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Sense and Security

A Comparative View on Access Control at Airports

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Abstract

In case of doubt, in which sense do we trust? Is there a dominant (visual, haptic, gustatory, olfactory or acoustic) culture of evidence? The present contribution approaches the applied side of sensory research. Looking at the case of airport security it reconsiders a number of changes carried out during the last decade. Envisaging the production of security as a matter of sensory perception, it goes beyond a polemical appreciation of these modifications. Instead of debunking some unspecified *false sense* of security, it shows *multiple senses* of security at work. Describing how sensory data are isolated, amplified, transformed, and re-combined during the process of security screening, special emphasis is given to the actual location of control activities and to the issue of storage of information. As a result, two modes of access control are found to persist and termed "laboratory check" and "biometric guardianship". While the former, isolating sensory data, is local and allows for reversibility, the latter, blending local sensory practices with biometric information captured elsewhere (and stored), is irreversible.[1]

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[1] This contribution extends a topic discussed in two previous papers, available in German (cf. Potthast 2010a) and English (cf. Potthast 2010b). It has improved thanks to questions and criticisms raised at a number of workshops and seminars in Siegen (Locating Media), Paris (CSI), Freiburg (Sicherheit und Gesellschaft), Tübingen (GWTF), Marne-la-Vallée (LATTS) and Jena (BMBF Sicherheitsforschungsprogramm). I am particularly indebted to Stefan Kaufmann who attended almost three of these presentations, to Dominique Linhardt, first reader of the first draft, and to Cornelius Schubert, last reader of the final cut. The ultimate version is still underway (Gefährlich unauffällige Passanten, Wiesbaden: VS/Les passagers extraordinaires, together with Dominique Linhardt). The motto on Doubting Thomas and a more substantial interpretation of it can be found in Chateauraynaud (1996; 2004).

> So the other disciples told him, "We have seen the Lord"! But he [Thomas] said to them, "Unless I see the nail marks in his hands and put my finger where the nails were, and put my hand into his side, I will not believe it."
>
> A week later his disciples were in the house again, and Thomas was with them. Though the doors were locked, Jesus came and stood among them and said, "Peace be with you!" Then he said to Thomas, "Put your finger here; see my hands. Reach out your hand and put it into my side. Stop doubting and believe." Thomas said to him, "My Lord and my God!" Then Jesus told him, "Because you have seen me, you have believed; blessed are those who have not seen and yet have believed" (John 20: 26-29).

1 Introduction

Since 2006, at many airports, passengers are no longer allowed to carry liquids with them. Before boarding a flight, liquids exceeding a certain quantity have to be sorted out. Regardless of their quality and without a trial, liquids have been put under a general suspicion. Passengers ready to advocate the case of their liquids were not allowed to do so. With regard to liquids, a tightened security regime came without a procedure of testing. Unsurprisingly then, passengers felt to be exposed to arbitrary judgements. The current practice of controlling for potentially dangerous liquids continues to defy common sense and to produce sensory confusion: How to distinguish between liquids and non-liquids? Is this a matter of visual, of gustatory or of haptic expertise? Provided these uncertainties and weakly instrumented, judgements on toothpaste, soft cheese or chocolate bars will remain contentious.

As illustrated by the liquids' case, airport security has recently undergone a number of modifications. This prompts a set of questions highly familiar to scholars of science studies, and particularly to sociologists and historians of medicine. First, what are the consequences of laboratorisation, that is, the increasing instrumentation of scientific and other professional practices? For instance, how to defend a professional monopoly while depending on new technologies and their experts? Second, if laboratisation has extended and partly replaced human senses (by using sensor technologies), does it follow a main trend towards a sensory *dominance of the visual* (cf. Daston/Galison 2007)? The opening observation on the treatment of liquids seems to question this twofold assumption. Neither does it confirm the idea that access control closely follows a laboratory model, nor does it support the claim for a control revolution built on visual technologies. Rather, it points in the opposite direction of sensory if not *sensual confusion*. This is why the contribution attempts to review a broad range of recent changes, highlighting the ways in which classification relates to sensory practices. Following the basic layout of contemporary airport terminals, it is organised in two main sections on changes, first at the departure level (3), and second at the arrival level (4), followed by a discussion on similarities and differences (5). Providing a close and continuous description of how security works in both sections of airport terminals, I attempt to re-situate and maybe reformulate a fundamental discontinuity in terms of institutional logics.

Recent reconfigurations of access control have not gone unnoticed and have been sometimes picked up by mass media. This attention, however, has remained ephemeral and superficial, two omissions being similar to those displayed by John's account of Doubting Thomas. First and more generally, the narrator focuses on personal identification, and depicts its procedure in detail. On the other hand, while it is stated that Jesus came into the house though the doors were locked, modalities of access are left without further detail or comment. A second omission occurs, when it comes to the moral to be drawn from the story: "Blessed are

those who have not seen and yet have believed." This statement points to a *visual bias*. Evidence is assumed to be a matter of visual perception while the haptic trials described in some detail are simply left out (cf. Chateauraynaud 1996: 3-4; 2004).

Putting modalities of access control centre stage and avoiding a sensory bias, the present contribution seeks to further specify what may be termed a "resilience turn" in the social studies of risk and safety. To recall and briefly re-introduce, recent studies have been guided by an interest in resilience, responsiveness or preparedness as a property of social institutions.

> "If we cannot know the risks we face, how can we cope with unknown dangers? Taking the focus of the debate away from risks and safety to the choice between social institutions, we can suggest the qualities necessary for dealing with risks" (Douglas/Wildavsky 1982: 195).

According to a founding contribution to the cultural study of risk, institutions built on "control by anticipation" are likely to fail as they lack "the capacity to cope resiliently" (ibid.). It follows that it is "our responsibility […] to create resilience in our institutions" (Douglas/Wildavsky 1982: 198). "Searching for safety", a later book by Aaron Wildavsky (1988) returns to the distinction between "anticipation" as opposed to "resilience", specifying that "anticipation is a mode of control by a central mind. [...] Anticipation attempts to avoid hypothesized hazards; resilience is concerned with those that have been realized" (Wildavsky 1988: 77). Once more, the author reaches a clear-cut conclusion on what is the more efficient way of dealing with the unexpected: "Thus, under considerable uncertainty, resilience is the preferable strategy. Under substantial certainty, anticipation [...] does make sense" (ibid. 79).

