**On the Threshold to Urban Panopticon?
Analysing the Employment of CCTV in European
Cities and Assessing its Social and Political Impacts**

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info@urbaneye.net
www.urbaneye.net

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Video Surveillance on Demand for Various Purposes?

Berlin Shopping Malls as Socio-technical Testbeds for CCTV

Frank Helten & Bernd Fischer

f.helten@bis-berlin.de

Berlin Institute for Social Research
Ansbacher Straße 5, 10787 Berlin, Germany

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Project Co-ordination:

Centre for Technology and Society
Technical University Berlin
www.ztg.tu-berlin.de

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1 Introduction

During the 19th century foreign visitors in Berlin restaurants and pubs were astonished that the tables were widely spaced and that the average citizen chose to sit far away from neighbouring tables. The reason for this seemingly strange avoidance of interaction – quite opposite to what visitors would encounter in Bavarian restaurants – was the widespread suspicion that you never could be sure if a secret police agent was around, eyes and ears wide open to your conversation (Kiaulehn 1997). Are these times really bygone? Today it appears that the agent's eyes and sometimes ears have been replaced by powerful and anonymous surveillance technology. Recent blunt and rapid social transformations, triggered by economic and industrial decay together with rapid technological innovations and growing insecurity about the future, have changed things. While Giddens pointed out that modernisation and rationalisation are always accompanied by a growth of surveillance (Giddens 1987), some social scientists are now talking about the coming of "surveillance society" (Lyon 1994). Developments in the UK and US, in fact, illustrate that the infrastructure and devices for surveillance represent a field of growing public and private interest (Stanley/Steinhardt 2003) – and the rise of a more or less private-public network of control. There seems to be no escaping ever increasing surveillance.

Political actors have also started to explore the various ways in which surveillance technology can fight crime and lower risks. One example: London's video-monitored ring of steel was first conceived as a safeguard against IRA terrorists. Today additional purposes have been invented: The same infrastructure serves to control access by car. Only drivers who pay a considerable toll are allowed into the city. A complete database of license plates and plate recognition software permits a comprehensive solution (Schubert 2003: 13). This control and surveillance mode seems to be a model of how urban space will be used in the future: permission to enter depends on payment (see Graham/Marvin 2001). Money is not, of course, the only means to filter out unwanted persons. Nor can we predict the next phase in the more or less unintended discovery of surveillance and control opportunities given by a technology initially planned for a single well-defined purpose. But the multipurpose character of surveillance technology, together with the discovery of additional and unexpected applications by various actors, may lead to new and not very user-friendly applications. In the near future, it will be possible to apply not only video surveillance and related recognition software, but also new identification and positioning devices that inform the stakeholders of the surveillance society as to what the now transparent man or woman is doing. The industrial security complex is actively pursuing this goal. This poses a considerable problem. For this reason, we want to explore some modules related to the urban infrastructure of surveillance that may in the future contribute to the building of a surveillance society.

In today's "Berlin Republic" and city of Berlin, we still seem far removed from such an infrastructure. There remains a widespread unwillingness among policy-makers to oversize surveillance systems. One of the characteristics of the surveillance society, however, is precisely the tendency to disguise or ignore the growth rates of the surveillance sector, while relying on current data protection laws. This hampers our ability to scrutinise ongoing developments. For this study, we thus selected the emerging spatial structure of video surveillance and its ability to control people. In order to put together the still loosely linked ends of video-surveillance modules in urban space, we aim to show how surveillance works as a process of spatialisation. Our intention is to demonstrate how the "invisible hand" – understood as a more or less anonymous actor – proceeds in a unplanned and incremental way to realise something which could be identified as the self-organisation of surveillance in publicly accessible space. We therefore plan to reconstruct certain aspects of an *ecology of surveillance* within urban space. Since video surveillance of public urban space in Berlin is rather the exception, we decided to concentrate on video surveillance in the publicly accessible urban space of shopping malls. We then analyse the everyday practice of video surveillance within malls in order to determine whether or not existing surveillance potentials pose a threat to freedom and everyday urban behaviour. To what extent does CCTV support the selection and exclusion process in publicly accessible space? Does it contribute to the further fragmentation of urban space?

We selected shopping malls as a focal point to explore the socio-spatial logic of video surveillance for two reasons: their importance in the everyday life of the consumer, and the large number of shopping malls built in Berlin over the last twenty years. Both dimensions – high visitor frequency and high numbers of shopping malls with video surveillance – can provide useful insights into the emerging control potential. In the next section we discuss the outcomes of a survey of all Berlin shopping malls with regard to video surveillance, location and quality of urban space, accessibility, surface, etc. We then focus on how video surveillance works inside the shopping mall. Here we present some of our findings from fieldwork, including observation in the control room, interviews with control staff, and some heuristic experiments. In the final section we discuss our observations and indicate possible future trends of video surveillance in urban space.

2 Ecology of surveillance: Outcomes of a socio-geographical survey in Berlin

Berlin's first shopping mall dates from 1928/1931. During the 1920s, Berlin experienced new suburban development, with large settlements of considerable density designed to provide the growing population with affordable and healthy living space. One of these settlements, the Waldsiedlung, was connected to the city by underground. The station Onkel Toms Hütte contained a shopping mall along both sides, accessible from two streets. The mall also housed a cinema, and a community centre was built. Today's shopping malls maintain a similar composition of functions, ranging from shopping to entertainment, sometimes with communal and other services (post office, laundry, banks). Most shopping malls on the suburban fringe of Berlin are close to densely populated areas, easy accessible by public transportation and car, extend horizontally and contain a broad variety of shops and food facilities.

We also find shopping malls in inner city districts, where they compete with established neighbourhood business structures. Such malls offer basically the same articles, but within an environment that shelters consumers and protects them from the weather. The precursor to the inner city shopping mall is the "passage" or arcade, a highly welcomed urban invention dating from the late 18th and early 19th century. The passage included shops, restaurants, casinos, theatres, bars, and sometimes brothels. Passages were the playground of the urban *flaneur* and the stage for practising urban behaviour. Later on we find another urban innovation, the department store or "cathedrals of commerce" as Emile Zola called them. At the turn of the 20th century, the supermarket entered urban space. The shopping mall of today contains traces of the passage, the department store, and the supermarket in its architecture, spatial organisation, and variety of opportunities for consumption and amusement, to see and be seen.

Today's malls are not only centres of consumption. Shopping malls are new focal points of urbanity: meeting points, community centres, entertainment areas, even tourist attractions. It is thus difficult to define a shopping mall as we can differentiate in terms of the functions provided, services and products offered, surface space, etc. For this reason, we decided to define the shopping mall pragmatically, concentrating on the characteristics of the building, the number of shops, and the applied business model. Shopping malls represent integrated and covered larger complexes of buildings with a multitude of business actors, hosting various activities and managed by one shopping-mall company in either the trade or financial sector[1]. According to this definition, we

[1] Adapted from International Council of Shopping Centers, New York, which defines the shopping centre as follows: "A group of retail or other commercial establishments that is planned, developed, owned and managed as a single property. On-site parking is provided. The center's size and orientation are generally determined by the market characteristics of the trade area served by the center. The two main configurations of shopping centers are malls and open-air strip centers." (quoted in Falk 2003)

identified a total of 62 shopping malls (Table 1), distributed in space as shown in Figure 1.

Table 1: Shopping Malls in Berlin

Shopping Malls	abs	%
Berlin East	35	56.5
Berlin West	27	43.5
Total	62	100.0

Figure 1. Distribution of Berlin Shopping Malls

● Shopping mall with CCTV
○ Shopping mall without CCTV
Municipal border of Berlin
Former East-West border (Berlin Wall)

Source: own survey; map basis: Mairs Geographischer Verlag 2002

Figure 1 shows the spatial distribution of shopping malls within the administrative boundaries of Berlin. Overall there is considerable development stretching from the western part of the city to the Northeast. There is also a clear alignment of shopping malls along the so-called S-Bahn Ring (rapid urban rail circle). We also see a concentration in the business districts of both City West and City East, and an insertion of shopping malls into the business structure of the main streets in more residential areas.

The distribution of shopping malls thus corresponds to two different patterns: a concentration of shopping malls along the suburban fringe of Berlin East, due to the

supply gap in these areas after 1990; and in the inner urban districts of both City East and City West, caused by new efforts to modernise the already existing shopping infrastructure. This explains some of the following findings. Table 2 illustrates this pattern of centre-periphery differentiation. Within the eastern (and formerly socialist) part of Berlin, most shopping malls are located inside the suburban fringe; in western Berlin, most malls are located in inner urban districts.

Table 2: Shopping Malls in Berlin by centre/periphery relation

Centre-periphery	abs	%
Berlin City East	12	19.4
Eastern Fringe	23	37.1
Berlin City West	14	22.5
Western Fringe	13	21.0
Total	62	100.0

Table 3 presents the video surveillance infrastructure of all shopping malls surveyed. Nearly 60% of all malls have video surveillance. Table 4 and 5 show the clear preponderance of video-monitored shopping malls in eastern Berlin.

