

Islands of Togetherness: Rewriting Context Analysis

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Abstract

A continuing debate within Human-Computer Interaction (HCI) research is how to elucidate, improve, and optimize the relationship between social context and technology use. Social context is conventionally understood as immediate use context while an understanding informed by social science suggests a wider scope, involving actors and structures.

The focus of this thesis is the use of a communication environment using audio and video, established to span and connect three geographically distant call-centre workplaces in the Stockholm archipelago, Sweden. The research was carried out as intermittent fieldwork, spanning unevenly over a period of three years. The fieldwork was carried out at two sites: the premises of the Swedish Police Contact Centre in the archipelago and within the research project *Community at a Distance*. Methods included participant observation, interviews, and the analysis of documents, everyday talk, and images.

This thesis offers a broad analysis of the socio-cultural context of technology use investigating the question how a sense of togetherness is promoted and negotiated at the Swedish Police Contact Centre and around and across the communication environment. The technology served as a means of overcoming the distance between the sites and making everyday encounters between the dispersed staff members possible. The sense of togetherness—fellowship and belonging, caring for each other, fostering a sense of solidarity, and achieving consensus in everyday practices—had an impact on the uses (and non-uses) of the technology. The use of the communication environment reflects the values and arrangements of the workplace and reproduces its conventions. The discussion is explorative, outlining an analytical approach to the socio-cultural context of technology use informed by interpretive social science, and provides a partial analysis of the organizational culture of the Contact Centre and its technology use. The argument is that analysis should aim at exploring the relationship between individual actors and social structures. Rewriting context allows us to understand the socio-cultural embeddedness

of technology. While the analytic framework is not comprehensive for the purpose of detailed design implications in HCI research, it does provide a reconsidered terminology that links individual practices to socio-cultural context.

KEYWORDS: Call-centre organization, ethnography, Human-Computer Interaction, togetherness, socio-cultural context

Äidille ja isälle: rakkaudella, kiitoksella, kunnioituksella

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Luckily, “No man is an island” (John Donne, *Meditation XVII*)!

// *Minna Räsänen*

Stockholm in December 2006

Islands of Togetherness: Rewriting Context Analysis

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Illustrations by Maria Malmqvist, School of Computer Science and Communication, the Royal Institute of Technology

Abbreviations

HCI	Human-Computer Interaction
CSCW	Computer-Supported Cooperative Work
KTH	Kungliga Tekniska Högskolan, The Royal Institute of Technology
CID	The Centre for User-Oriented IT Design
AMT	The Advanced Media Technology Laboratory
ICT	Information and Computer Technology
K	Communication environment with audio and video established at the Community at a Distance project

References in the text to information origination (use is explained in Chapter 3).

fn	field note
ws	workshop activity in the Community at a Distance project
doc	document available at the Swedish Police Contact Centre

Introduction

It is cool to enter into the 08 area. It is its own little world, a cool contrast to what is left outside. (Erika, an employee at the Swedish Police Contact Centre, September 2002)

The Swedish Police Contact Centre (*Polisens kontaktcenter*) is a dispersed workplace located on three islands in the Stockholm archipelago with its headquarters on the mainland. Erika and others who work there handle crime reports from the public over the telephone. Indeed, once the door is closed to the Contact Centre, you are in a modern office with security doors and windows. Outside are the sounds of the wind and nature, the horses in the paddock across the road, and a transportation moped and bicycles in front of the building. Just inside of the main door, there are pairs of rubber boots, a sign of muddy roads after a rain. By the door, you can recognize various sounds, the hum of conversation coming from the open-plan office.

That chilly September day in 2002, Erika and five of her fellow staff members were participating in a workshop with my research fellow, Charlie Gullström and me. The workshop was an activity within the research project Community at a Distance. Charlie and I wanted to learn more about the Swedish Police Contact Centre in order to contribute to the design of a communication environment with audio and video. We were gathered on a sofa and chairs around a little coffee table at the premises of the Contact Centre. Apart from the coffee cups and a plate of chocolate, there were drawings on the table. I took notes while Charlie made sketches in order to direct and record the discussion and visualize the narrative that the employees were telling us. One of the drawings on the table outlined the premises of the Swedish Police Contact Centre, one illustrated the island we were on, and the third drawing attempted to show the Stockholm archipelago. We were exploring various concepts, such as communication, contact, and belonging (*samhörighet*), what these concepts were associated with, and how they become alive during the everyday activities at the Swedish Police Contact Centre.

Erika's two sentences described the Swedish Police Contact Centre as a special workplace, set apart from other workplaces in the Stockholm archipelago. The number 08 is the Stockholm area telephone code. It is often used to make a distinction between those who live in the city of Stockholm and others living on the outskirts or outside of Stockholm. For some people the area code 08 has a negative connotation. However, for Erika, it was "cool" to enter into the 08 context. She defined the workplace as "its own little world," different from the archipelago where the office was located. The 08 area highlights difference, but it also stresses connections. The Stockholm archipelago, a rural area regardless of its proximity to the capital of Sweden, is connected to the city through this workplace as well as by political decisions and transportation systems. Information and communication technology (ICT) make contact and interaction possible for Erika and others to work at a distance from the city, in the archipelago where they live. In addition, because of the organizational inclusion within the Stockholm County Police, and through the work tasks with the crime reports, the outside world, the criminality of the 08 area is brought to this workplace in the archipelago.

Erika and the others made me aware of and curious about the "little world" she and her fellow staff members inhabit. What interests me is what belongs to this "little world" and what is "left outside." Furthermore, I became interested in the practices and structures that link the "little world" with the "outside." I also became interested in how the Swedish Police Contact Centre personnel make sense of the rubber boots by the door in the light of their existing practices as a dispersed workplace. In short, I became interested in the context of this workplace, within which the research team was going to introduce a communication environment with audio and video, because context informs the use of the technology and gives it strength and meaning.

This introduction proceeds with a discussion of the view of the social context within Human-Computer Interaction (HCI) and short descriptions of the Swedish Police Contact Centre and the research project Community at a Distance, the empirical setting of the thesis. These sections build up the starting points and the basic conditions for the research I am presenting in the thesis and describes its aims and limitations, which are presented later in this chapter. The chapter concludes with an outline of the thesis.

Research on Social Context in HCI

The interest in the social context of HCI and related research areas such as Computer Supported Cooperative Work (CSCW) is not new. These fields have been discussed and debated for long time. There are several reasons for this. For example, it became obvious that one reason why ICT systems fail is the insufficient attention paid to the social context

where the technology is used, for example, at work (Hughes, King, Rodden and Andersen 1994). Human activities involve practices and relations that become meaningful and can be understood in a particular setting and context, in a situation, and these need to be studied and understood (e.g. Ball and Ormerod 2000; Blomberg Burrell and Guest 2003; Blomberg, Giacomi, Mosher and Swenton-Wall 1993; Dourish 2001a; Nardi 1996; Nyce and Löwgren 1995; Suchman 1987/1990). New technical opportunities with falling costs, sizes, and power requirements have opened possibilities for ICT packaged in a variety of devices. The technology is used for working from home, but also for leisure and other purposes (Bødker 2006). These changes also emphasize the need and importance to understand and pay attention to the notion of context.

Within the multidisciplinary research areas of HCI and CSCW, the different disciplines tend to bring in their various understandings of what context means. The way in which the term is defined reflects differences in intellectual and research paradigms as well as the different disciplinary backgrounds such as computer science, psychology, communication studies, anthropology, and others that we find in HCI. Some of the starting points for approaching the notion of context include also different research areas, focus, and positions such as learning (e.g. Chaiklin and Lave 1993) and context-aware computing (e.g. Chalmers 2004; Dey, Abowd and Salber 2001; Dourish 2001a, 2001b, 2004). The development of several methods and techniques, such as contextual design (Wixon and Holtzblatt 1990), and the use of weak and strong ethnographical methods reflect the need for understanding the context in which users act (e.g. Blomberg et al. 2003; Nyce and Bader 2002; Preece, Rogers and Sharp 2002; Spinuzzi 2000).

It is difficult to precisely define the notion of context. It is an ambiguous concept “that keeps to the periphery, and slips away when one attempts to define it” (Dourish 2004: 29). However, there have been attempts to clarify the term in order to handle the various needs in the HCI research and practice. User’s location, environment, identity, and time specifications when the application is used are aspects found in the early definitions of context (Dey et al. 2001; for one of the earliest attempts to define context within HCI see e.g. Schilit and Theimer 1994). Definitions of context can also be found in guidelines and standards. Standardization ISO 13407, for example, defines the “context of use” as “users, tasks, equipment (hardware, software and materials), and the physical and social environments in which a product is used” (ISO 9241-11:1998, definition 3.5). The context of use, it is suggested, should guide early design decisions as well as provide basis for evaluation. The term, context of use, is itself one type of definition that draws attention to a specific situation and circumstances where technology is or will be used. Similar attempts to specify context as a term are, for example, usage context, user context, product context, and market context (Moran 1994).

The notion of context in HCI (particularly in context-aware computing) has dual origins (Dourish 2001a, 2004). It is, first, a technical notion that offers “system developers new ways to conceptualize human action and the relationship between that action and computational systems to support it” (Dourish 2004: 20). Second, many contemporary HCI and CSCW approaches also rest implicitly or explicitly on divergent social science traditions with analytic focus on aspects of social settings. The term context is used in the terms of social context, where the work task is performed or the technology used (e.g. Ball and Ormerod 2000; Blomberg et al. 2003; Blomberg et al. 1993; Hughes et al. 1994). The socially oriented perspective focuses on groups of people and their interaction and/or cooperation with each other. Various workplace studies combine an interest in technology use and work practices in various fields and work settings covering cooperative work, organizational roles as well as the uses and consequences of information and communication technology in the organizations. These include, for example, an ethnographic study of air traffic controllers and how the study was used to inform the technology design (Bentley, Hughes, Randall, Rodden, Sawyer, Shapiro and Sommerville 1992). Workplace studies vary both in the length of time spent in the field as well as the character of the workplace. See, for example, studies in the London Underground, such as collaborative work in the Control Rooms (Heath and Luff 1992) and the operation of a train (Heath, Hindmarsh and Luff 1999), a study of CSCW in a small office (Rouncefield, Viller, Hughes and Rodden 1995), and a study of the fashion industry (Pycock and Bowers 1996). These studies draw attention to the social context of technology use, which is also a focus of the present thesis.

In my opinion, one of the most influential social analyses of social context in HCI research is Suchman’s analysis of social action based on ethnomethodology (1987), an analytic approach to social analysis developed by Garfinkel (1967/2002). This study focuses on the practical, everyday, ordinary achievements and actions of members of a particular society. Suchman showed that people’s interaction with technology (in her study, a photocopier) did not follow a formal model, but rather exhibited a moment-by-moment, improvised character. She suggests that “however planned, purposeful actions are inevitably *situated actions*”; they are “[...] taken in the context of particular, concrete circumstances” (Suchman 1987: viii, emphasis in origin). Suchman’s work was a welcome critique and corrective of planned accounts of human social action at the time. Even today, the concern for and importance of understanding the social context in system design is often motivated by research on “situated actions.” Suchman’s work pointed out and made visible the need to study the social context where the technology is used. Various studies of technology use follow up on this tradition. However, we should keep in mind that Suchman’s detailed and careful analytic project was concentrated on the immediate context of technology use, the situated, moment-by-moment actions between the actors, but also

between the actors and the technology as well as between the actors and environments of their action. This, I believe has had consequences for how social context is understood, what is included, and what is left out of such a study in HCI.

While holding out the promise of methodological and analytical strength, the analysis of situated action, as a general practice, defined what constitutes acceptable research and analysis of the context of technology use. These studies, I believe, represent a kind of win-win situation for HCI research. They point out the importance of situation, agency, and the actor and bring them into the analysis of the social context of technology use. They also have helped legitimize methodology at large and as a practice in HCI. One reason for the use of the situated action models might be, I suggest, the need to investigate the detailed accounts of everyday practices for design and development purposes, where focus is, for example, on behaviour, benefits, and evaluation of the artefact and its use. This type of inquiry is often carried out within strict time limits. The situated action models do not deny the importance of social relations, knowledge, or values of the community or individual. However, analysis within HCI often focuses on the ongoing activity, the moment-by-moment action of each lay actor, and either neglects or underestimates the influence of others who are not present (Chalmers 2004; Nardi 1996). The focus of the analysis is on the particularities of the immediate situation, thus missing the bigger picture of what is going on. It is also argued that these types of studies as they have been carried out in HCI deemphasize the study of more stable phenomena (Nardi 1996). They tend to be “[...] concerned with the production of society, [...] but much less with its reproduction as a series of structures” (Chalmers 2004: 230). In conclusion, the study of moment-by-moment actions of the use of technology gives us only a partial understanding of the social context. It is not my intention to be critical here, but rather to point out the tradition within which we think about the social context within HCI. Analysis of the immediate use context and moment-by-moment actions can be useful for certain purposes. They are not, however, useful in isolation.

A continuing debate and goal within HCI is, it seems to me, how to broaden our analysis and approaches to the social context so that they aim for a bigger picture, a broader and/or deeper account of technology use. Chaiklin and Lave (1993) and Dourish (2004), for example, have acknowledged the role that cultural and historical elements play in everyday practice. Dourish (2004) reminds us that there is a link between action and meaning, that these together inform what we mean by context, and that structure, history, and culture, not just individual action, constitute, inform, and influence what context means for those who both participate in and study it. The basis for understanding context lies in lived experience. Context is something that people do, as an outcome of “embodied practice” or “embodied interaction” (Dourish 2001a; 2004). Nyce and Löwgren (1995)

discuss how fundamental categories (such as practice and change) often are taken for granted, leaving out significant cultural as well as historical features. The authors examine the concept of participatory design tradition and point out that it rests on and reflects a Nordic tradition of cooperation and collaboration at the workplace (about the Nordic tradition see e.g. Bødker, Ehn, Sjögren and Sundblad 2000). Chalmers (2004) also refers to the historical elements of context.

Often the starting point and interest for the social context of technology use in HCI and CSCW is the particular work tasks. Consequently, focus on other aspects of the working life may also be seen as a way of extending the approach to the social context. That includes the daily routine of users' workday, its practical management of organizational contingencies, "the taken-for-granted, shared culture of the working environment, the hurly-burly of social relations in the work place, and the locally specific skills (e.g., the 'know-how' and 'know-what'), required to perform any role or task" (Anderson 1994: 154). Orlikowski and Hofman (1997), for example, explain how an existing organizational, team-oriented, cooperative culture allowed the staff to take advantage of the novel groupware technology for knowledge sharing (Lotus Notes). The benefits of the same technology were predicted to be much slower in another organization that rewarded individual performance. There, knowledge sharing via technology was seen as a threat to status and individual competence. This and other similar studies point towards the importance of paying attention to the organizational culture of a workplace. The organizations' structure and culture influence how, for example, groupware technology is implemented and used (see also Orlikowski 1992).

Moran and Anderson (1990) developed interest in working life beyond task performance by proposing a "Workaday World" paradigm for CSCW design. This paradigm is based on the idea of a life-world, which includes people's everyday activities, their relationships, knowledge, as well as various resources. The Workaday World paradigm includes technology, sociality, and work practice, suggesting that these aspects are not to be separated, but constitute a dialectic, acting and involved together in the shaping of a working day. It suggests "the richness of the settings in which technologies live—the complex, unpredictable, multiform relationships that hold among the various aspects of working life" (op. cit. 384). The Workaday World suggests that technology is not central within the working day, but rather put in "proper perspective" (op. cit. 384). Moving about and, for example, working from home as well as the technology use for other reasons apart from work (Bødker 2006) points towards a need to reconsider our theory and methodology for analyzing the social context of technology use.¹

The present thesis should be considered as a contribution to the studies of technology use at workplaces. The thesis draws from those previous studies that emphasize

a broad social context of technology use. The thesis offers an analysis of the socio-cultural practices that are produced and maintained at a particular time and circumstances in their historical and temporal context. The social context, I will argue, is not only about the users' interaction with the technology in situ, but also what this interaction is "based" on and made possible by: the beliefs, conventions, structures, and norms that constitute it and vice versa. The impact of all technology is embedded in a specific cultural context, with economic, moral, and political factors (Lundin and Åkesson 1999). These factors cannot be separated from the development and use of technology in certain times and societies. The main purpose of this thesis is to offer an analysis of and "bring alive" the social context within which technology is used. With this thesis, I wish to contribute to the understanding of a working day and a workplace as a cultural and social phenomenon, as well as to the ongoing discussion of the notion of social context within HCI research. Comparing perspectives, contextualizing analysis, understanding of various processes, phenomena, and relationships in their temporal, social, and historical context are parallel guiding concepts within anthropological analysis. Thus, anthropological inquiry, socio-cultural, and socio-structural analysis that seeks to understand and explain the different social worlds people act and live in could provide access to those dimensions of technology use and culture. This is discussed further later in this chapter but also in Chapter 2.

Towards the Islands of Togetherness

The present thesis is intended to develop the field of research in the socio-cultural context of technology use in workplace organizations, particularly to approaches on the use of mediated communication. Even if the thesis takes a somewhat different starting point, it also is partly about organizational culture at the Swedish Police Contact Centre.

The Swedish Police Contact Centre

Studies of organizational culture within the police authority in Sweden focus on, for example, the everyday practice of police work in community policing (Ekman 1999), the occupational culture of patrolling police (Granér 2004), ethics in police work (Granér and Knutsson 2000), planned change such as the community police reform (Stenmark 2005) as well as police officer occupations (Holgersson 2005). Swedish police culture has developed over a long period of time and is described as "strong" due, for example, to the homogenous training of police officers, a strong police union, and employment security. Stenmark (2005) focuses on the organizational culture of the Swedish police in its entirety including the administrative staff,² i.e. those who do not have an education or employment as police officers. Nonetheless, relatively little attention has yet been paid

to the administrative staff within the police authority (Stenmark 2005). The number of employees working as administrative staff within the twenty-one police authorities in Sweden was 6.130, i.e. 26 percent of the total of 23.423 employees (*Police authority 2006-06-30*).³ They are in charge of, for example, corporate issues, staff development, and office services, for example, legal and financial matters. The studies mentioned are not in the field of HCI or related research communities. However, Holgersson (2005), for example, pays attention to similar interests in technology at work resembling that you find in HCI. He explores aspects that influence the work performance of police officers, such as motivation and professional knowledge, but also the use of ICT in the work of police officers and how ICT affects that work.

This thesis calls attention to the national Swedish Police Contact Centre, and the everyday working life of administrative staff there. The Swedish Police Contact Centre is part of the police authority. Through various work tasks and responsibilities, the administrative staff work closely together with police officers. For example, they use the same electronic mail application and computer applications in order to carry out work tasks on crime reports as well as to plan and administrate duty schedules. However, the Swedish Police Contact Centre organization is also, in many ways, inspired by call-centre organizations in general, which means that it includes work elements that have little in common with normal police work. Therefore, rather than comparing work at the Swedish Police Contact Centre with the police work or the organization of the police authority, the thesis focuses on the Swedish Police Contact Centre itself, its own organization and personnel within the police authority.

The Swedish Police Contact Centre in Stockholm is an organization, which started in 1999. It is located on three islands in the archipelago of Stockholm: Arholma, Sandö, and Ornö.⁴ The distance between Arholma in the north and Ornö in the south is about 170 kilometres. The management operate at the headquarters on the mainland, in Norrtälje. The Swedish Police Contact Centre is a workplace where the nearly fifty staff members belong to one organization sharing the same primary work task—to handle crime reports over telephone from the public concerning committed crimes (except ongoing crimes). The personnel at the Swedish Police Contact Centre are responsible for receiving and entering the reports in a computerized crime register, while the police officers decide about further investigation. The Swedish Police Contact Centre is referred to as the Contact Centre in this thesis. The term indicates the organization in Stockholm, the headquarters, but particularly the three sites, even if a few of the employees operate from other locations apart from the three sites. The organization, its location in the archipelago, and the work tasks is discussed in more detail later in the thesis.

The Project Community at a Distance and Media Space

This thesis also aims to contribute to the research on mediated communication. A basic condition and frame for my work is the research project Community at a Distance. In this project, a communication environment with audio and video was established to span and connect three geographically distant workplaces at the Contact Centre in Stockholm. The project activities provided not only empirical material for the research, but also functioned as an instrument providing access to the workplace, the Contact Centre.

The first steps towards the research project Community at a Distance were taken after the management of the Contact Centre expressed concern about the limited meeting possibilities for the personnel at the three Contact Centre locations in the archipelago. Communication between the employees was needed in order to facilitate co-planning and co-organization of the work and competences as well as building up and strengthen the sense of community and belonging to what was, at the time, a rather new work organization. However, the face-to-face meetings were cumbersome and took time because of the long distances between the sites and the inconvenience of transportation. The geographical distance and location in the Stockholm archipelago suggested the exploration of novel communication possibilities. The manager of the Contact Centre within the Stockholm County Police contacted a research group at the Centre for User Oriented IT Design (CID) at the Royal Institute of Technology (KTH) in August 2001. The Stockholm County police had learned about research in mediated communication with audio and video at the KTH. An independent consultant arranged the contact. He had previously supported the establishment of the Contact Centre and worked on a survey about organizational matters in call centres in Sweden. The Contact Centre was one of the organizations participating in the study. Initial negotiations between the three parties lead to a pre-study that was conducted in November-December 2001 with focus on whether and how to establish channels for informal communication between the three locations (Erixon, Gullström-Hughes, Lenman, Räsänen, Thuresson, Westerlund and Wiberg 2001; Lenman, Räsänen and Thuresson 2002). The information gained in the pre-study showed that the basic conditions for a research project were in place: for example, the employees identified possible use situations for the video-mediated communication technology; they were willing to participate in the project; and technical conditions met the needs.

The research project Community at a Distance started in September 2002. The overall research aim of the project was to study whether it is “possible to create connections to distant places so they are experienced as immediate and natural extensions of the local environment, as communicative surfaces between co-workers at distant places” (Lenman et al. 2002: 323). The question is in line with work within the research traditions of media spaces. These involve the use of audio, video, and computer-networking technology to

provide connections that enable a range of mediated communication services for people in their work and/or to enable them to be together at a distance (Bly, Harrison and Irving 1993; Mackay 1999). The research on media spaces varies considerably in scope and perspective, the technology used, and its placement in the setting, time period for the use as well as analytical perspectives.

A prototype "Picture Phone" demonstrated by AT&T at the early 1960s may be seen as a forerunner to the development of media spaces (Mackay 1999). Picture Phone allowed callers to view each other on small video monitors in telephone booths. Probably the first media space was developed in 1988 at Xerox PARC, linking a laboratory in Palo Alto, California with a laboratory in Portland, Oregon (Bellotti and Dourish 1997; Mackay 1999). There are various examples of media spaces, such as the RAVE system that spans across several rooms and provided all rooms with an audio and video "node" (e.g. Bellotti and Dourish 1997; Gaver, Moran, MacLean, Lövstrand, Dourish, Carter and Buxton 1992; Mackay 1999); and the Cruiser that was designed to engage spontaneous, informal communication (Mackay 1999); and the CAVECAT that enabled individuals and groups to engage in collaborative work at a distance (Mantei, Baecker, Sellen, Buxton, Milligan and Wellman 1991).

Media space refers to a continually open audio- and video connection and a special way of embedding technology in the social environment (Lenman et al 2002). As mediated communication with audio and video, both video conferencing and media space may have same underlying technology, but they have different purposes. While video conferencing tends to be used for short-term, focused activities, media space tends to be used for long-term, less focused activities in order to provide and support casual, informal interaction between work groups and allow peripheral background awareness to remote sites and the situation of others (e.g. Dourish and Bly 1992; Gaver et al 1992) as well as to establish and maintain long-term working relationships and collaboration between geographically scattered groups of people (e.g. Gaver 1992; Mantei et a. 1991). Media spaces have been placed in private offices and common areas as well as in various combinations between them.

Awareness, in this context, involves knowing who is around and what activities are going on in an everyday working environment. Awareness may lead to spontaneous, somewhat informal interactions between the participants as well as establish and maintain working relationships (Dourish and Bly 1992). These are important aspects in developing shared cultures across distributed sites. While glances across a media space offer us the opportunity to maintain awareness of colleagues and others, they are also connected to a complex issue of privacy (Gaver et al. 1992). Users need to know who can hear and see them and when. The intention behind the connection must be clear, and it should not be an

intrusion on the ongoing (work) activities. Dourish, Adler, Bellotti and Henderson (1996) suggest that video-mediated communication should be seen as part of the “real world” around which people organize everyday activities. In addition, “[...] media spaces should be seen as augmenting, not replacing, other form of encounters” (Dourish et al. 1996: 37).

The duration for the use of the media spaces varies from a few weeks to several years (e.g. Dourish et al. 1996; Mackay 1999; Sellen 1997). Analytical perspectives on the use of media spaces also apply a range of methodologies, from ethnomethodology and conversation analysis (e.g. Heath and Luff 1991), to explore the role of visible conduct such as gaze, gestures, and facial expressions in communicating non-verbal information (e.g. Whittaker and O’Conaill 1997), to shared experiences between the researchers who themselves were users of the system (e.g. Dourish et al. 1996; Mantei et a. 1991).

The project Community at a Distance used ideas and experiences especially from the “Videocafé,” a research project at CID, KTH during 1995-1999 (Tollmar, Chincholle, Klasson and Stephanson 2001). The basic technical principles that were used in the Community at a Distance project built on the idea of eye-to-eye contact as shown in Figure 1 (described in Erixon et al 2001; Gullström-Hughes, Erixon, Lenman, Räsänen, Thuresson, Westerlund and Wiberg 2003; Lenman et al 2002; Räsänen, Thuresson and Wiberg 2005). The Advanced Media Technology Laboratory (AMT) at KTH developed the technology.⁵ It is based on Teleprompter technology (patented in 1946) used, for example, in news broadcasting on television.⁶ The image technology is based on a broadcast quality audio and video connection over the fibre net using DTM technology. In the Community at a Distance project, each communication channel used 270Mbit for the uncompressed video signal. There was a very small, basically not noticeable delay of 2-3ms in the network.

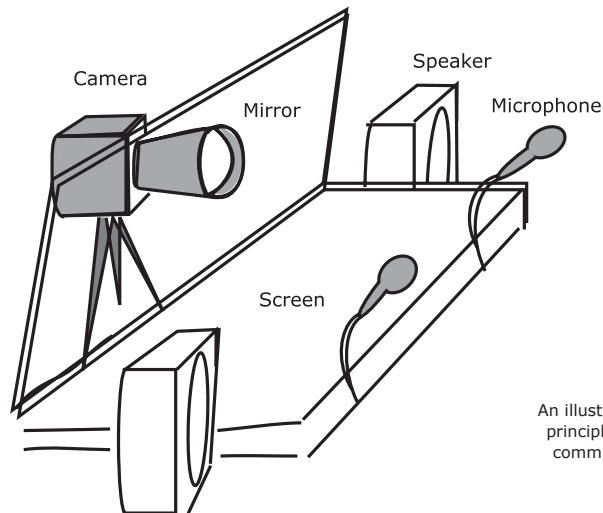


Figure 1
An illustration of the basic technical principles used for video-mediated communication in the Community at a Distance project.

As analogue cameras and displays were used, no other delays were introduced. In order to achieve the sense of eye contact, a mirror technology called i2i (eye-to-eye) was used as shown in Figure 1. A camera is hidden behind a semi transparent mirror. At the same time, you see the received video in the mirror. The mirrored picture offers the participants orientation that tells them what is to the left and what is to the right.⁷

In the Community at a Distance project, the research group acknowledged an opportunity to carry forward the research in a new domain, applications, and use areas. An objective of the project was to connect the three distant places in the archipelago and make simultaneous communication and interaction possible for the three parties using the communication environment. It was a challenge to bring this technology to a workplace setting outside of the research laboratory. The objectives for the police authority included possibilities to test the technology within the organization primarily at the Contact Centre, but also to explore other possible use situations within the police authority at large. Another objective in the project was to look into the possibility of establishing a permanent communication environment in the Contact Centre, if the employees wished and the resources made it possible. If not otherwise indicated in the thesis, I use the term *communication environment* only in reference to this particular audio and video technology established in the research project Community at a Distance.

The project was coordinated by CID at KTH, and carried out together with AMT at KTH, Arbetstagarconsult AB, and the police authority in Stockholm County.⁸ The project was divided into three phases. The initial phase starting in September 2002 aimed to understand the needs of the personnel and their work circumstances. This phase resulted in suggestions for functionality, appearance, and placement in the workplace. During the second project phase, the communication environment was introduced and implemented at the Contact Centre premises at the three locations, on Arholma, Sandhamn and Norrtälje. The initial aim in the project was to connect the three sites in the archipelago. However, the project team did not manage to provide broadband infrastructure to one of the sites, in consequence of which the site on Ornö was not connected to the communication environment. Instead, the communication environment was introduced at headquarters in Norrtälje, on the mainland. In the third phase, some changes were made, and the use of the communication environment was studied. The project was finished in October 2004 and the communication environments were removed from the sites. Later in the thesis, I describe the Contact Centre employees' early expectations about video-mediated communication (Chapter 6) as well as the form the communication environment took at the sites and its use (Chapter 7).⁹

The Contact Centre was the arena for the communication environment. As a PhD candidate at KTH, my starting point in the project was to explore this arena, which is

a physically, economically, politically, socially, and culturally organized entity. Everyday (work) activities take place within this entity, which is further qualified by time and space.

The Aims of the Thesis

The question stated in the Community at a Distance project about possibilities to create connections to distant places, mentioned above, is not the question I am trying to answer in the thesis. That question suggests that there are more “fundamental,” logically prior questions to be asked.

In this thesis, I approach foundational anthropological and social science issues, how the social order or social world is produced and maintained at a particular time and in particular circumstances. The examination of these issues and practices is a process that involves reconstruction of the socio-cultural context, which brings it into focus. Thus, the overall aim of this thesis is to offer an analysis of the socio-cultural context of technology use. Social context is, as we have seen, also a central concept in HCI, where it is important to elucidate the relationship between social context and technology use.

The sense of unity, togetherness, and belonging is one of the issues that is connected to the production and reproduction of the social world we are engaged in. There is something commonsensical and non-controversial about a sense of togetherness. It is a descriptive concept, telling us about our society. It is, to some extent, normative, since there are situations where we create and uphold a sense of togetherness. For instance, the staff at the Contact Centre expressed a desire to strengthen the affinity and togetherness within the dispersed workplace community. Audio- and video-mediated communication technology was suggested as a way to support this activity. The sense of togetherness is, in my opinion, constitutive for the socio-cultural context. The feeling, experience, sense of belonging and togetherness within a group, organization, or a society, as well as its practiced and lived “reality,” produce and reproduce a socio-cultural context within a socio-cultural context. That is, the socio-cultural context is not just “out there,” and practices for the sense of togetherness do not just take place within it. Rather, the practices constitute the socio-cultural context. The creation and maintenance of the sense of togetherness may be seen as such a practice. One could ask what differentiates the sense of togetherness from the socio-cultural context. However, I do not attempt to answer this question in the thesis.

We can perhaps agree that the sense of togetherness “exists” as a social fact and as a lay definition. How does the sense of togetherness function in our society? In order to make it work, I believe, people must create it, somewhere and for some purpose. In order to keep it working, it must be nourished across time and space. The first question

put forward in this thesis is of anthropological concern: *How is the sense of togetherness established, maintained, manifested, and made accessible?* This is a general question I brought with me to the field. The question is asked on a conceptual level in Chapter 2. It is also addressed on an organizational level and applied to the region of the Stockholm archipelago in Chapter 4. The analysis aims to elucidate the socio-cultural context of, to put in Erika's words, the "08 area" and "what is left outside," the organizational, political, and economic circumstances in which people alternatively emphasize or deemphasize the sense of togetherness.

The second question addresses the empirical setting in this thesis, the Contact Centre, a distributed workplace in the Stockholm archipelago: *How is the sense of togetherness promoted and managed between the Contact Centre employees (within a site and across geographical boundaries) in various situations during their working day?* This enquiry aims to elucidate how the sense of togetherness functions in the Contact Centre, "its own, little world" as Erika put it. Particular attention is paid to the ways in which meanings are made public and accessible between the Contact Centre employees across geographical boundaries and further, how they are lived, i.e. interpreted, experienced and acted on the basis for the form they take at the workplace (Chapter 5).

The empirical setting in this thesis concerns above all the use of the communication environment established in the project Community at a Distance at the Contact Centre. It is a concrete situation where a certain technology was introduced to a workplace within which the sense of togetherness was important. The situation leads us back to the HCI, where we ask questions about how technology works in a certain social context, how it could improve the situation for those who are involved, what the implications are for design in order to make the technology work better, to name a few areas of interest within HCI.

The third question put forward in this thesis concerns the use of the communication environment at the Contact Centre, and reflects the type of questions we characteristically find in HCI concerning "evaluative" aspects: *How is the sense of togetherness supported and affected by the communication environment?* Video-mediated communication was a novel technology that was introduced into an environment with various other existing semiotic objects and artefacts such as rubber boots and duty schedules that communicate meaning as well as communication devices such as telephones and electronic mail applications. It becomes important to illuminate the "new" situation, within which the sense of togetherness is established and maintained (Chapters 6 and 7). I wish to investigate what the socio-cultural context of a workplace does to technology and how the context informs and helps determine this technology and its use.

The sense of togetherness is the perspective from which I approach the use of the technologies in the thesis and, finally, address the socio-cultural context within HCI

research. As stated above, I am not going to define or settle the issue of differentiation and relation between the sense of togetherness and the socio-cultural context. In my opinion, it is important to discuss how this knowledge informs and contributes to our understanding of socio-cultural context within HCI research.

Rather than to propose step-by-step guidelines or a new model for the social context in this thesis, I suggest an analytical position that is in line with descriptive and interpretive social science traditions such as anthropology. By analytic position, I mean an approach that investigates taken-for-granted categories by exploring how the concepts are built and what the concepts “stand on.” The analytical work presented in this thesis follows descriptive social science traditions that emphasize “thick” description as part of the analytical and interpretive work as well as a way of presenting the results. Rather than solely providing representational descriptions of how things “are” in a certain context, this thesis is about how these contexts are made and thought about. The socio-cultural context is also produced through the narrative of this thesis. An important part of this work is to illuminate, I believe, the researcher’s situatedness in the field (Chapter 3). I suggest that the analytical frame will enable the HCI community to “make sense” of the use situations in a broader sense. It is this connection between social science and socio-cultural context that I want to stress and expand in this thesis. Bringing HCI back to analytic understandings of context might facilitate HCI practitioners in both deepening and expanding our own research agendas. This, I believe, could be one important contribution anthropology can bring to the field of HCI research.

This thesis has been inspired by anthropological theories on social and cultural context (Chapter 2). The thesis reflects the anthropological concern with people and technology as a social phenomenon. Social context is much studied and theorized within social science traditions such as anthropology as well as in multidisciplinary approaches such as Science and Technology Studies (STS), which strive to understand the social and cultural significance of scientific and technological change, how science and technology function in different societies, and how social forces attempt to shape and control these forces to serve diverse objectives. Having said that, this inquiry is both in line with and somewhat outside of how anthropology has been both thought about and practiced within HCI.

In this thesis, technology is seen as a “set of social behaviours and a system of meanings” (Pfaffenberger 1988: 241). Technology consists of practical knowledge that must be shared in the same way as any other aspect of an organization or a society. In this thesis, technology is considered to be social, political, and symbolic, not merely a material and/or a technical phenomenon. It is socially constructed, embedded in, and part of the everyday practices that give it its meaning. It has a history, a meaning, and reflects a particular set of structures and institutional “arrangements” (Cockburn 1994; Mackay

1996; Pfaffenberger 1988). This is not to reduce the materiality of technology. However, materiality *per se* is not the issue in this thesis. The social in this thesis stands for whatever individuals learn in social life such as in their interaction with each other. The term socio-cultural context, in the thesis, is used as an organizing concept in order to explore the links between the individual's practices and experiences and social norms, values, and structures within which they are created and recreated. This concept is explored in the next chapter.

An investigation like this one opens up various socio-cultural perspectives at the same time. However, as in any social science analysis, one must foreground some structures and leave others outside of the analysis. For example, the Contact Centre, like any other organization, is also part of a system with laws and regulations. The police authority is involved in upholding and following the criminal laws of Sweden, but is also engaged in participation on an international level. There are also other organizational and political "systems" in which the police authority and its employees working there are involved. In this thesis, some of them are pointed out in order to mark the complexity and to suggest further research.

The design and development process itself, its approach, and methods, create a socio-cultural context that has an impact on how the technology is adopted and used. This impact applied even in the Community at a Distance project. However, this thesis is not about design or the design processes *per se*. Nor is it solely about the technology used in the project. Nevertheless, in the thesis, there is sometimes a need to refer to the processes as well as to the technology. This is often done in a rather superficial way. There is a risk that the reader gets the impression that the technology, the established communication environment just "happened," which it obviously did not. It was a rather complex activity. For discussion of the design approach, methods, and the technology used in the Community at a Distance project, see Erixon et al (2001); Gullström-Hughes et al (2003); Lenman et al (2002); Räsänen et al (2005). It should be emphasized that the thesis is not a traditional HCI thesis answering to concrete design questions. The thesis does not end with a list of concrete and practical design suggestions. After reading it, the reader of the thesis may not know how to (better) design a communication environment with audio and video, but she/he may be better prepared to understand the workplace and in addition what things might affect and engage the use of technology in a wider social context.

The audience I am addressing in the thesis is primarily the multidisciplinary community of HCI. The thesis is written in this scientific community with representatives from the fields of anthropology, architecture, cinema studies, computer science, communication studies, fine arts, psychology, sociology, and others. Therefore, it contains material and discussions that might be familiar to one audience and new to another. If the

text seems over-clarified at times, it might be because I have tried to accommodate various groups of readers.

An Outline of the Thesis

This thesis is divided into eight chapters. Chapter 2 “Approaching Context” includes a review of theories, concepts, and ideas as well as previous research that provides a frame of reference for the thesis. This review helps to establish an interpretive framework for the empirical study described in the chapters that follow.

The socio-cultural context presented in this thesis is also a product of an academic research tradition. One objective of this thesis is to make visible the research practice of which this thesis is a result. This is of particular importance because the thesis aims to illuminate the socio-cultural context of technology use. In Chapter 3, “Outline of the Research Practice,” I am, as the researcher, situated in the field and, as an author, situated in the text. Further, I describe the methods and techniques used in the study together with the process of writing the thesis. The ethical issues involved are also described in this chapter.

Chapter 4, “Living in the Archipelago,” outlines social, historical, and political processes that form island communities and the life that they afford. The organizational context put forward captures the organizational arena, including the Stockholm County Police organization and the call centre as an organizational form on a rather general level, as well as how the Contact Centre was established in the archipelago. In many ways, the Contact Centre premises and the work performed there is similar to workplaces found elsewhere in Sweden. However, even if many of the values and rules are shared, any particular setting is specific. I examine the archipelago and these islands as a geographical, cultural, and historical arena that gives the Contact Centre the shape and form it has for those who work there.

Chapter 5, “The Fabric of a Working Day,” looks at the organizational culture and socio-cultural context at the Contact Centre. It starts by pointing out everyday practices and situations and moves on to those processes that create and maintain (or not) a sense of togetherness for this particular work group in a dispersed workplace. There are various ways to remain socially organized during the working day in the group, both within one location and between the three sites. Meetings and other get-together activities are examples of repetitions, routines, and habits, i.e. means of upholding and modifying practices, values, and attitudes in the Contact Centre. They also draw from and reaffirm the strata of history and culture that made them intelligible and worthwhile for the actors involved in the first place.

Up until this point, the thesis builds up concepts and conditions for each successive step, where the introduction and the everyday use of the communication environment established in the research project Community at a Distance at the Contact Centre is analysed. Here, the thesis takes a different turn. In Chapter 6, “Towards K,” some of the early expectations the Contact Centre personnel had about the communication environment are discussed in relation to the socio-cultural context presented previously.

Chapter 7, “Mediated Togetherness,” focuses on the use of the communication environment from the point-of-view of the sense of togetherness. I describe how the communication environment was used in the everyday encounters at the Contact Centre. I analyse the relationship between the place and the social practices connected to the use of the communication environment, how people, in this particular context, made sense of the new technology.

Each chapter explores a particular aspect, dimension, condition of the sense of togetherness in which the practices connected to the use of technology are examined. The order of the chapters is purely determined by the clarity of the narrative. It does not suggest a chronological or a hierarchical order of the analysis of the socio-cultural context of technology use. The different aspects, perspectives, and conditions are connected and interrelated.

Chapter 8, “Conclusions,” closes the thesis with a section presenting conclusions framed in terms of socio-cultural context. I want to continue a discussion of the analysis of social context in the HCI research discipline. Further, I emphasize the value that socio-cultural, historical, and temporal perspectives can have when we study technology use. This is important if we want to grasp the social and cultural context(s) of technology use.

Approaching Context

The analysis of the socio-cultural context of technology use is the focus of this thesis. Therefore, it is important to examine the notions connected with socio-cultural context. This theoretical overview highlights approaches to the study of context that are most relevant to the perspectives treated in the thesis, for instance those that focus on the use of technology as a socially constituted, historical, temporal, and social phenomenon. The perspective from which I have chosen to approach the socio-cultural context of technology use is the sense of togetherness. This overview provides a framework, a conceptual tool for the issues discussed in the following chapters.

Unpacking Socio-Cultural Context

The English noun *context* comes from Latin *contextus*, meaning connection of words, coherence, and from *contexere*, to weave together, connect (*The Oxford English Dictionary* 1989 vol. III). Context is defined as “The weaving together of words and sentences,” and “The connexion or coherence between the parts of a discourse” as well as “The whole structure of a connected passage regarded in its bearing upon any of the parts which constitute it: the parts which immediately precede or follow any particular passage or ‘text’ and determine its meaning” (ibid.). Word context also refers to environment and setting. The notion of context implies a combination of two entities: a phenomenon and an environment within which it is embedded (Holy 1999). Context is described as a frame, an environment, a background, a perspective, or a stage that surrounds a phenomenon or an event and provides resources for its appropriate and meaningful interpretation. What is posited as context in one study may well be the central phenomenon in another (ibid.).

The notion of context is an important concept in the social sciences, such as anthropology, where it works both explicitly as well as in the background, weaving together with other concepts, approaches, and the analysis of social organizations. As far as I know, there is no single, formal definition of the concept within anthropology.

Rather, traditions in the social analysis of context include several perspectives. Ever since Malinowski, anthropologists have tried to place social and cultural phenomena in context.¹ The idea is that the anthropologist interprets social and cultural phenomena with reference to context (Dilley 1999). However, the notion of context draws attention to both epistemological and methodological problems in social anthropology (ibid.). It is difficult to define precisely the concept of context. Agreement on a single theoretical position or definition of the term context may not even be possible or necessary (Dilley 1999; Goodwin and Duranti 1992/1997; Holy 1999). The aim of this thesis is not to solve the problem of context, nor to propose a new definition. My ambition in the following is to outline a frame of reference in order to enable a discussion of the different aspects of the context that we are approaching in this thesis. What follows is a way of unpacking the context in order to be able to discuss it (as a “whole”) in relation to technology use at the Contact Centre. One way to extend our understanding of the notion of context and our research agenda within HCI, I believe, is to pay attention to what goes on beyond the immediate use of technology itself, i.e. turn towards the structures and conventions that constitute technology use and vice versa in order to analyze the activities within which the use is embedded and through which it becomes meaningful. This is the analysis I would like to put forward in this thesis.

Consider performative utterances such as “I now pronounce you man and wife” (Goodwin and Duranti 1992/1997: 17). When spoken in a certain civil or religious ceremony in a certain place with certain participants, the words are able to change the marital status of two individuals “because of a surrounding framework of social conventions about what constitutes marriage and how it is validly entered into” (Goodwin and Duranti 1992/1997: 17).² The members of a society create and build the events they participate in through acts of speech. However, language should not be treated as an abstract, internal thought, but rather as practical action (Goodwin and Duranti 1992/1997). The words get their meaning in a context of situation, a larger social framework within which the language is embedded.³ This example poses a number of issues that are central to the analysis of context. They become useful also when I approach the question of technology use. This example demonstrates the importance of beginning the analysis of context from the participant’s point of view, how he/she organizes his/her perception of the events and situation (ibid.). The wedding ceremony is important only for those who employ and share socio-historical knowledge of the ceremony, its meaning and capacity to change marital status. Further, it points out the importance of paying attention to the activities that participants treat as appropriate in order to constitute meaning in their social world. Once the ceremony as an activity is completed, other activities take over, which illustrates that each participant is situated within multiple contexts and is capable handling changes as the events unfold (ibid.).

I take the practices and routines of a working day as my analytical point of departure in order to start approaching the context of technology use at the Contact Centre. I pay attention to the day-to-day practices during the everyday encounters. Various technologies were often, but not always, used to carry out these practices. This way, I hope to be able to approach and address not exclusively the speech acts or the practices and routines of a working day, but also the social and cultural conventions that provide the “infrastructure” (op. cit. 17) through which the practice gains its force as a particular kind of action. In other words, I wish to approach context in a certain way so that recognizable conventions make a change of marital status possible. As Goodwin and Duranti (1992/1997) emphasize, not only are the activity and the physical environment of importance here, but also knowledge of the social dimensions that is created and negotiated through historical processes. The term infrastructure indicates an idea of a “frame” (Goffman 1974/1986) that surrounds the event and makes an appropriate interpretation possible. Context then becomes the framework within which a certain activity is embedded. Implicitly, it indicates that the activity is informed by previous history. However, it also suggests an asymmetry between an event and its “background,” which would be somewhat misleading for our purposes here. It calls attention to the event and the participants, but rather neglects aspects of its surroundings and furthermore, aspects of reproduction. A challenge in the thesis is to call at least as much attention to the context as to the event (technology use) itself. The everyday practices I am interested in are, as the word indicates, everyday practices. They are somewhat monotonous, not always reflected upon. The monotony in the practices makes the practices to a certain extent “invisible.” The task for me here is to make visible the invisible that may be found in the infrastructure, the background, or the environment. This is not to say that people would not know about and would not think about the infrastructure—they usually do.

A theory and method of articulation may help us to replace context as the focus of analysis, although this, in indeed, may sounds paradoxical. The attempt is to map the context, not entirely in the sense of situating the phenomena (e.g. the sense of togetherness or technology use) in a context, but in the sense of mapping the context, the identity that brings the context in focus (Daryl Slack 1996; Dillely 1999). Articulation is a process of creating connections that can make a unity of (two) different elements under certain conditions (Daryl Slack 1996). It is a complex, unfinished process that tends to foreground some and background other “theoretical, methodological, epistemological, political and strategic forces, interests and issues” (op. cit. 114). Articulation has to some extent come to stand for contextualization itself (Dillely 1999). Mapping the context and creating connections is the interpretative act I approach in this thesis.

The Reproduction of Practices

This brings us to a central problem in the social sciences, how in analysis to connect to the various elements, the “layers” such as event and context, as well as individual and social perspectives? What are the significance (conditions, forces, motives, causes, consequences, and so on) of the relationships between the individuals and society? According to Giddens, perhaps the most important contribution the social sciences can make to intellectual discourse is to rework conceptions of human action, i.e. social reproduction and social transformation (Giddens 1984/2004). However, “micro” and “macro” levels of analysis are often kept separated within social science. Giddens argues that there is no necessary conflict between the two perspectives: one is not more fundamental than the other. Pitting them against each other implies that one needs to choose between them. This “unhappy division of labour” (op. cit. 139) tends to separate analysis and theoretical standpoints, which Giddens believes is unfortunate. He puts forward structuration theory as a solution to this problem.

When Giddens talks about structure, he does not mean those “facts” and features of social life that define what can or cannot be done. Rather, he is concerned with what is internal to individuals both in memory and embedded in social practices, i.e. those “conditions of social action that are reproduced through social action” (O’Brien 1998: 12). Social actions (or forms of conduct) are situated in and reproduced through time and space, both of which are organized independently. For Giddens, structure is both generative and transformative. It is both the “medium and outcome of the practices they recursively organize” (Giddens 1984/2004: 27). Everyday life consists of repetitive practices through time-space. The term structuration captures both the routine sense of practices as well as their continuation and justification. Analysis of day-to-day life is therefore essential to analysis of the reproduction of institutionalized practices. The point of departure should be the actions of knowledgeable individuals, i.e. the “structure” should not in itself be objectified and explained, but the human action should be explicated to bring understanding to its social production. However, everyday activities should not be treated as the “foundation” of social life, but rather “connections should be understood in terms of an interpretation of social and system integration” (op. cit. 282). In this thesis, I analyse human action and practices at the Contact Centre and make connections to the structures and norms of the workplace in the Stockholm archipelago. As we engage in everyday practices and attend, for example, to the wedding ceremony, we also recreate and maintain them and context as part of the culture and society we belong to.

Culture(s): Something Made

As I see it, the concept of socio-cultural context works closely together with the concept of culture or, rather, cultures. The concept of culture is central in traditional anthropology; it

is “the context of contexts“ (Strathern 1995: 11). The rather well-worn notion of culture is defined in various ways, and use of the term varies enormously in ordinary, everyday speech but also within the academy. In everyday life, the word *culture* is used as an aesthetic concept to describe certain literature, art, and music. The concept of culture within the social sciences is contested and varies essentially. There is no precise way of defining culture, not even within anthropology, which can be seen as the home of culture. One of the oldest ethnographical definitions of culture is from 1871 (Gerholm and Gerholm 1992).

In this thesis, I work on the basis of two particular ways of understanding the concept of culture. Geertz (1973/1993) proposes that the culture is a web or context, something within which social events, everyday interactions, behaviour, processes, and institutions can be described. Geertz explains,

The concept of culture [...] is essentially a semiotic one. Believing, with Max Weber, that man is an animal suspended in webs of significance he himself has spun, I take culture to be those webs, and the analysis of it to be therefore not an experimental science in search of law but an interpretive one in search of meaning. It is explication I am after, construing social expressions on their surface enigmatical. (Geertz 1973/1993: 5)

The webs of meaning, cultural patterns, offer both a possibility to interpret the models of reality, the world we live in, as well as to represent, reproduce and shape models for reality (Geertz 1973/1993). Further, Geertz maintains that our consciousness is social. When we meet and exchange symbols, our consciousness is reformulated. Concepts and meanings are distributed through artefacts, activities, events, properties, or relations. These shared ideas, conceptions, and symbols that surround us in our everyday life can be the focus of our research. The research assignment then, according to Geertz, is to interpret the meaning of these symbols from the outside.

Similarly, according to Hannerz, culture is “a matter of meaning” (Hannerz 1992: 3). Culture is “a set of public meaningful forms” (op. cit. 3) that can be seen, heard, or sensed in some other way. They are meaningful only when the participants have instruments for interpreting them. Hannerz uses the metaphor cultural “flow” to indicate the “externalizations of meaning which individuals produce through arrangements of overt forms, and the interpretations which individuals make of such displays—those of others as well as their own” (op. cit. 4). With the word *flow*, Hannerz captures both the structure of externalization and the continuously ongoing processes culture is involved in. Therefore, the study of culture should pay attention to three dimensions: first, “ideas and modes of thought” such as concepts and values which people carry together as well as the ways of handling their ideas (op. cit. 7); second, “the forms of externalization,” i.e.

the ways in which meanings are made accessible to the public (op. cit. 7); third “social distribution,” i.e. the ways in which the collective meanings and their external forms are spread and understood within a population (op. cit. 7). The aim, then, is to understand to what extent the culture as a “whole” becomes a matter of social organization. These three dimensions are to be understood in terms of their interrelations.

