Article

Control Space?

Cinematic Representations of Surveillance Space Between Discipline and Control

Lorna Muir

University of Aberdeen, UK. l.e.muir@abdn.ac.uk

Abstract

Recent developments in surveillance practices and their related technologies suggest that the heretofore dominant Foucauldian paradigm of discipline, with its sites of confinement in which space is “segmented, immobile [and] frozen”, may no longer be an adequate theoretical framework in which to discuss space within surveillance studies (Foucault 1995: 195). In his essay *Postscript on Control Societies*, Gilles Deleuze claims that these sites are in the midst of widespread breakdown, leading to a fundamental shift in the notion of space, characterised by the term ‘modulation’ (Deleuze 1990: 178-179). In the control model, urban surveillance can be said to be characterised by an emphasis on the use of digital surveillance practices, leading to a view of urban space and the city, as well as its inhabitants, which largely resides within a computer mainframe. This raises a question: if the surveillance carried out within this conception of urban space can be described as concentrated, hidden, passive, functional, mobile, and varied, how can these changes be communicated cinematically since there is an obvious problem of representation; when much of the surveillance technology is computer and digital in form, how does cinema make visible the potentially invisible? In considering the question of how film engages with urban space between the paradigms of discipline and control, two cinematic views of the (informational) city will be discussed by considering three scenes from *Erasing David* (2009) and *Minority Report* (2002) in order to identify some of the cinematic strategies used in communicating contemporary surveillance practices increasingly characterised as invisible and immaterial.

Space is the expression of society. Since our societies are undergoing structural transformation, it is a reasonable hypothesis to suggest that new spatial forms and processes are currently emerging.

(Castells 2000: 440-441)

Introduction

Recent developments in surveillance practices and their related technologies suggest that the heretofore dominant Foucauldian paradigm of discipline may no longer be an adequate theoretical framework in which to discuss space within surveillance studies. This space, most readily associated with the architectural model of Jeremy Bentham’s now ubiquitous Panopticon, required that the body be isolated and contained within institutional sites of confinement which arranged space in a manner that was “segmented, immobile [and] frozen” in order that the disciplinary mechanism might observe and control the individual at will and eventually produce docile bodies (Foucault 1995: 195). In his essay *Postscript on Control Societies*, Gilles Deleuze claims that these institutional sites are in the midst of widespread

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breakdown, leading to a fundamental shift in the notion of space, characterised by the term ‘modulation’ (Deleuze 1990: 178-179). In the control model, the concept of space is designed around digital networks leading, in the urban context, to the informational or cyber-city which is built not only with physical space in mind, but also virtual space. If the surveillance carried out within this new conception of urban space can be described as concentrated, hidden, passive, functional, mobile, and varied, how can these changes be communicated cinematically since there is an obvious problem of representation: if much of the surveillance technology is computer and digital in form, how does cinema make visible the potentially invisible? That is, under the discipline paradigm, urban space, and the surveillance carried out within such areas is, in the first instance, communicated through the material structures of the built environment: institutional architecture designed after the logic of the Panopticon. In the control model, however, urban surveillance can be said to be characterised by an emphasis on the use of digital surveillance practices, leading to a view of the city and its inhabitants which largely resides within a computer mainframe, thus raising the question of an adequate and understandable means of representing intangible strings of data cinematically.

This article will briefly discuss the current trend in the shift away from Foucauldian conceptualisations of surveillance space and point to the emergence of the so-called ‘new surveillance’ (see: Marx 2002). Drawing on the work of Deleuze, it will then go on to consider the possible new configurations of space, associated with the control paradigm, that might emerge as a result of new surveillance practices which primarily utilise digital technology leading to the widespread use of networks. In considering the question of how film represents urban space between the paradigms of discipline and control, two cinematic views of the (informational) city will be discussed by considering three scenes from *Erasing David* (2009) and *Minority Report* (2002). These scenes provide two views of urban spaces, which are primarily focussed on the city; one of the contemporary situation in London and, the other, an imagined future vision of Washington, D.C. which has embraced the logic of the control society. These readings are by no means exhaustive but they do give some indication of cinema’s engagement with emerging surveillance practices, and act as a reminder that cinema itself offers an important cultural space in which discussions about the emerging surveillance society can take place. That is, cinema can be said to provide an ideal medium for considering the ways in which the invisible can be made visible, particularly in relation to a surveillance society which is increasingly characterised by ‘invisible’ technologies which are embedded into the fabric of urban architecture. Cinema, through its engagement with modes of representation, foregrounds this question of visibility. In so doing, however, it is possible that cinema itself becomes complicit in the very surveillant assemblage that it seeks to portray and critique, as discussed below.