Table 3: Video surveillance infrastructure

Shopping Malls	abs	%
With Video	35	56.5
Without Video	27	43.5
Total	62	100.0

Table 4: East-West differentiation of Shopping Malls with video surveillance

Shopping Malls	abs	%
Berlin East	22	62.9
Berlin West	13	37.1
Total	35	100.0

Table 5:
East-West differentiation of Shopping Malls with and without video surveillance

Shopping Malls	Berlin East		Berlin West	
	Abs	%	Abs	%
With Video	22	62.9	13	48.1
Without Video	13	26.1	14	51.9
Total	35	100.0	27	100.0

Table 6 illustrates the main focus of video surveillance on urban space in terms of centre-periphery differentiation. It confirms the observation that video surveillance in western Berlin is mainly found in inner urban districts, where more than 60% of all video

surveillance in this part of the city occurs. In eastern Berlin, the relation between centre and periphery is more balanced than in western Berlin, as indicated by the ratio of 45 to 55%.

Table 6: Centre / periphery and video surveillance

	Video	
Shopping Malls	**abs**	**%**
Berlin City East	10	45.4
Eastern Fringe	12	54.6
Subtotal East	22	100.0
Berlin City West	8	61.5
Western Fringe	5	38.5
Subtotal West	13	100.0

Eastern and western Berlin differ both in the frequency of shopping malls and the presence of video surveillance. The eastern part has more shopping malls and shows a considerable concentration of malls along the suburban fringe. Nearly 2/3 of all shopping malls in eastern Berlin are under video surveillance, with a slight preponderance of video surveillance along the suburban fringe. In western Berlin, slightly more than 1/3 of all shopping malls have video surveillance, concentrated in the inner urban districts. In addition to this spatial pattern, it is also useful to explore the locational structure of shopping malls in terms of their accessibility and the type of catchment areas. Table 7 shows the kinds of urban transportation connected to shopping malls. Nearly 2/3 of malls are accessible by mass urban transportation such as underground, tram, or rapid urban rail. Another 30% are located within walking distance – the malls within the inner urban districts – and can also be reached by bus and car. Less than 7% of all malls are accessible only by car or bus. Most are situated outside the suburban fringe and are attractive only to those with their own cars.

Table 7: Accessibility of Shopping Malls

Accessibility	**abs**	**%**
Underground, Urban Rail, Tram	39	62.9
Pedestrian/ Bus/ Car	19	30.6
Car or Bus	4	6.5
Total	62	100.0

Most shopping malls that can be reached by underground, tram, or rapid urban rail offer a direct or integrated access to public transportation. Such malls widely employ video surveillance. Table 8 shows the relation between accessibility and video surveillance. Approximately ¾ of all shopping malls with video surveillance are located close to convenient urban mass transportation.

Table 8: Accessibility of Shopping Malls with video surveillance

Video surveillance	abs	%
Underground , Urban Rail, Tram	25	71.4
Pedestrian/ Bus/ Car	8	22.9
Car or Bus	2	5.7
Total	35	100.0

By *catchment area* we understand a differentiation with regard to the products and services offered by shopping malls and the number of customers they attract. Some shopping malls, such as the neighbourhood centre, address only the everyday needs of the visitor. Other types, such as the super regional centre, cover an extended range of consumer goods. We can differentiate among the following types of central function (Table 9):

Table 9: Shopping Malls by Catchment Area[2]

Catchment Area	abs	%
Neighbourhood Centre	24	38.7
Local Centre	19	30.6
Regional Centre	11	17.7
Super-regional Centre	4	6.5
Other	4	6.5
Total	62	100.0

The most frequent shopping mall types are the neighbourhood centre and the local centre, which address the everyday needs of the consumer. In terms of video surveillance, we find that the regional centre and super-regional centre have a much higher level of video surveillance equipment than the neighbourhood and local centre (Table 10).

Table 10: Catchment area and video surveillance

Catchment Area	Video		Without Video		Total	
	abs	%	abs	%	abs	%
Neighbourhood Centre	9	37.5	15	62.5	24	100.0
Local Centre	9	47.3	10	52.6	19	100.0
Regional Centre	10	90.0	1	10.0	11	100.0
Super-regional centre	3	75.0	1	25.0	4	100.0
Other	4	100.0	-	-	4	100.0

[2] Categories and definitions according to Falk (2003)

This finding confirms the assumption that the broader the range of products and services offered by shopping malls, and the greater their surface, the more likely they are to employ CCTV. In Table 11 we relate three classes of surfaces (square meters) to the use of CCTV.

Table 11: Surface classes and video surveillance

	Video		Without Video		Total	
Surface Classes in Square Meters	**abs**	**%**	**abs**	**%**	**abs**	**%**
More than 30.000 sqm	5	83.3	1	16.7	6	9.7
More than 10.000 sqm	14	66.7	7	33.3	21	33.9
Less than 10.000 sqm	16	45.7	19	54.3	35	56.5
Total	35		27		62	100.0

Here we see that large shopping malls have a much higher degree of video surveillance than smaller ones; CCTV facilitates the management. We next compare this result with the distribution of malls inside different areas of urban social development. According to three distinct urban zones, Table 12 shows the distribution of shopping malls in relation to the use of video surveillance.

Table 12: Quality of urban social development[3] and Shopping Malls

	Video		Without Video		Total	
Urban Social Development	**abs.**	**%**	**abs.**	**%**	**abs.**	**%**
Stable Development	20	58.8	14	41.2	34	100.0
Some Problems	8	57.1	6	42.8	14	100.0
Permanent Problems	7	50	7	50	14	100.0
Total	35		27		62	

Quite astonishing is the considerable frequency of video surveillance in urban areas with a stable and normal development. These differences are minor in comparison to more problematic areas. But they cast doubt on the assumption that video surveillance is mainly used to ensure a secure atmosphere for shopping.

We would like to draw some tentative conclusions from the above figures as to the spatial model of CCTV as promoted by shopping malls. Video surveillance is more likely to be employed in urban areas with a stable environment, either along the suburban fringe of eastern Berlin or in the inner urban districts of City East and City West. Shopping malls with video surveillance are more likely to be larger and easily reached by both urban mass transportation and car. This model of spatial distribution is partly due to

[3] Categories and definitions: Senatsverwaltung für Stadtentwicklung, Umweltschutz und Technologie, Berlin (1998)

the Berlin building code, which aims to ensure that shopping malls in Berlin do not harm the existing business infrastructure or generate more private car traffic. This is why we find a very close relation between urban mass transport stations and the location of shopping malls. In terms of urban ecology, the process of de-industrialisation seems to be accompanied by the construction of shopping malls in formerly industrialised space (see Table 13). It appears that shopping malls erected in such areas carry a fair amount of symbolic capital; "the world has changed," they say, "today there are lots of things to buy."

Table 13: Year of Mall opening and urban social development

	Stable Development		Some Problems		Permanent Problems		Total	
Year of Opening	**abs**	**%**	**abs**	**%**	**abs**	**%**	**abs**	**%**
Since 2000	1	20.0	4	80.0	-	-	5	100.0
1990s	25	58.1	6	14.0	12	27.9	43	100.0
1980s	1	25.0	2	50.0	1	25.0	4	100.0
1970s	4	66.7	1	16.7	1	16.7	6	100.0
1960s and prior	3	75.0	1	25.0	-		4	100.0

Table 13 reflects a shift in urban reconstruction dating from the 1990s: the effort to implant shopping malls inside problematic urban areas. As Table 12 shows, slightly more than every second other shopping mall in such areas is under video surveillance.

In our survey of shopping malls we identified seven different types (Table 14).

Table 14: Shopping Mall types and video surveillance

	Frequency		Video	
Shopping Mall Type	**abs.**	**%**	**abs.**	**%**
Shopping Strip	15	24.2	11	73
Passage Type	14	22.6	8	57
Centre-oriented	10	16.1	6	60
Low-standard	8	12.9	2	25
Open-air	6	9.7	2	33
Mixed	1	1.6	1	100
Railway Station-centre	4	6.5	4	100
Other	4	6.5	1	25
Total	62	100.0	35	56.5

Table 14 shows a clear dividing line between shopping malls with and without video surveillance. All railway station centre types have video surveillance. The second most common type of mall with video surveillance – and also the most frequent mall type – is the shopping strip, laid out like a street with shops right and left. The passage type and

the centre-oriented type have considerable surveillance potential. About 2/3 of them use video surveillance. Up to ¼ of the low standard mall type and 30% of the open space mall type have video surveillance. The absolute star in video surveillance coverage (100%) is the new type of shopping mall inside the train station. This is due to the underlying security concept of the main business actor in this area, the railway corporation. In order to make the station space more attractive to customers and shop owners, stations have undergone substantial modernisation over the last decade. It appears that video surveillance was employed not only to monitor and manage transportation processes, but also to rationalise the maintenance of the building infrastructure. We will come back to this point later.

