

# **Disturbances in the Sensory Experience of the City**

## **CCTV and the Development of an Unreal Urban “Parallel World”**

**Francisco R. Klauser**

### **ABSTRACT**

In order to emphasize the importance of understanding the experience of the city as one that includes all human senses, this article focuses on the increasing use of CCTV in city centers. As we can see by looking at the array of monitors within control rooms of CCTV systems, surveillance cameras contribute to the development of a “parallel world” created by the assemblage of decontextualized images coming from monitored places throughout the city. Thus, sitting in the indoor space of CCTV control rooms, as if in a capsule, camera operators live an exclusively technologically mediated experience of the city.

However, public space users can neither cognitively know nor sensually approach these hidden spaces, nor can they know or perceive the new urban boundaries between monitored and not monitored places. From the point of view of monitored individuals, this paper shows that the dissociation between hidden spaces of control and fully exposed public space results in an intangible feeling of a new kind of indeterminable superficiality that ultimately leads to the personal withdrawal from this confusing reality.

On an empirical level, the resulting disturbance in the (sensory) relationship between the self and the surrounding territory in connection with video surveillance is studied by the example of CCTV of street prostitution in the Swiss city of Olten. On the basis of thirteen in-depth interviews conducted with street-users this paper points out how the CCTV implied spatial and mental separation between how the world *behind* and the world *below* the cameras is lived and experienced.

KEYWORDS: CCTV, mediation, urban life

Francisco R. Klauser works in the Institute of Hazard and Risk Research Department at Durham University on new theoretical perspectives and broader analytical investigations regarding current trends of surveillance and automated management of social risks in the urban context. f.r.klauser@durham.ac.uk

## Introduction

In recent years, closed circuit television (CCTV) has become such an ordinary and taken-for-granted feature in most cities that it is now increasingly ignored in everyday urban life. Based on the general understanding of CCTV as a distanced device of social control (Giddens 1990), the aim of this paper is to reveal how the fact that CCTV has become banal challenges and reshapes sensory experiences of the city. Disconnecting the watched (monitored individuals) from the watchers (operators), CCTV essentially deals with territorial separation, resulting in two distinct categories of space. While, on the one hand, the world spread *below* the cameras embraces fully exposed, publicly accessible places, the world *behind* the cameras consists of places of restricted access, centers for the visualization, manipulation, interpretation and recording of decontextualized CCTV images. Referring to this dichotomy between “control spaces” (control rooms) and “controlled spaces,” my paper is concerned with the contrasting sensory experiences of the city for both the watchers and the watched. Firstly, from the watchers’ point of view, by visualizing transmitted images at a far geometrical distance from monitored areas, operators in control rooms spend all their time in the realm of mainly one sense: sight. Consequently, I argue, they cannot take into account the richness of public life that would also appeal to other senses – sounds, smells or other bodily experiences – which lack of information could considerably limit the efficiency of their work

Secondly, I consider these limits of CCTV and ask to what degree, and in which ways, they are perceived by monitored individuals within public places. In this, my basic assumption is that the isolation of CCTV control rooms from the sensory experience of common citizens results in a general misunderstanding about the world behind the cameras that limits the efficiency of CCTV as an instrument to sustainably revitalize “places of fear.” From this point of view, I ultimately demonstrate that the development of visual surveillance networks in the urban context is increasingly disturbing citizens’ relationships with the city as it excludes certain urban places from the sensory experience of common citizens.

On an empirical level, the disturbance in the (sensory) relationship between the self and the surrounding territory in connection with video surveillance is examined using the example of CCTV of street prostitution in the Swiss city of Olten. This example usefully illustrates the separation between the perceptible world of the street prostitution area and the invisible world behind closed doors, created by surveillance cameras. On the basis of thirteen in-depth

interviews conducted with street-users (prostitutes, residents and representatives from cultural and commercial institutions bordering the street) this paper shows how this separation was lived and experienced from 2001 to 2005.

