Endnotes

1. The clip can be found at http://www.youtube.com/watch?v=CsyxkJiA (last accessed on 21 November 2011)


4. In her reflections on Jesus Segura’s duo-channel video installation *I Can Be You* (2003), Mieke Bal uses the term *foreshortened time* to refer to this thickening. As a spatial metaphor, foreshortening intimates an optical illusion whereby an object or distance is contracted so as to obtain the illusion of a projection and extension in space. This illusion differs from linear perspective, she states, in that it is a deception that immediately flaunts itself (2008: 48). Applied to a temporal phenomenon, then, foreshortened time indicates time that is perceptibly “distorted – made wider or thicker – so that we experience the almost tangible push of time” (2008: 44).

5. Machinima refers to the use of graphics engines from video games to create cinematic productions, often by fan laborers.

6. “Filmic experience,” Francesco Casetti writes, “presents itself as a moment which ‘enlivens’ our senses and nourishes sensibility.” It is here in particular, he states, that the participating viewer “seizes control of her/his given situation” and that “the restructuring of spectatorial subjectivity” after the rigorous relocation of the cinematic from the movie theatre around the turn of the 21th century takes place. (2009: 66)

7. It is only because “(m)oving images transformed the nature of the photographic image,” Campany suggests, that “stillness” was turned “into arrestedness.” Conversely, “the cinematic spectator is made pensive” only by the on-screen appearance of a still, that is “photographic,” image. (2007, 12)

8. In part, Sobchack's view on the electronic can be attributed to her writing in the early 1990s, when much of the critical debate on electronic media and the digital still revolved around the now contested disconnection between consciousness, perception, and living human matter. Since then, however, the metaphors and paradigm of the discussion have shifted and embodiment has come to occupy the centre of most if not all the more recent discussions on cinematic and electronic presence alike. In line with these more recent discussions, the distinction between cinematic and electronic negotiations of time, as theorized by Sobchack, can equally be disputed.


10. Elsaesser (2004a, 2006). Elsaesser reintroduces the term (expanded) *diegesis* to refer to the regulated interaction between articulated forms of space, time, agency, and subject, through which moving images constitute a world. (Elsaesser: 2006, 216-217) Although Elsaesser puts the term to a productive use, I prefer to use the notion of the chronotope here, because I am interested more in the time-space configurations that affect our sense of self-presence, and less in the ways of world-making and of telling stories (as opposed to showing or enacting them), which the term diegesis entails within critical, literary, and film theory.

11. Norman Bryson was first to appropriate the term for the analysis of visual art. (1983)

12. For a concise reflection on the concept of suture see Heath (1981).

13. For my reflections on the dispute between Casetti and Metz I mainly draw on Buckland (1995; 2000), along with Casetti’s and Metz’s own writings.

14. Poststructuralist film theory on subject positioning include Baudry’s writings on the cinematic *dispositif* (1986a, 1986b), the “screen theory” built on both Freudian and Lacanian psychoanalysis,
and Althusser’s notion of interpellation (e.g. Heath, 1981; MacCabe, 1985; Rosen, 1986), as well as the feminist critiques by, for example, Laura Mulvey (1975) and Tania Modleski (1988).

15. Elsaesser and Hagener (2010) Moreover, this paradigm is fully in synch with a much wider trend within the humanities at large, encompassing both the critical embrace of the idea of relationality and the gradual decline of the dominance of the Cartesian paradigm on which most classical film theory is based, resulting in a shift of attention within theories of vision away from ocular-centrism and towards embodied modes of perception. See, for example, Jay (1988, 1993) and Crary (1988, 1990) on the scopic regimes of modernity.

16. All statements and quotes regarding the exhibition stem from the press release: www.centre-pompidou.fr/Pompidou/Communication.nsf/docs/ID47851AD2CA1DD6A7C12571650050AF45/$File/1 dp%20mouv%20anglais.pdf (last accessed on 18 February 2012)

17. The exhibition underscored Ursula Frohne’s observation that “the museum itself is undergoing a metamorphosis, and is becoming a cinema in-process.” (2008: 357)

18. As critic J. Hoberman notes, moreover, the film offers “a particularly brutal dramatization of the Warholian discovery that the camera’s implacable stare disrupts “ordinary” behavior to enforce its own regime.” (2002) Yet, watching the film today, one reviewer rightly remarks, it is “hard not to think of it as primarily a film about the aesthetics of surveillance.” (Sandhu, 2009)

19. For a description of the works as well as some visuals see Christian Moeller’s homepage at http://www.christian-moeller.com/ (last accessed on August 12, 2010).

