

The SAGE Companion to the City

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20 TERROR AND SURVEILLANCE

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This chapter

- Argues that the city fulfils important defensive functions, protecting its citizens from particular threats, both internal and external
- Focuses on recent threats to the city, suggesting that these have produced particular urban interventions and infrastructures designed to enhance urban surveillance
- Concludes that despite the drive towards all-encompassing surveillance, fear can never be entirely removed; in fact, some forms of urban surveillance fuel fear

Introduction

This chapter considers the changing nature of urban socio-spatiality in response to fear of war, crime and terrorism. It will work on two interweaving themes: first, the form, and second, the scale of surveillance strategies. Its central argument is that forms of socio-spatial control have undergone scalar changes, moving outwards from the city through the nation-state to the world as a whole and, simultaneously, moving inwards through classes and groups within the city to the individual body, and, finally – through the fracturing of city, state and material body – to the displacement of the material as the object of control in favour of the virtual. However, this should not be regarded as a pure ‘chronology’. City-wide strategies have far from vanished. Indeed, at all scales, socio-spatialities are constantly subject to reconfiguration in response to political economic trajectories and fears that (re)emerge. This is as much an age of ‘urban resilience’, or indeed ‘urbicide’, as it is of DNA-testing and ‘data shadows’.

The development of the defensive city

Cities have always been characterized by material, psychological or metaphysical insecurity, whether these be of invasion by external forces, conflict between social classes and groups, crime, disorder and uprising. As Nan Ellin (1997) has remarked, 'Form follows fear'. Defence against external attack has been an ever-present pre-occupation. Archaeological records show that the early urban areas on the floodplains of great rivers such as the Nile, Tigris, Euphrates and Yangtze were often surrounded by walls, ditches and other defensive features to delimit the 'known' from the chaos and danger of the outside world. For example, Jericho was one of the first examples of a defensive city, which, in around 7000 BC, had a defensive wall and large bastion towers supported by a nine metre ditch which deprived attackers of a means by which they could approach the city walls. Other prominent examples include the Mesopotamian service towns of Uruk and Ur, which, through defensive strategies, created rich city-states and controlled territories (Atkins et al., 1998). These defensive features – a combination of a wall, tower and ditch – became the universal blueprint for the fortified city, a design which changed little between the building of Jericho and the introduction of gunpowder some 8,000 years later (Keegan, 1993).

What is clear is that where centralized modes of governance began to be established, construction of strategic defences around cities or regions became widespread. As Gold and Revill (1999: 230) noted, these defences served to secure 'the *interests* of an imperial power, serving to establish a presence and create an image of power that might impress an indigenous population of rival colonialists' (original emphasis). The development of such urban assemblages inside city walls meant the urbanization process could therefore be read as a process of social control. In particular, the threat of external attack meant the ruling class could justify the dense concentration of population into an easily regulated and surveilled space.

As cities developed, defensive systems became more complex to cope with the improving strategies of intruders. For example, Lanciani (1967) indicated that Ancient Rome was fortified seven times by different lines of walls between the fifth century BC and the third century AD. The castles and the walled towns of medieval Europe were also good examples of this trend. Here internal defences, as represented by the fortress which dominated the centre of the city, and external defence, in the form of a wall, were key features. Atkins et al. (1998) indicate that the developments in military technology at this time meant defensive technologies improved. Designs for stone-clad castles were imported into Europe from Arabia, which formed the centre of new settlements as urbanization spread within the safe confines of the city wall. Durham and Newcastle in northeast England, and the Italian cities of Florence, Venice, Milan and Rome provide good historic examples of such defended settlements. Likewise in the Far East, the castle-towns of feudal Japan, and the complicated spatial hierarchy that resulted

from the edict of the ruling shogunate, separating cities into demarcated and often overtly surveilled areas for samurai, merchants and commoners (Sorensen, 2002). The city walls and castles served a defensive purpose but also became symbolic of social stratification within cities, and divisions between town and country. In time, the city wall and castle became less important, but still remained as symbols of wealth, privilege and power.

The history and spatial practice of these defensive and surveillant strategies is ineluctably bound up with other key social and technological developments in cities, in particular the history of measurement, and the establishment of bureaucratic forms of governance: a good example is the way in which the invention of the public clock transformed the ability of the rulers of cities in thirteenth-century Europe to more intensively regulate the spatio-temporal behaviour of the inhabitants (Crosby, 1997).