While the notion of "resilience" remains to be associated with the field of safety, similar concepts and distinctions have emerged in the domain of security and guided research on responses to the 9/11 terrorist attacks, though reaching different conclusions.[2] According to Birkland (2004), institutional responses in the field of airport security have displayed a remarkable capacity of learning from and adapting to the varieties of terrorist action. Focusing on the immediate response to the terrorist attacks, Knorr Cetina (2005: 225ff.) argues that, faced with flexible terrorist cells, large and hierarchical organisations have been exposed as being slow and inefficient. Among the studies that take a critical view on the rise of surveillance society (cf. Lyon 2007) some have come to agree that control by anticipation should not be overstated (cf. Agre 1994; Krasmann 2003). Instead of presupposing a vantage point which would allow for full observation and total surveillance, a more careful analysis is called for in order to cover (or uncover) a greater variety of control activities. So far, however, this call to go *beyond anticipation* came without a researchable concept of resilience in positive terms.[3] While there is a broad agreement that abandoning a static panoptic model will allow for a more fine-grained empirical description of control activities, it is still waiting to find support in a sound research framework. Therefore, to opt for a (more) situated analysis is to look at the *sensory cultures of evidence* as implied in control practices. Probing the assumption of a single dominant mode of visual control, attention is devoted to distributions and redistributions among multiple senses of security at work.

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[2] While both safety and security relate to (the absence of) accidents, common sense insists on different concepts of causality. In the case of security, accidents are produced by an external threat and are related to malign intentions. Safety threats, in turn, are intrinsic to and specified in terms of technical systems.

[3] This failure has occurred both in the safety (cf. Potthast 2007: 53-59) and in the security camp.

n the case of mobilities and the ways in which they are controlled, airport terminals host two intersecting logics of access. Providing access to political territories at arrivals and to technical networks at departures, they suggest themselves for a comparative analysis of control activities. If there is a turn towards a single mode of anticipation (or away from it), it needs to be grasped on both sides and on the ground of sensory practices. If there is a new (control) regime of visibility (cf. Hempel et al. 2010), this claim needs to made without a methodological bias. Hence, sharply contrasting the account of Doubting Thomas, the ways in which sensory data are generated will be put under sustained scrutiny.

Concentrating on multiple senses and of practices of control that combine and switch between different senses, I seek to side-step a current strategy of interpretation practiced by surveillance and critical security studies. In my view, work in this area often suffers from a visual bias the symptom of which is easy to grasp. Take the following comment: "Another reason why the screening changes […] were accomplished quickly is that they were very symbolically important measures designed both to add some measure of security (although not of course total security) while at the same time reassuring the traveling public that something was being done – and the urge to do something or anything is often quite strong after focusing events" (Birkland 2004: 358). Drawing this conclusion is to discourage further and more continuous empirical work. To extend on the critique of the visual bias and its genealogy, one has to account for the appalling loss of microfoundation. Contrasting the standard set by the investigation that lead to the "control revolution" hypothesis (cf. Beniger 1986) countless studies have reflected on how (bureaucratic) technologies of control have emerged as a response to (railroad) accidents. At the same time, however, they have neglected the everyday operation of technical systems. The reception of Crozier's work on technical failures (cf. Crozier 1964; Potthast 2007: 72-79) illustrates this point. Taking little interest in the mechanisms of transforming technical uncertainty into a resource, the "bureaucratic phenomenon" (Crozier 1964) is, above all, taken as a product of symbolic action. Undeniably, both risks and responses to risks may be used for the public staging of power and control (cf. Gilbert 1992). In the case of recent terrorist action, there was plenty of opportunity to observe both the reaffirmation of state power and marketing strategies of industrial suppliers (cf. Ceyhan 2007). But this is no excuse for stating nothing but the obvious.

Ronen Shamir (2005) argues that emerging technologies of profiling are responsible for social stratification at a global scale. He claims that creating and linking large databases for personal identification has a double impact: It may speed up mobilities for some, while it produces effects of containment for others.

> "[T]he differential ability to move in space – and even more so to have access to opportunities for movement – has become a major stratifying force in the global social hierarchy. […]
>
> [P]rofiling emerges as a more discrete technology of intervention that facilitates and complements the regulation of mobility by legal and disciplinary means. Moreover, while laws and regulations may formally enable governance through profiling, they nonetheless lack the instruments and *the type of gaze that allows profiling to function as a mode of spatial containment* that is able – on the ground – to maintain the selectivity of boundary-crossing and to effectively distinguish those who are licensed to move from those who are not." (Shamir 2005: 205, 210; my emphasis).

According to Shamir (2005), responses to 9/11 have resulted in a new global order of access. Portrayed as depending on a new "discrete technology", these changes appear supporting a distinctive "type of gaze". Actually, the present paper does not select a single

discrete technology but seeks to trace changes all along the journey of passengers and their luggage through the terminal building. It attempts to depict security in action.

2 Sources

Unsurprisingly, access control at airports is a field which is difficult to study.[4] Standard procedures of generating qualitative data may therefore be simply inadequate. Empirical investigation on airport security rests upon research strategies that are hard to reproduce. Morgane Iserte (2008), for example, doing research in the restricted waiting area at Paris-CDG airport, reports that she was not allowed to talk to the persons whose legal status was uncertain, and that she was permanently accompanied by border police officers. Furthermore, she had to join a non-governmental organisation allowed on site in order to carry out her research. Provided these conditions, the state of the art in social studies on airport security has remained rather deficient (cf. Adey 2004). There is no study which would be based on a fully comprehensive research strategy and a consistent and coherent body of observations. Among the few studies available, there is a noteworthy analysis of passenger screening at the departure level of Paris Orly based on fieldwork before 9/11 (cf. Linhardt 2000; 2001; Jobard/Linhardt 2008). Finally, there is a more recent article on security screening which combines the analysis of publicly available documents from various sources with a series of crises experiments the author has carried out at several airports (cf. Parks 2007).

In addition to the work just mentioned, there are three more continuous sources of information and research I will draw on in this contribution. As a first source, I will use reports provided to members of the US Congress by the *Congressional Research Service* (CRS). Within this large collection which has recently been made available online, there is a number of reports dealing with air transport security and related issues. A second source is *Passenger Terminal World*, a monthly commercial review that serves as a show-case for airport terminal technologies and services. For the purpose of this article, I will refer to contributions by major design and architecture studios. Their authors often take a comprehensive view on airports, reflecting on new technological devices in the context of "old technology" and the spatial layout of terminals. Finally, there is a French academic journal, *Cultures & conflits*, which has closely followed the topic for more than ten years. Within these three sources, I will trace the sensory cultures of evidence. Combining the three sources mentioned I will compose an empirical study of the ways in which airports have been equipped with and make use of security technologies.