20. For visuals and reflections on his own work, see David Rokeby’s homepage at http://homepage.mac.com/davidrokeby/home.html (last accessed on August 12, 2010).


22. Part of an earlier draft of this chapter has been published in Apertura (2008).

23. Heiss and Lowry (2004: 8) The exhibition Andy Warhol: Motion Pictures originated as Andy Warhol: Screen Tests shown at the Museum of Modern Art in New York in 2003, and has been traveling ever since. But there are earlier accounts of multiple screenings of Warhol’s films, as such as during a one-day screening event during a Warhol exhibition at the Los Angeles Museum of Modern Art (1993) and possibly during Andy Warhol, Cinema at Centre Pompidou in Paris in 1990, although the catalogue does not give a clear indication of how the films were actually shown there (Blistene and Bouhours, 1990).

24. Renan (1967: 104). The term expanded cinema was further developed by Young (1970).


27. Also see Peter Bourdon for an early critical response and a lengthy discussion on the exaggerated and artificial use of time in the films. (Bourdon, 1997, orig. 1971)

28. See for example Joseph (2002b) on surveillance and Warhol’s TV-productions; Rodney (2005) on surveillance in Empire and Empire 24/7 (Staehle 1999-2004). References to the films in terms of the real-time logic of video are also made in Angell (2002), Grundmann (2004), Hoberman (2003), Uhlin (2010).

29. Williams (1975). The films' extended duration and lack of narrative, moreover, elevate the “anticipatiation of an end to an end in itself,” a quality Tanja Modleski (1982) has ascribed to the genre of the soap opera. (2010: 11)
30. Uhlin (2010: 5–7); McCarthy (2001). For our purpose here it is worth noticing that McCarthy explicitly links the temporality of waiting to the proliferation of television screens in the many places and spaces of everyday life.


32. Koch (1974: 29) This “What is sleep, after all,” Stephen Koch writes, “but the metabolic transformation of the entire experience of time, our nightly release from the clock’s prison, filled and flashing with the dreaming motions of the mind and yet an immobility, a quietude in which seconds and hours are confounded.” (1974: 40)

33. The echo of Jim Collins’ “Watching Ourselves Watch Television” (1989) is on purpose.

34. Nam June Paik’s Zen for Film (1964) is a film without images, a looped 16mm blank filmstrip on which can be discerned only the gradual and unrecoverable degradation of the film’s physical material through projection and particles of dust. According to Nick Kaye, “[...] Zen for Film points to a plurality of times, playing across the present-tense contemplation invited by the white wall, the accumulating traces inscribed by its past and present projection, as well as its future erasure in the mechanics of the film medium itself.” (2007: 51–52) Seeing the film on YouTube, however, completely undoes everything the film purports to do.

35. For an insightful reflection on museum presentation as script, see Julia Noordegraaf’s Strategies of Display (2004). Noordegraaf draws on Bruno Latour and Madeleine Akrich’s notion of the script, who use the term to analyze the interactions between humans and non-humans, or artefacts. For Noordegraaf, the script becomes a conceptual tool that allows her at once to describe the strategies of museum display of the museum presentations she investigates, and to analyze “framework for action” that the displayed object prescribes, intentionally and unintentionally. (2004: 12–13) In chapter three, I use Gibson’s notion of affordances to refer to the actions a given environment prescribes. The term scripted spaces was coined by Norman Klein, who uses it to refer to “walk-through or click-through environments [...] designed to emphasize the viewer's journey – the space in between.” (Klein, 2004: 11)

36. Navigating through the exhibition was like walking down the streets in Amsterdam, where many of the traffic lights in the city’s centre now have similar countdown clocks to prevent impatient pedestrians from crossing the street. We are reminded of our haste, our impatience: even though it may feel as if we have to wait endlessly, we now know that it hardly ever takes more than, say, 60 seconds. Yet whereas the stop-sign countdowns are always of short duration – for our good manners should not be challenged too much after all – the countdown clocks in the Warhol exhibition display not seconds but minutes and hours.

