional impact.

It is interesting that in the text about the piece you mention the two historical sources, yet you minimize and reduce them so that they are hardly recognizable as source material. You then process it in a way to affect a certain emotional state in the audience. The piece almost becomes research on how people experience this sort of minimal 'almost cinema'.

In the end, the main interest was in creating a minimal cinematic effect. Starting with pathetic forms and high symbolic structures, then going into what I could do with the footage, how to minimize and cut out information instead of adding to it. I do not change the symbols, but I create a movement by taking away certain aspects.

It was a personal research, and all the material is taken seriously, all the levels are researched seriously. There is no irony in it, at any point. I really love Schubert. I see a lot of modern art making heavy references to popular culture. I am too serious for that. As a person, I like a lot of different kinds of music, but intellectually I am simply more interested in the compositional structures of, say, Iannis Xenakis. Intellectually those structures are more interesting than those used in popular culture. I really think and work as a composer, also in the visual sense.

Fundamentally, are you trying to discover what a cinematic effect is?

All my work is about possibilities of language. *WEISS* is about how to bring together different levels and consider what cinema can be. *WEISS* is almost cinema, it stops just before it really becomes cinema. According to its curator Eva de Groote, the Almost Cinema-program in Ghent (2007), took its title from a text of mine. I never used the term because I wrote the text in German. It came from the translator, but it was completely correct. I try to figure out which are the conditions that create cinema. With cinema I refer to mainstream narrative cinema, not experimental cinema. What makes it work on a psychological level? Music is really important, how it plays on the emotions of the audience, how it makes cuts in the narrative, and creates perspective. *WEISS* is just sound and movement in a still image, but it could be a film. You can read it as film; it has the same emotional impact.

Jan-Peter E.R Sonntag has studied Art, Art History, Music, Sociology and Philosophy (Aesthetics). His art reaches back to minimal and concept art as well as to so-called new and experimental music. Since 1990 he has made site-specific, interactive installations on perceptions of light and sound. Since 1995 he has worked on the interface of the human body and technical/medial systems, and frequently cooperated with scientific laboratories. Alongside an examination of human perception, the question at the centre of his artistic work concerns the visions of modernity – an unfinished project.

The Location of the Cinematic Experience

LUCREZIA CIPPITELLI

We know cinema as a public projection of moving images and sound in a specially-designed space. This specific location that involves us with all our senses was crucial to establish cinema as an art form. Nowadays cinema seems all of a sudden to be everywhere, from the domestic screens of the television and the home video projector to the portable computer and other personal devices. We consume movies in our car, the train, on the small screen in the airplane and in our office.

In spite of the promise to bring the cinematic experience everywhere, it is inaccurate to use the term 'cinema' when we refer to this mass media consumption of moving images. It does not matter how high the resolution or the color quality is of our iPod screen; it has nothing in common with the real experience of cinema, which is located in the appropriate environmental context: the dark room of the movie theatre, equipped with dedicated technology for optimal sound and vision quality, a space disconnected from the outside world where the perception of the spectator is conditioned to capture and believe the illusions on the screen. This text focuses on the different transformations of cinema and artworks with cinematic qualities. It aims to define the qualities of the space to display these different audiovisual works – the black box. It questions if this specific space could be a common ground where cinema and visual art might influence each other.

The Black Box

When we think about the standardized format of an art show displaying video-related artwork, the picture that comes to mind is a small, dark room with a cheap audio system, a bad beamer and videos that are probably too long to be viewed entirely without comfortable seats. The term 'black box' is often used to designate the space for videos that do not find a place in real cinema. It is seen as the opposite of the white cube: the traditional neutral space where exhibited artwork acquires the status of art with a capital A. In both definitions the connotation is merely functional: a box roughly similar to the traditional movie theater or a space designed for an artwork that requires no light.

The term black box was already familiar in the fields of science and technology, before it was used within the context of contemporary art. Behavioral psychology defined the black box as a specific area of the human brain in which externally received stimuli give subsequent rise to (behavioral) responses. This same definition applies to technological systems or devices of which we only know the received input and the given output, but not the internal process. In both fields it seems to be a separate closed space that excludes the possibility of a physical exploration or an intellectual comprehension.

Coming back to the art world, this definition suggests a more evocative delineation for the term black box: an environment where an event takes place and originates a mental response. As the antithesis of the black box described by science that is observed from outside, here the black box is only perceived once we enter. Inside, the spectator is disconnected from daily life and surrenders to the experience of sound and image. This is definitely similar to the dark room of the cinema where the spectator is captured by illusions once the projection starts. The analogy with cinema lies more in the function of the environment than in the medium of the artwork presented within. Nevertheless, the status of a space for video-related artwork should not be interpreted as an evolution of the classic exhibition space – the white cube – into the renewed form of a dark container for art requiring no light. The dichotomy of white cube *versus* black box signifies the passive mode against the active mode, contemplation against experience. In other words, the black box becomes the embodiment of a space in between classic cinema and visual arts, where the artwork exists in the real moment and interacts with the senses of the spectator to stimulate a cinematic experience.

At this point the central question is: if the black box has the status of an environment reserved to experience and not merely to exhibit, what kind of works should it contain? To answer this, it might require a closer consideration of the place of the cinematic experience in the world of art and film.

First of all, I will consider the environmental immersion of the spectator as an important part of the broader research achieved by the avant-gardes in art and cinema from the beginning of the twentieth century. I will illustrate some experiments of constructed environments to immerse the spectator and other examples of experimental cinematic/audiovisual works that deconstructed the classic cinema space. Secondly I will address some contemporary artists who are located at the border of classical cinema and visual art. In their practice they consider different possibilities to expand conventional ways of producing and displaying cinema-related artwork within the art context.

The Historical Avant-Garde

The quest for a radical approach to the spectator's involvement in the work dates back to the historical avant-garde. Early examples from 1923 are *Proun Space* by the constructivist El Lissitzky and Schwitters' *Merzbau*. Around the same time, the projects of Erwin Piscator and Walter Gropius at the Bauhaus led to models for a *Total Theater* (1927), a performative and displaying machine uniting theatre with the utopia of Total Art, placing the spectator in a stimulating surround-environment.

László Moholy-Nagy, who was involved as a scenographer on Erwin Piscator's projects, investigated possible ways to implement photography and cinema in a total environment of new scenic technologies. In his texts he examines the relationship between graphical and auditory elements within the context of abstract cinema, suggesting that cinematographic directors record their own sound for film (using the LPs) in order to eliminate the silent film's live musical accompaniment of the time. In the early 1930s Moholy-Nagy dedicated himself to the production of abstract films such as *Lichtspiel Schwarz, Weiss, Grau* (1930) and *Tonendes ABC* (1932), in which he utilized Rudolph Pfenninger's experiments

with synthetic sound to formulate a new musical alphabet. In his *Simultaneous Cinema or Polycinema* he experimented with new audiovisual techniques to design special screens for simultaneous, interwoven projections or a stereo-screen for greater spectator involvement. [1]

Parallel to Nagy's spatial research, it is worth mentioning the projection setup of the French director Abel Gance's film *Napoleon* (1926), where he created 'polyvision' with three projectors forming one big image. This setup, created in collaboration with his photography director André Debrie, widened the perception and created non-linear associative narration.

Spatial Environments and Kinetic Art

Research and experiments to create a total immersion for the spectator continued after the Second World War. In Buenos Aires in 1946 the Italian artist Lucio Fontana wrote his *Manifiesto Blanco*. "Art for the contemporary man is based on the dimensions of his existence", says Fontana, "in which space and time have a dominant role." [2] The following year Fontana also wrote the manifesto of Spatialism that proposes the location of the human being in a structure with light, movement, sound and time. In 1949 the *Ambiente Spaziale* (Spatial Environment) became the physical representation of these ideas. Fontana left painting and sculpture to build a space: a black box wherein neon lights and painted elements with phosphorescent colors suggest multiple dimensions that we today might define as a virtual, mental space emerging in the observer's perception and experience.

From the 1950s onwards, the Kinetic and Programmed Art of artists such as GRAV in Paris, the groups T and Enne in Italy were making mechanical three-dimensional installations with mirrors, moving lights and sounds to create synaesthetic spatial optical illusions, which interacted with and altered the observer's perception. The culmination of this avant-garde movement came in the 1960s when it was marketed in the United States as Optical Art. However, it was also quickly overshadowed by Pop Art's rising commercial success, which inspired a return to marketable, exhibitable artwork to fill the traditional white cube.

Lettrist Cinema

Alongside the research of the Kinetic artists, the experimental cinema continued with an internal deconstruction of its own meaning. In Paris the Lettrist cinema initiated this process by proposing a different environmental arrangement in which to screen their experimental films. In *Traité de bave et d'eternité* (1950), the poet, critic, artist and all-things-ologist Isidore Isou deconstructed the classical narrative grammar by editing sounds and images in an illogical and disconnected way. Some years later with *Le film est dejà commence?* Maurice Lemaître destroyed the conventional two-dimensional screen by projecting on the sidewalls, the ceiling and the bodies of the spectators and even hiding actors in the audience, transforming the cinema into a performative experience. According to Isou, the true cinematic experience passes through the involvement of all the spectator's senses.

In the following years, the Situationist Gil J. Wolman and Guy-Ernest Debord directed *Anticoncept* (presented at the Cannes Festival in 1952). A white circle painted on film is alternating with completely white or black frames and is projected on a spherical screen with a soundtrack of broken sentences and Lettrist poems. Every representational element is annulled by only presenting duration and space in which the film is projected.

Invisible Cinema

Video Art and the artistic practice of audiovisual artists led to questions about optimal spaces and display modes for their work. In the1970s the Austrian filmmaker Peter Kubelka designed the *Invisible Cinema*, a movie theatre built in the headquarters of the Anthology Film Archives, a New York-based centre for research and distribution of experimental and avant-garde cinema. [3] According to Kubelka, the quality of the movie depends not only on the quality of the film, camera and projector, but also on the theatre in which it is projected: it should be a perfectly designed machine for watching films. The Invisible Cinema was therefore the perfect movie theatre, in which external inputs are totally eliminated and the spectator is solely confronted with the screen. The room was completely furnished with black soundproofed material and black seats with panels to separate each spectator. No indirect light reflections from the screen could distract the concentration. The Invisible Cinema was the best place to experience the cinematic, the perfect black box. [4]

Display and installation of narrative video and black boxes

From the 1990s onwards, video began to dominate contemporary art. These installations normally make use of a video projector to transform the wall of a dark gallery room into a cinematographic screen. Often this format does not really 'work' well because narrative video requires time and an appropriate space to follow the complete story; that does not fulfill the expectations of a museum or art gallery visitor spending only seconds or a few minutes with a work and looking for immediate comprehension of the artistic statement.

What does not work in exhibiting video in an art context is the narrative factor. To respond to this basic setup, an option often adopted by the artists is the environmental-based video installation, playing with the physical display space in order to construct an immersive environment. In such a case, the spectator is expected to stay in the active condition of experiencing and responding, physically or intellectually, to audiovisual inputs.

The 1999 exhibition *Cinéma Cinéma* at Eindhoven's Van Abbe Museum sums up the confluence between art and cinema amongst a new generation of artists/filmmakers expanding their acquainted awareness of the classical cinematographic grammar in the fine arts context. These artists use the exhibition as a way to explore standard presentation of narrative video in order to construct more complex narrations that will find in the environment a more flexible space to be perceived. [5] In both cases we can talk about a real cinematic experience: the result of artists re-mediating the medium of cinema, rethinking the black box where the work is showed and involving the spectator.

Some examples of such cinematographic works are the complex installations of the Finnish artist Eija Liisa Ahtila. For instance, in *The House* (2002) three juxtaposed screens form a sensory space where the spectator can follow simultaneously the actions of the protagonist from three different perspectives in space and time.

Another example is the documentary by Steve McQueen, *Caribs Leap / Western Deep* (2002), where as a spectator you become physically part of the journey into the bowels of the earth together with the South African miners. McQueen's tendency to incorporate movies within the exhibition space is manifest in a good part of his art practice, but especially in the 2005 installation, *Pursuit*. We see a dark room, in which feeble lights are projected from a video setup at the centre and reflected by mirrors that cover the walls. The spectator enters and loses spatial awareness, abandoning himself in an experience of physical alienation that is almost dreamlike. [6]

The Swiss artist Pipilotti Rist has also been building video installations since the 1990s in which space plays a central role. In 2005 she participated in the Venice Biennale with the video installation *Homo Sapiens Sapiens* in the church of San Stae. By entering the darkened nave, you are invited to go and lay down barefooted on mattresses to become immersed in the moving painting projected on the entire ceiling of the Renaissance church. Staring into the pop-oriented work *Homo Sapiens Sapiens* invokes a strong sense of floating in the plastic colors and mirror-based refractions of the video.

This kind of relocation of the cinematic effect in relation to the environment and the observer is also the objective in several new media projects and Live Cinema performances. It all suggests the promise that when contemporary filmmakers, who are working in the boundary areas of cinema and art, play innovatively with the space in relation to their work, they could realize their most radical ideas: rethinking the structures of traditional cinema and expanding the conventional formats of displaying moving images in the context of art.

NOTES AND REFERENCES

1. *L. Moholy-Nagy, Pittura fotografia, film 1925-1967*, curated by Gianni Rondolino, Martano, Torino 1975.
2. "Abandonamos la pratica e las formas de arte conocidas y abordamos el desarrollo de un arte basado en la unidad del tiempo y espacio [...] Color, el elemento del espacio, sonido, el elemento del tiempo, y el movimiento que se desarrolla en el tiempo y el espacio, son las formas fundamentales del arte nuevo, que contiene las cuatro dimensione de la existencia".
3. There are only few documents about this experience. A good history is reported in the Sky Sitney, "The Search for the Invisible Cinema", in *Grey Room* n.19, Spring 2005, p. 102-113.
4. "The shell-like structure of the seat completely shielded the upperbody from neighbors and people in back and front, and it also had an acoustic purpose. . . . Similar to hearing devices used in the Second World War they were simulations of big ears which concentrated the sound coming in directly from the screen and subdued sounds coming from other directions in the room, thereby creating a maximum of silence within which the sound from the film would be undiluted" Peter Kubelka quoted in Sitney (2005), p. 107.
5. *Cinéma Cinéma - Contemporary Art and the Cinematic Experience*, Van Abbemuseum, Eindhoven, February 13 – May 24 1999.
6. *Steve McQueen*, Fondazione Prada, Milano, May 12 – December 12 2005.

Lucrezia Cippitelli (IT) is a curator, art historian and journalist. She studied and taught at La Sapienza University of Rome and at Cornell University (US). Her research focuses on non -western art and contemporary art, and on the legacy of the historical avant-garde in process-oriented and intermedia art practices. She lectured internationally and curated several festivals and biennals. She is working on a book about international biennals and postcolonial studies and is the organizer of Laboratorio Alamar Express, an independent medialab near Havana.

EXPERIENCE IS BEING THROWN INTO UNCHARTED TERRITORY, THEN YOU DISCOVER THINGS

Interview with Ernie Gehr
MARTIJN VAN BOVEN / ARIE ALTENA

Early in November 2007, the American experimental filmmaker Ernie Gehr visited Amsterdam, where Filmmuseum had programmed two nights of his work. On Tuesday 6th November, Sonic Acts spoke with him about his films. Martijn van Boven began by mentioning the difficulty in getting to see Gehr's work. A filmmaker himself, Martijn was deeply impressed with the work Gehr had presented a few years ago at the International Filmfestival Rotterdam, and had subsequently tried to lay his hands on other films, which turned out to be extremely difficult. The easiest way to access Gehr's work now is to go online and view the low-resolution clips available at ubu.com – something the artist is less than happy with.

EG: My impulse upon hearing that some of my films were available on ubu.com was to get in touch with them and ask them to take them offline. It was too painful, seeing my films in such a state. Someone who contributes to ubu.com had told me that if I contacted them, they would take the clips off immediately. But the representation of my work there is so poor that I felt I had better leave it, before somebody puts clips online which look a bit more representative, because that would be even more painful. For certain kinds of information, like getting the idea behind the film, they might be useful. But if you would like to get the experience of my films, I would advise you not to look at those online representations. I work on a certain scale. Also, in my studio, I project what I am working

on, to see how it works. To see it on a computer monitor is quite something else. I am interested in the experience of the work, not necessarily in the outline, or the idea behind it. Otherwise I could have just put the idea on a piece of paper, it is cheaper, and it takes less time to consume. You should look at a film in time. You can get the idea from a couple of sentences on paper.

MvB In our publication and festival we are trying to define the field of the cinematic experience. To begin with, can I ask where you would place your work in relation to conventional, narrative cinema? Is there a relationship between your films and cinema as we know it?

We both use either a camera or a camcorder. The work is either put on film or on tape, or some other medium. And quite often for public presentations we use projectors of some kind or another. There are certain other affinities I guess. I don't really think about the relationship that much. In an ideal world, I would like to see a broad spectrum of cinematic possibilities, all existing on the same plane. However that is not the reality we find ourselves in. The industry is very protective of its territory. People are very conditioned. As soon as they walk into a place showing moving images, whether it is in the cinema or on their television, the first thing they lock into is the story. What's the story? What's going on? Where are the players? Who are the characters? What's the plot? That is a result of conditioning and makes it very difficult for most people to appreciate a different cinema.

Instead of the usual labels, I would prefer 'works by', with no definition of whether it is abstract or experimental, narrative or anything else. Without using those definitions, people should just take their chances and see new and different things. I would like to see programs that show a variety of things reflecting the world in which we live. When you walk down the street in any major city – well, in any western city that I know – you come across all these different people from different cultures. Why can't we have a cinema that reflects this? We have narrative films from India, narrative films from Brazil, another one from China and another one from the Netherlands. That is the idea of multicultural cinema. And to me that is not a diversity of cinematic approaches, because it is showing the same thing. It's just made here or somewhere else, with people from one culture or from another culture.