The present article has two main sections reviewing recent changes of access control at departures (3) and arrivals (4). Providing a close and continuous description of how security works in both sections of airport terminals, I attempt to re-situate and maybe reformulate a fundamental discontinuity in terms of institutional logics. In the case of departures, access control is related to threats specific to air transport. In the case of arrivals, threats are defined with regard to the current doctrine of domestic policy which is applied to territorial boundaries in general, regardless of

[4] Following Bigo (1998: 5), studies on security and terrorism merit highest standards of methodological reflexivity. Surprisingly, therefore, reviewing 10 studies on terrorism and security published after 9/11, Neidhardt (2004: 263) finds that none of the authors has taken care to reflect on the methodological aspect of their research. For a succinct methodological discussion which is instructive beyond the problem of understanding suicide missions, see Gambetta (2005: 259-300).

the mode of transport. Terminal architecture can be said to draw a distinction between security related to the safety of a technical system and security related to issues of national sovereignty. The strict separation between departing and arriving passengers has remained a stable feature of airport layout that has not been affected by recent changes. This is reflected by the organisation of the present inquiry. Building on the separate documentation of changes of sensory practices at departures and arrivals, it will address the following questions: Have changes taken in both sections affected each other? Has the relationship between arrivals and departures been transformed? The inquiry will be sensitive to both local and to translocal change: It will ask for distinctive features of terminals as a building type, and elaborate on issues which account for the fact that one airport's arrivals section is another airport's section of departures.

The author of this paper partly draws on observations taken as a passenger. More importantly, though, I have carried out ethnographic research on the crisis of baggage handling related to the introduction of hub-and-spoke operational schemes at the airports of London Heathrow and Paris Charles-de-Gaulle (cf. Potthast 2007). I do not claim that responses to both types of crises (lost bags; security after 9/11) can be analysed within a common framework. However, both studies are complementary, both in a spatial sense (after check-in, passengers and bags are processed separately) and in a historical sense (fieldwork on the bag crisis has been conducted before 9/11 and therefore eclipsed the current concern for terrorist prevention).[5]

[5] Further studies focusing on crises and transformations within the large technical system of air transport include an analysis of public responses to the Swissair 111 crash in 1998 (Potthast 2003) and an ethnographic account of the uses of paper strips in air traffic control (Potthast 2008).

3 Departures

On a cynical note, one could say that airplanes have been designed for taking hostages as they are difficult to invade and almost impossible to evacuate. What is more, for fear of crashing, passenger resistance is unlikely. Planes are spaces that are *easily controlled* – for good or for evil. This is why it has become so important to control access to them. These control activities have to be carried out in spaces which are particularly *difficult to control*: airport terminals are anonymous public spaces (and sometimes crowded). In this sense, these buildings offer a perfect hideout for terrorists as they cannot be distinguished from ordinary passengers (cf. Linhardt 2001). While this is a salient observation for public places and buildings in general, the specific vulnerability of airport terminals is obviously related to the fact that they are access points to planes.

To deal with this problem, a number of spatial boundaries have been erected. First and foremost, departures are strictly separated from arrivals (cf. Phipps 1991). Second, within the departures area, passengers are separated from and later reconciled with their bags. Separation of passengers and bags takes place at a considerable distance from the aircraft. *Separation* is a key term to describe security procedures at airport terminals: separation of persons (to be checked individually); of persons and their bags; of persons and carry-on luggage; of bags and bags. Finally, in case of doubt, various items within carry-on luggage are given a separate check. In short, the whole process is designed to transform a heterogeneous crowd entering the airport terminal into components identifiable by corresponding sensor equipment.

Entering the airport terminal and finding their way towards the correct check-in desk, passengers are welcomed by security announcements

reminding them *not* to engage in an operation of separation without assistance: They are requested to never leave their baggage unattended in the terminal area. At many airports, this announcement is combined with a warning: Objects left unattended are considered dangerous and "may be destroyed". To destroy unidentified bags has been an ongoing practice even before 9/11. Alertness to it has certainly risen after these events. In addition to the invisible announcement, an increasing number of security agents serve, among other functions, as a permanent visible reminder of the security announcements.

Passengers have to present themselves at a check-in desk. At this point of their journey, they will be identified by airline operators and will have to leave larger bags. To describe the bulk of actions taken to disrupt terrorist travel after 9/11, I will now go on to the security checkpoint.

One of these actions is to screen passengers for explosives. To this purpose, technological equipment has been made available at airport security checkpoints (cf. Shea/Morgan 2007). There are two ways of screening called "explosives trace detection" and "detection of bulk explosives" the latter of which has been introduced earlier. Trace detection is carried out using ion mobility spectrometry. Usually deployed with portals, it targets traces or small doses of explosives on airline passengers themselves. One of the questions raised during its implementation was whether to use trace detection as a primary or only as a secondary check. If used as a primary check, would it allow for appropriate "passenger throughput"? What if too many "false positives" slow down the process in unacceptable ways? What if, for the purpose of mass (false) detection and disruption of airport operation, explosives are disseminated on commonly touched objects at the airport? Finally, what if new explosives are used which are not (yet) detectable (cf. ibid.)? Up to now, trace detection devices and portals do not provide visual or other clues which would offer a starting point to use operators' intuition and experience in case of doubt.

Following significant investments into trace detection,[6] the issue of liquid explosives (which escape trace detection) was brought up in 2006. Dangerous liquids were added to the list of dangerous substances – dangerous liquids which are difficult to distinguish from harmless liquids such as water or toothpaste. The consequences are well known. As passengers have to leave larger quantities of liquids at the security desk, the current situation remains challenging both for operators and passengers. It defies common sense that a reliable method for discriminating dangerous liquids is not available. Instead, in the absence of a criterion to determine what is a dangerous substance, security staff uses "liquids" above a certain quantity (which is controversial in itself) as a proxy. The current treatment of liquids both mirrors and points to the limits of a prior mode of extending the control process at departures: in order to respond to a new security threat, (further) isolate components and generate reliable sensory data; replace human senses by sensor technologies if possible.