We need to add one more observation about the diffusion of video-surveillance in shopping malls within urban space. During our numerous efforts to get access to the control rooms of shopping malls, we asked centre managers why they use video surveillance. A couple of them maintained that video surveillance is now stipulated in the public building code or recommended by the fire department. Further investigation revealed that this is not the case. Insurance companies do, however, play a major part in deciding whether or not to use video surveillance. Insurance providers are obviously inclined to lower premiums if the building has video surveillance and if the system installed is in line with company expectations. Up until now the acceptance or non-acceptance of a surveillance solution has been a matter of negotiation between the shopping mall manager and the insurance company. The near future will see the passage of guidelines or certification procedures about surveillance technology to make this decision making process more transparent to the actors involved. Lower premiums, moreover, are given only if the urban environment is assessed as neglected, lacking social control, or as too anonymous, in which case additional security measures will limit possible degradation or vandalism. Here we find another contradiction: even in areas with high rates of social control, large shopping malls have video surveillance. Again we have indications that there is no simple pattern in the employment of video surveillance inside and outside of shopping malls.

Conclusion

What about the ecology of surveillance? It turns out that there is more video surveillance in eastern Berlin, in large surface, newly built shopping malls, those close to urban mass transport, those oriented to larger catchment areas and developed either as shopping strip, passage or centre-oriented types. Smaller malls and less standard malls are less likely to apply video surveillance. In other words, anyone who does not want to be observed by video cameras should not frequent large shopping malls near urban mass transport stations. He or she should shop in nearby neighbourhood shopping malls.

However, a number of exceptions make it impossible to identify a consistent pattern of video surveillance. Some older neighbourhood malls have video surveillance systems,

while some large newly built super-regional centres do without video surveillance systems in publicly accessible space. This leads to the conclusion that there is no common knowledge or strategy on how and where to implement CCTV. We seem to be in the middle of a process of testing, experiencing and discovering CCTV for use in Berlin shopping malls

The fact that large shopping malls offer a broad spectrum of products and services makes them attractive to many visitors. Their appeal is augmented by the ease of access by urban mass transport and car. High rates of visitors can be expected. Such shopping malls represent a high surveillance potential. We may well find that this favourable constellation can be used for still unexplored surveillance options. In the worst case scenario, we have to admit that shopping malls can be used as launching grounds for important surveillance activities. And because malls with video surveillance are found at strategic places in urban structure, they are – planned or not, intended or not – building blocks of an emerging ecology of surveillance. Here we also need to consider something suggested by scholars of urban history: shopping malls may turn out to be focal points of urbanity (e.g. Rybsczynski 1995). Certainly large shopping malls have been successful. Even today they are far from the notion of simple "transit sheds" within everyday infrastructure. Whether we are more optimistic or more pessimistic about the surveillance impact, there is doubtlessly considerable potential. But how is this potential being exploited? We need to analyse how the surveillance system works inside the shopping mall and how its operators observe.

3 Organisation of social control

Before exploring the micro-level of the observation order inside the shopping mall, we first need to introduce some basic architectural details of shopping malls to provide some insights into the spatial arrangements of potential observation and social control. We also want to explore the modes of urban social behaviour that can be realised inside shopping malls. Here we look at the code of conduct expected of visitors. Some malls display written house rules that serve as internal social norms for judging customer behaviour. Together, the spatial order and code of conduct influence the interaction and observation modes of visitors, shop owners and control staff.

Some basic architectural details of shopping malls

According to our survey, the most frequent type of shopping mall is the shopping strip. A large rectangular building is divided into three parallel sections where the middle one serves as street or urban plaza containing plants, some water, benches and chairs. Shops and restaurants are on the left and right. Cafes and restaurants tend to be located on the upper floor, with shops for durable goods on the ground floor and food retailers (supermarkets and specialised food shops) in the basement. The entrance and rear house the largest retailers, the most attractive places to shop or to have a drink, etc. These anchor shops and cafés animate people to enter the mall, and create more shopping potential.

The shopping mall building of today is covered by a large roof made of glass and steel, lending a quasi-Mediterranean charm. The building contains several floors that can be reached by elevator, staircase or escalator. Overall one has the sense of walking through a transparent, naturally lit building, protected from outside environmental constraints. The architectural arrangement of shops, restaurants, cafés, cinemas and service facilities is complemented by decorations of seasonal shopping. There are benches for resting. Café restaurants are arranged for optimal people watching. Visibility of products and people is a must.

The observation structure given by this arrangement borrows heavily from the arsenal of panoptical knowledge. If we compare the architectural form of a shopping mall with that of a prison, there is an astonishing degree of similarity. The visitor can nearly see everything – shops, restaurants, people – by walking around or viewing the comings and goings from a café table. Retailers, on the other hand, have close contact only to consumers who have entered the shop. Some scholars see the shopping mall as a kind of consumer paradise: "The subtext of the mall is mostly the message: shopping = heaven on earth" (Danesi/Perron 1999: 196). But what about the shopping mall as part-time consumer prison? Here we are also considering the (less visible) surveillance

infrastructure that permits direct and *second order observations*[4] by the security staff. Video cameras – as we have pointed out above – are sometimes part of the modern shopping mall. They are situated at strategic points, near the entrance, crossroads, or intersections inside the mall, guaranteeing that the whole transit space, where people move, is under surveillance. According to business models for most shopping malls, the centre management does not monitor inside shops or restaurants. There are, however, video surveillance devices inside shops, particularly of big retail chains. There might also be video surveillance inside the car park. Quite often the centre management runs the latter as an additional business activity.

House rules

Around 3/4 of all Berlin shopping malls with video surveillance display written house rules to inform the visitor of the behavioural norms expected inside the private but publicly accessible space. Only around 29% of all malls with video surveillance, however, inform visitors of this fact. House rules concentrate on the regulation of everyday visitor activities – no loitering, no eating, no alcohol. Pets need to be kept on a leash, photos are allowed only by management permission, weapons are prohibited. House rules are a code of conduct to screen prospective visitors. Order is maintained by securing obedience to these rules. House rules can be understood as instruments to ensure behaviour that is only slightly but, however, significantly different from behaviour practised in the outer urban world. They are soft supplements to the architectural code of the shopping mall, which too is distinctive from the appeal of the outer world. In this way, the architectural code, as part of a certain sense of place (Jackson 1994), may provoke ritualised behaviour due to the shopping malls' central message – inside a consumer paradise or a part-time prison. House rules protect the ritualised shopping exercise.

At the same time, we found that when some of the rules were broken (people hanging around, sitting and watching without consuming anything), nothing happened. Perhaps the control staff was not strict in applying rules that seemed widely unknown by the public. During our visits to shopping malls, we never saw anybody reading them. Only those rules that the management wants the customer to know are posted at the main entrances as large symbols. House rules do not seem to be meant for reading. Nor do house rules stand out. Most are written in white letters on transparent film over windows or glass doors. One set of rules was posted inside a revolving door, passed in under a second. Another set was placed on an automatic door – which opens when you stand in front of it for reading. But besides these explicit house rules, there are latent rules that prevail inside the building. A consumer can feel what is desirable and undesirable behaviour. Nevertheless, the posted house rules serve to legitimate the

[4] Observation done by security managers e.g. observing how the security staff observe the consumer.

actions of the security guards – who, in turn, have the latitude to define a behaviour or situation as deviant on a case-by-case basis dependent whether it is regarded as disturbance or not.

Taken together, we find that the so called *designing out* approach is of some value to ensure an adequate milieu or a sense of place for shopping, supported by more or less soft rules. Shopping mall managers are keen to attract people and it seems that they tolerate much behaviour outside of the rules. Even the non-buying visitor or one whose behaviour is slightly off has value for the shopping mall business as potential consumer in the eyes of other mall visitors. Everyone becomes part of the stage of the consumerism spectacle and – as told by a centre manager – part of the social control potential. The more visitors, the greater the social control of behaviour.

Were house rules strictly applied? We observed a relatively low level of staff intervention. In only two cases did we see that people who were smoking cigarettes were asked to extinguish them. Two cyclists were stopped from riding into the shopping mall. On the other hand, all kinds of people sitting around for extended periods – alone or with others – were not bothered. We had the sense that the control staff is generous and permissive. Nor did the staff inside the control room seem inclined to enforce the house roles very strictly. There was one exception. Understandably, past criminal acts heightened the alertness of security workers, who were then more likely to intervene.

4 Systems and practice of video surveillance

The following description of the practice of video surveillance in Berlin shopping malls is based on interviews with centre managers, security managers and operators, on-site flashlight observations and two in-depth observations in different control rooms. We wanted to assess the purpose and ways in which video surveillance systems are employed, to find out how the observation order is shaped by the interplay of a multitude of actors with diverging interests, and to determine the organisational setting and surveillance technology used.

We regard video surveillance as a socio-technical system. The structure of such a system consists of different technical and non-technical resources and rules. Resources are the workplace including all technologies and functions, the staff and their mentality. The rules are shaped by the interrelation and internal negotiation of the discursive consciousness of "what to do" and the practical consciousness of "how to do it," as well as their adequacy in everyday practice.