The medium itself is neutral. It doesn't say that it can only be used to tell stories, or to make documentaries. Unfortunately there is an investment to showing only that. To some degree it is an economic thing. If non-narrative film were to be shown in cinema theaters, it would take away part of the income to the film studios.

Given the conditioning which has taken place, I do not mind that my work is being shown in specialized venues. It is the only way it can exist. Putting my work under the term 'experimental' or 'avant-garde', canonizes it in a way. But hopefully it also means that people who do see the work understand what they are going into, although they might not know the specific pieces being shown. I tend to appreciate that.

MvB Can you imagine a sort of cinematic experience without a didactic cinematic language in which you have one shot, a consecutive shot and another shot; a cinematic experience that has a direct effect on your senses?

Yeah, that's possible, sure. But all these terms are quite loose. It is so nebulous these days. Sometimes that's a problem because it is so generic when someone uses the term 'cinematic'.

Narrative film is created by a team. It is very hard to assign the word 'maker' to a specific person because it is a collaborative process with many individuals, some of whom are 'creative' contributors, others are 'technical'. If their work does not fit together, the project may fail on some level. But the directors are always credited with the work. I do not see all of them as filmmakers. They are supervisors, they tell others what to do. The editors actually make sense out of the chaotic material.

In my view a filmmaker is a person who actually involved with most of the levels of production and also considers the materials he or she works with, be it film or digital media, in a dynamic creative manner. Filmmaker refers really to film, but the terms are loose. Therefore nowadays I quite often just use the word 'work'. It is more neutral. But people still use all these other terms. I think it is useful sometimes to bring up the issue of how ambiguous these terms happen to be.

MvB Could you then say a filmmaker is researching the intrinsic elements of film? The material, editing, the use of space and time?

Sometimes. Even in so-called experimental avant-garde work people's approaches run from A to Z. Some people are interested in the material and plasticity of film. When you talk about cinematic phenomena what are we talking about? People have different approaches to that. To me, cinematic means something which cannot be done in any other way but through the medium of film. I am willing to extend it to video, but I think we need another term, especially for digital work with its own intrinsic qualities. But we might need another five to ten years before we can establish a different language that is unique to digital work.

Earlier you mentioned computer art, which is not coming out of mechanics, is not indebted to industrial revolution. Film is a child of the industrial revolution. To make film you use a machine. Film did not come from outer space. There were all these developments before celluloid was invented that were used to make moving pictures, and all that cued to film, was swallowed up. The same happens with

digital media and the way in which it employs quite a lot of film language and tradition.

AA For the past few years you have predominantly worked with digital film. Do you now work differently in that medium compared with before?

Before I started to work with digital video I worked with film for over 35 years, and you carry that luggage, that culture with you. I come with an experience of film and carry over some of those concerns, whether I like it or not. But my method in working with digital video is different. It is more tentative than when I was working with film. I have never been able to quite stick with one thing. Quite often after I finish one work I feel that I need to change stylistically, or in terms of interest. Still, one can see how certain themes, ideas and ways of seeing connect from one work to another. Once you have the distance of time you can see those connections.

MvB My experience your works, like *Side/Walk/Shuttle* and Shift, is that all seem to deal with your interest in public space, the city and its Cartesian grid. There is a certain personal perspective present that you can only have if you have a camera. So there's the city, the Cartesian coordinates and the filmic pulse – are these films about your personal view on the city? Is this your interest?

Part of it is to do with having lived in cities for most of my life. I like the city. I see urban spaces as archeological canyons of human histories, we have built these mountains and valleys where we exist, and they register with us in different ways. They affect us and mould human lives and character, they either enrich or impoverish our existence. Most of the time I film spaces that have some meaning in my personal life.

There is no way to actually convey the complexity of any place or any situation. Normally you are working with media that record surfaces and that have limitations. They are evocative of possibilities, they are not the real thing in any way. There is a rectangle, there are colors that have nothing to do with the colors of life. You can see the filmed space, but you can't move around it as you can in life. You are also making a decision when to film and when to stop. So as a filmmaker you are creating this utterly bizarre whole thing – and where is it all taking place? On a flat-screen.

I like to be able to step back in different ways, and acknowledge the limitations of the medium, pick up on certain aspects of so-called reality, of fragments of reality that I am paying attention to. Through the medium, I try to articulate certain things or forces that I sense are taking place. Sometimes the movement of a camera will articulate something that the image itself might not. For example, in *Side/Walk/Shuttle*, there are these constant turns so that the viewer never really reaches the ground.

Side/Walk/Shutlle, Ernie Gehr, 1991

MvB As a spectator, you lose the sense of perspective. When I was watching the film, many people in the audience were tilting their heads to find a focal point. It seems that you are disrupting the time-space relationships in film.

In some senses I was trying to convey cinematically the feeling of being a displaced person, someone who has not found a grounding for a place that you might call home. To some degree, what prompted me to make the film was moving to San Francisco from New York, which I thought of as home. Even though I found San Francisco a very beautiful and pleasant place to live – and definitely nicer than New York – I could not ground myself there.

MvB To some extent, it surprises me that there is this deep personal motivation, because the movie is such a formal exercise.

What prompts the making of a film is usually some experience that you either understand before the making, or that you can only figure out through the making. Mostly the problem is clarified in the making of the film. But as a viewer you do not have to know about that. If you have seen a number of my works, you will know that some of them are quite abstract, and that the relationship with everyday life can be quite tenuous. Some of the time I am interested in what an image represents. At the same time I am also interested in an awareness of the medium that I work with, to acknowledge it is not a picture-window, but a work that is coming to you by means of a technology. To me, acknowledging the materials, be it film or something else, is important. It is a way of savoring the character of the medium and the intrinsic possibilities that it has to offer.
I am also interested in creative works that can exist in their own right vis a vis the plasticity of the medium I use. At the same time I do not want to create a dream world, that is not so interesting to me.

MvB Can you imagine what would happen if film were to disappear? What would we miss if the interaction between the lens, the object and the celluloid were to vanish? Would a certain way we reflect on the world disappear too? What would be the difference with digital media? Is there something we cannot report or record with a digital camera that we could with film?

I do not feel that film is going to disappear all that quickly. There are archives and museums that preserve the work, and as long as they show it as film in one way or another, there will be some trace of its uniqueness. Hopefully, prints will still be available fifty or even hundred years down the road from now. Unfortunately for the general public, film is going to become a more rarified creature. Already most people get their film histories and their film aesthetics from watching film on a television or laptop.

AA The new technologies also change the relationship between experimental cinema and the viewing behavior of the public. Through all the digital technology we use in our daily lives, our viewing behavior and the way we deal with culture has changed dramatically. Imagine people watching a Stan Brakhage movie, downloaded from Youtube, on their iPods.

When I work with film, I do work with scale. When I work on a film, I look forward to seeing it on a certain scale. The minimal size is not a monitor. To me, even the largest monitor is too small, it won't work. The first or the second public screening of *Side/Walk/Shuttle* was in a New York cinema with a large screen for 35-mm film. I was sitting fairly close to the screen and it was wonderful to see these buildings flying through space. It was so strong, I could not believe it.

The scale is so important. When I edit I use a flatbed or a viewer, but I project my films to see the result. I only use the viewer for the cuts, to find the frame and where I want to cut. After I make my cut I splice the film together and I project it. It is not a big image, but it is a projected image. I need to see it in that way. With digital media I have 14-inch monitor, but I do not have a beamer. I hope to buy one eventually but I haven't got one yet. So I make all my decisions on this little image in a rectangle. That is a difference. I know you can now put films in your pocket and look at them anytime. That is the future. When I ask my son if he wants to go to the movies, he says he'd rather watch it on the computer. There are all kind of changes taking place. I do not feel that my own work is going to be effected that much by not being able to be seen by a lot of people together. Commercial cinema is much more dependent on the communal aspect.

AA Perhaps this situation also creates a real desire in a small number of people to go out somewhere and immerse oneself in the experience of moving images in the perfect setting?

As long as there are possibilities, places to see things the way they were meant to be seen, people ought to seek them out. Just like contemporary computer art, certain works have to be seen in the context in which they were created. But a lot of work will have to survive in some sort of transitory medium in order to survive at all. Some will survive and others won't. A hundred years ago, people were still working with magic lanterns and slides. You can transfer that to film or to digital media, but it is not the same thing. So occasionally seeing an actual

magic lantern show, however poor and embarrassing the performance might be, is important to understand the potential that might have been there. I personally would not like my work to survive on an iPod – I'd rather be unknown.

MvB I can understand why you would not want to see your work survive on an iPod, but can you explain what it is that would be lost when viewing your work in such a way?

The experience of the nuances of the work. I have made decisions, based upon my response to the scale, to the texture and feel of it on film as well as being able to see it in time, and through being a captive viewer in certain conditions. I am willing to have work presented differently, but the scale with my films is very precious to me, especially with my early work. I do not know what they would mean in some other medium.

For example, take my work *History*. It basically consists of film grain. It works in this strange way where something is going to happen after a while, when you have looked at the screen for long enough. History goes on for what seems like forever, and film grain is all that is projected on screen. I have no idea what you would make of it on a television, or a monitor, or an iPod. You have to see that work projected on a screen.

MvB An iPod image cannot change the consciousness?

Not with film history. Films offers an alternative vision of the world. The world is complex, you can see it in different ways, you can connect to other configurations of the world, other possibilities of existence, of consciousness.

MvB I have quite often experienced what you are describing when watching abstract avant-garde movies. There is a sort of transformation from one state to another. You enter into a stage that Stan Brakhage would say is that of the untutored eye, where you have lost the habit of how you have to see things.

And where you have to start to explore. It is like being lost in a jungle. There are no 'this way out' signs. You just have to start looking where you are and see where that exploration will take you. You have to go through the experience of moving through that space, until you find and discover something.

In 1971, I was editing a film. It was around midnight, and there was a black-out. I was in the basement of the building, a large lecture hall in the State of New York University, and I had to make my way out. There were no lights whatsoever. This was before they were required to have generators for all these exit signs. It was quite an experience walking through these hallways with the wind blowing through, touching the skin and all around the cheeks and ears. I was going through darkness, until I was able to see a few glimpses of the outside. It was an experience of space unlike anything I'd ever had before.

I still remember it. The next day I walked through that space and everything was as usual. But on the occasion of the black-out the space was activated. It was quite an experience. But that is what experience is: being thrown into uncharted territory is how you discover things. You do not want that all the time. But in certain moments it can be very pleasurable, or very painful. It can be rewarding in either case. It opens things up.

Thanks to the Filmmuseum Amsterdam for inviting Ernie Gehr, and giving us the opportunity for the interview.

Ernie Gehr made his debut as a film-maker in 1968 with the short 16-mm films *Wait and Morning*. His early work such as *Serene Velocity* was often related to Structuralist Film and his oeuvre consists of over twenty works. Gehr has taught at the San Francisco Art Institute and has been awarded the prestigious Maya Deren Award by the American Film Institute.

FILMOGRAPHY

Morning (1968)
Wait (1968)
Reverberation (1969)
Transparency (1969)
Field (1970)
Serene Velocity (1970)
Three (1970)
Still (1969-1971)
History (1970)
Shift (1972-1974)
Eureka (1974)
Behind the Scenes (1975)
Table (1976)
Untitled (1977)
Hotel (1979)
Mirage (1981)
Untitled: Part One 1981 (1981)
Signal - Germany on the Air (1982-1985)
Side/Walk/Shuttle (1991)
Rear Window (1986/1991)
Listen (1986-1991)
This Side of Paradise (1991)
Glider (2001)
Cotton Candy (2001)
Passage (2003)
Carte de Visite (2003)
Precarious Garden (2004)
Before The Olympics (2005)
The Morse Code Operator (or The Monkey Wrench) (2006)

MAYBE CINEMATIC EXPERIENCES ON THE WEB CAN TOUCH PEOPLE AS MUCH AS CINEMA

Interview with Simon Ruschmeyer

JAN HIDDINK

On 5th October, Simon Ruschmeyer gave a talk at the conference *Video Vortex: Responses to YouTube*, taking place at Argos in Brussels. Jan Hiddink took the opportunity to interview him.

JH Would you agree with the views of Simon Rawlings and Ana Kronschnabl that moving images on the internet are not cinema, but something else?

SR To understand moving images on the internet, we need to understand the material form. A new medium sometimes needs years or even decades before people understand what it is about. That was the case with film in the era from 1895 to 1915. During those years the makers were exploring the medium, until they reached a level of more complex structuring. We still need to find out which direction to take with moving images on the internet. You should not think of it as cinema. Still, it is good to have a look at the old medium to understand the new. A lot of the things happening with moving images on the internet are reminiscent of the early days of cinema. Speaking right into the camera, characteristic of a lot of video-blogging, was very common in the early days of film. It takes a while before people realize that the camera has the viewpoint on the world.

Behind the scenes there seems to be quite a battle going on between the world's private and corporate sides with regard to the cinema on the internet. What is your view on that?

I try to remind the people that the corporate part of the internet plays a major role. In Germany the advertising budgets are moving from television to the internet. Commercial websites try to keep users on their sites, which is not what the medium is built for. The medium is meant for interaction, as a user you are choosing your own path. Introducing older forms of classical linear narration is a means for commercial sites to capture the user and make sure they stay on a site. Narrative is very powerful thanks to the dramatic plot. Cinema is made for sucking the viewer into the screen, and narrative is a good way to accomplish that. It keeps the viewer in their cinema seat for two hours. But people are looking at a YouTube video for five seconds and then they decide if it is funny or not, and do not watch the rest of it. There could be a battle between narrative forms and a hypertext-idea of interaction.

There are examples of successful online movies, like the self-distributed *Four Eyed Monsters* by Arin Crumley and Susan Buice.

Plot-wise, *Four Eyed Monsters* is a very good example of what is happening right now. It used the internet to distribute and promote the film. It is just an example of what is happening. The makers really listened to their audience and set up a dialogue with them. They are what I call 'connected artists'. It is what you learn from the community sites on the net, like MySpace. They had all these MySpace-fans, which meant they had an audience. They then asked if they would like to see the movie in a cinema. They had a Googlemap that showed how many users would see it in a cinema near them, and when there were enough, they contacted the cinema. As they could now prove there was an audience, the cinema did not run a risk.

Is part of the success of *Four Eyed Monsters* due to the fact that the characters are leading a wired internet life?

Certainly. On the plot-level it is very connected to the MySpace Generation. Obviously in this case, forms of web content influenced the movie - the movie looks like a long version of a video-blog. Is that cinema, or is it something new? The film sticks to some of the old parameters; it is some 90 minutes long for instance. In fact I think they did produce a conventional film. But as a traditional cinematic, linear immersive experience the movie could have been better in many respects. There is a difference between watching *Four Eyed Monsters* behind your computer and watching it in a cinema as an immersive experience. It works better on the computer. The question is: do you really need the immersive narrative experience, or can you look for different ways of structuring a movie?

But shouldn't we keep in mind the idea of the medium being the message, and face the fact that computer screens cannot live up to the experience of a movie theatre?

As an artist I think about this question a lot. I like the immersive cinematic experience. The movie theatre is a place where you can reach people on a very intimate and emotional level. Right now I do not see that happening on a computer screen. Cinema uses the effects of the large screen and the dark room.

But for young people who grew up with it, using the web comes naturally. Young people do not seem to see any difference between meeting people on the internet and meeting people in person. Maybe cinematic experiences on the web can touch people as much as cinema did. It is about how natural the user is interacting with the interface. The first people to use the telephone did not understand it at all. The first people to read did so out loud. Maybe our relationship to computer interfaces will change too. Maybe the experience will become more immersive.

As someone who loves film I am a little concerned about the small computer screen. I am sad when I see very good movies in small formats on YouTube. You lose so much image quality and detail. On the other hand, this is changing the aesthetic too. You need more close-ups on YouTube, as it is almost the only thing you can see in that resolution.

As a maker you could take that into account, and work on those aesthetics?

For me as a filmmaker the internet and the cinema are different worlds. There are stories I would like to put on the cinema screen, and stories I would like to put up on the web. Both options come with advantages and disadvantages. The direct interaction on the web is an advantage, as a maker you get feedback which you will not get in the cinema.

You could get a production up on YouTube in five days, and you might have to wait five years to get it in the cinema. Is it still worth waiting that long?

That is the question. As an artist I am trying to find a way to deal with this. I still think that it is worthwhile spending years to get a film to the cinema screen. The web is great for creative expression, but you have to make compromises. That is a general issue for the arts. As an artist you have to listen to your audience, and

the web provides that feedback. Therefore people should make compromises to reach an audience on the web.

Simon Ruschmeyer is a German video maker who explores the borderline areas between traditional audiovisual narration and the new possibilities offered by interactivity and networked communication. He explores this area both in theory and in practice. Amongst his works are *Palindrome* and the video-installation *Kill Your Ideals*.

http://www.ruschmeyer.org/

A Few Thoughts on Cinematic Experience / *Duration, Structural Film and the Comforts of the Cinema*

GREG KURCEWICZ

The subject of 'the cinematic experience' is one that I spend quite a lot of time thinking about: the circumstance within which one experiences the moving image. Primarily my thinking about this subject is in the context of non-narrative or experimental cinema, a form that interests me as both a filmmaker and as a curator.