Dismantling Discipline

From around the time of its publication in the 1970s until relatively recently, Michel Foucault’s *Discipline and Punish* has been a continuous influence on much social theory, with his thoughts on Bentham’s Panopticon model, and the related structure of the institution, being of especial importance for the consideration of space within surveillance studies. In the contemporary post-9/11 surveillance society, however, the Panopticon is being steadily eroded both from within and without: from within, due to the changing nature of space as will be discussed here and, from ‘without’, as a result of academic dissatisfaction with this model. The frustration felt by a number of leading surveillance theorists is articulated by the very title of the recent collective work, *Theorizing Surveillance: The Panopticon and Beyond*, which seeks to explore the limitations of the Panopticon structure as well as put forward new theoretical proposals which both augment and supplant this model. Kevin D. Haggerty’s article, ‘Tear Down the Walls: on Demolishing the Panopticon’, has perhaps the most iconoclastic tone as he argues against the reification of the Panopticon within surveillance studies and, while he is wary of supplanting one fixed theoretical model with another, he does call for new theoretical paradigms as “[t]he field of surveillance studies now mirrors the situation of a normal science on the cusp of a paradigm shift” (Haggerty 2009: 24). Indeed, Haggerty points to no fewer than 18 adaptations of the term ‘Panopticon’ to

suggest that the image is on the one hand increasingly outmoded but, on the other hand, so entrenched in the surveillance literature that to envisage a full escape from this model is a decided challenge (Haggerty 2009: 26).¹

Disciplinary surveillance can be primarily associated with the state and its related institutions and bureaucratic structures. The body of the individual is confined within a specific institutional site which will further be located in a recognisable geographical location (Foucault's most famous example is, of course, the institutional site of the prison). As (s)he moves from one closed site to the next, it is possible for the individual to disappear in the interstitial spaces between each confined institution and thus potentially remain anonymous from the prying eyes of surveillance. With new forms of surveillance practice there is a renewed effort to close these 'gaps' and maintain a careful watch over the subject as (s)he moves out from behind the walls of the institution into different and multiple spatial contexts. Indeed, Gary Marx describes the new surveillance as extending the senses so much so that it can be characterised as having low visibility or being invisible as it moves into new environments and spaces. It can be said to be involuntary, routine, automated, inexpensive, remote, continuous, comprehensive, multiple, intensive and extensive (Marx 2002: 15).

For Deleuze, such alterations in surveillance practices point to the emergence of a new type of society which will eventually take over from discipline models. In *Postscript on Control Societies* he writes that,

We're in the midst of a general breakdown of all sites of confinement – prisons, hospitals, factories, schools, the family [...] everyone knows these institutions are in more or less terminal decline. It's simply a matter of nursing them through their death throes and keeping people busy until the new forces knocking at the door take over. *Control societies* are taking over from disciplinary societies (Deleuze 1990: 178; emphasis original).

Deleuze's assertion that the institutions associated with the discipline paradigm are undergoing a series of 'death throes' may be somewhat overstating the demise of these sites of confinement, yet it is clear that the nature of the institution changes markedly in the shift from discipline to control. Many of the previously distinct spatial boundaries associated with modernity are undergoing a process of alteration, if they are not being done away with altogether, yet it must be borne in mind that discipline structures do not disappear altogether in the control paradigm. Furthermore, just as the 'moulds' associated with disciplinary spaces can be said to have been a crucial factor in the formation of the individual, so too might the spaces associated with control (primarily urban) lead to new subjectivities. Deleuze pictures the control society as one which is formed around a series of modulations. That is, concepts of the body, space and time become more fluid and less rigidly fixed to readily-definable institutional frameworks. In terms of the arrangement and construction of space there is a mutually informative exchange between physical and virtual space or cyberspace, partly due to the implementation and use of numerous digital surveillance technologies.

Spaces of Control?

The foregoing has highlighted the ways in which institutions and spatial surveillance technologies associated with discipline can be said, following Deleuze, to be in the process of crumbling as they make way for the emerging control society. Within such considerations, urban space, primarily associated with the city, takes on a renewed significance, especially when it is considered alongside the claims made by

¹ These are the superpanopticon, electronic panopticon, post-panopticon, omnicon, ban-opticon, global panopticon, panspectron, myopic panopticon, fractal panopticon, industrial panopticon, urban panopticon, pedagogicon, polyopticon, synopticon, panoptic discourse, social panopticism, cybernetic panopticon, and the neo-panopticon.

Deleuze in *Postscript on Control Societies* where he states that these “societies function with a third generation of machines, with information technology and computers” (Deleuze 1990: 180). Deleuze’s assertions concerning the importance of computer power for the understanding of surveillance space certainly seem to be borne out within surveillance literature with theorists such as David Lyon and Manuel Castells claiming that contemporary societies are designed with an information infrastructure that facilitates the emergence of the ‘informational city’, with the result that cyberspace as well as physical space is factored into the planning process of city development (Lyon 2002: 54; Castells 2000).

In his article on post-panoptic surveillance strategies, William Bogard expands on such ideas and articulates many of the current debates pertaining to space within surveillance studies when he writes that,

... one way to describe the evolution from panoptic to post-panoptic systems is from territorial to deterritorialized forms of social control, from guarded or confined spaces to digital networks (Bogard 2009: 97).