### **CCTV as a Socio-Technical Mediator**

Influenced by Henri Lefebvre's (1974) and Claude Raffestin's (1980) power-dominated studies of mechanisms of production and appropriation of space, my theoretical approach is based on the concept of human territoriality, understood as a complex of mediated relationships linking a population, group or individual to their social and spatial environment (Raffestin 1984: 140). As Raffestin argues, relations linking individuals with their life space (exteriority) and with others (alterity) presuppose different kinds of mediations, which involve both concrete and/or abstract means of varying nature. For example, knowledge, language, social rules, technical instruments and human senses can be seen as mediators, in that they affect social and spatial relationships crucially. In consequence, spatial and social relationships not only comprise subjects (social groups and individuals) and objects (space, respectively other social groups or individuals), but also different types of mediators that assure the ternary relations of subject – mediator – object (Raffestin 1980). While mediators make relationships possible, they also influence and limit them. In addition, "mediators can be seen as constituting the conditions for the exercise of power, and they therefore define quite precisely the limits to liberty or autonomy of those who use them in their relationships with the exteriority" (Raffestin 1984: 141). Within this paper, CCTV is considered as both a concrete and abstract mediator that changes the relationship to the city both for the camera operators and for public space users by changing their knowledge, practices and sensory experience of the city as a whole.

### **Nearness and Remoteness Involved in the Camera Operators' Uni-sensory Experience of the City**

Sitting in the indoor space of CCTV control rooms, as if in a capsule, camera operators live an exclusively technologically-mediated experience of the city. Their control space refers to a type of geography which is almost entirely devoid of the features which characterize the controlled space. The resulting spatial dichotomy also constitutes a powerful metaphor for the social power relations that produced it. On the one hand, the whole process set up to design, organize, implement and manage video surveillance systems comprises a complex and subtle system of relationships between

multiple social players; on the other hand, within these processes and social networks, common users of monitored public space are not able to participate. On the contrary, the regulation of monitored public places is silently (at least partially) transferred from those persons co-present in the observed space to a video-surveillance system which converts it into an abstract space, hidden behind closed doors. This leads to at least two general consequences.

First, the CCTV-mediated relationship between camera operators and public space users contrasts with the reciprocity of traditional social control exerted by all persons simultaneously present and produced by the values, attitudes and social standards harbored by these people. Secondly, these same relationships also profoundly contrast with the richness and density of social interaction within situations of physical and immediate co-presence (Giddens 1984: 424). While surveillance cameras permit the transmission and recording of two-dimensional visual information about public life in the city, they mostly cannot catch any sounds or odors from monitored places. Camera operators are “both deaf and dumb” (Norris and Armstrong 1999). Even though it is technically possible to transfer sounds along with images, the simultaneous monitoring of hundreds of sound recordings would not be as easy as monitoring the juxtaposition of visual information on monitors. As Jonas points out, “sight is par excellence the sense of the simultaneous or the coordinated, and thereby of the extensive” (Jonas 1954: 507).

The limits of the camera operators’ relationship to the city point towards more profound reflections about their position in the city as “hidden strangers” in Simmel’s sense (Simmel 1908). Regarding the consequences of new information and communication technologies in general, Bogard argues, referring to Simmel’s work about strangers in the city,

that today, strangeness is still one of the best terms to describe the experience of computer communication, virtual reality, genetic engineering, or just watching TV – one is near and far, or the scene is near and far, it matters little which we say because the self, the agent, the object, all dissolve in the general (imaginary) confusion of distances and times in these technologies. (Bogard 1996: 148)

This feeling of being “near and far” also describes daily experiences of CCTV operators at a far material and mental distance from vibrant urban life. As Wolff argues, the stranger’s position within society involves both being outside it and confronting it, therefore approaching society with an attitude of “objectivity” (Wolff 1950:

402–8) and – I would add – of “extraterritoriality.” This remark seems also valid in connection with CCTV operators in the sense that they are directly committed neither to material and symbolic qualities of monitored places nor to social conventions within these places. However, CCTV operators cannot be considered to be freer in the sense of having fewer prejudices or greater objectivity in their social judgments (Norris 2002). In this regard, it is especially informative to look at the names and qualifications given to CCTV operators such as “*inspector*,” “*supervisor*” and “*overseer*” that all semantically express their higher and relative position of power compared to “*inferiors*,” that is to say “*surveyed*” public space users (Norris and Armstrong 1998: 4).