To me, the cinema is such a good place to meet up with people, to experience events together in a world that is increasingly atomized by ambient media – television programmes on demand, drop in - drop by gallery situations. To me, the physical place of the cinema symbolizes the crucible of debate and progressive ideas. It's an arena where you can think, the focus is on the film, or images, not the surroundings. To have this space away from the world, away from outside culture, to me, is very precious.

When I sit down in a darkened cinema, it takes a while for my eyes to adjust to the light. After ten to fifteen minutes, the world is temporarily excluded from thought and all my visual attention is focused on the screen. By the time the film begins, if I am comfortable enough in my seat, the only senses I am using are my eyes and ears. In this state I am able to discern the subtleties of whatever film or video I am there to see. For me, the best condition in which to watch a film is total darkness – all the constituent elements of a cinematic experience can then work in concert. Sitting in the cinema allows us to take the strain off our other senses and concentrate our eyes and ears.

I can confidently say that I prefer a cinema setting for watching an artists' work. I like a darkened room with seating, I am drawn to an environment where I can close off my senses as much as possible to heighten sight and hearing. It is not a purist standpoint, it is a neurological one. It is not that I do not like the contemporary set-up of installation art with good video projectors and computers in modern galleries, but I think that watching a moving image can be at best a truly immersive activity, and at worst a casual, ambient experience with little engagement.

Conventional narrative film usually follows the theatrical tradition of storytelling. We all know this from being immersed in this form since childhood. When we watch a conventional narrative film, we are drawn into the story through words and pictures. The expressions of the actors are the main focus. A situation is set up, a place and time is framed where the actors play out theatrical interactions. Films like this have a grammar inherited from a long tradition, and often there are pop cultural cues with references to past films and remakes. When we watch a narrative film on television, we don't necessarily feel that the experience is spoilt by advertising breaks or pausing the DVD. In fact this demonstrates our focus on the plot, the characters and the theatrical elements of the film. We are not really attending fully to the images; it is just another vehicle for the extension of theatre. Indeed, these moving images don't usually let us in as a participant to make up our own minds or have many of our own thoughts, it is generally not an interactive experience.

In experimental film and video a mode of first-person cinema can open up the image to interpretation. When celluloid is used, the very substance of the medium can be scratched, painted, repeated and over- or under-processed. The structure of narrative can be explored. Theatrical conventions can be dispensed with; the possibilities for the representation of time or experience are opened up. Artists' films can explore the peculiarities and the nature of the medium itself.

The particular strand of experimental film named, (for want of a better title): Structural Film was a movement prominent in the United States in the 1960s and which developed into the Structural/materialist films in the UK in the 1970s. The term was coined by P. Adams Sitney who noted that film artists such as Michael Snow, Hollis Frampton, George Landow (aka Owen Land), Paul Sharits, Tony Conrad, Joyce Wieland, Ernie Gehr, Kurt Kren, and Peter Kubelka had moved away from the complex and condensed forms of cinema practiced by such artists as Sidney Peterson and Stan Brakhage. Structural Film artists pursued instead a more simplified, sometimes even predetermined art. The shape of the film was crucial, the content sometimes peripheral. Sitney identified four formal characteristics common in Structural films, but all four characteristics are not usually present in any single film: fixed camera position (an apparently fixed framing), flicker effect (strobing due to the intermittent nature of film), loop printing, and re-photography (off the screen).

Within the realm of Structural Film, makers such as Taka Iimura, Ernie Gehr, Michael Snow and Tony Conrad contributed to an extended and well documented dialogue on the aspect of duration in film. The work of Anthony McCall (recently re - instigated by the artist after a hiatus of nearly thirty years) almost exclusively deals with an audience's or an individual's experience of light as both an image and sculptural form over time. Tony Conrad's many films, musical performances and expanded cinema performances deal with these issues in a variety of ways. Conrad's recently re-exhibited *Yellow Paintings* originally made in 1973 take these concerns to a conceptual extreme: large pieces of paper featuring the round-edged outline of the 'cinema frame', painted with an 'emulsion' of household and industrial paints that fade (yellow) over a very long period of time – years, decades.

To make the duration of the cinematic experience the subject of a film could also be interpreted as an oppositional force against the bourgeois control of time by the state, as becomes clear in David Larcher's six hour long *Monkey's Birthday* (1975) and Ken Jacobs' ongoing projects: *Star Spangled to Death* (2004, 400 minutes) and his open-ended *Nervous System* performances. All these experiences would need a day to experience in their entirety – to spend such an extended time in a cinema surely would have an effect on your state of mind, and question 'norms of the form'.

A good example of this kind of work to look at in more detail is *Barn Rushes* (1971) by the American filmmaker Larry Gottheim. *Barn Rushes* consists of a series of shots of a rural barn. The camera passes the barn in such a way that it retains its position in the centre of the frame. It is a cyclical, repetitive work that opens your perceptions over a period of time. Recently, Gottheim made some notes about this film that reflect what he was trying to achieve:

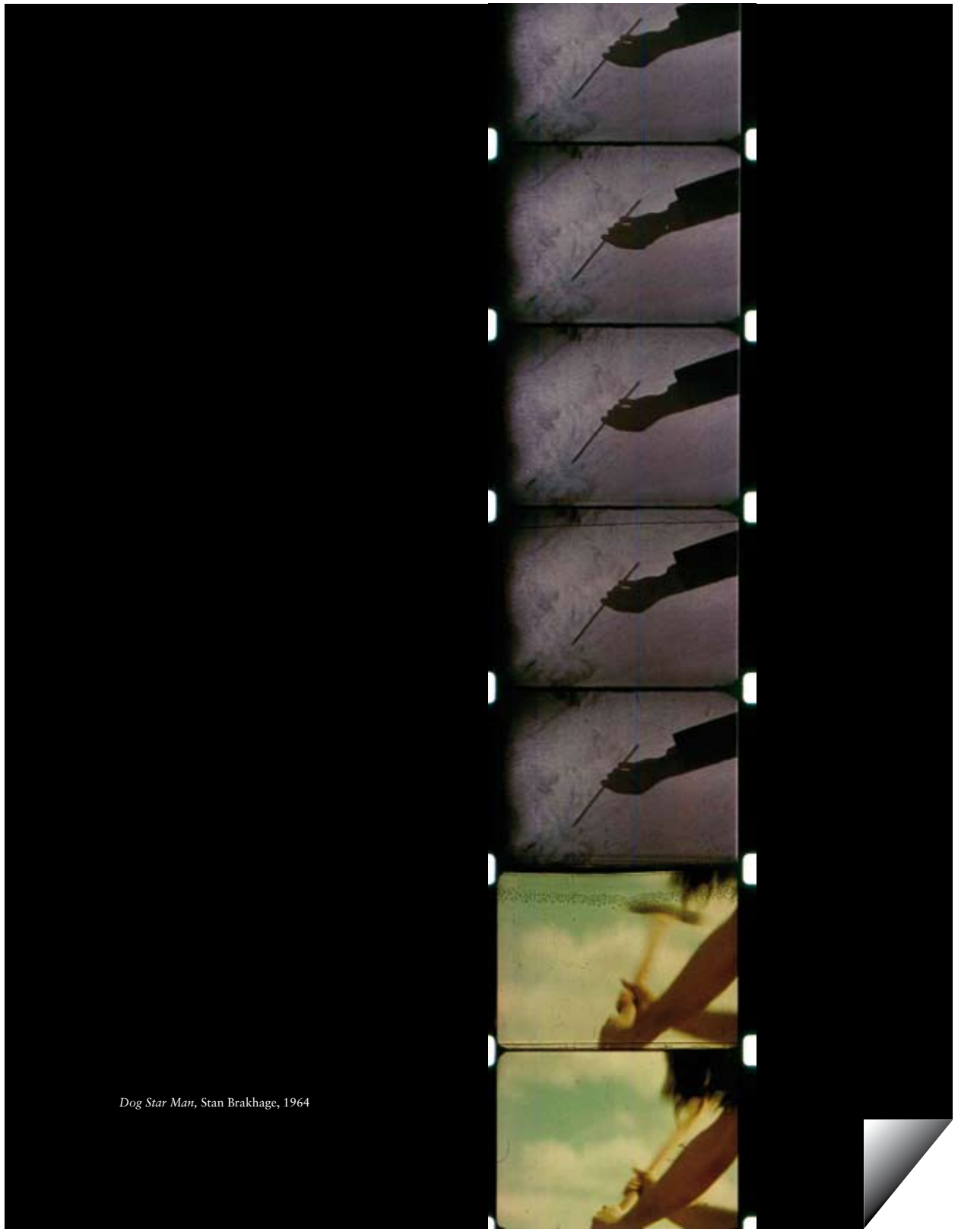
"A state of consciousness where one is lulled into an absorbed visual groove, analogous to listening to music – but at the same time there is a rewarding call to attention – the shape of the barn within the frame, changing within each section, and from section to section. Contribution of the road that curved past the barn, creating a complex changing shape that moves in and out of consciousness.
- Relation of foreground to background
- Opacity/transparency
- Color, and memory of color from one section to the next
The stately dance of the foreground grasses as they play with the slats of the barn and the shape of the barn. Preoccupation with the immediate sensual field of experience, while sometimes being called to the more difficult task of memory. The intellect vs. the immediate absorbed sensual experiencing."

Sure enough, the film is pretty much as Gottheim describes it: *Barn Rushes* is projected at 18 frames per second (old silent speed) and is a very slow, meditative experience. It is an exploration of an extended look at something. As the film progresses and a cycle sets in, there is a tangible shift: the repeated subject of the barn falls away and your own perception becomes the subject of the film. It is a Rorschach test-like experience. This film could not be experienced in the same way in any location other than in a very dark cinema, sitting down and feeling relatively relaxed.

Just because digital media frees up and networks media, we should not forget that there is media specificity involved in certain works. Some works were made for a video monitor, some for projection as film in a cinema. With the invention of cinema, we inherited a new form that corresponded to the eyes and the ears, and all sensations that those combinations of senses can provide. Some works do necessitate being watched in a dark room with seats, because that is integral to how they work. Artists' films do not seem to make the transition too well to video; they are too subtle an experience to survive on video. Artists' films that survive the journey from darkened room to gallery are often of the conceptual kind: 'got-it' kind of work.

I suspect that for economic reasons curators sometimes deploy the installation presentation of work that is really not suited to it. To put on a work in an installation takes away the responsibility to have proper screenings: to hire a projectionist, to have decent seating. It is easy: you just block book the gallery to show something on a loop for a month. It is like going to see a concert of music and just getting a bad tape recording of it to listen to instead. Cinema has the power to present a series of events over time. This temporal nature of cinema can be lost when there is a 'drop-in' mentality to the work, where people can come and go as they wish.

Perhaps it is useful at this point to look back at the history of artists' film. In the past, some artists have physically manifested ideas about the conditions of the viewing of cinema. The Invisible Cinema was conceived by the Austrian artist (and cook) Peter Kubelka in 1958. It was first realized as the screening room for Anthology Film Archives, which was the film museum institution founded by Jonas Mekas, P. Adams Sitney and Jerome Hill, in discussion with Kubelka and Stan Brakhage. The Invisible Cinema is described as having black walls, black ceilings, black floors, and black chairs with little black side flaps that kept the



Dog Star Man, Stan Brakhage, 1964

vision focused on the movie. This recognition of the need for 'special conditions' to enable the ideal transmission of images and sound from the artist to the viewer is an extreme, but perhaps it is a moot point to emphasize in this day and age.

The temporal and communal experience of moving images is also important. In this respect Peter Kubelka's ideas about parallels between cinema and other human ceremonies should perhaps be remembered. In his lectures, (Kubelka refuses to write his ideas down), he draws comparisons between the length of films and length of religious meetings or ceremonies. He also reminds us of the archaic precedents of what we call now call cinema, the things that we always did traditionally in groups, the objects we created to fulfill our needs for symbolic communication. Kubelka points out that cinema is an extension of our communication as humans, a combination of senses, and cinemas are social spaces where ideas and sensations can be shared.

From one viewpoint, the current, nostalgic fascination with Structural Film and live film events could be compared to the spectacle and the wonder of autopsies during the Enlightenment: we see an autopsy of the image, live in front of an audience. At a time when the original Structural film events were done, in the late 1960s and early 1970s, the 'autopsy' of film contributed to the overall cultural critique of official media in all its forms. It contributed to the general overhaul of and questioning of thinking in the West. It aimed to disassemble film, the medium that was instrumental to the creation of cultural myths. This untangling was imperative to thought and theory in a new era.

Of course, the past is the past and we must live and operate as modern people, modern artists and come to terms with the materials we have developed. But perhaps we can look back at Structural Film that deals with duration and the situation of past live events, perhaps we have things to learn, and plenty to reflect on in terms of our current plight as 'makers and receivers'. There are many questions: has our concept of temporality been irrevocably changed by technology? Have we capitulated to the time constraints of modern media and life? Have we still the stamina or capacity for social change? Can we sit still? Do we want to make a space for things that take time? Do we want to be 'centred'? Is there a 'centre'?

When we look at these performances now, perhaps we should bear in mind that at the time the projector, as an analogous 'living organism', and its methods were demystified and questioned (perhaps in the manner of a cadaver) in front of an audience. One could say that we are drawn to it now, again, because it appeals viscerally to our senses. The liveness of the projector signifies a risk, the messiness and unstableness of the medium, which is not present within the realm of 'hidden' digital technologies – in short, people pressing buttons on laptops.

To me, nowadays in art, a critical attitude toward the image seems to have been superseded mostly by an acceptance of commercial cinematic forms. Artists have taken to appropriating the modes of conventional narrative cinema as if it is a cool mode to take, as if they are making some great post-modern statement. To me, this can be a cop out from the real work on the frontiers, reporting back from the complexities of depiction; it is a retreat into the codes and conventions of referentiality and theory.

We do not really need a new technology. We have enough of it, perhaps too much, and only very few artists artist are deploying it critically. In VJ-ing and much 'live digital' cinema I see just software and rarely communication. I am not impressed with software, in the same way that I am not simply impressed with cds, minidiscs or even vinyl records. Digital technology opens up a whole new archive of material for artists but it is a leveler of images. Whereas we might all have many cultural differences, and many different reference points, we do have one thing in common: our nervous system. In fact to get into a situation where we question our perception is a great commonality, one that is achieved in many experimental films. At this moment in time, to return our view to the real world is a breakthrough. To re-discover the act of looking and a space for looking at something is a crucial and political act for artists to undertake.

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Greg Kurcewicz is an artist who also works as an independent curator of artists' film and video. Since 2002 he has co-curated programmes of artists' film and video for the Evolution festival, Leeds, UK which has focused on historical and contemporary single-screen and expanded cinema work. He has also organised and collaborated in the presentation of many artist's film programmes in the UK and Europe, and was co-curator of *Shoot! Shoot! Shoot!*, a major internationally touring exhibition of film highlighting the work of the London Filmmakers' Cooperative 1966–76.

ON THE INTERNET I DO NOT NEED SOMEBODY ELSE TO DECIDE IF MY STORY IS WORTH TELLING

Interview with Tom Rawlings and Ana Kronschnabl
JAN HIDDINK

Tom Rawlings and Ana Kronschnabl are the authors of one of the first, if not the very first, book about film and the internet, *Plug In Turn On: A Guide to Film-making for the Internet* (2004). They also run plugincinema.com, an independent platform for the creation of internet-film. They gave a presentation at the conference *Video Vortex: Responses to YouTube*, which took place at Argos in Brussels.

JH I was intrigued that you mentioned the failure of pop.com, which took place years ago. What went wrong?

TR Pop.com was a joint venture between Hollywood and the technology industry, it started in 1999. There were a lot of notable names involved, like Paul Allan, co-founder of Microsoft, Steven Spielberg, DreamWorks Interactive. A lot of people thought it was the one initiative that would 'make' video happen on the internet. It lasted around a year before it crashed. It was a total failure. They just didn't understand the internet.
AK At the end of the nineties a lot of people in the film industry thought that the internet was just a way to distribute videos. They assumed they could continue to make films the way they had, using traditional methods and large budgets.

They thought the internet would support that as a form of distribution. What we now see very clearly is that there is a different ethos and aesthetic for films on the internet. Also in the early days of web-video, the specificity of the medium was not apparent to a lot of people. They saw the restrictions and limitations, not the affordances and the aesthetics. To squash a large cinematic film into web-video size is really difficult.

According to you, film on the internet is not cinema?

AK It is not cinema. We still do not know what it is. When we wrote the plug-in manifesto, we knew what it wasn't. We figured that it wasn't one and a half hours long, for instance.

TR In the early days of plug-in cinema people would physically send us videos, often on VHS because they did not know how to get it into a digital format and put it online. We did actually plan a video upload system a couple of years ago. Literally while we were planning this system, YouTube came along. YouTube is a phenomenon, because there are a number of clones that operate along similar lines, but are hardly as successful.

What did they get right? Is it putting the private experience at the core?

AK One thing they definitely got right was constraining the file size. The internet at the moment is not made for streaming large video files, so they limited the file size and length of the video. I really love short films and the plug-in manifesto was partly a call to recognize short films as an art form, and pointing out the existence of different ways of exploring narrative. It is almost accidental that films are an hour and a half long. The first films were the length of a reel or the length of the bit of film they had. Films are now the length of the time someone can sit still in a cinema seat. Length is actually more dictated by commercial imperatives than anything else. But we do not have to limit ourselves to any predetermined length. On the internet I do not need somebody else, like 'Hollywood', to decide if my story is worth telling or not. So on YouTube we see stories from all sorts of people, from somebody eating a piece of cake to Kate Moss falling down. All this fascinating stuff entertains people in different ways.