We look at the structure of the systems by describing the underlying objectives, the workplace and its technology, and the personnel – qualifications and mentality. Then we look at the concrete application, and how the system is shaped by the agency in practice.

Our main focus is on the two systems observed in-depth while keeping in mind the information gathered from the interviews and flashlight observation at the other systems. The two systems observed (centre A and centre B) are based in two large shopping malls in Berlin (A 30,000m², B 40,000m²). Both are classified as regional centres with a mixed shop structure that provides goods for different requirements. In architectural shape A and B are a typical strip malls. Both are located close to stations of public transportation. The main entrance is placed at a high street. The social structure is basically stable in both cases. When speaking about systems in general, we also refer to eight on-site inspections including flashlight observations in the control rooms.

Objectives of the CCTV systems in sample sites as seen by managers and operators

According to *centre managers*, the main objectives of the systems are to prevent crime (mostly theft and demolition), to support prosecution, and to "guarantee the safety of the customers" (CM1, CM2)[5]. It is not always clear what is meant by "customer safety" – from crime, accidents, disturbances, or a bit of everything? The analysis of most statements shows that it is a vague expression, without specific content except for the assumption that customers do feel threatened and expect that something has to be done

[5] The abbreviations indicate the interviewees: CM = centre manager, SM = security manager, WS = operator

to ensure their safety. The central issue seems to be the satisfaction of a presumed individual need for safety.

The argument about crime prevention and prosecution seems to be self-evident to managers, even if they admit that there are no figures to show a decline in crime or attempted crime. They assume that crime has decreased since the video system was installed.

They often emphasise that they are not interested in observing persons. One may well ask how video surveillance can reduce crime when it is not used for watching people. But apparently it can, as we will see later.

Sometimes, managers seem to be more aware of employee rights than customer rights. One oft-cited law was the "Betriebsverfassungsgesetz" (Industrial relation law) which regulates, among other things, the intra-organisational structure and work relations between management and staff. Managers strongly deny that they aim to observe employees.

"Co-ordination of services and information" (CM2, CM4) is cited as an "additional" task of the system. Although more implicit, it became clear that managers want to provide a well functioning and save environment for shop tenants. This is, in fact, what they sell: a retail environment. During our observations, it became obvious that this is not an "extra" task but the core of their business activities.

Taken together, management is interested in providing a general feeling of pleasure and convenience to the public, especially to potential consumers/visitors and to shop tenants. The public notion of video surveillance as a means to prevent crime seems to meet that goal best. At the same time, management does not want customers to know that they are under surveillance because they think this could inhibit potential consumers from feeling at ease in the mall.

The *technical or security managers* are mostly in agreement with the centre managers. Sometimes they get a bit more concrete. They more often cite objectives of property management: e.g. guarantee of workflow, cleanliness and monitoring the function of technical devices (e.g. elevators, doors, escalators). One security manager admitted that video surveillance can also be used to reduce staff.

The *operators*, when asked about the objectives of the video system, repeat the statements made by management: "prevention of crime, to make citizens feel that something is done for their safety in the mall" (WS3), or even "we are responsible for the customer" (WS4). Sometimes they go into detail. Then it becomes clear that video systems are used for very different purposes. They describe employment of the video system for facility management: "Targets of video surveillance are the escalators, elevators, etc. The law does not allow a permanent observation of persons" (WS2). All are convinced that the video system is of great help in their work and are grateful for the

system. In contrast to other interviewees, they have a very generalised notion of the objectives of their work. They see their task as "problem solving" whenever something disturbs the normal process of the shopping mall.

During our observations of daily routines, it became obvious that the above mentioned objectives of video monitoring systems are only part of the actual everyday objectives and tasks in the control rooms. The aim of the daily routine is to prevent trouble and to resolve disturbances, wherever they occur. Focused surveillance is neither intended nor feasible. Social control aspects seem to be a by-product. During the shifts, most attention is clearly given to handling fire alarms and other alarm systems. Sometimes video control and other alarm systems are used in combination. In some malls, for example, video systems are used to check spaces in case of a fire alarm, or to co-ordinate technical services in case of technical alarms.

In contrast to the objectives listed above, some operators assumed that video systems are installed for purposes other than crime prevention and property management. One example is the assumption that "such a system lowers the insurance premium and saves a lot of money" (WS3). Insurance companies do, in fact, give certifications to security companies when video systems are employed, which lowers premiums (see above). This might be one reason why a video system works economically without really using it for surveillance (see under 3.2 impacts caused by "potentiality").

In conclusion, the objectives to employ and use video-surveillance are shaped by the different expectations and practices of the actors involved. Managers emphasise the need to ensure a safe and comfortable environment, to prevent crime, to maintain a proper workflow. They also state their hope to save money by substituting staff with technology. Operators partly share this overall attitude, although they differ as to how money can be saved with regard to insurance. They also argue that in practice video surveillance is seen as one technological device among others to support the multitude of tasks inside the "control room." The closer the interviewee is involved in the everyday practice of video surveillance, the more he or she refers to facility management as an important aspect.

By analysing the systems and their applications, in the next section we will turn to the extent to which these objectives are pursued and can be achieved.

4.1 Organisation of work within the control room

Work place and equipment

Particularly when looking at the history and everyday work practice of the systems, we realised that the root of video surveillance in German shopping malls is in fire prevention and property management rather than in social control. This could be one reason for the fact that control rooms are mostly separated from the main mall – the control room

would not be jeopardised by a fire in the mall. The control room in centre A is accessible from the mall, but the control room in centre B is accessible only from the car park and from outside the centre. In other words, the control room in A is much better integrated into the mall, which makes it easier to enter the mall in case something happens, while in B it is better protected in case of fire. As noted above, the core business of shopping mall management is to ensure overall quality for shop tenants and mall visitors. In most cases, the shops and restaurants themselves are under video surveillance but not integrated to the CCTV system of the mall. Sometimes, however, mall owners offer to monitor the inside of shops as an additional service.

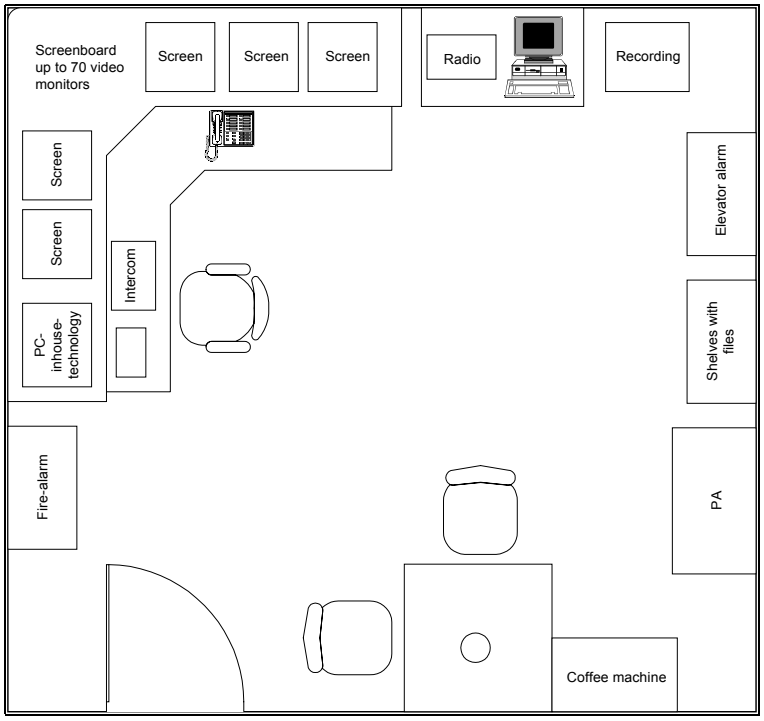
Control rooms are named "Leitzentrale," "fire protection headquarters," "facility management centre," "security centre," etc. Some are direct descendants of the former fire protection centre. The operators call this room "the heart of the building" (WS3). The control room is seen as an "nexus for all information of the building" (SM3).

Although the dominant video surveillance monitors occupy the most space in the control room, there are a lot of other security devices such as alarms, telephone, radio, intercom, mobile phones, etc. There are also PCs and PA systems for announcements and music. During our flashlight observations we once found a different arrangement: one room combines two video systems, one for the public areas of the mall and one for the shops. Technology and staff for both systems work separately but can be connected and one operator can easily observe both systems.

The design of the control rooms is generally dominated by technical equipment. The rooms resemble each other more in style (the absence of redundant interior) than in the arrangement of the technology. Besides the technology, there are almost no personal objects except an obligatory (male) calendar or poster with scantily clad women. In one room we found a tiny flower, which was watered by every new shift. Most rooms have a shelf with files and a place to make coffee if there is no separate kitchen.

In general, each shopping centre has only one monitor workplace (one exception) for one person, who is responsible for the monitors, control of the cameras and the recording devices, as well as all alarms and communication systems. Additionally most control rooms also serve as a recreation room for security staff (breaks, smoking, coffee machine).

