



Text Auszüge  
Paul Virilio  
The Vision Machine



from earliest childhood onwards, we now routinely see the encoding of increasingly elaborate mental images together with a steady decline in retention rates and recall. In other words we are looking at the rapid collapse of mnemonic consolidation.

This collapse seems only natural, if one remembers *a contrario* that seeing, and its spatio-temporal organisation, precede gesture and speech and their co-ordination in knowing, recognising, making known (as images of our thoughts), our thoughts themselves and cognitive functions, which are never ever passive.<sup>1</sup>

Communicational experiments with newborn babies are particularly instructive. A small mammal condemned, unlike other mammals, to prolonged semi-immobility, the child, it seems, hangs on maternal smells (breast, neck ...), but also on eye movements. In the course of an eye-tracking exercise that consists of holding a child of about three months in one's arms, at eye level and face to face, and turning it gently from right to left, then from left to right, the child's eyes 'bulge' in the reverse direction, as makers of old porcelain dolls clearly saw, simply because the infant does not want to lose sight of the smiling face of the person holding it. The child experiences this exercise in the expansion of its field of vision as deeply gratifying; it laughs and wants to go on doing it. Something very fundamental is clearly going on here, since the infant is in the process of forming a lasting communicational image by mobilising its eyes. As Lacan said, *communication makes you laugh* and so the child is in an ideally human position.

From the disintegration of composition we move on to that of sight. With pointillism, Georges Seurat reproduced the visual effect of the 'pitting' of the first daguerreotypes as well as applying a system of analogous dots to colour. In order to be restored, the image had to be seen at a certain distance, the observers doing their own focusing, exactly as with an optical apparatus, the dots then dissolving in the effect of luminance and vibrating within emerging figures and forms.

It was not long before these too disintegrated and soon only a visual message worthy of morse code will survive, like Duchamp's retinal stimulator, or aspects of Op Art from Mondrian.

But the syncretism, the nihilism, of which the techniques of the pseudo-communications company are carriers, are also to be found in Magritte as anxiety-producing symptoms. For Magritte, words are '*slogans that oblige us to think in a certain preordained order ... contemplation is a banal feeling of no interest*'. As for 'the perfect painting', this could only produce an *intense effect* for a very short time. With the industrial multiplication of optical equipment, the artist's human vision is no more than one process among many of obtaining images. The following generation would attack 'the very essence of art', thereby putting the finishing touches to their own suicide.

In 1968 Daniel Buren explained to Georges Boudaille: it's funny when you realise that art was never a problem of depth but one of form. ... The only solution lies in the creation — if the word can still be used — of something totally unconnected with what has gone before, completely unburdened by the past. This thing would thereby express itself just for the sake of it. Artistic communication is then cut off, no longer exists. ...<sup>26</sup>

Well before this, Duchamp wrote: i have never stopped painting. Every painting must exist in your mind before it is painted on the canvas and it always loses something in the painting. *I'd rather see my painting without the murk.*'

In calling his first photographs of his surroundings 'points of view', around 1820, their inventor, Nicephore Niepce came as close as possible to Littré's rigorous definition: 'The point of view is a collection of objects to which the eye is *directed* and on which it *rests* within a certain distance.'<sup>1</sup>

Einstein took this reasoning to its logical conclusion by showing that space and time are *forms of intuition* that are now as much a part of our consciousness as concepts like form, colour, size and so on. Einstein's theory did not contradict classical physics. It simply revealed its limits which were those of any science linked to man's sensory experience, to the general sense of spatial relationships which the logistics of perception have been secretly undercutting since the Renaissance and especially since the nineteenth century.

At the *Second International Video Festival* in Montbeliard in 1984, the Grand Prix went to a German film by Michael Klier called *Der Riese* (The Giant). This was a simple montage of images recorded by automatic surveillance cameras in major German cities (airports, roads, supermarkets. ... ). Klier asserts that the surveillance video represents 'the end and the recapitulation' of his art. Whereas in the news report the photographer (cameraman) remained the sole witness implicated in the business of documentation, here no one at all is implicated and the only danger from now on is that the eye of the camera may get smashed by the odd thug or terrorist.