As exemplified by the handling of liquids, screening hand luggage has been given particular attention. Passengers have to take off their coats and jackets, or even their belts and shoes. Together with their hand luggage, these items are put on a belt for security X-raying. Laptops must be unpacked. Passengers have to check their pockets for metal objects, and they have to hand

[6] In the US, the system for explosive trace detection has been implemented at 400 commercial airports. When implemented in 2005, the cost per portal was 160,000 Dollars (cf. Shea/Morgan 2007). In order to estimate the overall cost of this measure, operation and maintenance expenses have to be added (cf. ibid.).

over mobile phones, and they are requested to put liquids (which are not allowed to extend a maximum limit) into a separate transparent bag. Substances and objects considered dangerous may be confiscated. Finally, a passenger may him/herself be denied access to the plane. The tightening of security procedures has been accompanied by countless complaints by passengers, and many of these complaints appear perfectly justified. Some complain of having missed their flight due to longer queuing time. Others complain of the loss of private property classified dangerous. Another set of complaints is directed at search practices judged too intrusive. A rare but particularly severe case is presented by those who have been refused from boarding the aircraft due to misidentification (cf. Krouse/Elias 2007, 8). Throughout these complaints, it is rather difficult, if not impossible, to identify a common line of critique. Neither is there an abstract concept of privacy behind the variety of indignations, nor is violation of privacy the only controversial issue. A great number of critical remarks suspects security checks to lack efficiency. Sometimes, security is not only questioned but clandestinely tested.

Security staff is exposed to critique – not just in an abstract sense. Taking passenger complaints seriously is to stay close to the everyday worldly encounters between security staff and passengers and to the problems to generalise from these particular experiences. While airport security is composed of a stable sequence of operations, checkpoint encounters, mediated by technological equipment in multiple ways, are the object of considerable tensions.[7] A clear indication for this tension is that, at some airports, security checkpoints have been explicitly declared joking-free zones. It further adds to the ritualistic dimension of security procedures that, when approaching the security checkpoint, passengers are shown the following warning:

> "All comments regarding bombs and guns are taken seriously. Please no jokes." Or: "Making any jokes or statements during the screening process may be grounds for both criminal and civil penalties. All such matters will be taken seriously. We thank you for your restraint in this matter."

Besides carrying out work that is physically challenging (cf. Parks 2007), security agents are inundated with complaints. They are trapped by receiving contradictory complaints: On the one hand, they are criticised for taking their security mission too seriously; on the other hand, they are insulted for not taking their job seriously enough. They are confronted with resentment for both following and allegedly neglecting rules. Constantly interfacing with passengers and exposed to their moods and critiques, they need protection from joking and ambiguity.

To mention a further change post 9/11, security checkpoints at departures have been equipped with more sophisticated technologies of visualisation. Suspicious objects may be zoomed in and shown in contrasting colours. These devices have not replaced but rather complemented manual searching. Having screened passengers' belongings by means of visual analysis, some passengers and their belongings are selected for a second stage of manual search. The deployment of new technology has allowed for extending the process of screening, but it has not replaced a procedure that relies on training bodies (for manual research). Both vision and tactile senses are deployed to deal with a doubtful passenger or piece of luggage. In a recent instance, the multiplicity of senses has become fairly obvious. As body scan equipment is currently reconsidered for implementation in many countries, manual search may

[7] Of course, similar tensions arise in a number of customer service work settings, both within and beyond air transport. Cf. the early study on emotionally securising passengers before and during the flight (Hochschild 1983).

lose importance. In Germany, however, the announcement of this technology was not welcomed but regarded as highly problematic. One of the headlines read as follows: "Politicians terrified by the announcement of a *Nacktscanner*" (Spiegel-Online, 23.10.2008). Raising objections against a *scanner that reveals the naked body* is to question a further extension of the visual mode of control. Contrasting the case of medicine which has evolved towards a visual dominance[8] (and marginalized other modes of examination; cf. Pasveer 1989), privacy claims are founded on a cultural sense of visual integrity. On the other hand, would not body scanning allow for substituting practices of manual search to be considered (even) more harmful in terms of privacy? Would not visual search by machines be more democratic as compared to manual search carried out by operators following dubious and maybe racist stereotypes of what constitutes a "dangerous person"?

As pointed out earlier, the separation of luggage and passengers is at the basis of the current mode of controlling access to aircrafts. Having processed, on separate paths, both passengers and their bags, there has to be reconciliation before take-off. Two failures of reconciliation may occur: Either the person or his/her luggage is not on board. While the first event is classified a threat for security, the second is considered as a technical failure.[9] Therefore, in case of a missing passenger, the departure of a plane has to be postponed until his/her bag has been identified and unboarded. While this may cause disruption, its impact on overall flight delays is low.[10]

Assuring reconciliation is the last step in a sequence of security operations at departures. Reviewing responses to terrorist threats targeting air transport, the preceding observations confirm that airport security is a matter of incrementalism. A pre-existing set of trials has been extended by adding up a number of operations. Having undergone the modifications depicted in the preceding paragraphs, the process of controlling passengers and bags is still homologous to a scientific trial. According to the (pre 9/11) description by Linhardt (2001, 85), the aim of this process is to transform a worldly object into an epistemic one or to reduce a complex object to readable traces which can then be processed by laboratory-like technologies at the security checkpoints. By and large, changes have confirmed a pattern well established by science studies to be summarised as follows: Laboratorisation implies the dominance of the eye, the idea of objectivity being closely associated with a hierarchy of the five senses with vision at the top.

For the sake of simplification, changes at departures may be said to have evolved along a *laboratory-like mode of control* and given more weight to modes of visual control. But how then about arrivals?

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[8] Leading to the marginalization of other modes of examination, as stressed by Pasveer 1989, Dommann 2003, Burri 2008. For a contrasting case, see Johnson 2008 on the haptic-enabled surgery simulator.

[9] In the case of a lost bag, there is no formal imperative on how to proceed (cf. Potthast 2007).

[10] According to the US air travel consumer report covering the period of March 2007, 73 percent of all flights at 32 airports in the US have been on time. Among those delayed, only a small fraction of 0, 06% has been delayed by "security reasons" that are defined as follows: "Delays caused by evacuation of terminal or concourse, reboarding of aircraft because of security breech, inoperative screening equipment and long lines in excess of 29 minutes at screening areas" (Office of Aviation 2007: 26). Among the future "gridlocks" of air transport, "security" does only appear as a marginal problem (cf. Elias 2006).