TR The traditional paradigm where film is the dominant form of moving image media is certainly under challenge. Cinema isn't the primary reference culture for a lot of people. For the younger generation it is more likely games and internet culture. You have to consider that to be a paradigm shift. Nowadays the cinema is just one amongst a number of forms of moving image entertainment.

Does this also imply that there is more of a future for experimental cinema on, for example, YouTube? You have this theory of an aesthetic of compression?

AK I urge people to regard compression not as a limitation, but as something that adds to the aesthetics of a film. Sometimes effects that happen through compression are really beautiful. Another exciting aspect is the idea of media re-use, remixing media. The issue of copyright comes glaringly into view here. Musicians have faced these issues much earlier. Video mash-ups are only just beginning to happen. That is why most of my work now is under a copyleft agreement. I do not see any reason to retain any ownership. The interesting thing about copyleft agreements is that you can say to other people, 'just take my stuff and do something else with it'.

My background is partly in documentary filmmaking. One of the hardest jobs was always to sort through all of the very interesting footage that you had and tease out a narrative. In fact there are always many narratives in the material, and somehow you have to exclude a lot of them. With hypertext you can include all those stories. You make a trajectory through a particular narrative, but when the audience would like to explore another narrative thread, they can do so. To me, this is far more about what life is. Life is not linear, my brain usually darts about. Digital technology gives us the ability to be suddenly sparked off by fascinating things in a story, and follow another line.

Tomas Rawlings is a games designer and the development director for FluffyLogic (http://www.fluffylogic.net)

Ana Kronschnabl has a background in independent film. She wrote a PhD-thesis on the creation and distribution of film on the internet. She set up Plugincinema (http://www.plugincinema.com) in 1999, one of the earliest independent sites devoted to the creation and distribution of films for the Internet. She is the CEO of FluffyLogic.

Ana Kronschnabl and Tomas Rawlings are the authors of *Plug In Turn On: A Guide to Filmmaking for the Internet* (2004), and Ana is the author of the Pluginmanifesto.

New Eyes for the Mind

RANDY JONES

Introduction

Live cinema is a new kind of cultural practice growing out of an intersection between traditions including experimental film and video, computer music, and VJ performance. In each of these areas, recent advances in digital media tools have allowed movement towards a common idea first expressed as early as the eighteenth century: live performance with interrelated sounds and images. Until recently, would-be audiovisual performers faced the significant hurdle of designing and building their own tools. Now that affordable computers and projectors provide an accessible route to live audiovisuals, a groundswell of interest in live cinema is as inevitable as the use of available technologies by artists.

Live cinema is unique in offering the potential for a situated, shared exploration of subjective vision. The idea that one's experience of vision can be externalized is a common thread that can be traced back from current computer-mediated work to pioneering experimental film. Artists using film struggled with the essential characteristics of the medium in order to record aspects of their inner visions. But rhrough this struggle many powerful works have been created. The computer affords us the ability to manipulate light freely in time and space without indexing real-world images — a potential gateway to an infinite variety of radically personal visions.

Stan Brakhage described his vision of a generative live cinema in 1963: "(A)lready another [process] is appearing possible, the projector as creative instrument with the film show a kind of performance, celluloid or tape merely source of material to the projectioning interpreter, this expression finding its origins in the color, or the scent, or even the musical organ, its most recent manifestations — the increased programming potential of the IBM and other electronic machines now capable of inventing imagery from scratch (...). The future fabricating machine in performance will invent images as patterned after cliché vision as those of the camera, and its results will suffer a similar claim to 'realism', IBM being no more God nor even a 'Thinking machine' than the camera eye." [1]

The power of digital media tools presents both practical and conceptual difficulties. A live cinema performance requires many layers of technology, from performance interface to application software to graphics library to computer hardware to projector. Each layer has the potential to mediate, or affect the meaning of the work. When this mediation is not considered, or a response is not technologically within reach of the individual practitioner, digital media works convey unanticipated or distorted meanings.

Though live cinema technology involves new technological particulars, many of the underlying artistic issues have already been explored in depth by theorists writing about film, video and computer-mediated art. Drawing from this literature and from my own experience as both toolmaker and live cinema maker, I will point out some of the ways in which current technologies of seeing mediate creative activity. Most of these involve software tools designed according to commercial demands. Mimicking the film medium is one marketable provision of computer software. Another one is the easy generation of compellingly complex visuals using 3D graphics hardware. Live cinema artists can only develop new and meaningful ways of communicating subjective vision by moving beyond the cinematic image as a model, and adopting a skeptical stance towards the visual power offered by software tools.

Why 'Live Cinema?'

If my argument that we must move beyond cinematic models of vision has any merit, then it might seem strange to call the practice 'live cinema'. As Lev Manovich points out, cinema is shorthand for a specific cultural tradition, a visual language. [2] However, much of current live cinema practice, however, is concerned with generative and non-narrative structures that place it outside of the cinematic tradition. The term does have benefits though. Practically, it's good to have a disciplinary tent big enough to accommodate a diversity of styles. More integrally, 'live cinema' is a powerful term because it contains the seed of a vitalizing contradiction.

Consider the dilemma faced as a viewer of live cinema. On the one hand, you have 'live', a performer in a particular place and time, with a particular group of people, inviting you to witness his or her actions. The live performance situation focuses our attention on certain questions. What is the maker doing that acknowledges the presence of the audience, and gives meaning to the occasion? There is a hierarchy of modes of 'liveness' — any one can be the foundation for a successful work, but it must make sense within the logic of the world created by that work. Performing a concert is one thing, performing a surgery another. The experience of attending either may be meaningful, but for different reasons. Live means situated.

On the other you have 'cinema', an immersive experience asking you to look through the screen into another place, to be more engaged with that place than the physical world. David Lynch has minimally and evocatively described immersion: "It's so magical — I don't know why — to go into a theater and have the lights go down. It's very quiet, and then the curtains start to open. Maybe they're red. And you go into a world." [3] Cinema means a-situated.

These two ways of looking are fundamentally incompatible. Each practitioner must choose how to grapple with this contradiction as a starting point for creative engagement. Some live cinema performance works with immersion, some against it, some in uneasy negotiation. Likewise, the two histories of critical thinking about performance and moving imagery offer complementary entries for existing bodies of theory, another vitalizing force on the work.

Another way of reading 'live cinema' is that the cinematic object itself becomes something more live through the ongoing presence of its maker. The reality of a film's existence in the world, as Nicky Hamlyn has pointed out, is in the sum of all its screenings, each a unique experience. [4] Typically the maker is

divorced from most of this reality. Live cinema practice maintains the connection between film and maker, framing a process not just of planting but also of cultivation and tending.

Subjective Vision

"My camera is an inner camera which doesn't do very well when it points out at external reality. I'm trying to focus on something and bring it back alive from the uncharted areas of the inner image, inner space." Jordan Belson [5].

The practice of live cinema is uniquely positioned to afford the communication of internal visual experiences. All of our seeing is ultimately subjective — the individual mental experience of vision is as closed off to minds outside our own as any of our thinking. Visual experiences that occur with the eyes closed, however, bypass the demonstrable commonality of the eye as sense organ and focus our attention on particular aspects of subjectivity. We can point to several major categories of these experiences.

– Closed-Eye Vision

The first category that comes to mind may be the phosphene activity familiar to any of us who have rubbed our closed eyelids as children and attended in wonder to the results. Textures and forms based on the eye's physiology are the entrance point to this 'closed-eye vision'. If followed further, whether through meditation as by Jordan Belson, or mechanical means as by Brion Gysin with his *Dreamachine*, a wide range of visions can manifest in a territory of immanent phenomena between abstract patterns and signs.

Jordan Belson followed his closed-eye vision into a personal world of moving imagery grounded in universal forms, influenced by technology, and pointing to cosmogony. In order to write these visions onto the medium of film, Belson made his own elaborate optical apparatus to film dynamic systems of fluids and gases. Though he has kept the details of these systems obscured in order to focus attention on the imagery, the level of physical grappling required to turn the recording apparatus into an inner camera is clear. His success in capturing the sensual instants that manifest a concrete yet immaterial reality is unparalleled. In the *Vortex Concerts*, held in San Francisco's Morrison Planetarium between 1957 and 1959, Belson applied a subset of his film apparatus to the making of live cinema. A collaboration with composer Henry Jacobs, the concert series was a vital forum for a group exploration of subjective vision. [6]

– The Mind's Eye

The imagery of the 'mind's eye' is another category of subjective vision: it concerns our conscious and often intentional internal experience of material objects as well as abstractions. in his essay "Motion Pictures, Mental Imagery, and Mentation," Edward Small has considered the complex relationship between these mental images and the film artifacts that represent them. [7] Another more pragmatic description of this kind of vision comes from Richard Feynman's anecdote about his young skepticism towards the idea of visual thinking:
Feynman said: "'But thinking is nothing but talking to yourself inside.'
'Oh yeah?' Bernie said. 'Do you know the crazy shape of the crankshaft in a car?'
'Yeah, what of it?'
'Good. Now, tell me, how did you describe it when you were talking to yourself?'
So I learned from Bernie that thoughts can be visual as well as verbal." [8]

Motion Sketch, created in 1991 by Scott Snibbe, is an experiment in abstract visual communication that gives us a direct route from mind's-eye vision to live cinema practice. Inspired by the work of Oskar Fischinger and Len Lye, *Motion Sketch* maps hand motions through a mouse or drawing tablet to moving hard-edged abstractions. Communicating subjective vision on a phenomenological level is a concern Snibbe has made explicit: "By acknowledging [...] fundamental principles of perception, we can open up possibilities already present in screen-based dynamic media." [9] The user of *Motion Sketch* can select shapes, then add motion as well as make changes in attributes such as color, size and drawing style. This activity creates short loops that can be built up to form more complex animations. In 1991, commercial motion graphics tools were unable to afford an experience like Motion Sketch. Writing his own software allowed Snibbe to create an elegant new tool, compelling and easily accessible, yet deep in expressive potential.

The work of Robert Seidel gives another exploration of mind's eye vision, one that focuses more on an emotionally charged interiority. In his work *_grau*, he turns standard animation tools into an inner camera by resisting their affordances in much the same way that Belson has resisted the indexicality of film. *_grau* depicts an internal visual experience during a car crash, a brush with death which invoked a rush of visual associations and a sense of time vastly expanded. Seidel exteriorized this intense moment by stretching it out to ten minutes and structuring the imagery around suspended organic forms in slow motion. Drawing on a wide variety of sources from 3D scans of his own body to visualizations of abstract concepts, the images are made and manipulated using multiple transformations in the 2D and 3D domains. [10] The result is a very personal imagery. Seidel's work shows us how mastery of digital image tools permits their use as a lens into an analog internal vision.

– Dreams

Closely related to mind's-eye vision is the vision of dreams. Dream imagery is often symbolic and narrative, rarely — if ever — non-objective. Watching clouds or staring into the fire are both starting points for daydreaming, but we don't typically have dreams about doing these things. Likewise, cinematic techniques

Bride Fight, E.V. Day, 2005, two bridal gowns, monofilament, fishing tackle and hardware, 26 x 16 x 13 feet, courtesy of the artist and Deitch Projects.

employed to indicate dreaming — extreme wide angles, warped mirrors, soft focus — have no connection to our actual dream-seeing experience except for a kind of conceptual distance from wakeful seeing. They are effects afforded by the technology of the camera which distance the cinematic image on film from the eye's image on the retina. The resulting differences from the indexical have been incorporated into the language of cinema as 'dreaminess', but there is nothing inherently dreamlike about them. They are a purely cinematic cliché. Our field of vision isn't necessarily any wider in dreams than in waking life, objects don't tend to be particularly warped or blurred.

By attending to the actual phenomena of dream vision, we can imagine ways to externalize dreams more truly using digital tools. In general, the malleability of the digital image, whether indexical or generated, holds the potential for a more faithful externalizing of subjective visions than has been possible through film. Any visual perception that we can recall, we can attempt to hold in the mind and work towards on the computer. But like film, image-processing software affords particular kinds of cliché vision. Careful consideration of both the phenomena of internal vision and the structure of media, as in the examples above, is needed to realize the potential of live cinema.

Technophoria

Tools have biases and any tool for making images affords certain kinds at the expense of others. While some operations on the digital moving image – re-sequencing, scaling in time and space, compositing – can be considered fundamental elements of media creation, tools typically provide more idiosyncratic effects which differentiate them in the marketplace. Creative work using these effects inhabits a problematic territory: its meaning is generated in part from commercial decisions made by the tool's designers.

When a work's primary interest lies in some novel use of technology, its maker can usually be diagnosed with a condition known as technophoria. In the technophoric state, one is captivated by the shock of the new, and is susceptible to mistaking the merely novel for the meaningful. Nicky Hamlin has also pointed out the existence of this condition, as the "Faustian euphoria surrounding digital media and virtual reality." [11] 'Faustian' because, in using a tool which promising the creation of compelling visions, the maker cedes control over meaning. In extreme cases, such as when software demos are modified and used in VJ performance, the resulting work may function primarily as an advertisement for the tool. In short, the technophoric approach asks not 'what do I want to do', but 'what can I do', complicit in any cultural systems which happen to facilitate the doing.

– Polygon Lust

Compelling visuals, those that catch and hold the eye, are a common feature of live cinema practice. 'Compellingness' is orthogonal to meaning — more of one does not imply more or less of the other. But catching the eye is a marketable quality on its own, and so tools have been designed to make good 'eye traps'. Imaging software and hardware are still young technologies, in which each new generation gives us a perceptible increase in capability and an accompanying jolt of novelty. Graphics accelerator hardware, which is evolving rapidly, affords the generation of complex visuals at rapid frame rates. Live cinema makers typically harness these graphics engines using software tools for real time work such as Jitter, Processing or vvvv.

A complex moving scene can engage our brain's pattern matching and spatial planning systems to distraction. This is the same kind of mechanism that makes *Tetris* such an effective drug. A friend of mine remarked about a shot late in the movie *AI*, when a future air vehicle coalesces smoothly from a group of cubical fragments, that it was "the best five seconds of the movie". While in this case I tended to agree, I'll add that the novelty of this kind of image and the ease of making it have led to its emergence as a new visual cliché. Just as soft focus has signified dreaming in the cinema, polygon graphics have come to signify futurity. A recurring image in the digital culture scene is that of the body fragmented into triangles. Only outer surfaces are represented, the minimum information needed to create an image by approximation of reflected light. Through faults in this representation either intentional or not, the brittle polygonal structure and the void within are revealed. Phenomenologically, the body becomes a shell. Is this hollowing out really a quality so central to our current perception of ourselves?

A work like E. V. Day's sculpture *Bride Fight* (2006), in which two wedding dresses — real, not virtual — face off whilst suspended in an angular ecstasy of fragmentation, makes a good case for it. But for every *Bride Fight*, a multilayered work which playfully critiquing the world-as-polygons aesthetic, there are far more images and animations based on this fragmentation primarily because the tools afford a compelling visual experience.

Alvy Ray Smith has stated that reality is 80 million polygons. [12] Whether the number is per frame or per second does not really matter here, as either is so far distant from our current real time capability. But in live cinema the gulf between polygonal representation and reality is one of kind, not of degree. Manipulating imagery in a sufficiently flexible and interesting way, one that does justice to the live situation, will always allow the deep structure behind the images to be perceived. No matter how well the surfaces are finessed, the structures of polygon graphics mediate the meaning of live work they enable.

– Effects

Besides creating visual complexity, another common affordance of live cinema tools is the ability to apply effects. Effects are systems with their own identities like 'Gaussian Blur', 'jit.tiffany', or 'Color Corrector', external to and predating works that incorporate them. Effects have their own reasons for being. As part

of an image-making process, they leave traces of these reasons. They may point to the past by remediation of film, invoking various shades of nostalgia that set the stage for storytelling. Or they may point to the future by enabling novel visual experiences that remain compelling until pop-cultural saturation sets in (remember morphing?). In attentive practice though, effects can help create a live cinema which functions in the present. Varying the parameters of multiple effects is common in VJ practice, one that ties changing qualities of the image to sound and the performer's motions in real time. When no single effect is allowed to dominate, their qualities can be mutually obscuring. The resulting work points mainly to the 'liveness' of the changes.

There are definite parallels between this approach and the way in which Brakhage used the film camera, consciously struggling with its affordances and tying his image making to embodied subjectivity in his dance of filming, an effort to make "all technical explorations the direct expression of acts of seeing". [13] To foster this direct expression in live cinema, use of effects must be taken beyond cinematic models.

Analyzing the relationship of digitally produced works to the tools that afford them is a complex task because of the many layers of mediating structure. From codec to graphics library to effects to application software, each layer can have an effect on the visual qualities of the finished work, and tools for each layer may be chosen independently of the others.

The medium of film, on the other hand, was co-invented with a single dominant tool, the camera. Many filmmakers such as Stan Brakhage, Norman McLaren and Len Lye who successfully externalized subjective visions did so by accessing film development technology at levels normally restricted to technicians [14], or bypassing the usual apparatus altogether by painting or scratching directly on film. Live cinema presents not just one tool to grapple with, but complex systems of tools that must be problematized in order for the practice to attain the mature self-awareness of experimental film.

We Write Our Own Software

Tool making has been a major preoccupation of many practitioners in experimental moving imagery. This is a consequence of the desire to push technology toward personal vocabularies of form and motion, as well as the lack of any commercial apparatus for the practice. From Père Castel and his clavecin oculaire around 1740 [15], to John Whitney Sr. and his gunnery computer turned animation machine in 1960, to current programmers working in live cinema, many artists have spent at least as much time building tools as making works. This approach is valued by the live cinema community, as evidenced by the many statements in artist biographies like "so and so's video installations and performances are created exclusively with his/her own custom software".