For Bogard, and others (see, e.g.: Haggerty and Ericson 2000; Dodge and Kitchin 2005; Gane et al 2007; Hayles 2009), the nature of space is fundamentally altered in contemporary surveillance practices as the focus on physical space is balanced by the need to recognise the increasing importance of digital spaces as computation moves outside the box (Hayles 2009: 48; see also: Kang and Cuff 2005: 145). The code and coded practices associated with computing begin to interact with material spaces and objects in a manner of productive modulation (Dodge and Kitchen 2005: 170-172). Such concepts draw heavily on Deleuze and Félix Guattari’s work on assemblage theory, which can be said to be characteristic of control-dominant forms of surveillance where, in the context of the body, the notion of ‘decorporealization’ acts as a crucial catalyst in the construction of the data double (Haggerty and Ericson 2000: 611). Similarly, in discussions of contemporary spatial surveillance practices the concept of ‘deterritorialization’ and its relation to the digitalisation of space, both physical and virtual, comes to the fore. Bogard, with echoes of Marx, goes on to describe some of the implications of this shift when he writes,

Surveillance now operates at real-time speeds over global networks, connecting multiple flows of information across a multiplicity of scales from molecular to molar (across the whole range of biopolitical production). In this picture, control hierarchies may be disappearing, but the emerging form of horizontal or ‘flat’ control seems even more totalizing than before, as surveillance captures ever more phenomena in its gaze (Bogard 2009: 102).

Surveillance, as outlined by Bogard, need no longer be limited to a particular geographical space as networks become global in scale. Compare this with older surveillance practices and technologies such as CCTV which, even when released from institutional settings, continue to focus primarily on specifically-defined locations, and the shift from discipline to control forms of surveillance becomes striking. It is in the dismantling of previously solid boundaries that Deleuze’s description of the control society as being shaped by modulations comes to the fore (Deleuze 1990: 178-179). The sites of confinement which moulded the individual are steadily eroded to allow modulations or flows to shape both the spaces and subjects of the contemporary surveillance environment (Bogard 2009: 100-101; Lyon 2002: 57). This shift to the concept of flows within surveillance studies has significant implications for the ways in which the individual moves through control spaces.

With new forms of surveillance being carried out in the urban environment of the ‘cybercity’, the body and space inform one another in fundamentally different configurations. The changes in space in these emerging cities are not only related to the physical, urban environment, but also to the manner in which the body of the individual interacts with city locations. For, in order for new forms of urban surveillance to be in any way effective, they must have a correlation with the subject who inhabits these city spaces. In

Postscript on Control Societies, Deleuze puts forward a new kind of subject that can be said to inhabit the control society posited in his work: the ‘dividual’. The term ‘individual’ is insufficient in this emergent situation between discipline and control. We need only look at the terminology in order to see the limitations of the concept of the individual: in + dividual – the impossibility of division within the subject. When we consider that the body of the individual was constructed with the notion of confined space and that Deleuze clearly views these sites as coming to an end, then it is evident that a new subject must emerge (Deleuze 1990: 178). Thus, just as Deleuze speaks about the current breakdown of monolithic institutional interiors associated with discipline, so he speaks about the possibility of the breakdown of the individual by “dividing each within himself” in this new control paradigm (Deleuze 1990: 179). He further clarifies this position as he considers the differences between discipline and control societies,

In control societies ... the key thing is no longer a signature or number but a code: codes are *passwords*, whereas disciplinary societies are ruled ... by *precepts*. The digital language of control is made up of codes indicating whether access to some information should be allowed or denied. We’re no longer dealing with a duality of mass and individual [as in the discipline society]. Individuals become “*dividuals*”, and masses become samples, data, markets, or “*banks*” (Deleuze 1990: 180; emphasis original).

Deleuze’s concept indicates that the dividual is recognised not via analogue technology – writing, for example – but is known by virtue of a code, which further acts as a password. A code suggests both an element of secrecy or uniqueness and the numerical nature of the digital language. This code will hold a vast amount of power over the dividual, much of which will be beyond the control of the ‘subject’. When coupled with Deleuze’s statements regarding the relationship between machines and society type, it is clear that the use of computer and digital technology is key in the construction of this new data subject and the spaces through which it moves (Deleuze 1990: 180).

A number of increasingly important surveillance technologies point to the significant correlation between the body and the urban environment in the emerging surveillance society. These technologies and related structures of monitoring also highlight the increasingly complex interplay between material and immaterial spaces as ‘cyberspace’ and physical space mingle together in new configurations within the information city. The widespread and pervasive use of, in particular, communication devices such as mobile and smart phones, PDAs and satellite navigation systems within various forms of transport all depend on GPS systems in which precision location of the machine and (in)dividual are of utmost importance (Kaplan 2006: 4). Unlike more disciplinary forms of surveillance, the monitoring associated with these technologies is, of course, neither restricted to any interior (architectural) space, nor does it depend on human observation in order to function. Indeed, part of the attraction of such GPS-enabled devices is that they are automated (‘freeing’ both the user and the organisations monitoring their use) and, crucially, they aid *mobility*. That is, the body must be free to move through the spaces of the information city as quickly and easily as possible.