In contrast to Simmel’s understanding of the “stranger,” CCTV operators remain outside monitored public space (at least during their work hours), not becoming organically connected to monitored individuals, unable to establish ties of locality and occupation of the same space or be approached by human senses. Thus, CCTV operators not only miss shared face-to-face presence with public space users, but also “face-to-place co-presence” including the experience of physically walking or seeing or touching or hearing or smelling a place that could subject their body to a direct encounter of “facing the place” (Urry 2002: 261–2).

This primacy of the operators’ simultaneous but detached vision of a “rush of filmic images without density” (Jameson 1992: 34) has to be seen as both confusing and risky, bearing in mind the complexity of social interactions in monitored public space. In this context, the Hillsborough stadium disaster in April 1989, when severe crowd congestion happened outside the stadium, might be of significant interest, as Armstrong and Giulianotti point out (1998). As the authors show, “the Hillsborough disaster certainly highlighted the fact that CCTV images cannot explain the meaning of what is captured on film” (Armstrong and Giulianotti 1998: 129). Especially in connection with highly unpredictable social risks such as crowd violence or mass panics, CCTV cannot replace the “direct feeling” of the situation on the spot. The sensually poorer two-dimensional reality (artifact) on screens cannot take into account the whole “multi-sensoriness” (Sepänmaa 2003) of the three-dimensional environment. The issues raised by this analysis about CCTV therefore also include questions about strategies of public safety that could successfully combine different types of (human and technological) security measures in order to take better account of the richness of social interactions and the complexity of social risks.

In the case of software-sorting associated with CCTV in order to automate the detection and management of risks, additional

instruments of artificial multisensory surveillance are often used in parallel with surveillance cameras in order to compensate its monosensory nature. In the case of traffic surveillance, for example, meteorological gauges for wind, opacity, CO<sub>2</sub> rate and temperature measures as well as instruments for the automated detection of slippery (icy) streets or fires in tunnels and for the automated calculation of traffic density are directly combined with CCTV within a more global system of telesurveillance. In contrast to managing traffic security, however, monitoring city centers for social risks by automated logarithmic codes and technical artifacts at a geographical distance seems much more difficult without taking into account all human senses on the spot itself. "Cities are far too complex, porous, and multidimensional to be somehow programmed by computers and surveillance systems" (Graham and Marvin 2001).

### **The Loss of Spatial and Mental Boundaries**

As participatory research about CCTV in Geneva (including mainly motorway monitoring but also cameras within the city center) showed, camera operators are themselves very aware of their general lack of direct experience of monitored places through their senses (November, Ruegg and Klauser, 2003). Interviewed operators criticized their superiors for not letting them out to check situations *in situ* and *in vivo*. While in this particular case, direct sensory contact could be made with the aid of police patrols, operators were still arguing that their role as first-stage decision-makers, confirming and classifying disruptive incidents and alerting other services, would need more direct and permanent contact with monitored areas. While their direct sensory contact with monitored areas was considered to be insufficient, operators felt too immersed in the overloaded, narrow control rooms (filled with their own frantic life, noise, heat and odors) and too exposed to sensory stimuli from visual information and sounds arising within their direct surroundings (automated alarms in connection with traffic surveillance, telephones, discussions etc.) which they had to take into account within their work. Camera operators find themselves caught in the paradoxical situation of being visually immersed within represented places on the one hand, but remaining with all other senses attached to their direct surroundings. Many complained that in times of crisis, when clarity was most needed, sounds and noises became especially uproarious. In this sense, CCTV ignores the deep correlation of sight with other human senses. Combined with the absence of direct sensory perception of the controlled places, this opens an important

rift between the operators' body and the represented space on the screens before them, which they are supposed to keep in mind and which should never disappear from their sight.