Figure 2: Typical arrangement of the equipment in a control room



The accessibility of the control room indicates how monitoring and surveillance work is organised in two different ways. Direct access from the control room to the shopping area implies that the control staff does both: watches the screens and alarm systems, and monitors inside the shopping mall. No direct access tends to mean that security workers are less likely to switch between these two tasks.

Links – communication and information devices

As the "nexus of all information," the control room is connected to its environment by a number of links – communication and information devices. In malls A and B we noted the following:

- radio or telephone link to the security patrol in the mall
- radio or telephone link to facility staff in the centre (technical and cleaning service)
- cell phone "always carried": all shops have an emergency number to inform security in case something happens
- some (few) systems integrate external cameras or emergency systems from other buildings, which are monitored remotely from the control room
- emergency linkage to parking ticket dispenser and car park entry/exit
- elevator emergency alarm
- fire alarm systems, connected to the fire station
- entry alarm systems

- direct telephone lines or radio linkages to maintenance service, activated in case of an alarm

Besides these links for monitoring the shopping mall, other links help connect the mall security with shop detectives or other security services within the building. This happens on a case-by-case basis, and is not institutionalised.

Rarely is mall security in touch with the police or prosecution authorities. These agencies sometimes ask for tapes or digitally recorded material for their data files, but this does not happen very often (see "frequencies" under 4, tasks and practice). There are, however, no privileged links to the police or other public authorities for crime prevention and prosecution.

In train stations, and thus in the attached malls in large train stations, the security personnel works in a formal "Ordnungspartnerschaft" (partnership for order) with the Bundesgrenzschutz (federal police).

These multiple linkages make it clear that many sources of information impact the work of the observer in the control room. The control room really is the 'nerve centre' of the shopping mall. It is the place where incoming information needs to be handled and managed and where if necessary decisions are made immediately . One information source is the video equipment.

Cameras, monitors and recordings

The number of cameras and monitors varies considerably. System A, for example, has 86 cameras on 70 monitors, while system B has 33 cameras on 23 monitors. Both of the systems have two main monitors to which all cameras can be switched. Usually one of the main monitors shows the image from the camera pointing at the car park exit. This image is permanently recorded. The second monitor represents the actual work monitor where images from different cameras in the mall can be switched on and occasionally recorded. As site A is smaller than site B (30.000/ 40.000m²), we find a total coverage at shopping mall A and a more strategic coverage at B. Strategic coverage means that cameras are pointed toward selected areas in the mall such as main entrances, escalators, elevators, delivery court and delivery ramps. Only some cameras can be turned or zoomed. The different modes and underlying concepts of video surveillance are partly related to the differences in architecture and spatial organisation of the malls. Shopping Mall A was built in the 1960s, when video surveillance was not available. The spatial organisation of A is reminiscent of a department store; the dense organisation of shops and services makes orientation difficult and demands many cameras. Shopping Mall B, in contrast, was erected in the 1990s and represents a clearly structured strip mall with distinct lines of access and excellent visibility.

Aspects of co-ordination of human-machine interaction

The operators generally like to demonstrate how the cameras can be moved. Although most of the cameras are controlled by a special control device (joystick), it is not easy to handle the rotation and zooming functions. Practice is necessary. In some cases they are controlled by computer mouse, which has to be pulled left or right or back and forth while clicking a desktop button to zoom. Usually the cameras stop with a delay. Nor does it seem easy to release the button in time to make the camera stop in the intended position.

We found very different practices of recording. In some systems, all cameras record permanently, while in others, only two main monitors record occasionally. If one monitor records permanently, it "patterns" from one camera to another in a programmed order.

The erasure of video footage is also handled very differently and varies from two days to one week. "If there 'could' be a problem, footage will be saved longer" (WS 4). Usually recordings are passed on to the police or public prosecutor's office upon their request or as offered by the security management, always subject to confirmation of the centre management (according to interviewees this happens once or twice a year).

In the two systems we observed in-depth, the car park exit was recorded permanently and one additional camera recorded in case something unusual happened. If an event caught on camera is no longer of interest to the management or to the police, the tapes are erased after 168 hours (one week) at mall A and after 48 hours at mall B.

Personnel and Operators

A contracted security company that employs a fixed number of security personnel for the mall usually runs the system. The professional background of the control staff varies. Their biographies are quite different but most have employment gaps. We found construction workers, musicians, fire fighters, officers from the former GDR army (NVA), etc. Usually they had lost their jobs (many after German unification) and the public job centre had financed their retraining to be security guard. A couple of retired police officers and fire fighters sometimes work for the security companies as needed.

The staff is divided into specialised operators and guards. Two modes of internal work organisation are applied: a strict division between video-operator and guard, and a more flexible mode where everyone on staff performs video work and patrolling according to internal arrangements and changing demands.

For the two shopping malls, the security companies employ six to nine persons. Usually two or three persons work per shift: one in the control room, one or two in the mall. If only two persons are working per shift, it sometimes happens that no one is inside the control room as both have to walk the mall.

The work is organised as follows. The person on duty in the mall is responsible for enforcing house rules and contacting shop tenants. The one in the control room is

responsible for responding to all kinds of alarms, information and requests entering the system from technical and non-technical sources. In terms of video surveillance, the co-operation between the two is simple. Usually the person in the control room directs the one in the mall where to go, while the one in the mall tells the one in the control room where to look. According to our observations, the second version is more frequent as often it is the sales staff or service personnel who inform the security service inside the control room about irregularities. The operator then reacts to this information.

Depending on the security concept, security activities focus either on inside the mall or inside the security room. The person in the control room thus sometimes has to leave the room to help the one in the mall. In other cases, the one in the control room is not allowed to leave the workplace. He or she has to stay inside in order to monitor the situation by video.

Most systems run three eight-hour shifts during the week and two twelve-hour shifts on the weekend. Some do also twelve-hour shifts during the week. Sometimes the shifts are staggered to cover the rush hours with a maximum of personnel (e.g. third person).

One of the basic rules for the operators is "self-protection first" (CM2, WS3, WS4). Even the centre managers do not want them to take any risks: "We have to make sure that our detectives are not taking risks by getting overzealous about hunting [criminals]" (CM1). We once witnessed the emergence of this "hunting fever," when an operator tried to find a person who had left the centre. The operator commented on his search several times by quoting a slogan from a television ad for yoghurt: "Like in the yoghurt ad: 'sooner or later we will get all of you'" (WS3).

Some of the operators interviewed and observed gave us examples for a second set of rules, best described as rules of thumb:

- "You have to be calm and you should not get tense, because being cramped makes no sense, you have to stay cool, for example when several things are happening at the same time" (WS2)
- "You need to stay alert and you have to work chronologically" (WS2)
- "You have to be aware but calm" (CM1)

Again and again the interviewees made clear that a "laid-back" attitude is more important and desirable than proactive efforts to detect irregularities. Aim of management is to have security personnel who can work with reserve: "We do not want to have the bouncer of the disco in this building" (CM1).

The contact between the operators is cordial but limited to exchanges about the job. Personal relations are few: "You hardly know the others. Shift change, up and away" (WS4). In some cases there are private contacts to other people in the security business, but rarely to colleagues.

Role of operators within the organisational setting of the shopping mall

The role of the operators is very dependent on the organisational structure and the division of labour among the different sub-units. In our examples we discovered some difficulties and conflicts due to unclear role patterns.

According to the general tasks of security services, the operators assume the role as deputy of the management for enforcing the house rules and preventing risks. But in practice they take on a quite complex and more mediating role among centre management, in-house technicians, cleaning services, shop tenants, and different groups of customers.

On the one hand, operators represent the whole mall organisation to exterior actors such customers, delivery services, and police, even though they are not employed by the mall management but by a security company. Examples are the enforcement of house rules, the organisation of deliveries, work on tenant requests, etc. On the other hand, they also execute services for the management and help in the administration of other services: e.g. (in-house) mail services, announcements, operating sound equipment.

They thus appear to switch roles according to how they feel they can best respond to specific tasks. When they are angry about additional demands from the management or administration, they emphasise that they are employed by the security company and are not directly responsible for the centre management. In other cases they see themselves as the "right hand" of the centre manager. Despite this tension, we did find a well-defined hierarchy between centre management and security staff.

Far more inconsistencies in role and status can be found between shop tenants and security service personnel. On the one hand, security personnel try to meet the demands of the tenants because the tenants pay monthly for security services. On the other hand, security asserts a higher status over the tenants because they claim to represent the whole mall and its rules: tenants have to follow their instructions. Shop tenants are thus both clients *and* potential suspects ('rule breaker').

Furthermore, operators work very closely with in-house technicians, especially in the area of property management. Here it does not seem to be clear who is subordinate to whom. Sometimes the security operators have more influence in the form of co-ordinating responsibilities, while in other cases they must follow directives from the technicians. Overall, however, we witnessed a very co-operative atmosphere based on the division of labour. The technician asks via telephone or intercom for technical data from the technical terminal in the control room, and the operator informs technicians about technical alarms that are not resolved immediately.