Making one's own tools allows a deep engagement with the technology of live cinema, an approach that resists technophoria. Textual programming languages in particular prevent push-button gratification and force a structural understanding of one's work. One such language, Processing, is an open source software project that was explicitly designed as both a tool and a critique of dominant software culture [16]. Processing is an extraordinarily accessible environment that has catalyzed a vital community of systems-focused visual creators.

Though programming is a valuable conceptual tool, understandably not every artist wants to write code. Just as 'moving visual thinking' can be a subject for live cinema, it is an important way of conceptualizing the work's structure. I propose that by considering the phenomena of subjective vision and the structural aspects of live cinema technology, it is possible to design software tools for the practice that are less complex than programming languages, yet flexible enough to enable a plurality of visions.

– Subjective Vision Phenomena

To make tools that can capture a wide range of internal visions, it will be necessary to somehow refer to different qualities of these visions and to catalog them. The language of phenomenology can be of help here. Gaston Bachelard's *The Poetics of Space* is the classic text on how qualities of different places shape our experience. Bachelard's phenomenology examines "the psychological being of an image, before any reduction is undertaken." [17] Though his analysis is based on examples from written poetry, by classifying qualities of experience evoked by different types of spaces such as houses, nests, shells and corners he points the way to a grammar for subjective vision. Attending to our own experience, we can investigate some qualities of seeing. How is our subjective vision framed? How is it focused? How is space projected? With open-eye vision the answers come mainly from physiology, but the more mental the visual phenomena, the more personal the exploration.

Classifying subjective phenomena will create lists of alternatives to qualities of the camera eye, such as its Renaissance projection of 3D onto 2D space. There is a wide variety of possible projections that can be recognized as phenomena, then translated to mathematics for computer implementation. As Manovich points out: "Although digital compositing is usually used to create a seamless virtual space, this does not have to be its only goal. Borders between different worlds do not have to be erased; different spaces do not have to be matched in perspective, scale, and lighting; individual layers can retain their separate identities rather than being merged into a single space; different worlds can clash semantically rather than form a single universe." [18] These alternate projections recall the fluidity of dream space, the phenomena we try to describe by saying things like 'I was standing in the kitchen of our old house, then it was the train station, but it was still the house'. Alternate projection strategies can externalize dream spaces more meaningfully than a cinematic jump cut or a 2D effect.

Still from *_grau*, Robert Seidel, 2004, courtesy of the artist

Still from *Six Axioms*, Randy Jones, 2006, courtesy of the artist.

– Beyond Medium

Digital work can be projected at arbitrary resolutions, via different technologies. Though the visual results of different kinds of projection can be quite different, live cinema artists generally make do with whichever kind is available, and the combination of frame rate and resolution that works best with their laptops. Likewise the software tools and any performance interface used all create different contexts for the live work. The engagement of live cinema with its materiality necessarily differs from the structural-materialist approach to film or video, because live cinema is not media specific.

When a fluent degree of control over digital imaging technology is achieved, it can become a lens into a wide variety of subjective experiences that are phenomenologically analog. By and large a sound recording presents the same qualities to the listener whether its sampling rate is 44kHz or 96kHz. At a sufficiently high image resolution, the same is true for pixels. Through the sampling theorem, we can verify the reality of the underlying analog signal that is reconstructed. Pixels do mediate the image, but as resolution increases their mediation tends toward disappearance, and a preoccupation with them tends toward the banal. The experience of seeing as humans is a commonality which provides a more fertile ground for a personal live cinema than the quirks of technological artifacts.

Conclusion

The budding practice of live cinema is unique in offering a situated group exploration of subjective vision. In seeing work successfully conveying the interiority of the performer, audience members are invited to be present in their own bodies, attend to their own experiences of seeing. The diverse possibilities inherent in this situation can only be explored by moving beyond traditional cinema as a model for both creative work and new tools.

The commonly heard question "what do you use?" meaning what software, shows the importance given by the live cinema community to tools. But choosing software is only the start of the creative engagement. An understanding of how tools mediate meaning is needed to exteriorize a personal vision. Live cinema is not a specific medium that one can engage, rather an area of practice involving various media and tools. A deep consideration of the enabling tools will be fundamental to live cinema's development.

I'm excited about group efforts to make tools for live cinema which are less professional and more amateur-professional, signifying a kind of polish that tends to erase qualities of individual vision, and amateur in the sense of loving the work. Privileging the subjective vision of the maker has been viewed by some as a reactionary position. I propose that it has only seemed such within the context of arguments grappling with a false dichotomy: personal desire versus a responsibility to a collective. In today's digital media landscape, full of tools and distribution systems that tend to replace the individual viewpoint with a commercial rather than a communal one, celebrating personal vision is a radically democratic goal.

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Randy Jones is a composer and software designer whose audiovisual performances combine a scientific outlook with a cosmic cinematic language. He has written and lectured on the theory and practice of live audiovisuals. Other projects have included tour visuals for Radiohead and a permanent installation at the Seattle Public Library. He is a co-creator of Jitter, the graphics and matrix processing software published by Cycling '74.

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WE HAVE ONLY JUST STARTED

Interview with Lev Manovich

JAN HIDDINK

Sonic Acts spoke with Lev Manovich in October 2007 when he was visiting Brussels to give a lecture at the conference *Video Vortex: Responses to YouTube*.

JH Some art historians dealing with software art and digital art argue that it is necessary for them and current art critics to be able to read and understand code. The idea is that this knowledge creates a necessary insight into the practice of digital arts, and would give digital arts a firmer position in historical discourse. What is you opinion on this issue?

LM Understanding code is not enough. Art History remains probably the most conservative discipline in the Humanities. Maybe it is a little bit different in Europe, but I find it quite amazing that after fifteen years of digital revolution there are practically no art historians engaging with the fundamental transformations of visual culture that we owe to the computer. Yes, it is important to understand the principles of computer programming, which is after all what the computer is about. Whether you get this understanding from a scripting language or a programming language doesn't matter. However, beyond that if you work

with digital culture you should also acquire a historical knowledge of the intellectual history of digital culture, to understand that it is not only about code. The digital culture which surrounds us is the result of intellectual developments, of various compromises. People have imagined various interfaces and software by which the computer organizes and presents information. We should not take the existing paradigm for granted. Part of what I would like to do in the next stage of my work is to try to reconstruct this intellectual history.

Does this also mean that you think we need to give more space in the writing of art history to the people who pioneered computer art?

Whether or not the label 'digital' art deserves more attention from art historians is difficult to say. In the twentieth and 21st centuries, the Humanities have only looked at maybe one percent of contemporary culture, there are many areas of contemporary and modern culture that remain unexplored. For instance, think of the wealth of experiments with media in the 1960s: the only book we have on that is Gene Youngblood's *Expanded Cinem*a. PhD-students are only now beginning to do work on that period. I don't want to argue about whether digital art needs more or less attention; to me it is simply one of many fields that remain under-researched by academics.

Are you confident this will change?

No, I do not think that this is going to change. There was a period of excitement about digital art at the end of the 1990's, also on the part of the museums, and then the situation changed, comparable to what happened to photography in the 1980s. Digital tools were absorbed by all the artists and it became part of the art world. The smart young people of today don't go out and announce themselves to be media artist, they simply call themselves artists. By doing this they have access to biennials, and the much larger apparatus of contemporary arts. People who will become successful in the art world will be written about. People who remain in the margin will not. After all, art history and art criticism are there to support the art market, so if you are not part of that art market, there is not going to be that intellectual investment either, you are not going to have gallery catalogues and books. In the last few years, artists from the digital field like Rafael Lozano-Hemmer were able to cross into the art world, his work was shown in Basel, he represented Spain at the Venice Biennial. So some digital artists have been able to cross over and their work is collected and written about.

What is your opinion on the digital and electronic arts festivals that started with Ars Electronica in 1979 and are still going strong? Are they still marginal in comparison to contemporary arts?

I came to Ars Electronica in 2007 and to my surprise I really enjoyed it. I saw lots of really interesting works, but we have to remember that what gives these festivals - and Ars Electronica is probably still the best - the energy and vitality is the fact that they operate in the crossroads between different fields. You see art works next to stuff by science labs and engineers. It is a place to present avant-garde works, as well as new scientific ideas, new developments and new interfaces of digital culture. It works very well because it draws from these different competencies. But you do wonder about the people from different disciplines that have embraced the computers and who use them to create fantastic works. People from theatre, dancers, designers, architects and filmmakers all remain largely outside of the scope of these festivals. These festivals also seem to miss out on a chance to move into a new century by perhaps not picking out the best works that are done with the use of computers. For instance, take the field of wearable compauting, from the point of view of fashion or design, that stuff often looks awful. On the other hand, the work of Turkish fashion designer Chalayan, who uses computers for his designs, is amazing – he makes dresses that are covered with LCDs that show a movie. These are the kind of people I would like to see at such a festival. That is also why I have been paying attention to the work of architects in the past five years. From my point of view it is the field where the most intellectually interesting things happen today. How computers are used in architecture is far more interesting than what happens in the field of interactive art, where people are still dealing with the same questions of interactivity.

On the internet there is a new, almost revolutionary development in the distribution of content. YouTube attracts many users who actively upload videos. Should we anticipate new forms developing, new forms of cinema for instance?

The development of social media and the exponential growth of photography on the web are beyond anything we have ever seen in the history of human culture. Obviously this leads to new phenomena like Microsoft's Photosynth, which makes 3-dimensional models of places on the basis of photos that are found online. That is a good example of how the growth of the number of people creating media leads to new representations and new phenomena. Also remember that the number of internet users in China is now almost equal to the amount of users in America, and will double in the next few years. What will happen when all those users start publishing? We do not know.

According to video-blogging specialist Adrian Miles, the structure and perception of YouTube videos resembles television rather than cinema. I would agree with his point, but on the other hand, what is cinema? Cinema has existed for a century in a variety of different forms – think about industrial films and video and advertising films. So we shouldn't necessarily compare YouTube videos to

feature films. What I think is interesting about YouTube and other social media is that it looks like we have a revolutionary new means of content distribution, but that the content tends to remain the same: people write letters, people shoot videos, people take photographs.

How can it be different?

It should be different. Historically the introduction of new media tends to lead to new forms of content. Cinema is one example. But I think that computer technologies have become embedded in traditional media, because ultimately we live in a culturally conservative period of human history. These tools are predominantly used conservatively. The paradox of the digital culture of the last fifteen to twenty years is that the basic cultural forms which have been shared and distributed by millions of people are not so different from twentieth century photographs and short films. Yet once you start looking closer you begin to realize that even in popular culture there are also certain forms of new content. The first person perspective confessional videos and video diaries on YouTube for instance. And as soon as you look outside the field of popular culture at how digital tools are used by science, by industry, by government agencies, you discover there are many completely new ways of representing, and looking at and dealing with information. Think of all the databases, geographical information systems and the field of information visualization. Culture results in new forms of visual representation, new ways of organizing information, and working with knowledge. These are new epistemological tools. Popular culture is in more of a conservative era where old forms more or less continue to exist because ultimately the computer was absorbed by the already-existing new media conglomerates, which became so strong in the twentieth century.

Is that also touching on the subject of the gap between the tools of culture and those of the industries? What was once the domain of the artist now seems to be a field that is taken by the Research and Development departments of international companies.

That has become one of my obsessions since I became involved with a small department of software studies at the California Institute for Telecommunications and Information Technology. They develop new tools and new so-called 'cyber-infrastructures' to be used by scientists, new spaces for collaboration and telecommunication. By hanging around the scientists I became aware of how fundamental the gap is between how scientists work and communicate, and what happens in cultural areas. For instance, locative media has become a hot topic in the arts. I was very fascinated by locative media projects until last year when I went to an industry trade convention about GIS. There I realized that agencies in your town or your village – people that repair electrical poles or make sure there is no leakage in the water systems – have access to a map which has literally hundreds and hundreds of different layers of a particular location. The whole idea of GIS is not to have a single map, but a set of information layers which are aligned along a particular coordinate system. GIS is just a general platform and GIS applications are used routinely by all kind of governmental agencies, by geology and lots of other sciences, and also the military. What locative art does, I realized, is just playing in a sand box. Locative media projects are incredibly simplistic, because their idea of what maps are is very simple in comparison to what is used outside of art.

Lev Manovich is the author of *Soft Cinema: Navigating the Database* (2005), and *The Language of New Media* (2001), which was hailed as "the most suggestive and broad-ranging media history since Marshall McLuhan." Manovich is a Professor in the Visual Arts Department, University of California in San Diego, a Director of the Software Studies Initiative at California Institute for Telecommunications and Information Technology (CALIT2), and a Visiting Research Professor at Goldsmith College (London) and College of Fine Arts, University of New South Wales (Sydney).

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THE DANGER IS THAT YOU BECOME TOO ILLUSTRATIVE

Interview with Frank Bretschneider
ARIE ALTENA

Frank Bretschneider has been exploring the possibilities of an exchange between music and visuals since the 1980s. Together with Olaf Bender he founded the record label Rastermusic, which merged in 1999 with Carsten Nicolai's Noton to form raster-noton. In the summer of 2007 he performed his new piece *Rhythm EXP* in a 5.1-surround loudspeaker set-up at Amsterdam's 5DaysOff Festival. For this interview, we asked him a few question about the fusion of visuals and music.

AA Can you explain your work *Rhythm EXP*?

FB *Rhythm EXP* consists of very short pieces, with a change nearly every minute. I go into a rhythm, stop it, cut it, introduce something completely new and switch to another rhythm. Nothing is improvised, each drum-note and every change is composed. The sounds I use are not synthesized sounds, but rather rough and raw sounds, like pure electrical current. I try to use these abstract, non-musical sounds to produce music. Most of the material was actually composed for my latest album *Rhythm*, a fairly straightforward record. During the production, I had the idea to construct a more experimental piece from all the unsuitable tracks I had to kick out to keep the album straight. *Rhythm EXP* is somehow the counterpoint to the regular album. I developed a special 5.1-sur-

round version to perform at galleries, theaters or cinemas and I present it together with real-time generated visuals that fit the music. To create the image patterns I use Modul8, actually a VJ-software with some generators, using which you can create quite fascinating patterns. With the interaction between visuals and sound, the whole reaches another dimension, and at its best moments the audience really dives into it.

Was that a reason to start using visuals?

The dream to make music visible is already quite old. For instance it goes back to the paintings of Kandinsky and the light organs from the early twentieth century. With television we have the fast-cutting stuff, primarily derived from the video-clips on MTV, which also creates a direct relation between sound and image.
I do not think it is really necessary to have music with visuals. But it is great especially for live, and after performing a lot, I recognized that the audience wants to see something more than just a guy sitting behind a laptop. I always had a strong interest in the interchange between visual art and music. And its a nice side effect that the visuals can work as an entrance for those who might find the music too abstract.

A lot of artists from raster-noton were already active with visuals before the live cinema scene took off.

I did comparable things with 16mm and 8mm in the eighties. Around 1998 we started doing the Signal performances with Rastermusic, at that time the visuals were not yet synchronized with the sound. We used pre-recorded material, which we adjusted a bit to the music. Afterwards we began to try out all different kinds of software to synchronize visuals and music.

That was the period when a lot of people used NATO?

I never used that. I used to work with software like Videodelic, Rhythmic Cycle or Onadime Composer. It all ran on OS9, which is why I had a Mac running OS9 for a long time.

You compose the music first, and then add the visuals?

In the first instance I see myself as a musician. So yes, music comes first. But I also have movie material that I compose sound for.

The way in which you work with images seems to be closely connected with how you distribute sounds in space and over time. Is that a reason why you use abstract images?

It comes from a fascination for mathematics and physics. For me it doesn't make sense to have a picture on the screen, like a human face, a landscape or a flower. They always transport a cliché, a commonplace. I don't want to tell a story.
I prefer to keep the whole thing open, so you can fill it in as a listener. And since the music is quite abstract, I want to have the visuals the same way.
At raster-noton we are very influenced by the manner in which music is represented in all these software used in the studio. You have all these dots going up and down, moving bars, LED-lines flashing. Sitting in a studio in front of all these interfaces is like sitting in a cockpit of a space ship. That is another fascination.

You mentioned that the audience 'dives into the visuals'. Do you also aim to given them a feeling that they are enveloped by music and sound?

I rather like to create a kind of slipstream to take the audience with. Yet I do not want to go too far in really capturing the audience. I feel that might be to overdo it. When I get the chance to work with a 360-degree screen, I would surely use it, just as with the 5.1 surround set-up. I have worked a few times now with a 5.1 multichannel system, and I must say I am a bit skeptical about it. You have to really figure out the system, prepare your work for the specific system, time everything very precisely. It is really nice to work with, but I really feel stereo is sufficient in most situations. The audience hardly ever sits or stands at the hot spot in the middle where you can experience a work for 5.1 in the 'right' way. People walk around or stand at the side and miss part of the experience. For music DVDs, the 5.1 system could really work, if you have the right set-up at home or headphones that can take multichannel sound.

These are all developments in technology that seem to lead towards a more cinematic effect in music. Although as you say, maybe stereo is enough?

For a new multichannel soundsystem to succeed, it should be the kind of revolution that stereo was for mono. I do not think 5.1 is such a revolution, the quality of the sound is quite poor, the compression algorithms that you have to use are not really good. Maybe another technology with four speakers will work better.

Our listening behavior is changing as well. We listen to a lot of music in mp3-format through

tiny earphones, in less-than-ideal circumstances. Maybe we are moving to a point where people might want to pay a few euros to listen to music from loudspeakers in a really perfect situation?