It was also felt that this over-stimulation within the control room negatively influences the operators' crucial relationship to monitored places. Following on from this, it might be the very nature of CCTV systems themselves which explain the operators' feelings of alienation from their job, their tiredness, boredom, derision and strategies for wasting time, which have been described in detail by ethnographic observations (Smith 2004).

I visited another control room. There, they really made studies, like for the lights within the room. Then, they installed indirect lights for example; they also suppressed all shadow zones and eliminated noises from the room, like loud telephones. They did not have any noisy alarms either. With this, they also reduced the high rate of absence of the operators . . . Here, there is too much noise. The more problems we encounter, the louder we speak. The light is bad as well. We either have headaches or we get ill (CCTV operator, Geneva traffic control).

Following Olalquiaga's cultural analysis of postmodernity, the "attempt to nail down an elusive reality to its minimalized images is a process that promptly reverses into an organization of reality in which reality becomes contingent on its own representation" (Olalquiaga 1992: 5). While this process is not confined to video surveillance only, the camera operator's work constitutes an almost pure and symptomatic example of Olalquiaga's argument because of their exclusive non-stop looking at the screens. The camera operator's world is virtually imbued with images that build up the deceiving ground of their work. Immersed within this artificially composed, represented space without density in front of their eyes, they constantly deal with a considerable loss of concreteness. Thus, camera operator's daily experiences and conditions of work can accurately be described with Olalquiaga's concept of psychasthenia. Defined as "disturbance in the relation between self and surrounding territory," that resembles the "ubiquitous feeling of being in all places while not really being anywhere" (Olalquiaga 1992: 1-2), the concept of psychasthenia also stands for the perceived loss of spatial boundaries, that is to say, the inability to demarcate the limits between interiority and exteriority. Without having any fixed reference point, despite the monotonous repetition of images, camera operators in fact not only shift between "here" and "there," but also between "there" and "there" (trying to simultaneously "embrace" monitored places beyond their surroundings, figured on the image wall. In this sense, the camera operators' position might literally be described as an "overlapping of the self onto space" (Olalquiaga 1992: 7).

## **CCTV of Street Prostitution**

The proportion of nearness and remoteness related to CCTV from the camera operators' point of view also finds expression in the perception of video surveillance by users of monitored public space. In order to focus on this issue, I take into account empirical findings (Klausner 2006) collected by thirteen in-depth interviews with different types of social players, using the CCTV-monitored street prostitution area within the Swiss city of Olten. In fact, besides street prostitution, some alternative cultural institutions (for example, a music-club and a theater), several big industrial complexes and various small enterprises and residential buildings border the street. The aim of this first police open street CCTV project in Switzerland was not only to revitalize one specific problem area but to improve the economic appeal of the whole city. In 2005, the street prostitution area was closed down on the "Industriestrasse." The cameras, however, still remain today.

Regarding my focus on the issue of the sensory experiences of the city, the example of street prostitution surveillance is particularly interesting. According to interviewed prostitutes, most of the men within the dense and permanent flow of cars on the Industriestrasse were not so much looking for physical contact with prostitutes, but – eager to drown their senses in the sight of posing prostitutes – were searching direct voyeuristic stimulation through their eyes. In addition, regarding the contacts between prostitutes and clients, sight also plays a major role, as shown by the many car accidents on the street, as a result of distraction. Despite the predominance of the visual in this theatrical street spectacle, the street's atmosphere was also described as becoming very noisy at night because of bottles being thrown at prostitutes, loud insults, car horns and races on the street from mainly young men: "It's crazy! It's not always the same, but on Fridays and Saturdays, when we were also working at night at the Industriestrasse, all hell's been let loose" (theater-worker at the Industriestrasse).