The modern period: classes and subjects

In time the city wall became less important as a symbol of wealth, privilege and safety, as technological advances – most notably the invention of gunpowder – made such traditional defences less effective. Cities, however, continued to be characterized by defensive features as new walled and gated spaces developed, increasingly inside city boundaries, as danger was increasingly seen to originate from within, rather than outside, the urban area. As such, by the mid-nineteenth century many Western cities were characterized by secure residential estates amid vast tracts of working-class housing, which were seen as *terra incognita*. The modern period saw massive spatial restructuring of major cities, moving away from the fortified, and impenetrable medieval city, to a model which would allow penetration deep into the urban fabric not by invading military forces, but by those of the nascent nation-state, in order to demonstrate the control of the means of violence and (potentially) to crush uprisings among the working class. Baron Haussmann's redesign of the city of Paris from 1853 to 1870, with wide boulevards radiating out from the centre of the city is the most famous and effective example of this process according to Walter Benjamin (1976), although recent work by Higonnet (2002) disputes the primarily military motivation. It is important to note here the connection with the management of colonial cities: such city redesign plans were often more effectively imposed upon subaltern populations.

The institutional measures designed to create such conditions of course served functions other than surveillance for the purposes of state control. For example, the massive effort in measurement that went into the Poor Laws in nineteenth-century Britain, the precursors of almost all modern health, sanitation and welfare systems, were inspired by philanthropic and patriarchal middle-class concerns over the health and hygiene of the working classes and not simply or even primarily by fear of revolution. Similarly, the invention of the passport (Torpey, 2000) allowed

convenient movement through national borders and the development of trade, and not just the ability to trace the movements of suspicious individuals. Surveillance could be empowering (at least for some). However, this was also the age which developed the first 'biometric' identification technique, fingerprinting (Cole, 2001), and photography, which right from its conception was used, along with many other less long-lived techniques, as a tool to measure and 'scientifically' categorize suspicious people and criminal 'types' (Sekula, 1992), many of which were again pioneered in the colonies (e.g. Major, 1999).

Underlying the concern with the 'dangerous classes', the restructuring of urban space and institutions in response to moral concerns and the fear of revolution, a change was taking place in the conception of the person. The medieval, indeed ancient, conception of an all-seeing God, and his earthly representatives with the power of repression and torture at their disposal lost ground in the scientific and philosophical revolution of the Enlightenment, with the terrain of contestation shifting towards the body and the mind and the ability of individuals to regulate themselves: in other words, the development of a 'modern subject'. Michel Foucault (1975) argued that the development of this subject was the key purpose of modern institutions, such as the police service, the hospital, the asylum, and most importantly of all, the prison. In a key chapter in *Discipline and Punish* (1975), Foucault argues that this is encapsulated in spatial form by the diagram of the Panopticon, the reformatory and poor-house design developed at the end of the eighteenth century by Utilitarian philosopher and philanthropist, Jeremy Bentham (1791). This *dispositif* has been well described elsewhere: put simply, it consists of a circular arrangement of cells surrounding a central guard tower, from which a watcher may observe, unseen, the prisoners. The prisoners would not at any time know for certain that they were being watched, and thus, would choose to modify their own behaviour, to train their souls, and become docile bodies fitting the norms of the institution. Surveillance was no longer just about watching for the threat of an external enemy, but about watching the internal foe: whether inside society or inside oneself. Thus urban surveillance in the modern period was not simply a matter of large-scale spatial control, but of moral disciplinary measures at far smaller scales. And thus the most mundane institutions could provide settings for the operation of these forms of close supervision, for example, the public house (Kneale, 1999) or the new public libraries (Black, 2001).

War, intelligence and surveillance

The military continued to be a major agent of control, a primary source of surveillant practices, and an inventor, adopter and adaptator of existing technologies for purposes of surveillance and control. For example, one of the first suggested experimental uses of the hot-air balloon was in battlefield reconnaissance (Saatjan, 2002) and the speedy production of rifles was the original purpose of the

modern production line (Hounshell, 1984), which provided for the machinic control of industrial workers within urban factories, and this interrelationship between the social, the industrial and the military continued throughout the twentieth century. In particular, the field of espionage and political policing grew enormously (Porter, 1992). Espionage has traditionally been known as the 'second oldest profession', but towards the end of the nineteenth century and particularly in the early part of the twentieth century, states began to create more effective systems of monitoring other nations and internal threats.

The internal 'threats' came from the increasing organization of the dissatisfied urban working class. These intensified with the success of the Bolshevik Party in overturning the Tsarist regime in Russia in 1919. But in colonialist nations, the development of internal security, like many urban redesign policies, were also strongly influenced by the experience of policing overseas possessions, for example, for the UK, Ireland and India (Bunyan, 1977). Political police thereafter proliferated both in nations opposed to communism and those seeking to control 'counter-revolutionary' activity in nascent communist countries (see, for example, Mazower, 1997). Examples include MI5 (the Secret Service) in the UK, the Federal Bureau of Investigation (FBI) in the USA (which was also the national-level serious crime agency), the Special Higher Police (Tokkō) in Japan and the Gestapo in Nazi Germany. While some of these agencies (the Gestapo and Tokkō in particular) were disbanded with the defeat of the Axis regimes during the Second World War, others (such as the FBI) became stronger during the post-Second World War 'Cold War' (see below), and were responsible for public 'purging' of political opponents. New organizations evolved in new post-colonial states, for example Mossad in Israel. It is arguable that the apogee of this ongoing era of internal security was with the Stasi in the former German Democratic Republic, which at its peak was the largest national employer, held a detailed file on every citizen and listed almost one-sixth of the population as informers (Gieseke, 2001).