For the purposes of the present thesis, the two views on conceptualizing culture should be seen to complement each other. They bring in ethnographical instruments of description, analysis, and interpretation of phenomena as important parts of theorising about a society. The approach, illustrated here by Geertz, Giddens, and Hannerz provides this study with instrumental guidelines and an analytical point of view for paying attention to the continuous production and reproduction of the context in which society people are engaged. It also stresses the actors’ active roles in reinterpreting and recreating the ongoing historical and political processes (cf. flow). People are constantly inventing, maintaining, and reflecting on culture: “whether it stays put or is made to move, people must do something about it” (Hannerz 1992: 17). The distributive view makes it possible to question how, by whom, and for whom the rules, conventions, and ideas are made and how they are spread within a population. This is the approach I develop in the thesis. To put it in the words of Frykman and Gilje (2003), I am not primarily interested in the text printed in newspapers, but the newspaper *reading*. Culture for me is not a story (a noun), but rather an act of story production, actual narrating (a verb). However, it must be kept in mind that the concept of culture(s) is “something made rather than found; the ‘wholeness’ of the holistically understood object appears more as a narrative device than as an objectively presented empirical truth” (Gupta and Ferguson 1997b: 2). The idea of culture or cultures, that is to say, is an abstraction. Culture is a construction, a result of (ethnographic) analysis and writing (Wolcott 1990). Still, it “is not a package, system or accumulation of texts” (Frykman and Gilje 2003: 29). It cannot be finished; it is always in the process of being made. Nor is culture spatialized, fixed in a place. Mobility of people, connectedness, and a changing and globalizing world have contributed to a shift from a peoples and cultures ideal, a locality and a site for cultural production, a place-focused concept of culture, to a more contingent relationship between collective identity, place, social relations, and culture (Amit 2000; Gupta and Ferguson 1997b; Hannerz 1992).

Agency and Control

Historical (even recent historical) aspects of context are important in the thesis since action is almost always bound in historical context, where previous, mutual knowledge of actors plays a crucial role (e.g. Bourdieu 1984/1996, 1993; Giddens 1979/1990; 1984/2004). Giddens (1984/2004) argues that all human beings (actors) are knowledgeable, reflective

individuals (agents) who can and propose social change. They know what they are doing in their everyday lives and the conditions and consequences of their actions. They can also discursively describe what they do and why (however, description of this kind or in this order is not required or necessary in order to conduct the day-to-day actions). The knowledgeable ability of human actors, however, is restricted by unconscious as well as unacknowledged conditions and unintended consequences of their actions (ibid.). This is relevant, I believe, even for the actors we meet in the thesis. Agency refers to peoples' capability of doing things; however, it also implies power.

For my purposes in the thesis, concepts related to power—such as checking on, monitoring, control, and surveillance—are relevant when we explore the everyday encounters at the Contact Centre, but also as we approach the use of technology.⁴ The notion of *panopticon* is a useful way to illustrate and reveal certain aspects and ideas that might be considered important for us. According to the idea of *panopticon* (Foucault 1987/2003), there is a surveillance tower from which a guard can watch prisoners without himself/herself being seen. The idea of *panopticon* works when individuals internalize the social sense of being seen and act as if they are being seen and observed. The idea is that it does not really matter whether someone is actually watching from the tower. It is assumed that someone is watching. Even if the circumstances in prison differ significantly from many others, the idea of *panopticon* is recognized in the use of technology. Even if we do not actually see or know when, we know that we can be observed through the numerous electronic traces we leave behind while using computerized applications.

However, rather than solely focusing on Foucault's imagery of the panoptic and total control, I would like to bring forward a notion of control particular to call-centre organizations. Callaghan and Thompson (2001) argue that structural control developed by call-centre management combines technical and bureaucratic elements. ICT, with its capacity to collect and store information in general, make control and quantification possible. Technology in call-centre organizations is used to control the pace and the direction of the work, but also to assist management in monitoring and evaluating the work, as well as for reward and discipline purposes (ibid.). Bureaucratic control, on the other hand, complements the technical dimension. The bureaucratic control at the call centres operates, for example, by focusing on work and employment rules, rewards for seniority, or by specifying performance standards, as well as by defining various skills important in the work. Such control systems institutionalize values and standards of work achievements and give supervisors and employees specific criteria against which to evaluate the performed work tasks (ibid.).

Checking on and controlling elements are built into the work practices when the management can observe the staff's performance through technology (ibid.). However,

we should keep in mind that the employees challenge and negotiate the control and monitoring systems on a daily basis. The call centre as an organizational form is discussed further in Chapter 4.

Place Making

The social, temporal, and historical aspects in focus are closely tied to spatial and geographical dimensions of practices and structures and therefore draw attention to concepts such as place. These are particularly important as we approach practices that are to some extent distributed between different sites in a geographically dispersed workplace in the Stockholm archipelago, a rural area despite its proximity to Stockholm. In addition, we approach the use of technologies such as video-mediated communication that make it possible for people to communicate and interact with each other across geographically scattered places. Many practices and activities are no longer bound in a localized physical setting. Telecommunication, electronic labour markets, automatic tellers, electronic publishing, and so on suggest that people are linked together regardless of where they are physically located. Technology can link the local to the regional and the global. The Contact Centre, as we will see, can operate from the archipelago and serve the general public regardless where they are in Sweden. But, it is not enough to study how the different places—the local and the regional or the global—are linked to each other (Gupta and Ferguson 1997b). Rather, all associations of place, community, people, and culture are social and historical creations, not given or natural, obvious, taken-for-granted facts.

A spatial “code” is not only about reading or interpreting place; it is “a means of living in that space, of understanding it, and of producing it” (Lefebvre 1974/1991: 48). Following Giddens, “locales” are not interesting only for their physical properties, but also for how their features are “used in a routine manner, to constitute the meaningful content of interaction” (1984/2004: 119). Locales refer to the use of space in order to provide the settings of interaction. They may range from a room in a house to territorial areas occupied by nation-states. Locales are internally “regionalized” (op. cit. 118). Regions within locales are crucial in constituting contexts of interaction. Context thus connects the interaction to the institutionalization of social life (Giddens 1984/2004).

The important task, then, is to question commonsense ideas such as territory, locality, and community and focus on social and political processes of “place making,” the embodied processes and practices that shape identities (Gupta and Ferguson 1997b: 6). In this way, it becomes possible to explore and understand how the perceptions of concepts are discursively and historically constructed and institutionalized as part of our social world. Returning to our example of wedding ceremony, there are certain places that we today understand as particularly suitable for ceremonial purposes, such as churches

and town halls. The wedding ceremony, as an event, can also make a place—a balcony, a landscape, or an embassy—into a ceremonial place at that particular time with the particular participants. Some buildings are designed with an institution in mind (Agre 2001; Giddens 1984/2004); our homes are designed for the families to be together and offices for people to work in. The buildings and other spatial arrangements reflect the social rules, norms, and values that constitute human relationships. We make our homes in connection to other social processes in our society. Therefore, if we continue to talk about the socio-cultural context of technology use, we should keep in mind that it includes more than its immediate, spatial, or geographical understanding.⁵

Composing the Socio-Cultural Context

There are different ways of understanding the meaning and relationship between “the cultural” and “the social,” how and to what extent these concepts overlap and/or are distinct as well as whether we need the one but not the other. Without getting involved in a detailed discussion of the exact properties of the concepts, I want to point out that both of them may be suitable terms to capture the intended analytical approach to context in the thesis. As Hannerz (1992) proposes, “the cultural” and “the social” could to some extent be seen as separate concepts. “[I]t is in part a consequence of the cultural flow through a population that a social system is created and recreated. As people make their contribution to that flow, they are themselves becoming constructed as individuals and social beings” (op. cit. 14). As individuals interact with each other, they indicate the kind of people they are, what suitable conduct is, and what their desirable goals are, and so on. Further, “the social structure of persons and relationships channels the cultural flow at the same time as it is being, in part, culturally produced” (op. cit. 14). There is a dialectical relationship between the cultural and the social. This does not mean that individuals are alike and must deal with everyone else’s meanings. However, it does mean that one may act or respond to them in number of ways.

In respect to the view of cultural and structural aspects I am interested in exploring (discussed above), this is a suitable distinction in the thesis. In order to emphasize the relationship between the cultural and the social, and to highlight the importance of both aspects, I have chosen to use the term “socio-cultural.” This term underlines the analytical approach I wish to put forward in the thesis and allows us to explore the conditions between the event (such as technology use) and individual experiences of it, as well as (institutionalized) social conventions, values, and structures. The term socio-cultural also attempts to highlight the broad approach to context analysis I wish to take.

It might be useful to understand these contexts as concentric circles.⁶ When we enter into the innermost space of the first circle and engage in the social practices

while using ICT, we soon discover that we are already standing within the second circle concerning the organizational practices that are affected and affect technology use. At the same time, we notice that we have all along been standing in the inside of a third circle that refers to processes for work conditions, and so on. You cannot be at the centre of any one of them without being at the centre of all of them. Any visual metaphor has certain advantages, showing some aspects, but also limitations in that it excludes other meanings and aspects. Here, it is important to understand the complex and dynamic structures of context. In comparison, a frame, for example, draws attention to what happens inside of the frame even if unintentionally. At the same time, it leaves various other aspects outside. In other words, when we make certain connections, we also make disconnections.

It should be emphasized that, the socio-cultural context is also a construction, not “reality.” Socio-cultural context is produced in the everyday activities and consciousness of people, but it is also produced in research (see Chapter 3). We go in and out of socio-cultural contexts depending on time, the people we are with, the situation, and the circumstances. It should also be emphasized that the socio-cultural context is not static, but is continuously produced and exposed to change, which are sometimes slow and sometimes rapid. The introduction and establishment of the communication environment at the Contact Centre can be considered as an event that brings an element to the workplace that implies and suggests a change of the socio-cultural context, within which the work practices occur. This type of change is intentional. However, not all the changes are planned.

This section draws attention to various concepts and perspectives (e.g. control, place making, agency). In my opinion, these dimensions should be understood in terms of their interrelatedness. However, for purposes of clarity in the thesis, they are sometimes kept separated and left to work in the background. They are brought in as subordinated analytical concepts. The issues raised here are explored at length in the following chapters. The approach to context I wish to take observes what lies not only within, but also outside of the frame. It is an awareness of the making of various circles, layers, and frames I am interested in bringing into this particular inquiry.

The Sense of Togetherness

From the early phases of the research, different concepts and expressions that indicated a sense of unity, affinity, workplace community, belonging, togetherness, social coherence, and mutual awareness caught my attention. In the Contact Centre, employees and the management talked about “one organization,” “one business,” even though the centre is located at three separate geographical locations. They talked about the experience

of “belonging to the same organization” and stressed the importance of contacts and communication between each other. When gathered together, many of the employees appreciated meetings with each other, being able to “be together.” Spontaneously, they would tell me about their encounters with each other. These feelings for experiences of being together and belonging underlay the reason why the Community at a Distance project was interesting and important for those who worked at the Contact Centre. The project carried over these assumptions to the design and development work of the mediated communication. The project name, Community at a Distance—in Swedish, “Samhörighet på distans”—as well as early rhetoric about the project indicate a striving towards contact, community, togetherness and unity at the Contact Centre. Later, a design idea in the project, “Open door,” suggested a communication environment that enables interaction between people. The intention of the project was to implement technology to support everyday activities at the Contact Centre, for example, to be together. The project name as well as its aims imply that it is possible to sense togetherness, affinity, and unity at a distance with the help of technology. These themes and notions have a long history on the islands. They have been worked and reworked over time, interpreted differently in the face of the various cultural and technological changes the islanders have faced, especially since these islands are firmly incorporated in the region of Stockholm.

The feeling, experience, sense, and lived “reality” of belonging, togetherness, being together and the other themes mentioned above have various nuances and interpretations, but they also overlap to some extent. Obviously, each person that reflects and acts on any of these themes has interpretations that change and diverge according to situation and circumstances. Whenever possible, I use the informants’ phrasings and terms. Each of the themes is interesting and equally important to explore and would have required a thesis of its own to do it justice. However, I propose that the term “sense of togetherness” (*känsla av samhörighet*) includes them all. I use the “sense of” in order to highlight the constructional nature of the term.

The lexical meaning of *togetherness* is “The state or condition of being together or being united; union, association,” and “The fact of getting on well together or being well suited to one another; a sense of belonging together, fellowship” (*The Oxford English Dictionary* 1989 vol. xviii). What I mean by sense of togetherness in the thesis is a socially valued construction of fellowship and belonging to a group, such as a workplace community. It is about a sense of being part of something together with others for various reasons. The sense of togetherness, as any other similar concept, is a construction that evolves in a workplace as its members interact with one another in various ways and for various reasons. The construction is carried out on different levels and parts of an organization, from formal regulations and descriptions of the organizational units to an

awareness of one another while working and activities that aim to strengthen the sense of togetherness within the workgroup. The construction work implies a need to communicate the sense of togetherness in various ways. Sometimes, this is intentional, and sometimes it is not. It may also manifest itself in those encounters that bring us together. In the thesis, I explore various ways this is done at the Contact Centre.

Although several concepts generate the sense of togetherness, it may be considered an emic category that was used by the employees and emerged from the project practices. I take the emic expressions as “evidence” that the sense of togetherness in one way or other is significant at the Contact Centre and that it is important in the Community at a Distance project. The thesis takes the sense of togetherness as an overall analytical concept that works as a common sense category and explores the expressions and conditions for the sense of togetherness at the Contact Centre: i.e. it does not aim to prove whether the sense of togetherness did or did not exist there. However, the sense of togetherness is not explored to its extreme in the anthropological or social science sense, but works as a perspective, a vehicle to investigate everyday practices in order to approach the socio-cultural context of technology use. The notion or sense of togetherness might be understood as a heuristic device that helps us in this investigation.

Belonging to a Group

A sense of togetherness presupposes that there is a group of people who, for one reason or another, emphasize belonging to that particular group. People construct groups, for example by highlighting certain aspects as relevant, and ignoring others. A family, a household, close relatives, a workplace community, a nation, a religious conviction, a political party and an interest organization are examples of different constructions of groups within which the sense of togetherness among people may be emphasized. They may be in the Stockholm archipelago, or included in the European Union. The constructions already indicate some sort of togetherness within the group. The sense of togetherness is in part, at least, bound up in identity. We often define “us” in reference to a significant other by contrasting ourselves to that other. We compare ourselves with the other. How do we distinguish ourselves from the other? Our distinctive characteristics are relatively constituted. Our picture of ourselves changes depending on who we compare ourselves with in a specific situation and at a particular time. There are several social theories of identity and the creation of identity. A common starting point is that people do not have identities; they create and recreate them (Frykman and Gilje 2003).

The concept of *habitus* (Bourdieu 1984/1996, 1993) is a mediating notion, one way to define and understand the connection between the individual and the social, which is the purpose of this thesis. The term draws attention to ongoing social processes and

history. Individuals are formed by the circumstances in which they live. They obtain cultural competence and experiences through interaction with others in the community/society they live in. These collectives form the individual's *habitus*, a system of dispositions that allows the individual to function socially (Bourdieu 1993). These systems—the individual's predisposition, assumptions, and judgments—have been formed by an individual's earlier experiences and practices, shaped by his/her location in a social structure. *Habitus* is incorporated in the human body and mind. However, *habitus* produces practice according to the social structures that generate them (Wacquant 2006). *Habitus* organizes people's practices and perceptions of these practices. A piece of art, for example, is meaningful only for those who have the codes to decode and interpret it (Bourdieu, 1984/1996). Explanation of attitudes, discourses, practices, and so on must draw on an analysis of both the structural position and the particular historical trajectory by which an agent arrived at a certain position: "*Habitus* is created from the past, moves in the present and stretches towards the future" (Frykman and Gilje 2003: 38 my emphasis). A collective identity or a group identity is constituted in much the same way as the identity of a person. Gupta and Ferguson (1997b) discuss the relationship between place making and identity, combining two concepts that are also important in my analysis. The authors criticise a view of identity as rooted in place and communities, something to be discovered and owned by individuals. Rather, they stress that place making always involves the construction of difference, that "identity neither 'grows out' of rooted communities nor is a thing that can be possessed or owned by individual or collective social actors. It is, instead, a mobile, often unstable relation of difference" (op. cit. 13).

A group of people can be talked about in terms of communion or community. Community is one of those descriptive and normative concepts that are used both in ordinary, everyday speech as well as an analytic term. The concept of community, often together with society, is one of the most essential and most discussed concepts in the social sciences (e.g. Anderson 1991; Nisbet 1966/2002; Tönnies 1957/1996). There is no attempt made here to give yet another definition of community. Instead, I follow Cohen (1985/1995), who proposes to follow Wittgenstein's advice and seek for the use of the word suggesting:

[...] that the members of a group of people (a) have something in common with each other, which (b) distinguishes them in a significant way from members of other putative group. "Community" thus seems to imply simultaneously both similarity and difference. The word thus expresses a *relational* idea: the opposition of one community to others or other social entities. (Cohen 1985/1995: 12, emphasis in origin)

Cohen examines the boundaries that mark the beginning and the end of a community and encapsulate its identity. The focus here is on the symbolic meanings people give to the boundaries. People construct community symbolically. The symbols not only express a meaning, but also give us the capacity to make meaning. Community, according to Cohen, is one such “boundary-expressing symbol” (op. cit. 15). It is “held in common by its members; but its meaning varies with its members’ unique orientations to it” (op. cit. 15). Members then can share the symbol, but not its meanings. However, like culture(s), community does not exist in a social structure, or in the doing, but rather in its thinking: “Community exists in the minds of its members” (op. cit. 98). It lies in the meanings that people attach to it. In a way, a community is imagined (Anderson 1991). It should not be confused with geographical or sociographical facts.

There are, unsurprisingly, various ideas of belonging and the communities to which one can belong. Recently, I observed a person on a beach in Stockholm with an AIK-emblem tattooed on his shoulder. For me, the tattoo indicated his devotion, not only to football in general, but also to a particular team, i.e. AIK, and suggested that he wanted to show his belonging to their supporters. I believe the person experienced a different kind of togetherness with us on the crowded beach compared to one he may feel with his fellow AIK supporters during a football match. The sense of togetherness is to a certain extent imaginary, relational, and situational. It changes, depending on the people and the situation in which we are involved. Obviously, what is including and excluding varies depending on the circumstances as well as the conditions for and consequences of creating and maintaining the sense of togetherness.

The individuals, the group of people we meet in the thesis, are employees at the Contact Centre, which is a workplace community in the Stockholm archipelago. Not all, but most of the time, their belonging to the Contact Centre community is illuminated and highlighted over and against other possible social positions.

Managing Togetherness

In order to create a sense of togetherness with someone, you need ways to be together. Bauman (1995/1998) has listed various ways of togetherness. For example, in an agile, mobile place such as a pedestrian street, there is a mobile togetherness between the pedestrians with a temporary closeness that is followed by immediate separation. According to Bauman, people strain not to be with each other. In a waiting room or on the train, there is what he calls stationary togetherness. Strangers meet and share a space during a period of time, but again part without seeing each other again. In an office workplace, on the other hand, there is measured, “tempered togetherness” (Bauman 1995/1998: 46). The togetherness intended and for a purpose, even if the reasons for coming together vary.

People are together, not necessarily in order to be together, but they remain together in order to make, do, or fulfil something else, for example, a work task. Togetherness is filled with and balanced between structured or regulated and unstructured meetings between the individuals (Bauman 1995/1998). Tempered togetherness is the type of togetherness we would expect to encounter among the Contact Centre employees.

In every workplace, employees create their ways of being together while carrying out the work in meetings and other encounters. Sometimes, the encounters are part of the work in various ways. Sometimes, it is enough to signal identity or closeness to each other. For example, by looking through a narrow opening in the cubicle wall, office workers can get a general idea of what was going on in the open-plan office (Zuboff 1988). However, encounters are not always possible because of diverse work tasks, different working hours, and/or geographical distances. When the workplaces are separate, there arises a challenge. For example, at the trans-national company Apple, which has offices in various countries and in a number of locations, a sense of community, a feeling of belonging to the company, and the awareness of other staff members is worked out in several ways and on several levels, such as in the company's vision, promoting contacts within the company, and even through stickers, saying, for example, “🍏 Walk on the Mac side 🍏 You'll never Mac alone 🍏 Let's Mac together” (Garsten 1994: 25).

Social scientists have been interested in organizations' capacity to mediate the meanings of ideas, knowledge, and values (e.g. Garsten 1994) and regional aspects of organizations and organizing phenomena within their valid cultural, historical, political, and industrial contexts (e.g. Czarniawska and Sevón 2003). Inquiries include organizational environments, processes and changes, informal relations, and identity in organizations (for details on areas of inquiry see e.g. Van Maanen 2001). More recently, there has been a growing interest for the impact of information and communication technologies on work practices and organizational culture (e.g. Garsten and Wulff 2003). The sense of togetherness is not unfamiliar for the HCI research. Much has been written about the awareness and knowledge of fellow staff members' whereabouts, work tasks, and boundaries between workgroups in HCI and CSCW research that focuses on how technology can be designed and used to support the sense of belonging, awareness, and co-presence of those who are not present in the same location (e.g. Heath and Luff 1991). Research traditions in mediated communication, such as media space (described in Chapter 1), that aim to support contact and peripheral awareness with technology embedded in the social environment belong, in my opinion, to this category of research. In this thesis, I explore ways of being together at the Contact Centre as well as means of mediating the sense of togetherness in the dispersed community.

The Uncertainty of Togetherness

The sense of togetherness, I suggest, may be seen as one of those belief, norm, and value settings that are managed within an organization. They are sometimes described as part of the organizational culture. The term “organizational culture(s)” is used in various ways both by researchers, but also by members of organizations (Van Maanen 2001). The notion of organizational culture may be and is used to describe the presence or absence of unity and harmony among members in the organization. It is used to describe the organization’s immaterial variables such as ideas, values, norms, and assumptions about social reality often connected to concepts of identity and ideology (Alvesson 1993, 2001; Salzer-Mörling 1998; Van Maanen 2001). In this way, culture can be used to explain the organizational performance, success or failure. It becomes something that can be controlled and used as a tool for achieving effectiveness and therefore contributes to reach the company’s goal or becomes an obstacle for economic rationality and effectiveness (Alvesson 1993, 2001; Salzer-Mörling 1998; Van Maanen 2001). Obviously, organizational culture takes different forms and is experienced differently in different organizations and by different individuals.

A “workplace organization,” is, at least in my opinion, a somewhat institutionalized term that symbolizes a certain commitment and refers to any group that is trying to achieve a goal or improve something. The term also indicates that the people working there share some kind of togetherness. Regardless of its various modifications, the sense of togetherness is to some extent a normative and positively charged concept: it implies an underlying idea of being united and getting on (well) together. It also implies that it is good for the company/organization to accomplish a sense of togetherness, a fellowship among the employees. In accordance with the organizational culture, the sense of togetherness, in my opinion, suggests that a sense of belonging to the same organization may affect the sense of comfort in the workplace and loyalty towards the employer and therefore also the efficiency in the work tasks. We should, for that reason, also view its critique as being an approach to management and organization, and discuss the idea of togetherness as a concept within organizations and the actions involved there, such as the ongoing struggle of management and employees to create and maintain the positive mood at the workplace as well as the sense of belonging to the organization. Building a sense of togetherness is “political.” Efforts to develop and maintain the sense of togetherness in the workplace do not merely include, but also involve considerable uncertainty and arbitrariness. It is not a stable concept, but rather is one that is defined and redefined during the various activities and situations. Technologies play a role in the communication and management of the sense of togetherness. These techniques and practices are integrated in everyday practices and relationships that contribute to the creation of individuals that may seek a sense of togetherness within the organization. It is those day-to-day practices that I am focusing on

in the following chapters in order to explore how the sense of togetherness is established, maintained, manifested, and made accessible.

The goal of this chapter is to outline a frame of reference for the analysis that appears in the following chapters. The issues touched upon work for the analytic position I want to put forward in the thesis. In what follows, I attempt to articulate, to “map” the socio-cultural context, to weave together the interrelated conditions, and to point out connections between different social, cultural, and structural elements to approach and bring understanding to the socio-cultural context of technology use at the Contact Centre workplace situated in the Stockholm archipelago. The sense of togetherness is an emic term that connects both to the Contact Centre and to the research project Community at a Distance as well as to studies of technology use in organizations within HCI and related research areas. The sense of togetherness is the main point of view from which I approach the socio-cultural context of technology use.

The choice of what connections are made, what is included, and how the socio-cultural context is understood does not occur in a social vacuum. Rather, it reflects the socio-cultural context of interpretation, a more or less conscious choice—one that in the thesis enables us to look more closely at social and cultural aspects of the notion of context. In other words, the interpretation is context-dependent. In the next chapter, I continue to explore further the context of interpretation by explicating the choices connected to the research practice used in the thesis.

Outline of Research Practice

This chapter outlines my research practice. It elucidates how empirical data finds its way from data gathering and analysis to this text. In this thesis, an inductive procedure is used: the phenomena grow out of the observations in the field. The research has an explanatory alignment and focuses on understanding the everyday practices in which the Contact Centre employees are involved on their premises. It focuses on what the activities and phenomena mean for the participants in the everyday situations in which they normally occur, rather than on measuring them quantitatively. Mostly, qualitative methods and techniques were used at the Contact Centre settings to collect information about everyday life as socio-cultural phenomena. Anthropological traditions offer such an approach. One way to characterize it is as follows:

Ethnographers listen, observe, participate, converse, lurk, collaborate, count, classify, learn, help, read, reflect and—with luck—appreciate and understand what goes on (and maybe why) in the social worlds they have penetrated. It is an unspoken methodological paradigm that is generally effective in not scaring away the phenomenon of interest [...] Preserving the apparent naturalness and everyday character of what is being studied is the stock and trade of ethnographic work on the ground (and in writing). (John Van Maanen 2001: 240)

My own research practice is part of the socio-cultural context I approach in this thesis. The construction of the scientific object cannot be separated from the instruments used to construct it (Wacquant 1992). For example, the choice of methods implies theoretical standpoints. The “craft” is embedded in the *habitus* of the scientific field and the researcher (Bourdieu, Chamboredon, and Passeron 1991). Scientific practice, then, is a social practice in the same way as scientific construction is a social construction of a “reality” (Bourdieu 1994/1995; 2004; Bourdieu et al 1991; Giddens 1984/2004). Indeed, every research project is an activity influenced by current ideological and philosophical

presuppositions, embodied disciplinary traditions, the focus of the study, our societies, and the researcher's social position and personal characteristics (e.g. Agar 1980; Bourdieu 2004; Bourdieu et al. 1991; Clammer 1984; Tonkin 1984). Unavoidably, knowledge is situated and rooted in someone at a particular time and in a particular place (Haraway 1991). A person with a particular viewpoint creates knowledge of something. The viewpoint of the researcher, the methods, and the researcher's goals affect both what is studied and how. An analytical point of view for this thesis is based on social science and anthropological ideas of socio-cultural interaction between practice and structure. As a research act, it participates in both the production and the reproduction of the practices it is based on. It also provides the thesis with some instrumental guidelines. In this chapter I situate myself within the research area of HCI in general, but within the research project *Community at a Distance* in particular. I now present a somewhat general description of the social space of my research. I explore sets of engagements and relationships shaped by conceptual, professional, and relational opportunities and resources accessible for my research. I illustrate the applied fieldwork traditions used in the research, following the approach Van Maanen mentions above, including the conversations, learning, and reading as well as the analysis and the writing of the thesis.

Ethnography in HCI

My point of view is determined by HCI research. The term "HCI" (Human-Computer Interaction) designates the relationship between people and technology, traditionally referring to a person sitting at a desk and interacting with a computer workstation or a laptop. Over the years, there has been a move from the single-person perspective focusing on cognition and computer use, "desk experience," to a socially oriented perspective focusing on groups of people and their interaction and/or cooperation with each other. Therefore, HCI research covers the interaction between human beings and computers as well as the interaction and communication between people mediated by computers in all their various forms. The later is the focus of this thesis.

HCI is a multidisciplinary research area where computer science, psychology, fine arts, cinema studies, architecture, communication studies, sociology, anthropology, and other disciplines meet. The multidisciplinary character of the research area allows and encourages me to make use of my previous studies in social anthropology. Thus, my point of view in the thesis is particularly influenced by the position anthropology and anthropologists take in HCI.¹ This is the position I was partly given, partly took, when I first, without realizing it at the time, entered the HCI community as a practitioner in a company at the end of 1999. When I started my PhD studies in HCI in the beginning

of 2002, ethnography was and, in my opinion, still is quite “fashionable” and sought after within HCI. My academic background in anthropology was certainly an advantage in applying for a position as a PhD candidate. While my studies in anthropology are often highlighted when I am introduced to visitors and students at the Royal Institute of Technology (KTH), my previous ten year’s experience in systems development and computer programming in business corporations are seldom mentioned. This might illustrate the status that anthropology has at my department. Anthropology distinguishes my background from others’.

The kind of anthropology practised within HCI research, I believe, can be considered as applied anthropology. Unlike the more “traditional” anthropologists working in the anthropology departments at the universities, anthropologists within HCI often work for departments other than their original ones, many of which have a technical and/or multidisciplinary orientation. This thesis is produced at a technical university, KTH, within a multidisciplinary HCI research group. The focus is on the instrumental aspects of ethnography. Undergraduate students in HCI learn about ethnographical methods and how to make observations in the “real world.” This focus is also demonstrated in several of the dissertations in HCI at KTH. The use of ethnography or ethnographically inspired methods seems to be a way conducting a qualitative approach, regardless of the focus of the study or background of the researcher (e.g. Bogdan 2003; Groth 2004; Hedman 2004; Normark 2005; Taxén 2005).

Ethnography started to appear in HCI in the 1980’s. Ethnography’s original role in IT research was critical, drawing attention to the failure of conventional forms to capture the differing perspectives on the use situation (Crabtree 2004). It pointed to and stressed the importance of the daily routines of the users’ workday, the practical management of organizational contingencies, “the taken-for-granted, shared culture of the working environment, the hurly-burly of social relations in the work place, and the locally specific skills (e.g., the ‘know-how’ and ‘know-what’), required to perform any role or task” (Anderson, 1994: 154). The formal models and methods were found to be “incapable of rendering these dimensions visible, let alone capturing them in the detail required to ensure that systems can take advantage of them” (op. cit. 154). Ethnography was thought to be a method that could access these dimensions.

Ethnography, in its broadest sense, has been pointed out as useful in several areas within design and system-development projects, such as examining the field, the workplaces, and the work practices (e.g. Blomberg 1995; Blomberg et al 2003; Nardi 1997; Pycock and Bowers 1996), capturing the situatedness of specific skills (Normark 2005), investigating the relationship between technology and work, evaluating the products and software systems i.e. conducting a sanity check on design (Hughes et al 1994), or even acting as

“user’s champions” (Bentley et al 1992: 129) and being somewhat of a user’s advocate in development and design projects. Technology is seen as a vehicle for social research, which emerges through a socio-technical methodology, “technomethodology” (Button and Dourish 1996). The ethnographer’s role in IT research, it is suggested, would be to identify researchable topics for design through workplace studies and use them to develop abstract design concepts and work up design-solutions (Crabtree and Rodden 2002).

However, the use of ethnography in HCI-research and particularly in design is not unproblematic (e.g. Anderson 1994; Bader and Nyce 1998; Forsythe 1999; Nyce and Bader 2002; Nyce and Löwgren 1995). Designers and developers tend to use ethnography instrumentally to identify and solve problems. It has been “reduced to a realistic strategy, it collects things and ‘answers’ questions. In the design-and-development community, what a ‘problem’ is, takes an instrumental, pragmatic turn. In particular, what a ‘problem’ is and how to ‘solve’ it get reduced to a series of practical interventions and practical outcomes” (Nyce and Bader 2002: 35). This again reflects the legacy of ethnography, whose role is to handle event(s) and action(s) in order to “predict” outcomes. Ethnography here is reduced to a useful method for gathering, understanding, and specifying end-user requirements in order to inform systems design: “Instead of focusing on its analytic aspects, designers have defined it as form of data collection. They have done this for very good, design-relevant reasons, but designers do not need ethnography to do what they wish to do” (Anderson 1994: 151).

There is often a gap between accounts from the field and how the “information can be of practical use to system developers” (Schmidt 2000: 141). Even if designers work closely with users and representatives of ethnography and psychology in a particular setting, “the objectives of the experiment are clearly defined and the technological options identified and bounded in advance” (Schmidt 2000: 148). “Traditional” ethnography does not necessarily fit the requirements and working practices of a design project. For example, requirement analysis is reductionist in character, which in some important ways sets it apart from ethnographical analysis (Crabtree and Rodden 2002). There are differences between an “adequate account” for the purposes of social science and an adequate account for the purposes of design, which is intended to contribute to the development of the occupational practices in question (Crabtree 2004; Crabtree and Rodden 2002; Räsänen and Lindquist 2005; Shapiro 1994).

Within HCI and related research areas, ethnomethodology (Garfinkel 1967/2002) has been promoted as the kind of ethnographic approach that is needed in design (Crabtree 2004). However, the way it was applied in HCI reduced ethnography to a kind of empirical exercise, which lessened the contributions it might have been able to make to the study of man-machine operations at the time (Nyce and Löwgren 1995). Whatever criticisms one has, ethnomethodology in HCI offered an opportunity to better specify

design practice; the results in turn improve the innovation and invention of the future (Button and Dourish 1996; Crabtree 2004; Crabtree and Rodden 2002).

A distinct strand of ethnography emphasizes interpretation, not discovery, and the analysis of our own practises as well of those of others. The approach is concerned not only with the production of the society, but also with its reproduction as series of structures (Anderson 1994; Bader and Nyce 1998; Chalmers 2004; Dekker and Nyce 2004; Dourish 2006; Giddens 1984/2004; Nyce and Bader 2002). Recently, the idea of informing design, a key idea in HCI, has been questioned. Dourish (2006) criticizes the politics and conditions under which ethnographic work is done in HCI. By “forcing” ethnography by working towards “implication for design,” it misplaces and misconstrues the ethnographic enterprise. In short, the question of how one can get ethnography to *work* and *work well* within systems development has not yet been resolved. Dourish suggests that ethnography (that is, ethnography that goes beyond the “implications for design”) has a critical role to play in system design; it provides models for analyzing settings and what is going on there. In addition, it may also uncover constraints or opportunities, in particular design practices, and therefore help to shape research strategies (Dourish 2006; see also Räsänen and Nyce 2006).

Nevertheless, social scientists such as anthropologists have been thought to be able to contribute the articulation of the social context of technology use. It seems appropriate to draw from that experience, especially since the social context is of importance for HCI and CSCW research. When properly conducted and considered as much a form of analysis as a field method, ethnography can raise the question of what social context “means” in general terms and how it should be taken into account in a particular design and development project. In this thesis, I suggest an analytical position that is in line with social science traditions such as social and cultural anthropology. I suggest that the analytical frame enable the HCI community to “make sense” of the use situation.

Fieldwork within the Project

This section is about my *field*, which does not simply exist, waiting for discovery. On the contrary, it has to be constructed. Just as actors participate in social processes to create and maintain their world, researchers participate in social processes as well. The concept of field and the concept of field in fieldwork are subject to analysis and reflection within anthropology. They are “politically and epistemologically intertwined; to think critically about one requires a readiness to question the other” (Gupta and Ferguson 1997a: 3). The term “field” in anthropology frames research questions and methods as well as theoretical issues. For reasons of clarity in this HCI context, I continue to explore the notion of field

in fieldwork as a practice and the construction of the field as a site for the study, and leave the theoretical discussion of the concept of field outside the scope of the thesis.

The formative role of anthropological fieldwork is about getting first-hand experience and providing a basis for theoretical contributions (Kuper 1992). Fieldwork is assumed to be longitudinal² in order to capture as complete a picture of a phenomenon as possible: the changes that are sometimes slow, sometimes rapid. Initially, fieldwork was designed to meet up with needs in studies using participant observation (which I get back to later in this chapter) in small-scale, face-to-face societies. Fieldwork involved travel away to a distant place. In contemporary anthropology, fieldwork is often conducted *at home* i.e. in the researcher's own society and/or circumstances that in one way or the other are familiar to the researcher (Jackson 1987). At home has nothing to do with research done in domestic places such as peoples' homes. The concept of field also meant an obvious reference to one geographical place where the research (fieldwork) was carried out. However, the idea of field is no longer always geographical (Amit 2000). The fields vary from single, local, physical and geographical places to trans-local, global organizations (e.g. Garsten 1994) to trans-national occupational fields (e.g. Wulf 2000), to fields of electronic media, for example, on the Internet (e.g. Uimonen 2001; 2003a; 2003b). Fieldwork was and to some extent still is, shrouded by mystique. It is somewhat of a "rite de passage" by which a novice is trained to become a professional and furthermore, recognized as an anthropologist (Clammer 1984; Holy 1984; Kuper 1992; Urry 1984).

What I call my fieldwork in this thesis has been framed by the research project Community at a Distance, in which a communication environment with audio and video connections was established in the Contact Centre. The driving forces of this project, its limits and possibilities, also shaped my work and made my study an experiment in fieldwork as well. The fieldwork, at least in part, was influenced by the project aims and was, in many ways, goal oriented. This type of fieldwork is frequently used within HCI research, which often includes design and development of information and communication systems. Within anthropological traditions, similarities can be found with action anthropology or applied anthropology approaches.³ The research as well as the role of the researcher is influenced and limited by the aims and needs in the design project. As mentioned earlier, what needs to be done for design reasons may not have anything to do with the social and cultural-analysis approach to gain understanding of a phenomenon (e.g. Shapiro 1994). They might even be contradictory. Thus, it becomes important to understand the "imperative of design" (Lantz, Räsänen and Forstorp 2005: 11), i.e. the design and development obligations and how they influenced my work.

A design or technology development project is goal oriented; the result is often a design concept, product, or service. However, it must be kept in mind that the technology

development process and the designed product are not just artefacts, but a changed or reformed practice (Blomberg et al 1993). **The researcher initiates and takes active part in** the change; he/she does not just witness one. In a design project, there is an achievement with good intentions and, hopefully, an improvement of some kind. Thus, “those involved in linking ethnography and design must be aware of their role as ‘change agents’” (op. cit. 139). So here, as well as everywhere else, the ethnographer’s role should be reflected upon. One must ask, “In whose interest does one operate?” Further, “Does one serve the people for whom new technologies are designed [...] or does one serve the sponsors of the work” (op. cit. 139). Issues pertaining to participation, the ethnographer’s role in the project, power relations between ethnographers and informants as well as access to the informants’ environment and reciprocity must be confronted. Even if there are general ethical research considerations, these issues are often related to the people and setting at hand. In this chapter, I reflect upon how I handled these. Before that, let us examine some prerequisites for my participation in the Community at a Distance project.

In September 2001, a researcher at the Centre for User Oriented IT Design (CID) at KTH introduced me to the research project, which later was named Community at a Distance. As mentioned earlier, the overall research aim in the project was to study whether it is possible to create connections between the three locations so that “they are experienced as immediate and natural extensions of the local environment, as communicative surfaces between co-workers at distant places” (Lenman et al 2002: 323). An implicit aim in the project was to improve the working environment at the Contact Centre and the work situation for the staff by offering video-mediated communication technology to connect the geographically separated workplaces. Community at a Distance was a research project building on previous research on mediated communication done at KTH and elsewhere. It aimed to pave the way for new ways of using this technology in a new situation and environment. However, it was also a design and technology development project. An objective in the project was to prepare for a permanent establishment of the communication environment in the Contact Centre if the employees wished so and various resources made it possible.

One of my first thoughts then was “What a ‘perfect’ anthropological field!” There was a well-defined work organization with possibilities and challenges, situated in a complex everyday world in the Stockholm archipelago. Rather than being a study initiated by the university, the project idea was an initiative of the management of the Contact Centre, which showed interest in the previous research on mediated communication at CID, KTH. I learnt that the staff worked together, despite the geographical distance. Although I believed that the basic conditions for a suggested communication environment were in place, I also knew from my experience of another call centre that there could be

complications and a lack of willingness on the part of the staff to contribute to the study. My decision to participate was also influenced by the fact that I had, successfully, used a similar communication environment, Videocafé (Tollmar et al. 2001), earlier. As a student, I had also participated in lectures that were given across a videoconference system.

A common communication environment between the three sites implied changes in both the physical and the social aspects of the work environment. Therefore, a multidisciplinary project team was established in order to cover the various aspects. I became a member of the team, which included eight other persons with expertise in architecture, cinema studies, human-computer interaction, industrial design, and media technology. The team worked together with representatives from the Stockholm County Police as well as an independent consultant with previous work experience in call-centre organizations.

Approaching the Field

I have carried out what may be called “polymorphous engagement” (Gusterson 1997: 116), which means interacting with informants in diverse ways and locations and on different occasions as well as gathering information eclectically from different sources, using a mix of several research techniques. In my case, the fieldwork was carried out on physical, geographically distant places, mainly in the Contact Centre premises on the three islands Arholma, Sandhamn, and Ornö as well as occasionally at the headquarters in Norrtälje on the mainland. The fieldwork in focus here is intermittent fieldwork, spanning over a period of time. The field was available for my research during three years from October 2001 to October 2004 within the research project *Community at a Distance*. The fieldwork was unevenly scattered over the three years. The most intensive periods of fieldwork carried out at the Contact Centre sites were during the following time periods. During October to November 2001, a preliminary study of the project was conducted with two rounds of one-day visits to each island as well as a workshop at KTH. During September to December 2002, I spent one week at each location in the archipelago. In addition, I visited the islands for one-day activities in the project. During June to July 2003, I spent one week on Sandö and Arholma respectively. During September 2003 to June 2004, I spent approximately one day each week in Arholma, Sandhamn, or Norrtälje.

In between, I made short visits to the islands on several different occasions and for several reasons, mostly depending on activities in the research project. Judging from my field notes, roughly estimated, I visited at the Contact Centre sites 75 times. My intention was to divide my time equally between the three sites in the archipelago. However, during the use of the communication environment, my fieldwork was concentrated to those locations that employed the communication environment, i.e. Arholma, Norrtälje,

and Sandhamn. Apart from the premises of the Contact Centre, my work was carried out on the boats and buses to and from the islands. In addition, the field site was also represented at KTH through the activities and participants in the project Community at a Distance. I used telephone and telefax when there was a need to communicate with the personnel at the Contact Centre while I was at KTH. I also met the staff members across the communication environment. At those occasions, I met the personnel on one island while I was on another.

Information for my research purposes was gathered over time. It also allowed me to overview processes over time as well as notice changes, which were sometimes slow and sometimes rapid. Even if some changes are reported in this thesis, they are not always emphasised. The following techniques were used to collect the data.

Project Activities

The project Community at a Distance took a co-operative, user-oriented approach, which supports employee participation, stresses the importance of acknowledging and benefiting from the user knowledge and work experience and other circumstances, integrates them into the development work. It is also believed to facilitate and support the introduction of a new product or a service (Bjerknes, Ehn and Kyng 1987). In addition, a design model developed at CID was used in the project (Westerlund, Lindqvist and Sundblad 2003). Thus, the design model emphasizes a holistic perspective on both the use situation and the participation of all the parties during the various phases of the project. Researchers in a multidisciplinary team bring various skills and perspectives into the processes. By working together, it is believed that it is easier to establish a common ground and to reduce problems in the handing over information and experiences. Throughout the project, the project team encouraged the employees to maintain a dialogue with the team through various activities. These included meetings and interviews, workshops (we used video during brainstorming and prototyping activities, based on the work by Mackay 2000), and cultural probes (based on Gaver, Dunne and Pacenti 1999) as well as questionnaires covering communicate means at the Contact Centre and the staff's experiences of the communication environment at the end of the project. The employees were also invited to test a prototype of the proposed technology (the methods and research approach in the project is described in some detail in Räsänen et al 2005; but also in Erixon et al 2001; Gullström-Hughes et al 2003; Lenman et al 2002).

As a member of the project team in the Community at a Distance project, I "was to inform the design and then evaluate the use of the communication environment," as the project leader put it to me in the autumn of 2001. I initially contributed to informing the design and development activities and later studied the use of the communication

environment. To some extent, my role was to be a “change agent” (Blomberg et al 1993: 139). Rather than just acting as a cultural analyst, aiming at understanding and exploring the meaning of the socio-cultural context, I took part in changing it. In those changes, I had a role similar to “users’ champion” (Bentley et al 1992: 129) with a strong intention and commitment to serve the employees’ interests, but, obviously, the changes served the project’s research purposes as well. When I participated in meetings and workshops arranged by other members of the project, I usually participated as a note-taking observer. Other times, such as at the beginning of 2003 when several Contact Centre employees visited KTH in order to test a prototype of the communication environment, I was host. My role in the project team was also to maintain contact with the participants at the Contact Centre regarding various administrative matters in the project.

All the members of the project team, apart from applying the skills and knowledge in their fields of expertise, also carried out several hands-on activities. For example, I helped to transport and deliver furniture, fabrics, light fittings, and parts of the communication technology to the different Contact Centre locations. Later in the project, the activities involved helping to change gadgets, and to localize and fix technology faults. I took on some of these tasks myself and was assigned others. There are several reasons for hands-on work. Most of them were solely practical and could be considered to benefit the project. In a multidisciplinary project team, hands-on activities also contribute to the understanding of each other’s work and perspectives. In addition, the hands-on activities contributed to my fieldwork by expanding the assignment and thus contributing to a broader view both of the socio-cultural context, within which the communication environment was established and used, and of the different processes in the project (for more on the roles in the project, see also Lantz et al 2005). In writing this thesis, I take yet another analytical position viewing the field that is now, in a way, represented in my field notes and other material. Even though the work in the project was a common effort and certainly influenced the thesis, I wish to explore my point of view in the following by bringing in different theoretical perspectives as well as reflections on my own work.

Some of the different roles or positions within the project were straightforward and practical. However, they also suggested contradictions. For example, how does one combine the different roles of change agent and user’s champion? In addition, how does one study (without too strong a bias) technology use when one has taken part in developing it? There is a risk of conflict in favour of one or the other. Clearly, there is not a single way of dealing with the various positions, but the situations need to be handled in numerous ways during the everyday interactions with the personnel, the project team, and others as well as in the analysis presented in this thesis. The task was easier when the different positions could be kept apart. However, occasionally they unavoidably needed to be

handled at the same time. For me, reflecting on and acknowledging the various positions beforehand and during the project was a useful way to prepare myself for handling the everyday situations.

I was not a “designer” of the communication environment, nor was I a “traditional” social scientist. I was somewhere in between. I took part in the project activities and in that way added to the design process. It is hard to isolate what exactly was my role and contribution, since the project team acted on common decisions. Participation can diminish resistance: informants tend not to criticize the project or technology in the way they would otherwise do. This was certainly the case here as well. However, I am convinced that the Contact Centre employees successfully articulated their various opinions and reminded the project team of their position in the work while keeping me on track. In a different situation with different participants and other techniques, this might have been trickier.

The project was important for my own thesis. However, for my personal research objectives, it did not “matter” whether the communication environment was, very simply put, a “success” or a “failure.” This, I believe, at least enhanced the possibilities of approaching the technology use without making it sound like an entirely positive or negative experience.

The information gathered during the activities in the Community at a Distance project has been data for my thesis. This includes notes taken during the meetings and workshops, photographs and video as well as the employees’ responses to two questionnaires: one given at the beginning of the project and one at the end. In this thesis, the employees’ comments written on the questionnaires are used to capture their exact words regarding some phenomena. The comments in the first questionnaire in August 2002 were written in an empty space at the end of the questionnaire where the respondents were asked for comments and examples: “Below you can write down what you consider the most important aspect of communication within and between the Contact Centre sites. You can also comment on the questionnaire itself.” The questionnaire was titled “Study of Communication.” It included thirteen questions and aimed at getting an idea of the ways of communicating and interacting at the Contact Centre. We received a total of thirty-three responses from the, at that time, forty employees the questionnaire was sent to. The questionnaire at the end of the project in October 2004 was titled “Study of the Communication Environment K” and aimed to capture the employee’s experiences of the established video-mediated communication. One open question was asked: “What is your general opinion about the communication environment K?” We asked the respondents for various angles and examples. There was also an empty space for other comments and examples as well as comments on the questionnaire itself. We received a total of thirty responses from forty-five employees.

I have also used the project instrumentally: i.e. the assumptions, expectations, and so on expressed in the project have been data for me, something to approach further. However, it should be emphasized that the process was not studied per se. The project activities as well as the communication environment also worked in a “provocative” manner in the sense that it aided access to “a sluggish imagination” in much the same way as in a “breaching experiment” (Garfinkel 1967/2002). A technological implementation can be treated as a breaching experiment when novel technologies are confronted in use in their actual circumstances (Crabtree 2004). Breaching or provoking everyday activities is one way in which the empirical study of social organization might proceed. The activities in the Community at a Distance project worked outside of, or rather, in addition to the ordinary work at the Contact Centre. They interrupted and, in a way, “caused trouble,” during the ordinary working day. The communication environment was also a new experience for the personnel. Activities and technology may trigger or call forth reflections and analysis of practice through which insights into the familiarity of a social organization are made possible.

Participate or Blend with the Wallpaper

Observation through participation is a common practice within anthropological fieldwork for learning more about the concepts of interest and generating anthropological knowledge (Geertz 1983/2000; Holy 1984; Tonkin 1984). A problem with observation is that the researcher’s presence affects the observed situation, thus obstructing and disturbing the researcher’s ability to report on what is “going on” there (Holy 1984). A long stay in the field is argued to be one way to minimize the negative effect of the researcher’s participation. The longer the stay, the more likely people will become accustomed to the researcher’s participation. Acceptance is needed for long-term fieldwork: i.e. the researcher needs to maintain good relations with the informants (Tonkin 1984). The researcher does not just rush in, carry out his/her work, and leave the scene. Acceptance in the field is not only about “aiming for empathy but to use himself or herself as the medium of research” (op. cit. 221). Learning by doing and by making mistakes is a valuable way of gaining access to information.

However, participant observation is not to be understood as a method; rather, it is a combination of more specific techniques. Through participation in people’s lives, the anthropologist achieves involvement, which is a condition for carrying out research, by applying other research techniques (Holy 1984; Tonkin 1984). I used techniques such as observations, interviews, and informal chats. I paid attention to various documents available at the Contact Centre, such as meeting minutes, education material, and articles as well as information scattered around the working place, for example, on notice boards and coffee

tables as well as from other sources such as on the Internet and in local newspapers. I also participated in several of the activities in the Community at a Distance project as well as the practical work mentioned earlier and studied the data collected for project reasons.

As I live in Stockholm, the archipelago is only a few hours away. Even though the trip took about three hours one way, I was able to spend a complete working day at the premises of the Contact Centre and return home at night, in much the same way as if I were to go to an office in the Stockholm area. When I arrived at the Contact Centre site in the morning, I usually chose an available working desk in the same way as the personnel did, to work on my field notes, reading minutes, and other documents. This gave me a good overview of the open-plan working areas and, in a way, an ordinary place in the office environment. The scattered nature of the fieldwork did not make “complete” participation in the Contact Centre community possible. I did not learn to perform their main work task, i.e. registering crime reports from the public. Nor was my observation only observation. I did not blend into the wallpaper. Instead, I talked to the personnel and participated in meetings and coffee breaks. I also tried to make myself useful and helped with some basic administrative tasks, such as answering administrative telephone calls whenever the personnel were busy. I took care of loading the dishwasher and prepared several pots of coffee to be enjoyed during the coffee breaks along with the chocolate, buns, or cakes I had brought with me. Of course, there are several contradictions involved in participating with informants in everyday situations. For example, the researcher becomes familiar with the informants, and yet, at the same time, needs to live up to the academic ambition of understanding gained in terms of distance. Research presupposes loyalty towards the critical reviewing of the phenomena. The researchers are, in a way, indebted to the personnel for being able to be there and therefore hope that the research does not cause too much inconvenience in their work situation.