4 Arrivals

Video screening, combined with profiling based on biometric data, has been ready for introduction at the gangways of major airports since 2002.[11] This is a specific application of CCTV systems which contrasts with the generic use of video cameras elsewhere in the terminal building (including the departure section). Many airports have multiplied the number of video cameras in response to the terrorist attacks. For instance, as decided in 2003, 6,800 cameras have been deployed at Paris-CDG (cf. Iserte 2008, §18). At the exit door of the aircraft, the use of video taping and software for facial recognition serves a specific purpose, related to this particular location. The average time required to walk through a gangway is long enough to find potential matches in a biometric database. A person classified as being dangerous may then be identified and sorted out by security forces at the end of gangway. In terms of sensory practices, this way of sorting out is primarily based on visual data and recent technologies of detection and storage. Throughout the section on arrivals, visual technologies and their electronic extensions will stay in the limelight.

Access control at the arrival section has moved up to the door of an arriving aircraft. For the rest of it, there is no stable sequence of control activities. The absence of it is reflected by passenger experience. To arrive is less of a ritual as compared to the much more structured procedure of separating and filtering at departures. Obviously, passengers will have to go through passport control (if boarding on international flights) before recollecting their bags and then passing the line of customs control. The arrivals section is divided up into various zones, too. One of these zones is "reserved" for arriving passengers that are refused to enter the country or even the transit zone. By definition, this zone is not linked to any sequence of standard operations applied to the entire public.

Access control at the arrival section is selective from the outset. Since 9/11, the focus on national identity has been renewed. Determining the country of origin is paramount. At Paris-CDG airport, passengers originating from one of 34 countries that have reached the highest numbers of asylum seekers in the recent past are given particular attention (cf. Iserte 2008, §30). If selection by nationality fails, border police units have to deal with persons of "unknown origins". In order to reduce their number, some incoming flights are controlled directly at the exit door of the aircraft. This action has become a regular practice and serves to sort out passengers on the basis of intuition. Trying to identify those who might not be tourists, border police seeks to reduce the number of persons "losing their origin" between the aircraft and the transit zone. Tracing both official projects and more unofficial practices related to access control at Paris- Charles de Gaulle, Iserte (2008, §§40ff.) claims that this airport has become more "securised".

Moving further through the catalogue of changes, one will notice that some control activities related to the arrival section are carried out at a distance. Locally, departing and arriving passengers continue to be strictly separated. At the same time, territorial boundaries have become more flexible. Stated in another way, sections for departures and arrivals have gotten closer to each other.

Among the activities even *prior to* the control of passengers and luggage at departures, one has to mention the listing of dangerous persons and descriptions of dangerous items that

[11] CISCO manager, personal communication, Passenger Terminal World Conference (Hamburg, 2002). This personal communication came with a demonstration of the time needed to capture and transform visual data.

should not enter the plane. The task left for the various points of control at the airport then consists in finding matches between those persons and objects listed and those to be checked at the gate. Since 2001, *screening* passengers has been intensified and complemented by an activity called "pre-screening". US authorities have put 20,000 persons on a "no fly" list. Airlines flying to the US are obliged to check passenger lists against this "no fly" list *before* take-off and to contact US authorities in case of a match. In addition, there is a second watchlist which is estimated to name about 325,000 "automatic selectees" who are given particular scrutiny at airports (cf. Krouse/Elias 2007: 5). Collecting, storing and sharing large amounts of detailed passenger information have been the subject of controversy; also, there have been serious concerns about the quality of these databases, following the misidentification and mishandling of passengers. The notion of "pre-screening" is interesting in itself. From a passenger's perspective, it does not make sense, because screening has always been pre-flight (at departures). The operation referred to as "pre-screening", however, takes the destination of a flight as its reference point. Pre-screening involves the transmission of passenger data from the airport of departure to the Transport Security Agency (TSA).

Every day, an average of 30 matches with the "no fly" list is reported to this agency (cf. ibid.). In case a passenger list is incomplete or has been incorrectly transmitted to the US authorities, flights heading for the US might be diverted. This has occurred on a few occasions. As a consequence, among the measures taken to increase security, pre-screening has been widely discussed and criticised for "extroverting" (US) borders (cf. Cuttitta 2007; Kaufmann 2006). Extending border control, persons classified as suspect are identified before entering US territory. They are "located" at a distance. Listing, checking and (pre-)screening activities do not necessarily require the introduction of new technologies. Making use of databases, however, has not only led to the extension of territorial boundaries. It has also extended towards a new type of visual data, notably biometrical data. During the last few years, technologies of collecting, storing and comparing biometrical data have been developed, tested and widely deployed.

Access control at arrivals no longer takes place in a single location. Instead it has developed towards a spatially distributed activity that comprises collaboration between several parties. To mention one example, cooperation between border police services with embassies and airlines in the country of origin has been intensified. This cooperation is built upon heavy constraints. Airlines that carry passengers without documents are fined penalty payments reaching 5,000 Euros. In 2004, airlines flying to Paris-CDG airport have been fined on 1,033 occasions (cf. Iserte 2008, §36). In official documents the practice of shifting boundaries is depicted in terms of growing efficiency and accompanied by the following series of figures: Each year, some 12,000 persons arriving at the airport of Paris-CDG have been refused access to the French territory. In 2005, this was about half of the total figure in France. In 2006, more than 14,000 persons were placed in the restricted waiting zone at the airport. During the same year, almost 3,000 persons asked for asylum at Paris-CDG airport. Since then, this figure has decreased. Another figure presented as a key indicator to a successful migration policy regime is average "waiting time" in the restricted area (at Paris-CDG airport) which has gone down from 5 days in 2004 to 1.89 days in 2006.[12] Moreover, the French administration

[12] "Waiting time" does not refer to departures here. The concept has migrated to the "reserved waiting areas" at arrivals.

has celebrated itself for having speeded up the treatment of asylum requests. In 2006, 86 per cent of requests were handled within 4 days (all figures quoted from Iserte 2008).

While these figures are meant to be evidence for good policy, they have raised serious concerns about the ways in which they have been achieved. As stated before, the French administration celebrates itself for reducing "waiting time" of passengers while clarifying their legal status and their admission to French territory. However, the reduction of waiting time is partly related to questionable practices. For instance, arriving passengers suspected not to satisfy admission requirements are not informed about their rights, actively discouraged from officially notifying their status and told to return as quickly as possible to their origin of flight. In turn, public announcements and appraisals on the speeded-up treatment of passengers of uncertain legal status or of "unknown origins" and an increasing rate of refusal may further encourage these practices (cf. ibid., §40). Clearly, though, a control mode largely based on visualisation does not indicate gains in objectivity and transparency.