The crucial factor of mobility (a repeated theme in the films considered below) within the control paradigm is brought to the fore not only in the aforementioned widespread use of GPS devices but also in surveillance practices which are taking on increasing significance including biometric surveillance and Radio Frequency Identification (RFID). While biometrics has arguably always proved a key facet of any surveillance society, its use within ambient intelligence and ubiquitous computing-enabled environments may highlight a point of departure from the disciplinary model as the physical body and material space are coded to interact with digital technologies which are embedded within the very fabric of urban city spaces, facilitating the ‘flow’ of the body within the city (Kang and Cuff 2005; Hayles 2009). This is not a pre-determined spatial arrangement but, as Martin Dodge and Rob Kitchin point out, one which is ontogenetic, necessitating constant interaction between the (in)dividual and the space in which (s)he

navigates to produce meaning.² As the films discussed below suggest, the (in)dividual inhabiting a society increasingly characterised by control monitoring practices, must learn new meanings of spatial navigation even as (s)he creates these same spaces. It is not simply monitoring devices which are important (mobile phone, computers, etc.) in control spaces, but also the body of the (in)dividual, which acts as an embodied surveillance tool and password in order to gain access to areas within the city.

Cinematic Representations of Emerging Surveillance Space

In exploring how these developments are investigated cinematically, we come across the obvious problem of representation: if much of the surveillance technology is computer and digital in form, how is the new surveillance space, and subject, to be represented? We do not – yet – conventionally visualise in strings of zeros and ones, nor do we readily read and comprehend them, unless perhaps if we are computer experts. Is the appeal of the surveillance genre then diminished due to representational problems? Film, at the moment, seems to address these difficulties by producing images at the level of human interface; mirroring perhaps the computer function – the computer has no need of the screen images with which we are daily presented since it understands the digital language of zeros and ones. However, in order for us to communicate (both with the machine and with each other) these must be translated into text and relevant images. The same can be applied to cinematic representations of digital surveillance space.

The two films subsequently considered act as a case study both for representations of the contemporary surveillance society and for a society which can be said to be more control-dominant in its monitoring practices. These representations are not without their problems, however. As suggested at the outset, the relationship between cinema and surveillance can be characterised as being complex, complementary and complicitous; mutually informative at the level of technological development and production process, as well as in thematic concerns. In their article on digital cinema, Adam Ganz and Lina Khatib offer a number of important observations regarding the historic development of digital practices in cinema, but particularly striking in their article are the repeated references to surveillance practices and surveillance language in charting such developments, again suggesting the complex relationship between cinema and surveillance (Ganz and Khatib 2006). The engagement between cinema and surveillance is the result of a complex, mutually informative relationship between cinema and those who create and disseminate new surveillance technologies, which raises the question regarding the extent to which the films can critique, perhaps even resist, a surveillance society which they have been complicit in creating. Steven Spielberg, for example, created a ‘think tank’ of leading scientists and technology experts before filming *Minority Report* in order to be as informed as possible concerning contemporary surveillance practices (Kennedy, http://www.wired.com/wired/archive/10.06/spielberg_pr.html). His information, of course, comes from those who have a vested interest in seeing their ideas disseminated to as wide an audience as possible. Nevertheless, the films do provide useful anchor points in mapping the development of the move away from the discipline paradigm towards that of control as they incorporate changing aspects of the surveillance society, particularly in the depiction and deployment of various technologies, as well as in changing attitudes to surveillance practices. Both *Erasing David* and *Minority Report* raise questions relating to the possibilities of representing contemporary surveillance practices in the informational city. If digital and networked monitoring is becoming increasingly important, is the material denigrated in such films in order to make way for the immaterial?

Erasing David

After receiving a letter informing him that HM Revenue & Customs has lost data held about him (including both the names and dates of birth for him and his daughter, address and bank account details),

Dodge and Kitchin write that an “[...] ontogenetic conception of space acknowledges that the forms and spatial relations of the world around us are clearly not static and fixed; they are constantly being altered, updated, and constructed in ways that alter sociospatial relations” (Dodge and Kitchin 2005: 171–172).

David Bond begins to worry about the amount of information held on him in the “third most surveilled state in the world”. He sets himself the challenge of disappearing for 30 days without being caught by two private detectives hired to find him. The result of this exercise is *Erasing David*. The film is situated in the complex, and often uneasy, genre divide between documentary and docufiction, in which certain ‘factual’ elements are clearly staged and/or scripted. In an interview with filmmaker Françoise Romand, Adam Hart suggests that such docufiction films are “non-fiction, featuring non-fictional people talking about their non-fictional lives, [yet] the films are largely staged or recreated [...]” (Hart 2005). In the website accompanying *Erasing David*, the film is described as “[a] documentary about privacy, surveillance and the database state”, making the genre intentions of the filmmakers still more opaque (<http://erasingdavid.com/>). Bond’s narrative broadly focuses on the nature of privacy in post-9/11 and post-July 7th Britain, with the marked increase in biometric and digital surveillance, in the manner of a thriller, intertwined throughout by a number of excerpts from interviews with leading privacy, legal and civil liberties activists.³ While the film is undoubtedly contrived in a number of places, it nevertheless offers a fascinating view of a society caught in the hybrid state between discipline and control and, with its shaky camera work and odd angles, as well as the high-pitched, grating sound of strings underscoring the narrative, it seems that for Bond at least, this state is not a comfortable one in which to be.