37. One of the documentaries was Ronald Nameth’s Plastic Inevitable (1967), a registration of a week in a series of the EPI organized by Warhol between 1966 and ’67. The film displayed a nervous combination of stroboscopic lighting, odd slow motions, stop motions and freeze-frames, frantic on-stage performances and intermingled projections of films, shadows, superimpositions, and reflections.


39. A critical perspective on what the author condenses under the heading “glance theory” – or the theory of distracted domestic television viewing, associated with theorists such as Raymond Williams (1975), John Ellis (1982), and Marshall McLuhan (1964) – can be found in John Caldwell’s Televisuality (1995: 22–27) and White (2003).

40. The varying quality of the sound and the crowdedness of the room also played its part. When I returned to the exhibition for a second time I had the uncanny experience of entering the room when the sound was switched off altogether.

41. According to Epstein, the close-up is the privileged site for the (experience of) photogénie, a concept designed to account for the inarticulable enhancement of an object or being by photographic or filmic reproduction. For Béla Balázs (2007), “The close-up underwrites a crisis in the opposition between object and subject,” because it is anthropomorphic, while at the same time it tends to transform the very locus of subjectivity, i.e., the face, into a series of objects. (Doane, 2003: 94) Finally,
Gilles Deleuze (1986) reasons that the close-up raises its object to the state of entity. A Deleuzian affection-image, the close-up provides the viewer with a surface that is both sensible and legible, and, in Deleuze's view, intense.

42. To give an indication of how radical the consequences of such a conversion can be, note how the issue of digitization is introduced in the curator's statement of the 2004 exhibition Andy Warhol: Motion Pictures (Berlin, 2004), where Mary Lea Bandy remarks, almost in passing, that: “For the exhibition, excerpts of Empire and Sleep were transferred to DVD at the slower speed: the transfer of the entire eight hours of the one and over five hours of the other would cost more than any cultural institution's film restoration budget could provide.” (2004: 19) In other words, seeing Empire in this particular exhibition meant seeing some excerpts of the film, over and over again. Extended duration here is thus replaced by repetition, and spatial references are substituted with a temporal indexicality, so that both are folded back onto the “here” and “now” of the images’ unremitting materialization.

43. The first punctuation echoes once again Barthes' description of the punctum: “It is this element which rises from the screen, shoots our of it like an arrow and pierces me [...] It is what I add to the photograph and what is nonetheless already there.” (1982: 55)

44. (1982: 199) The distinctions made between representation, object, and text are Wollen’s.

45. The allusion to the X-Files slogan “the Truth is Out There,” which concludes the show’s opening credits, is intentional.

46. (2001: 93–95) Michelson explores this transition in Kleinian terms as a transition of “the primacy of the part object to that of the whole object.” (2001: 96–97, 106)

47. Bakthin, here quoted in Michelson (2001: 101–102) For this view of the annihilation of subjectivity is shared by both Michelson and for example Foster, Frohne, Joselit, and Joseph to whom I will turn below, but disagreed with by Roy Grundmann, who sees Warhol's subjectivity reconfirmed in his role as Master of Ceremony (2004), or by Rosalind Krauss who observes a structuring tension between individual creativity and the “collapse into sameness” in the work of Warhol. Warhol's insistence on difference within the same, she argues, reveals a subject-in-crisis, who (quoting René Girard on the notion of mimetic rivalry in Dostoyevsky) wants to “be the Other, and still be himself. The wish to be absorbed implies a insuperable revulsion for one's own substance, a subjection charged with self-hatred.” (2001: 117)

48. Frohne (2002: 255, 259, 261) Drawing on Beatriz Colomina, Frohne convincingly argues that this development is not limited to audio-visual media, but extends to the architecture of, for example, Adolf Loos and Le Corbusier, where “under the influence of mass media, the spatial consistency of the interior dissolves and (the) inhabitants become performers, playing themselves (in real-time) on the set of modern architecture.” (Frohne, 2002: 266) Needless to say, Frohne draws on Kaja Silverman's musings on the gaze and the pose for her rumination on the internalized camera gaze. (1996)

49. The term media feedback comes from David Joselit. (2007, 2002)

50. This tendency towards withdrawal became quite literal in 1972, when Warhol withdrew all his films from circulation; they remained unseen until the mid-eighties.