It depends on how interested people are in listening to the music. For many people music is just an environment that they carry around with them. This has increased with the downloading of music and all the mp3-players. But there will always be people who are really interested in a good listening situation.

For Sonic Acts we often refer back to experimental cinema and the early history of cinema to get to grips with what is going on in the live cinema scene. It is interesting that you rather mention MTV.

For me MTV was a really important influence. I was born in East Germany and I discovered MTV during the late eighties when all these digital technologies came up. Morphing was just new and a lot of other computer technologies. For me it was really surprising and more thrilling than Ruttmann or Fischinger, for example. But since many years I do not have a TV anymore, I don't know what is going on at television right now.

Could you describe your composition method?

Just like many others I worked with loops for a long time, loops, fades, transitions, mutes. Its easy and effective. I did get tired of that, and subsequently started working on the compositional structure instead. I did that by just improvising and trying out combinations, but I have grown better at combining sounds, so I do not have to 'waste' too much time anymore on experimenting while playing. I work more with cuts, sudden changes, dead notes, odd bars. Actually traditional composing techniques. The use of space, there are stretches where nothing happens, which are just there to build up the tension.

The visuals are mainly driven by intensity and frequency range of the music. They already move in synchronization with the music, but I have a lot of MIDI-programming going to make the synchronization more precise. You could say programming MIDI is the composing part for the visuals. The MIDI goes to the visuals and the other way around as well. I combine different parameters, and use different slots to overlay different shapes and patterns.

So composing is making a choice of what musical parameters connect to what visual parameters?

Yes. You always have to make sure that both media are equally present, and that the relation between them does not become too obvious. It makes no sense to visualize every single sound, that would be too much and the whole thing will lose its tension. The danger is that you become too illustrative. You can also show too much of what is actually going on, but that you cannot really hear.

The audience will always try to figure out what sound is connected to what line or what shape. I have once made the error of showing everything that was going on at once. Each time, you learn by doing.

Frank Bretschneider works as a musician, composer and video artist in Berlin. His work is known for precise sound placement, complex, interwoven rhythm structures and its minimal, flowing approach. Described as 'abstract analogue pointilism', 'ambience for spaceports' or 'hypnotic echochamber pulsebeat', Bretschneider's subtle and detailed music is echoed by his visuals: perfect translated realizations of the qualities found in music within visual phenomena.

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Live Audiovisual Performance as a Cinematic Practice

JAN SCHACHER

As with many other recent digital art forms, in live cinema we are witnessing the development of an artistic practice that uses technology to explore a symbolic and at times non-descriptive intermedia/te space. Elements known from traditional narrative cinema are eliminated and a type of performance is established that has more in common with electronic music and digital arts than the canonized cinema of the last one hundred years. Narration and its dramaturgical devices, as well as naturalist representation, are replaced by abstraction and the pure juxtaposition of image and sound.

The Cinema in Live Cinema

The use of traditional cinema space and perspective establishes a frame of reference in which to experience a live cinema performance. Being able to immerse oneself in a virtual space formed by a rectangular projection screen and a set of loudspeakers, is an invaluable starting point for the enjoyment of most abstract and live cinema. Hollywood movies have conditioned us to take for granted that a rectangular framed image with a frontal sound projection presents a complete experience. The supremacy of the cinema as the ultimate entertainment experience has stunted the expectations, and recent additions like surround-sound and 3D-projection have done little to change that. Going back a few centuries to the *commedia dell' arte* and the origins of the opera, we see a comparable desire to saturate the senses with all available technologies, something that also explains the total and irreversible presence of video in contemporary theatre and dance performance.

Cinema performed live is an abstracted hybrid fusing the theatrical gesture of opera with the more intimate creative aspects of a painter or photographer's practice. Live cinema offers an escape from the constraints of the movie theatre, although that aspect isn't yet explored often enough. The use of different spatial dispositions and presentation forms is a trend that has only recently emerged. Based on technological achievements developed for military simulators, scientific visualization and video games, live cinema rides the divide between the film studio and the concert hall, between an individual, private arts practice and a stage performance experienced by a multitude of people. The maturing of digital media technology enables a convergence of disciplines in live cinema.

There is no such thing as one unified style in live cinema. The cardinal points in the multitude of styles are oriented both towards the photographic and narrative gesture through motion images and real-world depiction, and towards synthetic compositional practices more closely allied to modernist abstract art and scientific visualization than to design. Unrelated to this, discussions on styles of live cinema often refer to issues such as gender, the 'cool-factor' and the individual artists' personal backgrounds and histories. By its very nature the field is being cross-fertilized by contemporary practices in music, design, fine arts, fashion and various subcultures. In a cultural climate where a multitude of tendencies and trends explodes into even smaller scenes and subcultures, live cinema practice has taken on a distinctive voice of its own. It exists in places like clubs, festivals and non-commercial cinemas where the boundaries between contemporary VJ practice and live cinema are often blurred.

Synaesthesia and Perception in Live Cinema

The ease of technology's deployment and the ubiquity of audiovisual entertainment's forms have brought a multitude of possibilities for live cinema. Nonetheless, very few surpass what can be considered the canon of contemporary media use. Synaesthesia – the blending of two or more sensory experiences – is one of the basic assumptions of multimedia. But this rarely exceeds what has been the immersion standard since the introduction of sound in cinema: the audiovisual form.

The merging of seeing and hearing in a synaesthetic manner often fails in live cinema. Music is simply added to image; there is nothing more than a hierarchical and illustrative relationship between the two. Several reasons can account for this failure. One of them is the fundamental difference between the senses.

On a physiological level hearing and seeing do not share the same mechanisms. Comparing the cochlea and the retina makes it obvious that we are dealing with two fundamentally different channels to our physical surroundings. We perceive the air's pressure wave as sound and the light particles falling onto our retina as images. These phenomena occur in different media and oscillate at different levels of intensity. The filtering by the perception process further differentiates the two. Seeing is acted out by looking, which is a reading process of a single perception-point roaming across the scene before the viewer. Contrary to that, hearing or listening is a very parallel activity, where several streams of content are perceived at the same time (polyphony) and the acoustic elements are combined to form the perception of timbre and overall sound.

Truly synaesthetic perception sends the stream of sensory input from one perceptual channel to another. This happens after the physiological apparatus' first layer, somewhere along the path to integrating the stimuli into a coherent world-view in our consciousness. This is not something that non-synaesthetic perception can regenerate. Multi-sensory media can therefore only produce a rough approximation of that state.

Every artist working in the audiovisual field has to develop a sensibility for this difference. Every live cinematic expression dealing with abstraction has to find a means of establishing a relationship between both senses that will ultimately boost the impact of the combined audiovisual expression. It is crucial to strike a balance between eye and ear, between the two senses' differing perception of temporality and density. Temporal contrasts, structural change, level of abstraction and density modulation are some of the domains that need to be addressed differently for the eye and the ear. For the senses, apart from the purely physical impact of volume or luminosity, it is the relationship and balance between these intrinsic attributes that makes a performance fuse. A sense of coher-

ence can only be achieved by finding elements in one domain that relate to the other sense on a more abstract, maybe even emotional level, and by mixing them in a way that keeps viewing and hearing in balance.

The perception of the performance differs between performer and audience. Unique to the performer is a consciousness of internal processes and cognitive control over technical aspects of the performance's execution. While 'playing his instrument' the performer also needs to be aware of the overall flow and impact of the presentation. The performer needs to cultivate both an inward and outward perspective of the actions and must be able to adjust according to change in either domain. The audience might have a similarly two-sided perspective if the focus is set not only on the content but also on the context of the performance. Reading and understanding the content could be strongly influenced by the location in which the work is being presented. Perception might also be twofold if it switches focus from the exterior phenomena of the presented piece performed to the interior emotion or imagination evoked by it.

Composition and Abstraction in Live Cinema

Live cinema has its origins as much in music as in film and has developed or transferred techniques dealing with composition on a different level from that of film editing. Usually the temporal structure of a live cinema piece evolves with a musical rhythm and form, its arch of tension resembling a piece of music rather than a film. This is closely related to the fact that abstract content does not necessarily have to follow a narrative logic and can therefore obey its internal affordances more freely. Depending on the attitude of the author, the structure might resemble the strict form of a carefully constructed composition or the free-flowing association of an improvised piece. Open structures in live cinema are often associated with an approach resembling an instrumental relationship with technology whereas planned structures are often thought and executed with techniques that could be called live editing. One might argue about the dividing line between the two, but it is more important to discuss whether or not purely pre-planned live-edits actually belong to the domain of live cinema.

Abstraction prevails in live cinema. First of all this concerns purely artistic research in the domain of abstract expression – something which music shares with painting. But abstract elements have another quite important role to play in live cinema: they defeat the conditioning to interpret audiovisual pieces as narrative or representational. Specifically in non-melodic forms, music brings to live cinema elements of non-representational and non-narrative evolving structures that form a frame of reference for abstract time-based audiovisual work. The early abstract cinema pioneers tried to create a cross-sensory experience by visualizing music with simple graphical elements, which were composed with a rhythm and spatial disposition that mimicked musical form.

Contemporary abstract cinema is more indebted to the fields of generative art and algorithmic composition than to traditional musical structure. The reduction and abstraction of the constituting elements expose attributes of form, color, timbre, and space, and allow a combination of them across the senses in a way that generates a representation-free mental space. This space is less crowded and can intentionally leave blank areas to be filled by the perceiver's imagination.

Be it of a piece of music, a cinema film or a painting, one of the fundamental processes taking place in a viewer or listener is the recognition of something familiar. This can generate strong emotional feedback. Very few works of art, design or music are so removed from our everyday world experience that there is no recognition or resonance whatsoever. Recognition is a fundamental aspect of the gratification process produced by perception. In an abstract art-form, recognition will occur less on an object level and more on a level of resonance and self-reference. A resonance occurs when an abstract entity is related to a personal experience unique to each viewer or listener; self-reference occurs when a notion, intuition, emotion or imagination is recognized that has been generated by excitement through the abstract expression. The stronger the sense of disembodiment and distance to realism is, the more these transference processes will occur, up to a breaking point where alienation occurs and the subsequent uneasy feeling pulls the audience back to the perception of their own bodies and the physical space they occupy.

Another important aspect in using abstraction is the creation of a utopian space. The abstract elements and their primarily surreal appearance tend to generate the notion of a separate space populated by entities that disobey the laws of physics. These elements often exhibit behavior that will seem utopian or hallucinatory, such as metamorphosis, merging and spawning. This behavior is reminiscent of biological processes on a microscopic scale or in the oceanic domain, and of physics as experienced on a cosmic scale. For most of us the mental representation of those spaces is based on images and is thus imaginary and purely virtual. It is natural to amalgamate abstract audiovisual experiences that produce such a high degree of disembodiment with virtual and utopian spaces. (As a side note I could add that game worlds present another important point of reference.)

In live audiovisual performance, the mode of action shifts from a linear narrative flow to a consideration of exploring, juxtaposing and referencing a multitude of elements. These elements range from semiotically-charged graphical or musical signs to almost unknown modes of expression that evoke rather than demonstrate their content. The levels of abstraction obtained are comparable to those in contemporary graphics, modernist painting and earlier abstract cinema. But the dynamic, dramaturgical and temporal structures are more closely related to experiences in popular music culture and to a musical practice covering song form, contemporary classical music and improvised music's free flow.

codespace, Jasch, generated images, courtesy of the artist.

codespace, Jasch, generated images, courtesy of the artist.

codespace, Jasch, generated images, courtesy of the artist.

Software and Programming in Live Cinema

Whereas traditional software has the status of a tool generating a product, live cinema aims to use software as a virtual instrument for real-time expression. For example, procedural and generative elements derived from electro-acoustic composition are integrated with gestural control to build an entity to perform with, rather than used to produce content. The convergence towards a few generalized software paradigms and the use of laptops for performance has spawned a new type of human-computer interaction in which the relationship between performer and software is similar to that between performer and musical instrument. The virtual instrument opens up an area more adapted media exploration than the linear workflow of office machinery.

The methods and materials used in live cinema cover a wide area. Visual media are mixed through a variety of compositing techniques derived not only from film but also from typography, photography and graphic design. Processes developed for scientific visualization, simulation or mathematically formalized representations are appropriated for artistic purposes. In the compositional practices of music this process has a much longer history. Algorithmic rules for manipulating sound material have been used from long before twelve-tone music. Generally speaking the processes and methods of manipulating image and sound have gained an independent status as an essential element of the creation process. They form an important constituent of a live cinema author's skill, and are developed to new levels of virtuosity.

Two trends can be observed. One leads towards the total absence of an author in favor of an autonomous algorithmic system performing within the playing field set out by the author's programming. The other trend is towards semi-autonomous processes controlled from a higher level and guided towards the desired result without a deterministic attitude of complete control. The exposure to systemic thinking and to advances in the programming of emergent structures has led to an artistic practice more concerned with psychologically poignant expressions, than with the details of control. It leaves the low-level details to their own devices and navigates a largely unmapped and infinite territory of expressive potentials.

Performance in Live Cinema

There is a great diversity in the way performers interact with their 'instruments'. The majority will always be stuck to the typewriter interface offered by today's computers. But a growing number of practitioners are developing their instrument's human-computer interface to gain greater gestural, intuitive and

direct access to whatever layer of interaction they have created in the software. The trend points towards gestural, multi-modal sensor inputs used in an almost instrumental fashion.

In many contexts a sufficient awareness of the element of live performance in live audiovisual work is still underdeveloped. It is assumed that a full live cinema experience consists of no more than a coherent output in both sound and image. But the question is in what respect does the experience of live cinema performance differ notably from a normal cinema experience? One key element defining live cinema is the presence of the author in the performance space. Observing the author's actions gives the audience a feeling of immediacy and directness. Of course this is a knowledge that needs to be acquired, since there is no inherent unity between a gesture and its result in technological media. But building on their own experience of acting through mediated computer interfaces, the audience will try to interpret the body language and gesture actions of a live cinema performer.

There are fundamentally different approaches to performance, and the background of the performers can range from graphic design and classic film to live electronic and improvised musical forms mixed with media. All these fields come with different attitudes. Designers tend to be less body conscious and try to focus on the execution of their work without considering the visual expression transmitted by their physical presence. Musicians tend to be more stage conscious and might even bring over-emphasized instrumental gestures to their performance. Both influence the way a piece or performance is perceived, either through the lack of presence or through the distractive showmanship.

The performer's physical position in the cinema space is a further necessary consideration. Many performers refuse to appear before an audience, citing the intention of allowing the work to speak for itself. Others place themselves behind their laptops in such a way as to make the screen their focal point and to hide the remaining minimal expressive cues that might be read from their body language.

Of course it would be a simplification to say that neither of those attitudes fails to produce its effect. It depends greatly on the type, the content and context of the performance. Independent of the performer's placement, a feedback-loop of energy can come to exist between audience and performer, in exactly the same way as in all the other performing arts. Ignoring or counteracting this energy means robbing the live cinema experience of one of its strongest and most expressive elements.

Live cinema establishes an experimental space in which generative, digital art and procedural expressions fuse with the instrumental gesture. 'Real-time' can be experienced in the union of the performer's action with the visible and audible result. The role of the artist evolves to become that of a performer whose presence in the cinema space as both author and actor re-polarizes the cinematic moment.

Jan Schacher is a double-bass player, composer and digital artist who performs under the name of Jasch. He is active in electronic and improvised music, jazz, and contemporary music, performance and installation art. He has written music for chamber ensembles, theatre and film. His projects combine digital sound and images, abstract graphics and digital video, electro-acoustic music or mixed-media for the stage and installations. He is a teacher and associate researcher at the Institute for Computer Music and Sound Technology of Zurich University of the Arts.

http://www.jasch.ch

THE PROJECTOR IS MY FAVORITE SONIC OBJECT

Interview with Thomas Köner

ARIE ALTENA

Sonic Acts spoke to Thomas Köner on Thursday 5 th July after he had performed *Quasar* with Jürgen Reble in Paradiso, Amsterdam. Reble projected his abstract 16mm films onto Paradiso's walls and roof, causing the light-beams from the projectors to refract on the smoke in the venue. Thomas Köner mixed and processed sounds from the body of the film-projector to a spatial soundtrack played over four loudspeakers. Earlier that week an exhibition opened at the Kabinetten of the Vleeshal in Middelburg featuring Köner's video-piece *Nuuk* alongside Jan-Peter Sonntag's 612.43 *WEISS* and Jürgen Reble's film *Yamanote Light Blast*. *Nuuk* consists of a series of 3,000 photos taken from a webcam in Nuuk, the capital of Greenland. Almost nothing happens – the images are mainly monochrome and almost nothing moves, but Köner's minimal approach creates an intense contemplative and immersive experience.

What struck me during the performance of *Quasar* was the beauty of the refraction of the light from the film-projectors on the smoke in the room. Maybe that was even more beautiful than the colorful, abstract patterns of Jürgen Reble's films projected on the walls and roof.

The point of *Quasar* is to take the images from the screen and into the venue. We need a lot of smoke for it, and this time it did not go exactly as we had wanted. The organisation was worried that the smoke would stay in the venue too long and they turned on the air-conditioning early. The smoke disappeared too quickly. For a piece like this you are only ever getting close to an ideal situation for its presentation.

All the image material in *Quasar* was created by Jürgen Reble, the sound is by you. What is your aim when making soundtracks for his movies?

I would not say that I have an aim with this piece. At least eighty percent of the sounds you hear are transformed projector sounds. I think that should be the original sound of the picture, as a signature. I do add electronic processing but I try to avoid anything like formal development. Therefore, it is a very static piece. As a musical composition it is only interesting in so far as there is sound at all. The quality of the piece lies in all the different textures of the sonic events taking place inside the projectors, all those sounds from the little motors. Therefore the piece has a research quality rather than a melodic or compositional quality.