Observations of social life become handy when the focus is on the actions of individuals (Holy 1984). It is possible to observe the activity as well as the circumstances and the workplace where the action takes place. We can also follow the activity over time. However, actions are not possible to observe in their entirety. Activities at the Contact Centre were interwoven in webs of encounters, interactions, and conversations. They did not always have a clear beginning or end, nor were they always unambiguous. They could be either long or short. The long activities were in a way easier to recognize, but the short ones needed close attention, if they were noticeable for me at all. These are, of course, important data and contribute to the understanding of the workplace. I used observations in order to catch volatile information and learn about how the personnel used the workplace, how they interacted with each other. I observed activities, individuals’ movements in the work area, glances, and nodding to each other. I tried to get a sense of the

reactions and atmosphere when something was said or happened. It was important to pay attention to the encounters, even those that appeared to be brief and trivial interchanges, since even a fleeting moment has “much more substance when seen as inherent in the iterative nature of social life” (Giddens 1984/2004: 72): “The routinization of encounters is of major significance in binding the fleeting encounter to social reproduction and thus to the seeming ‘fixity’ of institution” (op. cit. 72).

Obviously, actions mean different things for those involved. Through observations, it is not always possible to gain an understanding of motives or subjective experiences of the activities. Equally, it is important that the researcher does not apply his/her own interpretation to the action. Through participation, the researcher may learn about the meaning that actions have for the informants. Above all, participation made it possible for me to ask questions about what I had observed, read, or discussed earlier. Objects that anthropologists gather, examine, analyze, and write about often take place in interaction with others. The primary data are things that are said or done on the social scene, during an interview, or informal encounters. “We collect the droppings of talk” (Moerman 1988/1990: 8). My “droplets of talk” are conversations and narratives that were collected in various situations including interviews, meetings, and coffee breaks, on boats and buses, as well as while people carried out their work or took part in the project activities. My interviewing strategy was open-ended, interrupted by clarifying questions. In the following conversations, I followed up on issues from the previous ones or something I had observed or read about. During the dialogues, I tried to follow the person’s lead, consider apparent tangents as important clues. When appropriate, I asked for an example to illustrate his/her point.

The context of interviews and everyday chatting needs to be structured and understood on several levels (Davies 1999). In the course of the fieldwork, I tried to develop sensitivity to social and cultural structures of relationships and meanings at the workplace, as well as other social divisions such as gender, age, profession, and power differences. For example, as far as it was possible, I tried to use terms and words used by the Contact Centre personnel.

The data gathering techniques used in this study are not to be seen as separated or independent, used to gain understanding on one particular matter, even if that also sometimes happened. Rather, the various techniques feed the understanding of phenomena from somewhat different angles. Several techniques were often used simultaneously. For example, an observation often also included elements of an interview. Reading the minutes of a meeting started a conversation about some particular matter. I started many conversations, but I was also sometimes drawn into discussions of topics that were of interest for the personnel at the time.

Throughout the research, I tried to keep a balance between inviting the personnel to participate in research activities and waiting for them to do so. The management of the Stockholm County police had agreed to participate in the Community at a Distance project. In general, the management of a company can encourage and even require or “force” their employees to participate. As far as I know, this was not the case here. However, as a researcher, I advocated free choice of participation for individuals. Nevertheless, there are situations where the researcher’s aims and expectations may not correspond with the participants’ expectations. I chose to be explicit in my aims. For example, whenever appropriate, I talked about my research interests and information needs in the project, collectively in meetings, in letters, or in telefaxed documents. Obviously, this works well only when there is a clear question to be answered such as what are the different ways of communicating between the sites, one of the questions asked for the project purpose. This gave a possibility for those who wanted to contribute to contact me; others could just ignore the task. It was different when I participated during working days and in meetings. Did all the employees really want me there? However, even there, I tried to approach each person without being pushy.

This, of course, leads to a common “gatekeeper” and key informant situation. There is a risk that the voices of those who are dominant within a group are more articulated, “louder,” and more explicit than the voices of those who are less dominant. Some are more active in making contact and expressing their desire to participate. Others participated because of their work or role at the Contact Centre. For example, contact persons in the research project also became my informants. They were assigned time to spend on the project, which made it easier for me to ask them questions. At each location, there is a group leader who is in charge of the everyday routines, including a session for planning of the work activities and working schedules, and who also takes general responsibility for the personnel. Their perspectives were also of importance in my study. I also needed to talk to the group leaders for administrative reasons, for example, checking out whether it was possible to gather the personnel for the purposes of the project. I present the personnel and the organization in more detail in the following chapters.

An anthropological research field is often described from the perspective and in terms of those who belong there. For instance, people who live in a village or work in a company belong there. They are obviously the most central persons, but, one may ask, is this way of emphasizing belonging also a way of normalizing the otherwise complex realities of a research field? There is a risk of normalization. Unsurprisingly, it is impossible to draw a generalized picture of “reality.” Nevertheless, this might be done for reasons of clarity in the narrative. On the other hand, taking responsibility for those that are

in focus in the study is always part of the fieldwork. In this thesis, employees' names attributed to the quotations from the interviews and observations are pseudonyms, and details in the descriptions that follow have been changed to provide anonymity. In order to understand who is actually behind the words in this thesis (apart from the author of course), more detailed information of the participants' background, understandings, and aims in talking with the researcher, would have been in place. Comprehensive descriptions of the individuals, I believe, would have contributed in a positive way to the narrative. Nevertheless, despite any pedagogical problems this lack of description might pose for the reader, the ethical concerns are paramount. I have chosen to present the employees collectively rather than describing individuals in detail. Unfortunately, terms such as "personnel" and "staff" indicate a homogenous group. However, it should be kept in mind that the Contact Centre employees do not constitute a homogenous group; rather, they are individuals with various backgrounds, ideas, interests, knowledge, skills, humour, and attitudes based on social roles, norms, dispositions, and on demographic characteristics. Their *habitus* help to define their personal goals, motivations, willingness, and views on everyday activities. These are also brought into the use of various technologies. The name of the workplace organization, the Swedish Police Contact Centre, is published here in agreement with the personnel and the management at the beginning of the research project *Community at a Distance*. In order to avoid confusion, I use the names of the four sites Norrtälje, Arholma, Sandhamn, and Ornö, whenever a distinction between the four sites is necessary for the narrative.

The term "user," indicating a person using a technology or a device, is commonly used in HCI literature, but this is limited to a certain role a person takes or occupies in a specific situation when using technology. Instead, I prefer to use the terms that the employees themselves used to describe, for example, their position within the Contact Centre. I at times also use terms such as "staff member," "employee," as well as "informant," to indicate a particular participant.

Anchoring Field Notes

The field notes are both a strength and a limitation in an anthropological work, a "bizarre genre" (Lederman 1990: 72), somewhere between the academic discourse and observations in the field. Field notes "are supposed to be a reconsultable record of field experiences—an anchor for the crafty frames of memory and possibly a resource for other researchers" (op. cit. 72-73).

Throughout the research, I made field notes based on my observations, which, as described above, include everyday encounters in various situations and locations. I wrote down citations and comments of each participant, the activity and/or the events of the

day as well as the reactions of each participant as closely as possible at the time. Most of the quotations in this thesis are reconstructed from handwritten field notes of what a person said. Some of the field notes were written during an activity, such as a meeting or conversation; others were written afterwards. As time went by between the current activity and note making, there is a risk that I wrote down the observation in a different way or order. It was also impossible to write down everything that happened at a given moment. Sometimes, I recalled a detail afterwards and then completed my field notes. I distinguished between these two note-taking activities and made a note of the particular time when I actually wrote down the observations.

Field notes are not only words and drawings in notebooks, but experiences that have been written down in order to remember them later on for the purposes of further data gathering and data analysis. In my case, I also needed to make notes of certain matters in order to report to the rest of the project team. To facilitate the analytic process, I made explicit distinctions between what was a description (mine, of course), what I thought had happened, participants' comments and quotations, as well as my own reflections and possible interpretations. I wrote my field notes either by hand in my notebook or directly on my laptop computer. At the beginning of the project, some of the handwritten notes were typed out and distributed to the rest of the project members.

Everyday encounters offered several situations for observation, listening, and asking questions. Field notes worked reasonably well as a recording facility whenever situations turned up, sometimes unexpectedly. A notebook or a piece of paper was always at hand. In addition, the employees were familiar with note taking, as it is common in office work. They saw me take notes, but, hopefully, were not disturbed in what they were doing. Sometimes they even asked whether I could keep up with my note taking when the conversation was moving fast or should they slow down their discussion (fn 2003-11-12).

Analysis, Interpretation, and Writing up

Field notes and other data do not speak for themselves but rather through the analysis and interpretation of a researcher. In this thesis, narrative strategies are used as a way to organize, analyze, and make sense of the empirical material. Narratives are suitable for explaining a chronology of certain action. They also function as tools for analysing and explaining various events as well as establishing links between them. Narratives are the main product of this research. I now describe how the gathered information found its way through analysis to this thesis.

The reader should keep in mind that the data that is supposed to be "raw" is already "cooked."⁴ The analysis and interpretation process used in this thesis is in line with anthropological work, in which the analysis of information takes place continuously

during the research. It begins in the early stages of the fieldwork, “in the formulation and clarification of research problems, and continues through to the process of writing reports” (Hammersley and Atkinson 1995: 205). Each observation, interview, each document read and image studied involves immediate interpretation even if it may appear here as discrete activity. Analysis is an iterative process where the “analysis of data feeds into research design and data collection” (Hammersley and Atkinson 1995: 205). Here, as a researcher, I had an opportunity to draw a picture of some aspects of everyday life in the Contact Centre. It is also a challenge to try to see the “world” in a somewhat different way. It is a creative act. As my fellow PhD candidate Sinna Lindquist points out, ethnography is about “carving” new meanings: “[E]thnography is an interpretation” (Van Maanen 2001: 238). However, every creation has its limitations. As pointed out above and in the following section, the researcher’s theoretical position, knowledge objectives, previous understandings and other factors frame this interpretation.

As someone trained in social anthropology, I believe that it is important to investigate the point of view of the native informant. This corresponds closely with the notion of the user’s point of view in HCI research. However, neither of these points of view can ever really be comprehensive, as Geertz rightly points out:

The trick is not to get yourself into some inner correspondence of spirit with your informants. Preferring, like the rest of us, to call their souls their own, they are not going to be altogether keen about such an effort anyhow. The trick is to figure out what the devil they think they are up to. (Geertz 1983/2000: 58)

The researcher is always tied up with his/her own perspectives. When a researcher takes the actor’s point of view, he/she tries, temporarily, to adopt a complementary point of view, that of the local actor, but he/she does not himself/herself become one (Geertz 1983/2000).

In my research, I am interested in people’s actions, statements, and experiences and what the informants mean by a particular action or statement, but also what the practice stands on. My analysis can be described with experience-near and experience-distant concepts (op. cit. 57).⁵ The experience-near analyses throw light on phenomena seen from the informant’s point of view, how he/she sees and thinks about it. Experience-distance concepts, on the other hand, aim to explore all other possible interpretations on a theoretical level. Anthropological interpretation objectives distinguish between the experience-near and experience-distant descriptions. However, they are both important in the analysis. My analytical starting point is experience-near. I attempted to determine how the Contact Centre personnel experience, act on, and live the sense of togetherness during

their working days as well as how the sense of togetherness is expressed, for example, in various artefacts. This includes concerns related to these issues, ways to contact and communicate with each other, as well as how the interactions were managed. I paid attention to characteristics in expressions and ways of talking of staff members *here and there*. They all feed into the understanding of the use of the communication environment that was studied in a similar way.

In my analysis, I have followed the informants' leads, their words and their actions, as far as possible. For example, I analysed the data by generating categories and their properties through clustering respondents' explanations around particular themes. The properties are informants' expressions to describe the actual phenomenon (category). The objective here was to let the emic terms, that is informants' expressions, speak through the analysis as long as possible throughout the analysis process, rather than with the researcher's terms. The general themes, however, are mine. The themes emerged basically in two ways: through analysis based on the information gained by the informants, but also from the different interest areas in the project and from my research focus. The themes and categories were marked in the field notes with post-it notes, making them a living document even through the analysis and interpretation process. Thus, I was working with the "original" information rather than recreating it through the process too many times. The markings were changeable, leading to non-static categories. The categories have been changed during the process. The central concept in the thesis, the sense of togetherness, emerged as important through the practices of the Contact Centre workplace and the project Community at a Distance during the early days of the fieldwork. Even though the office practices were the starting point, rather than the category of the sense of togetherness, after a while the two became increasingly interweaved. For the reader, it might be difficult to judge which came first. The final use of the term as a vehicle for approaching the socio-cultural context emerged towards the end of the analysis and while writing this thesis.

For me, writing also works as an analytic tool towards an interpretation. Anthropological analysis often begins with and results in thick description (Geertz 1973/1993),⁶ which is an account of an event or a phenomenon and an analysis and interpretation of the many different meanings an event may have. Therefore, the interpretation and the description, i.e. the writing itself, are interwoven. The writing practice means interpretation, and the description becomes interpretative (ibid.). The description itself is an argument the researcher wants to make. The interpretation should lead us to understand something better than we had done previously. That can be achieved through explanation (Kristensson Uggla 2002). In this model, there is a dialectical relation between understanding and explanation. They can be seen as complementing each other as these moments follow iteratively in the process of interpretation (Ricoeur 1988/1992).

In his/her work, the anthropologist is dependent on others, at the field sites and, as here, in the project. Ultimately, however, it is the researcher and not the informants who develops and takes responsibility for the descriptions and representations (Van Maanen 2001). The work is about construction from the inside, pictures and illustrations of how a group of people create meanings. Moreover, it is about construction from inside the author's point of view. Therefore, the particular aspects of the socio-cultural context of technology use suggested in this thesis are the researcher's construction. The sense of togetherness is one, but not the only perspective on approaching the socio-cultural context of technology use. The perspective stands against the articulations, frames, backgrounds, or infrastructures that give it form. The perspective connects and gives form to the chosen analytical outline, but also disconnects and demarcates other domains of relevance. This frame includes, but it also excludes. By taking this particular position, I leave out others. Authorship is about control and influence. Even if the author tries to let the "field speak" (Salzer-Mörling 1998: 68), the descriptions and quotations from the field are dramatized. The author chooses and edits the dialogues. For, "[...] although culture exists in the trading post, the hill fort, or the sheep run, anthropology exists in the book, the article, the lecture, the museum display, or, sometimes nowadays, the film" (Geertz 1973/1993: 16). The following narratives are accounts of my encounters with the informants. However, at some other time, I, or someone else, might tell them differently. Hence, the present text is a construct, my creation and transformation of interpretive decisions of what I understood "happened" in the Contact Centre. It does not represent all of its richness. It is not a copy or mirror of "reality," nor is it complete. As we know, "complete description' is a chimera" (Moerman 1988/1990: 57).

Quotations of informants are often used in ethnographic writing. Unfortunately, quoting is often used to persuade the audience, establishing the foundations of conceptualization (Bloch 1992). This can be misleading since, "[...] people's explanations probably involve *post hoc* rationalizations of either a conventional or an innovative character" (op. cit. 131 emphasis in origin). Rather, Bloch argues, it should be obvious that the anthropologist has carried out the kind of fieldwork necessary in order to gain an understanding of how the informants conceptualize their world. My text is not free from quotations. I have chosen to use them in order to show traces of the analytic and construction work I have done in the thesis. In the text, there are references to when and where the information originates. For example, in "(fn 2002-09-31)," the letters *fn* and a date within parenthesis (yyyy-mm-dd) stand for a field note written down on September 31, 2002. "Q23 August 2002" stands for response 23 in a questionnaire (Q) carried out in August 2002. "doc 2003-12-05" stands for any dated document, such as meeting minutes

available in the Contact Centre. “ws 2002-09-15” stands for any project activity that was monitored by someone else other than me.

One practical challenge in the work was how to describe phenomena that have been accessed in part through language, that are partly visual, and that linked to interaction and performance extending over a period of time. Such phenomena are anchored in practices, perspectives, and experiences that feed into each other as well as the understanding of a phenomenon as a whole. In addition, organizations such as the Contact Centre change over time. New employees come, others leave. New duties and computer applications are adopted while others are taken out of service. In some cases, I have made a point of these changes. After all, they contributed to the historical perspectives (even if in the short term) of the organizational culture. However, for reasons of clarity in the narrative, not all changes are explicit in the text. Therefore, there is a risk of describing the phenomenon without making it sound like a normalized report. The present text does not follow a chronological order in which the observations were made. For example, the information about the Contact Centre organization and the working day was gathered before, during, and after the communication environment was introduced.

When a researcher is present at the research site for some time, he/she gets to hear about various, sometimes delicate details and aspects of the organization and people working there. On a field site, this is less problematic. It is something of a rule not to gossip, not to reveal something someone else has told you or to discuss it further with other staff members. Ways to discuss and/or confirm previous, delicate pieces of information must be worked out in the social, interactive acts that constitute fieldwork. When writing about them, however, a dilemma arises. How much can I uncover without exposing the individuals and still be able to give an accurate account of a phenomenon? Employees and others who know them might read the thesis and recognize themselves or be recognized by others. There is a balance to consider between being protective and giving “genuine” description and interpretation. Even with the best of intentions and considerations of responsibilities for both academy and informants, the equation is complicated and not always possible to maintain.

The fieldwork presented in this thesis has been carried out in Swedish. It is a challenge to interpret and describe it in English. What happens during a translation process? Some things will go missing and other things will be transformed. One does not only translate words, the language, but also different “worlds” that are associated with various practices that may or may not differ. Whenever suitable, the Swedish expressions are translated as closely as possible when describing particularities in the field. However, this is not always preferable for reasons of clarity. For that reason, rather than using exact

words, I have chosen to translate and reconstruct utterances so that they are readable in English. That means that some of the citations and expressions may be somewhat different from the originals in Swedish.

One of the analytic terms used in this thesis, the sense of togetherness, is particularly delicate to deal with since it aims to cover emic descriptions and expressions from the field, used by the Contact Centre personnel in their ordinary, everyday speech. The emic descriptions include Swedish words such as *gemenskap* and *arbetsgemenskap*, which could both be translated as “community” or “workplace community.” Taking the opposite perspective, there is no unambiguous Swedish translation of the word community (Asplund 1991). A translation is often advised against and sometimes paraphrases such as “we” are preferred. In general terms the Swedish nouns *gemenskap*, *gemenskapen*, *gemenskaper* refer to a relationship in which someone or something has something in common with someone or something else (*Svenska Akademiens ordbok* nd). A synonym mentioned is, for example, *sambörighet* (solidarity, affinity, kinship), which was also used by the Contact Centre personnel. They also used word *sambörighetskänsla* that can be translated as a “feeling (sense) of belonging [to], [feeling of] togetherness (affinity)” (*A Comprehensive Swedish-English Dictionary* 1988). These words are both normative and descriptive.

Illustrations and drawings are included in the thesis in order to exemplify, clarify, and support the narrative. The drawings are based on photographs, geographical maps, and sketches created during the research, mostly in the project Community at a Distance for various purposes. Each drawing in the thesis is not a copy of the original work, but rather a simplified sketch to make a point of a particular matter. In practice, this meant withdrawing some and/or adding other information. The drawings are not mine, but were made by a graphic designer. The reason why I handled images this way in the thesis is partly practical, since the original work would not have turned out as well in print. In addition, this way of dealing with the images attempts to stress the idea of constructing the thesis on different levels.

Coming of Age in the Archipelago

At the end of 2003, in the second year of my work with the Contact Centre personnel, I arrived at one of the Contact Centre sites dressed from top to toe in several layers of clothes, in a large winter coat and pull-over trousers among other things. Eja, one of the employees, met me at the door and greeted me with a hug. I had not seen her for a while in person. We started chit chatting, and she looked at me while I was taking off my thermal wear. I felt I needed to explain why I looked like a cabbage, with several layers of

clothing on me, so I made a comment on the cold weather and the need for the extra pair of trousers. Her response to me was something like, “Well, you are starting to look as you ought to be out here. You are learning!”

As much as Mead’s centre of attention was on how girls became women in Samoa in her book *Coming of Age in Samoa* (Mead 1943) I here refer to a rather personal account of the researcher’s process through the study. Considering the role of a researcher, especially when using his/her experiences as a method, it follows that his/her previous experiences and understandings and, indeed, personality are both the problem of and the condition for the interpretation. Therefore, I find it important to reflect upon a few further conditions for the work of interpretation I am about to start. Hence, in the spirit of reflexive anthropology, this section is about my previous experiences as well as meetings with the informants.

Research "At Home"

Apart from one or two short trips to the nearest islands in the Stockholm archipelago, I had never visited the islands and knew very little about the archipelago, the people, or their particular living conditions before my research started. However, I was born and grew up in the countryside in eastern Finland. Thus, I am familiar with several practical aspects of living in rural areas. I have also passed through the Stockholm archipelago on the ferry to and from Finland several times during the past twenty years, and enjoyed the scenery from several metres above sea level.

The first time I came in contact with a call-centre organization was in 1990 at a daily newspaper in Sweden. I worked for approximately ten years there, developing computer applications for call centre purposes. Several meetings with the call-centre personnel were part of my work. In addition, my work desk was close to the call centre in an open-plan office, which made it possible for me to observe the activities there. Unsurprisingly, many contacts were made during the working days. My experiences from that time could be treated as a disadvantage, making me “blind” to various matters. However, it also made it possible for me to get an overall picture of my research field and, as I believe, be a faster learner about what was going on there, which I believe is an advantage, since time for the project was limited. I already knew what it might be like to meet a customer on a telephone, rather than in person. I understood this way of working, the tempo, and the processes on a general level. However, every organization and every project is different. I could say that I spoke the language, but with a strong accent. Yet, my position as a PhD candidate suggests a different point of view, that of a systems developer. Compared with my previous experience, one difference here was also that the Contact Centre personnel and I did not have the same employer.

Conditions for fieldwork “at home” influence research when it comes to the practical work at the field site as well as the analytical work and the writing process. The workplaces were always geographically close, even when the project was finished. There was always a possibility to return to the sites for further questions. This proximity can also become a disadvantage, since the researcher cannot take flight home and disappear to the university: what is going on in the project and the sites is linked into the everyday work and life. The researcher working at home shares in many ways in the society and *culture* of those whose lives she/he is interested in. They can watch the same television programmes and read the same newspapers. Anthropologists who study foreign societies have their ways of breaking in when they start to learn about new things. An anthropologist at home, however, struggles to control problems of “getting out” and how to distance themselves from far too familiar circumstances (Löfgren 1987). For me, research at home poses a challenge for studying the “normal” and common sense in my own society. Here, I needed to defamiliarize myself, make the familiar in a way odd and exotic, and see their problematic or, at least, the altered character. Phenomena and ways of expressing oneself differ even in my own society depending on the situation and the group of people. One needs to be alert and not let one’s own, familiar, first interpretations take over and include others. Working with negotiations (Alvesson 2003) is yet another way to insert insights into the familiar. For example, even if I was interested in the activities around the sense of togetherness, a rather positive category, it was also of importance to learn what counteracted it, how, and when. To some extent, I was helped by the fact that even if my home is now in Sweden, I am still a foreigner. As a foreigner, and since Swedish is my second language, I am often allowed to ask (even naïve) questions, and ask them again and again in order to seek understanding on the common sense ideas of a society. Comparisons between the different societies as well as workplaces and organizations can also help understanding a phenomenon. The time delay between the fieldwork and writing the thesis made it possible, to some extent, to reanalyze and reconsider the data. Time also worked to distance the relationship between me, as a researcher, and the informants, so they no longer appeared in their everyday familiarity.

The Staff Meet the Researcher

“I must fill this in, otherwise Minna will go crazy. She must have material in order to write her thesis. This is important,” Lisa said. We—Lisa, one of the Contact Centre employees in Sandhamn, and me together with Erika, in Arholma—were just about to finish a conversation we had been engaged in across the communication environment. Lisa had picked up a form we used in the project Community at a Distance in order to get comments on the use of the communication environment. I gesticulated with my hands

and sent her several kisses across the communication environment and thanked her for her contribution. Even Erika started to fill in the form.

Even if not always intentional, my recurring presence at the Contact Centre and my data collection for project purposes affected the working day. It would be naïve to think that my presence had no effect. By asking certain questions, I also forced the informants to adopt a practice that is not ordinarily part of their working day, which became, at least in part, different from what it might be otherwise. The overall activities in the Community at a Distance project organized by me and other researchers and, later, the communication environment contributed to changes even in the physical environment. However, apart from the obvious, it is hard to say exactly to what extent or how I, as well as the activities in the Community at a Distance project, affected the Contact Centre personnel and the practices there.

In the same way, it is difficult to say how much the employees, the main informants of the study, know about my work. During my fieldwork, I tried to be explicit and clear about my purposes and the goals for my research. As Lisa pointed out above, some of the activities were quite obviously understood to be part of my research, at least by some of them. Even if the personnel were informed about the research in several ways, I am not sure whether they really understood what my part in it was about.

In general, my entrance to and getting access to the Contact Centre was quite uncomplicated. I experienced my relationship with the personnel as rather easy going. Of course, I did not have the same contact with everyone, but I still felt it was all right for me to be there. I tried to proceed in a “professional,” common sense manner, following the rules and norms for showing respect for the others’ competences as employees and individuals. We inquired about each other’s whereabouts when some time had passed without seeing each other. I was invited to some of their homes for short visits and participated in a few get-together activities. I also met some of them in Stockholm outside of office hours. Someone in the Contact Centre said to me, “As long as you keep bringing buns for coffee, you are welcome.” I tried to keep that in mind and acted accordingly. I was in many ways a privileged researcher. The term already indicates a position of authority, and writing the thesis includes a preference for interpretation, which (might) be an act of power.

Apart from the research focus and knowledge I gained as well as the research act as an experience, all the everyday crimes I heard reported to the Contact Centre have, to some extent, made me hold on tighter to my bag and other belongings, and I am even more conscious about the criminality in Stockholm now than I was before.

This chapter draws attention to the research practice, the socio-cultural context, within which the research was carried out, and also aims to broaden our understanding of the situation and the way practices were studied. I now turn to the Contact Centre located in the Stockholm archipelago and the project, Community at a Distance. In the dictionary, context is defined as interrelated conditions in which something exists or occurs (as discussed in Chapter 2). My attempt in the following is to “weave together” these conditions and bring understanding to the socio-cultural context of the Contact Centre workplace situated in the Stockholm archipelago.

Living in the Archipelago

Anthropologists have long shown an interest in studies of island societies and the people living there. Malinowski (e.g. 1922/1961) but also Weiner (e.g. 1988) study several aspects of the Trobriand society. Geertz's theoretical work is based on accounts from fieldwork on Bali (Geertz e.g. 1983/2000, 1973/1993). Sahlins studies both past and present societies in the Pacific (Sahlins e.g. 1974/1984, 1981/1988). In Sweden, there are, for example, investigations of fishermen societies (Löfgren 1974/1984; Gustavsson 1981/1990) and a study of political, cultural, and economical living conditions in a sawmill society in Båtskärsnäs (Daun 1969/1970).

In this chapter, I attempt to illuminate the social world of the Contact Centre as an organization situated in the Stockholm archipelago. I briefly describe the Stockholm County Police and the call centre as an organizational form. I also discuss how the Contact Centre was established in the archipelago. Further, I describe the living conditions on the three islands in the archipelago. Instead of focusing entirely on the ideas of organization, community, and locality as given or natural concepts where the sense of togetherness is paramount, I focus on the ongoing historical, social, and political processes of "place making" (Gupta and Fergusson 1997b: 6) as discursive and embodied practices that shape and make possible an emphasis (or lack of emphasis) on the sense of togetherness. I then attempt to provide a more comprehensive account that reconciles the fragmentary glimpses of the archipelago social world and highlights major concepts that inform the sense of togetherness at the Contact Centre and in the archipelago.

The Organizational Setting

The national police service in Sweden with 25 273 employees is one of the biggest government services in Sweden (*Police authority* 2006-06-30; *National Police Board* 2005). It includes the National Police Board, the central administrative and supervisory authority for the police service, the National Security Service, the National Criminal Investigation Department, the National Laboratory of Forensic Science, and the National

Police Academy (*National Police Board* 2005). In addition, there are twenty-one police authorities, each one responsible for the policing of the county in which it is situated. The police authorities are responsible for police work at the local level, such as responses to emergency calls, crime investigation, and crime prevention. Their responsibilities also include the issuing of passports and various kinds of permits and licences. Their duties are the same within each jurisdiction. The police officers that the public most often meets are usually stationed in one of the twenty-one counties. Each of the twenty-one police authorities decides how its work is to be organized (*National Police Board* 2005). The Stockholm County Police is one of the twenty-one police authorities and responsible for the policing in Stockholm county. There are in Stockholm county 6 265 employees of which 4 865 (78 percent) are police officers (*Police authority* 2006-06-30).¹

The work of the police encompasses various areas, such as crime prevention, crime investigation, and the administration of matters like government agency (*National Police Board* 2005). The public contact the police authority to report crimes, but also to inquire about matters concerning passports, traffic, immigration, and various permits (doc 2006-09-07).² There are many factors that affect crime trends and crime rates in Sweden, e.g. economic developments and social and demographic changes in the society (*National Police Board* 2005). Since the 1990s, reported crime has remained at a fairly steady level. In 2002 approximately 1 200 000 offences were reported to police (*ibid.*). Most of the reports are about comparatively minor offences, i.e. crimes people are subjected to in their everyday lives, such as car theft, burglary, pick-pocketing, criminal damage, and public order disturbances (*ibid.*). Most of the crime reports are received by telephone.

At the beginning of the 1990s, it was appeared that traditional police work was not an efficient or effective way to prevent crime (*ibid.*). A new approach was needed to fight serious crime as well as everyday offences. Community policing and problem-oriented policing are examples of the new approaches to prevent crime (for other examples on police work, see e.g. *ibid.*). The Stockholm County Police also acknowledged issues of accessibility for the public that want to get in contact with the police, for example, when the public want to report crime over the telephone (fn 2006-09-07). The handling of the telephone reports from the public could be made more efficient if some personnel were specially trained and concentrated only on the reporting of everyday criminality. This led to the idea of a call centre, a unit that could take care of “mass reports,” i.e. reports that can be handled immediately (fn 2003-01-28).

Everyday offence as a police matter is sometimes disputed. Despite the number of reports, most of them do not lead to further investigation, since there are no leads to follow in order to solve the crime at the time. For the police, however, a register makes it easier to follow up recurring crimes, for example, taking place in a certain geographical

area (e.g. fn 2006-10-26). If crimes occur more frequently in an area, it indicates that a police effort or some other measure is needed there. In a similar way, the descriptions of modus operandi, how the crime has been carried out and the description of a perpetrator, may lead to further investigation and eventually intervention. In addition, the crime report is essential for an individual who wants and needs to make insurance claim for lost and/or damaged property. In order to make a claim, a plaintiff needs to make a crime report to prove that a crime has taken place.

The Call Centre: An Organizational Form

A call centre is an organizational form with a physical location where a high volume of specialized business services (transactions) is handled via telephone and computer technology (e.g. Norman 2005; Sandberg and Norman 2006; Taylor and Bain 2001). The employees at a call-centre organization work with clients and/or customers at a distance by handling incoming and/or outgoing telephone calls. The service may be provided, for example, by e-mail and/or on the Internet. The purpose of the services can include, for instance, enquires, advice, sales, marketing, customer service, fundraising, and technical support. Some call centres are also known by terms such as customer care centre, contact centre, information centre, support centre, help desk, and multimedia access centre (Norman 2005; Strandberg, Sandberg and Norman 2006). Call centres vary in terms of service and product complexity and variability as well as the knowledge needed to handle the tasks.

Service management and related, customer relation management (CRM) philosophy about good service is one way for a company to attract and maintain customers. A call centre specialising in customer contacts is believed to be able to provide this service and therefore improve the company's customer relations and help them learn more about their customers. The value of call centres is recognized by a number of corporations, for example, insurance companies, banks, hotels, catalogue ordering companies, and corporations within the transportation sector such as airlines, railways, and bus companies. Call centres also represent a strategy to reduce labour costs (Callaghan and Thompson 2001). It can be particularly successful in cutting costs in routine interactive service encounters.

The idea of reaching customers over the telephone has its origin in the USA, in the shopping industry and in outbound telemarketing (Norman 2005). At the beginning of 1960s, Ford Motor Company started to approach potential customers over the telephone. Each industry, however, had its own call centre within the company. In the early 1990s, call centres, as they are known today, became more recognized. Today, call centres are one of the fastest growing labour markets in Sweden (Norman 2005). In Sweden, call centres employ approximately 60 000 people, i.e. 1,5 per cent of the working population in the year 2002 (Strandberg, Sandberg and Norman 2006). The majority of them work

in companies with more than one hundred employees. The average size for a Swedish call centre is forty-six working seats (workstations) (Toomingas, Hagman, Hansson Risberg and Norman 2003).

The service activities may be handled in-house, within the company, or they can be outsourced and taken care of by other organizations (Norman 2005; Strandberg, Sandberg and Norman 2006). In Sweden, in-house business is most common, representing an estimated 75-80 percent of all call-centre businesses (Strandberg, Sandberg and Norman 2006). There are differences between in-house and outsource companies. Employees in in-house companies tend to have higher quality of work, more training and less stressful work situation compared to outsource companies (ibid.).³ The employees in in-house companies are seen as problem solvers that carry out complex work-tasks. The employees in outsource companies are directed towards sales with less variation in work-tasks (ibid.).

The characteristics of the call-centre business often do not demand a particular geographical location. The development of ICT makes it possible to locate the call centres just about anywhere (Richardson and Belt 2001; Stolz 2004). The organizational descriptions often emphasise that the geographical restrictions now are in the past and call attention to mobility (Richardson and Belt 2001) as well as flexibility and organizational temporality (Garsten 1999). This can be an advantage for several of the parties: the management of organization, the shareholders, and employees. ICT can loosen the bonds that have connected people to particular places, thus freeing them to move and to live and work in rural areas and other far away places of their desire (Agre 2001). ICT makes it possible for people in those areas to work and live there. In this thesis, focus is on the Stockholm archipelago, in many ways a rural area, disregarding its closeness to Stockholm, the capital of Sweden.

Many of the call-centre organizations are actually located in rural areas, where labour and real estate costs are low, but good telecom options are still good (Richardson and Belt 2001). Besides, both state and local (e.g. municipal) governments frequently offer work-creation incentives to attract corporations to these areas (Stolz 2004). Local governments believe that call centres may have positive effects on rural areas, since they can create new work opportunities and therefore offer the inhabitants the opportunity to continue living there. In some areas, such as northern Great Britain and Ljusdal in Sweden, call centres have become a dominating branch of business. In Ljusdal, for example, there are at the moment about 40 call-centre organizations of various sizes and business areas, covering 10,3 percent of work opportunities in the region (ibid.). There is also a move to engage call centres outside of the country. For example, the airline SAS, Hilton hotels, and the ferry company Silja Line have set up their telephone services in Estonia where the cost of labour is lower than in Sweden (*Dagens Industri* 2004-10-28). However, the concept of locality with

reference to a certain geographical place can have both positive and negative effects (Garsten 1999). It is positive for the inhabitants of a location, since they can get employment, but negative if an organization is understood to be a territorially bound organization.

The development of technology can be significant in transforming working life and organizations. ICT allows organizations to shift their operations to other, often lower-cost regions of the world. However, we should keep in mind that the technology and its role at call-centre organizations is not a straightforward matter, but complex and sometimes contradictory (Callaghan and Thompson 2001; Augustsson and Sandberg 2003). It is negotiated in various situations and circumstances. Even if a call-centre organization is dependent on the development of ICT, the growth of call-centre organizations in 1990s is also a result of other factors, such as the local labour market mentioned above. In Sweden, management ideologies at the time stressed a focus on core competence and core business, but also outsourcing the supporting functions to other companies (Augustsson and Sandberg 2003). In addition, changes in labour legislation and something of a crisis in the Swedish finance sector played a role. The deregulation of the telecommunication market has also transformed price-fixing (and location) strategies. For example, a long-distance telephone call in Sweden can be made at the same cost as a local telephone call.

The use of ICT at work also calls attention to health aspects (discussed later on in this chapter) and the structure of technological control (e.g. Callaghan and Thompson 2001). Call-centre work tends to be, at least to some extent, repetitive and routine, which makes it easier to quantify certain aspects of it. The statistics that can be produced by the computerized applications employees use to carry out their work enable both planning and control of the work in call centres (ibid; for a more detailed overview on call-centre organization, see also e.g. Taylor and Bain 2001; Stolz 2004).

In this thesis, I return to these somewhat general aspects of the call-centre organization, since they also apply to the Contact Centre in the Stockholm archipelago. However, the call-centre research is not the focus of this study.

The Contact Centre to the Archipelago

“Happy circumstances”—as the Contact Centre employees and others within police authorities often described for me the period in which a police call centre became possible—brought together the county governor of Stockholm, representatives from the police authority, and islanders engaged in maintaining and creating new work opportunities in the archipelago.⁴ As a result of that work, the idea of a police call centre in the archipelago was established.

From the police authority’s perspective, the location of a call centre is not of great importance (fn 2002-12-18). As discussed earlier, technological possibilities enable the

geographical placement of a call centre almost anywhere. From the islanders' point of view, however, an authority such as the Stockholm County Police is an employer that offers potential work opportunities. On the whole, local employment is an important condition for residence in the archipelago. At the time of the initial discussions between the parties, work opportunities in the archipelago were moderate. For example, a number of marine pilots at the Swedish Maritime Administration (*Sjöfartsverket*) were cut down.⁵ New employers in the archipelago were needed. The County Administrative Board (*Länsstyrelsen i Stockholms Län*) investigated the possibility of coordinating public services and relocating them in the archipelago. Cooperation between the authorities was considered to be a way to create work opportunities in the archipelago. The Stockholm County Police was interested in participating. Financial incentives from several parties—for example, the European Union Structural Fund, the County Administrative Board and the Stockholm County Council (*Stockholms läns landsting*) (County Administrative Board 2001-05-16) as well as the municipalities of Norrtälje, Värmdö, and Haninge—made it possible to establish a call-centre organization in the archipelago.

In a way, the establishment of the Contact Centre is a result of a labour-market project and as such an attempt to create a “living archipelago,” a concept I return to later in this chapter. At the Contact Centre, on the other hand, the personnel stressed the efforts of the people living in the archipelago. As Magnus, one of the employees, put it to me, the Contact Centre is not “a subsidy story” (*bidragshistoria*) (fn 2002-10-08). Rather, it is a result of people in the archipelago wanting to demonstrate the advantages of establishing the call centre there. “Clever and capable women” worked for the work opportunities in the archipelago, Magnus said.

The Contact Centre started as a development project, an experiment, in Sandhamn on Sandö in the autumn of 1999. Since the experience of the project was good, Contact Centre sites were also established on Arholma and on Ornö, with headquarters in Norrtälje, on the mainland. The Contact Centre has been in full operation since June 2001. Opening hours at the Contact Centre are every day from 7 a.m. to 10 p.m. The Contact Centre is an in-house service within the police authority, this is the most common form of call centre in Sweden. The Contact Centre is organized and managed as a single unit. The primary task is to handle crime reports from the public concerning everyday crimes. The exceptions are ongoing crimes and crimes where perpetrator is known. Instead, the police handle these calls, many of which are made to the emergency telephone number 112 (in Sweden) and handled by SOS operators (for work and technology use in SOS Alarm in Sweden, see e.g. Normark 2005). The crime reports handled at the Contact Centre, on the other hand, are made to the police telephone number 114 14 and concern everyday delinquency, such as thefts of mobile phones, wallets and cars, as well as damage and

vandalism. During December 2004, the national Contact Centre covering all of Sweden registered 36.882 crime reports, which represents a total of 37,7 percent of all the reported crimes to the police (doc December 2004).⁶ During January 2005, the Contact Centre in Stockholm handled 8.549 crime reports to the police authority in the Stockholm County (doc January 2005).⁷ The service goals at the Contact Centre include, for example, that 90 per cent of all telephone calls must be answered personally within three minutes and, at the most, 15 percent of all incoming telephone calls with over ten seconds queuing time are missed (doc 2006-09-07).

The Contact Centre is a well thought of resource within the police authority. For example, the police commissioner in the County of Stockholm praised the Contact Centre at a joint workplace meeting⁸ in September 2002. According to him, the Contact Centre serves as an important link in the collection of information about and knowledge of committed crimes. The work at the Contact Centre is a part of the core activity of and an important resource within the Stockholm County Police and should therefore be prioritised. The police commissioner encouraged the personnel to be “professional” in what they do and continue to develop the content of the work and work practices in the Contact Centre. The work, he said to the personnel, “[...] should be challenging. You should never feel that you have to change jobs because it is not challenging enough.”

However, some criticism towards reporting via the Contact Centre exists within the police authority. Some of these were highlighted in a newspaper article in March 2004. As quoted in the newspaper, a police chief in Stockholm was concerned about the fact that fewer crime reports reached police authority at the police stations; rather, the Contact Centre employees handle the reports over the telephone. He was concerned because a Contact Centre operator “is not a police officer and thereby does not always ask questions that should be asked” (*Metro* 2004-03-01). If the police were not contacted, there was a risk that the information gathered at the Contact Centre would not be of sufficient quality for further investigations. This example, I believe, questions both the legitimacy of the Contact Centre as well as the competence of the Contact Centre employees. At the time, the article was discussed among the Contact Centre personnel as being “bad publicity” for the Contact Centre.

At the time of my fieldwork, the number of employees at the Contact Centre in the Stockholm archipelago varied from 40 to 48, which is close to the average size of a call-centre organization in Sweden. The employees (six of them men) were almost equally divided between the three locations Arholma, Sandhamn, and Ornö.⁹ In the course of the three years I was in contact with the personnel, some of them quit and new employees took their places. Some went on leave of absence in order to work with something else for a period of time. A number of staff members worked only part time at the Contact

Centre to keep up with their other occupations and interests. Taking part-time work and being somewhat of a “jack-of-all-trades” has been and still is common in the archipelago (*the Archipelago Foundation* 2000; *the Nordic Council of Ministers* 1985). It used to be a necessity in sparsely populated areas such as the archipelago. One needed to manage most things by oneself, since services and assistance were not easily available. It is also a typical strategy for making a living in rural areas with limited work opportunities (*ibid.*). Post offices, shops, schools, and services for elderly people in their homes have traditionally offered work opportunities for some of the women in the archipelago (Åbonde-Wickström 1987). Others need to start their own businesses or get employment on the mainland.

None of the staff members are educated as police officers. They have various previous occupational experiences in fields such as catering and restaurant, childcare and teaching, tourism, fine arts, nursing, dental care, finance and economics. Employees’ previous experiences, various backgrounds and skills were often emphasized and seen as something positive for the workgroup. “We are different persons, but that is something good. We complement each other” was a statement I often heard. Someone might be a good listener while someone else types fast (fn 2002-09-11). Especially at the beginning of the Contact Centre business, experience outside of the police authority was thought to be an advantage when dealing with the public. In “front-line” work (Frenkel, Korczynski, Shire and Tam 1999: 2), employees spend much of their working day interacting with the public. In that meeting, social qualities were seen as preferable for rapidly grasping the needs of the plaintiff and thereafter taking the appropriate measures. However, the public seems to think they are talking to police officers. Several times, I heard personnel explain over the telephone that “No, no, I am not a police officer, but administrative staff (*civilanställd*).” This, I suggest, in a way confirms a common understanding among the public of the police authority as a uniform institution. Towards the public, the Contact Centre employees appear in the “front-line” (*ibid.*) of the police authority. They are often the only persons the public come in contact with. The employees are, in a way, anonymous individuals, representing the police authority. The Contact Centre is, even if the personnel work on the frontline, also something of a back-office. The organization as such is not talked about very much or acknowledged, for example, on the website (URL: www.polisen.se). One reason for this might be that the police authority wants to profile itself as a uniform organization towards the public.

Good writing skills and a commitment to customer service are qualities and skills that are demanded of those who want to work at the Contact Centre (fn 2002-10-09; fn 2006-09-07). During the initial interviewing process for a position, writing skills are assessed in a writing test. The staff members I met at the Contact Centre had received 4 to 6 weeks training, including practical work at the Contact Centre at the beginning

of their employment. The educational material I examined included an introduction to the Swedish judicial system, criminal law, and the police authority organisation (these documents were delivered to the participants during initial training in November 2002 and additional training in March 2004). The employees were instructed in how to meet and treat the crime victim, injured party, and/or reporter of an incident over the telephone. They learned about and practised interview techniques, but also what in the training material is called “the art of writing a good report on crime.” This includes not just what is part of an accurate description of what has happened, for whom, where, when and how, but also the correct language use. It was also part of the training how to use of the various computer applications needed in the work. Apart from handling the telephone calls, the training also included aspects of working as a group or a team.

At each location, there is a group leader who is in charge of the everyday routines including planning the work activities and work schedules, as well as taking general responsibility for the personnel. This work often requires that the three group leaders at the three sites cooperate with each other as well as with management. When necessary, they function as a link between the management and the rest of the personnel. Together with the personnel, they also handle crime reports from the public concerning committed crimes.

Apart from the employees working in the archipelago there were, at the end of my fieldwork, ten police officers working at various locations on the mainland. They act as coordinators between the police authority and the Contact Centre organization. One of them is the manager of the Contact Centre. He has the overall responsibility for the work and personnel. He works in Norrtälje, on the mainland, where the headquarters of the Contact Centre is located. The other police officers, which are investigation officers, have an operative responsibility for the Contact Centre. While the Contact Centre personnel in the archipelago receive telephone calls and enter crime report in the computer application, the police officers are in charge of reviewing every incoming crime report. They also decide whether or not to open the case in question for a preliminary investigation. They all work from the mainland, keeping contact with the employees mainly by telephone, e-mail, and through a messaging facility in a computerized crime-report application. In addition, almost one third of their working hours are to be spent on the islands. During my research, I occasionally met them at the Contact Centre sites, but also at the headquarters in Norrtälje and at the meetings arranged in the project Community at a Distance. They are on the periphery of this study as they interact with the personnel and are therefore part of the working day at the Contact Centre.

The work sites are not isolated societies, but instead are connected through social and economical structures to the police authority as an organizational unit. The personnel are connected to the public through the crime reports as well as to the mainland as people

and goods travel between the different places. For example, most of the support facilities for technology and office supplies used at the Contact Centre are organized through service organizations within the Stockholm County Police on the mainland. When support is needed at the sites, delivery is dependent on the timetables of boat traffic and might take some time before reaching the archipelago. There are several other actors that play significant roles in the Contact Centre employee's working day, even if this takes place on the periphery of the Contact Centre itself. Some of them are personnel at the switchboard in the headquarters' of the Stockholm County Police, visiting police officers, and other visitors to the sites. However, they are mostly left outside of this study.

To Phone in the Morning

The principal work task in the Contact Centre is to handle crime reports over telephone concerning committed crimes as well as general questions from the public.¹⁰ The work at the Contact Centre also includes a number of other tasks. Some of these are recurring tasks such as taking care of the incoming and outgoing mail, participating in the meetings, the planning of a common duty schedule and taking care of the working environment. Other tasks occur less frequently. These include, for instance, organizing education and solving problems with computer technologies and alarm systems. Although the workplace is dispersed on the three islands, the personnel co-ordinate the work practices together. However, many of the particular tasks are carried out individually, especially the handling of crime reports.

I now describe the main work task at the Contact Centre, the handling of the crime reports. Task analysis and descriptions of work practices are common within the area of HCI, for instance, in order to inform design (e.g. Hughes, Randall and Shapiro 1993; Normark 2005; Rouncefield et al 1995). For my purposes of exploring the socio-cultural context of the Contact Centre, I have chosen to investigate some of the employees' encounters during a working day rather than focusing on what goes on during the telephone call with a plaintiff. Nevertheless, the handling of crime reports is part of the everyday encounters at the Contact Centre and therefore deserves attention in this thesis. With any description and especially a short one, there is always a risk that the description is a simplified account of a complex reality. However, the purpose with this description is not to discuss the work tasks in detail, but to give the reader some understanding of the nature of the work at the Contact Centre. The following description is based on observations and interviews during several fieldwork sessions as well as educational materiel I examined.

The public can dial the telephone number 114 14 to the Swedish police authority and by pressing a digit make a choice to report a crime. All incoming telephone calls are handled through an automated call-distribution system, placed in a queue, and

transferred to an available Contact Centre employee regardless of where she/he is located. The employees need to be logged into the call-distribution system in order to be able to receive telephone calls.¹¹ As long as an employee is logged in, the calls keep coming to her/him. Five minutes after a finished telephone call, the next call comes.¹² The personnel can also choose to receive the next telephone call sooner by pressing a key on the call-distribution system. The number of telephone calls queuing is regulated in proportion to the number of available operators. Generally speaking, the higher the number of operators the higher the number of telephone calls accepted into the call-distribution system.¹³ The rest of the telephone calls are transferred to police stations around Stockholm County. The employees can follow the number of incoming telephone calls as well as the number of logged in personnel in the computer application shown on the computer screen.

Once the employee receives a telephone call, she/he needs to decide whether or not the case can be handled appropriately by the Contact Centre. She/he asks what has happened and decides how to proceed from a short description. For example, the Contact Centre personnel do not deal with ongoing crimes. Nor do they deal with crimes where the perpetrator is known. In addition, questions regarding certain information, like passports, are directed elsewhere within the police authority.

The information needed for the report depends on the crime. The operator, so to speak, guides the person calling, usually a plaintiff, through the procedure, asking for information in a certain order, and fills out the received information in a computer application for crime reports. The structure of the conversation is based on previous experience as well as the order provided by the fields to be filled in the computer application. The report always includes information about what has happened where and when as well as information about the plaintiff such as his/her name and contact information. Then an account of the crime is written based on a description given by the plaintiff. If something has been stolen or lost, each stolen good is noted in as much detail as possible, for example, all identification numbers of the article, its colour, form, and other distinguishing features. The person calling also receives information about what she/he needs to do next, for example, to block a credit card to prevent withdrawals from an account.

Throughout the call, there is a dialogue between the person calling and the operator. Questions are asked, information received, and clarifications given. Even if many of the reports follow a certain order, there also seems to be room for a more personal touch. This can be a comment about the weather or the place where the crime happened. Sometimes the person calling is upset and needs to be calmed down. The length of the telephone conversation depends on the crime and reporting required. A conversation may take only a couple of minutes, but it can also extend up to thirty minutes or more. After the telephone call is completed, the staff member codes the crime according to

the specific guidelines provided by the computer application and finishes the report. The report is now available for an investigation officer to review it. When needed, the officer suggests improvements that are then done by the same staff member who received the report. After the case is completed and reviewed, an investigation officer decides whether a preliminary investigation is initiated or not. A printed copy of the report is sent by mail to the plaintiff.