51. Although the label “urban literacy” is mine, it is based on Mark Featherstone's reflections on the return of the flâneur within our media-rich world today (Featherstone, 1998: 913). For further reflections on the arguable “return” of the flâneur in the museum see Päivi (2000); in the mall see Friedberg (1999); and on the internet Featherstone (1998)


53. On the premise of “being there” see Pauls (2007); for an introduction to the Screen Tests, see Angell (2006).

54. Rosalind Krauss (1999) on Walter Benjamin. In accordance with the art essay, Benjamin, in “Little History of Photography” (1999) regards very positively the potential of the daguerreotype, which he felt possessed the means to liberate the subject from the authorial voice, in this case the hand and eye of the artist.
55. In fact this strategic absence, both as director and persona, raises the question of intentionality, especially when framed in the exhibition currently under consideration, where Warhol’s apparent absence critiques the teleological design of the exhibition, premised on the life story that forms the narrative thread in the main entry hall “About Andy.”

56. This is the case when seeing the film not only in the exhibition installation, but also in its celluloid projection in a more traditional screening situation, as during the To Be is to Be Perceived film program at the Tate Modern in London (where I saw it on 18 September 2010). For a clip of the film see: http://www.medienkunstnetz.de/works/outer-and-inner-space/video/1/ (last accessed on April 14, 2011)

57. A transcript of the film is available in the exhibition catalogue *From Stills to Motion & Back Again* (2003: 27–40)

58. Incidentally, this adds another temporal dimension to the already multi-faceted temporality of the exhibition, namely the degree to which the screening of such a work turns a museum of modern art into what Elsaesser has called a “storage space of obsolete technologies.” (2004b: 25) And this, in turn, stipulates, once more, cinema’s peculiar relation to time, as a medium that both stores and freezes time.

59. Kaye (2007: 59). Nick Kaye further points out that Paik’s installations and videos anticipate the multiplication of times identified by Elizabeth Ermarth-Deeds in *A Sequel to History* (1991). Reflecting on time and subjectivity in so-called post-modern literature, Ermarth-Deeds argues that by oscillating between different points of view, post-modern literature produces a “rhythmic time” that allows for the unique and unrepeatable experience of the time of reading itself. Rhythmic time, she writes “is over when it’s over and exists for its duration only and then disappears into some other rhythm.” (Ermarth 1991: 53, quoted in Kaye 61) Rhythmic time, Kaye summarizes, reflects the fact that “postmodern subjectivity is without a subject’, for the ‘subject is dispersed in the world it observes’ (Ermarth, 1991, 123).” (Kaye, 2007: 59)

60. On “video specificity” see for example Partridge (2008).

61. Even though I speak of a trend, these films do not belong to a specific genre. *Festen* is in many ways a more or less traditional feature film. *Idioterne, The Blair Witch Project, C’Est Arrivé, Rosetta,* and *Kutzooi* can be called fake-documentaries or mockumentaries, although some are shot in a reflexive and others in a more observational mode. On the distinction between observational and reflexive documentary, see Nichols (1991: 32–71). *Zusje* is a simulated video diary, *Planet Alex* a science-fiction film, *Elephant* a remediated third-person shooter game, and *Time Code* a split-screen real-time experiment.


63. Parts of earlier drafts of this chapter have been published in: *In the Very Beginning, at the Very End. Film Theories in Perspective* (2010), and in the *Slow Criticism Project 2011: Out of the Comfort Zone* (2011).