Notwithstanding this co-operation, we also observed struggles over status. In one case (centre A) the security staff tries to assert their status by showing more responsibility for the co-ordination of tasks and by maintaining a self-definition as "heart of the building."

But the hierarchy of roles can change abruptly. We once observed the following situation. A line of lights broke down on the first floor of centre A. A competition started: who will be the first to find the right fuse box in the basement of the building, the security guard or the in-house technicians? After the technicians won the race, the security guard did not admit that they knew better, but switched the conversation from technical issues to a statement of solidarity against the management. He thus tried to remain in a position of influence to define the importance of roles.

In another case (centre B) the operators subordinated themselves to the in-house technicians: "They have the power here." In most interactions, the technicians in fact decided what to do.

There are other examples for an organisational subordination of the security service. When designers decorate the centre for different events, they disregard the demands of the video system. Cameras are partly covered by flags, plants, and advertising. "There are no arrangements between design and security. If something is disturbing us, we have to let them know and ask them to change it" (WS4). Usually they do not.

According to our investigation, the video surveillance system – meant to support the central business of crime prevention – is being used more as an additional instrument for fulfilling tasks in the centre and as an instrument to define status and role. With the help of the video system, operators can support other services, like searching for a person the technicians are expecting. The video system can also be used as a tool to demonstrate power and influence to the other services working inside the mall. The operators can show that they are able to observe and to control (video surveillance even gives the power to monitor the manager during his/her break).

Due to the very different roles security services have to take, their status can best be described as a mixture of almost-manager, police officer, protector, or simply colleague or subordinate employee. It is within this context that we need to look at the meaning of video surveillance technology related to their work. To a certain degree, operators are the "masters of surveillance," and they have more knowledge of what is going on than do others. It appears that the video systems sometimes allow the security staff to decide situations to their advantage.

Bad image - low wages – minor status

All operators are conscious of the poor image of the security branch. Most of the interviewees ascribe this to low wages and the modest qualifications needed. They thus perceive their own work as of minor status.

According to the operators, the average security worker makes about 4 to 6 € per hour. At the same time, all admit that their wages are a bit higher. One interviewee gave his

monthly wages as about 1000 € net plus supplements for night shifts.[6] "We will not risk our lives for that kind of money" (WS1/WS2). No one expects them to risk their lives, but this statement reveals a certain reservation towards the job. Nevertheless they seem to fulfil their jobs as expected by the management.

It does appear that low wages are attracting only people who cannot find other jobs, so that the security business could serve as a residual category for a certain social group. In fact, most security workers have experienced periods of unemployment. They also point to the problem that low wages may increase the risk for corruption and crime if security workers try to bolster their income.

Both security companies and shopping mall management are very aware of this problem. They select security staff carefully. It is probably not easy to find adequate personnel to meet the requirements of a security worker listed above.

Based on our observations, however, it appears that the operators we met were well chosen and demonstrate certain extra qualifications. They must be able to resolve evolving conflicts in a moderate and communicative way. And they must be aware of the fact that they, too, are always under surveillance. As centre managers emphasise, "they need a lot of sensitivity" (CM1), "they must be able to serve as contact persons with communication skills" (CM2). When not satisfied with staff members, centre managers ask the security company for replacements. As a kind of quality management, one centre manager made clear, "The security staff is always under surveillance, they never know where the enemy comes from" (CM1).

The security staff is placed in a difficult situation, master and servant at the same time. As master he or she has to instruct customers and visitors on what is allowed and what is not. As servant he or she has to do this politely, with considerable communicative competence and without the use of force. He or she is also responsible for the functioning of the various elements of the shopping mall. It seems fair to conclude that the work is valuable but not sufficiently compensated. During the interviews the operators mentioned that "only" watching the screen is not regarded as "real work" by others, or that "watching the screen means that you have nothing else to do" (WS3) etc. Watching the video is equated with laziness and may be part of the reason why this type of control work is undervalued.[7]

To overcome this conflict, some security workers try to heighten their status by distinguishing their work from other "stupid" security jobs. They do not want to be compared with a "porter" or "watchman." One operator describes his work as follows:

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[6] In contrast to that one security manager mentioned that "one work place costs about 10,000 € per month and the security personnel should bring in that investment" (SM1). We do not understand how he arrived at this figure.

[7] Perhaps this is part of the reason they emphasise the need to stay relaxed, and try to avoid watching the screen too closely.

"It is interesting but sometimes a little boring (especially at night). You always know what to do and you know your task, it is not as stupid as door-keeping. It is interesting because something is always happening" (WS2).

In private life the operators have different approaches to presenting their jobs to others. Some try to avoid talking too much about their work because people seem to think in stereotypes. Some try to capture the attention of friends by describing their jobs a very interesting task with lots of technology.

4.2 Observational work of security staff

Tasks and practice

By listing the tasks of the security personnel we observed, it becomes clear that, besides the enforcement of house rules, they are involved in monitoring operations, in property management and in the co-ordination of maintenance services. In most centres there is a division of labour between the operator in the control room and the security guard in the mall. Table 15 is an attempt to separate the work in the control room from the work in the mall even if it is not always easy to distinguish the two sets of tasks from each other given the overlap.

Table 15: Tasks of security personnel in a shopping mall

Tasks in the control room	Tasks in the mall
▪ check locations in case of fire alarm (VS) ▪ inform the fire department in case of emergency ▪ observation of technical alarms, react to alarms ▪ elevator alarm ▪ intruder alarms ▪ observation of the mall (VS) ▪ check water damage ▪ observation of the car park (VS) ▪ distribute keys to repair workers or technicians ▪ answering or connecting telephone calls ▪ calling the police ▪ work on telephone requests ▪ work on requests from tenants ▪ organisation of delivery times ▪ co-ordination of technicians (vs) ▪ co-ordination of cleaning services (vs) ▪ co-ordination of repair persons (vs) ▪ co-ordination of building security guards (vs) ▪ control air conditioning/ventilation ▪ lighting control ▪ music ▪ announcements ▪ management of the car park (vs) ▪ issue of parking tickets/chips ▪ substitute for lost parking tickets ▪ remote opening of the exit barrier control of car park (especially entrance, exit, and dispenser) (vs) ▪ prolongation of parking tickets ▪ reporting to the police ▪ testimony (vs) ▪ calls for ambulance or medicine ▪ occasionally clicking through cameras (VS) ▪ manual recording of all events in control book ▪ collect offers for new technology and services	▪ tours of inspection ▪ check locations in case of fire alarm ▪ accompany repair workers ▪ contact to shop tenants ▪ customer contact and assistance ▪ check garbage cans ▪ support of technicians ▪ enforcement of house rules (bicycle in doorway, homeless who sit down) ▪ co-operation with shop detectives ▪ prevention of physical aggression ▪ intervention in brawls ▪ punishment of house rule violations, scooter, skater, bicycle ▪ testimony ▪ report to the police ▪ first aid ▪ errands for management or other departments

(VS) = task mainly conducted by the application of the video system
(vs) = video system can occasionally be useful to support the task

By looking at most of the tasks it becomes obvious that work can be performed only if the control room operator and mall security guard co-operate closely. Because the

operator can see more via video (something like a bird's eye view), he or she is in a better position to co-ordinate action.[8]

The tasks conducted by the application of the video system constitute a smaller proportion of the work. But the number of tasks says nothing about their importance, frequency and duration.

***Hierarchy of tasks*:**

According to how the operators attribute importance to different types of tasks, video observation seems to be only minor. In centre B, for example, the operators describe the administration of the car park as the most important task, including the sale and prolongation of season parking tickets, and the management of problems with parking tickets (like at the car park exit).

This attribution was confirmed by our observations. When operators changed shifts, for example, the central issue seemed to be counting the money in the car park cash box. There is about 60 € plus the daily income (or expenses for the repayment of chip deposits). "Sometimes we have a few hundred Euro in the cash box" (WS5), claims one operator to prove the importance of that task. They deal with the money as if it were their own. The earnings from chip-prolongation or replacing lost chips are communicated to colleagues as particular successes.

The operators in centre A do not make such a clear attribution of importance. To them the most important task is "everything to run the business" (WS2).

Importance and meaning of different technological devices

While the video systems and especially their monitors are the most dominant feature in the control rooms, greater importance is attached to fire alarms. Different persons named the fire alarm system as the most important technology in the control room. According to one technician, "If it starts, the action is in here." The operator answers, "That is why we always need to caress the box." A fire alarm is the worst thing that can happen during a shift – to be avoided by all means, even by an emotional and symbolic or even "magical" attention to this technology in the control room. We did not observe such a close relation to video surveillance technology, although it was underlined several times how useful it is to have the video system. However, during an actual alarm on the second observation day, all participants remained relaxed.