External intelligence agencies as they exist today are also a product of the twentieth century (Richelson, 1995). For example, in Britain, the Special Intelligence Service (SiS, or MI6) and General Communications Headquarters (GCHQ) both evolved from the Admiralty's naval intelligence organizations in the First World War. In the USA, agencies proliferated and flourished in the Cold War, the most important being the Central Intelligence Agency (CIA) which focuses on Human Intelligence (HUMINT), the National Security Agency (NSA) which deals with Signals Intelligence (SIGINT), and the National Reconnaissance Organization (NRO) (satellite operations) which grew to be the world's most expensive intelligence agency. The Cold War saw massive resources devoted to espionage with the increased exploitation of flight, in particular spaceflight and the development of satellites (Richelson, 1999), but also of computing. Computers were developed for two main purposes during the Second World War: the cracking of codes and the control of atomic weapons. The Cold War saw massive technological development in telecommunications monitoring (interception or 'tapping'), filtering and eventually

automated word, phrase and voice recognition systems such as the NSA's ECHELON system (Campbell, 1997) and the combination of computers with telecommunications in ARPANET, the emergency distributed communications system that became the Internet. The combination of satellite surveillance, telecommunications and computing formed the basis of massive attempts by rival powers to surveil the entire planet, a strategy which Edwards (1996) has called the creation of a 'closed world'.

One of the key features of this period for urban areas, which had begun with the massive destruction of cities through bombing in the Second World War (London, Coventry, Dresden, Tokyo, Hiroshima, Nagasaki, etc.) was the shift from the city as defensible space to the city as target: strategies shifted from trying to prevent land attack to an 'anxious urbanism' of flight from the cities, retreat, abandonment and 'acceptable losses'. Farish (2003) has pointed out how the US interstate highway system was particularly designed with this in mind, and the Cold War saw the proliferation of 'secret underground cities' (McCamley, 1998): networks of fortified spaces below and beyond major cities that would enable a small elite portion of society, particularly government, to survive the destruction of cities and provide secure command and control centres. The latter, largely removed from urban centres, exist not only in the 'homeland' of the nation-state, but in the case of imperial powers, distributed throughout the world: there is a whole 'hidden geography' of such bases and bunkers (Wood, 2001), the most extensive network being that of the USA.

Crime, terrorism and the city in the late twentieth century

The geopolitical urban strategies of nation-states were largely invisible to ordinary people and even to most involved in the everyday governance of cities, who had their own problems of control. In the late 1960s and early 1970s, defensive architecture and urban design were increasingly used in American cities as a direct response to the urban riots which swept many US cities in the late 1960s, as well as the perceived problems associated with the physical design of the modernist high rise blocks, which were seen as breeding grounds for criminal activity (Jacobs, 1961). This was also a result of research which indicated a relationship between certain types of environmental design and reduced levels of violence (Gold, 1970), concerns that enhanced urban fortifications were socially and economically destructive (in terms of economic decline of the city centre and social polarization) and that the provision of security was becoming increasingly privatized as individuals, having lost faith with the public authorities to provide a safe environment, increasingly sought to defend themselves.

As a result of such concerns, American urban planners and designers looked for strategies to reduce the opportunity for urban crime. These came initially through an 1971 approach called *Crime Prevention through Environmental Design*

(CPTED). However, it was the publication of Oscar Newman's *Defensible Space: Crime Prevention through Urban Design* (1972) that stimulated the most intense debates on the relationship between crime and the built environment. In his studies Newman did not rule out the use of security fences or electronic surveillance technologies, but relying on these measures was seen as a last resort if more subtle design solutions were unsuccessful. Newman's work on housing estates in New York and St Louis led to the concept of *defensible space*, which he saw as a 'range of mechanisms – real and symbolic barriers ... [and] improved opportunities for surveillance – that combine to bring the environment under the control of its residents' (Newman, 1972: 3). Defensible space was seen as the physical expression of a social fabric that could defend itself and could arguably be achieved by the manipulation of architectural and design elements.

Newman's ideas were inexorably linked to the late 1960s and early 1970s and reflected the enhanced interest of the architects, planners and urban designers in linkages between environment and behaviour and especially ideas of territoriality. Poyner (1983: 8) further highlighted that 'defensible space' was considered attractive at this time because the 'emphasis was on the use of the environment to promote residential control and therefore somehow return to a more human and less threatening environment'. In short, defensible space offered an alternative to the target-hardening measures being introduced to new residential communities at this time in America and subsequently in other Western countries, most notably in the UK (Coleman, 1985).