From the outset of the film, the viewer is placed in a position which could be described as a cinematic surveillance operative as (s)he follows both Bond and the detectives in a manner which mirrors the film narrative: the viewer follows the detectives following Bond and, as a result, the possibility of becoming complicit in the act of surveillance which the film sets out to critique is brought to the fore, causing the viewer to question his/her role in the contemporary surveillance society (see: Levin 2002: 589-590 and Turner, II 1998: 94). Moreover, the camera angles throughout the film are, somewhat ironically, reminiscent of the now older surveillance technology of CCTV, with many of the establishing shots taken from high angles, although not directly overhead. In using such cinematic strategies, the film suggests the difficulties in visually representing newer forms of surveillance practice with which it is also concerned. That is, in terms of film camera technique, mimicking the function of a CCTV camera may prove more accessible than, for instance, communicating that of a relational database. However, unlike traditional CCTV cameras, which remain physically static within the disciplinary framework, in spite of pan, tilt and zoom functions, the camera throughout *Erasing David* is highly mobile. Indeed, the camera is often linked to Bond’s body in a manner not dissimilar to mobile or smart phone practices in which the external device is present on the body of the individual, ‘moving’ (carried) with him/her as (s)he moves about in a variety of spatial contexts. The mobility of this camera, and the surveillance it calls to mind, may point towards the control society paradigm and the concept of urban flows to which it is related.

³ Frequent mention is made of the *Bourne* trilogy of films when referring to *Erasing David* (see, for example, <http://erasingdavid.com/categories/press/wired/>) which is perhaps suggestive of the influence film has in the everyday experience, understanding and mediation of the contemporary surveillance society. That is, Bond seems to use the cinematic language (visual and audio) associated with such films in representing a particular view of the surveillance society cinematically.

Figure 1

The importance of mobility in contemporary surveillance practices is brought to the fore throughout *Erasing David*. Believing that the detectives will initially search for him in London, Bond quickly leaves Britain for Brussels, Berlin and Paris before returning to England and travelling throughout the countryside, indicating that he understands mobility (and speed) to be of primary importance in avoiding discovery in this hybrid surveillance society. Conversely, the detectives following Bond are not immediately *physically* mobile, but they initially navigate around cyberspace in an attempt to piece together information from Bond's data double and in so doing highlight the growing importance of dataveillance, with which the film is deeply concerned. After gleaning as much data as possible concerning the background and character of Bond, the detectives then mark potentially significant locations on a standard wall-map and place thematically-arranged paper copies of the information alongside this map. This may be convenient for the detectives' working practices but it is also highly significant for cinematic representations of space as they make data both material and recognisably visible for the viewer by extricating digital information from the computer and placing it into the physical environment in the form of a material object which can be readily understood. Fig.1 gives some indication of this decidedly hybrid environment that characterises contemporary Britain. It is the detective who remains static and confined within four walls (perhaps recalling the figure of the Panopticon with its architectural confinement), yet he roams freely through cyberspace in pursuit of Bond, who is by this stage physically on the run. Significantly, however, this move into cyberspace is mediated by the frame of the computer screen which maintains the separation of physical and virtual space, while concomitantly drawing attention to their increasing proximity to one another. The computer remains 'within the box' but its importance is evident as it shares the central position of the shot with the detective. The importance of the interconnected relationship between location-based communication devices and Internet surveillance practices is also brought to the fore in these scenes as the detectives are able not only to trace background information concerning Bond but also *where* he has been while 'on the run' after Toon Vanaght, an Internet privacy expert, uploads a video of his encounter with Bond in Brussels to his blog. This video provides location, time and date information for the detectives, who then attempt to lure Bond into further disclosing his whereabouts via his Blackberry communication device. Again, what should be noted is that the data trails generated by these practices are not screened, but the devices which mediate them are. This may suggest the limitations and difficulties in representing dataveillance cinematically due to its largely 'invisible' nature.