64. Some examples can be found, as in F.W. Murnau’s *Last Laugh* (1924), where the handheld camera is used to constitute the subjective point of view of a drunken doorman, creating an image that, according to Jean-Pierre Geuens, “almost allegorically anchored the presence of the viewer in the text.” (2002: 9) Other examples can be found in *The Passionate Quest* (Blackton, 1926), *Quality Street* (Franklin, 1927), and *King of Kings* (DeMille, 1927). Also, Dziga Vertov’s 1919 Kino-Pravda manifesto, in which he put forward his ideas for a new style of reportage based on real life – most memorably put into practice within the technical confines of his time in his 1929 film *Man with the Movie Camera* – seems to call for a camera technique that would allow the operator to penetrate life as it is lived with a portable camera. (Vertov, 1984)

65. Their attempts were supported by as well as contributed to the refinement of portable cameras with synchronized sound equipment, resulting in films ranging from *Jazz Dance* (USA, Tilton, 1954), *Les Raquetteurs* (Canada, Michel Brault & Groulx, 1958), *The Days before Christmas* (Canada, Jackson, Koenig, et al., 1958), *Primary* (USA, Drew, 1960), *Lonely Boy* (Canada, Koenig & Kroitor 1961), *La Lutte* (Canada, Brault et al., 1961), *Chronique d’un été* (FR, Morin & Rouch, 1961), *Dont Look Back* (USA, Pennebaker, 1966), and *Salesmen* (USA, Maysles Bros., 1969). These films all embraced the new possibilities
offered by sound-synchronized mobile cameras: the increased speed and mobility, the representa-
tional view, and a simplified process of production.

66. On the distinction between direct cinema and cinema vérité see Musser (1996: 257) and Nichols
(1991: 35–72). As a side note: in the 1940s Italian neorealist filmmakers had already pioneered in
liberating filmmaking from the confines of the studio by shooting on location and encouraging im-
provisation in the script (often using non-professional actors). Constrained, however, by the technical
limitations of the time, they mainly used tripod-mounted cameras.

67. On this transition phase in French cinema also see Vincendeau (1996) and Graham (1996).

68. These directors include Cahiers du Cinéma critics-turned-auteur directors such as François Truffaut
(e.g., Jules et Jim, 1961), Jean-Luc Godard (e.g., A bout de souffle, 1959), Claude Chabrol, Jacques Rivette,
and Eric Rohmer, as well as the “Left bank” directors Chris Marker and Agnès Varda. On the stylistic
markers of the nouvelle vague see for example Austin (1996), Bordwell (1985), Cook (1981), Douchet
(1998), and Mast & Kawin (2000).

69. The term “scopic regime” was introduced by Martin Jay in his “Scopic Regimes of Modernity”

70. Sobchack quoted in Geuens (1993: 10; emphasis in text).

71. In fact Rosetta was only originally shot on super 16mm, but was then digitally transferred onto
35mm for its theatrical release. The copy I used for my research, however, is recorded from tele-
sion onto a VCR tape, then manually digitized using a little tool called Eye-tv for Mac. Once it was
uploaded onto my computer I converted it several times into different formats for various purposes
(from the .mpg of Eye-tv, to .mov for quicktime, and from .mov to .mpeg4 for PowerPoint), only to
finally download another – illegal – copy via the internet in yet another format, which would allow
me to edit it while keeping the soundtrack intact.

72. As John Belton has pointed out, “In many ways, amateur-filmmaking serves as a site of intersec-
tion for the development for new film technology and of new film-making practices.” (Belton, 1996:
489)

73. The role of Martijn is actually played by three different actors, Romijn Coonen being the one
whose body we learn to identify as Martijn’s in the film, while Hugo Metsers provides his voice, and
Bert Pot, the film’s cameraman, “plays” Martijn when it comes to his subjective camera usage.

74. Scannell (1991: 1) Understood as a technological affordance, then, liveness and immediacy are “not
ontologically given but rather devolved from the communicative imperatives of the medium.” (Mar-
riott, 2007: 52) Other indices of liveness include auto cues, and the use of personal pronounces, which
suggest immediate interaction at a distance. On the debate on television’s liveness and immediacy,

75. For this observation I am indebted to Ernst van Alphen’s essay on the use of home footage in Peter

76. As some of the film’s reviewers rightly remarked, thematically as well as in its relatively raw
cinematography Rosetta calls to mind two other European reflections on the poverty and isolation of
underclass women, i.e., Robert Bresson’s Mouchette (1966) and Agnès Varda’s Vagabond (1986). (Ebert,
2000; Hoberman, 1999; Smith, 2004)

77. For these comments on the critical reception of Zusje I draw on the director’s comments on the
DVD.

78. For a concise overview of the debates on the “Affective Operations of Art and Literature” see Van
Alphen (2008).

79. For a concise reflection on the shifts in the discourses on trauma, from a primary focus on the
actual experience of trauma towards a discussion on the hermeneutics of trauma, both addressed by
Elsaesser, also see the introductions to Mieke Bal, Jonathan Crewe, and Leo Spitzer’s Acts of Memory
(Bal et al., 1999), Karyn Ball’s Traumatizing Theory (2000), Cathy Caruth’s Unclaimed Experience (1996),
and Jill Bennett’s Empathic Vision (2005).