It is important that the report is correct and reflects accurately the information given by the plaintiff and the comments of the investigation officer. In a case that leads to further investigation and eventually a subsequent prosecution and a trial, the report is always one of the first documents presented. A correct report includes an accurate description of what has happened, for whom, where, when and how. The legal aspects as well as the language used must be correct and in accordance with strict criteria.

The account presented here makes the handling of the crime reports sound routine, following a linear process. Indeed, the handling of certain reports becomes routine after awhile, which is, as the personnel told me, “boring,” especially if one happens to receive several telephone calls in a row on similar matters, such as stolen mobile telephones. However, there are differences. Sometimes questions must be asked and the information filled in a different order. Sometimes the coding of the crime is done while talking to the plaintiff rather than afterwards. Sometimes the staff member forgets to ask for specific information or needs complementary details to report the crime. Then she/he needs to contact the plaintiff again and fill in the missing information. There are also various individual ways of managing a telephone call, asking for and delivering information, as well as handling the computer application and other tools. For example, I observed some of the personnel taking notes on paper during the telephone call while others typed everything right away in the computer application.

The operator usually works alone with the report. However, sometimes more information or clarification is required and a case becomes a collective matter between the personnel. Especially when a case is more complicated, a second opinion is often requested. In the next chapter, the phenomenon of “talking to the room” is discussed, referring among other things to this type of request from fellow staff.

In general, the work at the Contact Centre can be compared with work at other call centres. The employees at the Contact Centre work with their “customers” (the public) at a distance by handling incoming crime reports mainly over telephone. However, call centres vary in terms of service, product complexity, and variability as well as the knowledge needed to handle the tasks. The aim here is to illuminate how the main work task is performed at the Contact Centre.

Tied to a Desk

Most of the work at the Contact Centre is accomplished with the help of a computer. Even if it is possible for the Contact Centre personnel to stand up while working and even move around with hand-free telephones, they are, because of the computer, in a sense tied to their desk while handling the crime reports. Working with a computer in general and in a call centre in particular, with a lot of sitting still requires that one consider health aspects. Studies on the health aspects at call centres show both physical health problems as well as problems with mental stress (e.g. Norman 2005; Toomingas et al 2003). Problems with arms, neck, and/or back followed by poor ergonomics such as an ill-adjusted chair, table, and/or computer screen is common. Poor working conditions also cause trouble for the employees. These are connected to the high pace of the work and the poor variety of work tasks, which are often routine. Employees are also supervised electronically (see e.g. Norman 2005; Toomingas et al. 2003 for a detailed report on working conditions and health in a selection of call-centre companies in Sweden). The work conditions may lead to short periods of employment at call centres if there is a good supply of the labour force that the industry wants (Callaghan and Thompson 2001). However, given geographical clustering and expansion of firms, this is unlikely to happen.

Some poor health was recorded in a study at the Contact Centre (Backström, Herrman and Wiberg 2000). The study shows that 15 of 25 respondents had had problem or pain mostly in the neck and shoulders during the previous month. One reason for this was probably the computer work, but problems pertaining to physical environment, work content, and organization could not be eliminated either, according to the study. In order to prevent ill health, the Contact Centre personnel are encouraged to exercise regularly. It is even an activity included in the work schedule. Each fulltime employee is allowed to use two hours per week of his/her working hours for physical exercises. Possibilities for these exercises vary among the three islands. In Sandhamn, there is a fully equipped sports facility at the Sandhamn Hotel, complete with workout and swimming pool facilities. In addition, good walking paths are just around the corner. On Ornö and Arholma, the possibilities are somewhat more limited. The personnel are directed to bicycle rides and outside walks. Nowadays, a pair of trekking poles can be obtained at the three locations for use during a physical activity hour.

Some work activities, such as mailing the completed reports to the plaintiffs are welcomed as a break from the ordinary report handling over the telephone and with the computer. The personnel take turns in handling the outgoing mail. After the renewal and reconstruction of the locales in Sandhamn, technical equipment such as printers, computers, and fax machine were moved on the ground level, while most of the workplaces are located

on the floor above. The group leader told me that even if it was a matter of making the best use of the space, it was also a matter of ensuring some physical activities since the personnel now needed to go up and down the stairs in order to collect the printed material.

In one of the locations, the staff had a habit of doing a few physical exercises at the end of the coffee break. We all stood up and exercised together. It was usually Lisa, one of the employees, who led these exercises concentrating on the shoulder and neck, which are of particular importance for those who work with computers.

An Organisation in Transition

Although the Contact Centre is a relatively young organization, it has undergone several changes during the years and even during my fieldwork. For example, the Contact Centre started as a project organisation, with a project leader responsible for everything, such as the economy and the coaching of the personnel. Since October 2001, the Contact Centre is an integrated part of the police authority. The transition meant, among other things, new management, new routines, and new decision-making procedures.

One of the most recent organisational changes is a transition from being a local call centre to being part of a newly formed national Swedish Police Contact Centre in 2004. The experiences from the Contact Centre in Stockholm as well as the one in Gothenburg influenced the shaping of the national Contact Centre. The personnel in Stockholm participated in several of the activities leading to new working routines for the national Contact Centre, such as training matters and the development of computer applications. The Swedish Police Contact Centre operates from several locations in the country and covers the whole country. Within Sweden, you can reach the Contact Centre by dialling one specific telephone number (114 14) no matter where you are calling from. Even if most of the telephone calls are handled locally, you never know where the telephone call is received. At that time, the name was also changed from the Police Call Centre, in Swedish (*Polisens Anmälningscentral*) to the Swedish Police Contact Centre (*Polisens kontaktcenter*). The names have different associations. In addition, the official English translations do not precisely reproduce the Swedish names. The initial name *anmälningscentral*, for example, is associated with report (*anmälan*) centre rather than a call centre. The name *Kontaktcenter* or, in English, Contact Centre, draws attention to interaction and contact between public and police authority. The reader should therefore keep in mind that the employees' quotations in this study are referring to the Swedish meaning of the name. Even the fieldwork presented in this thesis was carried out with the Swedish expressions in mind.

The existing computer applications have been modified and new applications introduced at the Contact Centre. For example, a new call-distribution system for

handling the incoming telephone calls is one of the most recent changes to the computer applications. Since 2004, it is also possible for the public to request information and, since 2006, to report crime over the Internet. These changes also mean changes in the work routines and organizational practices. Another change at the Contact Centre that occurred during my fieldwork was the transition from thirty-eight hour workweek to thirty-six hours starting in January 2003. This affected, among other things, the planning of the duty schedule.

By the end of my fieldwork, the Contact Centre staff could work in several police stations on the mainland. One does not need to be present at the office premises in the archipelago. Now and then, the personnel choose to work in the mainland offices when needed, for example, in conjunction with personal or business matters while visiting the mainland. A few employees choose to work on the mainland permanently. However, organizationally, they continue to belong to the particular island and, for instance, plan their working hours together with that particular site. As I see it, this might contradict the regional politics of the area. What happens when a work opportunity prepared for the archipelago in fact is carried out on the mainland? However, this is not a problem today.

Apart from changes in the organization and work practices, the Contact Centre quarters in Sandhamn underwent a major construction of the office building during the year 2002. The project disturbed the work at the site, since craftsmen carried out their work at the same time as the personnel continued with theirs.

Such changes and their execution within an organization both transform and resist innovation and transformation of work practices and routines. They also transform the values and conventions of the workplace. The discussions and negotiations may call attention to and require reconsideration of what practices and values are important both to preserve and to change at the workplace. The changes, so to speak, challenge the normality of the socio-cultural context of the workplace, create new practises, and change existing ones. I do not discuss the conditions for and consequences of the particular changes mentioned above. However, I approach a specific change at the Contact Centre in Chapter 6, where introduction of the communication environment is discussed.

Island Making

With the caption “Island Making,” I want to remind the reader about the term “place making” (Gupta and Fergusson 1997b: 6), presented in Chapter 2 together with other concepts and the framework for the thesis. With the word *making*, I wish to transform the islands from being just rocks or places in the Baltic Sea to historical places formed by social and political processes and practices. Hence, we turn again to the making of commonsense



Figure 2
A drawing of archipelago with Arholma, Sandhamn, and Ornö indicated (not in scale).

realities in the complex social world for the people working at the Contact Centre, which in part, at least, are defined by the circumstances, discursive practices, culture, and history of the Stockholm archipelago.

Connecting the Archipelago

The islands outside of Stockholm belong to an archipelago, which in fact continues across the Baltic Sea all the way to Finland, making the archipelago one of the largest in the world. There are about 30.000 islands and islets in the Stockholm archipelago (*Archipelago Foundation* 2000; *Nordic Council of Ministers* 1985). Approximately 115 of

them are inhabited. The archipelago is about 200 kilometres long and about 50 kilometres wide. In 1997 there were about 9.100 people living in Stockholm archipelago in (*County Administrative Board and RTK* 1999). The drawing in Figure 2 gives a general idea of the surrounding area in the archipelago.

Naturally, these islands do not share the same history. Nor are they a result of exactly the same set of historical processes. For example, fishing used to be the dominating industry in the outer archipelago while small-scale agriculture and farming dominated in the middle archipelago (Hedenstierna 1960).

There have always been interactions between the archipelago and the city of Stockholm. Generally, the impulses and dynamics of the city also spread to the archipelago and affected the conditions there (*RTK* 2004), but also vice versa. Toward the end of the 13th century, Stockholm grew as a political and economical centre. Foreign trade and commerce was reached by sailing boats through the archipelago (Hedenstierna 1990). The islanders provided Stockholm with competent mariners, food such as fish and eggs, but also wood for fuel and building material (Brissman and Hedenstierna 1984; *RTK* 2004). One of the first and most important merchandises was quick lime (*bränd kalk*), produced on the islands of Runmarö and Munkö (*Archipelago Foundation* 2000). Monks, for instance, used it to build monasteries and churches in Stockholm in the 13th century. Iron ore mining started on a large scale in the 18th century but become an industry in the archipelago in the 19th century (Hedenstierna 1990). Since the 1700s wealthy people from Stockholm built summerhouses in the archipelago for recreation (*RTK* 2004). However, in the middle of the 19th century, more regular traffic with steamboats affected the development of the archipelago, and, for example, increased the building of housing (Brissman and Hedenstierna 1984; Wästberg 1973/2000). In the 1940s and the 1950s, smaller holiday cottages were built in the archipelago. Together with other outer areas of the region, the archipelago had become an attractive recreation area.

At the same time that the archipelago gained importance as a recreation area, many people moved to Stockholm for work. The 1960s and 1970s were characterized by depopulation of the archipelago followed by a reduction of the public services (*Stockholm County Council* May, 2006). There were political efforts at that time designed to counteract the depopulation with work opportunities and service. There has been strong economic growth in the Stockholm region since the 1970s (*RTK* 2004). At the end of the 1980s and in the beginning of the 1990s, traditional forms of industry made room for knowledge-based sectors such as ICT, biotechnology, advertisement, and media, particularly in the Stockholm region (*ibid.*). New employment possibilities and income are necessary in the archipelago just as elsewhere. Companies relocating their services have created several work

opportunities in the archipelago. For example, part of the switchboard of Taxi Stockholm, a taxi company, is located on Ingmarsö; the switchboard of Folksam, an insurance company, on Utö; and the Swedish Police Contact Centre is located on the three islands. The Contact Centre with approximately fifty employees in the archipelago is the largest of these employers (ibid.). Transportation possibilities facilitate living in the archipelago for those who seek alternatives to living in the city, but still need to be nearby. The number of inhabitants and permanent residences in the archipelago has increased, but so have housing prices and concerns regarding the local environment (ibid.). Regional politics strive for a balance between the archipelago as a unique natural environment, as a recreation area, as a region for business, and for permanent residents (*Stockholm County Council* May, 2006). One goal for the Stockholm County Council is to make the archipelago accessible with good public transport facilities, but also to preserve its natural environment and cultural heritage. Another area of responsibility is health services (ibid.).

In sum, development in the archipelago depends on several factors. A report from the Office of Regional Planning and Urban Transportation draws attention to technology development, institutional changes, demographical development, the desire to move to and from the islands, as well as general values towards the archipelago (RTK 2004). Technology development, especially ICT, is considered important. With the help of technology geographical distance, it is believed, can be reduced (ibid.). This is important in the archipelago, where the distance can be experienced as a disadvantage. The technological development is considered to affect work organization and the forms of work. It is also pointed out that technology can be used to achieve environmental goals, for example by developing transportation forms that take environmental aspects into account.

Institutional changes and development can be considered on international, national, and regional levels (RTK 2004). Stretching from Stockholm to Finland, the archipelago provides a suitable seaway for the transportation of people and goods, but also for military encounters. For example, since the archipelago is an important sea-approach to Stockholm, the islanders were drawn into international politics when the Russians invaded the archipelago in 1719 and destroyed and burned down farms and country houses as well as mines, leaving the archipelago in ruins and 20.000 islanders without homes (Hedenstierna 1990, Sobéus 1997). Some time later, in 1743 the Russians returned, this time, however, to help defend Sweden from a feared military invasion from Denmark (Jonson 1954; Sobéus 1997). The Swedish King, Fredrik I, and his wife, Queen Ulrika Eleonora, did not have children (Jonson 1954; Sobéus 1997; Ullman 1997). This caused a war of succession in Sweden, which also was of international concern at the time. Various groups and parties had differing ideas of who should be a suitable regent, some of them recommending a Danish prince while others were in favour of a count distantly

related to the empress of Russia. There was a risk for a Danish invasion of Sweden if the count was to be chosen. The Russians were asked to help. This time, the archipelago was used for housing the Russians, which was not an easy matter for the islanders to accept because they had just built up what the Russians had destroyed (Jonson 1954; Sobéus 1997; Ullman 1997). Politically, the protection from Russia was dangerous, since it could have forced both Sweden and Finland into closer relations with Russia (Sobéus 1997). Nevertheless, war was avoided. There have been various plans for defence and various investigations of defence in the Stockholm archipelago since the 18th century (Sobéus 1997). The Swedish national defence, especially the navy and coastal artillery, has been and still is present in the archipelago to various degrees.

Today, the Swedish welfare state has become increasingly decentralized, local influence has increased, for example, in local municipals (RTK 2004). At the same time, living conditions are affected by international and global trends and circumstances. These activities on local, regional, and even international levels are, to various degrees, interwoven, since living conditions are complex and include several political fields (transportation, health, services, and so on). Moreover, the European Union and its regional programs encourage partnership and collaboration. Collaborations pervade political initiatives, partly between different political areas as well as between, for example, local and regional partners (RTK 2004; *Stockholm County Council* May 2006).

Arholma, Sandhamn, and Ornö at a Glance

Helen, one of the Contact Centre employees living on the mainland, took the photograph from which the illustration in Figure 3 originates. Her handwritten text on the photograph—



Figure 3 An illustration based on a photograph of a boat leaving a harbour.

“Oh, no. Now I’ve missed the boat”—reflects something that worried her at the time, i.e. to miss transportation to work (doc September 2002).¹⁴ The next boat is usually due in a couple of hours. Several other employees told me about how she/he ran into difficulties with the transportation in the course of poor weather conditions. Ina, for example, told me how Märta, one of her colleagues, ended up spending a night in her car on the mainland when a storm emerged at sea and all boat traffic was cancelled because of the rough sea. At the same time, Mia could not get home from the Contact Centre site to her island, and she ended up spending the night at Nina’s house (fn 2003-11-18). Even if living and working in the archipelago was a choice the employees lived by, the necessity of travelling by boat and ferry requires careful planning to meet transport schedules. Due to the timetables, one cannot be “spontaneous”; one is “not free.” For example, one “cannot stay on the mainland too late in the evenings,” the personnel told me at a workshop (ws 2002-09-12). Weather conditions at sea and limited transportation facilities can to some extent reduce possibility of informal encounters with others on the mainland and on other islands. Therefore, they also shape the nature of presence and availability as well as the ways of being together in various ways. This is, I suggest, one defining feature of the living conditions in the archipelago. It must be kept in mind that many of those who live in the archipelago appreciate the isolation in the archipelago in contrast to the more inhabited outside world.

Some of the Contact Centre personnel were born in the archipelago while others had moved there for example, due to family reasons and/or an appreciation of life in the archipelago. Those who were born in the archipelago generally had lived elsewhere for some time and moved back again. The number the staff members who both live and work on the islands varies between the three islands. On Ornö, all the employees also lived on the island at the time of my fieldwork. Most of the employees on Sandhamn also lived there. However, a couple of the employees lived on a nearby island and two on the mainland. On Arholma, on the other hand, only a minority of the Contact Centre employees lived there. Most of them lived on the mainland. Others had a place to live both on the mainland and on the island. “Boat people” (*båtfolket*), as they sometimes were called among the personnel, depend on the regular boat transportation facilities to and from work at the Contact Centre.

An employee at the Contact Centre is not just an operator who handles crime reports but has several other social positions that are apparent at the workplace. I believe that the individual’s background is enacted and brought to the workplace in the archipelago perhaps differently than it would be, for example, in the city. For instance, the employees share an understanding of the similar living conditions in the archipelago. Apart from that, the individuals have relations to the people around him/her. Those employees who live on the same island knew each other already before they started working at the Contact

Centre, or, at least, they knew about each other. They are not solely operators in relation to each other through the work, but are also somebody's neighbour, former teacher or pupil. They have children who attend the same school and so on. This was something to take into consideration when each of them applied for their positions at the Contact Centre. Viola, for example, had thought about it and expressed her concern to me this way: "How would it be to talk about one's own development with one's neighbour" during an annual personnel development talk? (fn 2002-09-11). The statement shows a complex concern to be handled when people face novel situations. On the other hand, work at the Contact Centre brought individuals closer together (fn 2004-02-24). "To some extent, an 'unknown' neighbour is no longer unknown," Anton believed.

The three islands in focus here are Arholma, Sandhamn and Ornö. The illustration (Figure 2), presented at the beginning of this section, shows their distance to each other and to Norrtälje, where the headquarters are situated, as well as to Stockholm. The distance between Arholma in the north and Ornö in the south is about 170 kilometres. Living and housing on Sandhamn dates back to the 17th century. It is an old service community with customs houses and sea pilots (Åkerman 1995). Arholma, on the other hand, is above all known for its boarding houses from the beginning of the 20th century (*Archipelago Foundation* 2000). Even today, differences continue to exist between the islands. For example, the number of inhabitants as well as the size of the three islands varies. Ornö is the largest island of the three, both in terms of area and in terms of population (approximately 260 inhabitants during wintertime). On Arholma, there are only approximately sixty inhabitants. Sandhamn has the smallest geographical area; you can easily walk around the island in an hour. The settlement is concentrated to the village of Sandhamn. In everyday vernacular, the island Sandö is called Sandhamn, which is also the reason for the use of the name in this thesis. Both settlements on Ornö, on the other hand, are scattered among several places on the island. Arholma and Sandhamn can be reached by boat, while Ornö can be reached by car through ferry. Obviously, there is car traffic on Ornö. On Sandhamn and Arholma, you can only see occasional tractors, transport mopeds (*flakmopeder*), and four-wheel mopeds. These are particularly suitable for transportation on narrow roads and rough circumstances. This affects the transportation of groceries, furniture, building material, and other supplies needed for living and working on the islands.

The living conditions, such as work options, access to shops, schools, and medical services also differ among the islands. For example, both in Sandhamn and on Ornö there is a primary school for children until the sixth grade, while the children from Arholma have to travel daily to the mainland for school. A shop on Arholma has had varying opening hours. Most of the time, the shop is open only a few hours every week. Customers need to order some things beforehand. On Ornö, the shop is open during a couple of afternoons

every week while the shop in Sandhamn is open daily. Many of the islanders buy groceries on the mainland whenever possible. They also make joint orders and coordinate delivery to the island.

In the archipelago, there are also considerable differences between the summer and winter periods. In Sandhamn, for example, the number of people staying on the island increases from around 120 during the wintertime to several thousands during the summer. In addition, on a summer day, hundreds of people may come to the island for a daytrip. Naturally, this means a considerable change for those who live there. For instance, the number of work options expands and contract seasonally. This can be seen, for example, in the increased range of restaurants and coffee shops on the island during the summer.

Sandhamn is often, but not always, accurately described as fashionable for drawing summer guests and tourists to the island. People with yachts and sailing boats, and those who like to dine at the Sandhamn Hotel do visit the island. Tourists that come to Arholma, on the other hand, are rather “green-wave party [types] who carry a Fjällräven [brand name] backpack,” as Helmi, one of the employees at the Contact Centre, told me when we talked about Arholma and its inhabitants (fn 2002-09-23). “Green wave” and “Fjällräven” illustrate that many of the tourists coming to Arholma are interested in experiencing nature and the outdoor life. They live at the local youth hostel or camp in their own tents during their short visits.

A Living Archipelago

As described above, the archipelago is of concern for several regional interests. Various activities such as recreation and housing reflect the nature and culture of the archipelago. The living conditions mentioned above are connected to processes and practices that shape and constitute the lives of those who live on the islands both on a global, national and local level. Here, I describe some of them through focusing on an often used, common concept of “a living archipelago” (*levande skärgård*). Summer guests and other visitors might seek for an “idyll” in the archipelago, but the concept has a different meaning for those who live there permanently.

Local newspaper headlines such as “School a fateful question for the future of Ornö”¹⁵ (*Skärgården* 2004-06-03) and “If they take the school, they take the island!”¹⁶ (*Skärgårdsnytt* 2004-06-03) announced a threat of closing for the primary school on Ornö in June 2004, just before the end of the school term. Haninge municipality, of which Ornö is part, faced a difficult financial situation and the closure of the school on Ornö would save around one million SEK. The question was to be investigated within a fortnight. The closure of the school would force 25 pupils, up the sixth grade, to attend a school on the mainland.

Newspapers reported the “anger” and “dismay” people on Ornö felt in response to the suggestion. Parents of the children attending the school were described as “angry.” The parents commented on the importance of the school for families who had chosen to live on the island. “Closing down the school would be cruel to them,” one of the parents had told the reporter (*Skärgården* 2004-06-03). Several of the parents could not see any possibility of living on the island without the school. “I will not remain on the island if the school is closed down. I will not let my children travel on the ferry every day to and from the mainland,” one of them said according to the local newspaper (*Skärgårdsnytt* 2004-06-03). “The school must function in order to keep people on the island. This is a price one needs to pay for a living archipelago,” the head of Ornö school argued (*Skärgården* 2004-06-03). According to him, the constantly recurring threat of closure creates insecurity and hesitation among those who would like to move to the island. He also announced that “It is a political decision whether one wants to have a living archipelago or not.” The question not only concerns the school, but also about the whole community. “The school is the heart of the island,” he indicated in the article.

Other stakeholders, such as interest organizations for the archipelago, were also critical. In his own statement published in *Skärgårdsnytt* (2004-06-03), the chairman of the interest organization for the Ornö archipelago explained the negative effects closing the school would have. He wrote that businesses such as the Contact Centre on the island depend on access to labour. Without a school, it would be difficult to keep younger people on the island and that in turn would affect the employers’ willingness to stay on the island. The chairman of SIKO,¹⁷ another interest organization, believed that the closure of the school also would negatively affect an ongoing investigation on expanding rental housing in the archipelago (*Skärgården* 2004-06-03).¹⁸ Others feared the devastation of Ornö society and talked about “the kiss of death” for a “living Ornö” if the school was closed down. Others stated, “It is like putting a dead hand on the development of the island” (*Skärgården* 2004-06-03).

The statements quoted in the newspaper articles show some of the values important for people living in the archipelago. In general, I believe, they are comparable to other rural areas in Sweden. The statements quoted in the articles also confirm what I learned about the living conditions, values, and ideas in the archipelago from the Contact Centre personnel. The question of the school also engaged some of the employees personally, since their children attended the school there. The Contact Centre was also brought into the debate as one of the workplaces that might suffer if people were not able to live on the island. This particular issue illustrates that living and working in the archipelago are intertwined matters. The living conditions and the people are connected to each other in various ways. Saving the school is about not only the school, children, and their parents,

but also the society in the archipelago at large. This is yet another example of both social and political processes of “place making” (Gupta and Fergusson 1997b: 6). They are woven together with everyday life in the archipelago.

Eventually it was reported (e.g. *Dagens Nyheter* 2004-06-10) that the school was to remain open on the island—a happy ending to the conflict from the islanders’ point of view.

Conditions for Togetherness

This chapter aims to elucidate the setting of the study, i.e. the circumstances and processes that illuminate the Contact Centre and the archipelago. The Contact Centre organization is an example of the establishment of a call centre in a rural area by processes of “push” and “pull.” The Contact Centre is a form of work relocation to which HCI researchers have not yet paid much attention. The Contact Centre represents a kind of relocation, a movement of capital, infrastructure, and, in a way, labour quite literally “off shore.” The decision to locate this work in the archipelago recapitulates a long prior history of connections and businesses between the islands and the region.

The actors of the social world that surround the Contact Centre and who, in various ways affect its circumstances and activities are, among other things, the police organization; the general public that reports on crime; politicians on national, regional, and local levels; and interest organizations focusing on the archipelago. They all act from different perspectives and for various reasons. The decisions and actions of every one of these actors affect the living and working conditions on the island, including conditions affecting those working at the Contact Centre.

In this chapter, the sense of togetherness and belonging manifests itself as various boundaries that mark “us” and “them” relationships, politics, and structures within the organization and throughout the archipelago. Who we consider to be “us” changes depending on who the significant other is and this concept transforms in relation to time and the circumstances within which we emphasize or do not emphasize the sense of togetherness. Language is one of the elements that may unite people, regardless of national borders. The Swedish language, for instance, is spoken across the archipelago from Sweden to Finland. When another state crosses the borders and violates the territory of a nearby nation, it becomes a clear expression for who we are and who the others are. The Russians in the 18th century were probably not thought to belong to the archipelago community even if they most certainly took part in activities there in many ways. The boundaries are negotiated and stretchable, even for a nation state when protection is needed. “Boat people,” summer guests, and the “08’s” mentioned at the beginning of the thesis are terms that distinguish “other” people from those who live in the archipelago.

Working at the Contact Centre, the personnel “belong” to an organization, the police authority. One way to define “us” at the Contact Centre is in reference to occupational categories. At the Contact Centre, on a general level, two categories of employees meet: the administrative staff and the police officers, i.e. the investigation officers. Since both the personnel in the archipelago and the investigation officers work within the same organization, “us” usually includes both categories. However, there are times when the personnel made a distinction between themselves and the investigation officers. One is mentioned above as an explanation of the roles to vis-à-vis the public. The distinction between the two employment categories reflects educational background, but also work tasks and responsibilities. The personnel at the Contact Centre receive telephone calls and establish the crime reports. The investigation officers decide whether or not to conduct further crime investigations. They are also responsible for monitoring the work. The police operate mostly from the mainland while the personnel work in the archipelago.

In many ways, the “fight” to keep the school on the island is similar to other efforts in the archipelago. The struggle for rental housing in order to make it possible for people to live there is one more example. Another example is the effort made for work opportunities. The early days of the Contact Centre is also described as a kind of struggle, especially in Sandhamn. “We are very anxious about our work. We needed to fight for the work opportunities on this island. The others seems to have a bit of ‘try for a while and move along later’ point of view,” as Kerstin put it while we talked about the sense of unity at the Contact Centre (fn 2004-03-03). Several times before, I had heard that the work at the Contact Centre was taken even more “seriously” because of the need to draw new work opportunities to the archipelago and keep them there. In their work, the personnel wanted to show that they were “capable” and “worked hard” to prove their ability to their employer (fn 2002-10-08). Some of the Contact Centre employees were themselves engaged in the process of starting the Contact Centre and now worked there. This work opportunity seems to been turned into a collective matter and become everyone’s responsibility. What you fight for, you also want to preserve. In this way, it becomes both an enticement and a threat. Not only was there a need to bring new economic opportunities to the archipelago, but the personnel also believed they had to work hard to keep their jobs there. We can find parallels dilemmas wherever relocation occurs.

Individuals quoted in the newspaper articles about the school used the concept of a living archipelago in their argumentation. This is a idealized picture of the archipelago. The people living in the archipelago use it. It is also a political statement used by politicians and others. For example, a policy statement by the County Administrative Board uses the concept (*County Administrative Board* 1993). A living archipelago is mentioned as the first of the seven goals for the archipelago prior to the year 2000. The goal is to protect

the interests of the population in the archipelago and outdoor life as well as the natural environment and the culture of the archipelago (ibid.). In the case described above, the concept of a living archipelago is used in order to challenge the closing of the local school. The idea of a living archipelago is reproduced to work against the political decisions. Preserve the school, and you will preserve the whole society. This protest, as well as the attempt to provide work opportunities such as those offered by the Contact Centre, shows, I suggest, the commitment to the living conditions on the islands on the local level. A rather small society needs to “fight” for itself in order to survive. Islanders almost continually reflect on and engage the debate over what belongs to the island and what does not. This discussion marks an engagement with the local matters. Local people also make a common cause against a common “enemy.” Furthermore, struggles such as these are examples of why, when, where, and how islanders emphasize the way in which they belong to archipelago society. Here, the islander identity is emphasized over various alternative identities or social positions available to them. They claim their identity through place, belonging, and living in a certain place.

The concept of a living archipelago implies the modern Swedish state’s commitment to improving living conditions in the archipelago. Normatively, the state’s intention here is to protect and preserve the archipelago’s natural environment and culture. This commitment to a living archipelago reflects a long-term historical debate on the significance of the archipelago in Sweden. This is not so much a debate about boundaries or regions anymore as it is one about how both the destiny and history of a particular locality is to be defined and determined. The archipelago has long played an important role in negotiations about place and power in the history of Sweden. This is a debate that essentially revolves around the issue of a national and a regional government and who determines “the order of things.”

The sea can connect but also disconnect. Historically, the sea and waterways represented connection and connectedness between people and remote places. Even if cumbersome, the sea met the needs of easy transport because transportation on and by land was more difficult. Today, it is the other way around. It is more difficult to travel by sea than on land, at least in Swedish circumstances (obviously, air traffic also plays a significant role in getting to and from places today). Ideological, economical, and political processes as well as development of ICT are creating incentives that make it possible to establish work opportunities in rural areas. The Contact Centre is one example on how work can be carried out at a distance with the help of technology. However, at the same time, ICT opens up work opportunities locally. What is at a distance for some is local for others. Technology not only makes the work possible in the archipelago, but it also links people, just as it links the personnel at the Contact Centre with those at the Stockholm

County Police on the mainland. In addition, it also connects them with crime in Stockholm County. Even if handling the crime reports is an individual task at the Contact Centre, it is connected, through the agency of others, to the wider structures of our society. It is connected, for example, to those processes that lead to and sustain criminality, but also, once the crime is reported, to legal practices.

To some extent, this setting outlines the conditions for expressing the sense of togetherness at the Contact Centre. For example, the dispersed Contact Centre organization and its geographical locations suggest conditions that challenge ways of maintaining and distributing the sense of togetherness. However, these conditions also intervene with each other and, for example, come together in common history, shared living conditions and experiences as well as practical circumstances and possibilities, such as the struggle for work opportunities in the archipelago. In addition, the sense of togetherness is reconstructed from various historical accounts of the politics in the archipelago. This process gives the people and the place a meaning. The meanings are manifested in history, photographs, artefacts, and traditions, oral and written narratives about the archipelago, and in guidebooks and in novels. Who has not read about Madame Flod and the life in the archipelago in Strindberg's *The People of Hemso (Hemsöborna)*? There are also a number of first-person written accounts of life in the Stockholm archipelago (e.g. Lindfeldt 2003).

As we can see, the socio-cultural context is not neutral. Nor is it only a geographical place or a place on a chart. Rather, recurring social, historical and ongoing political processes construct it. In this way, different forms of social conduct are reproduced continuously across time and space. We cannot neglect these "larger" issues, other "layers," structures and strictures in our analyses if we are to remain "faithful" to the circumstances in which our informants live. Regardless of how we interpret developments in the organization and archipelago, it is necessary to understand the frame of reference within which the Contact Centre personnel act, whether it is a question of face-to-face contact or the video-mediated communication that the Community at a Distance project brought to their workplaces.

The goal in this chapter has been to describe and explain the social world, situations, and circumstances within which the Contact Centre personnel act and within which their actions are not just possible, but rendered intelligible. This, I believe, is an important level of analysis. It is one that enables us to link the workplace to a series of social, political, and historical processes in which the Contact Centre employees are both embedded in and participate. While some of the processes work "at a distance," others affect the everyday practices at the Contact Centre. This "level" of the socio-cultural context inform the next

step of analysis, where I investigate the socio-cultural context within the organization and at the workplace. This allow us to explore how the sense of togetherness is promoted and managed among the Contact Centre personnel, even across geographical distance and time.

The Fabric of a Working Day

In the previous chapter, I attempted to expand the socio-cultural context of the Contact Centre, geographically, regionally and in terms of the organization of the Stockholm County Police. In this chapter, I continue to investigate the Contact Centre organization from a socio-cultural point-of-view that give us further understanding of the workplace and the socio-cultural context within which the technologies are used.

A bonding, a formation of a (close) relationship, can be enabled through frequent or constant association. Contact is necessary in order to distribute and share values, ideas, and meanings within an organization. **Repetitions, routines, and habits are means of upholding and modifying practices, values, and attitudes** (Bourdieu 1984/1996; Geertz 1973/1993; Giddens 1984/2004; Herzfeld 2001). **Each community or society elaborates its own possibilities for communication.** When face-to-face encounters are limited or not possible, the different channels of communication and ways of distributing information “constitute intermediary links” (Garsten 1994: 135). In this chapter, I attempt to illustrate the fabric of a working day and unpack recurring, complementary activities as well as spatial arrangements, ideas, symbols and signs that seem to contribute to, but sometimes also counteract, the sense of togetherness within the Contact Centre in Stockholm. I also give a series of examples of the ways of remaining *socially organized* during the day within the group at one location as well as between the three sites.

Having presented the descriptions and vignettes, I move on to provide a more comprehensive account that reconciles the fragmentary glimpses and highlight major concepts for consideration about how the sense of togetherness is promoted, and managed between the employees at the Contact Centre. Further, I discuss how the technology, both low- and high-tech, facilitates and counteracts those processes.

Same but Different

Since I heard both the singular “Contact Centre” and the plural “Contact Centres,” I needed to ask which was the correct name. I received different answers from both management and staff. Some considered it one unit, i.e. the Contact Centre; others consider it three units (doc 2002-03-13). One manager explained that the Contact Centre is “one operation at three different locations” (fn 2003-01-28). Similarly, an employee said, “We are one workplace placed on three islands” (Q28 August 2002). Further, others explained that the Contact Centre consists of “three units, but dependent on each other” (fn 2002-10-09). A group of employees representing each of the three locations in the archipelago discussed the terminology during a Community at a Distance project workshop. “It is unclear vocabulary,” said Sten, one of the participants (ws 2002-11-14). The others agreed and pointed out that this lack of clarity generates confusion. They believed that the terms are used differently depending on the situation and who is participating. However, most of the time the personnel referred to each other and the different locations by the name of the island, for example: “Kajsa on Ornö,” “a security alarm on Arholma,” “there is no electricity on Sandhamn,” “Arholma and Ornö have meetings today” or simply “the other islands.” Here, the name of the island does not refer to the particular island as a geographical place per se but to the personnel, the workplace, and the routines there.

The Main Theme

As Viola, one of the employees, expressed it at a project workshop, “a main theme (*en röd tråd*), a core concept, can be recognised through the activities and work tasks at the Contact Centre regardless of location (ws 2002-11-14). However, the same seed grows differently on the different islands.” As the reader may recall from the previous chapters, the Contact Centre in Stockholm is one organizational unit. However, it is a dispersed workplace community at the three locations in the Stockholm archipelago with a chief of staff in Norrtälje, on the mainland. Although the workplaces are separate, the personnel at the three sites share basic work activities and interests, which requires communication and co-ordination between the sites. The employees on the three sites seldom meet because of the geographical distances and the transportation inconvenience. The generous opening hours and the fact that many employees work part time limit the number of times they meet, even when working at the same location.

One of the “seeds” or “core concepts” Viola referred to is, unsurprisingly, the main work task, handling incoming crime reports from the general public. The work tasks are also the main reason for the employees to be together at the Contact Centre.¹ The work tasks are the condition for creating and maintaining the sense of togetherness at the Contact Centre. The values and attitudes attached to the work tasks often reflect the

organizational culture of an organization. These values and norms are, I believe, the core from which we can start exploring how the sense of togetherness is established, maintained, manifested, and made accessible at the Contact Centre.

Similar work tasks and practices are important indications of whether or not an organization can identify as one organization. Staff members considered that they all share or are supposed to share the same goal, i.e. to give service and help to the public who telephone the police. As one would expect, work related activities are similar at the three locations. Work ethics, service values, and attitudes are connected to these tasks. They are, together with the crime matters reported to the Contact Centre, discussed frequently among the personnel. For example, the staff often emphasized that the plaintiffs, the crime victims, must be treated with respect, listened to, and helped in the situation they are facing. After all, employees said, the Contact Centre personnel represent the Stockholm County Police and are its “face” towards the public. Indeed, the personnel work with service involving customer contact, in the “front-line” (Frenkel et al. 1999: 2) of the police authority. The Contact Centre employees are often the plaintiff’s first and, most of the time, only contact with the police authority in that particular matter.

Similarities in the work on various levels are needed in order for the centres to function as one unit. This need was highlighted even in the following comment made in the questionnaire about contact and communication between the islands: “The most important thing is that all the information about the work and how we work is similar at the different places, i.e. that we do similar reports, similar evaluations, etc. That we can function as one unit. We do not do that today” (Q13 August 2002, underline in original). Of course, this is also important for ensuring the legal rights of the individual.

There are synchronizing and rationalizing activities at the Contact Centre in order to ensure consistency among the sites in the handling of reports. These activities make it easier to manage existing routines and develop new ones, I was told. Similar education for all new employees includes working with more experienced staff and, for example, listening to incoming telephone calls from the general public before the new employees start to handle reports on their own. These activities promote similarities and the possibility of maintaining them. However, the personnel pointed out that one must keep in mind that every telephone call, every conversation with a plaintiff, is unique and therefore every report is different even if only subtly.

The organization of the groups on the islands and the administration facilities is about the same at all three sites. The groups look out for each other and organize their work so that it accommodates the others and the organization as a whole. When personnel plan other activities, they always need to consider whether there is someone covering the lost telephone time. For example, when personnel on one island are engaged in a meeting

or have an electricity failure, personnel at the other sites cover for them and concentrate on handling the crime reports.

One way of contributing to the distribution of the Contact Centre “culture” and the sense of togetherness is to visit each other. The management of the Contact Centre encourages the personnel to visit each other and work in each other’s offices. The employees mentioned this possibility to me several times, describing it as the best way to communicate and interact (e.g. Q13 August 2002). However, only a few had actually done so. I asked Eja, one of the group leaders, about the rationale for having personnel to work at other locations (fn 2003-11-26). “The chief of staff has probably said nothing about why,” she said: “For me it is about a sense of choice, an option. It is good to increase understanding of our different situations and work conditions, to get an idea of our lives. It is about being able to be influenced and influence others.” According to Eja, it is important to learn about, not only about the office practices at each location, but also the living conditions. She believed that the employees shared a basic understanding of how it is to live and work in the archipelago. Yet, there are differences as the living conditions on the three islands are distinctive. As described earlier, the access to shops and restaurants or the lack of them as well as the need to adjust the working hours to the local boat timetables affects the work at the specific Contact Centre location. Those who had visited and worked on other islands reported the importance of learning about each other, and understanding both the similarities and differences between the sites.

A Chair in an Open-Plan Office

Buildings, offices, furniture, and dress code for the personnel and other material objects can also be seen as cultural artefacts and, as such, formations contribute to the values and ideas as well as facilitate and modify meanings and practices. Buildings and spatial arrangements, for example, are designed with an institution in mind and reflect the social norms and rules as well as the embodied practices of people in the particular places (e.g. Agre 2001; Giddens 1984/2004; Mitchell 1995/1996). Locales are not just places, but settings of interaction and sustain meaning for communicative acts (Giddens 1984/2004). The Contact Centre is an office workplace, with work desks in an open-plan office as we can see in the illustration Figure 4.

On both Sandhamn and Ornö, the Contact Centre sites are located in former office quarters. However, they were modified and rebuilt to fulfil the requirements of, for example, security requirements of the Stockholm County Police. On Arholma, on the other hand, a new office building was specially built for the Contact Centre. Nevertheless, there are various similarities in the premises of the three sites. They are all sites for information work, made to house information-handling devices, computers, telephones, fax machines,



Figure 4 The illustration gives a general idea of the open-plan office at the Contact Centre.

printers, copiers, pens, papers, folders, and such. They are composed of various working areas, regions for handling crime reports, photocopying, receiving and sending mail, storing office supplies, as well as meeting rooms for conferencing and being together.

Even though the exterior and scale of the three Contact Centre premises look somewhat different between the sites, the same functions and tasks are possible regardless of the location. Comparable facilities and office supplies for the work tasks are found in each location and various kinds of equipment function in about the same way wherever you are. The overall office space is divided in equivalent spaces, providing possibilities for the same type of activities. Kitchen facilities, for example, are located in meeting quarters (except in Sandhamn), which are also, to various degrees, used for dining. The kitchen area and the facilities provided reflect the needs of the employees, but also the broader socio-cultural context in terms of circumstances on the islands and the opportunities to dine elsewhere. In Sandhamn, where the Contact Centre is close to the island community, most of the personnel dine at their homes or meet up with friends and families in the restaurants. The kitchen at the Contact Centre premises is not equipped with cooking facilities to any great extent. On Arholma and Ornö, on the contrary, you can easily heat up and even prepare a meal in the kitchen. The cupboards are filled with ingredients and dry food ready to be used for cooking. The staff there have a longer way home and the

possibility of dining somewhere else is limited or impossible. Later in this chapter, I explore coffee breaks, during which the meeting areas are used in order to be together informally.

The furniture is similar at the three locations. Most is bought from the same office supplier, which has a blanket agreement for all office furniture with the Stockholm County Police. Government offices in Sweden are required by law to use blanket agreements for various procurements and purchases. There may be several advantages with these arrangements. For example, large purchases from the same supplier often save money for an organization. The administrative routines are easier to handle on several levels in the organization both when it comes to completing or arranging the office furniture and other equipment as well as handling technical support when needed. Running things in a similar way is often more efficient for the organization. In this way, the Contact Centre offices appear about the same, both when it comes to the furniture but also the procurement processes, which may be seen to communicate and stress equality between the sites.

At each location, there are more employees than there are work desks. The staff members have no personal desks. This is cost-effective for the employer, since less space is needed for each individual. Employees told me that the rationale for the circulation of sitting arrangements was to facilitate getting familiarity among the staff or, as it was sometimes put in a more negative way, “to avoid permanent *groupings* between the employees. At the beginning of the working day, employees choose a desk that is available in the open-plan office. Most have favourite desks that they tend to return to whenever possible. Towards the end of my fieldwork, almost everyone had his or her own chair marked with an individual nametag. This was mainly in order to keep the personal ergonomic adjustments of the chair intact and avoid having to adjust the chair every day. Notebooks, pens, and other rather personal material needed during the working day are kept in a personal locker.

The open-plan office is a central area or, as one employee expressed it, the “bunker” or the “heart” of the Contact Centre premises (fn 2001-10-24). It is an open area with work desks scattered around and to some extent enclosed with screens to individual cubicles providing privacy for telephone conversations with a plaintiff. There are bookshelves for the office material as well as the individual lockers. Every time I entered the open-plan office, I both saw and heard the personnel carry out their work. On certain days and at certain times, there were only a couple employees. More often, there were five to eight. The personnel talked on the telephone, some talked with each other, and one took care of the outgoing mail. Especially at the beginning of the Contact Centre activity and my fieldwork there, the contact between staff members often took place in this working area (fn 2001-10-23, 2001-10-24, 2001-11-01; ws 2002-10-08). **Later, this changed to some extent** due to new routines; but, still, short conversations, comments and statements, giggling, laughter, and people talking to themselves belonged to the everyday activities apart from

handling the crime reports over the telephones. When working in an open-plan office, it is easy just to look around and get an impression of who is there, what they are occupied with, and whether it is possible and appropriate to interrupt them for assistance, to inform them of something or just to comment on some details about a telephone call or a crime report. For example, the staff members told me how they paid attention to the headphones and whether they were on or off in order to decide when it was a suitable time to interrupt (fn 2002-12-03).

The headphones used during telephone conversation partially shut out the outside and create a situation of one's own for the staff member and the plaintiff. However, this is not absolute. I observed situations where questions were asked and help offered between and even during the telephone calls. Sometimes a person walked over to a colleague in order to put a question standing by the desk, hanging on, or leaning over bookshelves or a desk-separating screen. Sometimes a person rolled his/her chair closer to the person he/she wanted to talk to. In addition, questions were asked into the open in hope that someone would answer, which usually happened. In that way, no one interrupted anyone in particular, and the one who was free and knew the answer usually responded. Questions were about a variety of topics such as "How do you code a burglary in a cellar?" or discussions of different meanings of similar sounding word constructions, such as *avnjuta* and *njuta av*, enjoy and delight (fn 2002-09-09). Sometimes questions were asked out of concern for another, as when Disa asked Anita, "Why do you sigh?" and Anita, who was sitting opposite her, responded, "I do not know how I should write about a medical certificate to the plaintiff" (fn 2003-07-09). A conversation that followed about the formulation in question was soon completed, and they both turned back to their respective work tasks at hand. An answer or a comment was not always desired, but talking to the room seemed to work as one way of dealing with the telephone calls, leaving one behind, and getting ready to move on to the next, such as when Rita once sighed, "Ugh, how angry she was and furthermore very old, so it was difficult for her to take in what I was saying" (fn 2002-09-10). Rita looked at the display on her telephone and continued, "There are 21 calls in the telephone queue. What a great day this is going to be!" She then pressed a key on her telephone in order to receive the next incoming telephone call. In Arholma and Sandhamn, it is possible to work in a smaller office area next to the open-plan office. This area is used by those who require more silence around them in order to hear properly or, as in Sandhamn where this area is downstairs, by those who have difficulties in walking up and down the stairs. In Sandhamn, everyone seemed to choose to sit upstairs in the open-plan office although it could get quite crowded there at times. Nina, one of the group leaders found several advantages to sitting in the open-plan office, even if the hum of conversations in the working area was sometimes disturbed

her concentration (fn 2002-10-08). **While sitting in the same working area as the rest of the personnel**, she continuously got updated on how the work was going. She could easily get an impression of what information was needed or which way she could be of help: “[In the open-plan office,] you can see and hear what everyone is doing. It is easier to just fill in with commentary, even in the middle of an ongoing telephone conversation.” She continued, “It is also easy to feel the atmosphere among the personnel.” In this way, Nina believed, most of the small problems could be discussed and solved before they became bigger ones. As we see, sharing the common open-plan office may contribute to handling the work tasks, standardize office practices as well as settle disagreements, which are of importance to all, but particularly for the group leaders. Further, there are mediating aspects involved (fn 2002-09-09). Just as when Ylva behind the separating screen asked, “Tina?” “She is busy with the telephone,” answered Sten who was sitting closer to Tina and had a good view of her. This way, Tina was not interrupted in the middle of her telephone call, and the question was put to someone else instead.

These observations correspond in part to the previous research on cooperation practices of “talking to the room,” where people more or less intentionally serve each other with information without particularly asking for it (e.g. Artman and Wærn 1999; Heath and Luff 1992). However, talking to the room is not just about solving problems and informing others, but it also contributes to the atmosphere of the room (Artman and Wærn 1996). At the Contact Centre, the practice of talking to the room is not as explicit as it is in the case of emergency co-ordination. Even if asking for assistance and informing others occurs at the Contact Centre, most of the crime reports are completed individually. The practices of helping and caring for one another at the Contact Centre, however, contribute to the atmosphere of the workplace. The open-plan office enables everyday, sometimes subtle, interaction between the personnel, which would be more difficult to conduct while sitting in separate offices. Needless to say, everyday interaction of this kind is not possible across geographically distributed workplaces.

Turning around, sometimes only a little, is sufficient to see what the fellow staff members have on their desks as well as which computer application they are using for the moment. Separating screens between the work desks ensure some privacy. However, except for a few desks in the corners of the working area, I could easily walk behind a person's back without making an all too obvious intrusion in his/her workspace. The open plan-office appears less hierarchical, since everyone has the same advantages and disadvantages, especially when no one has a personal desk but makes a choice each working day. The open-plan office also makes direct supervision and monitoring possible for the group leaders. As an idea, the open-plan office somewhat encourages supervision, not merely by the management, but also as social control between employees.

The premises of a workplace are created and equipped with the everyday work tasks in mind. At the Contact Centre, the openness facilitates work tasks, conversations, information flows as well as a sense of togetherness. Nonetheless, the Contact Centre premises do not always work for the purposes of the employees. For example, the annual personnel development talks were sometimes carried out outdoors during a walk partly because it was a nice way to do it, but also for the purpose of privacy, which was not provided in the offices. In addition, the employees used the space in the office in ways for which it was probably not intended. For example, a sofa was used for a nap during lunch breaks. Those who could not get home for the night because of transportation difficulties made a bed and slept at the Contact Centre premises over night. At the Contact Centre, private deliveries of groceries and other supplies from the mainland were now and then made to the staff members (e.g. fn 2002-10-07). **A work place is seldom only for work.** Food delivery and other everyday transactions bring both joy and trouble from outside—for example, children's travel experiences—that are discussed during a coffee break. In a way, the boundary between the use of the Contact Centre premises for work activities and for somewhat private and personal matters was fluid. The workplace also becomes somewhat of a living room.

Similarities in furniture and in the spatial arrangements of the premises contribute to a sense of unity and equality between the sites. The spatial arrangements facilitate not only the work tasks but also various ways of being together at the Contact Centre. I suggest that the spatial arrangements are a condition for creating and maintaining a sense of togetherness at the Contact Centre.

Statistics against the Idea of Unity

In line with the idea that (monotonous) tasks can be quantified and that efficiency aspects can be identified, it is common to extract statistics about work tasks in call centres. The telephone and computer technologies that are used to handle work tasks also make measurements possible (Callaghan and Thompson 2001; Lindegren and Sederblad 2004). The control system is partly based on the technical control of employees (Lindegren and Sederblad 2004). With help of ICT, there are several technical possibilities for management to follow up and control staff members. The use of statistics is also common within the police authority (fn 2002-12-19). The degree of criminality in our society, the success of the police authority, and so on is measured, for instance, with the number of reported and resolved crimes. The ICT applications and systems used at the Contact Centre in order to store information about criminality in Sweden can also be used to measure the work performance. The Contact Centre management put together statistics about several aspects, for example, the number of received telephone calls and handled crime reports.

According to the management, “The statistics serve as the basis for how to improve the service towards the general public” (doc 2002-02-27).

Obviously, the handling of incoming crime reports is the most important work task at the Contact Centre. This is perhaps the only task that is also measured and analysed in detail. When the Contact Centre was first created, statistics covered the achievements of the entire Contact Centre. However, gradually, the statistics were differentiated for each of the three sites. They showed that the average number of received crime reports was lower in one of the locations. When the statistics were presented this way for the first time, it contributed to a disagreement between the personnel on the three islands as well as between some of the employees and the investigation officers. There are different understandings of what the dispute really was about or how it started, whether it was the fact that the differentiated statistics pointed out a divergence between the sites or whether the divergence was due to the way the statistics were presented the first time or to some other element of crucial importance. The statistics might have stood for something else, and they rubbed salt into the wounds that already existed. Nevertheless, both the disagreement and the statistics were mentioned jointly and discussed by the personnel several times during my fieldwork (e.g. doc 2002-03-13; fn 2002-09-11, 2002-09-20, 2002-12-19, 2003-11-18). There followed discussions about the relationships between the employees and the sites, work ethics at the sites, as well as work effectiveness, which of the sites was doing the best work, and who always seemed to get the worst results.

