What is the difference between a mind and a brain or, more precisely, between a mind-image and a brain-image? Media and Film Studies professor Patricia Pisters of the University of Amsterdam engages in the monumental project of establishing, in over 350 pages of monograph, the idea that “[t]oday’s viewers no longer look through a character’s eyes; instead, they move through his or her brain or mental landscape”, as the text on the back cover argues. Either we literally enter brain-worlds, as happens for instance in Inception (Christopher Nolan, 2010), or a brain enters a body, as in Avatar (James Cameron, 2009). In Inception individuals infiltrate the subconscious of their targets, while in Avatar a remotely controlled human brain enters an alien’s body. As a consequence, argues Pisters, “a transdisciplinary encounter between film, philosophy, and neuroscience is not only important but also necessary to pursue” (27). The book guides us through Deleuzian philosophy and neuroscientific research, and provides detailed accounts of a variety of films that are taken from the repertoire of “globalized cinema” (2). In passing, the relationship between philosophy and neurology will also be established by Pisters. This is an ambitious program indeed; Pisters’s final objective is to show that “contemporary culture has moved from considering images as ‘illusions of reality’ to considering them as ‘realities of illusions’ that operate directly on our brains and therefore as real agents in the world” (6).

Let’s unfold Pisters’s analysis. Deleuze argues “that the brain is also the screen, and the screen can work as a brain”, and Pisters wants to explain “how exactly the brain and the (film) screen can work as a meeting place for art, science, and philosophy” (14). Other questions appear immediately: “How does the neuro-image relate to the spirit of Web 2.0?”; “Does the neuro-image testify to this contemporary database logic” (an archive culture providing us with the “remixability of contemporary digital culture”)? (10). Obviously, “the neuro-image also has a strong relationship to the virtual” (71). Pisters wants to see the virtual “in connection to our brains rather than in connection to the virtuality of the filmic image itself, as information and art” (71). All this will lead to the definition of a third type of cinema (the first two being Deleuze’s time-image and movement-image), which is based on the neuro-image inspired by Deleuze and Guattari’s expression of “assemblage of circumstances” mentioned in A Thousand Plateaus (91). Both the time-image and the neuro-image make visible the virtual, but they pursue different approaches (21). In other words, while the movement-image and the time-image let us see the world through the characters’ eyes, the neuro-image projects us into their mental worlds (14).
In principle, the book is about establishing cinema’s connection to the operations of the mind, an idea introduced already by Hugo Münsterberg, but whose entire scope has been uncovered only relatively recently (see Carroll). Deleuze and Guattari refer to basic connections between the brain and cinema and, more precisely, between rhizomatic thinking and neuroscientific studies of the brain. They do so by presenting the brain as “a continuously changing process [which is] therefore fundamentally connected to movement and time” (15). Knowledge brought about by new sciences enters the images but those images penetrate our scientific knowledge in return. This is where things get complicated. My hypothesis is that Pisters’s analysis aims to show that in recent decades our logistic of perception has become overly fast, relying on a simultaneity of perception provided by multiple screens and the constant exposure to multiple sources of information, while at the same time the neurosciences have made possible the visualisation of the “brain image”. Pisters’s task is to show that these two phenomena are linked. The danger is to commit the non causa pro causa fallacy, which presupposes that two things must be linked simply because they occur at the same time. Probably there is a link, but it must be elaborated in a very systematic fashion. I am not sure whether Pisters’s book is systematic enough to demonstrate that brain–image cinema has really been caused by the fast and simultaneous appearance of images in our environment. Similar considerations can be applied to other phenomena whose sudden emergence is striking; for example, the fact that many recently released films play tricks with our brains or take brain manipulation as their subject—such as Neil Burger’s The Illusionist (2006) and Christopher Nolan’s The Prestige (2006); or the increasing fascination with mathematics (or the mind of the mad scientist) in popular culture and in cinema, as in Gus van Sant’s Good Will Hunting (1997), Ron Howard’s A Beautiful Mind (2000), John Madden’s Proof (2005). These phenomena must be linked in some way, but how?

