



Sensational Technologies

ABSTRACT

This paper is part of an ongoing study of performances that make a physical and psychological connection with the public by synthesizing various media such as sound, image, smoke, smell, etc. The research project will focus on the history of the live image and try to connect this to current practices in popular culture and art, for example live video jockey (VJ) performances and interactive-technology-based installation art. For our presentation at SIGGRAPH 2004, we will concentrate on three cases that make use of state-of-the-art technology in order to create specific bodily sensations. We will also take their temporal character into account and explore whether, and if so, how these “events” can be presented and preserved for future generations as part of our cultural heritage.

INTRODUCTION

In her presentation *Burnt Offerings* at ISEA2000, Margaret Morse tries to invoke a new interest in sensorial art by suggesting that “our new century is becoming increasingly infused by odours that mark a cultural transition into a digital culture.” She continues:

Smell is already virtual insofar that it is an immaterial and largely invisible atmosphere that announces a body or an environment. Like the virtual, it is a thing or a world in effect, but not actually. Odours mixed and distributed in the atmosphere are most often apprehended accidentally and subconsciously. However, an odour can suddenly become conscious, evoking a strong sense of another time and place.¹

As smell is difficult to define because of its formlessness and continuous state, one could state that there is no aesthetics of smell and no olfactory art. Morse counters this assumption by “showing examples that show just as odour has become more a socially important, distanced, and controlled phenomenon in certain spheres of society, odours have emerged more consciously as an art form used to make an aesthetic and cultural statement.”²

Although Morse focuses on smell, today’s art practice shows that there is a true revival of the various senses in arts and theory. More and more artists are working with sensorial elements, from smell and taste to touch. Moreover, these artists are exploring creation of synaesthetic experiences by actively using or addressing the spectator’s senses.

In this paper, the focus will be on the use of technology in installations and performances that use the senses to create a sensorial or synaesthetic experience. Stepping away from the purely visual appeal, three different approaches will be described that shed light on the diverse use of the senses in combination with technology.

Perhaps not surprising, but nevertheless interesting, is that each new step in technological innovation generates experiments in synaesthetic

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experience. A good example is the invention of the “*Laterna Magica*” As its name implies, the public was invited to see something magical. The first lanterns were already invented in the 17th century. And although they impressed the audience as sheer magic, the idea was fully developed in the next century. This was mainly due to the heavy and impractical size of the apparatus. With technical improvements, the lanterns became more transportable, and therefore their popularity grew. People started to experiment with projecting images on smoke or mirrors; the result was a feeling of transparency and immateriality. At the turn of the 19th century, this led to a whole series of especially ghostly performances. The most famous of all were the *Phantasmagorias* by the Etienne-Gaspard Robertson, of Belgium. His intentions were clear: “I am only satisfied if my spectators, shivering and shuddering, raise their hands or cover their eyes out of fear of ghosts and devils dashing towards them; if even the most indiscreet among them run into the arms of a skeleton.”³ Through the rest of the century, special buildings were built for performances that immersed the audience in a spectacle of light, sound, smoke, and smell that invoked both emotional and bodily sensations.⁴ However hard it seems today to recognise the powerful effect of the illusion, many observers stressed the convincing nature of the apparitions. “Robertson described a man striking at one of his phantoms with a stick; a contributor to the *Ami des Lois* worried that pregnant women might be so frightened by the phantasmagoria that they would miscarry.”⁵

CRITICAL WRITING ON THE SENSES

Much has been written about the senses and the importance of bringing the senses into life and art. In the critical and theoretical art historical writings of the last century, the confusion and near discomfort in descriptions of sensorial experiences are striking. In describing and ascribing works of visual art, the most privileged sense has always been sight, and in the realm of film and theatre (to some lesser degree), hearing. When people have tried to explore the complex relationship between our senses and the arts, their writings have often been discarded as unscientific. This was the case, for example, in Peter Wollen’s study on filmmaker and theorist Sergei Eisenstein. While Wollen mentions Eisenstein’s investigation of the synchronisation of the senses, recognizes the importance of these writings, and states that Eisenstein’s writings on synaesthesia are of great erudition and considerable interest, he nevertheless discards them as being of a “fundamentally unscientific nature.”⁶ In the 1930s and 1940s, several other authors acknowledged the importance of the senses, but contemporary studies have elided these observations, until recently.⁷ Professor of film studies Vivian Sobchack tries, as Morse has tried, to invoke a new interest in the sensorial. Moreover, she opts for an approach that explains the concept of embodied vision through cinema. In her words, she wants to “posit the film viewer’s lived body as a carnal ‘third term’ that schismatically mediates vision and language experience and image.”⁸ Sobchack tries to step away from the “common” theories that deal with experience in relation to engagement with and recognition of characters or subject positions.