What is that research quality?

The research concerns the body of the film-projection machine. There is no sonic object on earth that I have studied more deeply than the film-projector – especially the ones that we used tonight. Every composer has a favorite sonic object. It might be a chamber quartet with a violin, a duo with flute and piano or a symphony orchestra. For me, the favorite sonic object has always been the film projector. It certainly goes back to the early days of my childhood: we had Super8 in the family and I was fascinated by the raw quality of the sound made by the machinery itself. Everything else, like the moving images, was attached to that sound.

How do you pick up the sounds from the projectors?

I put contact mikes inside, on the motor, on the transport, and on the shutter windows. I also have directional microphones from the outside pointing at the projector. More than half the work is making a microphone set-up that prevents feedback. The other half of the work is creating several families of sounds from each source. I do that by filtering and pitch shifting, and by using different strata of the sounds. You can compare it a bit to orchestration. I then lay out the sounds on my mixing desk. The composition is basically just the set-up – making sure there is no feedback – plus the families of sonic relations between the different sounds. When Jürgen starts I get a signal. Afterwards there is not much that I can change. You just have to enjoy.

Together with Jürgen, you have created a piece that fills the whole performance space, partly thanks to the use of sound. In a sense, this also relates to various experiments with cinema present in your own audiovisual work. Can you elaborate further on how you work with sound and images?

Put in abstract terms, my works create relationships between time and space. I compose sound for a three-dimensional space. For instance, *Quasar* is a quadrophonic piece. It works thanks to very subtle timing. What you enjoy in the music is this timing and not a series of sound events with a formal progression. If you listen closely, there is not really much more than a bit of grey noise placed in the space, one which appears and fades away. Timing is crucial. What I do with sound is very closely related to what people try to do with a camera: to capture three-dimensional space onto a flat surface. Filmmakers compose this experience with a camera and editing, I do it with spatial sound.

I was never only a composer of music, my works have always had a visual relationship. For instance, I started by making music for silent movies. I am still doing that twice a year at the Musee D'Orsay in Paris. For me, there is no separation between my visual work and my work in sound. I don't know if you should necessarily call what I do synaesthestic, but sound and vision are certainly not separated. The same is true of my work on video. Sometimes I really don't know if I am working on the sound or on the visuals.

Sometime during 2002 I started to develop a practice in which I could work in both media at the same time and in a way which suited me. This was after two or three pieces of software that were already available, and I had been using, were further developed, and made this practice possible. That was a breakthrough for me.

Your work is often quite minimal - as you say, there is no formal progression and hardly a narrative, yet the work often manages to capture the visitor in an immersive sound and vision experience.

Creating such an experience of immersion is only one aspect. A more important aspect is to try to create works that invite the audience. The work is an invitation to acknowledge that this is something minimal, but that you are full of memories as a listener and viewer. If it works as an invitation, you can fill-in the piece with your own memories. My frame is half-empty and you are invited to complete it.

So, as in your piece *Nuuk*, it is like creating an emotional opening through a slow-moving image or a sound that is quite static?

Yes. My work is rather empty. There is a lot of open space, there is not much movement, not a lot is filled in, and there is hardly any editing. In the language of cinema that means it is empty. But this emptiness allows the visitor to fill-in the work with their own experiences. This happens especially at the moment when you lose concentration on the work. I think that each work should connect to each person in a different way – the relationship between a member of the audience and the work should become a personal one. This makes my work unconvincing within the context of artworks that are full of themselves. But if my works were loud and yelled out a message, they would miss their purpose. I think my strong point is that I can create a perfect frame that is half full, yet doesn't collapse.

The works might be rather empty, but the experience of watching and listening is very fulfilling, certainly more so than listening to a piece of music with a formal progression or watching a conventional narrative movie.

For me, the perfect cinematic experience is just a moment in a space that is liberated from fear of the future and worries of the past. This is why I try to avoid rhythm, because rhythm is linear, there is always something coming up in the future. That makes rhythm 'entertaining' for a lot of people, and therefore sometimes they find my work rather boring.

You have performed in contexts like Paradiso, on a festival mainly of electronic dance. You also play and exhibit in venues of contemporary art. Does it matter to you where you perform and where your video-work is shown?

My work is not easily presented in all situations. But I don't care because I like the challenge. The more difficult it gets, the more interesting I find it. Of course it is easier, and maybe better for the work, when the circumstances are ideal, when there are no external distractions and when the projection is perfect. Next week I have an exhibition in an art museum, that production goes very smoothly. But in such cases it sometimes becomes very difficult to ascertain if it is the qualities of your work or the perfect circumstances of the situation that are responsible for a convincing experience. You need challenges and therefore I take risks by showing the work in more extreme circumstances, places that are noisy, like in a club or even an entertainment context. Even if the work then only irritates some people, it will give them an experience that they might come back to in years to come, when they are able connect to it. That is good. But in these situations, one should not be too worried about one's personal feelings as an artist.

What is the strangest location that you have showed your work?

I did a performance version of *Banlieu du Vide* in an Italian gay club during Saturday night prime time. It is a slightly melancholic piece, with images of empty streets. The result was a cacophony of voices, screaming and total confusion from the audience. I had to give up after about fifteen, maybe eighteen minutes. There was enormous resistance from the public. That was the most difficult performance I've ever done. I would still like to know how that booking could possibly have happened. But I know there were also people I touched with the work. You never know what happens later. As an artist you try to pass on what you think and feel, you try to have an effect on those who come to see and listen to your work.

Thomas Köner (1965) is a media artist who works with sound and images. He studied music in Dortmund and Arnhem and is considered to be an important figure in minimal electronic music. With sound composition as a basis, he has integrated performance and visual aspects into his work. Since 1992 he has collaborated with Jürgen Reble. With Andy Hellwig he was Porter Ricks; with Asmus Tietchens he formed Kontakt der Jünglinge. His discography contains more than 80 CDs, amongst which *Daikan* (2002), *Zyklop* (2003) and *Nuuk* (2004) are probably best known. His visual work is exhibited in museums, galleries and festivals, and he has recently started writing radiophonic works for German radio.

http://www.koener.de/

FILMOGRAPHY

Nuuk
Banlieu du Vide
Pneumo Monoxyd
Flutmarken Riga
Suburbs of the Void
Pendler Pilger Piloten
Peripheriques 2: Beograd
Peripheriques 3: Buenos Aires
Perepheriques 1: Harar (Anicca)
He will not shout or cry out, or raise his voice in the streets

ACTIVATING THE VISUAL CORTEX

Interview with Jürgen Reble
ARIE ALTENA

In July 2007, Jürgen Reble and Thomas Köner performed their piece *Quasar* at Amsterdam's 5daysoff-festival. In *Quasar,* Reble operates different 16mm projectors to project his experimental films across the walls and ceiling of the venue, as well as on the smoke that gradually fills the space. Reble is known as the 'film alchemist' for his experimental ways of dealing with celluloid filmstrip. He treats the celluloid with chemicals and manipulates it by hand using various instruments, such as exposing it to extreme weather for long periods. The result is film full of colorful, abstract images. Sonic Acts interviewed Jürgen Reble and Thomas Köner after the performance of *Quasar,* during the same week an exhibition opened in Middelburg featuring Reble's video-work *Yamanote Light Blast*.

AA: You clearly work in what we could now call a tradition of experimenting with cinema. You predominantly work with celluloid, as in *Quasar*, but not exclusively anymore?

JR: Since 2004 I have published works on video too. These are partly works made for video, and partly works made for film but transferred to video. It is more out of practical consideration than anything else. My wish is to publish every work in the same medium in which it was made. Visual animation is best

presented in the medium it was made for. But I am sure that there won't be many 16-mm-projectors available in twenty years time. That is why I started making prints of my films on video. If you work in celluloid and you refuse to do that, you will probably become quite isolated as an artist. In the end, almost nobody will care about your work anymore and nobody will see it.

Of course, my art is made for analog material. I learned filmmaking by taking the celluloid film in my hand, holding it against the light, putting it on a light table, taking a knife and then examining how many layers there are in a film. There is a red layer, a green, a yellow and a blue, and you can scrape off parts of it. Approaching film in that way was more interesting than using a camera, and I find it much harder to use a camera than to use a knife, chemicals and colored stuff to work on the celluloid itself. There is tactility to it, it has sculptural qualities. For instance, you can add layers by applying salts that you use in a toning process. You can leave the salt in the margin of the film strip and allow it to dry. Then suddenly you have salt crystals in the emulsion. If you do that, you are working with a three dimensional object and you are a sculptor, not a filmmaker. My fascination with film started from doing something with my body and my senses.

In digital film, this physicality is absent. How do you approach the digital?

Working with digital film is a thing that you do with your brain. Your brain makes decisions, not you hand or your body. But visually the approach is similar. I can work with it when I have a vision of what the material should look like in the end. How an image has to change according to my ideas and visions is obviously influenced by my experience with filmmaking. When you add a second layer in celluloid film to get a certain structure on the material, you immediately see what happens. Yet in filmmaking you are also always half blind. You have an idea of what can happen, but only when you run the film through the projector you can really see what is in the material. That is why it is always exciting to see it. The object – the filmstrip – turns into a subject and you become an object looking at the film. This change of relationship is absent when I work with digital video. With digital video, working proceeds in a much more step-by-step fashion. You make a decision, you go further with the decision, step after step. With film, I work up to a certain point, and then I decide I need a second working process to make a new composition with that film. After the film is developed and I am satisfied with the time and color conditions, and how one layer might fade into another, I start a second working process which may, for example, add a structure using an optical printer. Maybe the step-by-step process of digital video also has interesting aspects. You can bring a certain quality to images, you can add a structure in front, a texture in-between. In a sense, you can compare that with the process of putting chemicals on film, because you put something on the 'surface' of the film. But you will never have the sculptural qualities of celluloid, and you make decisions with the brain, not the hand. Working with digital video is smoother because the material lacks resistance.

Stadt in Flammen, Jürgen Reble, filmstill, © Jürgen Reble, courtesy of the artist.

The feeling of immersion you experience as a viewer seems to be crucial for the cinematic experience. Sometimes it is also used in a strong physical sense. Is this an issue for you?

I will try to explain my attitude to that. In the filmstrip there is the acidic base, sometimes there is polyester, and then there is the gelatin. When images are exposed to the gelatin they color the emulsion in which the chemicals are embedded. On the gelatin you have silver light trails and the molecules. Say I decide to film a volcano erupting: a very raw and intense physical act, stones are breaking through the surface of the earth, one element breaking through another. If I use such an image in my films, which I do, I would open the gelatin layer, and work with silver on the emulsion. I might develop the light parts. I would not bleach them with a normal bleacher but use one that disturbs the gelatin layer. In that way I create a physical reaction in the emulsion which really is the same as what the image shows. In a sense it is a re-creation of what nature does. Working like this, I can speak to all human beings because, even without having to think, they immediately understand what is happening. Because there is a physical presence, you just have to see it to feel what is going on. In my view, this is a much more direct way of communicating than filming the eruption of a volcano and then commenting on it. I work in the emulsion to make a correspondence between what nature does in the image and the structural and chemical treatment of the film. The volcano is just one example. Of course, the image of the volcano is there as content, but people are used to this illusion from conventional movies. It is what they see in the cinema (removed comma here) when a film is projected. I would like to bring things into the cinema that are normally left behind or thrown out. But I have no problem with the illusion at all – it can be very nice to play with that too.

It is interesting that you call this a 'more direct' way of working.

As my films are, in reality, very simple, I never had the impression that people were unable to understand them. They see things happening all around them all the time. Sometimes they are microscopic events, apparently invisible, but everything really happens in our world. You could ask why I still use these images when my work could be entirely abstract. It is because I like to deal with the visual cortex. Our visual cortex always wants to compare what it perceives with something that you already know. If you see a lot of structure with something floating behind it, the visual cortex will run very fast cycles to establish correlations between these visual inputs and what is already stored in your brain. That is a basic cinematic experience: activating your visual cortex.

I pour images into the brain that are not easily recognizable. I disturb the images and put things in-between so that you become irritated. Therefore, the amount of information explodes. Seeing *The Nervous System* by Ken Jacobs, in which he uses two projectors, was a very important experience for me. *The Nervous System* does a lot of things to your visual cortex that would normally never be experienced. Jacobs projects the same film twice, just a few frames apart.

The result is a flickering effect in your brain. You are always in-between two images and in-between two times. You can never bring the image together. Your visual cortex is disturbed and your brain is constantly trying to repair it. It is a very hallucinatory experience, a cinematic experience that you cannot control. You cannot reflect on it. You cannot say: "Oh, I must now watch it very carefully, frame by frame, to see what actually happens." If you try to see it analytically, the effect is lost. Of course, it is not easy to get an audience to that point and have them forget everything.

During the 1970s and 80s, Jürgen Reble was a member of the film-collective Schmelzdahin. He started making his own films, performances and installations in the early 1980s. He manipulates the film material by hand using chemical, biological and mechanical techniques. He is known as the 'film alchemist' and his work often portrays nonlinear abstract forms and colors.

http://www.filmalchemist.de

FILMOGRAPHY

Passion (1989)
Das Goldene Tor (1992)
Ein Bewehrter Partner (1993)
Instabile Materie (1995)
Chicago (1996)
Zillertal (1997)
Arktis (2004)
Yamanote Lightblast (2006)
L'après-midi d'un faune (2006)

What's Real about Film

ARJEN MULDER

"Action!" the director shouts, and look – the actors start to gesticulate, and the camera moves, executing a pan or tracking shot. And then, a few seconds later, "Cut!" "Action" means move, stop standing there like an idiot, come over here and join us – become part of an insurgent group, storm forth or lurch through a web of streets, buildings, acquaintances and strangers. The essence of film is the movement of pictures and camera angles. The essence of activism is the movement of people and objects. In essence, they are the same. On the other hand, film records movement and activism causes it. Yet this distinction is not entirely correct. The captured movement would never have occurred without a camera. And from where do the actions of activists spring? Occupations, blockades, demonstrations and confrontations are reactions to others' movements, or attempts to preempt them.

My position is that film's special effect has nothing to do with the 'special effects' served up to us on celluloid. Movement may be the essence of film, but its effect on the viewer is an unfathomable silence, a submergence into what the Dutch poet Jan Jacob Slauerhoff described as 'depths at which no undercurrents pass through the eternally still water'. Action – experiencing a successful political action or organising and executing one – raises a racket, but within yourself you experience a quietness, a loss of normality. Something in you that was in the way disappears. An action is the start of a stream of coincidences that sometimes turns out just right, culminating in the party to end all parties, and other times, despite planning and organisation, goes pear-shaped and turns into a nightmare. What you do during an action is a result of the situation, not of your desires or intentions. You are swept up, and this makes it liberating.

This experience is systematically counterfeited in feature films and documentaries, not out of ill will but because film can do nothing else. The essence of action is loss of control; an action is successful when something 'happens'. Film scenes often pretend to be events, but they are not, because they deny the essence of any event: that is, you never experience it from outside but always from inside, in an utterly personal way, with all the limitations that implies. There is no pan, no tracking shot, no overview. On a battlefield or in a heated demonstration you can see very little. Out of small things, you build up a picture of how the demonstration as a whole is going, how the attack is proceeding, how many people there are, what the mood is like. By combining all this information afterward, you can form a complete picture of the event, though this will not be an overview but a network of experiences.

I call this feeling of silence and stillness at the heart of the event 'extramedial', because it defies every attempt to record it in a particular medium – image, word or sound. If you could describe or show the extramedial in a medium, it would no longer be extramedial. You can call the extramedial a question of logic: if everything is media, there must also be an extramedial or else we wouldn't know it. We can see our own eyes only in the mirror. And yet you can definitely experience the extramedial; in a riot, as I have suggested, or on the night watch in a squat when the owner sends over his thugs. But you also experience it when you step onto a forest path and see a fox standing there, watching you intently, in neither submission nor aggression. The extramedial manifests itself as a heightened awareness of presence, or to be more precise, a sudden being-present in the real world, and the resulting metamorphosis. For as soon as you become one with yourself, you become someone else.

The extramedial is the goal of all media. But when media affect to record a reality outside media, to represent something that exists independently of them, they block the way to the true extramedial experience. You cannot capture the extramedial, but you can cause it to appear. And you experience it first of all as a realisation that the medium is real, that it is more than just a door to something else. And then something changes in you: that is, the part of you that's being manipulated by the medium you're experiencing. This metamorphosis manifests itself as silence, because there is as yet no medium that can express the just-experienced. Message not recognised. If you experience the extramedial, you have found that medium's layer of reality. In film, for example, you know what 'the filmic' is. From that point on, any other use of that medium is second-rate.

Photography can show us objects and situations autonomously, as completely self-absorbed and self-sufficient. Film, by contrast, shows us relationships. No one is enough on his or her own: people must interact, and the need for interest or contact entangles those who yield to it in the meshes of social conventions and the resulting interpersonal misunderstandings. This is the structure of every movie narrative. This is why many filmmakers who seek to give us an experience of the filmic by showing us the medium in all its filmness refuse to follow a story: they prefer to keep people out of the picture in order to prevent us from identifying with the actors and being distracted from the point. A consequence of this approach, however, is that when an art film or absolute film allows us to experience the extramedial, it is something completely abstract, a layer in our consciousness that is, in a certain sense, inhuman. And this is not inherently necessary. Films can also call up the extramedial using people, actors, situations and events, and in these cases it is not an abstraction but a universal human experience. Such movies leave us with a love for the medium of film and a deep compassion for humanity.