Finally, regarding the prostitutes' sensory experience of the street, there might hardly be another type of work which could be more exposed to wind and weather. Although the number of prostitutes varied considerably from twenty to sixty women a night depending on the season, many women would stand on the pavement even in the coldest winter nights, exposed not only to the gaze of potential clients and voyeurs in comfortably heated cars but also to the gaze of the police officers in their warm control room. In this light, the example of street prostitution surveillance raises a series of critical questions regarding CCTV inherent voyeuristic biases (Norris 2002), linked to the gendered power relations between watching (mostly male) CCTV operators and watched (female) prostitutes.

## **Perception of CCTV by Street Users**

All in-depth interviews with users of the Industriestrasse underline that there was a significant drop in street prostitution during the first few months of the cameras' installation. Many prostitutes were even described as having used "tactical ruses," in the sense of Michel de Certeau (1984), in order to spatially avoid camera-monitored areas on the street. These micro-resistances to the cameras were mainly connected to privacy concerns from prostitutes who tried to adapt to the new particular circumstances on the Industriestrasse:

At the beginning, the cameras' effects were obvious. Many women walked down the street in a manner that they thought would allow them to remain outside of the cameras' field of vision. Nowadays, everybody's walking through the street, as if one would go for a normal walk. (Prostitute)

The situation three years after the cameras' installation was described as being much like it was beforehand. Thus, people did not really believe in the cameras, but they described CCTV as a technical device which was felt to be faraway, at a "geometric and mental distance." In fact, despite the big, fluorescent color placards announcing the presence of CCTV, the silent, and to most eyes invisible, cameras were quickly forgotten in the background of the busy and noisy street activities. This result is even more meaningful when contrasted with the significant consequences the cameras provoked directly after installation:

It's just such a little thing, fixed up there, one doesn't really see it. When they installed the cameras, they showed it on television. That was about two years ago. In your mind now, CCTV's gone. Nobody thinks about the cameras anymore. (Doorman at a music-club at the Industriestrasse)

The fact that the cameras completely slipped peoples minds cannot only be explained by their size and discrete functioning but, further, by the perceived absence of "what was lying behind the cameras," hidden and unreachable for street users. They could not know or see the manipulations being carried out by CCTV operators. Often, it was not clear who might see the images and what might be done with the information. Consequently, the possibility of directly questioning and challenging the watcher was lost. Thus, operators within CCTV control rooms were not so much perceived as "strangers" (in Simmel's sense as somebody who's both far and near at the same time) by users of monitored spaces, but, rather, they were beyond far and near, in the sense that they were not accessible for public space users at all. This incapacity to "sense" the hidden world behind the cameras resulted in the general feeling of having been neglected

by the police, without ever hearing anything about the cameras' functioning or success. The watched individuals felt that they had become pure objects of information, not subjects of communication: "Not a single person thinks about the cameras anymore... It has become like everyday life. And as I said, you don't know how it is monitored" (Concertgoer Vario-music Club).

Furthermore, most people were not only mistaken about the camera operators' work, but – more generally – about the very nature of the system and its potentialities. The fundamental contradictions between peoples' representations of CCTV, its hidden control spaces and its real functions underline the strong border between inside (the control room some kilometers away) and outside (the monitored Industriestrasse). The world behind the cameras has never been socially produced, in the Lefebvrien sense, by being engaged in an active relationship with street users, neither on a concrete nor on an abstract level (Lefebvre 1974). For this reason, it did not rebound to shape social relations within the monitored space either. Given this strongly felt detachment between the world behind and the world below the cameras, the cameras themselves were described as not really belonging to the street. Their intermediary position between both worlds made them somehow unreal and not present on the street itself:

Before the cameras were installed, I thought that this really will be very bizarre. Then, suddenly, the cameras were installed and I didn't even acknowledge them. It's strange, the cameras do not really seem to belong to the street. Somehow, the cameras, they're nothing. (Shed user at the Industriestrasse)

Transparent police communication, or measures that would have better integrated concerned social groups within the surveillance project, could have brought the operators' work – that was justified by its direct use for citizens – nearer to daily users of the Industriestrasse. Better connections between the street and the hidden world behind the cameras would also have improved the preventive efficiency of CCTV, for one must believe in the cameras in order to feel safer in monitored areas. But it still would not have changed the very nature of the abstract and unreal relationship induced by mediated regulation of public space through the means of CCTV.