While a thorough discussion on whether these concerns are justified is beyond the scope of the present paper, its comparative framework allows for highlighting the following difference: At departures, a stationary sequence of trials has been supplemented by further technical equipment. Its clear-cut spatial layout corresponds to a concise definition of institutional responsibilities. At arrivals, things have evolved in the opposite sense. Notwithstanding the speeding-up and reduction of local waiting time, access control has become more diffuse, both in the spatial and in the institutional respect.

Changes at departures are exclusively related to security issues that may affect flight safety. At arrivals, security is inextricably tied to migration policy (cf. Carter 2008). "Establishing alienage" (Wasem 2008, 15) is a prerequisite to deny illegal entrants access to "federal benefits" (ibid. 1). For this purpose, arrivals have been equipped with various technologies of verifying identity and citizenship. Speaking of "federal benefits", what are the costs related to false claims of citizenship, and how do they compare to the costs of fighting false claims by technical and organisational means? Without specifically referring to airports, many observers estimate that the latter approach is simply ineffective (cf. Romero 2007) and contest that new technologies (for instance, more sophisticated identification documents and document control systems) will provide a durable technical fix. This assumption is doubtful at best, provided the scale and the social complexity of the issue of "illegal immigration" and "alien residents".[13] Without going deeper into the details of immigration policy, it is obvious that security concerns, whether founded or not, have been an important political resource for restrictive migration policy doctrines in many countries.

Looking back to the previous sections, there is a displacement of attention shifting from departures to arrivals. This is remarkable for a simple reason: on the morning of 11th September 2001, all terrorists had checked in for domestic flights and never reached the scheduled destination. Responses to the terrorist threat, however, have not been limited to departures. On the contrary, the US and other countries have redefined their territorial bounda-

[13] For a brief illustration, the estimated number of illegal alien residents in the US is 11 million. How many of these persons live in families of mixed status? And how to deal with these families that are partly composed of legal residents, for instance children born on American soil (cf. Wasem 2008)?

ries and modified access control at arrivals.[14]

The objective to "disrupt terrorist travel" has led to refining and intensifying passenger control both at departures and arrivals. In addition to screening up to 150,000 daily passengers, access control also applies to airport staff, a workforce that cannot be divided up between the two populations of departing or arriving passengers. In 2005, Paris-CDG airport received 63,000 requests for badges authorising airport staff to work in sensitive zones.[15] At many places, these employees were chosen to pioneer access control technologies based on biometrical screenings. Biometrical information collected at all access points allows for tracking and tracing movements of staff members in real time throughout the airport. In addition to the shift to a new technology of identification, checkpoints used by airport staff have been equipped with machines designed to prevent tailgating. These devices consist of two doors, the second of which will open once the first door is closed, and the person has been successfully identified. In the meantime, checks of weight are being carried out to make sure that only one person is allowed to enter the sensitive area. With regard to these check-points, biometric control takes place without local human assistance. Yet it can be noted that visual control (matching biometric data) is complemented by a different type of sensory detection (haptic devices for weight control).

Whether assisted by humans or by technical equipment, control of arriving passengers and of airport staff is of a mixed status. While new technologies of control have been implemented that primarily deal with visual data, access control continues to rely on multiple senses. To characterise the composite and compromising nature of access control at arrivals I suggest speaking of "biometric guardianship" (see table 1). As illustrated by the preceding example (prevention of tailgating), controlling access by biometrical means does not equal with miniaturisation but has prompted investment into heavy mechanical artefacts and is therefore bound to a specific location.

5 Departures/Arrivals

As illustrated by the previous sections, research and new applications in sensor technology have changed and reshaped practices of security screening in important ways. Obviously, there is more technology in the pipeline of research and development that is considered for introduction to the airport environment. Although the account presented so far may be short-lived, it allows for evaluating the impact of sensor technology on empirical

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[14] *Cultures & conflits* has closely and critically accompanied this development, including a number of thematic issues on "security and immigration" (issue 31-32, 1998), "critical approaches to security studies" (54, 2004), "identification and surveillance" (64, 2007), "circulation and the archipelagos of exception" (68, 2007), and "confinement of foreigners: between circulation and arrest" (71, 2008), "borders and the logics of crossing everyday transgressions" (72, 2008).

[15] The rate of refusal was between one and two percent. Total staff at Paris-CDG airport was 83,000, employed by some 700 companies (cf. Smolar 2006). Security staff, including customs, gendarmerie, border police and private security firms at both Paris-CDG and Paris-Orly was 10,000 in 2002 (cf. Smolar 2003). In France, discussion on the security of airport staff has been fuelled by a right wing politician's book on "the mosques of Roissy" (Villiers 2006; cf. Boltanski 2006). Shortly after the publication, a number of baggage handlers have been refused access to the airport as they were suspected to belong to islamist organisations. Elsewhere, the discussion was not dominated by the issue of racial profiling. In the US, for example, status and training of airport security workforce have been a major concern. Security staff has been federalised in the aftermath of 9/11. As reported by Parks (2007), however, turnover rates continue to be alarmingly high reflecting difficult working conditions and a failure to continuously build up and train a well skilled security work force.

grounds.[16] Extending and replacing human sensory capacities, the rise of sensor technology has prompted a control revolution hypothesis (cf. Shamir 2005) that is now ready for specification and critical re-examination. To what extent do sensor technologies challenge the spatial organisation of airport terminals? Does the sequence of spaces characteristic of passenger air transport further persist? Does sensor technology make terminal buildings disappear? Are mobilities to be controlled in seamless ways, according to a single abstract logic, irrespective of architectural devices, of spatial division, zoning, and walls (cf. Mitchell 1995)? Defending that the 2001 terrorist attacks triggered a control revolution, it is not enough to suggest airports as its major host. Rather, it has to be shown that departure and arrival levels have been affected in the same ways. Having built up separate inventories on both, the present section will turn to this issue,

Table 1: Differences with regard to departing and arriving passengers persist. Changes in airport security do not add up to an all-encompassing control revolution. Differences between countries have been neglected.

Changes in airport security since 2001	at DEPARTURES	and ARRIVALS	with respect to SENSORY PRACTICES
Equipped with technology	- document authentication - identity check partly based on biometric recognition - detection of trace explosives - technologies of visualisation, including body scan	- document authentication - identity check partly based on biometric recognition - facial recognition based on video footage - control activities	- sensory data isolated, amplified, transformed and stored - primacy of visual data
weakly instrumented	-check for liquid explosives - police and security increased in staff numbers	- extended to the flight's origin (delegated to airlines and embassies) - practices of reducing waiting time ("render inadmissible")	- blend of sensory practices with no hierarchy
Evolution of spatial and institutional setting	Stationary agglomeration and incremental change: new features of control are added to a locally confined process. The last instance of control is manual research.	Increasingly diffuse in both spatial and institutional terms: recombination of remote and local control practices.	Highly instrumented and spatially confined, allowing for replication and refinement (DEP) vs. weakly specified local control activities linking up with storage and use of biometric data (ARR).
Mode of control	Laboratory check	Biometric guardianship	Recent transformations do not converge.