Figure 2

Space within *Erasing David*, primarily characterised as urban, city space, also has a profound psychological effect on Bond. Although Bond is primarily depicted as being mobile within the various locations he visits throughout the film, he is in no sense 'free' as a result of this movement. The urban city in which Bond resides (an area of London) is laced with CCTV surveillance systems. The use of CCTV signals the end of the Panopticon while paradoxically suggesting a strengthening of its gaze as cameras extend throughout the space of the city. It is also clear that the structuring of space around CCTV leads to a change in the nature of the gaze precisely because of its pervasive nature. Indeed, the director claims throughout the course of the film that within a 100m radius of his home there are approximately 200 cameras which watch the city streets, ostensibly for the safety of residents and commercial property. Although Bond had previously paid no attention to these cameras, by becoming aware of them as a result of the project, he begins to feel increasingly paranoid.⁴ Fig. 2 shows Bond standing before a bank of CCTV monitors watching the area surrounding his home. A multiplicity of screens surrounds him as he begins to understand the enormity of CCTV surveillance operations in one area of the city. While much of the film is screened using mid-range shots giving a sense of intimacy, here the camera pulls back to observe Bond observing the scenes before him. He appears small and insignificant (literally off-centre in the frame) against the screens, lost in a sea of images which continually produce endless data on the urban environment and those who inhabit/ pass through this space. These data are, of course, captured as visual images which allow the CCTV operators and the viewer to process the information more conveniently (not to say conventionally). In contradistinction to the bored-looking CCTV operatives, Bond seems to be both alert and overwhelmed by what he sees to the point where he has to lean on the monitors in front of him for support. In the course of the film, Bond becomes increasingly aware of just how pervasive urban surveillance is in London and, in a somewhat obvious move, he retreats to the countryside which is apparently free from the network of surveillance systems present in the city.

This also brings to the fore the changing nature of disciplinary and control surveillance practices. In order for the Panopticon to function as intended, the subject had to be aware that (s)he might be watched at any time, thus facilitating the internalisation of the discipline paradigm and leading, apparently, to self-surveillance. With control practices, the subject is hardly aware that (s)he is under surveillance due, perhaps, on the one hand, to practices which increasingly embed surveillance into the urban environment and, on the other hand, to the ubiquity of more disciplinary tactics, such as the CCTV cameras of *Erasing David*.

Figure 3

In spite of his hopes that the countryside will offer a safe space away from city surveillance, it is precisely when Bond goes “off map” that his psychological state becomes deeply troubling as the paranoia which has been steadily increasing in the urban environment is released under conditions of extreme isolation. The frequent close-ups of Bond’s face and eyes now become disconcerting and eerie as the night-vision camera renders them a greenish hue. The already-tight framing which characterises this film is further constricted as Bond moves the camera ever closer to his face and grimaces into the lens. The film suggests throughout, and from this sequence in particular, that the urban city space of the surveillance society (or, indeed, outside city spaces) has a profound effect on the psychology of its inhabitants, as characterised by Bond’s extreme reactions, whether real or constructed. That is, although Bond seeks safety outwith the surveillance-riddled urban environment, he brings the very ‘mentality’ of that space to the countryside so that he cannot live either in the city or outside its CCTV-marked boundaries without feelings of extreme paranoia which ultimately stem from this urban space. Indeed, it is ironic that Bond seems to feel a sense of security in his film camera as he uses it as a comforting presence with which he can share ‘data’ (Bond often talks to the camera as he would to a person or to a webcam, offering a deeper level of surveillance as he communicates his innermost thoughts and motivations with the machine), as well as becoming as physically close to it as possible, as in Fig.3.⁵ Bond eventually acknowledges that he cannot remain in the countryside any longer as it contravenes the goal of the project which was to lead as ‘normal’ a life as possible while avoiding surveillance. Furthermore, Bond is eventually forced to return home following complications with his wife’s pregnancy. It is at an old disciplinary/institutional site of confinement, the hospital, that Bond is eventually located and confronted, thus ending his experiment after 18 days ‘on the run’.

Erasing David is a film which is inherently paradoxical in its underlying logic: Bond is concerned about his privacy as a result of the amount of data readily available concerning him, yet the film itself gives away valuable personal information including the full names of himself, his wife (including her maiden name) and children, his home address, details regarding service providers and products used, names of

See also Hart’s interview with Romand in which the filmmaker discusses a technique in the making of one of her films: “As an experiment, I put the camera in my kitchen and began to talk to it as if it were a webcam” (Hart 2005). In a number of respects, Bond’s interaction with his digital camera calls to mind a similar form of communication and adds a further layer of complexity to the film’s engagement with surveillance practices.

friends and so on. Moreover, the film also adds visual information to this data by *showing* these things and people to the viewer, providing a further layer of knowledge and rendering the viewer ever more complicit in the surveillance practices depicted throughout Bond's work. The urban space of European cities is shown to be permeated with external surveillance equipment (CCTV cameras, for example), yet the countryside, void of such technologies, holds no more psychological stability for Bond than the city. What is crucial to note, however, is that while monitoring appears to be pervasive in these urban spaces, it is still possible to avoid the 'surveillance gaze' in the hybrid state between discipline and control. It is evident from the film's lengthy discussions concerning the increasing use of biometric surveillance within Britain, particularly in the context of schools (another disciplinary institution which seems to be crumbling, following Deleuze), that Bond and various privacy advocates envisage a future in which monitoring occurs in all places and at all times for a plethora of competing and complementary reasons. In the hybrid state of the contemporary surveillance society presented in *Erasing David*, questions of representational possibilities are raised as the director engages with the theme of biometric surveillance. However, although the viewer is presented with images of such technology (that is, the material object used to gather data rather than the information subsequently generated), at this stage Bond primarily *describes* the process verbally rather than *shows* it on-screen. Conversely, the imagined future of *Minority Report* portrays a society in which such surveillance is taken for granted so that the need to represent and interrogate such Deleuzian notions of ubiquitous surveillance takes on greater urgency.