Events and attention processing systems:

Usually during the shift the operators react only to incoming information from different sources. This information is announced by acoustic (e.g. telephone, beeping) or visual (e.g. alarm lights, movements on the video screens) cues. In one control room we could

[8] "Rather through CCTV supervisors are able to 'recontextualize' action" (Heath/Luff/Svenson 2002: 199)

observe an obviously unintended acoustical cue. The technical record was made automatically and immediately printed. A printer (a relatively noisy needle printer) stood in one corner of the control room. Each time a technical state changed in the centre, the printer printed out one line. Hearing the printer, the operator always turned his head to the PC where a window showed the reason for the printing. In most cases it was a minor technical alarm (e.g. pump station, lights, air ventilation etc.) that resolved itself in less than a minute. The operator closed the window and turned back to wait for the next cue.

According to the operators the most frequent events are:

- disturbances by technical alarms (elevator, escalator, etc.),
- requests from car park or shop tenants
- unruly behaviour in the mall or car park (smoking, bicycles, roller blades, etc.)

In order to assess the frequencies and duration of such events, it is necessary to take a closer look at the everyday life of the shifts.

Practice during the shifts

Within a twelve-hour shift inside the control room, we identified a total of 51 actions. From these observed actions only 9 dealt with video surveillance (besides switching through the monitors from time to time), 18 with the management of technical alarms, 10 with telephone calls, 8 with car park affairs and 6 with additional services for the mall management. From 37 actions in another shift, 15 had to do with the management of the car park, 8 with technical alarms, 5 with video surveillance, 2 with telephone services and 7 with other additional services.

Taken together, we can distinguish five categories of actions in Table 16.

Table 16: Distribution of different actions during 20 hours of observation

Type of actions	frequency	proportion
management of technical alarms	26	29.5%
car park management	23	26.1%
use of video surveillance system	14	15.9%
additional services	13	14.8%
answering the telephone	12	13.6%
sum of actions	88	~100.0%

The proportion of tasks listed here was confirmed by further observations in other shopping malls (which were not reported in the same way due to another initial objective of the observations).

The duration of the actions is usually short. The management of technical alarms takes less than a minute in nearly all cases. Answering the telephone takes about one or two

minutes. The use of the video system depends on what is observed and to what purpose (from less than a minute to about 15 minutes), but because the targeted observation is rare it does not consume much time. Except for the distribution of in-house mail, which is usually not done by the operators themselves, additional services do not take much time (changing CDs, answering questions from administration or the information desk).

Waiting for events?

Everyday work in the control room thus consists mainly of waiting for things to happen. Cues come from different sources: fire alarm, elevator alarms, other technical alarms, parking ticket dispenser, car park exit, telephone, cell phone, radio, persons entering the control room with requests. Very few actions result from an observed unruliness on the video monitors. Accordingly, proactive observation of persons is not frequent.

Besides waiting and sometimes talking, the most time consuming action of the operators is the management of the car park. In terms of actual time, the operators are correct in stating that their most important task is the car park management.

It does not seem to be easy to remain alert while nothing happens. The non-participant observer sometimes caught himself getting tired of waiting or wishing for something to happen. Indeed, an operator's most important skill is to stay calm but attentive, over the entire shift. Night shifts must be horrible – stationed in front of the monitors, knowing (or hoping?) that nothing will happen the next twelve hours. The observers try to stay alert by drinking coffee, reading, listening to the radio (although it is forbidden), eating or doing crossword puzzles.

Use of cameras / Spatialisation/ Awareness

We were surprised to observe the rare use of the video systems. When talking about their everyday work, operators seldom mention video surveillance. Video surveillance could, in fact, be of little importance to them, or it might be uncomfortable for them to talk about it.

Being asked when they do use the video system, some responded of "if there is any time left..." (WS4). The operators claim to watch the monitors "out of corners of their eyes" (WP2), while doing other tasks. If something unusual is happening, they will go closer to an object and zoom in.

In centres A and B, one of the main tasks was the monitoring and recording of the car park exit for 24 or 15 hours a day. If a call came in from the car park exit intercom or the parking ticket dispenser, the operator would look at the respective monitor. These cameras are always on the monitors near the main screen. The other cameras point at the gates of the delivery court, and/or at the delivery ramps. In the mall, the cameras that are constantly monitored near the main screen are directed towards elevators, escalators and the entrances or exits. This reveals a clear structure of observational spaces and tasks. The outer world is divided and fragmented according to a perceived

importance, already shaped by the installation of video cameras. The surveillance of the shopping mall is thus structured by a varying mixture of individual preferences and applications, together with organisational musts related to the core business of the shopping mall: property management, observation of transportation devices, control of the car park (access and ticket dispenser), co-ordination of staff and technicians. During one shift, for example, the video system was used 9 times for these purposes, but only twice for a concrete suspicion (once initiated externally).

Few deployments are caused by an observation; most are prompted by telephone calls, emergency alarms, etc.

In case of a conflict, the video system is used to protect the security guard: his or her deployment is recorded to counter unfounded accusations. Some security guards had been reported for slander or bodily harm. Their colleagues emphasise that the reports were unfounded. In one case the video record cleared the security guard ("Demonstrators attacked the guard and accused him of doing so."). Some operators regard the camera as a means of increasing their own safety.

Types of operators and practices

As mentioned above, operators are "laid back" in their use of the video system. We could distinguish three different types of operators in dealing with the video system:

- Type a) Does not look at the monitors except if requested to do so by telephone or in reaction to other information. Older and indifferent to the technology.
- Type b) Clicks from time to time (once in two hours) through the cameras without targeting certain people. Clicking almost never results in a deployment. Younger and inexperienced.
- Type c) Focuses on certain places in the mall, seen as crucial, when there is time between other actions. Knows best how to handle the system. Middle aged, experienced and well regarded by colleagues.

Whether or not the system is used thus depends on the individual practice, particularly when it comes to targeted observations.

Targeted observation and the construction of deviant groups and behaviour

Targeted observations were noted only 13 times during 40 hours of observation. "Unruly behaviour" is the most frequent reason for targeting but constitutes less than 1/3 of such actions. Unruliness is defined as begging, smoking, brawling, and youngsters in the "wrong" place (e.g. car park at the top of the building).

Although the actual cases of targeted observations due to unruly behaviour are rare, it is worthwhile examining how the operators construct deviant behaviour.

It is important to note that only in four cases we can speak about a real targeted observation in the sense that the operator perceived somebody as a suspicious person. (Most of the other uses of the video system were for property management, management of staff and for persons in need for help at the parking ticket dispenser.) Only one of the targeted persons belonged to a minority ethnic group (Turkish). One should not, however, conclude that the dominant ethnic group is more suspect to the observer. Only one woman was targeted, and only one group of teenagers. What we want to discuss is the reason why they were suspicious to the observer. In the case of the Turkish man, he was probably observed *because* he was Turkish. In the case of the youngsters, it was probably *because* they were young. But we can not prove this impression with the observations alone. The group of youngsters, for instance, was in a place where they were not allowed to be. We do not have any evidence for the assumption that they would have been not targeted if they had been older.

In summary, most of suspicions were locational (4) and behavioural (4), transmitted (2) and personalised (1). To be in the wrong place can, by the way, also be defined as a "wrong" behaviour.

These figures back up the findings of the qualitative interviews: deviant behaviour is regarded as unruly or being in a certain place. According to the interviews and the operators' statements during the observations, the findings of the observation confirm that they rather "monitor locations and behaviour, not persons."

In the interviews and in conversations during the shifts, however, the operators name certain groups of persons as rather suspicious. Especially when they talk about examples of observations and deployments, or when they describe what catches their attention on the screens, they classify suspicious people as: school children/teenagers, men, alcoholics, homeless and mostly foreigners, especially southern Europeans such as Turks or eastern Europeans such as the Romany (Gypsies), Poles and Romanians. "For example, a doorman informs me 'watch out, now some foreigners are coming in,' we know people who are conspicuous. Well, then we follow that person" (WS2).

Operators mostly describe situations where they can see "immediately" if there is a threat or not. "They come in with big empty bags, this is already suspicious, then they clear shelves in 'Douglas' [perfumery] or 'Kd' [drugstore]. They are four, two for the lookout, two to go into the store and to do the job. We have to catch them when they are trying to escape." In that case, the video recording serves as safeguard for the security personnel.

All observers claim to be able to see when deviant behaviour occurs on the screen: "You can recognise them by their body language and by their behaviour. They are acting in a strange way. Well, experienced detectives can see that by the way those people look around. These are signs, conspicuous signs. You can learn about those things, but they are hard to explain. You have to experience it and to develop an ability for how to look

at those persons." A manager, formerly a salesperson, argues similarly: "You immediately have a feeling if somebody is suspicious. Then you better keep an eye on him. You recognise it; those people behave different from others who are here for shopping. Those who have other intentions do not have a relaxed, clear and visible body language." (CM2).