The separated statistics were connected to the idea of an organizational unit, and raised the question of whether the Contact Centre was to be understood as one or three units. At a workplace meeting at one of the Contact Centre sites, Sten raised the question as to whether it is “ethically justifiable to measure islands against each other, as we are supposed to think as one unit. It might lead to a contest if we compete about who takes in the highest number of crime reports” (doc 2002-03-13). According to the meeting minutes, the chief of staff agreed with this point-of-view and “understood” the point Sten was making, that the comparison between the sites might be contradicting the idea of one unit. Generally, attitudes towards the differentiated statistics varied among the personnel as well as the management. As it was an engaging topic at the time, I, together with a fellow researcher, discussed the need for measurement and statistics as well as the consequences of presenting them, with two investigation officers (fn 2002-12-19). Isak, one of the investigation officers, assumed that “If you do not feel the competition you are on the wrong track.” According to him, the competition works as a carrot and spurs fresh efforts. His colleague Gustav, on the other hand, believed that the statistics have a negative effect, pressing down the individual rather than motivating him/her. Attitudes among the personnel in the Contact Centre reflected the same opinions. Some of the staff

members found statistics paralyzing and prevented them from achieving better results while others have asked for individual statistics on their achievements (fn 2002-10-09). Others manually counted the number of answered telephone calls and crime reports they managed to do during the day, just to make sure that they kept up with the work according to the suggested number of crime reports, which at the time was an average of three to four reports per hour (fn 2002-10-09). The number did not include information inquiries or telephone calls that needed to be transferred elsewhere within the police authority. Eivor, one of the staff members, told me that at the beginning of her work shift, she always calculated how many reports she needed to make during the day in order to be considered that “she was doing her share” (fn 2002-09-20). Then she manually counted the number of reports during the day to make sure that she in fact “did her share.” Later on during my fieldwork, most of the staff members told me that they did their best. They did not care any more about how their work would be indicated in the statistics.

The focus on statistics brought up a discussion of values at the Contact Centre. Was the objective of the Contact Centre personnel to work toward “humane meetings” with the plaintiffs or to produce as many crime reports as possible? Anton, and many others with him, wanted to believe that giving a “humane response” was still the most important thing in their work (fn 2002-09-20). “It is, after all, people, crime victims, we meet over the telephone. Some of them are upset after having experienced something awful or violent. We have to be prepared to handle the person in a correct way,” Anton explained. Sometimes this can be time consuming. Occasionally, you need to find a telephone number in order to direct the person. Other times, people need some comfort. “Sometimes, we need to be hobby psychologists,” Martina put it (fn 2004-11-10).

This discussion concerns not only the question of the value of differentiated statistics, but also the central question of what work means at the Contact Centre for the individuals engaged there. How the work and its properties are defined is somewhat unclear. What is the most important aspect in their work, the number of crime reports produced or the quality of the conversations with the plaintiffs? The employees need to live up to both in service ideologies. According to Isak, an investigation officer, it is possible to accomplish “a good report” rapidly and at the same time give good service to the plaintiff (fn 2002-12-19).

Now and then, as we can see here, priorities and ideology sometimes come in conflict and obviously counteract the sense of togetherness at the Contact Centre. The separated statistics made the difference between the three sites visible. It was no longer one centre, but three, even if they were supposed to form one organizational unit. The measured results showed differences in productivity (as it is measured in the particular statistics) and thereby defined differences between the groups in terms of productivity. This

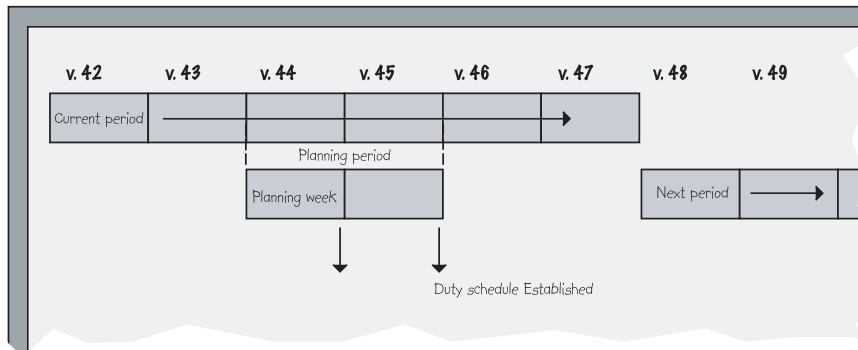


Figure 5 An illustration over the planning scheduled in a six-week period.

reflected even the relationships between the sites, as we see later in the thesis. As time went by, the disagreement among the sites was put in the past. However, what happened was still sometimes reflected on. Ina once mentioned to me that the “wounds” from “what happened before with [the name of the island] seems not to be healed yet” (fn 2003-11-18).

Symbolism of Meeting

In an organization, meetings, coffee breaks, and other gatherings can function as rituals, since they include certain repetitive patterns with symbolic and expressive elements (Alvesson and Billing, 1997). Recurring meetings may be seen as rituals, the repetitions and routines of a workplace, and one way to uphold and modify practices in an organization. In meetings, the conventions, ideas, and rules are learned and reproduced. In order to understand how meetings can function as such practice as well as their significance in the Contact Centre community, I have chosen to illustrate some of the meetings in detail. Focus here is on the uniting factors against the background of the sense of togetherness and its maintenance.

At the Contact Centre, there are several types of meetings that can be characterized as either spontaneous or planned, informal or formal. The purpose of some of them is to provide information about the Contact Centre activities, discuss work practices and organizational development, while others concentrate on a special task, for example, to plan a duty schedule. Yet others are without any agenda and, as such, often more informal in character. Several of the planned meetings are somewhat normalized and regulated practices within the police authority. For example, at every workplace, the personnel must have an opportunity to discuss the working environment in a recurring “workplace meeting” (which the personnel often called an “APT” an abbreviation for the Swedish *arbetsplatsträff*).² Apart from these meetings, there are also meetings where particular work

groups meet. There are also somewhat ad hoc meetings, which the employees called “as needed” meetings, called whenever it is necessary to discuss a certain pressing issue. Despite the name signalling temporary issues, the “as needed” meetings during my fieldwork took place every second week, altering with the ordinary workplace meetings.

Some of the meetings gather a small group with a special interest, while others are carried out in large groups. Some of them are only of interest for the personnel within one location, but there are also meetings gathering employees from the three locations. Group leaders from each site, for example, meet up once a month as do the “local co-operation” groups between the sites, while the entire Contact Centre personnel get together twice a year at a semi-annual “joint workplace” meeting. Meetings within the location are held at the workplace, while meetings engaging employees from the different locations are usually held on the mainland at the premises of the Stockholm County Police.

Whenever meeting minutes are taken, they are distributed to everyone at the Contact Centre. During an island specific workplace meeting, Eja, one of the group leaders, encouraged everyone to read the other islands’ meeting minutes for information purposes (fn 2003-07-10). However, she pointed out, the decisions taken on one island do not need to be applied to another, since “no rules for the entire Contact Centre are made at one location only. The local meeting minutes show how the particular site has decided to act on a certain matter. The decisions taken in the management group meetings, on the other hand, are of concern for everyone at the Contact Centre,” she explained.

Since the staff members work different shifts, several days can pass without staff members meeting each other. For example, it took me five days in a row to meet all, at the time, twelve employees at one of the locations because of their irregular duty schedule, even if I was present at the site for most of the time during the opening hours. However, recurring meetings allow many of the staff members to participate. One recurring meeting at the Contact Centre is the meeting in which the duty schedule for the coming six weeks is planned and a preliminary version is established.

Planning the Duty Schedule: A Possibility with a Threat

Based on statistics and previous experiences as well as upcoming events such as holidays and other happenings, the Contact Centre management sets up requirements for the number of persons working at a particular time. Against these requirements, the employees plan their individual duty schedules six weeks at a time. The planning occurs during a period of two weeks, starting four weeks before the next six-week working period as shown in the Figure 5.

The meetings to plan and establish a preliminary version of the duty schedule occur every six weeks, in accordance with the planning. The date and time for the next

Monday	Tuesday	Wednesday	Thursday
October 21 7-15; 5 EB, EC, EL 9-18; 2 11-19; 2 13-22; 5 KL, MM	October 22 7-15; 5 9-18; 1 MM, EB 11-19; 1 13-22; 5 EL, EC	October 23 7-15; 5 II, NN 11-19; 1 MM 13-22; 5 meeting K	October 24 7-15; 5 EB, F 11-19; 1 13-22; 5 MM
October 28 7-15; 5 EB 9-18; 2 LS 11-19; 2 MM 13-22; 5	October 29 7-15; 5 9-18; 1 EB 11-19; 1 13-22; 5 AK, LS	October 30 7-15; 5 11-19; 1 LS 13-22; 5 MM	October 31 7-15; 5 11-19; 1 13-22; 5 MM APT
November 4 7-15; 5 9-18; 2 11-19; 2 AK, EC 13-22; 5	November 5 7-15; 5 MM 9-18; 1 11-19; 1 13-22; 5	November 6 7-15; 5 11-19; 1 MM 13-22; 5	November 7 7-15; 5 11-19; 1 13-22; 5 MM Meeting G

Figure 6 An illustration of a detail of a duty schedule as it appeared on a white board.

meeting is usually marked in the individual calendars several weeks in advance. However, not everyone can be first to plan his/her duty schedule. The personnel have worked out a routine in order to handle the planning in, as they called it, a “democratic” and practical way between the three sites. The three locations take turns to be first to choose working hours. If the personnel on Arholma are first this time, they will plan their working hours as the second site next time. The time after that, they will be the last ones to choose.

One of the meetings I participated in, in September 2002, started with the personnel gathering around a conference table at the meeting area. The atmosphere was informal and friendly, filled with small talk, jokes and laughing. The coffee was poured into cups and milk and sugar circulated the table. Everyone working at the location except Anita was present. On the white board nearby, Eja, the group leader, had drawn a chart of the six-week duty schedule and marked the number of required personnel during certain hours. It is important to make sure that the work is carried out at all times. In the work, staff members depend on each other. Therefore, recurring meetings and work that prevents the personnel to take incoming telephone calls at one location were marked on the board also (see the Figure 6). Since the personnel at this particular location were first to plan this time, there were plenty of working hours from which they could choose. This made it easier to accommodate individual wishes.

Most of the employees are familiar with the procedure, but since one of them was back from a lengthy leave of absence and I was participating in the “planning meeting” for

the first time, Eja repeated the rules for the meeting: the previously settled requirements in the schedule must be filled. She also informed the group about when the schedule needed to be established for a final crosscheck between the sites as well as when the final version needed to be established in the computer application for time planning. After that, the schedule would be settled for the current time period and only daily, indispensable changes, for example, because of illness would be possible.

Soon it became clear to me that the planning of the duty schedule had already started with checking and considering individual needs and events, family matters, holidays, and other activities as well as the transportation limitations and timetables for the boats. Some of the staff members had made careful notes in their individual calendars. Others brought a piece of paper with notes to the meeting. Yet others brought a boat timetable as well. Ebba had also a list of Anita's wishes, since she was absent that day. A short discussion about dates for upcoming holiday weekends such as Fathers' Day followed in order to make sure that everyone was aware of them.

Eja turned facing the white board and started calling out dates and hours, "Monday from 7 a.m. until 3 p.m." A person who wanted to work at that particular time was to give his/her initials. Eivor announced "EB," and Ebba quickly called out "EC." Eja wrote down the two initials on the board. This marked that Eivor and Ebba would work those hours. This auction like procedure continued until everyone had completed planning their working hours. It often happened that someone called out only "Me" or gave his/her first name instead of initials. This caused some confusion for Eja with her back to the rest of us, making the rest of us burst into laughter. Someone always cheerfully filled in the right initials.

When enough personnel had chosen a particular shift, the others needed to choose another shift to fill. Some shifts, especially daytime shifts, seemed to be more popular, while others, such as weekends got almost no response from the staff. Right after the meeting, everyone filled in their individual hours in the computer application and made them visible for the rest of the personnel. In the mean time, I wrote down the information on the white board so that Eja could fax it to her fellow group leaders on the other islands. The group leaders completed their white board information before the planning procedure could take place at the other sites.

Afterwards, when all the Contact Centre personnel are ready with the individual planning, the group leaders make sure that the planning actually meets the preliminary requirements. Sometimes personal changes must be made, and not all individual wishes can be met, especially when the particular workplace is last to plan. It usually takes some iteration in order to get the final duty schedule established.

The planning of the duty schedule and the related activities before, during, and after the meeting shows a close relationship between the employees and the work at the Contact Centre. The planning is of interest for both the organization and the individual. There must be enough employees to operate the work tasks at the Contact Centre. This is a responsibility that staff members share. Planning their individual duty schedules is a choice, a possibility, but also an effort and a threat. In the end, the personnel must come to an agreement over the duty schedule; otherwise, there is a risk that the planning will be done elsewhere in the police organization. “Responsibility comes with authority” (*befogenheter under ansvar*) is a Swedish saying that, I believe, applies here, since influence requires that it be exercised responsibly.

A life in the archipelago is also, to some extent, associated with flexibility and possibility to choose. Many move there to get away from regular “nine to five” jobs and want to engage in something else as well. The option to choose working hours according to staff member personal needs and desires was often mentioned as one of the most positive things about the work at the Contact Centre. The management talked about this option in terms of necessity; the living conditions in the archipelago require some flexibility; otherwise, employment is not possible. “When there are fish, you have to go fishing” was a common comment even if, as far as I know, there were no fishermen among the staff. Rather, the expression mirrors the living conditions, limited transportation facilities with boats and ferry and the fact that many of the staff members work part time in order to keep up with other interests. The work at the Contact Centre needs to accommodate these circumstances. The flexible working hours might also be a way for the Stockholm County Police to attract employees to the Contact Centre in the first place. I think it is safe to say that by allowing work hour flexibility, the management expected employees to do good work in return

The staff members talked about the flexible working hours as a choice, an option (fn 2003-11-26). Gabriel, for example, considered the possibility of planning his own working hours as, at that time, the one and maybe the only advantage of working at the Contact Centre. He had tried out different alternatives, altering long working days with shorter ones as well as working on weekends and taking time off during the weekdays. This way, he could plan the work to suit the requirements of his family life and create more time for his children, for example (fn 2002-09-22). At one time during my fieldwork, the management suggested some limitations and restrictions on flexibility. These were discussed and criticized among the staff. In a conversation with Sten, he referred to the debate and the suggested restrictions as an attempt to “abolish the right to make your own decisions” (fn 2002-09-10).

I believe that the practices around the duty schedule are a good example of teamwork and demonstrate how consensus is achieved at the Contact Centre, both as an

opportunity offered by the management but also as a necessity in the archipelago. The incentive for consensus is strong in the sense that it benefits both the individual as well as the organization. This weaves the employees together as a group within and between each of the three sites, since they have to work out a new consensus every six weeks, not only concerning hours of work, but also concerning the practice for producing the duty schedule. Furthermore, they also need to work out consensus for other (organizational) practices that produces this particular practice and maintains it. These include the work tasks but also trust, as I discuss later in this chapter. Together with the other practices, the planning of the duty schedule produces and maintains the norms and values at the Contact Centre.

Link a Name to a Face

Once in every six months, for a day or an overnight in a conference hotel, the entire Contact Centre personnel get together for a “joint workplace” meeting. Questions of common interest all are discussed during the meeting. There had been at least six joint workplace meetings by the end of my fieldwork. A meeting committee consisting of a representative from each island planned the meetings. However, the form and agenda varied between the meetings.

Some time after one of the joint workplace meetings took place, I had afternoon coffee with Ina and Mia (fn 2003-11-18). We started to talk about the advantages and disadvantages of the communication environment with video and audio, established by the research project *Community at a Distance*.³ Ina made a comparison between the communication environment and the joint workplace meeting: “The joint workplace meeting is like a large paper bag that can be filled with substance. K [the communication environment], on the other hand, is still only a little paper bag.” In order to clarify the point they wanted to make, Ina and Mia identified the joint workplace meeting as perhaps the most significant activity for promoting a sense of unity (*sammanhållning*) among the personnel at the three Contact Centre locations. Ina continued to praise the latest meeting: “There was plenty of time for non-structured activities in the agenda. Free time to hang around.” Time had been scheduled for encounters with the fellow staff members or just to do something they wished to do. “It was special,” she said, since the meetings were often filled with formal activities and gatherings. She continued, “It was also fun to see each other in a different role than the one at the office.”

Ina believed that the Contact Centre personnel were now more secure with each other. During the social activities and the games they had played, she had noticed that they all seemed to be able to “let go.” She had observed how several participants had become so engaged in the games that they dared to violate the rules. “It was even possible to bribe

the judge of the game,” she said smiling, pointing out the relaxed atmosphere. “The social activities certainly created a feeling that can live on for a long time,” Ina said and Mia nodded in agreement.

As a new employee, Mia pointed out the importance of meeting in person with the staff from the other islands: “It is now easier to make contact with them, even across the K [the communication environment].” Especially at the beginning of my fieldwork, several of the employees pointed out the importance of being able to “link a name to a face,” which was not easy without meeting one another. During one of the Community at a Distance project activities, the entire personnel gathered at KTH. At the top of their list of the positive aspects of that meeting was the opportunity to get together (ws 2002-11-14). Mia also pointed out that getting together seems to bring more value to the interaction between the staff members as well as strengthen the sense of belonging to one organizational unit. However, it was also often emphasized that it has taken some time to do so, since they seldom meet. The employees often referred to the joint workplace meeting as the only opportunity for most of them to meet with the personnel from the other locations.

Apart from the social dimensions and opportunities for informal encounter during the latest meeting, both Ina and Mia were also pleased with the formal activities. Several work-related topics had been discussed in small, mixed groups with participants from the different locations. One particular advantage with the discussion involving the three workplaces according to Ina and Mia was that they noticed that they all, regardless of the island, experience similar things and have similar concerns about the work. “It is good to notice that something is not only of concern for us here,” Ina said and continued, “Everyone has the same problems regardless of the distance between the islands.” Ina and Mia expressed the same concern as I heard several times before. Similarities, even if they are problems and other concerns, may be seen as a unifying testimony between the three sites. It is more difficult to get an impression of whether all the others share the same everyday concerns while working at three distant locations. It does not seem to be enough that the group leaders meet and the various meeting minutes are distributed across the workplace. Being there in person calls attention to the fact that something more is needed. It seems to be valuable for the sense of togetherness to notice how similar the concerns are on the three islands. The discussions and activities from the meetings continued to engage the staff even a long time after the meetings. Now and then during everyday work activities, I heard reflections and references to the joint workplace meetings similar to Ina’s and Mia’s.

From Whining to Information

Many of the activities in a workplace are formalised, but the working day is not only about the working tasks and formal meetings; the rhythm of the day also includes temporary

breaks. Somewhat ritualized coffee, lunch, and dinner breaks interrupt the flow of the telephone calls and other work tasks at the Contact Centre.

The routines for meals differ at the three locations depending on the different, current conditions on the islands. In Sandhamn, for example, it is common for the personnel to take their meals at home or at the local restaurants. In Arholma, on the other hand, most of the personnel travel to the island from the mainland. There are no restaurants except for two coffee shops during the summer months. Hence, it is common for the staff to bring their lunch with them and enjoy the meal at the Contact Centre premises. During the meals I participated in at the Contact Centre, the staff ate either alone or in company. At times, some small talk could be heard. Other times, the meals were enjoyed in silence while reading a book or a newspaper.

During my first encounters with the Contact Centre employees in 2001, they explained that they seldom took coffee breaks together. This was partly because of an initial statement from the Contact Centre management that there were no regular coffee breaks. The personnel also explained that it was difficult to plan a coffee break with someone since a crime report can take five minutes or an hour to complete. This made it difficult to get away at a certain time. As a result, coffee was taken between telephone calls. Since it was “boring to be in the meeting room alone” (fn 2001-11-01), the coffee cups were brought to the work desk where they also could “keep on eye on the telephone queue.” A few persons took coffee along with a cigarette outdoors.

However, opportunities to meet and talk with each other were required by many (doc 2002-05-06). The regular meetings seemed not to be enough. The number of telephone calls increased over time when the work developed and more and more telephone calls were directed to the Contact Centre. Together with the pressure to achieve results, this made even harder to find time to talk to each other. Even if the personnel acknowledged that the social encounters often increased the sense of enjoying one’s work, it was difficult to find time for them. At one of the Community at a Distance project workshops, we talked with a group of staff members about the work conditions at the Contact Centre (ws 2002-09-25). One of the employees expressed her point of view in this way: “We have no time for each other. Whining is all that you have time with, to whine over something. There is no time for small talk about something personal or about work.” As a task from the workshop, we asked the personnel to explore possibilities for common, regular coffee breaks as an example of social encounters and time for each other.

Partly as a result of the workshop task, but also partly because of requirements from the personnel, coffee breaks were introduced at the Contact Centre. The coffee breaks are at fixed times both in the mornings and in the afternoons on the three islands. They are rotated so that while the personnel on one island was having a coffee break, the

rest of the personnel covered for them by prioritizing the handling of incoming telephone calls during that time. The coffee was enjoyed on the sofa or sitting around the table at the meeting area. During the summer, coffee was often taken outdoors and enjoyed on the veranda or sitting on the lawn. During the coffee breaks I participated in, short questions concerning the work often came up: “What happened with the report of such and such?” or “How do you handle the questions about that and that?” At one time, we discussed language and expressions the personnel used during the telephone calls (fn 2003-12-11). It was established that many of the staff members have developed their own expressions and ways of delivering a message to the plaintiff. Other times, a newspaper article about police having to report part-time work to their employers led to a discussion about whether part-time work came into conflict with employment at the Contact Centre (fn 2004-06-08). During the coffee breaks, I also heard several “war stories” concerning crime reports and persons the staff had talked to over the telephone. Also, newspaper articles and more private matters regarding children, daily routines, holidays, and events in the archipelago were discussed.

We discussed the meaning of the coffee breaks one summer morning while drinking coffee outdoors (fn 2003-07-09). Five of the staff members were scattered around a garden table and Gabriel was lying down on the lawn. Anton pointed out how several work-related questions now are handled during the coffee breaks and “at the same time the coffee break is a possibility for more social encounters.” According to him, “The coffee breaks have welded the group together. [...] The social interactions are needed in order to get a picture of people, so that you learn more about them and how to spend time with them.” Anita filled in, “Yes, you need some junk information (*skräp information*) in order to do that.” Much later, other staff members met up at an internal meeting in order to discuss the working day and how to handle the considerable workload (fn 2004-12-08). Among other things, Tekla asked everyone to make sure that the coffee breaks were not prolonged, but everyone returned back to the work right after the break. Sten defended the coffee breaks somewhat like this: “But the coffee break is the only time we can meet and talk to each other and be social with each other.” He continued to stress the importance of coffee breaks and did not want limit or take them away.

The coffee breaks may be seen as a welcome break from the telephones and other work tasks at the Contact Centre. However, the coffee breaks had an important role to play as means for social encounters, to learn about the work as well as about each other. The coffee break may be seen as a ritual that promoted weaving the employees together as a group and enhanced the sense of togetherness between them. The coffee breaks as they worked at the Contact Centre symbolized how the management initially valued them differently than the employees. Maybe the initial lack of common coffee

breaks also reflected the idea of work efficiency at a call-centre organization in general. The introduction of common coffee breaks shows the agency of the employees and that they can and do question the existing values and norms and propose social change at the Contact Centre.

Congratulations Malin!

One summer afternoon in 2003, the staff members were gathering outdoors, hanging around with their coffee or smoking cigarettes. In addition, Laila and Olivia had come to the Contact Centre although it was their day off. Even I could feel a tension in the air but tried to act as normal and relaxed as possible while waiting. Earlier, the employees had made careful preparations in order to surprise Malin, who was getting married in a few weeks. It all had to be done without giving anything away. Finally, Malin came out and we greeted her with “Congratulations!” in chorus, which apparently took her by surprise. However, she soon pulled herself together and smilingly received a present and a necklace of flowers from her co-workers. A pushcart was decorated with branches and colourful ribbons to symbolize a wedding transport. We made Malin to sit in the pushcart, and, I dare say, everybody was joyful when we, in a hurry, took her to the boat, which was leaving in a few minutes.

Informal get-togethers such as celebration of each other’s birthdays, parties, picnic, and Christmas lunches are also part of the activities at the Contact Centre. Normally, the activities engaged the personnel at one site at the time. Occasionally, the investigation officers were invited. Afterwards, the get-together activities were discussed, reflected upon, and laughed at on several occasions during the working days to come, “Do you remember that time? Do you remember how she/he did this or that?” Photographs taken on the occasion extended the memories from those events. The photographs circulated among the personnel and were pinned up on the notice boards. They were sent to the staff on the other islands as well as to the investigation officers. The get-togethers are, apart from just having fun together informally, also a way to work with the group dynamics. Get-together activities like these contribute to create a common history of the workplace and, I believe, weave a group together.

Ways of Remaining Socially Organized

Various information and communication technologies offer possibilities for connecting distributed workplace and employees throughout an organisation as well as contribute to the formation and visibility of different groups within an organisation. Through different boundary objects, artefacts, and technologies, the personnel can share information about their work tasks and organisational matters as well as more specific information about each

other. At the Contact Centre, an e-mail system is frequently used for these matters between staff members at the same location and at the different locations. However, e-mail is not explored further here (for further research on e-mail see e.g. Bälter 2002; Bälter and Lantz 1995). Instead, I explore other ways that contribute to the distribution of information but also the sense of togetherness at the Contact Centre during a working day.

As mentioned before, the employees planed their work hours on an individual basis spanning seven days a week from 7 a.m. to 10 p.m. each day. Many of them work part time. Therefore, when entering the Contact Centre, one does not necessarily know who or how many persons are working at that particular location at that particular time. Bicycles and mopeds outside the Contact Centre as well as cars parked in the harbour give a first indication of who is working at the time. The rubber boots by the door, identification cards with pictures to be used for logging into the police computer applications, expressions on fellow staff members faces, ways of sitting, greetings, and their attention to the work, and notes on the white board are examples of how personnel receive and distribute information that indicates how their working day is going to start, who they are to work with, and the workload ahead. The information is essential since the number of incoming telephone calls as well as the number of persons working somewhat regulates the workload. The work task, which is mainly carried out individually, do not depend on who works but rather that somebody does. Who it is matters for the competence of the group in case of special expertise need and for the social encounters such as who to eat meals with as well as the general comfort of the working day.

Obviously, the rubber boots and other signs do not carry the same information for everyone. New employees, for example, cannot make sense of the semiotics, but need some time before they start to recognise which pair of boots belongs to whom. As one of the new employees at the time told me about the boots by the door, "I am too new to be able to read the signals. I need to look at the working area instead" (fn 2003-07-10). In the following section, I give two examples of ways in which the employees remain organized during their working day at the Contact Centre. The examples concern information on white boards and on a telephone display. Various technologies, both low-tech and high-tech, carry information from fellow staff members at the other sites, not just the particular location in which they are received and represented.

Family and Christmas on the White Board

One way to inform the personnel and get informed is to use diverse notices on white boards and notice boards. The white board is also one way to reach each of the employees whatever time they start working. The number of boards and placement of them in the workplace varies among the three Contact Centre sites. However, they are used in similar

manner. Diverse boards or at least different sections on each white board make it possible to separate one type of information from another. A note that is placed on a certain board indicates whether the information is urgent and needed during the day or whether it makes sense in the longer term. At least one white board is placed in each working area so that everyone has good access to it without too much effort. According to the staff, information on that board is current, up to date information that make sense within a short time of reference, for example, a day or a week.

Obviously, white board information is only visible to the staff at that particular location. As can be expected, the information is mostly location specific, addressing the local staff. On the white boards, you can read about visitors to the site, a list of persons taking their physical-activity hour during that specific day, names and telephone numbers to the investigation officers, and meetings at the other locations, just to name a few examples. This type of information has importance for the working activities at the location. For example, during the meetings, the incoming telephone calls are taken care of by the personnel on the locations not participating in the meeting.

Between the three locations, there are some differences in what is written on the white board and what notices are pinned up. Yet, some information is presented at all the three locations. For example, the lists of employees' duty schedules hang up the notice boards. Earlier in this chapter, I illustrated how the duty schedule is created. The schedules are then produced in a computerized application, printed out and hang on the notice board. One of the lists presents personnel names and their expected working hours on a weekly basis while the other corresponds to the working hours during that particular day. Even if everyone working at the Contact Centre has access to the information in the computer application, the list presenting the working hours for a particular day is printed out every morning for easier access on the board. The person who printed out the list also highlighted with a marking pen the names of the staff members working at the same location as him/her. According to Eja, the reason for this was that "They are the most important to know about. They are the closest family, the others are relatives" (fn 2003-12-11). Eja used the "family" metaphor, which is one of the most commonly used metaphors in organizations to describe and define the company as a whole (Salzer-Morling 1998). Eja used the metaphor to distinguish between the closest family, i.e. the personnel at that particular site, and the "relatives," i.e. the personnel on the other sites. I get back to the family metaphor later in this chapter.

I observed how the personnel check the duty schedule in order to get an impression of who and how many persons are working at a particular time. Some of them also checked out their own upcoming working hours. At one of the sites, additional handwritten information about responsibilities of the day was also distributed through

the lists. The personnel took turns being responsible for the daily delivery of the handled crime reports to the plaintiffs and for handling the different types of incoming reports. On this site, the additional tasks were marked on the duty schedule by each name with a letter, which indicates the responsibilities and the tasks of that particular day.

However, the information presented on the list changed and was not always current. It sometimes happened that someone changed his/her working hours or fell ill and was therefore absent that day. Even if the changes were to be made in the computer application and were accessible for them all right away, the staff members made changes by hand on the list hanging on the notice board. One reason for this was that the duty schedule on the notice board was visible and therefore the last minute changes were made visible as well. It is easier to get a general view of the information while it is printed out. Another reason was also practical. The computer application is slow to operate and the arrangement of the information on the screen is not appealing visibly, I was told.

On the notice boards, there are also some more personal items addressed to the personnel. They are usually separated from the other information and placed on the separate board or, for example, in a particular corner of the notice board. Encouraging poems, funny stories, comics and articles associated with the work in call centres or the police authority are placed there as well as postcards from holidays in distant places sent by friends and fellow staff members.

A specific Christmas greeting from one of the islands had a more central position on the board at the two sites that received it. Rather than just one postcard among others, it was placed among the more informative matters. The Christmas greeting was fabricated with a piece of cardboard. Each staff member at the particular site was presented with his/her photograph and first name as a Christmas ornament hanging on a green Christmas tree. A text on the card said, "Merry Christmas! From all of us on [the name of the island]." I believe the postcard was hanging there for at least over a year.

There was also a more recent picture of a ship with a crew. A text said, "Ship ahoy!" The name of the island was written there as well. The pictured crew represented the personnel on that particular island illustrated with photographs and their first names. When I asked about the picture, Freja told me that the picture had made been made for a joint workplace meeting for the entire Contact Centre personnel (fn 2003-12-11). The task was to present the staff and the island to the fellow staff from the other sites. Apart from the picture, the staff had written new lyrics for a song as well. The lyrics reveal some exclusive details about each of the staff members on that particular island. The personnel performed the song together at the meeting. Someone had video recorded the performance, and Freja showed me the film in the meeting area. As we watched the film, some staff members happened to walk by and made comments about us watching

it as well as the performance itself or just smiled a little. "I think we had more fun while rehearsing the song before the meeting than actually performing it at the meeting," Helmi commented. "I agree, we needed to practice it on the sly and hush up each other while investigation officers happened to call in the middle of the rehearsal," Freja remembered smiling. The technology worked to save an experience from the performance. The making of the performance, the rehearsal, was valued to great a extent among the personnel.

The Christmas card and the picture with a crew were also a way to get around the dilemma of not being able to "link a name to a face" mentioned previously.

Operators on Display

The telephone is one of the most used working devices in the Contact Centre.⁴ As the reader may recall, all incoming telephone calls regarding the crime reports from the public are distributed through an automated call distribution system to a free operator regardless of where she/he is.⁵ The display on the telephone showed the total number of incoming telephone calls from the public placed in queue to the operators at the Contact Centre. It also showed the total number of operators logged in on the call distribution system and ready to receive telephone calls. Login procedure had two main steps. The first commands on the telephone activated only the display placed on the telephone. The display now showed the total number of incoming telephone calls from the general public queuing to be answered to. It also showed the total number of operators logged in on the call distribution system at the Contact Centre. The next step was to type in the personal login-code; then the operator was connected to the call distribution system and the system started handing the operator telephone calls. The display on the telephone was of importance for the personnel, since it showed the most current information of the number of telephone calls as well as the number of operators accepting calls. In a way, it represented information of the workload based on the telephone calls but also of how many persons were working with incoming telephone calls at that moment.

One morning in October 2002, Kerstin was sitting at a work desk next to mine (fn 2002-10-09).⁶ There was a telephone, a computer screen, a keyboard, and a computer mouse on her desk. There was also a notebook, pens, and papers, and a pile of damage reports of graffiti found in busses, underground trains and station areas in Stockholm. That morning Kerstin was assigned to register the reports about graffiti in a police computer application about the committed crimes. Kerstin was doing this work one report at a time. There was a display on the telephone.⁷

Kerstin looked at the display and made to herself a comment on the high number of incoming telephone calls as well as the low number of persons logged in. She looked around in the open-plan office and turned back to the damage reports and her computer.

Now and again, she glanced at the telephone display. After a while, she put a sheet of paper on the telephone to cover the display and hide the information (the number of operators logged in, the number of incoming calls). Some time went by, and she continued to work on the damage reports using her computer. Then again, Kerstin paid attention to the telephone. She removed the paper and looked at the display. She sighed deeply and looked around in the open-plan office. Then she covered the display again and continued to work on the graffiti reports. Now and again, Kerstin lifted the sheet of paper and checked the display as she continued to work on her graffiti reports.

When I asked, Kerstin explained it was important to keep herself up to date about the workloads of others at the Contact Centre. She did not like to do other work when the number of incoming telephone calls was high. That morning she raised a general question about what work really counted. Could filing graffiti reports, she asked, really be more important than answering incoming telephone calls? Later, Kerstin and her fellow staff members explained that the checking the queue had much to do with “responsibility towards the work tasks” and that this helped insure that “the work was done” (fn 2002-10-09; ws 2002-10-10).

Kerstin was not the only person to monitor the display closely even when not expected to do so, for example, while writing or reading e-mails or being engaged in a conversation with someone else. If they noticed that the number of incoming telephone calls increased, they would start to take telephone calls. When the number of incoming calls is high, it most likely means long waiting times and some degree of irritation for the persons calling. This, in turn, creates a stressful situation for the personnel because callers often start their conversation with complaints about how long they had to wait. For the personnel, it is not pleasant to deal with irritated people call after call. In spite of this, there were reasons for not being logged in on the call distribution system. One of them, as seen in the vignette above, is other work tasks. For a number of reasons, an employee needed to log out of the call distribution system in order to complete a report for the police. The regular (at that time) five minutes delay between the telephone calls was not always enough time for employees to complete this task.

Once the operator logged out, i.e. left the call distribution system, the information regarding him/her, as a number on the display, was no longer available. For Kerstin and her fellow staff members at the same location, this was not a problem, they saw each other anyway and could keep themselves apprised of another person’s whereabouts. At the other two locations, it was not always clear what was happening about call queuing. Did an operator at a site quit working? Posted, shared information about personnel and working hours often did not answer the questions operators had at a particular moment. This information could not be obtained in any other way. Several times, I observed the

personnel as they wondered what was happening at the other two sites when the number of operators was low. It also happened that the personnel from one site called another to ask, "What is going on [there]?" Those who received the telephone calls did not appreciate the practice, which caused some tension between the sites, especially if we keep in mind the statistics and the discussions that followed at the Contact Centre (presented earlier in this chapter). What underlay, it seemed, these conversations was divergent understandings of work and work responsibilities. Partly because of this practice of checking on each other, the notion of "big sister" had been coined in order to indicate the relationship with the site that was, in a way, parenting others (ws 2002-10-10). Parenting is about caring for and helping those who were new to the Contact Centre. However, the notion of "big sister" also established a position that was seen as somewhat superior to the other two sites.

Not knowing what was going on at the other two sites, especially why the number of logged on operators was sometimes low, was an issue that came up again and again at the Contact Centre. The question was also raised at a semi-annual joint workplace meeting for all the Contact Centre staff (fn 2002-09-25, doc 2002-09-25). The topic came up when "everyday comfort/well-being, working environment, and ethics" was discussed. The discussion started in small groups and finished with all the participants present. It became clear that the issue was a sensitive one—one that raised the spectre of control and surveillance. The personnel discussed that the checking on each other across the sites was not appropriate. The staff concluded, "We must trust each other." They also raised a number of related work issues. The five minutes delay between the telephone calls, the staff argued, is sometimes too short for finishing up a report before the next call arrives. The telephone display, the personnel added, did not always show accurate information, which pointed to another question of trust, i.e. trust of technology.

The telephone is an important tool in the Contact Centre, not only as equipment for making and receiving telephone calls. The numbers on the telephone display represented current information about the workload ahead. This information and the way it was interpreted became a kind of thermometer that said volumes about the climate at the workplace. The telephone became an instrument staff used to plan, make sense of, and prioritize work. Keeping an eye on the telephone display or, rather, the queue information was, in a way, keeping an eye on the general public calling in, taking action on not making them wait. Not making them wait is part of the service the authority wants to give the public, but also an action to protect the Contact Centre staff from irritated people who had to wait too long. It was also used checking on, interrogating, and monitoring each other. While checking on someone has a somewhat positive meaning in this context, issues related to accountability and surveillance were there too. The telephone display allowed the staff to monitor each other without revealing that they actually were

doing so. How an individual assessed a situation varied from person to person according to his/her previous understandings and needs at that particular time and situation. For the Contact Centre employees, these were important, unresolved issues. The fact that they came up in discussions at the joint workplace meeting with a tight time schedule shows how important they were at the time.

The Fabric of Togetherness

A working day at the Contact Centre is not only about being professional in the front-line, handling telephone calls from the public. This chapter turned attention to the fabric of the working day, how the employees talk about, reflect, act on, and live the organizational culture in various situations during a working day. The vignettes and descriptions reveal, I suggest, a range of conditions for the sense of togetherness for the Contact Centre employees.

The Contact Centre, as an organization, symbolizes a commitment that involves its staff. The organizational arrangements are something of a guiding concept, a frame of reference, and a basic condition that form a basis for the sense of togetherness. For the most part, I suggest, the employees of the Contact Centre belong to and constitute what may be called a workplace community within which, in Bauman's terms, the employees share "tempered togetherness" (Bauman 1995/1998: 46). The Contact Centre personnel are together in order to fulfil work tasks. The sense of togetherness among the personnel is established and maintained through the work routines, norms, values, and ideology. Some of the rules and values are settled and regulated by the Contact Centre management and the police authority (e.g. how to handle the crime reports and need for information about committed crimes). Other routines and conventions such as planning the duty schedule require teamwork in order to establish the duty schedule but also the practice within which the schedule is produced. The spatial arrangements are a result of local circumstances, blanket agreements, but also somewhat institutionalized ideas about how an office workplace may look. Since the premises work the same way regardless of the site, they also add to the similarities between the sites. These similarities, I believe, stress unifying aspects between the sites and the employees. They are a condition for establishing and upholding the sense of togetherness at the Contact Centre.

In order to establish and maintain the sense of togetherness, you need opportunities to be together. Togetherness at the Contact Centre is filled with and balanced between structured or regulated meetings and unstructured meetings between the individuals. In meetings, the conventions, ideas, and norms are learned and reproduced. They are a way of upholding and modifying various practices at the Contact Centre. As we have seen, there were several reasons for the Contact Centre personnel to be in the same place at

the same time: to note their body language in the open-plan office and as they expressed it, in order to “link a name to a face,” get past the whining and develop relations of trust with each other. Planning the duty schedule, handiwork with the Christmas card, as well as rehearsing the song for the joint workplace meeting required participation from the personnel, and, as such, these acts can function as ways of weaving the group together. The somewhat sentimental value of remembering the time something came about is not to be neglected in the context of community making. For example, watching the video film with me gave the personnel an additional occasion to reflect on the past. The stories were remembered and told once again and contributed to creating a common history as well as keeping it alive. *Habitus* is a result of continuing production and reproduction of people and their history (Bourdieu 1984/1996).

However, face-to-face encounters are not always possible because of diverse work tasks, different working hours and/or geographical distances. Under such conditions, mediated interaction and mediated communication between the parties become important. Particular attention in this chapter was paid to the ways in which meanings were made public and accessible between the Contact Centre employees across geographical boundaries and, further, how they were lived, i.e. interpreted, experienced, and acted on at the workplace. In every workplace, employees create ways of finding out what is going on, who is doing what, and how to indicate belonging to the same organization (some of them were mentioned in Chapter 2). When face-to-face interaction was not possible due to the working hours and geographical distance, various signs—meeting minutes, Christmas cards, electronic mail, duty schedules and other indicators—constituted intermediary links across the three sites at the Contact Centre. The sense of others or the supposed presence of others is in this way distributed by low-tech and high-tech artefacts. Sending pictures of the employees to each other is also a way to introduce and remind people of the existence of scattered personnel. The pictures made it possible to “link a name to a face,” which can be cumbersome while working at a distributed workplace. That might be one reason why the greeting cards stayed up on the notice boards for a long time. Of course, it may also be more difficult to throw away something that has been created by the personnel rather than just bought in a shop.

“Out of sight, out of mind” (*Syns du inte, finns du inte*) was a flashing text-slogan on an outdoor advertisement board at Fridhemsplan in Stockholm a few years ago. The text was an advertisement for the current advertisement board, high up on the house wall, perfectly placed and made visible for the road traffic on Drottningholmsvägen on their way in to the city. Most of us notice others and want to be noticed by them, even if not on the advertisement board. However, even small indications such as rubber boots by the door, Christmas cards, or digits on a telephone display mean something when we need

to orientate ourselves in our everyday life in interaction with each other. The personnel at the Contact Centre need and create possibilities for checking on, monitoring, and supervising their working situation of which they are a part. The problem the telephone display raised for the Contact Centre employees was that their work, all their work, was made visible. In effect, their work was never out of sight, out of mind. As a result, work, especially the work of others, could not only be inventoried, but it could be questioned as well. In open-plan office, these issues, especially how to balance control and trust, are complex enough even if it is easy to just look around and check on the people there. They are compounded at the Contact Centre because both work and responsibility is divided between four geographically distributed sites. Indications of the others become then, as I see it, an even more complicated interpretative procedure to make sense of.

While employees present themselves to others through the various objects (e.g. rubber boots, duty schedules) and constructions, they also construct each other as well as relationships to each other (e.g. big sister). Because some of the communications take place without bodily presence or even the sound of their voices, they might be unable to make sense of the whole. The representations and/or (boundary) objects can both be unifying, but they can also be dividing. Some of the practices pointed out asymmetries, contradictory actions that counteracted the normative intentions towards the sense of togetherness. The everyday terminology, for example, pointed out a dividing aspect. It was not settled during my fieldwork whether it is the Contact Centre (singular) or the Contact Centres (plural). The statistics compared and therefore implicitly separated the three sites rather than united them. The markings of the duty schedule, for example, divided the staff on a particular island from the staff on the other two islands. What the telephone display shows may, as we have seen, lead to discussions of trust and surveillance that may lead to friction between the sites.

The somewhat institutionalized values and norms of a call-centre organization (e.g. quantitative values of the work) were, unsurprisingly, reproduced at the Contact Centre, even if it was a relatively new organization. However, in the work, such as in planning the duty schedules, regional characters were taken into account. It must be planned with transportation and other aspects in mind. As demonstrated in the previous chapter, the work at the Contact Centre was described as a kind of struggle. The Stockholm archipelago is in many ways a rural area regardless of its proximity to Stockholm. Issues such as service (e.g. access to school) and work opportunities are important for those who live there (described in Chapter 4). Not only was there a need to bring new economic opportunities to the archipelago, but the personnel also believed they had to work hard to keep jobs there. The issues that relocation raise for work conditions and for those who do the work were framed, not as monitoring issues, but as issues about collective and

individual (moral) responsibility. Given this, it is no wonder that the staff studied their telephone displays so carefully. The Contact Centre personnel used the telephone displays to take the temperature not just of their own particular work environment, but also of all those they collaborate with. Working and *sense making* across and between three different workplaces point to a complex socio-cultural context.

Representations are constitutive as they settle what to perceive and communicate. It must be kept in mind that not all the personnel experience the same thing. We understand statistics in one way and the telephone display in other way. The small and large indications of other people can mean different things. However, the various representations and artefacts do not include all that is needed in order to understand a specific action. In order to understand what a particular artefact, such as rubber boots, stands for, or what appears on telephone displays or on the duty schedule, it is necessary to come to an understanding of how different signs and meanings become embedded in a working day and what these signs mean. Here both use of (low-tech and high-tech) technology and meaning are iterative. Prior use and experience feeds into the interpretations of subsequent activity, which in turn informs and affects the use again. As we have seen, an interpretive act added to the representations can take both the use and meaning of that use in different directions. I believe it is not enough to treat these representations instrumentally, to be content with *unpacking* the semantic “*load*” they carry and acquire only in reference to the work itself. If we confine ourselves empirically and analytically to just this, we will miss a whole series of situated notions that we also need to unpack if we are to understand in any adequate way what is going on in work at specific sites.

The sense of togetherness is not established once and for all. It is not a straightforward matter, value, or rule. As the vignettes aim to elucidate, the sense of togetherness, like many other values and norms, works on various circumstances and situations within an organization. These practices, values, and ideas about the sense of togetherness should not be understood in isolation, but as interweaved with each other. Together, they produce particular practices over and over again, just as they reproduce and maintain the ideas and values of the Contact Centre.

At the Contact Centre, recurring, discursive practices, sharing information, routines, rules and responsibilities about the work tasks are obvious ways to “weave together” the personnel at the three sites. The spatial arrangements of the open-plan office, introduction of coffee breaks, and various face-to-face encounters help to establish and maintain the sense of togetherness at the Contact Centre. The meetings and other get-togethers provide

the personnel with topics for discussion and, as such, become stories to tell and, in turn, recreate and maintain the sense of togetherness at the Contact Centre. When face-to-face interaction is not possible due to the working hours and geographical distance, different symbols and signs—meeting minutes, Christmas cards, electronic mail systems and other indicators—constitute intermediary links. The practices and conventions, I suggest, can be understood as conditions for and expressions of the sense of togetherness within the Contact Centre. They can also be understood as ways in which the employees interact and communicate their sense of togetherness. As Garsten suggests, “media bring employees closer to each other as they make them accessible irrespective of distances. The extent to which the company relies on channels of communication other than face-to-face encounters to get messages across suggests the importance of mediated interaction in maintaining social organization and a sense of community” (Garsten 1994: 135). The vignettes presented in this chapter also point out the socio-cultural context of technology use we are approaching in following chapters.

What follows is a discussion of the communication environment with audio and video that was developed in the research project *Community at a Distance*, and how this communication environment was introduced to span and connect the three geographically distant workplaces at the Contact Centre.

Towards “K”

So far, this thesis has discussed conditions for the sense of togetherness at the Contact Centre. Previously, I described how the staff members reasoned about the sense of togetherness in its various nuances in the workgroup as well as how these notions were manifested and distributed among individuals and among the three sites in the archipelago, reflecting the socio-cultural context the Contact Centre personnel are engaged in. This makes way for the next step in the thesis, where the introduction and the everyday use of communication environment with video and audio, established in the research project Community at a Distance, is analysed. In so doing, the thesis takes a different turn.

The personnel at the Contact Centre took part in the research project Community at a Distance. In the project, a communication environment with audio and video was established to span and connect the three geographically distant workplaces at the Contact Centre in Stockholm. This chapter summarises the attitudes, assumptions, and expectations the staff had regarding the communication environment and discusses them with respect to the sense of togetherness. I am interested in the arguments the Contact Centre personnel made concerning the introduction of the communication environment at the beginning of the project. Technology is not just about technology, but also about everyday practices and, indeed, the socio-cultural context that may or may not change when a project like Community at a Distance enters a workplace. Therefore, not all the comments can be seen as comments on the particular technology per se, but rather reflect the project as well as the workplace in general, the socio-cultural context. The aim is to explore how the employees, in this socio-cultural context, made sense of the introduction of the communication environment. What appears here are some recurring perspectives put forward by the individuals.

The chapter starts with a short introduction to the research project Community at a Distance, in which the employees' expectations and attitudes were expressed. I then summarise aspects of the communication environment that the personnel mentioned at

the beginning of the project. Having presented the summary, I briefly present a design idea, an “open door,” and move on to highlight what I find to be major conditions for consideration when we move towards the use of a communication environment.

Change Expectations

Imagining, articulating, and talking about the future and the unknown is indeterminate and unpredictable. ICT bring in an “over-sell” of the possibilities (Boden and Molotoch 1994). ICT is expected to have positive effects on working life, leisure, and society as well as on the ideas and values they represent, such as equality and democracy (Boden and Molotoch 1994; Löfgren and Wikdahl 1999). ICT is expected to create new networks and communities and transform old ones. They are expected to break down hierarchies as well as change our perception of time and distance (Löfgren and Wikdahl 1999). However, technology itself is seldom either entirely or inherently good, associated with development potential, or bad, leading to destruction (Männikkö-Barbutiu 2002). Technological innovations are often associated with utopias and dystopias (Löfgren and Wikdahl 1999). However, they are also a result of negotiations, conflicts, and even power struggles between various actors (Ilshammar 2002; see also e.g. Webster 1995/2000). At the same time, technology can be understood as a promise as well as a threat. Some can see opportunities and possibilities with novel technical achievements while others are more sceptical. A video-mediated communication technology like the one that is discussed here was a new experience for the personnel at the Contact Centre. Technology as such suggested new ways to support everyday activities such as presence and awareness of each other as well as being together at the Contact Centre.

As the reader may recall from the previous chapters (particularly Chapter 1), the research project *Community at a Distance* started as a result of initial contacts taken by the Contact Centre management with researchers at the CID, KTH. The management at the Contact Centre had recognized a need for communication and interaction between the sites in order to facilitate the co-planning and co-organization of work, as well as for developing and strengthening the sense of community and belonging to what was, at that time, a new work organization. Research funds financed the project, and sponsors contributed technology. The Stockholm County Police provided the Contact Centre as an environment for the study and also invested in the project with the personnel’s working hours and, as a result, enabled their personnel to participate in the project. The support of the management was essential in order to facilitate employee participation in the project activities. The pre-study was conducted in November-December 2001. The project was finished in October 2004.

The overall aim of the project was to study whether it was “possible to create connections to distant places so they are experienced as immediate and natural extensions of the local environment, as communicative surfaces between co-workers at distant places?” (Lenman et al. 2002: 323). The project also looked into possibilities of establishing a permanent installation of the communication environment at the Contact Centre if the employees wished to and the other resources made it possible. The objectives of the police authority included testing the technology within the organization, primarily at the Contact Centre, but also exploring other potential use situations within the police authority at large.