Minority Report

Steven Spielberg's *Minority Report* depicts a world in which ubiquitous surveillance has become a technological possibility and only the political will is needed for this to be widespread in society, hence the Pre-Crime project – a system whereby an Orwellian-like notion of thought crime is made possible as the *intention* to murder can be detected by three Pre-Cogs (children of drug addicts who have the 'gift' of being able to see murders being committed in the future) – is being trialled across a specific geographical area in Washington, D.C. Chief Pre-Crime Detective John Anderton (Tom Cruise) becomes a victim of the system which he oversees when the Pre-Cogs predict that he will murder a man whom he does not yet know. The society in which Anderton lives and works is one which is under constant surveillance thanks to the pervasive implementation of ubiquitous computing and ambient intelligence. However, unlike the usual cinematic and literary tropes of the overbearing Big Brother state, this society is by and large controlled by advertising, those who engage in marketing or, as Deleuze so disdainfully suggests, "the arrogant breed who are our masters" (Deleuze 1990: 181). Humans are scanned like the products they are continuously urged to buy in an area where the dream of marketing has come true, and finally individuals can be directly targeted. While, within the film, the government certainly makes use of these systems, advertising has an equal claim to their benefits in a manner which eerily echoes developing trends in the early twenty-first century which Marx suggests points to the emergence of the commercial state (Marx 2002: 18). The result is a dystopic film which is literally bleached of any colour to leave behind a cold palette of metallic blues and greys, vividly set off against the dark shadows characteristic of the noir genre, which seems to permeate the film with an aesthetic linked to the ubiquitous surveillance machines which are so dominant throughout Spielberg's film.

Figure 4

Access to spaces throughout *Minority Report* is allowed or denied by virtue of biometric identifiers, and primarily through iris scanning carried out by small, wall-mounted machines. Surveillance in this urban environment is carried out remotely, automatically and unobtrusively. Thus, although the bodies of those who inhabit the city constantly yield up vast amounts of personal data, this is done so conveniently that there seems to be little resistance to this invasive surveillance. Fig.4 depicts Anderton arriving for work in the Pre-Crime unit. After having his iris scanned some distance from the main entrance, Anderton is able to enter the building without breaking his stride, slowing down or having to sign-in/confirm his identity with a security guard; that is, the flow of his own bodily movements is unimpeded as a result of the surveillance technology built into the very walls of the building. Note, moreover, that Anderton carries only a jacket with him both in this scene and throughout the majority of the film. There is no need for a plethora of material objects attached in/on one's person in such a society (no keys or wallets, for example) as the body constantly interacts with the ubiquitous surveillance environment to meet the needs of the (in)dividual.

This scene also shows visibility to be a trap as light cascades in through the open doorway, illuminating Anderton in his all-black outfit, forcing the viewer to focus on him (especially when coupled with the metallic railings which slope down towards Anderton and seem to trap him from the outset of the film). The overwhelming use of black and dark fabrics in the clothing of the entire film also suggests that the inhabitants of this urban environment have become mere shadows, ghosts in the machine. The world of Pre-Crime is aesthetically portrayed as being transparent: glass abounds in this space and the metallic finishings seem to highlight this as a machine-driven world which is devoid of the vibrancy one would often associate with such areas. Thus, this film can be said to get around the problem of invisibility by representing 'non-materiality' through transparent objects and architecture (Ruby 1999). Furthermore, speed is certainly of the essence in this environment, but it is born of a machine-like efficiency which seems to suggest that humans are now only one of the cogs in the vast 'surveillant assemblage'. The only thing which does proliferate in Pre-Crime space is information. Data are constantly flowing before the Pre-Crime team and in the transparent drabness of the 'material' world initially presented, the proliferation of images which are either transparent or trapped behind a plethora screens (for this is the manner in which *Minority Report* chooses to communicate digital information strings of zeros and ones) is striking.

Thus abstract data are made visible and the film seems to mirror the practices of the Pre-Crime surveillance team as it invites the viewer to ‘think’ in images.

Figure 5

It is as Anderton seeks to escape from the Pre-Crime headquarters after discovering his predicted crime that the viewer is exposed to the marketing impetus behind much of the surveillance technology which has been installed throughout the city (Fig.5). *Minority Report* received negative criticism on its release as a result of the abundance of product placement interspersed throughout the film. This was ironic, since the overpowering, indeed suffocating and insufferable, pervasiveness of advertising is precisely the point that the film is making: *Minority Report* depicts the advertisers' dream of constant marketing, directly targeted at the (in)dividual. Current anxieties over the collection of data on consumer spending, which are 'safely' stored in myriad databases which can then catalogue and categorise the (in)dividual until (s)he becomes a mere profile, finds its conclusion here. Here too, we see the results of various agents' databases being joined together to form a powerful network spread over the city, although not necessarily centralised: in order for Anderton to be told that 'he looks like he could use a Guinness' from a nearby interactive billboard, his iris must be scanned. This scanning equipment is presumably owned by a particular company and placed within the subway station and malls. The algorithm operating the eye scanners must have access to the Guinness company database(s) as Anderton's physical presence (or more precisely, the presence of Anderton's eyes) in a particular area alert the machine, whereupon company records can be checked to see if it is worthwhile advertising to this (in)dividual, and all this done at 'real-time' speed. Previous spending habits must be accessed and analysed, possibly from supermarkets or drinking establishments, so that no time is wasted – why entice Anderton whose sole vice may be drugs when another Guinness-dependent dividual passes by? Note that the digital/virtual world of advertising is represented as ephemeral, transparent, silvery-blue spectres, while the embodied city inhabitants are black shadows flitting as quickly as possible through the 'space of flows' represented by the advertising corridor, suggesting a visual play between subjects which are digital simulations and others which are physical (the man to the right of the frame apparently walks through the advertising figure). *Minority Report* can perhaps be said to allude to the problem of invisibility by representing 'non-materiality' through transparent objects and architecture.