[16] Maybe short-lived and certainly not exhaustive: It has captured major changes regarding access control all along the journey of passengers and their bags, but it did not present a full matrix of objects considered dangerous and related means of sensory detection.

inquiring about the future of the terminal as a building type.

To begin with, terminals are very large buildings. Major airports receive up to 80 million passengers per year. As passenger flow is unevenly distributed, and often split up between several terminal buildings, terminal design is based on the expected number of "busy hour passengers". A UK-based airport designer has presented the following calculation: Adding up 20 square meters for public use, 20 for non-public use; 6 for public commercial use and 1.5 for non-public commercial use, airport terminals should provide 50 square meters per busy hour passenger (cf. Stewart 2004). The built space per passenger ratio varies with different terminal layouts. Horizontal layouts are less space-consuming than vertical layouts. However, in the case of horizontal layouts, passengers will have to walk longer distances. To give an example, Terminal 2E in Paris Charles-de-Gaulle extends over a surface of 220,000 square meters. It was designed to handle 11 million passengers per year and 7,500 departing passengers per busy hour (cf. Salat 1998: 264). As to check-in queue areas, the "congestion standards" released by the International Air Transport Association recommend 1.4 square meter per occupant as the "minimum design objective" (IATA manual, 1992). If it falls beyond 1.0 square meter, this is qualified as an "inadequate level of service; condition of unstable flow; unacceptable delays; inadequate level of comfort." These figures might suffice to remind of the fact that all revisions with regard to access control take place in a built environment of considerable scale and complexity. Under these circumstances, airport terminals appear to be unlikely hosts of a "control revolution".

If we are not to expect the end of the terminal, how then to characterise airport terminals as a building type, and is this building type affected by current changes? What is the role of the revised security regime as compared to other factors?

Much like railway stations, airport terminals are run by more than one organisation. This is hardly worth mentioning unless these organisations have to coordinate their activities – as in moments of emergency. In critical situations, they have to collaborate without already having agreed on a common mode and common rules of coordination. The studies conducted by Isaac Joseph and his collaborators (1995) focus on "situations perturbées". In their understanding, to keep large railway stations "accessible" is to manage all sorts of crises that may result in leaving spaces of flows decoupled from spaces of communication. Focusing on situations of crisis, they find that horizontal modes of coordination between various actors prevail, while hierarchy and anticipation, apparently, are no option in complex spaces such as major railway stations.

To underline this point, and to better understand airport terminals as a building type, they may be compared to the contrasting "model of castles" (Phipps 1990: 1). For obvious reasons, organising access to air travel cannot follow the example of defending a castle. To apply this model would be to create a clearly defined closed or controlled area and to impose severe limits both with regard to the temporal dimension (short period of service; limitation of visiting hours) and the social order of access (staff and visitors limited to personal acquaintances). While this may be a standard for good practice with regard to castles, it is inappropriate in the case of airport security management facing:

"[1. v]ery large workforces with high levels of individual responsibility spread over a complex and widespread organisation. 2. An increasingly intimate involvement of the general public within the work places and operational areas of the industry. 3. An increasing spread of highly valuable tangi-

ble and non tangible assets outside protected areas of operation. 4. An increasing dependence on the continuing function of sophisticated electronic systems, equipment and communications in order to be able to operate." (ibid.)

In short, managing access to castles is a matter of buildings. Faced with multiple uses, access control to airport terminals cannot rely on the (passive) quality of a building. Rather than being achieved by design, "access" needs to be (re)conceived of as a capacity. This is where the introduction to airport security management (cf. Phipps 1990) joins the analysis by Joseph et al. (1995). However, similar to castles, and unlike railway stations that have often fused with surrounding urban spaces, access to airport terminals is limited to a few points.

For its methodological limitations, the present study cannot offer microscopic observations on crisis management and the related forms of coordination.[17] Instead, it has taken an organisational structure as given that is inscribed into the basic layout of terminal buildings: the separation of arriving and departing passengers. Contrasting castles and railway stations, airport terminals have to cope with the dynamic evolution of a global technical network. This is why, from an architect's point of view, terminals are regarded as a building type which is particularly short-lived (cf. Moore et al. 2004: 55). On the other hand, a complex building type (airport terminals) is more unlikely to host an all-encompassing control revolution as compared to a simple building type (castle). Therefore, again, did recent responses to security threats affect the basic layout of terminal architecture?

Airport terminals have been equipped with additional security devices prompting the extension of security areas for both passengers and staff. By consequence, terminal spaces have been reorganised and further extended. In the same way, more space was made available for queuing. New control rooms have been set up and existing control rooms have expanded or merged. Despite not being exhaustive, the list of spatial adaptations mentioned so far does not affect the separation between arrivals and departures. Moving backwards from security to check-in, the introduction of biometric identification has an effect on the spatial organisation of terminals. However, biometric identification has not yet replaced check-in desks. Due to the increasing use of biometric identification, check-in halls may be significantly transformed and, therefore, cease to be the icons of terminal buildings (cf. ibid.). But still, even if check-in halls were to disappear, this would not be the end of terminal buildings and their major principle of spatial organisation. Pointing to the arrival of technologies capable of tracking and tracing passengers, one should not conclude that the guiding vision of creating a continuous flow of passengers has already been accomplished (at the expense of previous ways of ordering).

Next to refurbishments and extension related to security innovations, airport terminals have gone through a number of changes. As a result, the building type has differentiated rather than developed towards the single form of a large and integrated terminal. Both the introduction of new (especially larger) aircraft and the increasing diversity of aircraft have imposed changes on terminal architecture. Speeding up this

[17] See Parks (2007) for a little more detail on how new technologies of security have been appropriated by their users. Waiting for more systematic studies, the following questions should be addressed: Has new technology led to higher levels of complacency? Has developing and implementing new technology been accompanied by sufficient efforts to train operators and users? Has the introduction of new technological systems devalued competences relevant to the achievement of security? Has it affected the users' sense of controlling their immediate environment of work? If so, what are the consequences?

sort of trend, airlines have adopted divergent business models that are unlikely to be realised under the roof of a common terminal (cf. Moore et al. 2004). Nevertheless, the shifting and diversifying commercial logic of airport terminals does not entail the end of this building type. Airport terminals continue to provide a stable context for organising departures and arrivals.