The fact that most people who were interviewed would have preferred personal assistance by police or security guards to CCTV further confirms this conclusion. Prostitutes, however, did not so much want police forces as other measures which could have increased social control on the street. Regardless of exactly what type of social control was preferred, the general preference for human agents of social control, with whom they would have shared a common world, clearly points out the "disease of distance" that CCTV has to fight with. Intermittent moments of physical proximity to human beings

were felt to be more desirable than the CCTV-mediated control of the street.

### **The Erection of Spatial and Mental Boundaries**

In opposition to the camera operator's psychasthenia, described above, the experience and perception of CCTV from public space users is not linked to the loss of spatial boundaries, but, on the contrary, to the erection and reinforcement of new spatial and mental boundaries. Unlike the vertical separation of places, exemplified by material walls in post-World War II Berlin or between Israel and Palestine nowadays, CCTV produces new horizontal separations of places through geometric distance. In this sense, separated spaces are not juxtaposed but torn into two clearly separated and unlinkable spatial entities.

Consequently, monitored individuals' disturbance in the relation between self and surrounding territory cannot be described as "being in all places while not being anywhere" (Olalquiaga 1992: 2) as in the CCTV operators' case. On the contrary, monitored individuals do strongly feel the new, powerful restructurings of the city which gives rise to two clearly detached worlds, separated by both "horizontal" and "mental borders." People suppose that the hidden control rooms might exist. Some of them might even make signs or jokes to the cameras. However, the interviewees also showed how much they were lost in this dissociation between hidden spaces of control and fully exposed public space. They could neither cognitively know nor sensually approach these hidden spaces, nor could they know or perceive the new urban boundaries between monitored and not monitored places. In this case, space, defined by the coordinates of the body and by direct perception through human senses, is not confused with represented space (as in the case of Olalquiaga's psychasthenia). On the contrary, in-depth interviews with daily users of the monitored street prostitution area in Olten showed that people generally forget that they might be followed and watched by CCTV operators and personally withdraw from any conscious attempt to imagine what might be going on behind their back. In fact, interviewed people simply gave up any attempt to represent this hidden world from their everyday perceptions. In their eyes, the hidden space became irrelevant and slipped their mind, although they continued to be constantly monitored, followed, commented on, etc. within the control room:

I don't believe in the cameras. I only believe in me and in my common sense. Everybody has feelings and a soul. If one suppresses this, one lives in danger. The biggest security you can have is when you listen to your feelings and your inner clock. For myself, I try as good as possible to deal with this. If you rely on the cameras or on the police, you live with a false security. (Prostitute)

Of course, the ways in which CCTV is perceived by different individuals are far too subtle, complex and contingent to be summarized in stereotypical categories. Furthermore, a wide range of relations is likely to exist between CCTV and the experience of the city (from feeling safer in monitored areas to avoiding camera monitored places). Nonetheless, the reaction of one prostitute, given in the previous quotation, to turn inward toward her own concerns, disregarding what is going on behind her back, seems symptomatic of the mental experience of being watched by CCTV. As the Olten case study pointed out, the feeling of monitored individuals about CCTV has nothing to do with any thrill of real discomfort but with the diffuse sensation of a new kind of indeterminable superficiality linked to either positive expectations or negative concerns that are, however, quickly forgotten.