The Neuro-image

What is the neuro-image? “The neuro-image testifies to how the brain has become our world and how the world has become a brain-city, a brain-world” (33). The neuro-image is much more complex than the mindscreen image suggested by Bruce Kawin, which considers the possibility that the film’s self-consciousness originates in itself, making the film into a “first person” speaking to us like a like narrator without being a narrator. That was forty years ago. In the twenty-first century it is not the mind that is a screen but the brain. What’s the difference?

Perhaps the main difference resides not in what they are but in what they are seen to be. Interest has shifted from a metaphorical mind to a literal, surgical, medical brain. However, this is not the only difference. Neuro-image theory goes further as it considers not only the brain itself but also the omnipresence of the media; in particular, the omnipresence of media screens that work on the brain. Pisters wants neuro-image films to “anticipate a digital logic: reassembling the past or even presenting various futures; setting up database-like alternatives of images and objects, biographies and ages; and delegating the creation of the story to the spectator’s mind” (156).1 The neuro-image is thus a mindscreen determined by participatory digital culture and surveillance cameras and Pisters wants to show that “the screen itself can no longer be considered a window or a painting, but [that] it rather constitutes a table of information, a surface inscribed with data” (118).

The surveillance camera phenomenon is examined at length through a discussion of Jill Magid’s Evidence Locker project (2004), which consisted in using the 242 public

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surveillance cameras of Liverpool as her film crew. Pisters shows that “CCTV screens, satellite tracking grids, GPS positioning on mobile displays, webcams, Internet polling, and other networked surveillance data (from governments, companies, or peer-to-peer data) constitute a new kind of apparatus, a complete surveillance apparatus” (98). A further aspect to be examined is the archival character of cinema. When watching the Lumière Brothers’ *Workers Leaving the Lumière Factory in Lyon* (*La Sortie des usines Lumière à Lyon, 1895*) we ask ourselves “what exactly is being archived in the preservation of this early film: the details of costumes in 1895, the gestures of the workers, the patterns of light and shade across the entrance, or the film as a meaningful artifact?” (223). At the same time, this raises the unanswered question of whether Pisters wishes to establish neuro-cinema as a recent phenomenon, or wants to say that films have always been neuro-images.

Woven into Pisters’s argumentation is an analysis of schizophrenia in capitalism or of schizophrenia as “a specific mode of psychic and social functioning that is characteristically both produced and repressed by capitalist economy” (38). Schizophrenia is related to “delirium cinema” and “in the twenty-first century both our knowledge of the brain and the situation of the audiovisually mediated world seem to invite new thoughts about ‘schizoid minds’ and ‘schizoid screens’” (38). All this is captivating and could potentially be rendered within the limits of a book-length study. But Pisters is trying to do more than this; she also shows that Alain Resnais is a “Web 2.0 filmmaker”, for instance, and expresses a “Bergsonian metaphysics” (146, 156); and she offers excurses on themes like Spinoza’s protobiologism (suggested by Antonio Damasio in his *Looking for Spinoza*). On occasion, these digressions can overburden the flow of the overall argument.

However, the principal difficulty that makes any research on the neuro-image so complicated, and that at times creates difficulties for Pisters, is that the relationship between the screen and the brain is always reciprocal. It’s not just that the screens reflect our brains; the “multiple screens have quite literally entered our minds to present a logistics of perception” (25). The absorption of reality by the neuro-image leads to a disappearance of reality that is much more radical than anything imagined by prophets of simulation like Baudrillard. The screen (wherever it is supposed to be) “is a manipulative force that has the power to create (new) circuits in the brain”, but the “brain itself has certain controlling powers as well” (96).