A design model with a broad approach was used in the project together with several techniques. The model is primarily aimed at “unprejudiced” development phases in order to capture a large number of ideas. These are then discussed, and a few of them are selected and developed further. The issues are then again expanded to include new ideas and variations. In the project *Community at a Distance*, we also aimed to verify and develop existing and new methods in order to capture diverse ideas and considerations. Various activities—such as meetings, workshops, interviews, and photographing—were available for the personnel to explore their everyday practices as well as situations where a communication environment with audio and video might be useful (The research approach in the project was briefly described earlier, in Chapter 3. For more detailed descriptions, see Erixon et al. 2001; Gullström-Hughes et al. 2003; Lenman et al. 2002; Räsänen et al. 2005). The following comments about expectations and attitudes were captured during these initial project activities before the communication environment was established in the Contact Centre.

There is seldom a common understanding of what an articulation of something unknown represents. Similarly, it is almost impossible to isolate what one’s opinion and reflections are based on. The viewpoints and attitudes of the staff at the Contact Centre were (generally) affected by their personal preferences, *habitus*, and discussions at the sites and in the organization as well as in society at large. Their empathy or lack thereof towards the suggested technology as well as towards the project as such influenced their viewpoints. In the project, attempts were made to concretise this process, for example, by using techniques such as meetings and video prototyping in order to make the starting point of discussions the staff members’ everyday circumstances and explore them from various perspectives. Obviously, the project techniques and situations for gathering ideas for design purposes, i.e. how people ask questions, were also reflected in the answers. In addition, the suggested technology already implied certain possibilities and limitations. However, the mere presence of the researchers affected the viewpoints, even though attempts were made to encourage discussions without influencing them in detail. For

instance, the project team chose not to talk about the communication environment by using a given name. The different terms known to the project team are either technology-oriented, such as video communication, or indicate a certain type of use situation, such as Videocafé (Tollmar et al. 2001). Instead, it was hoped that the staff members would put forward the name of the communication environment as the project proceeded. However, a term was needed to talk about the communication environment. The letter “K” served the purpose, indicating the Swedish words for communication (*kommunikation*) and contact (*kontakt*), concepts that were used in the project. At the time, these concepts were not thought of as something special or meaningful. However, obviously they reflect what the project team was aiming at on a general level. In the initial meetings, the Contact Centre staff cheerfully contributed additional meanings to the letter K, such as love (*kärlek*), and K as the main character in a novel by Kafka (e.g. fn 2001-11-01). However, there were situations when it was unavoidable and equally important to describe the technology and its possibilities and limitations in order to make the discussions concrete and satisfy the curiosity of the staff. Specific words, often used unintentionally by the project team, were easily picked up along the way and sometimes understood as promises that were kept in mind by the Contact Centre personnel. For example, the idea of an extended room was used initially in the project in order to describe what could be achieved with video-mediated communication. Later, the staff members used the same words to compare the initial idea with the outcome.

Further, both attitudes and expectations also change over time. For example, there are new situations people get involved in and new knowledge forms over time affecting the attitudes. What one meant yesterday is not valid tomorrow as a matter of course. There were staff members who changed their initial viewpoints as well as those who kept theirs the same throughout the entire project. In this presentation, only some of the changes of the staffs’ viewpoints are highlighted while others are not, purely for the reasons of clarity in the narrative.

Consequently, it is difficult to work with and evaluate these somewhat occasional and individual statements towards something that is expressed as a (diffuse) possibility—no matter how close and in situ they seem to be. The following accounts are made by individuals and reflect their personal opinions. On the other hand, the expectations are shared in speaking acts and at least occasionally adopted by others. Do they then reflect the thoughts of all the group members? Maybe to some extent, but not entirely. Regardless of the complexity and a warning sign stressed here, I still want to consider and discuss some of the early expectations the staff members expressed during the early days of the project. There are mainly three reasons for that. First, talking about expectations and attitudes added to the pre-understanding and embedding in already existing forms and

attitudes, which in turn allow people to shape the technology in crucial ways (Löfgren and Wikdahl 1999). Assumptions, expectations, and knowledge of technology are important for understanding its use (Orlikowski 1994). If the circumstances and the “culture” of the workplace on one hand, and innovation on the other, are not intact, the novel technology will be abandoned and/or not used. Second, expectations contributed to building up an (idealistic) picture of the communication environment, which was matched explicitly and implicitly by the personnel against the outcome. Third, as a discursive act, expectations reflected and reshaped even other concepts, ideas, and conventions at the Contact Centre. It should be emphasized that the expectations expressed in the research project also affected the socio-cultural context at the Contact Centre by implying a change that could make contacts and interaction possible and (probably) “strengthen” the idea of togetherness at the Contact Centre. These are the main reasons for us to review the expectations of the communication environment in the thesis.

The Community at a Distance project was of concern for several individuals. Here, the main focus is on the expectations expressed by the Contact Centre personnel. In addition, the investigation officers and the management of the Contact Centre had their expectations and opinions, which were not necessarily in accordance with those of the staff. The multidisciplinary project team had their own expectations, as did the financial contributors and sponsors of the project. Even people living on the islands might have had different expectations about the technology, predicting, for example, other use areas for video-mediated communication. However, these are not included in this account. Nevertheless, it is important to keep in mind that there are almost always multiple agendas within a research project. Most likely, we cannot change them. However, we can acknowledge them and, if possible, manage them within the project. Sometimes, we can address them, but sometimes they need to be and are addressed by others.

“Unbelievable Cyber-Communication”

The first responses of the employees at the Contact Centre varied between positive and negative attitudes towards the communication environment as well as the project. The first positive spontaneous comments were for instance “fun/great,” “unbelievable,” “This is enriching,” “funny,” and “cool” when the project idea and the technical possibilities were presented and discussed with the personnel for the first time during the pre-study in the autumn of 2001. The negative responses centred on issues like fear of control and surveillance across the communication environment (fn 2001-10-23, 2001-10-24, 2001-11-01; see also Erixon et al 2001 where the early expectations are discussed).

Some of the more comprehensive starting points towards an additional communication and interaction facility between the sites could be summarized by the

following comments expressed in a questionnaire concerning communication habits at the Contact Centre in August 2002 just before the research project was started. We asked the staff members to comment on what was important for them in communication within and between the sites:

As we are geographically scattered on three different islands in the Stockholm archipelago and as we are quite isolated within each site, communication is important. Actually, we need to meet more often 'face-to-face.' K [communication environment] will be a help. (Q2 August 2002)

Among the most important is that communication is spontaneous. You may need to meet more regularly. Sometimes it feels as if you have forgotten the face of a certain person, a colleague. You should be able to communicate fast and easily. (Q8 August 2002)

The communication between the islands [the sites] is sparse but not bad. It is just that each site takes care of itself. That we would have so much in common apart from formal things is an illusion! We are different workplaces and interest for each other should not be overestimated. The result of a cyber-communication is going to be limited. (Q26 August 2002)

It is important that we can feel as one unit. This is reinforced if we can quickly get access to the same information and can meet face-to-face. There are still, after one and a half years, faces on the other islands [sites] that I cannot connect to a name. (Q29 August 2002)

These comments illustrate, among other things, some of the difficulties and challenges dispersed workplaces face, such as a sense of "isolation" within each site (see response number Q2). Communication between the sites, the responder points out, then becomes "important." Actually, the staff should meet more often face-to-face. The response indicates a hope or almost a conviction. It seems that "K," the communication environment, would "help" to improve this matter. Another response (Q8) stresses the importance of "spontaneous" communication on a regular basis. It happens that one forgets "the face of a person," that is, what a colleague looks like. There were, after one and a half years employment, "faces" on the other sites the respondent could not "connect to a name" (Q29). As the reader may recall from the previous chapter, a desire for face-to-face meetings and being able to link a name to a face were commonly discussed particularly in the beginning of my fieldwork. Access to the same information and the possibility of meeting face-to-face would strengthen a feeling of being "one unit" (Q29). However,

much of the working day functions anyway; the sites “take care of” themselves (Q26). The response declares that the communication between the sites is sparse, but not bad. Further, the sites do not have any other common interests apart from the formal work tasks at the Contact Centre. They are, in fact, different workplaces. Interest for each other, the response suggests, should not be overvalued. Therefore, the results of “cyber-communication” will be limited. It seems that the respondent did not believe in the possibilities of the suggested audio and video communication, but, rather, understood the idea as somewhat utopian. “Cyber-communication” might also indicate the respondent’s negative attitude towards the project as a whole. I can only speculate about reasons for that.

The viewpoints also point out possible use areas, which are described next.

The Possible Areas of Use

Among the first project activities during the pre-study, the personnel were asked to explore situations where a video and audio communication could be useful. The following list is a collection of use areas the Contact Centre personnel stressed at various occasions during the pre-study and during the first project phase. Issues regarding travel, spontaneous and planned meetings as well as information distribution between the three sites were some of the recurring concerns for the personnel. This also showed in the discussions of possible use areas.

A meeting on the mainland takes time. As Nina, one of the employees put it, “A one-hour meeting takes all day because everyone needs to travel into the city [of Stockholm]. It’s great not having to travel” (fn 2001-10-23). At the time, the meetings were a preferable way of sorting things out between the sites: “The only way to talk things through is to travel into the city, which takes time (fn 2002-12-02). A communication environment could reduce the need for travel and gain time for the staff at the Contact Centre as well as be better for the environment at large. It was also hoped to enable shorter meetings, which in turn would reduce the need for long meetings (fn 2002-12-02). Video was thought to bring in a valuable dimension in the interaction between people. It was compared to telephone conversations: “On the telephone, I cannot see whether the person I am talking to wrinkles up his forehead.” Despite of that, the telephone functions well between two participants, but three people participating in a telephone meeting “requires discipline,” for example, with turn taking (fn 2002-12-02).

The staff discussed co-use of special competencies within the workgroups, such as possibilities to improve management of the Contact Centre with the communication environment. For example, because of the diverse working hours, the group leader on the particular island is not always there. However, the group leader at one of the other sites might be available. In addition, different working groups, for example, for several

areas of responsibilities, would be able to meet and discuss common interest areas across the communication environment (fn 2001-10-23, 2002-12-03). Even possibilities for educational purposes were discussed. A teacher could visit one of the sites and reach all three sites at the same time (fn 2001-10-23). The company of fellow staff members at remote sites across the communication environment could be valuable, especially when someone was working alone at the particular site.¹ Apart from the above, the list of possible use areas and situations included also spontaneous meetings in order to increase a sense of belonging and cooperation at the Contact Centre but also to share experiences, handle certain incoming reports, and other matters. Planning the common duty schedule discussed in Chapter 5 was initially considered as a suitable use area for video-mediated communication (fn 2001-10-24).

Some of the staff members talked also about situations at home, where video-mediated communication might be useful, such as having contact with children who have moved to the mainland for school. "It would be nice to be able to drink evening tea together," said Ebba at one of the project meetings in which video-mediated communication and the project were discussed in general terms (fn 2001-11-01; for a more detailed description over the explored use areas, see Erixon et al 2001; Gullström-Hughes et al 2003; they are also listed in Lenman et al 2002).

Show Your Work and Be Exposed

Potential disadvantages and problems that might arise with the use of a communication environment were also discussed among the Contact Centre staff. Feelings of discomfort and fear for surveillance were some of the topics. The personnel were facing a new situation, none of them had experienced video-mediated communication before or, for example, participated in a videoconference. Even after testing a prototype at KTH, many of them said it was difficult for them to imagine how one might experience and feel about video-mediated communication at the Contact Centre, when there was no previous experience to fall back on. To some extent, this affected their attitudes and was indicated in our discussions with the personnel. Signe, for example, felt "scepticism" towards the video-mediated communication, since she did not know what it really "meant" (fn 2002-09-10). Other comments show similar reflections: "It is so new, you are not used to that kind of situation" (fn 2001-10-24). Nevertheless, an understanding of video-mediated communication was gained while the project proceeded. As Rita said, "It is hard to imagine it, but the penny's starting to drop" (fn 2002-09-12).

Yet in another meeting on one of the sites, the project team and the staff members discussed how we meet up with each other informally (fn 2002-12-03). Informal and spontaneous encounters are difficult to conduct, especially when the parties do not know

each other. For people who already know each other, it is not necessary to keep a social distance. At the Contact Centre, it was pointed out that even if the personnel at least know of each other, they might not really *know* each other, at least not enough for informal encounters to occur naturally. Anton believed that “[It will] be difficult to walk up to the screen [of the communication environment]. It can be difficult. Informal meetings are difficult. It should be as realistic as possible.” Gabriel believed relationships among the staff members across the sites were not close enough for such encounters: “The suggestion [of the communication environment] is very abstract now. There is no relationship with someone on the other island. Therefore, it is more difficult to make contact. Maybe it gets easier then [after the introduction of the communication environment].” In the meeting, the personnel continued to talk about informal situations and encounters between the sites. For example, when the Contact Centre business was still quite new, the personnel had a habit of telephoning each other at the beginning of the new working day as well as when it was time to go home for the evening. As they expressed it, in order to say “hello” and respectively to say “goodbye.” It was one way to inform the distant sites that the personnel were now there ready to start work in the morning or that they were closing down for the day. In addition, the investigation officers called to the islands to let the personnel know that they were available for questions. Even if some of them stuck to the practice, not everyone did it any longer by the end of 2002, i.e. about one and a half years after the Contact Centre had been in full use. Gabriel was one of those who did not. He compared the telephone and the video-mediated communication, “I never call to say ‘good morning’ or ‘goodbye,’ but I might wave if I can. Making a telephone call demands more. One has to ask how it’s going, how that person is feeling. There is a barrier. Then you just don’t give a shit about it, it is too much of drag to make contact” (fn 2002-12-03). Even a short greeting over the telephone is demanding whereas the possibility of waving to one another across a communication environment could be carried out more effortlessly, Gabriel believed.

During other meetings, the personnel talked about the consequences of constant contact. The number of possibilities to reach and be reachable is increasing in society today with mobile telephones and electronic mail systems. The Contact Centre employees use various ICT in order to carry out their work tasks. Video-mediated communication would add to that and be yet another way to interact with each other. The personnel wondered what might be the consequences of that (fn 2001-10-24). Some believed that “too much communication [was] not needed [at the Contact Centre]” on a general level. In addition, there was already enough ICT at the Contact Centre.

The personnel also pondered over the difference between a physical meeting and a meeting through a “projection.” Some believed that not everyone felt comfortable

“appearing” and talking in front of a group or in the front of a “camera” (fn 2002-10-08). Even aspects of whether one needs to rethink what to wear and how to act came up. “Then one has to start thinking of what one wears. One needs to wear make-up and have high-heel shoes,” somebody remarked cheerfully at one of the meetings with the project team (fn 2001-10-23). The personnel also raised questions about how you experience a fellow staff member in a mediated image. The sense of the other on a screen is always artificial; it is experienced as both “[...] exciting and scary at the same time. It is scary because you cannot feel the presence of the others. The experience does not correspond to the feeling when someone walks into the room” (fn 2001-10-24). We can “sense somebody’s presence when we are in the same room but not if the ‘presence’ is on a computer screen,” Terese assumed (doc 2002-12-18). It was also thought to be easier not to take notice of people one knows while present at the same location. That is not experienced as impolite or bad mannered, since one knows the others and does not mean to be rude by ignoring them at times. Terese expressed her concern about the matter: “How would a person on the other site feel if I just pass by in front of the screen without taking any notice of her or him? Here I already know everyone so it is easier to pass by” (ws 2002-09-12).

A video camera is one kind of equipment included in the communication environment. The video camera records what is going on at one site and sends the view immediately to the receiver. In Sweden, we come across video cameras in different situations and environments. For example, we use them to record family celebrations, and as tourists, we document the scenery of places we visit. The cameras take different forms; nowadays, there are mobile telephones with camera and video functions as well. Even if the use of video cameras in Sweden is not comparable with that of many other countries, there are quite a few surveillance cameras, closed circuit television (CCTV) around us. Depending on the situation, of course, they are experienced a means of creating a sense of security, but they can also be seen as a threat to one’s personal integrity. Associations with surveillance cameras were not uncommon among the Contact Centre personnel: “A surveillance camera is the first thing you think of, since that is what you have experienced” (fn 2001-11-01). As Ylva later pointed out, “There is a risk you feel like you are being monitored” (fn 2002-12-05).

One of the aspects of control and surveillance that concerned more or less everyone was who would see and hear you as well as what would be shown across the communication environment. Initially, the concern about the control and surveillance was mainly about the management in Norrtälje and whether they would be included in the communication environment. Any discussions or, rather, thoughts about whether to include the management in the communication environment also increased concern about control and even surveillance. Yet, the fear of surveillance was not always a question

of whom but rather that somebody might be watching. Terese, for example, put it this way: "[I] do not want to feel that I am being monitored, and I want to know when somebody is looking at me" (doc 2002-12-18).

While some, as we see here, did not want be "watched" and some sensed a risk of control and even surveillance, others did not. On the contrary, some emphasized that they did not have anything to "hide" as some of them put it. The personnel, above all on one of the islands, rather stressed the opportunity to show what is going on at the site, the work that is done, and therefore, to show that everyone was "doing their share" (fn 2002-09-20). The communication environment would be of help and bring the three sites and the work there closer together, they believed.

The concern about monitoring and surveillance was partly connected to the placement of the communication environment at the Contact Centre locales. Several placement possibilities were discussed. No one particular place at the Contact Centre premises was preferable for all the employees. Some were convinced that the open-plan office was the best place for the communication environment; others were not that certain and proposed other placements. The following two comments from the questionnaire at the beginning of the project capture both positive and negative, recurring reflections on placement of the communication environment in the open-plan office:

If we can see those who are working on the other islands, we will get closer to each other, get to know each other better. Feel [each other's] company. We will be able to communicate better with each other. I am looking forward to having the screens and want them to be in large scale in the open-plan office. (Q5 August 2002)

[I am] very sceptical about having K [the communication environment] in the open-plan office. [I] want to have peace and quiet there in order to be able to carry out good work. It works better in the luncheon room. In fact, you do not need to see each other all the time. That would be an exaggeration. [There should be] as little effect on the existing [workplace] environment as possible. [I am] uncertain, whether it should be always on, but of course [it will be] great during meetings. (Q33 August 2002)

As the response Q5 points out, the open-plan office was one possible placement of the communication environment put forward by the staff. Sibylla expressed similar concern at a meeting: "I see it [the communication environment] as a work instrument. I am not afraid of being seen because I am not ashamed of the work I am doing" (doc 2002-12-18). For many, the idea of the communication environment as a "work instrument" advocated the open-plan office, since most of the work activities occurred there. The communication environment then would come to be used while carrying out everyday activities.

The response Q33, on the other hand, points out that the open-plan office should be kept intact for “peace and quiet there in order to be able to carry out good work.” Because of poor sound and light quality, the area was not seen as suitable for any more disturbances. The concerns about the architectural, physical appearance of the office and possible effects to the room were some of the problems that were pointed out by the employees. “I do not want to get the apparatus into the open-plan office. I think it would have too large an effect on the physical working environment,” Virginia said (doc 2002-12-18). The concern for potential damage to the spatial arrangement was shown particularly at one of the sites.² Others could not put a finger on why it was unpleasant; but still stressed other placements than the open-plan office. For example, one of the staff members exclaimed at one meeting, “I’ll quit, if it [the communication environment] comes to the open-plan office” (fn 2001-10-24). Later, she said, “I will be sleepless, I do not want to have it in the open-plan office” (ws 2002-12-05). When I asked for reasons, it was difficult for individuals to explain and define where the discomfort came from. They might not have been able to articulate their feelings or perhaps they did not want to share them with me.

The meeting areas, which also functioned as dining rooms, were suggested as more suitable locations of the communication environment (e.g. Q33). However, everybody did not share opinions about the placement in the dining area. For example, Tina expressed her opinion in a meeting this way: “I would feel more discomfort having K [the communication environment] in the luncheon room than in the working area” (doc 2002-12-18). Especially at the time of the initial project activities, the meeting and dining areas were used for breaks from the work tasks. They were the areas where many staff members wanted to be left alone when they felt a need to be “private” (e.g. fn 2001-11-01). The placement of the communication environment there would probably have made staff to go somewhere else to enjoy their meals.

There were also those who hoped that different kinds of communication environments would be installed in various places at the Contact Centre so that various other needs and desires of the employees there could be fulfilled. Some wanted the communication environments to be mobile so that they could shift them from place to place for different use situations.

Shall We Open a Door..

The research project involved individuals with various attitudes and viewpoints. Quite naturally, there was not one single, universally held viewpoint, but rather several leads to follow towards design suggestions. Obviously, not all of them could be included in a design idea. The viewpoints, together with results from the other project activities,³ were worked

forward by the project team and resulted in a design idea, an “open door.” At the end of the initial project activities, the basic conditions for the “open door” were summarised to include aspects such as reciprocity (“You can see and hear when you yourself are seen and heard”); eye contact (“If I talk to you, we should be able to look into each other’s eyes”); user friendliness (“There should be no need to operate the audio and video technology during use”); attracting attention (“This should not increase the workload for people at the other sites”); and imitation of the workplace (“The technology should, as far as possible, imitate current contexts and behaviour”). As it is always on, the “door” is always open to the other sites during working hours. As one work community at three sites, the Contact Centre needs to build its sense of work community.

Based on the analysis of the needs for video-mediated communication and interaction, on the one hand, and needs for privacy and places to be private, on the other hand, the project team suggested the open-plan office, where the most work activities were carried out as a suitable placement of the communication environment.

Given the expectations and attitudes towards the communication environment described above, one can deduce that many, but not all the staff members welcomed the design suggestion. Let us now examine further the above perspectives that were raised during the initial phase of the Community at a Distance project and that are of interest for us later, particularly the perspectives on the suggested openness of the communication environment and its suggested placement, since, I believe, they help us to illuminate further the conditions of the sense of togetherness at the Contact Centre.

...Or Keep the Door Closed?

The communication environment as well as the project itself raised thoughts and feelings that naturally varied from person to person. These attitudes, assumptions, and expectations are rooted in their previous experiences and personal preferences and are based on common sense beliefs and everyday practices shared in the organizational culture at the Contact Centre. Life in the archipelago and the delicate travel conditions are also reflected in the early expectations along with the need to reconsider alternative communication possibilities. I believe that the travel issues would not have been such a concern outside of this particular rural context. In the archipelago, the distance between locations may not always be so very much in kilometres, but travelling by sea can make commuting complicated at times as described in previous chapters. Concerns for limited possibilities to see each other face-to-face and, indeed, to get to know who is who or, as the employees put it, to “link a name to a face,” were of importance for them at the time. Contact and interaction is necessary for creating and maintaining a sense of togetherness at a workplace.

However, “keeping an eye on” and checking on each other as well as concerns about control and surveillance were part of everyday life at the Contact Centre. In general, the employees’ expectations confirm considerations already reported in previous research on mediated-video communication and media space. A desire to see each other face-to-face as well as related concerns about checking on each other and about control and lurking are recurring aspects taken up in previous research (e.g. Gaver et al. 1992).

The Contact Centre staff explained their expectations to some extent in terms of organizational anxieties about expected use situations and the social aspects of connectedness (or the lack thereof). The fear of control and surveillance was to some extent, a surprise to the outsider, since, in the organizational hierarchy, the three sites are on an equal level and understood as one organizational unit. The personnel were not unfamiliar with each other even if they did not know each other well, and at least some of them desired more interaction between the sites. In addition, technical surveillance through the computer applications already offers various opportunities for checking and control at the Contact Centre. The form and design of the open-plan office allows for and encourages social control. You are seen and heard at almost any place at any time in the open-plan office—even if the separating screens between the work desks give some sense of privacy and some of the corners make it impossible or, at least, inappropriate for people to walk around you or behind your back. However, the insertion of a camera into a workplace probably makes a difference, adding yet another element. On the other hand, the camera itself seemed not to be a problem. Even the most doubtful staff members “acted” in front of the camera during the workshops in the project. To me, they did not seem to be too uncomfortable; rather, they seemed to enjoy it, both during the video making and afterwards, when the video was played for them. They may have been simply acting comfortable. There is, of course, a difference between facing the camera—so to speak, “acting” in the front of it—and being “watched” through the camera without knowing it. While facing a camera does not bring about a sense of surveillance, being “watched” does.

Fear of surveillance from the management is, to some extent, different matter. The different organizational levels suggest a rather institutionalized, normalized conduct at the lower levels of the hierarchy that the higher hierarchy wanted to know about, keep an eye on, and sometimes control. Those who in turn are on an even higher level in the hierarchy seem to expect them to do so. In some sense, the idea of a hierarchy is strengthened by the organizational culture, or the organizational culture ideal, within the police authority. At one of my meetings with the staff, Sten said, gesticulating with an outstretched arm and an open palm, that the police authority gave directions “by pointing with the whole hand” (*visade med hela handen*) and expected others to follow (fn 2002-09-09). The saying in Swedish refers to how directions are given within hierarchies or authoritative

organizations, for example, the military. An order from an officer higher in rank is to be followed without questioning. This, of course, is a somewhat conventional understanding of the police authority and does not always apply. However, given this understanding at the Contact Centre, the attitudes some of the staff had about camera surveillance may not be surprising.

As we have seen, opinions differed about the contact and interaction between the Contact Centre sites and therefore also about the need and use for video-mediated communication. For some, there was no need for more contact with the other sites while others urged more for the various reasons explored above. The individual viewpoints were not particularly situated in one site, but rather similar comments ranged across the three sites. However, there were some differences between the three sites. The following exemplifies briefly how two of the sites handled their opinions as it appeared to me at the time.

The personnel at one of the three sites emphasized openness—that they did not have anything to “hide”—and wanted to make visible the work they were doing for the other two sites (fn 2002-09-20). Having previously experienced misgiving and control, the group wanted to use the communication environment to prevent this kind of thing from happening again. As we saw in the previous chapter, the existing technology did not function satisfactorily for this purpose. They believed that the communication environment could be one way to improve the situation. I understood that they, as a group, were probably most convinced that the best placement for the communication environment was in the working area, where the most of the work tasks were carried out. We must keep in mind that other practices that coexisted with the project as well as activities within the project itself created new practices and reshaped existing ones. Some of them were crucial for developing the workgroup. Within the site, the personnel used the project and the project activities to work on their group dynamics and enhance their group identity. Staff members frequently maintained, as one person stated in a questionnaire at the end of the project, that “Working with K [the communication environment], seminars, experiments, questions, building mock-ups, furnishing, etc. benefited the group enormously. It gave us a suitable chance to develop as a group” (Q6 October 2004). In a way, the various project activities also helped to transform the sense of togetherness within the group. Many of them were positive in their evaluations and comments on the project activities. That does not mean that they were satisfied with the outcome.

Nevertheless, as we see above, some staff members did not want to place the communication environment in the open-plan office. This became a topic for the series of discussions particularly on one of the sites. Judging by the minutes from a meeting without the project team present, the feelings towards the placement were diverse (doc 2002-12-18). Five of the ten staff members present at the meeting were against having

the communication environment in the open-plan office for reasons mentioned above (risk of surveillance, concern for architectural details, and so on). The other five preferred the open-plan office. However, they would not advocate the working area if some of their fellow staff members did not want that location. In the meeting minutes, other concerns were summarized, such as uncertainty about whether the communication environment would be of any benefit for them at all. The importance of the attempt to connect the three sites to one was questioned and the project team was criticized for not listening to them. At the conclusion to the meeting, however, the personnel welcomed the communication environment to the site, but only if placed in the dining area. Despite that, some believed they would feel more “discomfort” about having it there than in the open-plan office. At the site, some of the staff members experienced that the disagreement over the placement and, indirectly, unease about the project divided the group “between those who were for and those who were against. [There was] a disagreement of where the screen would be located” (Q23 October 2004).

For the project team, the reactions added to other observations at the site at that time and made us ask whether the personnel on the site might need to reconsider their participation in the project. The project team decided to postpone the introduction of the communication environment there. Generally speaking, and as mentioned before, hesitations and negative attitudes towards certain technology do not improve with the use of that technology (see also e.g. Löfgren and Wikdahl 1999; Orlikowski 1994; Orlikowski and Hofman 1997).⁴

The differences in opinion between the sites, I believe, demonstrate that the socio-cultural context is not the same throughout an organization, not even on the same hierarchical level and within one organizational unit. The Contact Centre consists of three environments with three different compositions of staff members, each of whom brings in their individual experiences. What is desirable in one situation in one location at one time is not the desirable in another. The webs are spun differently.

The research project *Community at a Distance* per se is not discussed in the thesis, but left to the periphery; however, without getting involved in the diverse design practices and processes, I would like to stress a few viewpoints that may highlight the breadth of the socio-cultural context. The employee’s comments should be partly understood in the context of the research approach that gets its “strength” from user-centred and co-operative design ideas by suggesting the employees use their voice to work towards the implications for design. It gives a central role to the future users of the technology. Wisely used, it can be a suitable approach. The approach used in the *Community at a Distance* project supported employee participation, which was, in general, appreciated by many (for discussions about the project approach, see Gullström-Hughes et al 2003;

Lenman et al 2002; Räsänen et al 2005). The co-operative design approach also indirectly suggests, I believe, that every opinion counts. It makes everyone believe that he/she is, in a way, “right.” However, disappointments become obvious when not all the individual participants get what they want.

Both the Contact Centre organization and the Community at a Distance project are, I believe, tightly connected to Swedish norms and values about the workplace where the staff are encouraged to express their opinion and are involved in the decision-making process in various ways.⁵ In my opinion, the project activities also illustrated the teamwork practices and demonstrated that results should come about through common efforts of all employees (Gustavsson 1995). The teamwork in Sweden may have its roots in the long tradition of trying to solve problems together (*ibid.*). Some may have rejected the design suggestion for the communication environment in the open-plan office because it did not reflect the teamwork practices and failed to achieve group consensus as the employees had understood it. The feelings of fellow staff members were put in the foreground; even they were not in the majority. Wellbeing and concern for the others’ wellbeing, I suggest, may work as means to keep the group together. In retrospect, the decision to postpone the introduction of the communication environment at one of the sites both reflected respect for the staff’s opinions and worked in accordance with the approach used in the project.⁶

There might be a conflict of interest between the different stakeholders. One of the objectives in the project was that the outcome, if the employees wished and the resources made it possible, would be a permanent communication environment at the Contact Centre. Therefore, a possible goal for the employees was to work for a solution that meets their particular needs for a certain service. For some of them, the formal, planned meetings seemed, in a way, to have more benefits, leaving little or limited room for any other approaches. The suggested use areas were important to take into consideration for the project team as well, but research is also about learning more about methods, different technology, and use aspects, to name just a few areas of interest (for a discussion of different roles in this research project see Lantz et al 2005). The Contact Centre staff had no or limited previous experience of participating in research projects. However, many of them had participated in development projects or in purchases of technical equipment. Even if the members of the project team emphasized the research objectives and explained that the method of work differs from that traditionally used in development projects, the employees did not see much of a difference. To put it very simply, at least some of the employees at the Contact Centre wanted a product and someone to deliver it. Being part of a research project becomes secondary. In retrospect, our attempts in the project team to communicate the basic idea of a research project were apparently unsuccessful. That might explain, to some extent at least, the employees’ frustration that researchers did not “listen” to them.

By involving the personnel in the various activities, the Community at a Distance project and the project team participated in reshaping the socio-cultural context and the sense of togetherness in the Contact Centre at the time. The project activities brought the staff members together on various occasions. The project and elucidation activities certainly raised awareness within the organization and, in a way, aided and “forced” the staff members to explore and more or less define how far they wanted to go, what they wanted to share with the other sites and what not. The individuals and the groups acted on them differently. While some used the project activities to enhance group identity and, I argue, strengthen their sense of togetherness within the group, as well as express a desire to get involved with the other sites, there were those who felt contrary and claimed the project rather tore the group apart. The work with expectations not only increased the project team’s understanding of the socio-cultural context of the Contact Centre but, certainly, also had an effect on the socio-cultural context of the Contact Centre.

In this chapter, the thesis take a different turn and briefly elucidate the early expectations about the upcoming communication environment expressed by the Contact Centre staff. The expectations further illuminate the socio-cultural context of the workplace, particularly in respect to the sense of togetherness in the Contact Centre. As the word suggests, expectations are about employees’ hopes about the prospects of the upcoming video-mediated communication. To some extent, the expectations reveal what kind of togetherness the Contact Centre personnel wish to gain with the communication environment and therefore describe a “new” socio-cultural context for which they hope. The expectations built up imaginary, verbal and visual images and, at least, as I believed at the time (naïvely, I admit), very much was, at least, theoretically possible in the Community at a Distance project. The expectations also reveal something about us as members of the project team, as well as the activities and techniques used.

Since the socio-cultural context of technology use is pivotal in this thesis, I have explored it previously by involving several technologies used in order to promote, and manage the sense of togetherness at the Contact Centre. The next chapter goes on to elaborate this theme, but puts the focus on one particular technology, the use of the communication environment.

Mediated Togetherness

In earlier chapters I have explored various ways of creating and maintaining the sense of togetherness at the Contact Centre. Spatial arrangements, repetitions, routines, and habits as well as the project activities are means of upholding and modifying these practices, values, and attitudes. In this chapter, I return to them, but now focusing on the practices around and across the communication environment, which is in a sense a “new” socio-cultural situation. A series of vignettes aim to illuminate the fabric of the working day, the ways of remaining *socially organized* during the day between the three sites across the communication environment as well as how the sense of togetherness is constructed, made accessible and perceptible to the staff members, and how it is distributed and maintained across the communication environment. I attempt to illustrate and unpack the use situations in relation to the socio-cultural context within which they occur, which is a goal throughout the thesis. By so doing, we turn to the social processes of making, which in part, at least, are defined by the circumstances, discursive practices, culture, and history of the Contact Centre. However, the chapter starts with a description of the communication environment, how technology, together with surrounding features such as a counter, is turned into a communication environment and an intermediary link for communication between three Contact Centre sites.¹

Mediated Places: “Making Place”

As described in the previous chapter, the design idea for the communication environment was an “open door.” Here, as elsewhere, we, as designers and researchers, influenced and suggested ways to contextualize and communicate meaning. The communication environment was organised for informal meetings to allow the Contact Centre staff to carry out their everyday activities and to support encounters between the three sites. It suggested a place within which certain kinds of social activities would be possible. The communication environment was built with so-called consumer technology, including

television sets, cameras, speakers, and microphones among other things.² The arrangement of technology together with semi-transparent mirrors supported the sense of eye-to-eye contact between the participants. A counter at an angle of 120 degrees and curtains framed and hid the technology, as shown in an illustration Figure 7 (see also the picture on the cover of this thesis). The curtains also worked somewhat to absorb the sound at the locales. The counter facilitated the sense of turn taking between participants.

A communication environment, like other elements in a room, is not just about spatial features but is designed with organizational or institutional functions and values in mind (Agre 2001; Giddens 1984/2004). It provides cues, which frame and organise social behaviour. At the Contact Centre, for instance, it offered a surface, a meeting place where encounters could take place while standing. This reflected the way the contacts were made during a working day in the open-plan office (see Chapter 5). In addition, since the staff members carry out their work task with computers at their desks and most of the time while sitting down, standing while using the communication environment suggested motion for the personnel. As the reader may recall, shoulders and back problems are common for staff in call centres where most of the work tasks require that one be “tied to a desk” (some health problems are discussed in Chapter 4).

In the beginning, the plan was to connect the three sites on the islands, but also to seek possibilities for management and investigation officers on the mainland to use the communication environment to test its functions for management purposes. As described in a previous chapter, the personnel on Ornö wanted to reconsider their participation in the project. In the meantime, in order to proceed with the project, the project team decided to establish a communication environment at the Contact Centre headquarters in Norrtälje instead. Even though this was against the initial conditions of the project, the project team recognized that there were advantages with starting in Norrtälje. The communication environment in Norrtälje could be used as a testing and verification installation prior to building on the islands. This seemed to be suitable even from the transportation point of view, since Norrtälje was easier to access than the islands if and when more technical parts were needed.

The first connection was established between the management in Norrtälje and the personnel in Sandhamn in August 2003. The personnel in Arholma were connected to the communication environment on the 21st of October 2003. The three sites were then connected with each other on August 2004. However, Ornö was never connected to the communication environment. Even if the personnel and the project team had reached an alternative solution for the placement of the communication environment on the premises at Ornö, other complications appeared. One of them concerned the broadband. In the project, infrastructure with sufficient broadband was provided to the Contact Centre sites

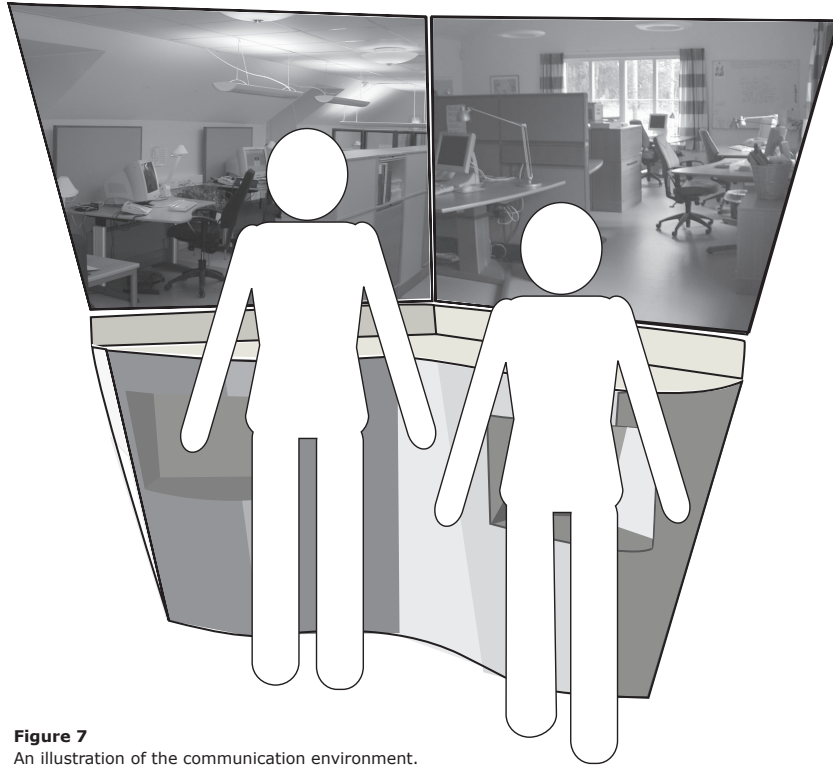


Figure 7
An illustration of the communication environment.

and sponsored by participating companies as one of the activities in the project. Even if each island had broadband, it did not reach the workplaces. It was not possible to solve problems related to getting broadband to the Contact Centre site at Ornö. Broadband expansion in the archipelago involved several actors such as broadband suppliers, local organizations, landowners, and excavators, all of whom had their own agendas and time schedules to follow, which added to the complexity of the project. The project team did not have a very strong position for negotiation with the actors due to the limited economic resources of the project. Clearly, this is an important part of the social world that the personnel on the islands participate in, and, obviously, it also affected the use of the communication environment as will be described later. The complexity would give us other situations to explore and bring in even further perspectives on the social world of the personnel. However, this is one of the “elements” I have chosen to leave outside of the thesis, since it would have taken us somewhat away from the main focus.

The communication environment was placed in the open-plan office at both Sandhamn and Arholma sites. In Norrtälje, it was placed in a meeting room. Needless to

say, the original architectural details of the workplaces were not designed to accommodate the communication environment. Rather, the personnel needed to make room for it on their premises. The goal was to integrate the communication environment in the office environment, but also, as far as possible, not to interfere with the existing constructions of the locales, such as walls. The limited financial resources in the project restricted the degree of major construction work on the interior design and architecture. The latter was also due to a request from the personnel.

The installation of technology and semitransparent mirrors as well as the counter used in the project were similar at the three sites (see the previous illustration). However, the communication environment took a different shape at each location depending on the diverse architectural conditions at the three workplaces. For example, the ceiling at one location is very low while in another site the ceiling is high and reaches right up to the apex of the roof. The meeting room in Norrtälje where the communication environment was placed is small.

The communication environment was designed to provide a link for communication between the three sites during working hours. The person who wanted to talk to a fellow staff member across the communication environment approached the screen and called for attention by shouting to the location and/or by signalling with his/her body, for example, by waving his/her arms. The person who took notice that someone from one of the other sites was seeking contact then approached the communication environment for a conversation. Preferably, no operation of the technology was needed. The technology supported eye contact between the participants. The view on the screen showed, apart from the persons talking to each other, also some parts of the open-plan office as seen in the previous illustration. Thus, the communication environment allowed representation and awareness of human activities as well as a view of the premises.

The communication environment was, in a sense, "finite" and physical and therefore had certain possibilities and limits to encompass and represent the activities and places. In addition, technical shortcomings complicated and affected the original intentions and therefore the use of the communication environment. For example, a fault in the microphones caused, among other things, acoustic feedback, and errors in audio transference caused the sound to disappear but return after some time. Sound recording was not sensitive enough and carried more sounds than was preferable. Sounds from the other locations complicated the problems with complex sounds and high volume in the open-plan offices. To some extent, it was possible to work around this by lowering the volume in the communication environment when it was not used. That, of course, increased the need to handle the technology. One of the islands also suffered from short and sometimes long power failures, which to some extent

also affected the communication environment. Technical breakdowns of various sorts also cut the actual time for the connection between the sites.³

This description roughly highlights a few aspects pertaining to the introduction of the communication environment to the Contact Centre. They add to the socio-cultural and socio-economic setting and are useful when we move towards exploring the use of the communication environment. The communication environment as a place provided an underlying opportunity for diverse activities across the three sites. The next step is to explore the processes of “place making,” i.e. how the Contact Centre staff made the communication environment *theirs*. The experiences of the communication environment varied from person to person in the Contact Centre. The overall positive viewpoints after a period of use can be summarized as, for example, “fantastic,” which reflects, to some degree, a fascination with the innovation technology (fn 2003-10-28; see also Räsänen et al 2005). The negative responses, on the other hand, expressed disappointment over the fact that the communication environment did not manage to live up to the ambitions that were set in the beginning. Yet others said they were indifferent to the communication environment—that “they did not care” or that the communication environment did not “mean” anything to them. This chapter highlights various responses to the use of the communication environment in relation to both as individual experiences and as part of group interactions, which are in turn nested in organizational activities at the Contact Centre.

“Finish It Pronto!”

At one occasion when I was just about to meet the Contact Centre staff on the islands during a visit to Norrtälje (fn 2003-11-05). I was chatting with Eivor across the communication environment at one of the sites when Mia approached me from the other, waived to me and said, “Hello!” While I responded to her greeting, she picked up a sheet of paper from the counter in front of her and showed it to me asking, “And when do we get it as nice as this?” She showed me a copy of a photograph of the communication environment on the other island. I knew she was referring to curtains surrounding the communication environment. They were missing at her site.

It took some time before the communication environment was accomplished and got its “final” form.⁴ Mia’s question was just one of the recurring questions on this subject from the staff. Earlier, on the telephone, Kerstin expressed to me what I understood as her frustration when she exclaimed, “We are not going to give a shit about the whole project if it [especially the curtains] is not going to be finished pronto” (fn 2003-10-28). She also pointed out the need to adjust the lighting and the uneven audio quality. Then she added, “It is quite fantastic that one can see Norrtälje and talk to Freja on the other island. It is

just annoying that it never gets finished.” In a technical sense, a complete solution was not understood as “finished” by the staff. For some, it was never finished; rather it was understood as “provisional,” as Mia put it (fn 2003-11-05). The video technology, the counter, and the curtains seemed to be understood as equivalent parts of the communication environment. For Mia, Kerstin, and the others, the curtains represented a degree of completeness because it hid the technology, made the communication environment look tidy, and increased a sense of technological embeddedness into the surroundings at the Contact Centre. Another reason why the environment was not understood as completed and “finished” was that the communication environment was not established on Ornö. One of the comments in the evaluation form illustrates this viewpoint: “K [the communication environment] has been fun. It is a pity that it never got finished before it ended. We wanted to be able to carry out things, meetings, and so on all three islands as was the plan from the beginning” (Q5 October 2004).

The “honeymoon” period of the project, when everything seemed possible, was now replaced by a new phase, within which expectations met the concrete outcome. An introductory phase and, thereafter, a routinization of the technology within everyday activities took over. A way to view the process of technological embeddedness is to look at what have been calling the domestication, accommodation and appropriation processes (e.g. Silverstone and Hirsch 1992). We make an empty office into our own office by arranging the furniture and adding things that reflect our work practices. I make a mobile telephone *my* telephone by changing the signals and decorating the surface. In the process, a focus shifts from the artefact or tool itself to use of that tool and sometimes makes the tool “disappear” (Charmers 2004; see also Löfgren and Wikdahl 1999).⁵ Domestication processes involve interpretation, learning, and (re)creating everyday practices and may therefore change the socio-cultural context of the workplace. When an artefact or technology is new to its user, it is used in a rationalizing, conscious manner in order to understand it against the backdrop of that person’s previous experience. Use is an ongoing circular process of interpretation, influenced by one’s previous understanding and experience of older artefacts and technology.

The communication environment did not become “two flat screens on the wall,” as some of the staff members seemed to expect (e.g. 2004-11-09). Expectations about technology are sometimes used, as they are here, to recall and compare one’s experience of technology to what one imagined. Obviously, it is a challenge to describe what one may want as well as to capture that image and turn it to a realizable object. The reflection on the flat screens somewhat summarizes expectations and an unsuccessful attempt to realize them. The technology was not experienced as slim and embedded to the environment.⁶ On the islands, the communication environment was visible for all who entered the open-

plan office, since it occupied about three square metres of each workplace. In addition, in the final installation, the screens' size was smaller than intended when the frame for the installation was built (as can be seen in the illustration above). However, the size of the frame holding the screens, mirrors, and the rest of the technology was not adjusted to the smaller size of the screens.⁷ Kerstin, one of the employees, thought it was "ugly." "Is it supposed to be that big?" she asked, pointing with her hands to the furniture in front of the installation and the black casing around the screens (fn 2003-10-08). Nina experienced it as "Clumsy for our room" (fn 2003-10-08). One of the responses at the end of the project also pointed out the size: "Large furniture that occupies a lot of space, but we got used to it" (Q1 October 2004). It was a disappointment for many staff members that the communication environment did not turn out as they had expected, even if it had been hard to express what to expect, as Cecilia put it, "I do not know what I had expected" (fn 2004-05-06). However, it seems that most of them became accustomed to it.

Already by the time of installation, the placement of the communication environment in the open-plan office was a well-debated topic as we have seen in the previous chapter. The discussions continued throughout the entire project. In the office, there was no possibility to separate the communication environment from the rest of the office in a sufficiently soundproof way. This was of importance, since high sound levels were an acknowledged problem in the office even before the installation. Both those who used the communication environment and those sitting near by recognized a dilemma. Eivor put it this way: "If I talk across the communication environment, I disturb others in the open-plan office. In addition, I cannot say anything in confidence. Everybody hears" (fn 2004-02-12). However, the degree of disturbance as well as the need to speak in confidence varied between the staff members.

Somewhat simplified, one may say that the staff on one of the islands was more pleased with the placement of the communication environment in the open-plan office than their fellow co-workers on the other island. They liked the placement in the open-plan office because that was "where we sit and work" (Q1 October 2004). The comment refers to the idea that the communication environment was best used for everyday activities, which mainly were carried out in the open-plan office. The open-plan office was also preferred, since "it is in the working area everyone acts under the same conditions" (Q7 October 2004). In the open-plan office, everyone is participating under similar conditions, carrying out work-tasks and getting as much or as little privacy as anyone else. This is the area they all use. Therefore, the placement supported equal opportunities to use the communication environment as well as equal occasion to find its use by others disturbing. In addition, it allowed staff members to develop an awareness of the personnel on the other island: "The installation [of the communication environment] was certainly

clumsy, but its placement was good. You could feel that [name of the other island] was there” (Q2 October 2004). “The placement is perfect for our room [the open-plan office]. Pity that it is cramped on [name of the island]” (Q3 October 2004). On one of the islands, some of the staff members stressed the negative aspects of the placement in the open-plan office. Closeness to the nearby work desks was experienced as disturbing: “Wrongly placed. It disturbed the work during all the visits, and it takes up too large of an area in our small office” (Q11 October 2004). “The placement of the K [the communication environment] on our island was not successful. It’s too close to the work desks. When someone was talking across the screen then others near by got disturbed if they were in the middle of the conversation” (Q13 October 2004). Other placements were suggested: “The placement should have been on the bottom floor so as not to disturb the work” (Q11 October 2004).

Equally, the counter played a significant part of the spatial communication environment. While talking to someone, participants placed their hands or rested their elbows on it and leaned forward as if trying to get closer to the ones they were talking to or in order to hear better. They used it for their notebooks and calendars when they needed to write down notes. Project documentation was placed on the counter, and it was used as an additional work surface for tasks that needed more space. During the Christmas season, someone placed decorations such as a figure of Santa Claus on the counter. On another occasion, I found a notice for biscuits for sale: “Order biscuits here. Note: school sale.” (fn 2004-11-10). I was also told that, on one of the sites during an after-work, social encounter, the staff hung up a drink list on the upper side of the mirror frame so that even the other sites could take part of it (and maybe get a bit envious of the party) (fn 2003-12-04). This was, I believe, a rather charming invitation for others to take some part in the gathering, even though at a distance. The personnel could have turned off the connection during the social encounter instead.

As we have seen, reciprocity between the sites as well as various aesthetic aspects of the communication environment—curtains, the counter, the size of the screens compared to the size of the entire established environment—was significant in marking and representing the sense of completeness of the communication environment. Apart from their practical use to hide technology, the curtains symbolized the degree of fit and finish as well as a desire to have a comparable look for the communication environment at the two sites. The curtains incorporated the communication environment into the open-plan office, for example, with a colour theme similar to that of the rest of the office environment. The curtains also worked as a boundary line between the communication environment and the open-plan office. They divided the open-plan office to two separated areas, one for local and the other for a shared area across the three sites. However, the borders were not definite.

The personnel did not talk about them as borderlines between certain areas. For them, it was important to know where you could be seen and, respectively, not seen. One of the first adjustments was to add adhesive masking tape on the floor to mark the otherwise invisible borders of where exactly you were seen at the other two locations and where you could be standing without being seen. This was a practical measure in order to facilitate the use of the communication environment as well as the space around it. In addition, I believe the tape also marked the communication environment as a certain place with a visible borderline in the open-plan office, a region within other regions. This adds to the regionalization processes (Giddens 1984/2004) of the Contact Centre workplace—the ways different areas are used for different purposes at different times during a working day.

The communication environment occupied a rather large area of the workplaces. As a material artefact, it was visible and noticeably changed the spatial arrangement of the workplaces, adding a new element to the socio-cultural context of the Contact Centre. Technology may become visible when it breaks down or, as in this case, when it remains visible because it is understood as unfinished and/or wrongly placed or, quite simply, too large to be ignored. We may therefore conclude that the communication environment stayed visible for most of the time and most of the personnel. Needless to say, the domestication and accommodation processes did not stop, but can be understood as a continuous transformation process throughout the entire project.

Who Is on "A Map"?

The cameras used in the communication environment were focused on the area just in front of it, where the participation across the sites took place. However, as illustrated earlier, one could still see, even if not very clearly what was going on in the background. It was possible to see the staff working, passing by and to hear fragments of talk with the plaintiffs on the telephone and other sounds such as typing on the keyboard. Obviously, the placement of the communication environment as well as the spatial arrangements in the room dictated what was shown to the others. The sketches in Figures 8-10 (see the following pages) show where the communication environment was placed at each location. The line shows approximately what could be seen.