### **Conclusions**

Within this article, the general issue of the “sensory experience of the city” was related to the analysis of the mediation of surveillance and regulation issues of public urban space through the use of CCTV. In particular, the study of the highly interwoven perspectives of both the watchers (behind the cameras) and the watched (below the cameras) strongly contributed to the understanding of the sensoriness of the broader urban life

First, the analysis of the camera operators’ sensory experience of the city provided a powerful illustration of the growing domination of the visual register of perception over other senses. While traditional security measures are based on multisensory interactions and face-to-face contacts between co-present persons, the quiet triumph of new visual surveillance technologies at least partially delegates the regulation of controlled spaces to detached and mostly invisible control spaces. Camera operators are living an exclusively technologically mediated experience of the city. At the same time, they are exposed to sensory stimuli from the frantic life, noise, heat and odors of their direct surroundings in the control room. Their contrasting sensory experiences of the city and the control room open an important rift between the operators’ body and the represented space on the screens before them. Within this paper, the camera operator’s relationships to the city were thus understood in terms of Celeste Olalquiaga’s broader conceptualization of psychasthenia (Olalquiaga 1992), standing for the perceived loss of spatial boundaries, that is, the inability to demarcate the limits between interiority and exteriority.

Secondly, from the perspective of individuals in monitored places, another type of disturbance within the relationship between self and the surrounding territory was emphasized. Empirical findings, based on the example of street prostitution surveillance in Olten, pointed out how much users of monitored places are not only spatially but also mentally separated from the world behind the cameras. In fact,

monitored individuals did not engage in any form of relationship based on knowledge or human senses with the operators' world behind closed doors, which quickly slipped their minds and became perceived as an "unreal parallel world."

Following from this, this paper showed how CCTV contributes to the restructuring of the city (separating spaces behind and spaces below the cameras) and considered how significantly CCTV reshapes the contrasting sensory experiences of the reconfigured city for both the watchers and the watched. Despite the growing body of work on the links between information and communications technologies (ICT) and the changing nature of urban life in general (Graham and Marvin 2001; Graham 2004), very few academics have provided critical accounts of the everyday, micro-scale implications of ICTs for sensory experiences of the city in particular; debates about the implications of the increased technical mediation of urban life on the sensory experience of the city have yet to move to center stage within urban and social research. This seems especially important in light of the massive investments and further advances in the possibilities to monitor the public urban life, reaching an extent that is unprecedented in human history.

This observation also raises the critical issue of the increasing risk of one being mistaken about daily surveillance of one's practices, especially within the urban environment. In fact, personal autonomy might be fundamentally threatened if people are genuinely mistaken about the possibility that other people have information about them (Rössler 2001: 233). The important point here is that no external stimulus from the experiential environment calls back the cameras into the everyday perception of common citizens. This absence of direct sensations of the cameras' presence strongly contributes to their relative "separation" from public space. In this regard, the reference to Rüst's art project "track the trackers" is of most interest as it provides participants with an audible experience of the proliferation of video surveillance in city centers. In order to live this audible experience, a mobile unit, a bag containing a laptop, a GPS-receiver, earphones and a generic mouse is taken on a walk through the city. On the way, the sound in the headphones changes whenever the participant enters the vicinity of a surveillance camera (Rüst 2003). Rüst's objective of promoting the individual consciousness about the general development of urban surveillance techniques through the place-related "sonorification" of CCTV density strongly demands further empirical research.

In addition, there is a pressing need for a more general discussion about the "growing incapacity of our minds to cognitively map not just the city but also the great global multinational and decentred communicational network in which we find ourselves caught as individual subjects" (Soja 1996: 199), regarding geographical experience of postmodernity (Jameson 1992). In this sense, the consequences of video surveillance also concern the far-reaching

relationship between society and city space as a whole. This also leads us to question the way in which security measures such as CCTV may indeed transform the very society they are only designed to protect.