In the British context, defensible space ideas were to have wider adaptations than the residential context. For example, Boal (1975) argued that, in relation to the need for anti-terrorist security in Northern Ireland, the ultimate level of security provision in a city is defensible space with its emphasis on territoriality, existing alongside physical barriers. In particular, Belfast in the 1970s could be seen as a laboratory for radical experiments on the fortification of urban space with a number of distinct defended territories created along sectarian lines to give the occupants of a defined area, or individual buildings, enhanced security. This was most noticeable in Belfast city centre where, following a series of car bomb attacks, a security cordon was enacted in 1972 in an attempt to protect retail premises (Brown, 1985). The drastic security measures were taken due to the unsuccessful attempts by the authorities to tackle the security problem and can be seen as a radical example of territoriality. By 1974 the barbed wire fences encircling the central area had been replaced by a series of tall steel gates which became known locally as the 'ring of steel'. All shoppers were searched upon entering this pedestrianized cordon. Subsequently, as the risk of terrorist attack subsided during the 1980s, the cordon contracted in size and urban planners have sought to re-image this 'pariah city' in an attempt to attract businesses back (Neill et al., 1995) (see Extract 20.1). Indeed, any decrease in security was offset by a centralized CCTV scheme, which became operational in December 1995.

Extract 20.1: From Boal, F.W. (1995) *Shaping a City: Belfast in the Late Twentieth Century*, Belfast: Institute of Irish Studies, pp. 81–91.

As the 1960s progressed it was beginning to be evident that the City Centre was threatened by two trends – the growth in road traffic and the first signs of suburban shopping development. ... Traffic congestion and suburban shopping centres were nothing unique to Belfast. The third threat – urban terrorism – was another matter altogether. Here, from 1969 onwards, violence rapidly emerged and in many ways the City Centre was literally at the focus of the action.

The City Centre of the early 1990s is a far cry from that of the early 1970s. Then the bombing campaign of the Provisional I.R.A., which appeared to be a concerted attempt to cripple the city's commercial life, led to the destruction of some 300 retail outlets and resulted in a loss of almost one quarter of the total retail floor space. Security measures introduced in response to the bombing campaign, together with the campaign itself, combined to make shoppers reluctant to patronise centrally located retail establishments. ... The 1980s and the early 1990s have witnessed a remarkable recovery in the fortunes of the City Centre. A decrease (and now cessation) of the Provisional I.R.A. bombing campaign, together with a related relaxation of City Centre security arrangements, led to renewed confidence among consumers and investors alike. City Centre accessibility was improved ... while the environment of the centre was enhanced by extensive pedestrianization (itself made easier by the security measures taken to exclude car bombers) and widespread tree planting. A net retail floor-space of 1.3 million square feet in 1967, having declined to 1.1 million by 1975, recovered to 1.3 million again by 1985. This means that much of the evident growth in trade and investment since 1970 has actually been constituted by a recovery to a former position.

Fortress cities: strategies of city-wide urban defence

In the 1990s new defensible space approaches to the operationalization of pro-security discourses once again served to influence the design and management of the urban landscape. The response of urban authorities to insecurity in some cases was dramatic, especially in North America, and in particular in Los Angeles (LA), where it is argued that the implementation of crime displacement measures and the surveillance of particular spaces has been taken to an extreme. In LA the social and physical fragmentation of the city is often shown to be very pronounced, and which, according to certain commentators, could set a precedent for 'postmodern urbanism' (Dear and Flusty, 1998).

During the 1990s LA assumed a theoretical primacy within urban studies with an overemphasis on its militarization, portraying the city as an urban laboratory for anti-crime measures. Fortress urbanism was highlighted as the order of the

day, as an obsession with security became manifested in the urban landscape with 'the physical form of the city ... divided into fortified cells of affluence and places of terror where police battle the criminalized poor' (Dear and Flusty, 1998: 57). For example, it was reported that, in 1991, 16 per cent of Los Angelians were living in 'some form of secured access environment' (Blakely and Snyder, 1997: 1).