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I want to insist that I am not speaking metaphorically of touching and being touched, but “in some sense” quite literally of our capacity to “feel” the world we see and hear on-screen and of the cinema’s capacity to “touch” and “move” us off-screen.⁹

When exploring “the sensorial experience” in today’s art practice, one encounters various approaches. In some cases, the work appeals to the senses even though the synaesthetic or sensorial experience is not the main concern of the artist. In these situations, the materials used by the artist function as a stimulus for the senses. Even though not intentionally a bodily sensorial experience, the work can be viewed in this respect. In other cases, the senses play a more prominent role but are still treated or used as an interface, or as extensions of an interface, to enhance a non-sensorial concept. These installations use one or more sense organs to directly evoke something else. For other artists, the main concern is to create a sensorial experience: artworks that have as their main goal the creation of an (emotional) aesthetic experience and call upon various senses (sight, sound, touch, smell, or taste) to achieve this.

THREE EXAMPLES

Today’s increasing interest in “sensorial art” is believed to be a counteraction in response to the digitalisation of our society and the increased use of technology in art, which generates (again) work that is not recognised as art forms that can withstand the criteria of ‘high art’.¹⁰ Yet elaborate artwork such as the immersive VR worlds *Osmose* and *Ephémère* by Char Davies, live performances by Barkode, and the installation *Tickle Salon* by Erwin Driessens and Maria Verstappen show that an immediate, bodily, sensorial aesthetic experience can be enforced by means of digital technology. These are experiences that echo Romantic aspirations but are truly products of our own time and age, employing state-of-the-art technologies within contemporary artistic practice. These examples show that without innovative technology, these projects would not have been possible. They are, nevertheless, not necessarily about technology, but first and foremost they are sensorial experiences.

Char Davies: *Osmose* (1995) and *Ephémère* (1998)

For our first example, we will go back in history, to one of the first works of art that used new technologies in a sensational way. With a background in painting, Char Davies started working on *Osmose* in 1994. *Osmose* is an immersive, interactive VR environment involving a head-mounted display. Although her intentions were to explore the use of 3D imaging to create immersive environments that were computer generated and not about mimicking reality, her inspiration came from nature itself. The created environment turned out to be, unlike most VR explorations, a visually impressive simulation of a series of widely branching natural and textual spaces. The installation offered people the opportunity to go on a personal voyage and encounter abstract images of nature. What makes the work exceptional and appealing to the senses is Davies’ use of the interface. Instead of using a keyboard or screen she invented an interface that is coupled to the body. Inspired by her experience as a diver, she created a special vest with sensors that registers every movement and reacts to the wearer’s breathing in or out. Similar to being underwater, users can move through the installation by controlling their breathing and

movements. Using internal and external bodily movements in such a way enhances the whole feeling of being immersed *in* the image space. Even though the intentions in developing the work were not technologically motivated, in almost every case the installation was presented at technological festivals or symposia. We, however, feel that the intentions and moreover the experience are not about the use of technology but foremost the experience of sensational capacities.¹¹ As Davies herself asserts:

In my work, I’m attempting to *reaffirm* the role of the subjectively-lived body. Rather than deny our embodied mortality and our material embeddedness in nature, I seek, somewhat paradoxically through a highly technologized art form, to return people to their bodies and to the earth by using VR to *refresh* their own perceptions of an embodied being-in-the-world, to return them to a perceptual wonder at being here.¹²

The installation *Ephémère* (1998) is more abstract than *Osmose*. The iconographic repertoire in this later work is extended to include body organs, blood vessels, and bones, suggesting a symbolic correspondence between the chthonic presences of the interior body and the subterranean earth. Instead of representing nature as realistically as possible, Davies attempted to “represent nature as an operatic flux, with everything flowing, with many different elements coming into being, lingering and passing away.”¹³

The virtual worlds in both installations are generated in real time by high-powered processing engines that make each visit a different experience. Although the structure of the installation is a stand-alone system, the dark auditorium with the screen is reminiscent of a theatre or cinema. In both *Osmose* and *Ephémère*, the individual experience can be watched in real time. An audience can see the choices that are made by the immersant and hear the sound generated by the immersant’s behaviour. The shadow-silhouette of the immersant is also projected live onto another screen, emphasizing the relationship between bodily presence and the immersive experience.