## References

- Armstrong, Gary and Giulianotti, Richard. 1998. "From another Angle: Police Surveillance and Football Supporters." In Clive Norris, Jade Moran and Gary Armstrong (eds), *Surveillance, Closed Circuit Television and Social Control*. Aldershot: Ashgate.
- Bogard, William. 1996. *The Simulation Of Surveillance*. Cambridge: University Press.
- de Certeau, Michel. 1984. *The Practice of Everyday Life*. Berkeley: University of California Press.
- Foucault, Michel. 1975. *Surveiller et punir*. Paris: Editions Gallimard.
- Giddens, Anthony. 1984. *The Constitution Of Society: Outline Of The Theory Of Structuration*. Cambridge: Polity Press.
- . 1990. *Consequences of Modernity*. Cambridge: Polity Press.
- Graham, Stephen (ed.). 2004. *The Cybercities Reader*. London: Routledge.
- and Marvin, Simon. 2001. *Splintering Urbanism: Networked Infrastructure, Technological Mobilities and the Urban Condition*. London: Routledge.
- Jameson, Frederic. 1992. *Postmodernism, or, The Cultural Logic of Late Capitalism*. New York: Verso.
- Jonas, Hans. 1954. "The Nobility of Sight." *Philosophy and Phenomenologic Research*, 14(4): 507–19.
- Klauser, Francisco. 2006. *Die Videoüberwachung öffentlicher Räume. Zur Ambivalenz eines Instruments sozialer Kontrolle*. Frankfurt: Campus.
- Lefebvre, Henri. 1974. *La Production de l'espace*. Paris: Anthropos.
- Norris, Clive. 2002. "From Personal To Digital: CCTV, The Panopticon And The Technological Mediation Of Suspicion And Social Control." In David Lyon (ed.), *Surveillance and Social Sorting: Privacy Risk and Automated Discrimination*. London: Routledge.
- and Armstrong, Gary. 1998. "Introduction: Power and Vision." In Clive Norris, Jade Moran and Gary Armstrong (eds), *Surveillance, Closed Circuit Television and Social Control*. Aldershot: Ashgate.
- and ———. 1999. *The Maximum Surveillance Society: The Rise Of CCTV*. Oxford: Berg.
- November, Valérie, Ruegg, Jean and Klauser, Francisco. 2003. *Vidéosurveillance: mécanismes de régulation dans l'espace à usage public*. Research report. Cost A14. Geneva/Fribourg: Universities of Geneva and Fribourg.
- Olalquiaga, Celeste. 1992. *Megalopolis*. Minneapolis: University of Minnesota Press.
- Raffestin, Claude. 1980. *Pour une géographie du pouvoir*. Paris: Litec.

- . 1984. "Territoriality. A Reflection of the Discrepancies Between the Organization of Space and Individual Liberty." *International Political Science Review*, 5(2): 139–46.
- Rössler, Beate. 2001. *Der Wert des Privaten*, Frankfurt am Main: Suhrkamp.
- Rüst, Annina. 2003. "Track the Trackers." Diploma Thesis, Zürich Federal Institute of Technology. Available online: <http://www.t-t-trackers.net/> (accessed March 20, 2006).
- Sepänmaa, Yrjö. 2003. "Multi-Sensoriness and the City." In *Place and Location*. Tallinn: Proceedings of the Estonian Academy of Arts.
- Simmel, Georg. 1908. *Soziologie. Untersuchungen über die Formen der Vergesellschaftung*. Berlin: Duncker & Humblot Verlag.
- Soja, Edward W. 1996. *Thirdspace: Journeys to Los Angeles and other Real-and-Imagined Places*. Oxford: Blackwell.
- Smith, Gavin J.D. 2004. "Behind the Screens: Examining Constructions of Deviance and Informal Practices among CCTV Control Room Operators in the UK." *Surveillance and Society*, 2(2/3): 375–95.
- Urry, John. 2002. "Mobility and Proximity." *Sociology*, 36(2): 255–74.
- Wolff, Kurt. 1950. *The Sociology of Georg Simmel*. New York: Free Press.