Mike Davis is perhaps the most cited author on 'Fortress LA'. Davis depicts how in recent years the authorities and private citizen groups in LA have responded to the increased fear of crime by 'militarizing' the urban landscape. His dystopian portrayal of LA in *City of Quartz* (1990) provided an alarming indictment of how increasing crime trends could theoretically affect the development and functioning of the future city through the radicalizing of territorial defensive measures with the Los Angeles Police Department (LAPD) becoming a key player in the development process. As the boundaries between the two traditional methods of crime prevention – law enforcement and fortification – have become blurred, defensible space and technological surveillance, once used at a micro-scale level, are being used at a meso and macro level to protect an ever-increasing number of city properties and residences. In *Beyond Blade Runner: Urban Control, the Ecology of Fear*, Davis (1992; see also Davis, 1998) extrapolated current social, economic and political trends to create a vision for the future city in the year 2019, which in this account had become technologically and physically segregated into zones of protection and surveillance such as high security financial districts and segregated gated communities. In this vision, economic disparities have created an urban landscape of cages and wasteland (Extract 20.2).

Extract 20.2: From Davis, M. (1998) *Ecology of Fear: Los Angeles and the Imagination of Disaster*, New York: Metropolitan Books, pp. 359–61.

Every American city boasts an official insignia and slogan. Some have municipal mascots, colors, songs, birds, trees, even rocks. But Los Angeles alone has adopted an official nightmare. In 1998, after three years of a debate, a galaxy of corporate and civic celebrities submitted to Mayor Bradley a detailed strategic plan for Southern California's future. Although most of the *L.A. 2000: A City for the Future* is devoted to hyperbolic rhetoric about Los Angeles's rise as a 'world crossroads' comparable to imperial Rome or LaGuardian New York, a section on the epilogue, written by historian Kevin Starr, considered what might happen if the city failed to create a new 'dominant establishment' to manage its extraordinary ethnic diversity. 'There is of course the *Blade Runner* scenario: the fusion of individual culture into a demotic polyglotism ominous with unresolved hostilities.'

Blade Runner – Los Angeles's dystopic alter ego. Take the Grayline tour in 2019: the mile-high neo-Mayan pyramid of the Tyrell Corporation drips acid rain on the mongrel masses

in the teeming ginza far below. Enormous neon images float like clouds above the fetid, hyperviolent, while a voice intones advertisements for extraterrestrial suburban living in 'Off World'...

With Warner Brothers' release of a more hardboiled 'director's cut' a few months after the Rodney King riots, Ridley Scott's 1982 film ... reasserted its sway over our increasingly troubled sleep. Ruminations about the future of Los Angeles now take for granted the dark imagery of *Blade Runner* as a possible, if not inevitable, terminal point for the Land of Sunrise. ...

Events since the 1992 riots – including a four-year-long recession, a sharp decline in factory jobs, deep cuts in welfare and public employment, a backlash against immigrant workers, the failure of police reform and an unprecedented exodus of middle class families – have only reinforced spatial apartheid in greater Los Angeles. As the endless summer comes to an end, it seems that L.A. 2019 might well stand in a dystopian relationship to the most traditional ideals of a democratic metropolis.

But what kind of dystopian cityscape, if not *Blade Runner's*, might the unchecked evolution of inequality, crime, and social despair ultimately produce? Instead of following the grain of traditional clichés and seeing the future merely as grotesque ... would it not be more fruitful to project existing trends along their current downward-sloping trajectories?

Davis's work has been elaborated on by many subsequent authors (see Chapter 19). For example, Flusty (1994) provided a categorization of the different types of fortress urbanism which, he argued, had thrown a blanket of fortified and surveillance security over the entire city. He referred to the spaces of security as 'interdictory space' which are designed to exclude by their function and 'cognitive sensibilities'. A typology of such spaces is shown in Table 20.1.

Table 20.1 Typology of interdictory space

Stealthy space	Passively aggressive with space concealed by intervening objects
Slippery space	Space that can only be reached by means of interrupted approaches
Crusty space	Confrontational space surrounded by walls and checkpoints
Prickly space	Areas or objects designed to exclude the unwanted such as unsittable benches in areas with no shade
Jittery space	Space saturated with surveillance devices

Source: Adapted from Flusty (1994)

Flusty highlighted how such defended spaces, alone or in combination, have pervaded all aspects of urban life, leading to an ever-increasing number of highly secure gated communities, bunker architectures and highly policed ghettos in the disadvantaged poor areas of the city. He also noted how the commercial privatization of space is taken to an extreme as a strong fear of the public realm leads

to highly inclusive business facilities either in isolation or in self-contained agglomerations.

Although 'Fortress LA' in the 1990s became a powerful vision for the city, it is important to realize that there are many other ways in which urbanism in LA may be viewed. For example, critics of Davis have argued that he is portraying a very dystopian image of the city as one shackled with terror, fear and anxiety and under the constant gaze of surveillance cameras.