80. V2 is located in Rotterdam. Besides the organizing of exhibitions and workshops, their activities
include the development and distribution of artworks, as well as research and publications in the field
of art and technology and the establishment of an online archive of media art. Since its development for V2 and exhibition in Rotterdam, *Body Movies* has been exhibited at the Liverpool Bienniale (Williamson Square, 2002); Ars Electronica (Hauptplatz, Linz, 2002), Sapphire (Atlantico Pavillion, Lisbon, 2002); Akzente Festival (Duisburg, 2003); HKADC, Museum of Art (Hong Kong, 2006); New Zealand International Arts Festival (Wellington, 2008); and Québec City 400th Anniversary (Parc de la Cétière, Québec City, Canada, 2008). Although on each occasion its appearance was adjusted according to the conditions of its new habitat, the design of the interface has remained more or less the same.


82. I borrow the term “mixed reality” from Milgram and Kishino (1994), who use the term in reference to “technologies that involve the merging of real and virtual worlds somewhere along the ’virtuality continuum’ which connects completely real environments to completely virtual ones.” For a concise overview of the difference between terms like “virtual reality,” “mixed reality,” “hybrid reality,” and “augmented reality” (and variations thereof) see Galloway (2004). For a compelling overview of the theories and practices of interaction design and ubiquity cultures see Ekman (2011).

83. The term responsive environment was coined by Myron Krueger to refer to an environment where “a computer perceives the action of those who enter and respond intelligently through complex visual and auditory displays.” (1977: 423)

84. On the role of the panorama in the shift from the paradigm of illusion to that of immersion see chapters two and three in Oliver Grau’s *Virtual Art* (2003); on the return with a difference of what she calls the “panoramic complex” in contemporary screen culture, see Verhoeff (2012).


86. Think of the release of *Avatar* (James Cameron, 2009), *Alice in Wonderland* (Tim Burton, 2010), and *A Christmas Carol* (Robert Zemeckis, 2009), all the way up to Wim Wenders’ *Pina* (2011) and *The Adventures of Tin Tin* (Spielberg, 2011). Experiments with 3D cinema, however, have occurred throughout the history of cinema, going back as far as cinema’s earliest days when – after a history of filed patents and production experiments – *Jim the Penman* (Porter, 1915) and *The Power of Love* (Elder, 1922) were shown, representing the first successful attempts at stereoscopic public projections. (Zone, 2007)

After 3D’s alleged “golden age” in the early 1950s (now awaiting its media-archeological re-evaluation) and its sporadic revivals (with minor successes in soft porn and horror films in the 1960s and 70s and the IMAX of the 1980s), we seem today to have reached a point of no return. Indeed, the fact that early 2010 also saw the introduction and announcement of several other 3D applications and media – varying from handycams to televisions and home-screen projectors – suggests that we are no longer dealing with something that is a mere novelty for a cinema-going audience, but are witnessing the establishment of 3D as a new perceptual regime or cinematic norm. Thomas Elsaesser suggests that to a greater extent than with competing formats of display, or with other media that compete with cinema for the viewer’s attention, 3D theatrical cinema in its current breakthrough iteration may have more to do with what he provocatively calls “the logic of the supplement.” That is, he suggests that the standardization of 3D is not a goal in itself but a means to something else, be it the completion of the digitization of cinematic exhibition, the generation of possibilities for crossing over onto different carriers such as laptops and/or iPads or, potentially, even the realization of aspirations and objectives within completely different paradigms such as those determined by the military-industrial complex and our current culture of control and surveillance. See Elsaesser (2010).