Questions which introduce, de facto, the question of 'artificial intelligence' since no *expert system*, no fifth-generation computer could come into being without the capability of apprehending the surrounding milieu.

Once we are definitively removed from the realm of direct or indirect observation of synthetic images created *by the machine for the machine*, instrumental virtual images will be for us the equivalent of what a foreigner's mental pictures already represent: an enigma.

Having no graphic or videographic outputs, the automatic-perception prosthesis will function like a kind of mechanized imaginary from which, this time, we would be totally excluded.

This being the case, how can we possibly turn around and reject the *factual* nature of our own mental images since we would have to call on them to be able to guess, to work out roughly what the vision machine was picking up?

Really, once *public space* yields to *public image*, surveillance and street lighting can be expected to shift too, from the street to the *domestic display terminal*. Since this is a substitute for the City terminal, the private sphere thus continues to lose its relative autonomy.

The recent installation of TV sets in prisoners' cells rather than just recreation rooms ought to have alerted us. Not enough has been said about this decision even though it represents a typical mutation in the evolution of attitudes regarding incarceration. Since Bentham, goal has normally been identified with the panoptic, in other words, with a central surveillance system in which prisoners find themselves continually under someone's eye, within the warder's field of vision.

From now on, inmates can *monitor actuality*, can observe televised events — unless we turn this around and point out that, as soon as viewers switch on their sets, it is they, prisoners or otherwise, who are in the field of television, a field in which they are obviously powerless to intervene. ...

'Surveillance and punishment' go hand in hand, Michel Foucault once wrote. In this imaginary multiplication of inmates, what other kind of punishment is there if not *envy*, the ultimate punishment of advertising? As one prisoner put it when asked about the changes: 'Television makes being in gaol harder. You see all you're missing out on, everything you can't have.' This new situation not only involves imprisonment in the cathode-ray tube, but also in the firm, in post-industrial urbanisation.

After *synthetic images*, products of info-graphic software, after the digital image processing of computer-aided design, we are on the verge of *synthetic vision*, the automation of perception. What will be the effects, the theoretical and practical consequences for our own 'vision of the world' of Paul Klee's intuition's becoming reality? This doubling of the point of view cannot be compared to the proliferation of surveillance cameras in public places over a dozen or more years. Although we know that the imagery from video cameras in banks and supermarkets is relayed to a central control-room, although we can guess the presence of security officers, eyes glued to control monitors, with *computer-aided perceptions* — visionics - it is actually impossible to imagine the pattern, to guess the interpretation produced by this sightless vision.

Unless you are Lewis Carroll, it is hard to imagine the viewpoint of a doorknob or a button on a cardigan. Unless you are Paul Klee, it is not easy to imagine artificial contemplation, the wide-awake dream of a population of objects all busy staring at you.

'If I were to sum up in one sentence the current stance on smart bombs and saturation attack weapons', W. J. Perry, a former US State Under-Secretary of Defense explained, 'I'd say as soon as you can see a target you can hope to destroy it.'

This impending mutation of the movie or video-recording camera into a computerised vision machine necessarily brings us back to the debate about the subjective or objective nature of mental imagery.

Increasingly relegated to the realm of idealism or subjectivism - in other words, the irrational - mental images have remained in the dark for quite a while as far as science goes. This has been the case despite the fact that the huge spread of photography and film meant an unprecedented proliferation of new images in competition with the usual array. It was not until the 60s and work on optoelectronics and computer graphics that people began to take a fresh look at the psychology of visual perception, notably in the United States.

In France studies in neurophysiology led to quite a change in the status of mental imagery. J.-P. Changeux, for instance, in a recent work, no longer talks of images but of *mental objects*, going so far as to spell out that it will not be long before these appear on the screen. In two hundred years the philosophical and scientific debate itself has thus similarly shifted from the question of the *objectivity* of mental images to the question of their *reality*. The problem, therefore, no longer has much to do with the mental images of consciousness alone. It is now essentially concerned with the instrumental virtual images of science and their paradoxical facticity.