Deviations are mainly defined as the intention to steal and the infringement of house rules. The operators claim to see when someone plans on committing theft: "You can see whether a customer will buy or not. There are certain characteristics" (SM1), "Certain behaviour is conspicuous and then you follow and watch that person" (WS3). It does not seem to be easy to describe what makes a behaviour suspicious: "You can only guess if a person is suspicious by feeling and everyday experience" (WS4). That seems to be one of the main reasons why video surveillance cannot be explained but only learned by doing. The operators have experience with favourite (critical) places, times (rush hour) and seasons (summer) for theft.

Despite their insistence that an experienced observer can distinguish criminals from innocent customers, the interviewees say it is becoming increasingly difficult because criminals do not behave like criminals anymore. "Times have changed (...) the thieves have adapted to the situations and locations, they come in with suits and ties, they work for criminal organisations (...) the common thief from caricatures does not exist anymore" (WS3). Although it is doubtful that thieves ever resembled their caricatures, this statement, among others, shows even experienced operators have a hard time separated "good" and potentially "bad" visitors to the shopping mall.

Operators also claim that the infringement of house rules is detected on video screen. "With time you develop the necessary look. For example if you are working at the desk and the monitor, there are some movements should not be there, somehow your eyes are automatically pulled to the monitor" (WS2). "You know which movements are normal and which are not" (WS2). They list a number of examples: cars in the car park that drive in the wrong direction, people with bikes in the mall, groups in the mall, smoking, spitting or dogs without leashes.

"Taking photographs," which also violates most house rules, was described as problematic due to the fear of competitors and organised criminals, and regarded as severe threat to the mall's interests. This was mentioned in several interviews and observed during the observations. Nonetheless we were rarely accosted for taking photographs for experimental reasons during our investigations. In only one mall was our action detected and sanctioned.

Enforcement of the house rules is also seen as a means to prevent crime. "The sooner you fight irregularities the less crime you'll have" (WS3). "For that reason we are interested in breaking up groups that enter the centre, if there is any legal way to do so. The house rules say groups are not allowed" (WS3). (In fact, this is not the case.)

The operators' attention is caught explicitly by behavioural and locational deviations, implicitly by categorically constructed deviations. We do, however, need to point out one contradiction concerning the competence of the "experienced" observer in identifying a suspicious person. As we said, the observer constructs suspicion in a mode of information processing, where he or she compares a set of external indications with a concept of suspicious. Should external indications change because the professional criminal is well dressed, and can stay calm in critical situations? What does the observer really see? Research on criminal behaviour (Gladwell 2002) shows that the ability to identify an individual's intention by looking at facial expressions is possible and can be trained. This seems to be a valid way to identify intentions. But it is unlikely that this can occur via remote video surveillance. The construction of deviant behaviour with the help of video surveillance is, we would argue, questionable.

Frequency of deployments

The frequency of both deployments and targeted observations is rather low.

Asked how often the security guards in the mall are deployed on an average day, the operators estimated "up to five times a day" (WS3). During our observations we saw three to four deployments per shift. Deployment does not mean that the guards intervene in a criminal action, it can also be helping a person or taking care of a technical problem. Deployments "...with physical aggression [happen] up to five times a year" (WS1), or "once in half a year" (WS3).

Seldom does an operator observe a criminal action on-screen. "How often do we see a theft in action? Perhaps less than five times a year" (WS2). The frequency of a crime caught on camera and especially on tape is low, and for that reason co-operation with authorities in terms of the exchange of video recordings is rare: "Once every three months maximum do the prosecution authorities ask for a tape as proof" (WS3). Only once has a video recording been used in court during the five or six years since the video systems were installed in the two shopping centres.

One of the most important instruments for enforcing house rules is the banning of a person or a group from the mall. According to the operators' statements, even this happens "every two or four weeks maximum" (A) or "three to four times during the last four months" (B).

4.3 Impacts caused by potentiality

Although the system is seldom used for the proactive monitoring of individuals, it is assumed that video surveillance has an impact. All interviewees expect and observe changes in behaviour due to video surveillance. Although we cannot prove that customers act differently when under video surveillance, the interviews and observations provided intriguing clues as to how the operators construct impacts.

One example can be found by looking at the reason behind the reluctance to post signs that the premises are under video surveillance. Most shopping malls with video systems have no signs indicating that video surveillance is in operation. From 35 malls with video systems in the publicly accessible space, only 11 have signs stating this.

Some statements are contradictory. On the one hand, the systems are meant to have a preventive impact when people know they are being watched. On the other hand, the mall management does not want people paying too much attention to video systems because it is feared that customers will feel uncomfortable. "We were afraid that this could deter customers from entering the mall" (WS3).

Asked whether customers might not feel safer knowing that the mall is under surveillance, most of the interviewees expressed their doubts, despite the claim that video surveillance increases customer safety. One of the interviewees said no to the question if customers know they are under surveillance: "No, that's camouflaged well. If they knew we are looking at them, they would never come back to the centre" (WS1).

As for visitors, most of interviewees state that they behave differently when they know they are under surveillance. But they always emphasise that this is not unpleasant. "You pay more attention to your own behaviour, how you walk, how you look (...) you have the feeling you should behave differently. My colleagues say the same" (WS3). "You act differently because you always know there is an eye on you" (WS2). Feeling safer, more at ease, being on stage are perceived as positive outcomes of the systems.

The following matrix shows that there is a dilemma in evaluating the impacts of CCTV and in deciding whether or not customers should be aware of the system.

Table 17: Impacts on customer´s safety feeling by CCTV

Statements made by personnel	Addressing criminals	Addressing non-criminal customer
Feeling comfortable with CCTV	NO	YES
	aim: awareness of CCTV	aim: awareness of CCTV
Feeling uncomfortable with CCTV	YES	YES
	aim: awareness of CCTV	aim: unawareness of CCTV

To resolve this dilemma, managers and operators construct different degrees of awareness towards CCTV and apply different strategies. The main assumption is that potential criminals will recognise the cameras while "innocent" consumers will not take note of it. "The one with bad intentions sees the cameras with or without signs" (WS1).

The centre manager spells out the underlying assumption that those who have reservations about video cameras are potential suspects. "Only people with 'problems' (something to hide) will have doubts" (CM3) or "As a customer it is not a problem. As a thief it bothers me" (CM2). Here lies a further contraction: if innocent customers have

nothing to fear why would the awareness of being observed deter them from visiting the mall?

This point aside, both management and staff assume that videos will deter criminals and customers alike. But according to the interviewees, there were no customer complaints about video observation in any of the malls studied. Quite the opposite. "They say they now feel somehow safer" (WS1). No matter how you look at it, video surveillance has impacts because it is expected to.

The symbolic capital of CCTV can also be used to convince suspects to admit to their deeds. The security guards use the widespread overestimation of the system by letting suspects believe that everything can be seen on videotape. "We told them, 'if you want, let's watch TV until you recognise yourself and see what was happening. But perhaps you can answer our questions right now'. They all agreed without hesitation" (WS1). (The interviewee did not say whether the event was caught on video, but the probability seems very low.)

At this point we have to admit to our limited knowledge on the exact repercussions on the potential of CCTV. The potentiality of video systems, however, seems to be sufficient to cause impacts. Here we recall the system of discipline and knowledge described by Foucault (Foucault 1978). Effects can also be regarded as a kind of self-fulfilling prophecy (Merton): the belief in the efficiency of the system makes it work, independent of the real use.

5 Summary

The video systems observed in Berlin shopping malls do not seem to be an efficient instrument of social control and exclusion. They are used more on demand for various purposes such as the monitoring of daily tasks and the co-ordination of persons working inside the mall. The observation order in malls resembles that of a public transport system as observed in London by Heath, Luff and Svenson. "To a large extent supervisors are not concerned with identifying particular individuals, but rather with detecting actions and events which might disrupt the ordinary flow of passengers and traffic through the station" (Heath/Luff/Svenson 2002: 198).

The objectives publicly claimed by management – crime prevention and the like – could not be achieved because the everyday practice presents other tasks to the operators. The workplace, the personnel, their multiple tasks, their qualifications support more a reactive use of video surveillance than a proactive targeted observation of individuals, even if the equipment would allow for that. It is doubtful that the publicly stated objectives are the same as the internal ones. We must assume that those objectives are a part of an "impression (management) scenery" (Goffman 1990), while video systems are meant and used for other purposes involved with core business process of the mall.

However, these findings must not lead us to underestimate the potential of the systems and the fact that a new observation order is emerging. We need to remember the ecology of surveillance described above, which has demonstrated that a considerable degree of important urban places have CCTV installed. This could allow for the realisation of more strategic objectives of CCTV. Such systems are open for various purposes. It is easy to imagine that different actors will find out how to maximise the power of video surveillance by scanning and profiling consumers or other individuals. In this sense it may turn out that the CCTV infrastructure of Berlin shopping malls can be characterised best as test-beds – open for various applications. There are, however, obstacles to this in the form of data protection concerns and the lack of political and economic support to go further (tied of course to financial constraints). Finally, as shown in our study, the social practice in everyday life continues to resist one-dimensional expectations of the technological possibilities of CCTV.

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