Hard and soft boundaries: rings of concrete and rings of surveillance

During the late 1980s attempts to design out or reduce the impact of terrorism at specific targets were often crude and rudimentary, but nonetheless, high profile (see Figure 20.1). By the early 1990s, when fortress urbanism was a popular practice among planners and urban designers, there was also a noticeable targeting of global cities, and in particular their economic infrastructure, by terrorist organizations in order to attract global media publicity and cause severe insurance losses and significant disruptions in trade. This was perhaps most noticeable in London, where the Provisional IRA successfully attacked a number of key economic targets with large bombs exploding in the City of London (the Square Mile) in April 1992 and April 1993 and the London Docklands in 1992 (unexploded) and 1996. These bombings and the subsequent reaction of urban authorities and the police served to highlight the use made of both territorial and technological approaches to counter-terrorist security, creating a series of interlocking of hard and soft boundaries to counter the terrorist threat (Coaffee, 2003, 2004). Such an approach can be seen as an enhancement of pre-existing methods already employed in many cities as a result of the increase in the fear of crime.

Following the first major bombing of the City of London in April 1992, there were calls for an impenetrable security cordon to be constructed, although at this time such radical security was dismissed as a propaganda gift to the bombers. However, in the aftermath of the 1993 bomb in the City, what was referred to in the media as a Belfast-style 'ring of steel' was activated in the City, securing all entrances to the central financial zone. Locally, the ring of steel was referred to as the 'ring of plastic' as access restrictions were based primarily on the funneling of traffic through rows of plastic traffic cones.

The territorial approaches to security were backed up by the retrofitting of ever-advanced CCTV in both private and public spheres. The police, through an innovative partnership scheme known as 'CameraWatch', encouraged private companies to install CCTV in liaison with neighbouring businesses, while at the entrances of the ring of steel as well as at strategic points around the Square Mile the most technologically advanced CCTV cameras available were installed (in 1997) in the form of 24-hour Automatic Number Plate Recording cameras



Figure 20.1 Downing Street entrance

(ANPR), linked to police databases. These digital cameras were capable of processing the information and giving feedback to the operator within four seconds. In the space of a decade, where terrorism had been considered a serious threat, the City of London was transformed into the most surveilled space in the UK (and perhaps the world) with over 1,500 surveillance cameras operating, many of which are linked to the ANPR system (Coaffee, 2003).

In a similar way to the City, the London Docklands, containing the Canary Wharf complex, was also the focus for counter-terrorist planning through the 1990s. This area was subject to a failed bombing in 1992 as well as a devastating explosion in the southern part of the area in 1996. Following the 1992 Canary Wharf attack, managers initiated their own 'mini-ring of steel' essentially shutting down access to 'their' private estate within the Docklands complex (Coaffee, 2000; Graham and Marvin, 2001). Security barriers were thrown across the road into the complex, no-parking zones were implemented, a plethora of private CCTV cameras were installed and identity card schemes were initiated. After the 1996 bomb in the southern part of the Docklands the business community successfully lobbied the police to set up an anti-terrorist security cordon to cover the whole of the Docklands – the so-called *Iron Collar* modelled on the City of London's approach (see Figure 20.2) – amidst fears that high-profile businesses might be tempted to relocate away from the Docklands.



Figure 20.2 Entrance through the Docklands' Iron Collar

Over time, such securitization against certain 'at risk' sites from terrorism has led to the inevitable dislocation of London into zones of differential risk and security. That said, advancements in technology have subsequently allowed a more expansive security blanket over central London. The ANPR technology that was developed throughout the City's attempts to deter terrorists has now been 'rolled out' across central London for use in traffic 'congestion charging'. This system became operational in February 2003 and uses 450 cameras in 230 different positions. In essence, central London has been circled by digital cameras creating a dedicated 'surveillance ring' affording London's police forces vast surveillance gathering capabilities for tracking the movement of traffic and people, and by inference highlighting potential terrorist threats. This became a key priority after the attacks in New York and Washington DC on 11 September 2001.

From CCTV to dataveillance

Closed circuit television (CCTV) has played a significant role in these various strategies of spatial control. Attempts had been made to utilize broadcast television cameras for crime control from very early in the history of television: examples can be found in Nazi Germany, and in post-war Britain, where for the coronation of Queen Elizabeth II, the police requested the British Broadcasting

Corporation to provide them with access to footage for purposes of crowd control, but were refused (Williams, 2003). Yet CCTV's origins are neither exclusively in urban policing nor military surveillance. A significantly underplayed strand in the history of surveillance is that of consumption and leisure, and it is here where CCTV first flourished. It was in the 1960s casinos in the USA, largely to prevent fraud, and thereafter, particularly with the development of videotape in the massive suburban shopping malls that CCTV developed (Norris et al., 2004). Theme parks are also crucial here: the parks owned by the Disney Corporation became important sites for the experimental utilization of private security (in the form of undercover security) and also CCTV (Shearing and Stenning, 1985). This is important because it is the semi-public, closed and controlled world of malls and theme parks that is increasingly seen as providing a model for neo-liberal urban renewal initiatives (Sorkin, 1992).