The territory explored here is quite new, which is why such basic questions need to be answered, primarily: where should we “be situating the screen (in relation to the neuro-image)? Should it be quite literally inside the brain or situated externally?” (27). I perceive a problem in Chapter One that is closely related to the reciprocal character of neuro-images. I do not understand if the brain is here formally seen as a screen, and if cinema is therefore a brain, or whether Pisters is just talking about films that narrate schizophrenic states of mind but which are not schizophrenic themselves. In other words, there must be a difference between a schizophrenic film and a film about schizophrenia. Unclear sentences like “I will refer closely … to contemporary questions in neuroscience and film-philosophy in which the powers of the false articulate a more general schizoanalytical power of the image” (74) do not facilitate understanding.

The list of films analysed is very long and I will name only a few: *Michael Clayton* (Tony Gilroy, 2007) is a film that insists on brain processes. Elia Šuleiman’s *The Time that Remains* (2009) “can be considered a neuro-image by way of its temporal dimensions based in the third synthesis of time” (267) and in his *Divine Intervention* (*Yadon ilaheyya, 2002*)
“the filmmaker mixes expected codes to create something new by bringing the actual and the virtual, private and public, violence and laughter together in challenging mixed circuits of a burlesque political style” (257). Suleiman’s *Chronicle of a Disappearance* (1996) is seen as “a time-image, which, next to its strong relations to the virtuality of the past, has significant openings to the first synthesis of time as well” (266). Brian De Palma’s *Redacted* (2007) has a “reflexive ‘metascreen’ aspect [which] is now typical for the contemporary cinema screen of the neuro-image in general and of war cinema in particular” (280). Andrea Arnold’s *Red Road* (2006) is an “affective neurothriller” populated by schizos (113). Furthermore, the already mentioned *The Illusionist* and *The Prestige* (2006) and *The Dark Knight* (2008), both by Christopher Nolan, are linked to Deleuze’s concept of the powers of the false.

Sometimes the long introductions to the films can make the reader impatient as indications of how the film relates to the book’s discussions are only given at a very late stage. This is particularly true for the long description of Pontecorvo’s *The Battle of Algiers* (*La battaglia di Algeri*, 1966). Explanations of the Franco-Algerian conflict unfold over ten pages before they are embedded into the context of the neuro-image discussion. The link consists in the fact that the film makes “us more conscious of the complex layers of historical events and their relation to the present” (237). The television series *Lost* (2004–10) is declared to be a neuro-image because it is “an audiovisual recovery of the mythological life of the desert island, presenting ways of imagining rebirth and second beginnings” (156). However, this sentence is preceded by an eighteen-page description of *Lost* that gives the reader no opportunity to anticipate the direction of the discussion.

Pisters makes an immense effort to bring across her idea of an all-embracing neuro-image that she perceives in many filmic texts. Because of the large empirical and theoretical fields that the book tries to address, some theoretical patterns are bound to become vague; sometimes the discourse moves too quickly towards generalisations. Does any manipulation of reality turn a film into a neuro-image? In that case, the list of neuro-image films would be too extended. All films are archives in some way, but we should not call them all neuro-films because, once again, the list would become too lengthy. My remarks are perhaps very basic when compared with Pisters’s powerful theoretical machine that spins in so many directions. This is an impressive book that represents a cornerstone in a new vague of cinema research that skilfully brings together continental philosophy and cognitive science. To me, it adds a brick to the wall built by authors whom Pisters—quite curiously—almost never mentions: Bruce Kawin’s and Daniel Frampton’s attempts to describe the aesthetic experience of film in terms that go clearly beyond Deleuze’s conceptual analyses of movement and time; or Warren Buckland’s combination of semiotic and cognitive paradigms.

**Notes**

1 Pisters makes this specific claim with regard to Alain Resnais.

2 Pisters here quotes Mary Ann Doane.
Works Cited


*Workers Leaving the Lumière Factory in Lyon.* Dir. Louis Lumière. Lumière, 1895. Film.

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