6 Conclusion

The current debate on surveillance society is framed by huge questions. After the age of panoptism, what awaits us next? Are we now entering the age of resilience, distributed power and traceability? Or is it that the apparatus is back in and preparing for a more disguised version of panoptical control? Analysing shifts in control and surveillance is a difficult task, even more so if one seeks to distinguish between action and talk, between real and symbolic policy, or between more or less symbolic actions taken to disrupt terrorist travel. In various domains of security, it is evident that policy change is influenced by a logic of "staging" and of "symbolic matching" (Hitzler/Peters 1998). For the purpose of the current paper, however, I have adopted as a methodological guideline not to distinguish between real changes and symbolic actions. In other words, while I cannot claim to have presented an exhaustive review of the recent refinements of airport security, I have not only stopped at the most *visible* changes. On the other hand, I refrained from denouncing security actions for being *nothing but visible* (in the sense of symbolic action). Against a visual bias, I have presented evidence to support the persistence of multiple senses and of practices of control that combine and switch between different senses. Following ordinary passengers throughout the entire journey, I have noted and located changes at both arrivals and departures. This has enabled me to include a range of technical devices and to depict ways in which they relate to each other, thereby providing descriptive breadth.

Faced with the problematic sequence of terminals (difficult to control) and airplanes (easy to control), access control at departures has erected a number of spatial barriers. First and foremost, sections for arrival and departure are strictly separated. Within the departure section, passengers and luggage are separated and processed on different paths. "Separation" turns out as a keyword to describe security at airports: Separating passengers (to carry out individual control), separating passengers and their hand luggage, separating various pieces of hand luggage. The whole process is designed to transform an obscure crowd that may contain problematic connections into identifiable elements (cf. Haggerty/Ericson 2000, 612).

The history of airport security (at departures) seems to be easy to write. The process of controlling passengers and their bags has been organised in a sequence of operations of separations which have been more and more fine-tuned. Separating persons from their belongings and objects from objects, airport security is about producing more traceable objects that can be compared to a list of dangerous persons and objects. A history of airport security had to concentrate on the classification of dangerous persons and objects in order to account for the constitution of the lists and their updates. Finally, a history of airport security would have to integrate various technological devices that have been implemented to support analytical operations of separation and identification. This is where the historical account is unlikely to pursue a linear path. For certain, airport security is no candidate for automation.[18] This is

[18] With the exception of the sub-process of sorting and screening bags which offers a show-case example of the limits of automation (cf. Potthast 2007).

most obvious as all steps of separation are heavily assisted both at check-in desks and at security checkpoints.

If the analysis was restricted to departures, airport security would feature with a record of political incrementalism. Undeniably, there is some path dependency and a process of learning enacted and structured by interactions between terrorists and national and supranational authorities. Fully subscribing to this perspective, one author is keen to emphasize that the 9/11 attacks were only a minor innovation: "The only new aspects were the use of the seized aircraft as weapons and the prior acceptance by the hijackers that they [...] would die" (Wilkins 2007, 43).[19] As mentioned earlier, policy analyses have come to a similar conclusion (cf. Birkland 2004), resonating with a founding text on "resilience" quoted in the introductory section (cf. Douglas/Wildavsky 1982). Once noted in passing (cf. ibid., 192) proverbial knowledge has gained evidence: airports are constantly under construction. Sharply departing from Wildavsky's (1988), however, the present contribution has not taken a polemical stance against some "false sense of security" (ibid.: 82, 90) but explored the multiplicity of senses and sensory equipments.

On the other hand, it would be inaccurate to subsume observations taken at the arrival section under the same headline of incrementalism. In order to account for these changes, one has to present a different story. Most significantly, various technical elements (including video taping, database technology and a software for pattern recognition) have been combined to establish an operation of surveillance next to the opening door of an arriving aircraft. Looking at this particular site, controlling access from technical networks to political territories has been changed by new technical means.

Even though this example should not be considered in isolation, the following conclusion is to be drawn: As regards arrivals, the availability of biometric data has reshaped access control. Linking up with weakly specified local control practices and recombining remote and local operations, it has resulted in a mode of control that is increasingly diffuse in both spatial and institutional terms. To capture its distinctive features, it may be called "biometric guardianship". On the other hand, access control at departures is highly instrumented and spatially confined, allowing for replication and refinement of trials. In this sense, access control at departure gates resembles a "laboratory check". Contrasting the case of arrivals, it follows a pattern of stationary agglomeration and incremental change: new features of control are added to a locally confined process. Provided that the distinction between both modes of control persists, airports are unlikely to host an all-encompassing control revolution.

Airport terminals continue to be a distinct type of building at the encounter of two different spatial logics. On the one hand, they are tied up with

[19] Sketching a short history of terrorism, Wilkins (2007) puts centre stage its "interaction" with airport design and operation, and the resulting effects of learning. Prior to the 9/11 attacks, he accounts for two moments of close interaction, followed respectively by stages of security refinements. A first wave of actions to secure air transport has been triggered by a number of hijackings in the 1970s and early 80s. These actions were based on the assessment that terrorists were ready to die for a political goal. As a response to this threat, special forces were set up and trained to invade planes once landed. Learning from this response, terrorists did not change their target (namely planes) but their strategy. The second wave is marked by the use of explosives and includes the Lockerbie crash in 1986. As a response to this renewed strategy of terrorism, airports changed their process of handling hold baggage. Most significantly, separation and reconciliation of bags and passengers was made mandatory. This response to the second wave of terrorist attacks has once more been followed by a renewal of terrorist strategy, displayed on 9/11.

bounded territories and closed worlds, on the other hand, they are connected to a global network of transport. Both types of spatial orderings appear to be irreducible, leaving articulation work carried out between territories and networks as a promising subject of study. To invest in this line of research is to prepare for a complement to a more conventional type of analysis as practiced by political sociology. Without this complement, the present inquiry would have been guided by a different set of questions: Who were the relevant actors in the field of airport security? How did they manage to impose their actions? How did these actions feed back on the relative power of actors? This analysis would have concluded that the US Homeland Security Department has been a winner while the Department of Transport and international authorities have lost influence (cf. Mariani 2005, 32). Comparative analyses, possibly based on ethnographic fieldwork, offer a potential for reformulating these constellations, making use of categories rarely used but highly familiar to all parties involved.

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