However, for urban spatial control, the UK was the pioneer. It has been estimated that there are 4 million CCTV cameras in the UK (Norris et al., 2004) and over 85% of local authorities now have at least one system in place (Webster, 2004). CCTV was first introduced in public space in Bournemouth, a resort town on the south coast of Britain in 1985 (for a detailed account of the history of CCTV in Britain, see Norris and Armstrong, 1999). The year before had seen the Provisional IRA mount a devastating bomb attack on the ruling Conservative Party conference in Brighton, almost killing the Prime Minister, Margaret Thatcher. Bournemouth was to be venue for the next conference. That CCTV soon penetrated British towns and cities so thoroughly was not entirely due to the fear of terrorism. The neo-liberal relaxation of planning laws and the expansion of out-of-town shopping had seen traditional space of consumption in town centres decline. Other fears were also used to justify the installation of CCTV systems: particularly football hooliganism, and high-profile crimes against children, especially the kidnapping and murder of James Bulger in 1993. Crucial to this process was the role of the state in providing funding and limiting regulation. Thus while CCTV was expanding, it was also able to be normalized as an expected feature of public space, or even a 'fifth utility' (Graham et al., 1996). In the wake of September 11, CCTV, along with other advanced technologies of urban surveillance, have 'surged' forward (Wood et al., 2003), and the UK has come to be seen as a 'model' for the implementation of urban security by other nation-states.

The relationship between surveillance and subjectivity observed by Foucault in the modern period has continued to evolve. First, biometric identification (based on quantified bodily traces) has moved far beyond fingerprinting to the more intimate. Identification has penetrated the surface of the body and involves analysis of samples like hair, urine and blood, and at more fundamental levels, such as with DNA fingerprinting (Nelkin and Andrews, 1999). However, forms of surveillance also involve less intrusive biometrics, such as facial and iris recognition, some of which can be linked into digital CCTV (Introna and Wood, 2004). Current fears exist within a far more complex technologically-dominated polity than in the

early modern period of Foucault's *dispositif panoptique* (Barry, 2001). This technological politics crosses all domains from the mechanical to the biological. For example new genetics metaphors are bound up in the notions of militarization, security and resilience (Dillon, 2002), and police and urban planners are adopting neo-Victorian notions of threat from 'genetically dangerous' classes of people, instead of criminality as individual 'deviancy' (Rose, 2000).

At the same time, the surveillance of the body itself has been supplemented by associated data. Mark Poster (1990), Gilles Deleuze (1992), and Oscar Gandy (1993) posit movement away from internalized soul-training to surveillance through searchable databases of information, sometimes called 'dataveillance' (Clarke, 1988). This dispersed and fragmentary information could constitute a separation or division of the self, creating multiple 'dividuals' (Deleuze, 1992) or 'data subjects' (Gandy, 1993), as (or more) important than the embodied subject. This is a step-change from the Stasi paper file: computer databases allow greater integration and automated algorithmic operations to be performed effectively in real time, without the bodily subject knowing (Graham and Wood, 2003).

Urban surveillance beyond 9/11: militarization, automation and pervasiveness

Since the devastating attacks targeted at the symbolic urban centre of neo-liberal Western capitalism of 11 September 2001, there have been growing tendencies towards a situation where 'military and geopolitical security now penetrate utterly into practices surrounding governance, design and planning of cities and region' (Graham, 2002: 589). The 'war on terrorism' has already served as a 'prism being used to conflate and further legitimize dynamics that already were militarizing urban space' (Warren, 2002: 614). In the immediate aftermath, many commentators also (incorrectly) predicted the demise of the skyscraper and the changing functionality of urban centres. Others highlighted the potential for terrorism to lead to a new counter-urbanization trend among business and wealthier citizens in search of 'space and security' (Vidler, 2001), or for the increased fragmentation of urban space to continue through 'concentrated decentralization' (Marcuse, 2002).

Extract 20.3: From Lyon, D. (2003) *Surveillance after September 11*, Cambridge: Polity, pp. 4–5.

We can understand 9/11 – the events and their aftermath – in two ways: 9/11 may be viewed as both revealing and actually constituting major social change. The attack brought to the surface a number of surveillance trends that had been developing quietly, and largely unnoticed for the previous decade and earlier. ... In other words, the establishment of 'surveillance societies'

that affects the lives of ordinary people was already underway long before 9/11. The aftermath of the attacks helps us to see more clearly what is already happening.

At the same time, the 9/11 event may also be read as an opportunity – to some, even a golden opportunity – that gave some already existing ideas, policies, and technologies their chance. In this way it helped to constitute merging social and political realities. ... The desire of several governments to hold on to some semblance of social control, which some felt had been slipping away from them in a globalizing world, now found an outlet in 'anti-terrorist' legislation.