Figure 6

In spite of the seemingly all-pervasive ubiquitous computing environment that dominates the world of *Minority Report*, it remains possible in Pre-Crime Washington, D.C. to find pockets of space which are not subject to *continuous* surveillance. By virtue of its economic deprivation, the Sprawl area, for example, proves to be a city space in which continuous monitoring is considered to be a waste of time and, more importantly, a waste of money. This area is initially depicted as being a dark wasteland of night (Fig.6) in which the drug-fuelled and impoverished underclass reside. As a result of this shadowy palette and lack of ‘transparency’, it is also suggestive of the material bodies that reside within; that is, bodies which are not harvested for biometric information since they are economically worthless. The ironic advert (there are only a couple of mass-targeted billboards in this area rather than the personalised advertising of the main city) proclaiming liberty may in point of fact be true as the inhabitants of this para-city are left largely alone and are outwith the advertising space of the main city, albeit as second-class citizens.

The architecture in the Sprawl is also profoundly different, being described as ‘crates’ at one point in the film. This dilapidated and crumbling architecture suggests the remnants of a discipline-dominant society, centred around human and architectural observation. The buildings are also depicted as being material and solid; that is, glass and other see-through materials are largely absent as unyielding stone building-blocks dominate this space. There is no flowing space, only static buildings. Nevertheless, even in such spaces it is impossible fully to escape identification. The Pre-Crime team rightly guess that Anderton will hide in the Sprawl and use a plethora of surveillance equipment to track down its prey suggesting that, in a surveillance society which is more control-dominant, there is ultimately no space which escapes monitoring altogether. The apartment block in which he is hiding is thermal scanned in order to ascertain how many bodies are present. Anderton, equipped with inside knowledge, realises that this will be the first thing the team will do when it arrives (announced via a loud-hailer system built in to the police uniform) and so counters this action by sitting in an ice-cold bath, thus lowering his body temperature to avoid heat detection. While this does indeed fool the thermal scanning technology, albeit concomitantly raising the suspicions of the team, other surveillance tools are used which are not so easily tricked. The Spyder technology portrayed in the film which is used to enable constant identity surveillance is based around small learn-as-you-go robotic machines of the kind that were prototyped at MIT (Massachusetts Institute of Technology), indicating a direct overlap between the filmic and ‘real’ world. These small machines are

able to scan their surroundings and make intelligent judgements on how to act based on algorithmic codes (Kaku 1998: 70-98). Spydors can therefore be placed into any environment with the express aim of finding and identifying individuals via iris scans. They are able to enter into any area leaving no space private. That is, within a city imagined after the control society paradigm, the possibility for increasingly pervasive surveillance to be carried out quickly and conveniently is increased, with architectural forms no longer acting as sites of confinement, nor as possible protective spaces of privacy and, in certain cases, anonymity (see, for example, Hiranandani 2010).

Conclusion

As digital technologies become more widespread, both in surveillance practices and in their cinematic representation, traditional notions of space (and the body) are called into question as once apparently impenetrable boundaries are breached. Filmic representations of space encounter a number of difficulties as a result of the prevalence of digital surveillance practices which result in a complex interplay between material and immaterial (often invisible) space which must be communicated visually. Both *Erasing David* and *Minority Report* make clear that although digital and networked surveillance is important, portraying the stubborn materiality of urban space remains a key element in examining the contemporary control surveillance societies. That is, these filmmakers can be said to address the information city by representing spaces in which digital monitoring practices occur with continued reference to the *material* in their mise-en-scène. This suggests a possible limitation in cinematic representations of control forms of surveillance as, in order to communicate digital spaces and surveillance practices visually to the viewer, the material is brought to the fore and the invisible is made visible through the use of transparent materials such as glass or metallic surfaces, as in the case of *Minority Report*. Such cinematic strategies of representation may also suggest that the control paradigm of Deleuze is potentially challenged or resisted by filmic representations which continue to place emphasis on the material *at the same time* as they screen an ostensibly invisible, digital surveillance society. These examples suggest that just as the material persists in the immaterial, so the structures associated with the disciplinary model continue to be present within the control paradigm, although they are deployed in subtly different ways.

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