Initially, the view from one of the islands was limited; one could see parts of an entrance to the open-plan office and a door to a storeroom as the illustration in Figure 9 shows. People passed by, but most of the time too quickly to be addressed or even recognized, especially if one was not watching the screen at that very moment. When the personnel had used the communication environment for a few weeks, they complained about this limited view of the workplaces. "It gives us only a peephole," said Anton during one of my meetings with them (fn 2003-11-12). "You can't see into the office. It

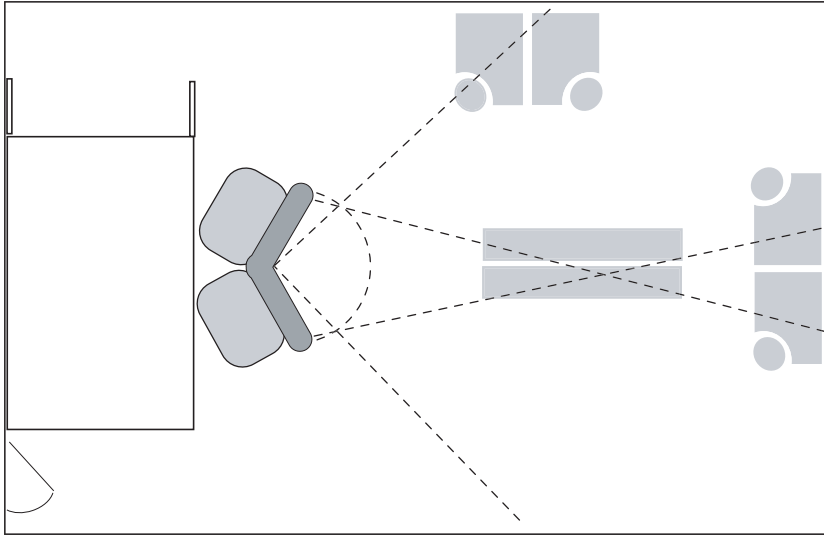


Figure 8 The placement of the communication environment in Arholma (not in scale).

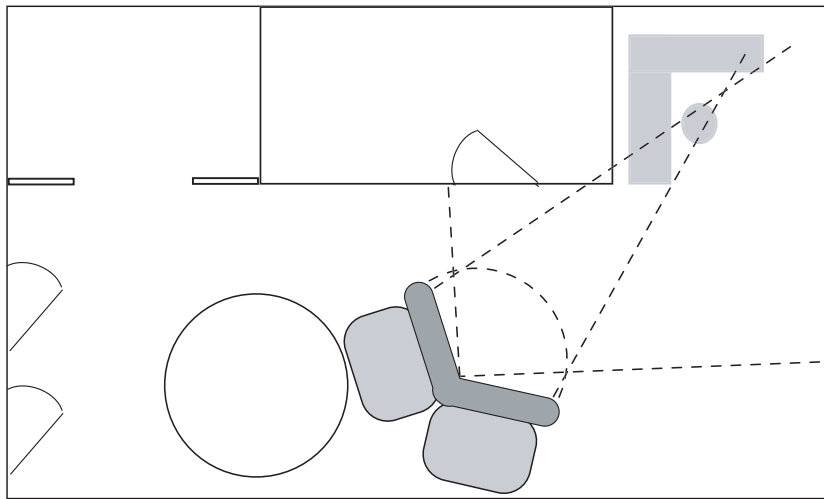


Figure 9 The placement of the communication environment in Sandhamn (not in scale).

is impossible to get an idea of how many of them are working there,” explained Anneli. Disa was concerned about reciprocity: “We’re the only ones who show the whole office. Is that stupid of us?” Anneli then added, “It should be equivalent between the parties.” Some time later on, similar concerns were raised on the other site. “[T]he entire office should be seen. One cannot get a sense of one unit, one workplace, if you can see only a few chairs,” explained Mia to me during a coffee break (fn 2003-11-18).

In order to improve the situation, the mediating pictures on the screens were switched. After the change, the management in Norrtälje was facing the storeroom door. The staff, on the other hand, could now see about half of each other’s open-plan offices. Even if this still did not meet the initial desires of showing the entire open-plan office, it gave an idea of what the workplaces looked like. The mediated view now captured areas that were regularly used for work, which meant that one could see more staff members, but also for longer periods of time. The schema shows how the three sites were shown in relation to each other (Figure 11, the next page).

I was visiting one of the sites when the mediated pictures were switched and witnessed how the personnel started to make rearrangements in the office in order to reveal more of their office for the other site (fn 2003-11-18). They replaced plants and moved bookshelves in order to make room for more people to appear in the mediated view. The staff on the receiving island applauded the broadened view. Bodil, for example, exclaimed, “This is how it should be. Now one has co-workers.” The change of the mediated views, I believe, strengthened the sense of equality between the two sites; what and how much one could see of the other sites was now more or less equivalent, just as the staff had required earlier. In addition, the rearrangements in the office contributed to this equivalency and therefore had an impact on reciprocity between the sites.

Despite the limitations, the view was experienced as “giving us a map” of the other sites as Eja, one of the staff members, expressed it when I had asked about her experiences of the communication environment (fn 2003-11-26). The mediated view, the “map” of

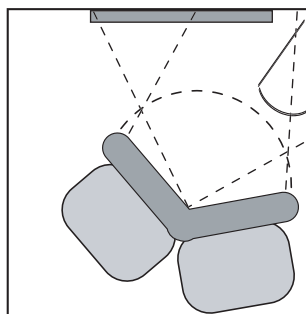


Figure 10
The placement of the communication environment in Norrtälje (not in scale).

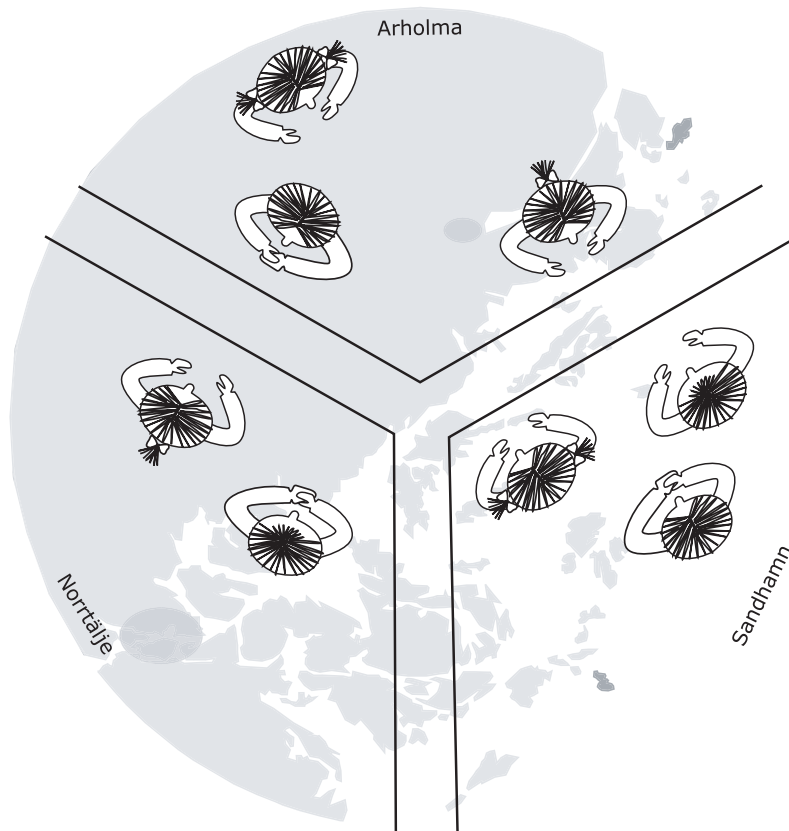


Figure 11

A schema seen from above, on the three sites in relation to each other as they appeared on the screens. The figurines attempt to indicate participants looking at each other. For example, if you were in Norrtälje, you could see Arholma on the screen to the left and Sandhamn on the screen to the right.

the workplace, was used in different ways. Eja told me how she glanced to the screen to see if the person she wanted to talk to was at her/his desk and available for a telephone call. Only then would she make the telephone call. She told me that it happened that the personnel on one site wondered about the personnel's whereabouts on the other island when they could not see them across the communication environment. Eja told me about one of these situations: "When I was sitting on the 'wrong' side of the open-plan office one day and passed by [the communication environment] later on, Nina noticed me and said, 'So you are working after all. I have not seen you so far today!'"

As we see, the communication environment added yet another way to be social during a working day. It gave a visual, real-time representation of the workplace and the

people there. Nevertheless, the communication environment had its limitations and, since it did not manage to mediate who really was present, it also contributed to the situation like the one described above. As far as I know, this particular situation was not about checking on who was working; it was, rather, a social concern. However, it had happened that the chief of staff had addressed the personnel across the communication environment and wondered why nobody was logged into the telephone application. According to Erika, this was a gesture of monitoring the work across the communication environment (fn 2004-06-08).

When a larger number of employees were present at one site, they were “enough to keep track of” and to be “social” with one another. However, when there were only a few working at each site, the need and desire to get some kind of signal from the others was different (fn 2003-11-25). Then it became more relevant for the individuals to know about each other’s workload and work tasks as well as to be social across the sites. The working situation was, in a way, more exposed and managed by only a few, who therefore became more visible. Then the communication environment played a role in mediating that someone else was working as well, that you were not alone. Obviously, the communication environment did not solve the problem the personnel experienced of not always knowing who was working and on what. The role of the telephone display (and, later on, the computer display), for instance, kept its position as an indicator of how many people were currently receiving crime reports over the telephone.

A response in the questionnaire at the end of the project stated the importance of seeing each other: “[...] [the communication environment] was good for keeping contact with [the name of the island] and Norrtälje. And for putting a face on the people you are talking with” (Q2 October 2004). It seemed to me that the personnel by the end of the project could connect a name to a face as they required earlier during my fieldwork. By that time, the staff had also had opportunity to get to know each other due to the common meetings such as the semi-annual workplace meetings.

As mentioned before, fragments of talk and other everyday sounds carried across the communication environment. Once we heard distant laughter from the other site. Lisa happened to walk by and said smiling, “Oh, they are like us.” Lisa referred to the laughter that also was part of everyday life at her site as well. At the Contact Centre, the communication environment provided a way of knowing and learning about each other. Comments, such as Lisa’s, “They are like us,” both demonstrate and contribute to a sense of similarity and of belonging to the same organization. The significance of seeing or, as in this case, hearing each other (or not) was also brought up in comparison to the fact that one of the Contact Centre sites did not have a communication environment. Eja told me about her reflection on this: “Now I call more often to them with the communication environment in order to ask and tell them about things. Then, I find myself thinking, ‘Oh

right, Ornö too!” (fn 2003-11-26). The following quotations are from the questionnaire at the end of the project and take up similar matters:

Because there were some problems now and then, it turned out that I did not use “K” [the communication environment] as much. We occasionally had problems with both the sound and the picture, but you still had a strong feeling that [the name of the island] was closer us than Ornö because we could not see Ornö. So, even if you did not stand and ‘chat’ so much with the co-workers on [the name of the island], I think that there was a certain value in saying hi when we saw each other on “K” [the communication environment]. You became more conscious of their presence. (Q4 October 2004)

My main opinion of “K” is: “Good idea.” On Ornö, we were never able to experience the project, but I was one of those who travelled to [the name of the island] and tried it out. You got a sense of togetherness with those on other island more spontaneously when you went by the screens. You even met “the boss” more often than you would otherwise. (Q27 October 2004)

These comments confirm what I heard several times during the fieldwork. The respondents experienced that even seeing each other and the short, spontaneous encounters across the communication environment had an effect: they gave the staff a sense of getting “closer” to each other. “The map,” the view through the communication environment, gave a certain view of the workplaces, even if the representation was limited. It also became obvious what was left out, that is, the Contact Centre site on Ornö. The sense of who belonged to the Contact Centre community and who did not was in a way affected by the representation. A mediated view gave the Contact Centre staff extended knowledge of each other, a bigger picture of the workplace, and an awareness of the “presence” of others (Q4). The “sense of togetherness” with the other sites was established even after using the communication environment for a short period of time, as one of the staff members wrote in her/his comment (response Q27). She/he also experienced that she/he met the chief of staff more often than one would normally do. I do not believe that the personnel on Ornö in general felt that they were left outside of the workplace community. As far as I know, they were not left out of any important discussions, nor were they forgotten; however, they were apparently experienced to be missing from “the map.”

The placement of the communication environment at the premises of the Contact Centre headquarters with management in Norrtälje was against the initial conditions for the project. The three sites—two on the islands and one in Norrtälje—were not on the same organizational level and therefore not equal in the formal hierarchical sense,

which would have been the case if the three sites in the archipelago had been connected. Especially in the beginning, the employees expressed their concern for and even fear of monitoring and surveillance from the management (discussed in Chapter 6). In order to minimize and avoid this, the project team together with the staff settled that the contact with management in Norrtälje was to be for specific, organized occasions such as information meetings or for contact with the investigation officers. The employees would initiate and control the connection. However, this condition was not lived up to initially, since the first connection was between Norrtälje and one of the islands. Further, and maybe more importantly, the connection was always on. Of course, the employees immediately questioned this. In addition, occasionally and especially in the beginning, the personnel on the islands heard police emergency-service vehicles in Norrtälje but also occasionally the television in the hallway outside of the room where the communication environment was placed. Now and then, they heard the chief of staff and the investigation officers talking at a distance. The sounds and voices were understood as annoying, disturbing, and troublesome (fn 2003-10-08). Sometimes, they caused confusion since it was not always clear where the sounds came from, particularly because the employees could not see into the hallway in Norrtälje and actually see who was talking. As a result, they were also afraid that someone might be listening to them in turn while they were not aware of it. In order to avoid or at least minimize eavesdropping, it was decided that the door to the meeting room where the communication environment was placed in Norrtälje was to be kept closed. The personnel on the islands could also turn off the connection to Norrtälje and turn it back on when required. After that, the door was always kept closed. But, as far as I know, the personnel never turned off the connection to Norrtälje on purpose.

In general, the fear of eavesdropping, lurking, control, and surveillance—both by management and by fellow staff members on the other sites that many had talked about in the beginning of the project—faded and vanished more or less entirely as the project went on. As the personnel were accustomed to the communication environment, they learned to handle the new situations along the way. Sometimes they “forgot” about the mediated aspects of the communication environment and talked anyway and/or just avoided discussing sensitive matters close to the communication environment. I did not notice anyone move away from the communication environment because of possible eavesdropping. If privacy was needed, the staff had to go some place else anyway because of the openness of the office-plan. A reason for the initial fear of control might to some extent have been caused by the fractured relationships between the sites at the time. It must also be kept in mind that the personnel had several possibilities to repair these relationships since then. The staff worked to enhance the organizational identity and belonging as well as group dynamics. Furthermore, social control is not always “monitoring” as in an exercise

of power or monitoring over something or someone. It is also caring for each other. Signals from others carry the meanings of “contact, social control” (fn 2003-07-10). “Someone sees me, which is a confirmation of my existence as a human being,” as Anita put it in one of my meetings with the staff (ibid.).

At the end of the project, one participant wrote about surveillance in the questionnaire as follows:

I thought then [at the beginning of the project] that I felt strange to be connected to another place. The feeling of surveillance was there. Later, it became clear that one of the screens was going to be placed at the Norrtälje police station. That you can surely question! You became accustomed to the screen. [...] The contact with Norrtälje has been good, since we could talk with [the name of the chief of staff] and the investigation officers. (Q15 October 2004)

In the beginning of the project, the respondent felt that it was “strange” to be “connected” to another place. She/he also seemed to fear surveillance. Even if she/he objected to the management in Norrtälje being included in the communication environment, the possibility to meet the chief of staff and the investigation officers seemed to, after some adjusting, turn into something rather positive as the project proceeded. One of the new employees at the time told me that she saw more of the chief of staff thanks to the communication environment than she would have otherwise. Being new at the Contact Centre, she appreciated this. It was a way to get to know each other as well as the organization. Yet another comment in the evaluation questionnaire at the end of the project was “It was good to see [name of the chief of staff] from time to time because he seldom comes out here [on the islands]” (Q19 October 2004). During the busy times, the chief of staff could not make trips to the archipelago because they took too much time. Appearing across the communication environment, however, was easier to fit into the everyday activities.

Particularly towards the end of the project, the view of the closed door at Norrtälje was experienced as a rather negative representation of the site. The staff members complained about it. Nina commented, “The door in Norrtälje could be open. It would be nicer that way. It’s no fun to look at a closed door” (fn 2004-04-27). A comment in the questionnaire stated, “The closed door in Norrtälje was boring” (Q19 October 2004). Seeing each other’s open-plan office was also compared with seeing only part of the small conference room in Norrtälje: “It functioned best when the screen was in the room [the open-plan office] as on [the name of the island]. The notice board in Norrtälje didn’t do much for the sense of togetherness” (Q6 October 2004). The respondent preferred a view

from the open-plan office to a view of a notice board for a sense of togetherness. The comments are also feedback and reflections on the project idea of extending the room and creating a sense of a larger open-plan office. Closed doors and a limited view do not support an idea of extended workplace community, nor did they seem to contribute to a sense of togetherness. It also reflects the fact that the status and hierarchy issues involved were made visible with this closed door. Later in the thesis, I come back to the concept of control at the Contact Centre.

Mediated communication across the communication environment added to the various representations of the staff and the workplace. "A map," the view gained across the communication environment, was obviously different from other ways of remaining socially organized, such as the duty schedules, telephone numbers, and Christmas cards on white boards described in Chapter 5. It did not replace the white board information or the number of operators working shown on the telephone display. Nevertheless, it added to the visual understanding of the workplace and the people working there. The communication environment offered a different kind of map than the other communication devices at the Contact Centre.

Mediated Rituals: Meeting Each Other

In the beginning, the employees explained the use of the communication environment in terms of a "H-e-l-l-0!" (*tjohej*). They tested the communication environment's functionality by greeting each other. Where and how should one stand? Where is one seen and heard? What vocal level is suitable in order to be heard without disturbing colleagues working near by? When is the volume most suitable? How about the lighting? In the beginning, most of the employees had a tendency to raise their voices when approaching others across the communication environment. After a while, most of them used normal conversation voice level. In addition, the technology failures and shortcomings led the staff to begin each conversation by testing the technology. For example, due to problems of high sound level in the open-plan office, the volume was often turned down when nobody used the communication environment. Therefore, the conversations often started by finding out whether the participants could hear each other. Eventually, the volume was regulated. The technological failures, tests, and suggestions for improvements were also recurring conversation topics every time the communication environment did not function satisfactorily. The testing itself became a kind of ritual whenever the communication environment was used. It can also be understood as an opening or establishing part of other rituals.

Later, the staff roughly divided the use of communication environment into "saying 'Hi'" encounters and "real" meetings. These categories both add to and are similar

to the existing common, everyday practices and encounters, which I explore in Chapter 5 and refer to as the “rituals” of the Contact Centre. However, here the focus is on the mediated rituals, encounters, and practices that the personnel engaged in across the communication environment.

"Saying 'Hi'" Encounters

“Is Freja talking [over the telephone]?” Kerstin asked me across the communication environment when she noticed me by the bookshelves near by (fn 2004-05-14). I looked across the open-plan office, saw Freja on the telephone, and turned back to Kerstin and said, “Yes, she is.” Kerstin gesticulated with her hand that she had heard me, turned her head back to the task she was engaged with by the counter, and I turned back to the meeting minutes I was about to read. Soon Anton passed by and said something like “trobido” as a greeting to Kerstin across the screen. Kerstin responded with, “Hi! No short pants today?” Anton laughed and said, “No” and continued to his way to his work desk. Sometime after, Freja finished her telephone call and asked me, “What did Kerstin want?” I answered, “I do not know.” Freja took off her headphones, got up, and approached the communication environment. She addressed the other site with, “I am available now.” Kerstin had stepped back to her work desk by then, but noticed Freja and came to talk to her. Kerstin asked, “How are you?” and leaned towards the counter. Freja did the same as to get a little bit closer and answered, “I am fine. It went well yesterday. I called him at home today. He was not at home, but I think he listened [to my message] yesterday. I told him that everyone was satisfied.” Kerstin: “Okay.” Freja: “It would be interesting to know how much everything costs [...]. Now we have double screens too.” Kerstin: “That is very good, isn't it? We should have had them ages ago.” Freja: “Yes, really! Bye now.” Kerstin: “Bye.” They both turned around and returned to their work desks. I finished writing down the notes of the conversation. Its content did not make any sense to me, but obviously it did for Kerstin and Freja.

A research fellow of mine recorded the following encounter with his digital camera when we were visiting Norrtälje (fn 2004-01-12). Olle was engaged in a discussion with Nina and Kerstin across the communication environment. Nina and Kerstin were bending over something in front of them, not directly looking at Olle. Nina said, “I wonder if it wasn't on the 21st because we were talking about of having a social get-together then and Ina could not attend then? So, I think that it was on the 21st of January.” Kerstin filled in: “Yes, I think it was then. I think I made a note of it. My mother has her birthday then, and I was thinking of that too. I can check it.” Nina looked up at Olle who said, “Well, I do have my calendar here and I have made a note of it.” At the same time, he took his calendar out of his pocket and opened it on the counter. He continued, “LSG [local co-operation group] on the

27th of January. And then we have one on the 17th of February.” Nina, “On the 27th?” Olle answered, “Yes. On 27th. And then we have on a meeting on the 23rd.” Nina: “Yes, that I know.” Nina confirmed the dates, turned around, and disappeared from the communication environment. Olle, “So, that’s how it looks.” Kerstin bend her head down and wrote on something near the counter and Olle continued to look at his calendar for while.

Numerous times, I was told about a “bandage joke” (e.g. fn-2005-03-08). Mia had been talking to Mats, one of the investigation officers, over the telephone and told him about the consequences of a Contact Centre social, get-together party the night before. On the telephone, she claimed that on her way home she had had an accident and had been injured. Obviously, Mats did not believe her. However, Mia was well prepared for that and asked him to meet her across the communication environment, which he did. There she appeared with visual evidence of a large bandage around her head. This had apparently scared Mats at first, making him serious and concerned. In time, the truth of the matter was revealed. The way the story was told afterwards made us usually smile in remembrance. This is yet another story of the encounters and relationships between the Contact Centre employees. The communication environment adds a visual aspect to the narration and provides a physical place for the joke, a place for being together, sharing a story. Afterwards, when the story was told again, the mediated aspects of the communication environment and usefulness of the video for the narrative were highlighted.

These vignettes illustrate how the communication environment was used most of the time, i.e. for short, rather informal conversations. The staff members identified them as “waving a hello” or “saying ‘Hi’” conversations. A “saying ‘Hi’” conversation was characterized by its shortness as illustrated between Kerstin and Anton in the first vignette above. The conversation was settled fast, somewhat in passing. It can also be characterized by the contents of the conversation. The “saying ‘Hi’” conversation included only greeting phrases, which were sometimes delivered from a distance as when someone shouted a greeting or just waved when she/he passed by the communication environment. The conversation could also include a few words about “this and that,” for example, comments on the weather conditions at sea or slippery roads as well as what had happened during a weekend or a holiday.

The vignettes above are also examples of what the employees called “saying ‘Hi’” encounters; however, these were somewhat longer informal encounters. This type of conversation started often between two persons, but could involve others who happened to pass by the communication environment at the time. In reference to the design idea, we may say that the participants met in the “open door.” Some of them stopped to exchange a few words with each other; others passed by. There could be just one conversation going on at the time involving two participants. However, if a person walked by, she/he could

join them. Sometimes they continued together; sometimes one of them left. When more people happened to gather it also drew others there. People seemed to get curious and wanted to check out what was going on. Normally laughter drew attention and caused more people to join. Despite the informal character of the conversation, the staff in these conversations asked questions about the everyday work, came to agreement on work issues about several topics, and exchanged work information.

Once I observed a “chat” about who would be the right person to contact in a certain human resource matter as well as her current telephone number within the police authority (fn 2004-04-06). The “chat” started with a short question posed by Kerstin to Eja, who already was talking with me across the communication environment. Kerstin asked, “Whom should I talk to at the salaries department?” Eja mentioned a name and continued, “I have a telephone number. I’ll get it for you.” I stepped aside, showing that Eja’s and my conversation was over. While Eja was about to leave in order to fetch the telephone number, Kerstin explained, “Actually, I don’t need it. I am only a middleman.” She turned away and signalled to Mia who approached the counter instead. After awhile, Eja came back and said to Mia that she did not have the telephone number after all. She mentioned the name again and Mia repeated it. Eja raised her hand as in gesture to wait: “Hold on, Anneli has the telephone number.” Eja turned towards Anneli whom we could not see and repeated to us what Anneli said to her: “It is 12345.” Mia said, “Thank you,” and they both returned to work desks. Yet another time, I was hanging around by the communication environment in Norrtälje when I saw Kerstin across the screen to walk by and without paying attention to me. She called out to Freja in Arholma, “Freja, we should talk about the planning, you know! I will call you!” Freja signalled with her hand in some sort of agreement. Both Kerstin and Freja were engaged in planning the next joint workplace meeting (fn 2004-01-12). Now and then, these short conversations or rather chats led to longer discussions about particular information or the handling of a work task and routines as well as other matters. For example, at the time, a new national Contact Centre organization was taking form, which involved adding new work routines and changing existing ones. In other cases, they informed each other about meetings they were to start or had just finished. These exchanges carried unspoken information about whether they were available for handling the telephone reports or needed the others to cover for them during the time for meeting.

For me, there are close points of similarity between the “saying ‘Hi’” encounters and the encounters that occur in the open-plan office described in Chapter 5. The contents of the conversations are similar, but the people and the medium vary, since across the communication environment it is possible to include the personnel at geographically distance places.

The Lack of "Real" Meetings

Structured or regulated meetings are recurring and essential parts of the working day and, in my opinion, may be regarded as significant means to contribute to creating and maintaining routines and norms in a workplace. The Contact Centre staff members often expressed disappointment over not being able to have "real" meetings across the communication environment. A "real" meeting for them seemed to belong to a category of planned, organized and formal meetings. As the reader may recall from Chapter 5, planned, formal meetings at the Contact Centre were announced beforehand so that as many people as possible had an opportunity to participate and, in my opinion, the employees tried to be present whenever possible. Various meetings can belong to this category, such as meetings for discussing and modifying work tasks, planning a duty schedule, and working on group dynamics. The formal meetings were normally carried out in the meeting area, where everyone could sit down around a table. The meetings employed special forms of fixed equipment such as a white board and/or papers for note taking. The meetings could be short or long, engage any number of people, and have some sort of agenda, even if only a loose one. At least implicitly, such meetings stress the importance of the issues discussed and decisions made. The communication environment was not used for such meetings by the staff.

Even if the design idea for the communication environment was not primarily thought of as a place for formal meetings, it was possible to gather five to eight persons at each location for a discussion of a more formal character. For example, the project team and I gathered a few of the employees for meetings across the communication environment now and then. In those meetings, at least three to four persons participated at a time. In addition, four seminars were held within the context of the project where possibilities for video and audio mediated communication were discussed. The seminars gathered a total of approximately 130 representatives from various Swedish authorities, municipals, and private companies. Each time, the participants were somewhat unevenly divided between the three sites that had the communication environment, with five to twelve participants at each site. During the seminars, participants received information about the Community at a Distance project and discussed potential use possibilities within their own organizations (for more information about the seminars see Räsänen et al 2005).

A considerable part of each seminar was carried out across the communication environment. The participants stood up during that time. Obviously, when there were a large number of participants, not all of them could be captured in the mediated view at the same time. A simple reminder about a need to approach the counter usually did the trick and even new participants approached the counter quite effortlessly when it was his/her turn to speak. Rather effortless turn taking between the participants both at the

same location as well as between the three sites and the sense of eye contact were features that took the first-time participant by surprise. They did not pay attention to it at first and usually just noticed what was going on after a while. Note taking during the meeting was possible, even if not optimal, by the counter. Obviously, it was not possible to use facilities such as a white board or a computer. The seminars took place simultaneously with normal work activities at the sites. The seminars were sometimes experienced as disturbing by some of the staff members, especially at the site where they received many other visitors as well. Nevertheless, I think it is safe to say that the communication environment worked for formal meetings.

Planning new and changing existing practices within an organization is an effort and can take some time. Arranging a “real” meeting might have been too big an effort at the Contact Centre. While the research project was going on, the everyday workload, together with new work practices and organizational changes, already engaged the personnel. For example, the Contact Centre became a national resource during that time. On the other hand, because of the changes, there would have been several topics with current interests for the Contact Centre personnel to talk about with each other. I suggested that a few of them could be discussed across the communication environment in a rather formal meeting. Despite reminders and invitations both to the personnel and to the management, they never arranged a “real” meeting across the communication environment. Also, some of the employees seemed to wait for an announcement from the project team, a sort of “now we start” despite the fact that we had already started and the communication environment was functioning. This may also indicate that the personnel did not have any use for, nor felt responsible to use, the communication environment for organized meetings.

Obviously, there are several reasons for why the communication environment was not used for “real” meetings. I explore some of them here. Limited benefits of the communication environment were put forth as a reason in the questionnaire at the end of the project: “We could have had more benefits of K [the communication environment] if it was more secluded. But, on the other hand, Ornö was not connected, so the three-part meeting could not take place” (Q14 October 2004). This statement captures important aspects pertaining to the placement and the design of the communication environment as well as the fact that Ornö was not participating in the communication environment. I have referred to these aspects earlier; but I explore them further here.

The placement of the communication environment in the open-plan office did not allow for meetings “behind closed doors.” In an organization, there is always information and matters that are not intended to be public and that need to be handled with care. These include matters such as the personnel and organizational changes. At the Contact Centre, the group leaders and workplace representatives for the labour union, for example,

needed to talk now and then about matters that were of a delicate nature. Usually, matters concerning the whole Contact Centre were discussed in the joint meetings held on the mainland. These were not always sufficient; some matters needed to be discussed further on other occasions, usually over the telephone. For more private conversations over the telephone, the employees used the meeting areas and, if possible, closed the doors. Eja told me that she usually walked around the workplace with her cordless telephone (fn 2003-11-26). That way the fragments of conversation the fellow staff members might overhear probably would not make sense to them anyway. Anton, on the other hand, went outdoors with the telephone to be able to talk more privately, “as if” behind closed doors. The placement of the communication environment in the open-plan office did not support this type of conversation. In addition, some of those who used the communication environment experienced that they disturbed the colleagues sitting nearby. It was placed “too close to the work desks” as a respondent stated in a questionnaire (Q13 October 2004).

It is often practical to send e-mail when certain information has to reach many people, and the telephone is a sufficient way to communicate between two parties. When three or more persons participate in a meeting over telephone, it can get more complicated, for example, because of the turn taking that needs to be facilitated only by voice. In the Contact Centre, the personnel needed access to computer applications from time to time while settling matters with each other. In addition, since the personnel on Ornö could not participate across the communication environment, there was always the issue of, as one participant put it, “How would the staff on Ornö feel if they were excluded from a meeting?” Carrying on a meeting without the Ornö-staff might upset some of the personnel, and, in a way, this might have rubbed salt into the wounds that existed in the relations between the Contact Centre sites. As we have seen before, the similarities as well as equal conditions and qualities of the sites were encouraged in the Contact Centre in several ways and situations, such as following similar working routines and having similar furniture and office equipment as well as in the desire that the communication environment should look the same regardless of the site. The use of the communication environment, I suggest, became yet another case where inclusiveness within the workplace community was made to work in the Contact Centre as a whole. Here, it seems that the idea of inclusiveness (the idea of “we”) was valued more than a test of a “real” meeting across the communication environment. The personnel chose not to challenge the values of equal conditions, which might have become the case if they would have carried out a “real” meeting without the personnel on Ornö.

In a way, a “real” meeting across the communication environment between the sites also seemed to include the entire Contact Centre staff. An example of such a meeting was the “planning of duty schedule” meeting described in Chapter 5. Since one of the common

tasks at the Contact Centre was coordination between the sites, the employees often used the planning of duty schedule as an example of where the communication environment might have been useful. The meeting was also used initially in the Community at a Distance project as an example of one of the use situations that video mediated communication could support. In a meeting with the project team, the personnel discussed whether the planning of duty schedules, as an activity by itself, would work if everyone participated at the same time (fn 2002-12-03). Planning together would be challenging even if everyone was gathered together at the same geographical location, the staff concluded. One may also wonder how often it would have been possible, necessary, or even desirable to arrange a meeting for the entire Contact Centre staff. Obviously, a meeting together with the whole staff required planning and arrangement of work and needed to be scheduled well in advance so that all could be present.

“Real” meetings across the communication environment for some were also closely connected to the group leaders and their work situations. After all, they are the ones who travel regularly to meetings on the mainland. The situation of the group leaders was often pointed out to me in the meetings with the employees. The group leaders’ concern was also expressed in the questionnaire at the end of the project as the following quotations exemplify:

A good function [for the communication environment] would have been if the group leaders on the islands could have had meetings with each other so that they would not need to travel long distances. (Q18 October 2004)

I think that the best utility of the environment would have been created if it would had been reserved for the group leaders for internal meetings, such as work planning. Then it would have been better if the placement would have been less central, e.g. on the ground floor or in a separate space. (Q17 October 2004)

According to some, the persons who “really” could have benefited from the communication environment were the group leaders. However, the group leaders did not express this concern themselves, at least not to me. Rather, the concern for them and their needs was particularly stressed by a couple of persons on one of the islands. When I had heard similar statements several times during the fieldwork, I finally asked about the rest of the staff at the Contact Centre, did they want to use the communication environment? The question seemed to surprise Lisa, to whom I was talking during a coffee break (fn 2004-02-12). She squirmed, as I understood, out of uneasiness and answered somewhat slowly, “Yes, they have said that it could be good for those that work evenings.” She was

referring to the situations when only a few persons worked at the same time. A short silence followed, and we changed the topic to more general, disturbing aspects of the communication environment. My question might have been an unwelcome one. I believe that the meetings between the group leaders were also a concrete example of meetings the employees believed to be suitable for carrying out across the communication environment. Meetings for the group leaders suggested also a “less central,” “separate” placement of the communication environment as the above response (Q17) proposes.

The communication environment enabled people to meet while standing. This seemed to go against the idea of meeting each other more formally, which at the Contact Centre was connected with the idea of a meeting area with chairs and a table. “One cannot stand up for more than 20 minutes,” as someone said. However, the same persons participated in meetings across the communication environment with me, one of which extended over an hour (fn 2003-10-08). At the end of a long meeting, I noticed how the participants started to show signs of tiredness. I encouraged them to roll in a few office chairs for sitting, but this did not arouse enthusiasm among the personnel. We were getting close to the end of the meeting and everyone wanted to close it and leave. Their lack of enthusiasm might also have been due to the fact that we had been discussing the limited, formal use of the communication environment and sitting down might have proved them wrong.

Was the lack of “real” meetings caused by a lack of knowledge of how to run a meeting across the communication environment? During one of the seminars mentioned earlier in this section, I was pulled aside while the seminar took place and the participants were talking to each other across the communication environment (fn 2004-01-30). Anita and Eja had observed the meeting at some distance and discussed the ease with which the participants took turns with each other. Anita believed that the participants were used to participating in meetings like these. On the contrary, they did not believe that the same kind of meeting “culture” existed or was possible at the Contact Centre. I needed to go back to the seminar, so we did not continue our discussion. However, my experience of the meetings at the Contact Centre is that they already shared this kind of meeting culture. Their meetings were organized in terms of both turn taking, an agenda, and the discipline to follow it.

However, one important reason for not using the communication environment for “real” meetings was technology failure. The Contact Centre is not a workplace organized to develop and maintain technology; rather, the technology supports the everyday work tasks and/or mediates information and contacts among the personnel. Add to this the fact that the communication environment was not experienced as “finished” and complete as mentioned earlier in this chapter. The technological shortcomings built up resistance

to the technology's use and worth, suspiciousness of the technology's capability, and reduced willingness to use it. How do you plan a meeting if you do not know whether the technology is functioning or not? On the other hand, technological unreliability might also be used as an excuse for not using it, especially when it is new and the advantages are not obvious. From a research point of view, a test meeting between the three sites across the communication environment would have been desirable for learning about implications of such a meeting for the Contact Centre.

I believe these are the main reasons for not using the communication environment for "real" meetings. They might have been overcome if the personnel had been willing to test the possibilities of the communication environment for an organized meeting. What staff reported were different opinions on the value and the worth of the communication environment. The reader must also keep in mind that not all the individuals stressed the same reasons, even though most reasons were, at least to some extent, shared among the staff. There were also some differences in opinion between the two sites in the archipelago. The group leaders' needs were highlighted particularly by some employees on one of the islands while on the other island this did not seem to be an issue.

"Saying 'Hi'" versus "Real" and the Benefits

The staff roughly divided the use of the communication environment into "saying 'Hi'" encounters and "real" meetings. Somewhat simplified, this distinction could be thought of in terms of spontaneous (informal) and planned (formal) meetings. A question, in general, is what we understand as a formal meeting. Is it when everyone can sit down around a table and there is an agenda? Or is it when formal decisions are made? Or both? I believe that the disconnection between informal and formal is, to some extent, vague, since, carefully studied, any meeting can include both planned and informal, spontaneous elements. The formal and the informal can weave into each other during the same meeting. It is not uncommon that a planned meeting starts as well as ends according to informal conventions. The previously mentioned seminars in the project were formal, but had also informal elements. The coffee breaks, discussed earlier in the thesis, are one example of what we might call an informal meeting: they are, at least, "framed" as informal. At the Contact Centre, however, rather formal topics about the work were discussed during informal settings such as sitting on the sofas and drinking coffee during a break. Some of the quite formal meetings were carried out sitting on the same sofas or drinking coffee as well. At one of the sites, coffee was often enjoyed in the meeting area, a rather formal setting.⁸ A number of times, the participants exchanged formal information and made decisions concerning the work tasks, times for meetings, and so on during the "Saying 'Hi'" encounters across the communication environment. In a way, these discussions were

formal; however, they were not experienced as “real” meetings by the Contact Centre personnel. Bringing the analysis further, I suggest that “real” work was carried out in informal contexts even though participants did not acknowledge that this can be done. Perhaps we need yet another category that could capture and acknowledge the “real” work during the informal encounters.

One way to approach the use (and non-use) of the communication environment in respect to the “saying ‘Hi’” and “real” encounters is to consider the staff members’ reasoning about the potential benefits and worth of such use. Despite the use situations where the technology, at least, for some seemed to function for the range of activities considered above, there were divergent understandings about the “benefits” of these encounters. As described earlier, seeing and getting in touch with each other provided “social” benefits, such as becoming aware of the presence and absence of others. Despite this benefit, some informal conversations similar to what I have described as “saying ‘Hi’” conversations were understood as “drivel,” especially on one of the islands. Mia and Olivia, for example, acknowledged the importance of “social” encounters, but still stressed the importance and benefits of a formal meeting. As Mia put it, “[...] certainly the social aspect is also important, but it’s not as useful as a meeting” (fn 2004-02-17). She continued, “[...] it is nice to approach the other island across the screen and say hello to them.” And Olivia filled in, “Yes, in itself, but [...] waving [to each other] is not that important or necessary. It has no intrinsic value. One can be without it.” The following quotations capture a few, I believe, central opinions of the positive aspects, but also, to some degree, negative attitudes towards informal encounters across the communication environment. The first is from the questionnaire at the beginning of the project and the others are from the questionnaire at the end of the project:

Most important for me is that it [the use of the communication environment] is work-related so that it feels natural and serious. A very good side effect is to create social contact and therefore better understanding for each other. (Q12 August 2002)

The positive thing was that we had a little more contact with [the name of the island] and Norrtälje. But actually [it had] no practical use except that we could “greet” each other. (Q11 October 2004)

We have not been able to do much with it, really. Sure, it has been quite fun to be able to say hi and talk a little with a person who you are able to see. (Q18 October 2004)

As it is now, it [the communication environment] doesn't work for us because it is not used very much and not all islands participate. K [the communication environment] is not used much. [...] There is no practical use area yet. (Q12 October 2004)

In order to be considered “natural” and “serious,” the respondent believed, the use has to be “work related” (Q12 August 2002). Despite the contact with the other two sites, and the opportunity to “say hi” to each other, there seems to be no “practical use” of the communication environment (Q11). Even if face-to-face contact with staff on the other sites was valued and appreciated, the employees had “not been able to do much” with the communication environment (Q11). The communication environment did not “work” since it was not “used.” According to the respondent, there was no “practical use area” (Q12 October 2004). The short encounters with each other seemed not to be considered as “beneficial.” The “saying ‘Hi’” meetings were not thought of as meetings at all. In a way, even the longer encounters seemed to go unnoticed. However, these encounters took place both within each site in the open-plan office as well as between the sites across the communication environment.

A difference between what the employees do and what they tell the researcher that they do points out that everyday, common practices are not always articulated or actively thought of. The short encounters with fellow employees are tightly woven into everyday routines. The interaction is, in a way, embodied and “forgotten.” At least to some extent, these practices are not “talkable.” Here, there seems to be a discrepancy between doing something and its meaning. Doing something does not always match with the meaning the actions have for the participants.

This leads us to a question of what work and related concepts such as “benefit” (*nytt*) means at the Contact Centre for those who work there. “We must get back to work now” is something that I heard several times at the Contact Centre towards the end of a meeting. The comment is common at workplaces in Sweden. It may be interpreted as a way to mark the end of a meeting. It can also mean that the meetings do not have the same priority and value as the rest of the work tasks, at least not that particular meeting. It is also about being social at work, what is allowed and valued and what is not. The focus in a workplace, quite naturally, is on the work tasks. As we have seen in previous chapters, at the Contact Centre, like in many other call centres, even the qualitative work is quantified, e.g. the handled and registered crime reports. These are counted and are therefore a means of measuring the work performance both on individual and organizational levels. The value of a meeting, on the other hand, might be a more difficult matter to measure. Meetings seemed to be understood as activities that take time from the measurable work tasks.

Nevertheless, meetings have value as they help coordinate and make possible what can be counted. At the Contact Centre, the recurring meetings were planned in the computerized duty schedule application and were therefore, to some extent, made measurable.

Being social at work, including social interactions between employees during the working day, was to some extent set aside at the Contact Centre. As the reader may recall, there were initially no common, shared coffee breaks at the Contact Centre (see Chapter 5). Initially, the management did not encourage the staff to take common coffee breaks; rather, the coffee was enjoyed individually while carrying out the work tasks, between telephone calls from the public and while handling the crime reports. However, some staff members preferred common coffee breaks, and, eventually, these were introduced to and scheduled as important routines in the working day. In addition, social skills were emphasized. For example, when Contact Centre employees were hired, it was an important advantage to understand the plaintiffs who called and to handle the reporting accordingly. Understanding group processes were also included in the Contact Centre staff members' training. As we have seen, the staff also appreciated the opportunities to get together informally, for example, during the joint workplace meetings. The social interaction with each other that, on the one hand, was said to be important and woven into the working day seemed to be something that had to go largely unnoticed. It was a "side effect" as one of the responses to a questionnaire put it (Q12 August 2002).

However, these aspects of the work seem to be valued slightly differently within the Contact Centre organization. In relation to the communication environment, there was a strong desire for formal meetings at one site while, on the other site, this was not stressed as strongly. Therefore, being social at work, such as "saying 'Hi'" encounters across the communication environment got a negative value among some, but not all the personnel. This contradiction might cause some confusion among the staff members.

This might partly pose the question of how work is understood in Sweden and what is included in it so that one is able to say, "I am doing something beneficial (*jag gör nytta*)."

Obviously, the answer to this question varies significantly between different workplaces and occupational areas. In a call-centre organization, the quantitative aspects are highlighted. With this background, the staff members' reasoning about the benefits of the communication environment can be understood differently. Different understandings of value of informal encounters might in turn change the work environment. I do not attempt to answer this question, but would like to acknowledge a possible follow-up question for HCI research: how can we redesign technology and work to accommodate both formal and informal values of the working day?

Transforming Boundaries: About the Context

This chapter describes and discusses the staff members' encounters and experiences across and around the communication environment. Based on their interactions with the technological artefacts, the Contact Centre staff also constructed different interpretations of the interaction within the communication environment. This confirms earlier research (e.g. Pinch and Bijker 1987). The interpretations are, to various degrees, shaped and constructed by use, the relationships between the staff members, social context, as well as their knowledge and understanding of the communication environment itself. I point out how the sense of togetherness is supported and affected by the communication environment. However, let us take the interpretation further in the direction of the socio-cultural context of technology use. To understand the relationship between the immediate practice around and across the communication environment and extant broader structures, it is illuminating to search for concepts that were highlighted by the staff members and recognized as so fundamental that they contribute to the organizational and somewhat institutional order of the sense of togetherness at the Contact Centre workplace.

Transforming Boundaries

The communication environment itself, its use, its placement in the Contact Centre calls attention to the spatial, historical, and geographical dimensions of practices and structures. However, concepts such as "place" have not been explored to their limits in this thesis. Rather, they have been left to work in the background. Nevertheless, these concepts deserve attention here, since many of the practices also tell us how staff members form meaningful relationships with each other across the scattered geographical places as well as in the various locales they occupy. Following Giddens (1984/2004), I have considered the "locales" not purely for their material properties, but for how the Contact Centre staff used them routinely.

The design idea for the communication environment was that of an "open door," which, as the metaphor suggests, was a place that can be passed by or entered through. It also suggests a boundary that is open, but that also, more implicitly, can be closed. The communication environment was organised for informal meetings (by the "door") as an arena for the Contact Centre staff to carry out their everyday activities and support encounters between the three sites. The communication environment offered a surface, a meeting place, where encounters could take place while standing as we usually do by the door. By so doing, the design idea applied the institutionalized understandings we have of everyday encounters at a workplace in general and at the Contact Centre in particular, where various encounters took place in the open-plan office (described in Chapter 5).

The placement of the communication environment in Norrtälje, but also in the open-plan offices at the sites, was much discussed in the project. Some staff criticized the placements and others experienced the placements suitable. The staff members' complaints that the communication environment facilitated only a "peephole," the limited views of the workplaces, indicate to me that the placement in the open-plan office was suitable in order to achieve an overall view of the workplaces. Unfortunately, it did not provide a sufficiently good view according to the staff. The placement in the open-plan office was on "equal terms," as some of the staff members stressed. The use of the technology was, in a sense, possible for them all under similar conditions. That is not to say that another placement would not have worked as well. However, I believe that placement, for example, in the meeting areas would have created different use situations, such as video conferencing facilities for specific topics and specific groups.

Earlier in the thesis, I discuss the spatial arrangements of the Contact Centre and suggest that they are tied to the performance of the working activities and reflect the established practices, routines, and values of the organizational culture within the police authority as well as in call centres in general. I suggest that some of the spatial arrangements work to create and maintain the sense of togetherness at the Contact Centre. In this chapter, I focus on the way this setting around and across the communication environment was used in everyday encounters by the Contact Centre staff, not only in a purposive manner, but also to record the unintended consequences of that use (and non-use). Rearranging the office place for the communication environment affects more than the spatial arrangements. The communication environment as a material artefact not only occupied an area of the Contact Centre premises, but it also changed the social organization of that place. Spatial criterion for the sense of togetherness appears here in terms of equalities on several levels, both how the communication environment looked, where it was placed at the Contact Centre premises, and what view it mediated. It affected existing practices at that place, as I describe, sometimes disturbing them, but also transforming and adding activities to that place. This setting, the area of and around the communication environment, was, as it would be in any other place, continually negotiated, produced, and reproduced by its actors in connection to other social processes at the Contact Centre.

The communication environment, with its technology and counter, partly enclosed with curtains, thus was, I suggest, a place within a place, i.e. the particular workplace. It was created within the workplaces with their needs and possibilities in mind, as well as being a "product" or, rather, a transformation of that place. This place within a place would not have been possible, nor would it have existed, without the workplace locales and the space around it. The communication environment connected the three premises. This confirms

previous research findings, in a sense, that not only people, but also the places and the environments get connected (e.g. Dourish et al. 1996). In a way, the communication environment deformed, or, rather, transformed the existing spatial aspects not only because of its materiality but also by offering a mediated view, a representation of the sites, and suggesting a place of its own where (mediated) interactions and practices could take place between the participants across the three geographically distant sites. In this way, it indicated a place that included, at least to some extent, the three sites. The technology, so to speak, tried to constitute an attempt to overcome the geographical distances. This is one reason why the communication environment was of such importance for the Contact Centre personnel in the first place. It also added to the values of spatial arrangement at the Contact Centre, i.e. the openness of the open-plan office. The technology suggested means for the staff to create, maintain and distribute the sense of togetherness not only by way of interaction, but also through the spatial representations of the Contact Centre sites. In addition, every time the communication environment was used it also created social situations that changed the sense of that place and made it a region for work information, being together informally, or, as we have seen, a scene for a practical joke.

Even though the metaphor “open door” may further suggest that there is a place one can enter, we should keep in mind that the communication environment offered an additional way to interact. But it did not replace the participants’ located embodied experiences. They were still in place wherever they were physically present. They did not enter through the door to someplace different, nor did they travel to another geographical place. Nor did they experience being somewhere in-between, in cyberspace. They were “emplaced” (Casey 1996) as we are always in one or another place and never nowhere.

The communication environment at the Contact Centre was created with (institutionalized) organizational arrangements in mind. Both the management and the staff at the Contact Centre work as a group of people belonging to the same organizational unit. The sense of togetherness among the staff members reflects their sense of organizational belonging and common work tasks. These are in many ways the starting point, the basic condition, within which the sense of togetherness can be created, maintained, and distributed within the Contact Centre (see Chapters 2, 4, and 5). The communication environment was added to this setting as a tool for these processes. It was hoped that the communication environment would allow the staff to be included more in the work community.

The importance of seeing and meeting each other, preferably face-to-face, was stressed in the Contact Centre as seen in previous chapters. For example, many appreciated the coffee breaks and the meetings in person when the entire personnel were gathered, such as the semi-annual joint workplace meetings. I suggest that these face-to-face encounters

were given a positive meaning at the Contact Centre and were believed to increase the sense of togetherness within the organization. The communication environment offered a possibility for meetings at a distance with video and audio. Getting “a map” of each other’s environments and whereabouts as well as encounters across the communication environment are examples of situations that were similar to situations and encounters that could be observed within a site. For me, this reflects similarities between the sites and a kind of nearness between them.

The technology and the project activities, as we could see in the Chapter 6, led the personnel to reconsider and negotiate who was part of the group as well as who else should be included and when. This could be seen particularly in situations involving the personnel on Ornö and in Norrtälje. The placement of the communication environment in Norrtälje, for example, did not only offer a new situation, one unwanted by the personnel at the beginning with fear for surveillance, but also a visible chief of staff, which was appreciated later on. I can only speculate, but this might have resulted in a different management in the long run.

The communication environment may be interpreted as a kind of as a symbol, suggesting possible connections and interactions between participants. However, when we create a sense of another’s presence, we also, in a way, create and suggest the absence of others. At the same time, the communication environment fostered and maintained unbalanced and unequal relationships with fellow staff members on the unconnected island. By applying Giddens’ terms, we could call this situation “an unintentional consequence” (Giddens 1984/2004) of this particular development practice. The project team did not manage to solve the problems related to getting the broadband to the Contact Centre premises there. In consequence, the sense of togetherness, the idea that the communication environment aimed to support between the three Contact Centre sites, ended up, if not challenging the sense of togetherness, at least not supporting it in one case. On the other hand, the sense of togetherness and caring for each other among the personnel worked also by ignoring and refusing to participate in practices that might have made disconnection visible. The idea of inclusiveness worked effectively at the Contact Centre. For example, “real” meetings were not carried out across the communication environment—if not everyone could attend, then no one would, the personnel seemed to reason. The benefits of the communication environment for the personnel were connected to supported business that was directly related to work at hand. A hypothetical question that I do not attempt to answer is what would have happened if a few “real” meetings had been carried out across the communication environment.