87. On the phantasmagoria as one of the “befores” of cinema, see Clee (2005); on its “multi-media afterlifes” see Grau (2007a); also see Castle (1988) on the notion of the phantasmagoria as a metaphor, a “traveling concept” (Bal, 2002) that has become indicative of what he calls the “spectralization of mental space” over the last two centuries.

88. Thomas Elsaesser theorizes “ubiquity” as the form in which perspective survives after the dissolution of perspectival “infinity.” (2009a)

89. Although the term has been put to productive conceptual use (see Grau, 2003, 2007b; Huhtamo, 1995; McQuire, 2007), I refrain from using the metaphor “immersion” here, because as a metaphor the
concept is often, and especially in cinema studies, made highly dependent on a Cartesian notion of space and the conventions of pictorial (Albertinian or Euclidian) perspective with which Body Movies precisely takes issue. For a persuasive reflection on the risks and stakes of the use of the metaphor of immersion see Lister (2005).


92. Another way that Body Movies differs from these works is that, unlike the responsive artworks of the 1960s and 70s, Body Movies is not primarily aimed at attacking a bourgeois notion of art and a corresponding conception of the viewer as contemplative. (Dinkla, 1994)

93. It is in light of cinema’s increased dematerialization that Doane points towards the optical toy as cinema’s discursive or long lost “other,” marking a transition from the miniature, touchable, manipulable, opaque, and material towards the larger than life, sight-based, unalterable, abstract, and immaterial projected image. For a thought-provoking reflection on the tension between the miniature and the gigantic vis-à-vis discussions on interiority and exteriority, narrative, language, experience and the body, see Stewart (1993). On the paradigm shift implicated in the transition from the question “what is film,” to “where is film,” see Hagener (2008).


95. There is an increasing body of work that addresses our engagement with media technologies in terms of interactivity and embodiment, including titles such as Performance and Technology: Practices of Virtual Embodiment and Interactivity (Broadhurst and Machon, 2006); Where the Action is! The Foundations of Embodied Interaction (Dourish, 2004), and Materializing New Media: Embodiment in Information Aesthetics (Munster, 2006). Seminal titles on technology and embodiment from a feminist perspective include Haraway (1991), Grosz (1994), and Hayles (1999). For a reflection on embodiment and moving-image culture rooted in an explicitly phenomenological tradition see Sobchack (1992, 2004) and Barker (2009). For a concise overview of the notions of embodiment, spatialization, and centred subjectivity in the social sciences see Van Loon (2002).

96. Other key readings for this approach, besides Lombard and Ditton, include Heeter (1992), Sheridan (1992, 1996), Slater & Usoh (1993) and Steuer (1995). For a summarizing overview of the different types and conceptions of presence along this line of reasoning also see Ijsselsteijn & Riva (2003).


99. With regard to media technologies the concept of affordance intervenes in the debate on technological and symptomatic determinism (see Williams, 1975), as it allows us to consider technology and technological development as something that is shaping as well as shaped by the practices in which, for which, and by which they are put to use. On the relevance of the concept of affordance in the debate on communication technologies see also Gaver (1991, 1996), Zahorik & Jennison (1998), Hutchby (2001), and Dourish (2004: 117–119).
100. An additional plasma screen displaying the installation’s mechanisms was placed at ground level below the work’s central plane in order to make the work’s infrastructure transparent.

101. Many media scholars have written about the implications of the transformation from the archival order to the paradigm of computation. Among the scholars linking this shift explicitly to that of spatial to temporal indexicality see Doane (2002), Levin (2002) and Rodowick (2007). Other relevant readings include Wiener (1965) on cybernetics; Luhmann (1995) on systems theory; Hayles (1999, 2005, 2007) on the implications of the regime of computation for critical analysis; and Soderman (2007) on the specific tension between the index and the algorithm. Also see Halpern (2005) for an insightful reflection on the tension between the archival order and cybernetics from the perspective of media theory; and Ernst (2007) for a related critique of the use of the spatial metaphor of mapping.