Paris 1968

Allow me to be more specific. Philippe Garrel's *Regular Lovers*, from 2005, begins in shadowy black and white. A small group of young people gathers in a cellar for an activist meeting. They carry out no ideological debates, discuss no strategies, indulge no political passions. No one says a word. Then someone asks whether anything is going to happen, and someone else names a street and a time. We then see the results of the meeting. In nighttime Paris, fires blaze behind heaps of concrete, cobblestones, an overturned burning car. Figures in leather jackets and white helmets stand watching the smoke clouds. Now and then, one of them shouts something into a megaphone. He even shoots a gun into the air. People are running back and forth in the background. This is action. A situation

has been created. It's not about revolt against, or revolution for, any particular thing. A planless state has arisen, far outside everyday normality. It makes no sense. Nor does the way in which it's been filmed: the camera movements, the startling editing. Neither activists nor police can do what they want any longer: the situation that has arisen prescribes their behaviour. The police form a front, a solid line; the activists move haphazardly around the site.

Philippe Garrel is the first filmmaker to simultaneously show and call forth the experience of an urban action – in fact, a riot – using sound film. The actual occurrences were fairly inconsequential, and certainly not spectacular. Only afterward did the media make them into something exciting and important. Garrel shows us the events in Paris of May 1968 without their media magnification. People rush back and forth, sit still, and at a certain point, as the police start climbing over the barricades, they run away. That's it. There wasn't much to see, but things *sounded* very different: there was the noise of paving stones breaking, fire crackling in the streets, sirens wailing in the distance.

Most of the time during the action, nothing happens. People wait. Occasionally someone even falls asleep squatting down behind a barricade. A fire is lit, and people warm themselves. And when the fighting finally begins, commands are issued; people scream and run and throw rocks; no one knows what's going on; everyone's lost their grasp on things. Why are those people running? How do I get out of here? How did that car end up overturned? Why are they waving? You're glad to be a part of it – but of what, you're not sure. Are others rioting someplace else? Is there a point to all this?

This short time during which events as yet have no fixed meaning is the time of action. During action there is only the present. Past events and future consequences are of no importance. You have left the dominant order, and the first thing that changes is your sense of time. The 'nooo future' of the Sex Pistols and punk was not a complaint or a vision but an expression of the state of the situation: of being propelled by an energy bigger than oneself. Swept up...

Here again we encounter the similarity between activism (causing an event to arise) and film. Films, too, always take place in the present, like dreams. It is the present tense of I run, he yells, I pick up a rock and throw it at the cops hitting him. And I break open. The present is the place of unbridled rage. There is no perspective in the present. It is also the sphere of the game, of reality as a game, with no meaning, just strict rules. The big difference between action and film is that film time is compressed, while action time just goes on and on and can even last forever. And that's what's so good about the street fighting at the beginning of *Regular Lovers*: it takes ages in film terms. The camera just keeps running, thus naturally calling forth the experience of action time in the medium of film.

Three meanings

I regard *Regular Lovers* as a real film. As I watched it, the experience became strong enough to move me. Not to tears; it was more of a feeling of surrender combined with great detachment. I realised that Garrel had seen and experienced these things too, and he had remembered them and found a way of expressing them. And he did it exactly right, leaving nothing out, over-emphasising nothing. I accepted a whole collection of experiences in myself that I've been carrying around since my own activist days, starting in the early 1980s, without being able to do much with them or wanting to let go of them. I'm not talking about idealism or social engagement, but about the awareness of a different, autonomous world outside normality. Garrel evokes this awareness. He does not merely show it but lets us experience it through film, as the filmic. The extramedial is unassailable, for it lies outside the media. The extramedial experience is alive and well, but not under just any conditions – it can be had only through a very painstaking, understated use of media.

Roland Barthes is one of the few people to have come up with a theory of the real in film. To this end, he identifies three kinds of meaning in the film image. First of all, visual elements derive meaning from the story they are part of. We recognise characters, clothing, reactions, and understand how they are progressing, or try to. The story tries to make the images exciting: what's going to happen next? Film shares this first kind of meaning with theatre, whose plots also call forth questions about the future: how will this end? On stage, what has happened in the past is much less important than how the characters are dealing with that past in order to shape the future. Meaning arises through possible endings, strategies, choices and information deficits. This meaning is transparent; every viewer understands what's intended and why the story is exciting. Barthes' first kind of meaning is a consequence of film's remediation of theatre. [1]

The cinematic image derives its second kind of meaning not from theatre but from painting, which, like film, works with two-dimensional images. From painting we know about symbols – realistically portrayed objects or gestures that stand for something other than themselves and thus harbour an added value. This value comes from the painter, from the community he or she belongs to, or from his or her culture and history – in short, from tradition. This tradition must be continually renewed in order to maintain the old meanings. When we see gold glittering on the screen, we know what it means – wealth, luxury, rolling in cash. If someone's wearing a black eye patch, he's a pirate. If a woman has on a red dress, sex is in the offing. A metro train roaring up out of the ground indicates forces breaking loose from the subconscious. Film's symbolic meaning is a remediation of painting in moving pictures.

According to Barthes, the third kind of meaning is found only in the medium of film. We are moved by a detail that has no function in the story, no meaning except for the fact that it moves us because it is familiar: a headscarf, an intent gaze, a lock of hair. This third kind of meaning, according to Barthes, is what is real about film. It's about an intensity in the image, an intimacy in which our attention is drawn to something about the characters or the landscape or the objects which we would otherwise notice only if we knew them very well, were

truly intimate with them, lived with them from day to day. The third meaning is the element in the image that convinces us, makes us believe, as opposed to suspending our disbelief because we want a fun night at the movies. It moves us, but we can't get a grip on it: in Barthes' terminology, the third meaning is obtuse.

Films that are filled with special effects and spectacle try to sweep us up, but at the closing credits they set us carefully back down in our previous place in the world. And we don't care how the characters fare after the movie ends – we forget them. These films affect body and soul for no more than the two or three hours they last. A character charged with the third kind of meaning, however, stays with us the rest of our lives, not only as a memory but as a certain special way of picking up a teacup or touching someone on the arm. We think about these characters as we do family members or friends: not in terms of how they used to be but of what they're doing now. The third meaning, according to Barthes, is where we find the irreducibly filmic: "The filmic is what, in the film, cannot be described, it is the representation that cannot be represented. The filmic begins only where language and articulated meta-language cease. Everything we can say about films can be said about a written text, except this – which is the obtuse meaning." It is this effect that justifies cinema's existence, and the reason it continues to exist, however many other easier and cheaper visual media there are on the market.

According to Roland Barthes, film's third meaning is so elusive that we can actually only spot it in stills, understood as fragments of cinematic movement. Only stills give us enough time to locate the third meaning and intently study it. This should have been a clue. Some years after his third-meaning essay, Barthes wrote Camera Lucida.[2] In it, he examines an effect in photographs he calls 'punctum'. The majority of what we see in photographs is 'studium', the expression of a particular culture at a given moment. Studium is the general in photographs. Punctum, by contrast, is the unique, the one-time-only – being suddenly moved at the way a hand falls upon a shoulder. Barthes is very good at pointing out punctum in photographs. After all, he's had plenty of practice with film stills. When Barthes believed he had discovered a third kind of meaning in the cinematic image, he was actually discerning photographic punctum. What he describes as an outstanding example of the filmic is an effect of film's remediation of photography. The third meaning is not film's filmic element but its photographic one. The filmic – what is non-remediated and therefore original about film – has nothing to do with meaning.

The present

Watching Garrel's *Regular Lovers*, I don't identify with the good-looking French boys and girls in the film, but I do identify with the situations they find themselves in. I recognise these; they're familiar. This is remarkable. Hollywood always tries to use actors to create a connection between a film and its audience. The actors onto whom the audience projects its own desires and fears are the stars of the screen. The better their acting, the more convincing the film. But American actors are trained to perform best in crisis situations. They do all sorts of things with their bodies, eyes and voices to expose the profound unconscious motivations behind their actions. In European films – or, let us say, films made in classical European style – actors are at their best when they are doing nothing. They just sit there and look, and their bodies express what is happening in signals picked up directly by the viewers' bodies. This process is completely un-symbolic: no code is transmitted. An experience is evoked without a layer of words and expression being inserted in between.

We see plenty of this kind of acting in *Regular Lovers* (in which very little actually happens after the riots at the beginning, though the story ends with a suicide). And yet this is not the site of the filmic either, for acting comes from theatre, however much it has to be adapted for the camera. If a medium does not remediate another medium but remains solely itself – pure force – then it touches the extramedial. At precisely that moment, its audience also enters the extramedial. It comes from two sides, but it is not personal. The filmic – film's extramedial – is a collective experience, unlike, say, the photographic in photography, which moves us personally, one-on-one. The filmic opens a filmic space we share with other viewers, a space separate from the screen, a cinema in a parallel reality we can access only through certain films, a certain way of using film. In this parallel space, film is real; the filmic experience is an intensity of feeling or mental adventure that can be induced and caused only by the medium of film, but always in a highly-specific manner. At the rare times when we run across it, we undergo a unique experience. Only this film can have this effect, even if it is something abstract and general, namely the filmic.

What, then, is specific in the filmic experience of *Regular Lovers*? Which extramedial space does this film lead us into (should we choose to come along)? The space of 1968, of course. For what this film makes clear is that the experiences of the Paris actions of that year were extramedial, impalpable, authentic, real. This is what makes another attempt to capture the same experiences – Bernardo Bertolucci's *The Dreamers* (2003) – so painful to watch. However many pictures of Mao and other politically-inclined-'60s-cinephile paraphernalia a hysterical art director plasters the sets with, however many philosophical dialogues are served up at mealtimes, the film remains flat as a pancake: an imitation of something that was once real, a sensationalistic straining for effect.

But 1968 was about real lives, real rocks, real truncheons, real meetings, real loves – whatever else it got made into later out of defence or nostalgia. What Garrel succeeds in doing is evoking 1968's extramedial quality through film. He makes past experiences filmic, using a real film rather than an imitation. The extramedial pulls us outside time and into a domain where time has no grip ('depths at which no undercurrents pass...'). The filmic present is timeless and consists solely of itself, not of chains of images like the past and the future. Only the present-image is real: an experience we neither view nor have from a distance but are. In this experience we undergo the metamorphosis that makes us real, purged of others' nonsense and good intentions.

We are rarely in the present. We must therefore keep training ourselves with our media so that when that one moment finally comes, we'll be ready and it won't be wasted. The present can crop up in art, or as art. We can land in it in the streets of a city or suburb during a political 'action', or in the forest when we come face to face with an animal, as described above. The present is narrow; as we pass through it, we must leave much behind, thereby disencumbering our future. The present is a purification and an initiation. It makes you 'experienced'. From then on, this experience keeps you living, in the sense of leading your own life. But you, in turn, must keep the experience alive. How do you keep love intact? I'm not talking about short-lived moments of happiness but about an enduring attitude to life. You must construct it if you do not wish to die. You are no longer a closed individual: the world flows through you. Storing up real experiences is not an unqualified pleasure. More than thirty years later, after furnishing you with many miserable years, they can still force you to make a film in order to save them. Philippe Garrel kept the 1968 action experience pure on film. It wasn't a wild, drug-soaked orgy. It was about living experience. A space had opened in the world where we could live our way. It happened to us. There was much laughter, and many things went wrong. What happened afterward doesn't matter. It was life. And it is reality forever.

NOTES

1. Remediation is the evocation of the effect of one medium in another medium. The term comes from Bolter and Grusin's Remediation: *Understanding New Media* (2000). I here combine Barthes' theory of the three meanings of film from his 1970 article 'The Third Meaning' (in *The Responsibility of Form*, 1991) with my own interpretation of how particular media are remediated in film.
2. Translated by Richard Howard, 1982.

Writer and theoretician Arjen Mulder has a background in biology. He has written several books on media art and the relation between technical media, physical experience and belief systems. Recent publications of his are *Understanding Media Theory* (2004) and *De vrouw voor wie Cesare Pavese zelfmoord pleegde* (2005).

Looking or Chattering

GERARD HOLTHUIS

'Why are *farangs* (foreigners) always looking at the book?' A question asked by the cleaning lady in a hotel in Bangkok.

For decades there has been a tendency in the arts to take the visual for granted and explain and give meaning to works of art by way of text. The viewer does not have a relationship with the work; instead, the work has a relationship with a writer on art, a 'chatterbox'. The art of chatter predominates in contemporary art because people cannot or will not accept that in the 21st century, technology is regarded as more prestigious than art. Why would we imagine that we could be the equals of the artist Vermeer? The idea that everything must be better, faster, more significant, original and all-embracing than what preceded it derives from technological developments and has nothing at all to do with art. Very little can be appreciated at exhibitions, bienniales and in museums without the viewers first (or later) reading the accompanying texts that explain what they are about to see, or have just seen.

This chatter increased dramatically after technology was introduced to visual art. After some (film)experimentation in the 1920s, so-called video art appeared in the 1970s; however, it was not considered 'real' art because dealers and gallery owners could not exploit it financially. As a result of the simplification of human–technological interfaces, video art slowly but surely gained ground (Moore's Law). Moving images were fully accepted as an art form once artists started working with film. Film was and still is status-enhancing because the technique involves more than just pressing a button and leaving the decision-making processes up to the machine. Expressing artistic impulses by means of a pot of paint and some canvas or a lump of clay is considerably more challenging than pointing a video camera at something, pressing the button and assuming that viewers will understand the finished work. A lot of text is needed to explain such an approach.

Twenty-first century humans grew up with moving images. We assume that this so-called 'rendering of reality' is in a universally understood language. Everyone watches television or films and can express opinions about what they see. We believe we are all experts, with unique and valid opinions. A football match? There are 16 million coaches in the Netherlands. The news? We can all talk about the news. Missed an episode of *The Sopranos*? We can tie the narrative together in our heads. What qualifies all these 'experts' as Experts, is that they are all connected by the idea that 'we understand what we see' and are therefore qualified to exchange ideas about what we saw. These discussions are mostly about facts and not about the event. We do not rely on our eyes and ears as autonomous senses, but rather on mentally processing received information in the brain: the talking, the text behind, before or after the images. What is experienced is unimportant; intellectual assertions are paramount. Hence, also, the endless waffle by the media about media: debates about whether scenes in documentaries actually occurred or were staged, script doctors, talk shows. Watching images conveys more information than any other form of communication.

"What happened there is – now you must read just your brain – the biggest artwork of all times. That spirits achieve in a single act what we in music cannot dream of, that people rehearse ten years long like mad, totally fanatical for a concert and then die. This is the biggest artwork that exists at all in the universe…. I couldn't match it. Against that, we - as composers – are nothing."

Asked by a journalist whether he identified art and crime, Stockhausen replied:

"It's a crime because the people were not consenting. They didn't come to the 'concert'. This is evident. And nobody announced that they could die in its process. What happened there spiritually, this leap from security, from what's ordinary, from life, that sometimes happens poco a poco in art. Or else it is nothing."

Thus did Karl-Heinz Stockhausen react to the events of 9/11. His reaction provides the correct definition of the experience of 'pure watching'. This was a news event so bizarre and incomprehensible that it subsumed the information it conveyed. It was 'larger than life'. My first reactions on seeing the aeroplane slice into the second tower had an enormous 'WOW!' factor. Jesus Christ! Did you see that? What film are we watching? Nobody dealt with the reality of the event; that only happened later, after we had confronted our surprise, and it's still going on six years later. (Stockhausen was forced to retract his statement.)

9/11 also reminded me of the first film by the Lumière brothers. They stood on a railway platform at Ciotat with their new invention, the *cinematographe*, and filmed an incoming train. The footage was later shown to visitors at a fair. Not prejudiced by foreknowledge of the phenomenon of cinema, the visitors got the fright of their lives when the train seemingly rode into the venue. Some fainted, others fled the hall screaming in panic. Moving images are apparently more than a representation of reality, they can conjure up emotions (fear, an expectation, a wish, an intuition) in the viewer's mind, a fundamental reaction much like that described by Stockhausen. Technology was the trigger that released this unique experience. The cinematographic experience was born.

In 1965 Tony Conrad created the experimental film, *The Flicker*. It starts with a warning message, which reads: 'WARNING. The producer, distributor, and exhibitors waive all liability for physical or mental injury possibly caused by the motion picture The Flicker. Since this film may induce epileptic seizures or produce mild symptoms of shock treatment in certain persons, you are cautioned that you remain in the theatre only at your own risk. A physician should be in attendance.' The film then goes on to a frame that says 'Tony Conrad Presents,' and then to a frame that says 'The Flicker,' at which point the film starts. The screen goes blank, then after a short while, the screen flickers with a single black frame. This is repeated again and again until it creates a strobe effect, the source of the film's title. This continues until the film abruptly stops.

All we see is a black image followed by a white image: it couldn't be simpler. But still so much occurs in this film that it is impossible to explain. As a viewer you experience more anxiety than the images of 9/11 could invoke.

It doesn't matter what you're watching, be it a documentary, fiction, the news, animation, drama or sport. Just experience the image – it conveys far more about what you're watching than any written information about it ever could.

A rose is a rose is a rose is a rose…. Gertrude Stein
Shoah. Claude Lanzman
The medium is the message. Marshall MacLuhan
Sleep. Andy Warhol

Gerard Holthuis (NL) started out as sculptor and switched to moving image and sound at the Free Academy in The Hague. During the eighties he worked as editor, cameraman and production manager. He was co-founder of the Filmstad Foundation, a workshop for experimental filmmakers. in 1995 he founded Filmstad Producties, a vehicle for producing independent films. At the moment (2007) he focuses mainly on his own work.

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