To my mind, this is one of the most crucial aspects of the development of the new technologies of digital imagery and of the synthetic vision offered by electron optics: the relative fusion/confusion of the factual (or operational, if you prefer) and the virtual; the ascendancy of the 'reality effect' over a reality principle already largely contested elsewhere, particularly in physics.

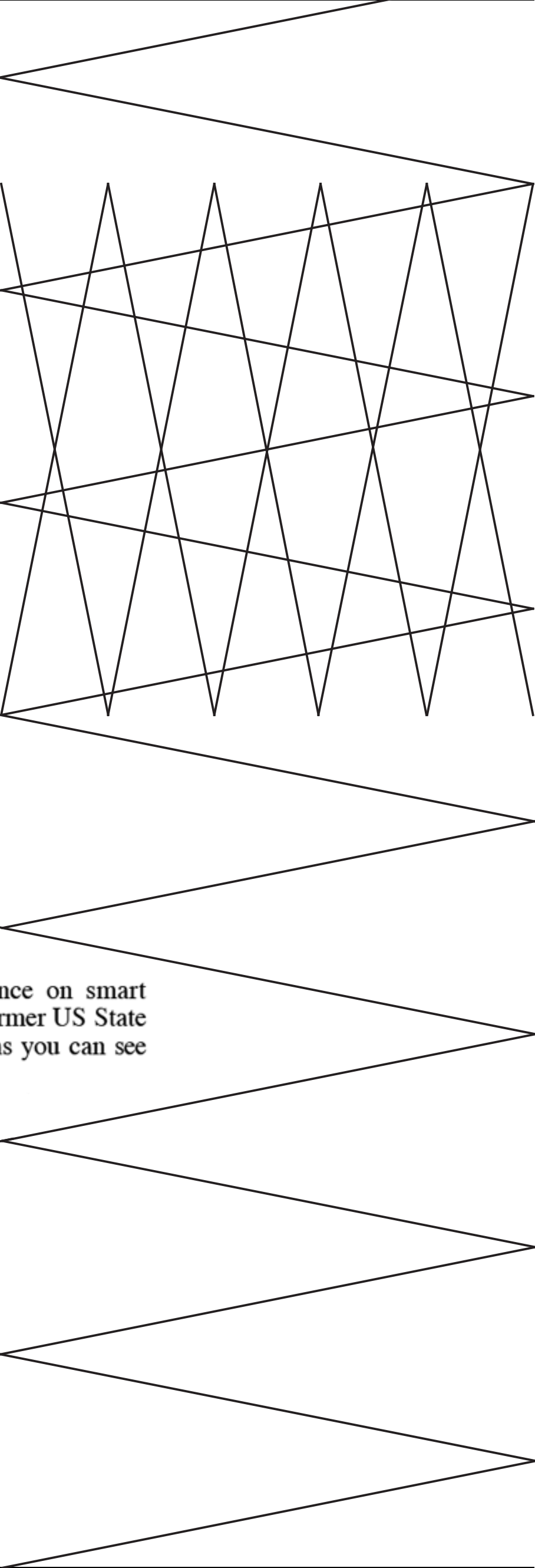
How can we have failed to grasp that the discovery of retinal retention that made the development of Marey's chronophotography and the cinematography of the Lumière brothers possible, also pro

Summary

A challenging survey of the technologies of perception, production and dissemination of images throughout history by one of France's leading contemporary intellectuals, Paul Virilio. Surveying art history as well as the technologies of war and urban planning, Virilio provides us with an introduction to a new 'logistics of the image'. From the era of painting, engraving and architecture culminating in the 18th century, the history of 'regimes of the visual' shifted with the intervention of the photogram (photography and cinematography) in the 19th century. The latest era starts with videography, holography and infographics, turning the dissolution of modernity into a generalised logic of public representations. . Virilio's book offers the most provocative account of the history of 'seeing' to date and could revolutionise the way we periodise not only art history but 'social existence' itself.

Paul Virilio is the author of War and Cinema and the former director of the Ecole speciale d'architecture in Paris, where he is still the Professor of Architecture. He participated in the exhibition Medias & Democratic at La grande arche in the summer of 1993.

[http://en.wikipedia.org/wiki/Paul\\_Virilio](http://en.wikipedia.org/wiki/Paul_Virilio)



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