102. This self-referentiality should not be mistaken for the notion of self-reflexivity, which Gumbrecht refers to as the conceptual loop of hermeneutics, in which the analyst is “condemned to observe him/herself in the act of observation.” (2004: 38)

103. Philosopher and media scholar John Mullarkey also uses the term refraction in his film-philosophical commentary on the cinematic in Philosophy and the Moving Image: Refractions of Reality. (2010) Mullarkey offsets his use of the term against that of David Bordwell and Kristin Thompson who use refraction as a term in their reflections on Godard and Gorin’s Tout Va Bien (1972) to refer to cinema’s potential to “draw attention to media that stand between the depicted events and our perception of those events.” (2000: 439) Mullarkey, instead, draws on Bergson’s notion of “impeded refractions” (1994: 30) to develop his conception of the cinematic event as a “refraction between different times (my own, that of the world and that of the screen) [...] whose product is a new reality, [a] sedimentation or multiple refraction, whereby the early mediation has become so overlaid with other media-tions (social, psycho-logical, biological, physical) that the overall effect is one of opaque, thick truth.” (2010: 169, 172, 190)

104. Classical cinema is invested in the taming of chance events through narrative, or in denial of them through spectacle. The contingent here still surfaces, Doane argues, in the temporal instability of the cinematic image itself, unspecific and unverifiable in duration but nonetheless perceived as real. (142, 169-170)

105. The essays of Doane (1990) and Patricia Mellencamp (1990) on television, the event, and catastrophe are particularly illuminating in this regard.

106. The artist later renamed this part of the work “Untitled.” For a compelling analysis of Staehle’s 2001 as what he calls “ contemporary allegory of [...] mediatic temporalization, [i.e.] the spontaneous transformation of time from a relentless machine-like churning of before and after to a positive feedback-loop of an escalating quasi-vital media spectacle” see Mark Hanssen’s “Time’s Obsolescence” (2007)

107. Elsaesser in this context speaks of the cinematic as a form “contractualism,” which he defines as the mutual negotiation of conventions. (2009a: 8)

108. It goes well beyond the scope of this chapter to offer an extensive historical account of participatory art, and much ground-laying work has been done in this direction. Suffice it to say that Body Movies draws on a rich tradition with which it shares a conception of media art as a dynamic process open to participatory intervention. For a concise overview of the history of participatory art from the perspective of a discussion on social, creative and technological interactivity see, for example, Arns (2004), Daniels (2000, 2003), Dinkla (1994, 1997), and Huhtamo (1995, 2007).

109. For a concise overview of the discussion on what Manovich has called “the myth of interactivity” (2001), on social theories of interactivity and the relation between the notion of interactivity and user-generated content in theories of so called “new” media, see Gane and Beer. (2008: 87–102)

110. I am indebted to Elsaesser who has addressed the new ubiquity of the cinematic in terms of this distinction and coined the phrase “here/now/me.” (2004a, 2006)

111. In proposing the paradigm of deixis to rethink contemporary cinematic indexicality, as well as its renegotiations of time and being I take my cue from Doane (2002, 2007a, 2007b) and Elsaesser (2004a, 2006).
112. Even though I draw on Luhmann’s terminology to illuminate the film’s considerations on the topic of observation, which in my view are intimately linked to the way it engages the viewer through a bodily spatial deixis, it is important to note that Luhmann, in fact, has very little to say on the topic of affect or on body in general.

113. Similar endings occur in films like *Donnie Darko*, *Next*, *Deja vu*, and – perhaps the most extreme example – *The Butterfly Effect* (Director’s Cut), in which the protagonist ends up killing himself in his mother’s womb, in a kind of hyperbolic exercise of and ultimate negation of the Sartrean notion of free will and responsibility.

114. I borrow the notion of the “camera as projector” from David Rokeby, who uses it to stipulate the importance of studying how, in systems of surveillance, the camera “projects” whatever it is that it “sees.” What it projects is quantifiable data. Because of this, Rokeby maintains, non-quantifiable features remain largely underdeveloped, which means that their importance is downgraded within social digital space. The question Rokeby then seeks to address, as programmer, artist, and critic, is how we can hold ambiguity inside a digital structure, and how we can study the political, psychological, and philosophical implications of a programmer’s pragmatic decisions (to which he answers: through literacy). Rokeby’s artistic work is largely devoted to generating surveillant systems that make tangible the feeling of being interpreted, or rather, of being judged as quantifiable data. (Rokeby, 2011)