Barkode: live VJ performances (1999 – today)

Synaesthesia is now very prominent in daily life. When we walk into shops and cafes or stroll along the street, our various senses are under constant assault. People get overwhelmed with musical beats accompanied by flickering lights and video and digital imagery, all of them trying to keep up with the music. These happenings come together in the club scene, where the sounds merge with light, images, smoke, and even smell. After the popularity of the disc jockey (DJ), the video jockey (VJ) entered the club scene in the late 1980s. The term VJ was popularised in the beginning and mid-1980s by MTV, the cable music channel. A few years before, the end of the 1970s, the term was introduced by the crew of the Peppermint Lounge, a popular dance club in New York. The performers wanted to distance themselves from the stuffy video artists that were part of the art and cultural scene in New York. MTV co-founder Bob Pittman appropriated the term for his MTV presenters.¹⁴ To this day, the term VJ is still a disputed name.

Although the differences among VJs are enormous nowadays, some



make a physical and psychological connection with the public by synthesizing various media (sound, image, smoke, smell, etc.). These synaesthetic performances can be seen as the first attempts to create a virtual reality outside the confinements of the CAVE (Cave Automatic Virtual Environment) or specially designed suits, in spaces in which the participation of the public is crucial to the success of a performance.

The Dutch VJ collective Barkode wants to create a synaesthetic performance by triggering the subconscious. Their show is a succession of encounters, chance meetings of words, images, and sounds, all made with digital means, first recorded on video and then later live-mixed with digital music. Many transparent layers overlap, leaving the viewer lost in time, space, and emotion. But as time passes, more story lines develop, which makes the experience even more unclear. Does the spectator find the plots, or are the consecutive images and sounds leading up to something? Barkode describes their shows as "confusing constructivism," inspired by the subconscious. By adding smell to the images and the music, they augment the atmosphere; pleasant smells heighten the experience, and foul odours trigger feelings of disgust. Their performances are a postmodern version of the experiments done in the Romantic area and in Sensurround films of the early 20th century, when smell cards were given to the audience to accompany the sensations in the film.

Erwin Driessens & Maria Verstappen: Tickle Salon (2002)

The Dutch duo Driessens and Verstappen developed Tickle Salon because they like the sensation of being tickled. "When a human being is gently tickling somebody, sooner or later tiredness and slackening of attention will appear. Therefore we developed Tickle Salon: a robot installation based on the concept of automated caress."¹⁵ Tickle Salon consists of a bed and a small "brush" hanging from the ceiling and connected to a small motor, which in turn is connected to a computer. The installation is controlled by a host(ess), who turns on the computer when the visitor is lying comfortably on the bed. The brush starts to stroke the body in random patterns. The contours traced by the brush are simultaneously reflected in a 3D computer drawing on a screen. The interaction of the body with the machine is regarded as crucial to the meaning of the work. In other words, if nobody participates in the work, the robot cannot properly function. It cannot create a sensorial experience, and the artwork loses its meaning.¹⁶ Appreciation of the artwork lies not in the least in the artists' ability to create a profound sensual experience using new technologies in an intelligent and innovative manner. To cite the jury report of the Telefonica Foundation Art and Artificial Life Award:

Tickle Salon combines a remarkable technical achievement with an elegant concept, a touching interface, and edgy irony – but most importantly, anyone would want the device in their bedroom. (...) This two-way feedback gives a convincing sense that the machine feels the person while the person feels the machine.¹⁷

The artwork addresses both the visual and the physical or haptic perception.¹⁸ The "blind" machine senses the contours of the human body through touch and then translates this into a visual representa-

tion of its form. The subject feels the caress and simultaneously sees the stroking as the body is shaped on the screen. Besides touch and vision, there is also the soothing sound of the stepper motors that corresponds with the movements of the metal ball and brush. Also, though not intended by the artists, there is the fragrance of the previous user. As mentioned before, the ultimate goal of Tickle Salon is the evocation of an immediate physical and sensorial experience. Tickle Salon is not about a multi-sensorial experience; rather it is a multi-sensorial experience. In fact, to some extent the installation is in itself a haptic sense organ.

When Driessens and Verstappen talk about their work, it becomes apparent that their interest is not so much in the creation of the best tickling apparatus, but in the processes in artificial life. "We are not interested in imitating or simulating existing processes. But instead, we wish to implement processes that make use of these specific capabilities in such a way that forms of artificial life are created."¹⁹ Whereas Davies and Barkode are interested in creating synaesthetic experiences and use technology to trigger the senses, Driessens and Verstappen turn the process around. By creating a machine that is a multi-sensorial experience, they seem to be more interested in artificial life than in the synaesthetic reaction that is provoked by the technology they use. In other words, they use the sensorial to find new processes in artificial life, whereas their installation in real life turns out to be a wonderful sensorial experience.