Technologically, the US administration was fairly quick to come up with the astonishingly comprehensive 'Total Information Awareness' scheme at the Pentagon. The data-mining technologies had been available for some time in commercial settings, but until 9/11 no plausible reason existed for deploying them – and the customer data that they analyse – within a national security apparatus. The drive towards large-scale, integrated systems for identifying and checking persons in places such as airports and at borders, urged for years by technology companies, received its rationale as the twin towers tumbled.

Such accounts of the post-9/11 city also tend to present bleak portrayals and worst case scenario options. The concern is that anti-terrorist defences and heightened surveillance, if constructed, could mean the virtual death of the urban areas as functioning entities. For example, in London, the unprecedented events of 9/11 led to an instant counter-response from London police forces focused on digitalized tracking technologies as well as the overt fortressing of 'at risk' sites. For example, certain prominent landmark buildings were crudely fortified against vehicle-borne bombs, such as the US embassy in central London, which has become a virtual citadel, separated from the rest of London by fencing, waist-high 'concrete blockers', armed guards and mandatory ID cards. Furthermore, in May 2003, in response to a heightened state of alert, a vast number of waist-high concrete slabs were placed outside the Houses of Parliament to stop car bombers. This so-called 'ring of concrete' was later painted black to make it more 'aesthetically pleasing' (Coaffee, 2004).

Anti-terrorist security at key sites in major cities is both visible (as in overt fortressing and defensible space measures at key target sites) and invisible as surveillance activity. The latter forms what Lianos and Douglas (2000) refer to as Automated Socio-Technical Environments (ASTE): normative notions of good behaviour and transgression and, increasingly, stipulations and punishments (for example, electronic tagging) are encoded using software into the space-time fabrics of cities. Right-wing commentators in the USA, such as Huber and Mills (2002), went so far as to demand a war between 'our silicon' and 'their sons', and argued that a pervasive automated surveillance apparatus of micro-sensors

'dispersed along roadsides, hills, and trails ... will report just about anything that may interest us – the passage of vehicles, the odor of explosives, the conversations of pedestrians, the look, sound, weight, temperature, even the smell, of almost anything'. This surveillant adaptation of 'pervasive', 'ubiquitous' or 'ambient' computing (Cuff, 2003) has the potential to enable what Thrift and French (2002) have called the 'automatic production of space'.

With some arguing that 'fear and urbanism are at war' (Swanstrom, 2002), urban policy-makers now have to think carefully when balancing security with mobility and risk with recklessness. Since 9/11, issues of trust, risk and danger in cities have increasingly come to the fore, with 'trust [being] replaced with mistrust and as such "the terrorist threat" triggers a self-multiplication of risks by the de-bounding of risk perceptions and fantasies' (Beck, 2002: 44) which are over-exposed in the global media and uniquely concentrated in the global city. This had led to areas becoming disconnected, physically and technologically, from the rest of the city through the development of securitized 'rings of confidence' (Coaffee, 2003), contributing to a fractured or 'splintered' urbanism (Graham and Marvin, 2001). The response of urban authorities and public and private security agencies to this threat poses serious consequences for urbanity and the civic realm, and in particular for freedom of movement. This is particularly serious when militarized security perspectives are bound up with neo-liberal agendas on urban regeneration (Raco, 2003). Worryingly, such processes can often be seen as selective or exclusionary. As Coaffee (2004: 209) notes, 'the policy processes which are leading to the ever-increasingly automatic control and militarization of urban space have ultimately lacked transparency and scrutiny and have often been promoted in terms of traffic management or crime inhibiting measures. As such, this points inevitably to the splintering potential of such rings of security and rings of confidence, which are slowly but surely becoming 'rings of exclusion'.

Summary

Terrorism is the most recent in a long line of threats which have shaped the fabric, social relations and governance of the city. This chapter has traced the changes in the nature and scale of response from external fortification through modernization, bureaucratization and self-surveillance to a city of increasingly pervasive surveillance conducted by a wide range of institutions, groups and individuals with an expanding range of technologies. At the beginning of the twenty-first century we believe that several key areas form the focus for future research. The first concerns the complex connections between the military and the civil. The second involves the diffusion of the new forms of surveillance practices and technologies to the cities of the global south, and hence the need for cross-cultural and comparative studies of surveillance. Third, the concept of pervasiveness, ubiquity or ambience in surveillance demands attention for its capacity to

infiltrate buildings and infrastructure, consumer products, clothing and even bodies. Finally, and most immediately, there is the growing concentration on what is being commonly termed 'urban resilience' (Coaffee, 2006) – a critique of which includes the serious and potentially dangerous impacts that surveillance might have for equity and conviviality in cities. One of the key roles that academics can play is in questioning the underlying 'fears' and 'threats' and to make sure that the variety of potential outcomes follow hope, not fear.

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