DISCUSSION

Even though the two works of Char Davies have been around for a long time, a relatively small number of people have had the pleasure of experiencing these artworks. As with the performances of Barkode, Tickle Salon by Driessens and Verstappen, and many others, these artistic activities that use state-of-the-art (but obsolete) technologies are considered to be temporal events or projects. These works often exist outside of the museum context, and in many cases they can only be experienced during electronic art festivals, temporal exhibitions at media institutes, or in the case of Barkode, in the club scene. What might this say about the status of these works in the realm of the arts, and what does it mean for the preservation of such works? Although many artists themselves try to document as much information about their installations as possible, when these valuable records are not centrally archived, these installations will probably not have a long lifespan. In the wider range of media art, an image in a catalogue is hardly sufficient to understand the working and meaning of the work. When it comes down to works that deal specifically with sensorial experiences, like the ones we mentioned above, it becomes even more deficient. This leaves us with some pressing questions: Which methods are emerging in order to open up the closed circuit of the art system for discursive approaches?²⁰ But also: should, and if so, how can these "events" be presented and preserved for future generations as part of our cultural heritage?

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NOTES

1. Margaret Morse, 2000
2. *ibid.*
3. www.acmi.net.au/AIC/PHANTASMAGORIE.html
4. The synaesthesia of images, smoke, and music was improved by the various lenses that got developed for the lantern, which made it possible to project overlapping images that even gave the impression of movement. These performances are regarded as among the first cinematic experiences. Moreover, I would argue they are the first DJ/VJ performances.
5. Terry Castle, 1995, p.150.
6. Vivian Sobchack, 2000.
7. *ibid.*
8. *ibid.*
9. *ibid.* Laura U. Marks also develops in her book *Touch. Sensuous Theory and Multi-sensory Media* (Minneapolis: University of Minnesota Press, 2002) a critical approach that emphasises the tactile in favour of the visual. Also Jennifer Fisher in her article Relational Sense: Towards a Haptic Aesthetics, in *PARACHUTE* #87, Summer 1997, pp. 4-11 ([also alcor.concordia.ca/~senses/Fisher.htm](http://alcor.concordia.ca/~senses/Fisher.htm)) makes a clear distinction between the visual and the haptic sense.
10. The debate between high and low art is still vivid today. This paper will, however, not touch upon these discussions.
11. This could partly be explained by the fact that the installation has been experienced by relatively few people. It has only been exhibited on less than 10 occasions in 10 years time. During these presentations, it was usually up no longer than a few days.
12. Carol Gigliotti, 2002, pp. 64-73.
13. *ibid.*
14. Strikingly, the term VJ is still associated with MTV. On a well-known VJ mailing list, eyecandy Stefan G. tells a nice anecdote: "Funnily enough, when MTV were scouting around for Presenters six months or so before they started, they put out a call for VJs to send them demos. Everyone who was a working VJ at the time sent them MAD multilayered mixes thinking that's what they meant! They had to put out another press release

clarifying that they defined VJ as an on-air personality not a visual mixer! Shows how corporations can co-opt and redefine our own terminology. Twenty years later even VJs think that the term was invented by MTV..." (Stefan G. on eyecandy, Wednesday, 14 March 2001, 7:49 pm, Message 7206).

15. Erwin Driessens and Maria Verstappen, www.xs4all.nl/~notnot/TickleSalon/TickleSalon.html
16. It must be noted that during so-called public sessions the artists also offer their audience the possibility of a more remote engagement with the work. In these public sessions, the audience can view the functioning of the artwork while somebody else (a volunteer from the audience or a model) lies on the bed and is stroked by the robot. This staging adds a more theatrical or performance-like character to the work and offers the audience a rather voyeuristic experience instead of "the real thing."
17. Tickle Salon has been rewarded first prize at LIFE 5.0, 2002, an international competition on art and artificial life. www.fundacion.telefonica.com/at/vida/paginas/ev5.html
18. Art theorist and critic Jennifer Fisher, in her article Relational Sense: Towards a Haptic Aesthetic, says that the haptic sense "describes aspects of engagement that are qualitatively distinct from the capabilities of the visual sense. Where the visual sense permits a transcendent, distant, and arguably disconnected, point-of-view, the haptic sense functions by contiguity, contact, and resonance. The haptic sense renders the surfaces of the body porous, being perceived at once inside, on the skin's surface, and in external space." (Jennifer Fisher, 1997; also alcor.concordia.ca/~senses/Fisher.htm).
19. Annet Dekker and Vivian van Saaze, interview with Erwin Driessens and Maria Verstappen, summer 2003.
20. This last question is also a the topic of >>Present Continuous Past(s)<<, an international symposium in Bremen, Germany about strategies for the preservation and mediation of video art. <http://www.imediathek.org/english/index.html>