In addition, “mediated togetherness” might also be a way for the participants to pretend to be together, show that they are together: we are a group even if we are

not. We are, as the project team, at best making the best of an illusion of places and relationships, connected in different ways. Sometimes technology does not work: it merely emphasizes that we are not in the same place, that we are, actually, in different places and, in addition, belong to different groups. As I describe at the beginning of this chapter, not all the employees attached the same importance to be connected to others across the communication environment. In addition, because of the somewhat strong positive values attached to the idea of an organization, belonging to a group and the sense of togetherness (described in Chapter 2), it may have been difficult to express any ideas that contracted the value that togetherness had for this organization and the practices that were aimed to support it. In a way, the visual representation of the workplaces has an ideological function of either strengthening or not strengthening the institutionalized values attached to it and the interests it serves on a broader organizational level.

The attempt to achieve group consensus in decision making and keeping up with the sense of solidarity among the employees is, I argue, one of the strong themes that informed work at the Contact Centre. The nature of the Contact Centre work, i.e. the handling the telephone reports from the public, is to some extent a collective matter even if performed individually. If there are not enough operators answering telephone calls, this affects all the personnel since the three Contact Centre sites share the responsibility for processing telephone calls made to the police. Planning the common duty schedule is also a collective matter (Chapter 5). Consensus and solidarity also connect to historically determined values and interests in the archipelago, such as the need for work opportunities, keeping the work there, and a common understanding of the transportation limitations (Chapter 4). The ideas of solidarity, caring for each other, and consensus in decision making become important for the completion of the work at the Contact Centre as well as for the group. This was noticeable, for example, when the placement of the communication environment was discussed (Chapter 6), but also the use, or rather, non-use of the communication environment described earlier in this chapter. The practices reflect and add to some commonly held organizational ideas of teamwork, the idea that workplace results should be the outcome of the common efforts of all employees (Gustavsson 1995). Approximately three years passed between the first brainstorming of possible use areas for video and audio technology with the Contact Centre personnel and the point at which the communication environment was finally taken down. That also adds three years to the history of the fairly new Contact Centre organization. Even if not particularly emphasized in this thesis, the use of the communication environment should also be understood in relation to changes and innovations within the organization. For example, the work routines changed along with new demands within the organization. The work groups changed when people left and others took their place. In addition, work groups on each

site became more independent and more confident in their work as the time went by and work and routines were changed to handle the different matters. They did not need to discuss and confirm the work tasks between the sites to the same extent that they had at the beginning when the project team first met the Contact Centre personnel.

Informal, social encounters are discussed earlier in this chapter; however, since they are embedded in and reflect the needs and desires of the work tasks, especially the need to help create and maintain the sense of togetherness at the Contact Centre, let us discuss further the transformation that informal encounters seemed to undergo during the time for my fieldwork. The informal, social encounters are in various ways part of the working day at the Contact Centre (Chapter 5). The personnel emphasized their importance and worked in order to fit them into the routines at the Contact Centre. For example, they arranged more time to be together informally at the semi-annual workplace meetings, and the coffee breaks became, eventually, an expected, valued part of the everyday workplace routine. In a way, I suggest, the personnel pushed along a change in routines at the Contact Centre. For me, these processes demonstrate the agency of the actors, their capability to propose social change, both individually and collectively (cf. Giddens 1984/2004). They also demonstrate the transformation of certain values and norms at the Contact Centre. By the end of my fieldwork and the project, we could observe established routines for the informal encounters and their place and importance at the Contact Centre. However, changing existing routines is one thing, and changing values and conventions connected to those routines is another. The value of the informal encounters is to some extent still under negotiation among the Contact Centre employees as seen throughout the thesis. Are appreciated and protected informal encounters really important and beneficial? The processes of the informal events demonstrate transformation and reproduction of the values and norms at the Contact Centre. The different understandings and values of informal encounters achieved at the Contact Centre might change the working environment on its basic organizational and institutional level in a long run. The “saying ‘Hi’” encounters turn attention to everyday practices rather than those during, for example, joint workplace meetings. Certainly, the establishment of the informal encounters such as coffee breaks were acknowledged as important within each site. However, the “saying ‘Hi’” encounters across the communication environment between the sites were not given the same importance. As far as I know, for example, no common coffee breaks were established across the communication environment. This may, of course, be because of the need to follow the scheduled times for each coffee break.

Social concerns seem to be easy to set aside, especially if they are not part of the institutionalized structure of the organization and society. But if we understand the so-called informal encounters this way, there might be a reason to rethink whether we

should strengthen and encourage informal encounters by video-mediated communication technology or any other awareness building and support technology in the first place? Mediated communication that provides informal contacts, like any other technology, is in a way worthless if it is not appreciated and/or if it does not fit into the organization's values and conventions as earlier research has pointed out (Chapters 1 and 6). On the other hand, technology's impact on informal encounters in a working environment might be crucial. Technologies might facilitate and even push organizations in a certain direction if the participants so wish. In retrospect, the idea of supporting the informal encounters between the sites with technology seems in many ways to mirror the employees' need and desire for more encounters that are social. Nevertheless, the Contact Centre staff also contextualized the use of the communication environment in terms of its benefit for the work tasks, which, at least in part, reflected different values than those included in the design idea that emphasized openness and possibility—in short, the transformation of the value of informal encounters at the Contact Centre. In addition, economic issues also bind the use of technology and the communication environment. As the reader may recall, *Community at a Distance* was a research project with funding outside of the police authority except for the participation of the Contact Centre personnel. In general, ICT is often experienced as expensive. Therefore, technologies imply serious intent. Should they then be used for measurable, “real” matters rather than social encounters?

Checking and Monitoring

I have discussed the putatively emancipatory potential of the communication environment. I now return to the control aspects informants also picked up on. Throughout the thesis, questions related to control in its various forms, from keeping an eye on the staff and checking on something and someone, to issues of control and surveillance, were brought up at various occasions and in various situations at the Contact Centre. On this basis, I suggest, control was one of the central concepts (and issues) at the Contact Centre.

ICT in general make control and quantification possible. Technology in call-centre organizations is used to control the pace and direction of the work as well as assist management in monitoring and evaluating the work. It is intimately connected to both reward and discipline (Callaghan and Thompson 2001). The various technologies are, generally speaking, used in similar ways to provide information to track performance and productivity at the Contact Centre (Chapter 5). Bureaucratic control at the Contact Centre operates for example by specifying performance standards such as the number of handled telephone reports per hour and by defining various skills, such as writing skills and treatment of the plaintiffs, as important (Chapters 4 and 5). Such control systems

institutionalize values and standards that define work achievement and give supervisors and employees specific criteria against which to evaluate the performed work tasks (Callaghan and Thompson 2001). Technical and bureaucratic control together help structure the work tasks at the Contact Centre. Checking on and controlling elements are built into the work practices (Chapter 5). The investigation officers and the management within the police authority could observe the staff's performance through technology. The staff, in turn, kept an eye on the telephone queue, and we have also seen a few examples of "snooping" on fellow employees through the various technologies. The open-plan office also supports social control among the staff members. In addition, the staff practiced work monitoring by counting the number of reports completed by hand. Checking on and control also became issues that affected the sense of togetherness at the Contact Centre.

In short, one cannot adequately or meaningfully engage in the social construction of technologies at the Contact Centre without also asking questions about how the control and surveillance manifested itself in the use of communication environment. Questions of control, hierarchy, inequality, and domination were present in the visions of the communication environment (Chapter 6). Some of the staff members feared what they perceived to be additional technical surveillance. However, as seen earlier on in this chapter, the initial fear of surveillance from the management faded away among the staff as the project proceeded.

This may also be the result of a form of border crossing where traditional, organizational boundaries become less important. The form border crossing takes here is on both the same and different organizational levels. Border crossing between the two sites in the archipelago transformed the immediate sense of awareness of each other on the same organizational level. As I discuss above, the communication environment promised, at some implicit level, that these boundaries could redefine surveillance between the different organizational levels: i.e. the staff on islands and the management on the mainland became less important when one could actually *see* one another now and then. There is a sense that *panopticon* lost some of its power when the places and the people became visible. Even if the monitoring was still there and expressed through the everyday practices, its visual character, I suggest, made it less irksome in some ways, less present. In particular, on one of the islands, the personnel turned the initially indicated fear of lurking, control and even surveillance into rather positive aspects in the use of the communication environment by opening up their workplace to others (see Chapter 6).

However, we should keep in mind that seeing each other does not make a difference on its own. There must be a common understanding of what seeing each other means. The question of control must also be negotiated between participants on a structural level.

I believe that the sense of control is also about who decides the control rules. When the personnel could decide when to turn off the technology and the door at the headquarters was kept closed, they also felt more comfortable with the technology.

In reference to this, one might also explore how the sense of surveillance and lurking, particularly through technology, has been transformed in society over the years. During October – November 2004, I participated in a pre-study where possibilities for a video-mediated communication were explored. The setting, the workplaces, and the use situations discussed were different, of course, but there were similarities with my fieldwork at the Contact Centre, such as quantifiable work tasks and formal hierarchies within the organizations. However, the issues of control and surveillance were not mentioned at all. What had changed during the three-year period? Had we, as researchers, learnt to address these issues beforehand? Or maybe society has become more tolerant of surveillance and control. Closed circuit television (CCTV) for surveillance is not as common in Sweden as it is in many other countries, but it is present. Even more, mobile telephones with cameras are around, and they are used in public places, sometimes to our dismay, but, most often, their use today passes unnoticed.

The encounters around and across the communication environment investigated in this chapter, I suggest, blur the boundaries between the three Contact Centre sites by including the personnel in similar encounters regardless of their geographical position. Then again, the encounters are bound to one place, close to the communication environment. The communication environment, or, rather, the way it was used, can be thought of as transforming and somewhat deforming or modifying the existing boundaries of the three sites. This extends as well to the fourth site even though that is not connected. This environment may be seen to transform the surrounding place in a sense, since it is tied to (and lead to a reinvention of) relations between individuals, their making of order, structures, values, and especially the sense of togetherness at the Contact Centre. “Making” these places and situations around and across the communication environment reflect the history, the previous relationships, and practices at the Contact Centre. However, references to past events appear in different ways, somewhat modified, and above all within new circumstances. The use of the communication environment reflects the values and structure of the Contact Centre, but also reproduce its conventions and norms.

Conclusions

The title of the thesis, “Islands of Togetherness,” should be read in various ways. On a syntagmatic level there is a contradiction, since the word *island* suggests something that exists apart from other landmasses, in isolation, while *togetherness* proposes the opposite: affection, closeness, and community. Put together as a statement, the title implies that isolated islands are connected in an intimate way. The title points towards the geographical place of the study, the Stockholm archipelago. The islands are apart from each other geographically, but the inhabitants, to some extent, share similar living conditions and a common history. The title also points out a central concept in the thesis, the sense of togetherness. This concept has worked as the perspective from which I have approached the socio-cultural context. More implicitly, the title suggests the analytical work put forward in the thesis, i.e. the articulations of different elements (figuratively speaking, islands) and the interpretation that bring them “together.”

The overall aim of the thesis is to offer an analysis of the socio-cultural context of technology use. The particular technology is a communication environment using audio and video established at the Contact Centre in the Stockholm archipelago. The sense of togetherness is employed through the thesis as a perspective from which to approach and explore the particular socio-cultural context of technology use. Thus, the discussion of the socio-cultural context addresses questions of how the sense of togetherness function. The discussion in the thesis is meant to be explorative rather than conclusive, outlining an approach to the analysis of the socio-cultural context of technology use as well as providing a partial analysis of the use of the communication environment and the organizational culture of the workplace.

This chapter offers conclusions but also reflections on the particular research practice. The chapter starts with concluding comments on the results. It continues with discussion of the analysis of the socio-cultural context within HCI, pointing to suggestions for further research as well as epistemological and practical considerations for the HCI research and the HCI community.

Rewriting the Notion of Togetherness

In the previous chapters, I explore and discuss issues that aim at answering detailed research questions (see Chapter 1, section “The Aims of the Thesis”). I now briefly conclude and reflect upon the results that contribute to the analysis of the socio-cultural context of technology use.

... In Concepts

The first question put forward in the thesis is *how the sense of togetherness is established, maintained, manifested, and made accessible*. This general question is explored conceptually (Chapter 2) and with respect to the specific setting of the Contact Centre as an organization in the Stockholm archipelago (Chapter 4).

Concepts referring to an experience and sense of the belonging, unity, togetherness, social cohesion, being together, and other similar themes are used by the employees at the Contact Centre and emerge from the project practices of Community at a Distance (Chapter 2). In this thesis, they merge into one category, the sense of togetherness, which is treated as a socially valued construction of fellowship and belonging to a group. The sense of togetherness, like similar concepts, is a construction that evolves at a workplace as its members interact with one another in various ways and for various reasons. This thesis then investigates the construction of this category in various situations and circumstances at the Contact Centre in the Stockholm archipelago.

Chapter 4 illustrates the overall setting of the Contact Centre as an organization situated in the Stockholm archipelago. The chapter explores the call centre as an organizational form as well as the processes of “place making” (Gupta and Fergusson 1997b: 6) in the Stockholm archipelago. Various interests led to the establishment of the Contact Centre in the archipelago. The necessity of facilitating contact between the public and the police stressed a need for organizational development within the police authority. In the archipelago, work opportunities are important for improving living conditions. ICT is a condition for new work possibilities in rural areas and one that enables people to live there.

An organization is an institutional concept within which the sense of togetherness is crucial (Chapter 2). The Contact Centre is a relatively new organization (particularly at the time of my early fieldwork). However, the organization draws from the organizational ideas and experiences of other call-centre organizations (Chapter 4). In addition, the Contact Centre is part of the police authority. However, the nature of the work tasks and training of the administrative staff who receive the crime reports over the telephone from the public differs from that of the police officers who review each report and decide if a

preliminary investigation should be initiated. As a dispersed workplace in the archipelago, the Contact Centre also challenges practical opportunities for upholding and promoting the sense of togetherness between the sites. These aspects, I suggest, create the basic conditions for the personnel to establish and distribute the sense of togetherness within the organization. They are based on practical, geographical circumstances and previous organizational ideas and practices.

In general, we may experience belonging to various groups simultaneously. However, depending on time, need, situation, and circumstances, we highlight some aspects and are indifferent to others. People in the archipelago have a long history of social, economic, and political processes within which the sense of togetherness and the conditions for it have been raised. The discussion in this thesis of various socio-cultural processes attempt to show how people in the archipelago come together for various reasons and purposes, such as the question of the school and work opportunities. The question of who is understood to belong to the archipelago (e.g. those who live there) and who does not (e.g. tourists and summer guests) varies over time and from situation to situation.

... Within and Across the Sites

The second question in the thesis is *how the sense of togetherness is promoted and managed between the Contact Centre employees (within a site and across geographical boundaries) in various situations during their working day*. This question was explored and discussed (Chapters 4 and 5) through activities at the Contact Centre (such as work tasks and meetings), ideas, and conventions (e.g. one unit or three) as well as symbols and signals from each other (e.g. duty schedule and Christmas cards).

The analysis illuminates that the Contact Centre, like many workplace organizations, indicates a group of people who are together, not because they have chosen to be together, but in order to fulfil a work task. Their brand of togetherness is “tempered togetherness” (Bauman 1995/1998: 46). The Contact Centre is a single organizational unit, which as an idea indicates belonging on a formal organizational level. The main work task, i.e. handling the crime reports from the public over the telephone—adds to the unifying aspects at the Contact Centre. However, other tasks that aim to support and make possible the handling of the crime reports, such as practices around and establishing the duty schedule, are important in the analysis. These teamwork practices, I argue, bring the employees together as a group within the particular site, but also between the three sites, since they have to work out a consensus, not only concerning certain conventions and work practices (such as working hours), but the practices that produce and maintain them.

Meetings and other get-together activities are offered as examples of workplace rituals: repetitions, routines, and habits, i.e. the meaning to upholding and modifying

practices, conventions, and attitudes such as those concerning the sense of togetherness at the Contact Centre. The meetings provide the staff members not only with opportunities to discuss their work and to be together, but they are also platforms where meanings are made accessible to the personnel (cf. Hannerz 1992). In addition, the spatial arrangement of the open-plan offices facilitates spontaneous encounters between the personnel during the working day, since the area is heavily used and allowed personnel to (at least to some extent) easily see and hear each other. The open-plan offices therefore offer the basic conditions for the sense of togetherness and help to maintain it. On the other hand, the spatial arrangements also support social control. The interactions between the employees also create common histories to tell, which in turn, I argue, maintain the sense of togetherness at the Contact Centre. Special attention in the thesis is paid to the low-tech artefacts and technology at the Contact Centre. When face-to-face interaction is not possible due to the irregular working hours and geographical distance, various symbols, signs, and communication devices (e.g. meeting minutes, Christmas cards, electronic mail systems, the telephone display) constitute intermediary links between the employees. These facilitate work tasks between the sites. However, they can also be understood as means by which the employees communicate and share the sense of togetherness between the sites.

On an organizational chart, the personnel belong to one organizational unit. This indicates unity and belonging on a formal level. In addition, similar work tasks and routines, various meetings and get-togethers, signs and representations, as well as the spatial arrangements of the open-plan offices, I suggest, are conditions for the sense of togetherness at the Contact Centre. These conditions direct what kind of togetherness is possible and determine the means by which it can be maintained. At the Contact Centre, certain actions (such as social, after-work get-togethers) are supposed to contribute to the sense of togetherness, while others do so in a spontaneous way (such as coffee breaks). Other actions unintentionally contradict the sense of togetherness. In addition, sometimes signs are interpreted in a way that counteracts the sense of togetherness at the Contact Centre. For example, the personnel understood the specified statistics as dividing rather than unifying. The number of operators shown on the telephone display raised questions of control and trust between the personnel. These activities and the employees' reactions (agency) to them show the complexity of shaping the sense of togetherness and that the actions are interrelated.

... Around and Across K

The third question put forward in the thesis concern the use of the communication environment at the Contact Centre: *how is the sense of togetherness supported and affected*

by the communication environment? The concepts and conditions discussed as results of the first and second question build up partial conditions for an outline for the analysis of early expectations (Chapter 6) and everyday use of the communication environment with audio and video (Chapter 7) established on Arholma, Sandhamn, and at the headquarters in Norrtälje. However, a communication environment was not established on Ornö because of various problems such as providing the premises with broadband.

The employees' opinions concerning the interaction between the Contact Centre sites and therefore also the future needs and possible use situations for an audio- and video-mediated communication are diverse (Chapter 6). Some of the personnel urged for more contact and interaction possibilities between the sites for various reasons (e.g. in order to co-operate, enhance belonging to a workgroup, and deal with misgivings between the sites). However, others believed that there was no need for more interaction, particularly not through technology (e.g. because of fear for monitoring and even surveillance). Furthermore, the activities at the research project Community at a Distance also made the personnel reconsider and, in a way, redefine the kind of togetherness they wished for among the three sites.

The technology (both low and high) is bound to social, political, and economic issues of the workplace. Technologies here, as elsewhere, play a crucial part in marrying "the material, the social and the symbolic in a complex web of associations" (Pfaffenberger 1988: 249). They embody and bring into the workplace structures, assumptions, and significance derived from history and society. The introduction of the communication environment was not only about technology but also about organizational practices and conventions as well as practical circumstances (e.g. geographical distance, transportation difficulties), which, in general, confirm previous research that stresses the role of the social context where technologies are used (Chapter 1). The communication environment added on to the existing technologies that aim at offering opportunities for the Contact Centre employees to interact across geographical distances. The communication environment was used instrumentally; it constituted an attempt to overcome the geographical distances, which was the reason why the communication environment was of importance for the Contact Centre personnel in the first place. It provided a means for the employees to establish contact and interact with each other. It also offered a view to the spatial arrangements of the three sites. However, the personnel pointed out that the mediated views of the workplaces were limited, offering only a "peephole," which did not live up to their initial expectations. Nevertheless, the views provided "a map" that extended the boundaries of the workplaces. The employees engaged in what they called "saying 'Hi'" encounters across the communication environment. A "saying 'Hi'" conversation was characterized by its shortness: the conversation was concluded quickly, in passing.

However, the employees also included in “saying ‘Hi’” encounters the somewhat longer conversations about everyday work issues and exchange of information. The employees expressed their dissatisfaction at not having “real” meetings, i.e. formal, planned meetings across the communication environment. For some, the communication environment was therefore of no “benefit.” Even though the Contact Centre personnel appreciated the social encounters with each other, they contextualized the use of the communication environment in terms of its benefit for the work tasks, which in part at least measured values different from those included in the design idea that emphasizes openness and the possibility of being together during rather informal circumstances, such as the extended “saying ‘Hi’” encounters.

Technology introduction is, at least to some extent, about planned change in an organizational culture. There is no foolproof method to ensure that the sense of togetherness will be promoted by or emerge with technology. The communication environment did transform boundaries between the sites, making encounters between the staff possible. The technology had an impact on the sense of togetherness. However, the novel technology alone was not enough to change the organizational culture and practices at the Contact Centre. In a way, the sense of togetherness affected the use of the technology. Ideas and conventions at the Contact Centre—such as caring for each other and the sense of solidarity as well as search for group consensus in how to carry out everyday practices (Chapters 5, 6, and 7)—impacted on the use (and non-use) of the communication environment. These were noticeable, for example, when the placement of the communication environment was discussed and agreed upon (Chapter 6). “Equal terms” (e.g. same or similar working routines), and various similarities (similar furniture, office equipment, and the spatial arrangement of the open-plan office) at the Contact Centre were also shown in the use of communication environment. For example, the personnel expressed a desire to have a similar look, a similar placement as well as similar view presented across it. In part, the reciprocity and “equal terms” were also applied to the non-use of the communication environment: e.g. since the three sites in the archipelago were not able to participate together in the planned, formal meetings, no one did.

In addition, change can also have unintentional consequences (Giddens 1984/2004). The Contact Centre personnel used the communication environment for the everyday encounters, but were sometimes disturbed by its use. The introduction of technology also “pushed” possibilities for interaction and, for example, for establishing and maintaining the sense of togetherness, even for those personnel who did not wish to go in that direction. When the sense of presence and awareness of others was established between the three sites at the Contact Centre, it also became clear that one of the sites in the archipelago was absent from that community, since the communication environment

was not established there. If the purpose of the communication environment was to include and enhance the sense of togetherness, it did not serve this purpose for all of the personnel. In some respect, it had a negative effect on the sense of togetherness it was supposed to support.

The Analysis of Togetherness

The sense of togetherness is a lay, everyday notion that is important for both the Contact Centre community and the research project Community at a Distance. In addition, within HCI, we are concerned about technologies that offer opportunities for people to interact with one another in order to carry out work, to support belonging, and ways of being together. The analytical approach in this thesis aims to unpack these common-sense ideas and beliefs as well as practices that are, I argue, important points of departures for the HCI research. The analysis follows the idea that the models *of* the practice also shape models *for* the practice (cf. Geertz 1973/1993). Concepts and meanings are distributed through interpretable artefacts, activities, events, and relations. I pay attention to the ideas, concepts, and values but also to the ways the meanings are made public, spread, and understood among the personnel at the Contact Centre (cf. Hannerz 1992; the analytical frame is discussed in Chapter 2).

The sense of togetherness may be seen as necessary to order and stabilize a workplace. It might be easy to agree upon, but more difficult to maintain. The analysis of the sense of togetherness presented in this thesis illuminates that the practices concerning the sense of togetherness at the Contact Centre are fragmentary, contradictory and inconsequential. However, these fragments of togetherness have a history at the workplace and may lead to some kind of future, most probably in a somewhat modified form. Throughout this thesis, I argue that the sense of togetherness is embedded in the everyday, social, political, and historical processes of the workplace. It emerges in various organizational practices, often in near connection to various technologies. Actions that may be understood as practical and functional may lead to and be understood as monitoring (e.g. checking on the number of operators shown on the telephone display, Chapter 5). My study of the Contact Centre shows that the sense of togetherness may be somewhat fleeting, instable, and vulnerable. In certain actions, it may be difficult to capture and describe when and why it is there or not. The sense of togetherness presented in this thesis does not suggest a chronological, hierarchical, increasing, or decreasing value of one or other kind of togetherness or ways to mediate the sense of togetherness. In general, it is advisable not to plot these fragments leading to “more” or “less” or a “better” or “worse” sense of togetherness. Rather, one should explore the embeddedness of the sense of togetherness.

The various brands of the sense of togetherness, described and discussed in the thesis are fragmentary glimpses from the field. Treated as separate, isolated actions, they may diminish and could be considered unimportant. They could even seem to be outside of the focus of the thesis. However, the various elements and practices are nested in webs of combinations. Put together in the analytical work of description and discussion, these fragmented practices tell us a story. The story here is around the practices of and conditions for the sense of togetherness, not entirely, but particularly, at the Contact Centre. These practices and conditions are interpreted, manipulated, challenged, and argued over by the personnel in their day-to-day routines, and they formed, at least to some extent, the foremost ideas of the Contact Centre. These conditions may be recognized as so fundamental that they may be seen to contribute to the “institutional” order of this particular workplace.

Obviously, these conditions take various forms depending on the organization, individuals, and society, as well as the historical period. In addition, they seldom work alone but exist in various combinations. It is not my intention to present these conditions as normative rules or guidelines. The interest of the thesis is not to generate normative knowledge. Rather, the contribution should be seen as a starting point from which discussion concerning the analysis of the socio-cultural context of technology use could be developed.

Rewriting the Notion of Context Analysis

Research of the social context of technology use is acknowledged as important within HCI (Chapter 1). However, it is not a straightforward concept (Chapter 2). Why did I then take on a concept of context or, rather, a problem of context, that engages anthropology, philosophy, and HCI? It may be asked how knowledge of a wider socio-cultural context would help HCI research where concern for design and innovation processes plays a major role? When is context too wide?

In anthropology, there is an attempt to see and understand each society, phenomena, or practice as a whole, in inclusive terms, “to throw light on the varied interconnections among ideas and practices” (Hannerz 2001: 516). This approach has been part of the history of anthropology since Malinowski’s fieldwork on the Trobriand Islands in the 1920s. The term holism refers to the idea that any and all aspects of a society are more or less interrelated components (Malinowski 1922/1961). This means that human action and institutions, if they are to be understood, need to be placed in their cultural, social, and historical context. Malinowski points out the importance of understanding the parts as well as the whole; regardless of the main theme, such as

economics in a society, constant reference has to be made to “social organization, the power of magic, to mythology and folklore, and indeed to all other aspects as well as the main one” (Malinowski 1922/1961: xvi). Such an analysis requires situating behaviours and meaning in their “total” social, historical, and cultural context. Since Malinowski, the concept of holism has been redefined as have the kinds of projects anthropologists take on and regard as legitimate. Anthropologists continue to ask questions like the ones I have asked in the thesis. However, can any study really be holistic? Is it possible to achieve a holistic view of any social phenomena? How this question is answered also reflects a number of research issues such as the focus of the study, time limitations, and financial resources, but also the fact that each analysis and interpretation is partial and limited by the researcher’s perspectives and goals as well as the audience addressed. Too often, these arguments seem to confuse holism, completeness (reaching the end of an analytic project), exhaustiveness, and closure. More recently, the idea of wholeness has been criticized as well (Kuper 1992). It is not necessary to picture one’s society or culture as systematic wholes, but rather as kinds or parts of knowledge and traditions that are invoked for specific reasons at particular times and places. In addition, the search for a relevant context implies that there are several contexts within which a phenomenon may be placed (Holy 1999). What is context in one study may be the focus of research in another.

Working and sense making across and between the four geographically separated sites at the Contact Centre points to a complexity in the socio-cultural context and the role of technology within it. Technology use might be immediate in a specific situation; however, it is a concern for several parties and a result of structural, demographic, political, economic, and social processes and discourses of the particular region. It is also a kind of context that is common when labour and work is relocated, outsourced or internationalized and when people work with each other across geographical distances.

The aim of this thesis is to offer an analysis of the socio-cultural context of technology use. This thesis investigates what this context does to technology and how the context informs and helps understanding this technology and its use. The socio-cultural context, I argue, is not solely about the users’ interaction with the technology in situ, but also how this interaction is made possible, the conventions, structures, and norms that constitute it and vice versa. The context is not solely a frame, a background, or an infrastructure within which the use situation is embedded. In the practice, the “event” depends on the context, but also informs it. The meaning and the content that is created in the use of the technology, in turn, comments on the wider context of the workplace, the work organization, as well as society at large. These meanings are negotiated and reinterpreted. So is the socio-cultural context. The use of technology needs to be embedded in a wider context than we normally think of within HCI. I argue that this broader understanding of

the socio-cultural context is necessary in HCI research. This step, I suggest, would make way for a critical discussion of the embeddedness of technology. It may have implications for design and development processes both on methodological and theoretical levels.

The socio-cultural context is to some extent boundless. A researcher can continue the interpretation almost endlessly. In HCI, we might agree that our interests, resources, and patience as researchers constitute possible limits of the contextualisation. Even if widening our approach to context seems to be a serious challenge for HCI, it is, nevertheless necessary to take on this task.

The Analysis of Reproduced Practices

The thesis suggests an analytic approach following descriptive and explorative social science traditions on how to broaden the analysis of the context of technology use. This tradition emphasizes “thick” description as part of the analytical work as well as a way of presenting the results. Analytic, thick description is, in a way, the result. The diverse vignettes and descriptions in this thesis aim to stress and exemplify various aspects and elements of importance for the analysis of context in this particular setting and situation. Furthermore, they point out the need to explore everyday situations. Here, it was important to show that even if our interest is in the uses of technology, we can take a different approach by addressing common sense ideas and conventions such as the sense of togetherness. This approach puts the social science issue of reproduction of the social world in focus, rather than solely technology use or the work tasks per se.

Analysis such as that presented in this thesis suggests also changes in methodology for the HCI practitioners. Several techniques for inquiries into immediate technology use are already known and used within the HCI research. A connection to a broader context is what is needed. Social science such as anthropology gives us ways to extend our analysis of technology use within HCI. In particular, what comes into view are the different webs, aspects, and perspectives of our everyday life. These perspectives add to the understanding of action that is already the focus of (ethnographical) HCI research. By looking beyond the use of an artefact and the artefact itself as these perspectives suggests, we can start seeing the relationship, in particular, between agency and structure. The present thesis points out the direction where analysis moves to bridge the gap between individual (but not any particular individual) and societal (structural) points of views. This offers a way to connect the various webs and relationships in analysis. While the framework is not complete for the purposes of the HCI research, it does provide us with the analytic terminology we need to start talking about key issues, terminology that links individual practice to the socio-cultural context in which they occur. To make a “toolkit” suitable for the HCI, more work is required.

One may consider this analysis of embedded social processes outside of the scope of HCI. However, if we concentrate on the limited, isolated, immediate context of technology use, we tend to miss the structures and circumstances that construct and constitute them. Isolated actions have a tendency to be, as the word suggests, isolated actions. Sometimes we, as HCI researchers, seem to take the conventions and structures of the social world for granted and do not pay much attention to them in our analysis. However, we tend to fall back on the conventions and structures, for example, in order to understand why a system works in one but not in other situations (cf. Orlikowski and Hofman 1997). Therefore, it seems that HCI needs, just as my research needed, to look carefully at commonsense ideas such as togetherness and belonging to an organizational community and focus on social and political processes and practices that constitute this workplace community. The situatedness of action suggests a broader socio-cultural context than the isolated action itself. For instance, the informants' actions are informed by previous, everyday practices. Those practices are formed by various conventions, which the practices help to modify and uphold. Associations with conventions, conceptions, community, organization, people, society, and so on are to some extent stable, but nevertheless ongoing social and historical creations, not given or natural, obvious, taken-for-granted facts.

I believe that studying social structures and how they are put to work in organizations might bring us closer to an understanding of the socio-cultural context of technology use. We should explore the conventions and norms, not just to be aware of them as the hurly-burly of the organizational culture. It is important to illuminate how these concepts are put to work and reproduced in everyday life as well as in the use of technology. In this way, it becomes possible to identify and understand how the perceptions of concepts as well as the concepts themselves are discursively and historically constructed. I argue that use of a certain technology is based on this set of embedded concepts and the taken-for-granted symbolism and institutional work that emerges from them as well as the work tasks. When new technology is introduced to a workplace, these are issues that we need to take into account. Therefore, instead of defining what socio-cultural context of technology use is, we could explore it as any other social phenomenon or as a part of that phenomenon. That was done in this thesis. The analysis helps us to discuss not solely the practices of a workplace, but also ask questions about what kind of "fundamental" processes the employees (and researchers) participate in and contribute to. The task then, I suggest, is to explore the embeddedness of common-sense categories such as the sense of togetherness. This thesis does not explore, but points out other categories and practises that might be interesting for the HCI community (e.g. monitoring and place making).

The users' perspective, the individual point of view, is often stressed within HCI research. I argue that this consideration alone is not enough. Nevertheless, I want to stress

that it has not been my intention to minimize the meaning of individuals' actions. They matter and are important for the HCI research and for the present thesis. The individuals participate in establishing and reproducing the practices that may become part of everyday life and, eventually, institutionalized practices. I believe, that broadened perspectives on understanding the individual's actions are necessary steps in order to understand how the technology is (or is not) used and embedded in everyday practices.

The Context of Research Practice

The socio-cultural context is negotiated just as its meaning in technology use is negotiated. The context is not given. It is not just "out there," automatically. It is constructed. However, it is not negotiated from nothing. History, even recent history, plays a role. Indeed, context is both an epistemological and a methodological challenge (Dilley 1999). The analysis put forward here attempts to put technology use in context. Obviously, it may be put into different contexts. The socio-cultural context presented in this thesis is also a product of an academic research tradition within a project. The analysis and interpretations put forward are based on a certain analytical frame (Chapter 2). In addition, it includes the researcher's conceptions of the interpretation work. Therefore, an objective in this thesis is to make visible the process of research practice of which it is a result (Chapter 3).

The concept of reflexivity in the social sciences ranges from the researcher's self-reflection to his/her self-awareness to define activities that mutually construct each other on several levels (Wacquant 1992b). For Bourdieu, reflexivity is not primarily the analysis of individuals; rather, it is the analysis of "the *social and intellectual unconscious*" (Wacquant 1992b: 36 emphasis in original) that is embedded in the analytical research tools and practices (see also Bourdieu 2004). Therefore, the reflection is a collective matter, rather than a task for an individual researcher. It should be a continuous activity in order to investigate the collective "unconscious" that is embedded in theories, methods, and research. The aim of reflection is not to attack, but to support the epistemological development of the research field (Wacquant 1992b). Bourdieu argues against narcissistic reflexivity, since the researcher all too often accomplishes it by looking back on the work he/she has done. Rather, reflexivity should not be applied on the work that is done "ex post, on the opus operatum, but a priori, on the modus operandi" (Bourdieu 2004: 89; see also Wacquant 1992a). When the "objectivating" techniques are applied to scientific practice, one needs to keep in mind that not only those techniques and conditions are constructed, but also the constructors are themselves socially constructed (Bourdieu 2004).

As Bourdieu points out, epistemological reflection is an assignment that should encompass the entire research activity. Therefore, the reflection presented in this thesis (particularly in Chapter 3) is, in part, and seems always to be, an after construction, the

“ex post” reflexivity that Bourdieu advises against. One may think it is not needed here. However, as a PhD candidate, I am bound by the academic conventions about thesis content. In addition, I believe that a description is one way to make the craft visible. The research practice underlies the inquiry to show how the design of the research came about and grew to a thesis. Hence, the aim of this thesis is to draw attention, more explicitly, to the social and intellectual understanding that is embedded in techniques and practices used in this research. After all, they are part of the socio-cultural context we are approaching here. The choice of what is included and what is left out in a research agenda does not occur in a vacuum. Rather, it is more or less a conscious choice that includes some aspects and excludes others. I believe that the process, the theoretical and practical dispositions towards the research act, defines where these frames are to be placed. Moreover, sharpening our own sense of the way we fabricate contexts in our own analyses might help us to become aware of the interpretative practices and contextualizing moves used by others elsewhere. In the present thesis, the role of the researcher is highlighted as not solely of descriptive, but also interpretive. Academic writing, the doctoral thesis in HCI at KTH, is the context within which this particular practice is put forward.

Sometimes the social sciences are criticized for their focus on how the things “come to be” in a certain context while design and innovation suggest processes that focus on how things “should be.” In my opinion, this criticism underestimates the power of social science to suggest change. There is confusion here about the purpose of the social sciences. The social sciences participate in the social world through their analytical point of view, through description, analysis, and interpretation of the discourse of change. Researchers and developers participate in the production and reproduction of the socio-cultural context we study. We are, in the words of Giddens (1984/2004), knowledgeable human beings, agents, that can and will suggest change. Sometimes, the change is unwanted and unintentional. Sometimes, we make it explicit as in research results. At other times, it is left for the future and others to judge and react on.

The somewhat underlying stance in the thesis has been to offer an approach that goes beyond “implications for design” (Dourish 2006). It has been a conscious choice not to get involved in discussions of particular design or the work of the design team in the thesis. It is not argued that the work would not be interesting and important in the analysis of the socio-cultural context of technology use; on the contrary, I sincerely believe it is. It is not suggested that the social science approach is an answer to every design problem and an approach for every development project. Nor do I argue that all the HCI practitioners should do social science. The approach taken in the thesis is an attempt to contribute to the ongoing discussion of ethnography’s role in HCI (Chapter 3) and propose a different role for social scientists within HCI (this role is also discussed in Räsänen and Nyce 2006).

This type of analytical work on context as presented in the thesis might well suit the social scientists such as anthropologists we meet within the HCI community. That, of course, would lead to reconsideration of a series of issues within the HCI community. Some of them have been pointed out, such as the conventions that shape the scientific publications, define, and measure the success within HCI as well as terms for the funding of HCI research (Dourish 2006; Räsänen and Lindquist 2005; see also Chapter 3).

Some of these concerns are, of course, common to all research projects but are also a matter for each project to consider and handle individually. However, much is still to be done to make an altered ethnographic work possible within HCI. As Bourdieu has pointed out, reflexive analysis must consider “position in the social space, position in the field and position in the scholastic universe” (Bourdieu 2004: 94). I believe that this is an important discussion, not only for anthropology within HCI but also for the other disciplines within it, particularly those which do not possess the same “power” as a dominant discourse has. Even if it is important to continue studying the design processes, I also propose that it is also important to study HCI discipline, its research traditions, and community to question what “matters” within this research area and under which conditions it brings together various disciplinary, conceptual, and methodological approaches. It suggests reflexivity, an analysis of the social and intellectual conventions that are embedded in theories, the analytical tools and research practices within the field of HCI as well as conditions for funding and other conventions within which the research is carried out. The aim of reflection is not to attack but to support the epistemological development of HCI.

Leaving the Islands

My purpose is not to provide yet another definition of social context. Rather, I have unpacked the socio-cultural circumstances within which the sense of togetherness was established, maintained, manifested, and made accessible in order to explore and discuss the socio-cultural context of technology use. Discussion in this thesis is meant to be explorative rather than conclusive, outlining an approach to the analysis on socio-cultural context of technology use as well as providing a partial analysis of the use of the communication environment and of the organizational culture at the Contact Centre. The aim here is not to achieve consensus on what socio-cultural context means or to suggest a single methodology for how the analysis should be conducted. Rather, I strive for a pluralistic and inclusive discussion of some aspects that may be included in the social science approaches used within HCI. The socio-cultural context is all around us but also within us. It obviously depends on our focus, what we want to capture, and how far or near to the “event” (of

technology use) we want to be. Here, I advocate a broader context in order to understand the embeddedness of technology in contrast to its immediate use context.

This thesis aims to contribute to those HCI studies that focus on a broad social context of technology use (Chapter 1) by adding this empirical study of audio- and video-mediated communication technology used in a contemporary domain, i.e. a call-centre organization in a rural area in the Stockholm archipelago. The intention is to offer a broad analysis and point out the complexity of the technology use. Therefore, it aims to contribute to the ongoing discussion of why and how to broaden the inventory and make sense of a broader set of associations than we routinely think is necessary in HCI research. In particular, it aims to consider how these elements and this set and series of associations both lead to and “take away from” the use of technology.

The use of technology such as the communication environment here is an activity based on a social situation, practices and actions in the particular setting. The discussion in this thesis has been interpreted in the light of this situation. What is the socio-cultural context here may well be the focus, the “event,” in another study. However, I believe that the findings of this research may be transferred and applied to similar settings with careful judgement of which insights are important in those particular circumstances.

While on the island, I briefly visited one of the Contact Centre sites in early May 2006. Now I understand the pairs of rubber boots by the door differently than when I met Erika and others for the first time. Through the lines of this thesis, the webs of relationships are explored between what Erika called their “little world” and what was left “outside.” In addition, their “little world” is much larger now in real terms. The number of employees at the Contact Centre had increased to 104 by September 2006. Most of them work in the mainland, in Norrtälje. This, I believe, points out that the socio-cultural context is not a stable concept, settled once and for all. On the contrary, it is a continuously ongoing process in which the social world is involved. However, it is also embedded in the history and resources that constitute it.

Notes

Chapter 1: Introduction

1. This overview focuses on the somewhat ethnographical approaches to social context within HCI. In HCI, there are, obviously, several other ways of understanding context, which are not discussed here. For instance, there is the behaviouristic view in which the context of activity is explained by environmental configurations. See further, for example, Barker's framework on "behavior settings" (cited in Lave 1988: 149). The cognitive psychology approach is also used within HCI. See, for example, Lave (1988) as well as Chaiklin and Lave (1993). Distributed cognition, for example, is concerned with structure and with understanding the coordination of individuals and artefacts (Nardi 1996). Another theory used in the HCI research is the cultural-historical research tradition, commonly called activity theory. For example, Nardi (1996) suggests that activity theory is a way to extend the inquiry of context. According to activity theory, persons are engaged in socio-culturally constructed activity, which defines context in the following way: "Contexts are activity systems. An activity system integrates the subject, the object, and the instruments [...] into a unified whole" (Engeström 1993: 67; see also Greenberg 2001; Nardi 1996).

2. The Swedish term *civilanställda* is used to indicate the employees who do not have police education. It is sometimes translated as "civilian employees." Stenmark (2005) uses this translation.

3. This information applies on June 30, 2006.

4. This information applies for the period of my fieldwork in the research project that is described shortly. Since then, there have been changes in the organization.

5. The design concept enabling eye contact based on beamsplitter technology has been developed by Charlie Gullström and Mats Erixon, KTH.

6. I owe the technical description of the technology used in the communication environment to Mats Erixon, Centre for Sustainable Communications, KTH.

7. For more information about the technology, see AMT website, URL: www.amt.kth.se/projekt/face2face/

8. KTH, Stockholm County Police, Stockholm County Council, the Development Council for the Government Sector and Vinnova (Swedish Governmental Agency for Innovation Systems) financed the project, and the Community Hub Foundation, Netinsight AB, Nilings AB, Norrtälje Energi, Offect AB, Telia and AB Stokab sponsored the research project, Community at a Distance.

9. The purpose of the thesis is not to give a comprehensive and complete account of the project, Community at a Distance. For further descriptions and documentation of experiences and results of the project, see Erixon et al (2001), Lenman et al (2002), Gullström-Hughes et al (2003), Räsänen et al (2005).

Chapter 2: Approaching Context

1. Bronislaw Malinowski paved way for a long-term fieldwork for anthropology in 1920s.
2. Cultural and social conventions provide interpretability and efficacy for performative statements such as “I now pronounce you man and wife.” This statement illustrates how people use words to accomplish action (Goodwin and Duranti 1992/1997).
3. The concept “context of situation” first used by Malinowski is today more commonly replaced with the term “context of culture” (Dilley 1999).
4. The word *control* in English has various meanings, such as to check or verify and hence to regulate, and “To exercise restraint or direction upon the free action of; [...] exercise power or authority over; to dominate, command” (*The Oxford English Dictionary* 1989 vol. III). The word *surveillance*, on the other hand means watching or keeping guard over someone, “esp. over a suspected person” (*The Oxford English Dictionary* 1989 vol. XVII).
5. For further reading about space and place within HCI, see e.g. Brown and Perry (2002), Harrison and Dourish (1996), Hedman (2004). For a selection of contemporary theories of space and time, see e.g. Friedland and Boden (1994) but also Levefbre (1974/1991) and de Certeau (1984/1988).
6. Scarry (1985) uses concentric circles as a figure to explain different contexts in her research.

Chapter 3: Outline of Research Practice

1. The terms “ethnography” and “ethnographer” are often used for in HCI. The terms usually include anthropology.
2. The meaning of “longitude” has changed in pace with new areas of research and their needs.
3. Applied anthropology approaches have been used in different fields, for example, in various development projects in the South, sometimes also called development countries. Applied anthropology may include emancipatory elements.
4. Anthropologist David Hakken reminded the participants about the analytic process in a similar way at a workshop during Participatory Design Conference (PDC2006) in Trento, Italy, August 2, 2006.
5. Geertz (1983/2000) borrows the concepts experience-near and experience-distant from Heinz Kohut, a psychoanalyst. As an example, Geertz mentions *love* as an experience-near concept and *social stratification* as an example of experience-distant concepts.
6. “Thick description” is a term Geertz borrows of Gilbert Ryle.

Chapter 4: Living in the Archipelago

1. This information applies on June 30, 2006.
2. This information was presented by the manager of the Contact Centre at a workshop on work at a distance in the archipelago, Stockholm September 7, 2006.
3. The number of responses to this study is 166 (Strandberg, Sandberg and Norman 2006).
4. For example, the Organization for Local Associations in the Stockholm Archipelago (*Skärgårdens Intresseföreningars KontaktOrganisation, SIKO*) represents inhabitants in the archipelago in contact with the authorities and municipal governments and works with various matters such as the use of land in the archipelago, trade, and business as well as cultural and social matters (*SIKO* nd). SIKO was also engaged in the establishment of the Contact Centre.
5. According to the plan, a total of fourteen posts were to be cut in the Stockholm traffic area, in which Sandhamn is included (*County Administrative Board* 1997).

6. There are various ways to report crime, for example, to police officers in service (18%), by visiting the police station (17%), reporting to a police officer over telephone (17%), and by mail (7%) as well as by fax (1%). These figures apply to the whole of Sweden in December 2004 (doc December 2004).

7. This information is collected from the monthly reports over telephone statistics distributed at the Contact Centre.

8. All employees at the Contact Centre meet twice a year in a "joint-workplace meeting." Some aspects on the joint workplace meetings are discussed in Chapter 5.

9. The majority of the staff members are women. One reason for this, according to one of the staff members, is that the initial salary at the beginning of the Contact Centre business was low. Potential male employees reasoned that they could not "afford" to work there for such low pay. Since then, the salary has been increased to match salaries for comparable professions within the police authority.

10. This section "To Phone in the Morning" borrows its title from Siskind's book *To Hunt in the Morning* (1973/1975) where hunting, the main activity among the Sharanahua Indians in Peru, is discussed.

11. The call distribution system was changed during the spring of 2004. However, the main purpose of the automated call-distribution system remains the same, to allocate and place calls in a queue and spread them further to the operators.

12. The time between the telephone calls altered during my fieldwork, varying from 3 to 7 minutes.

13. In general, the proportional distribution of the telephone calls to the call distribution system corresponded. However, if one or several operators logged out simultaneously, there would be still many calls in the queuing.

14. In the project Community at a Distance, we asked the personnel at the Contact Centre to tell us about their everyday life in the archipelago. One of the "cultural probes" (Gaver et al 1999) was to explore with photographs the theme of "What worries you?" One of the contributions was the original photograph mentioned here. Totally, as a result of the photograph probes, we received one hundred photographs on four different themes.

15. **Headline in Swedish,** "Skolan ödesfråga för Ornös framtid"

16. **Headline in Swedish,** "Tar de skolan, tar de ön!"

17. **SIKO, the Organization for Local Associations in the Stockholm Archipelago** (*Skärgårdens Intresseföreningars KontaktOrganisation*)

18. Apart from the school issue, rental housing was debated in the newspaper articles. Housing is an important issue in the archipelago. The islands are attractive areas, especially during the summer and the price of real estate is high, particularly on certain islands. In addition to this, high real estate taxes make it expensive to live in the archipelago and even more difficult to invest in private housing (e.g. *Archipelago Foundation* 2000). Rental housing on the islands could be one way to resolve some of the housing problems. The Contact Centre personnel expressed a need for rental housing in the archipelago while we worked in the workshops in the project Community at a Distance and talked about the needs on the islands (ws 2002-09-12, 2002-09-25, 2002-10-10).

Chapter 5: The Fabric of a Working Day

1. There are, of course, various reasons why each of the staff members sought for employment at the Contact Centre, such as to be able to work where they live and therefore be close to family and particularly children. Others appreciated the flexibility in planning the working hours and therefore being able to adjust the work to the needs in the family life (e.g. fn 2002-09-11, 2002-09-22).

2. In general, meetings can be categorised in different ways. Here, I use the names the personnel used for the scheduled meetings at the Contact Centre.

3. I introduce and discuss the use of the communication environment with audio and video in the following two chapters.

4. Of course, there are several other devices and computer applications that are used and are equally important in order to carry out the work at the Contact Centre. In addition, the telephone is not only used for incoming crime reports from the public, but it is also a communication device between the personnel on the three locations. Since the group leaders are in charge of the everyday routines and cover for each other, they frequently take contact with each other. I observed that the group leaders sometimes called each other several times a day in order to plan work activities together, to support each other, or to discuss questions pertaining to leadership. The other staff members, on the other hand, called each other, for example, when they needed to ask about a specific crime report, clarify a work routine, or plan an activity. Some of the employees called each other about a meeting so that others could cover for them. The person who received the telephone call informed the rest of the staff at that location by announcing a message in the working area and/or writing it on the white board.

5. The call distribution system and how it works at the Contact Centre was described in general terms in Chapter 4.

6. This vignette is also presented in Räsänen and Nyce (2006).

7. During the spring of 2004, the automated call distribution system was changed. Today, the personnel operate all incoming telephone calls through the computer screen instead of the telephone. The same information that used to be seen on the telephone display is now shown on the computer screen with additional information as well.

Chapter 6: Towards "K"

1. At the time, it happened that a person sometimes worked alone at a particular site. Later, the practice was changed so that nobody needed to work alone if they did not wish to do so.

2. On this island, the open-plan office looked more or less the same during my entire fieldwork. The office was exposed to wear and started to look more "used." There were more papers and folders around, but the work desks and other office furniture placed in the office environment were not moved around. At the other two sites, the office was restyled and work desks and shelves moved around several times.

3. For example, some of the information put forward in the previous chapters was available for the project team at the time.

4. There are, of course, several other aspects of interest that could have been raised in the project. For example, various placements suggest a difference in reciprocity between the sites. One may then ask how would the personnel experience different placements and what would that mean for the attitudes towards the communication environment as well as for the sense of togetherness?

5. This, of course, does not apply to all the companies and organizations in Sweden. Rather, it is somewhat of a conventional understanding and idea of how things should be.

6. Later, the project team identified aspects that "went wrong" in the design process, which contributed to the reaction by the employees. These included an overly wide approach for a long period of time during the project. The narrowing down process towards the design ideas was rather fast. The suggested design idea seemed to be understood as too narrow, especially compared to the wide methodological approach, for more of the initial design practices as well as reflections on them, see Gullström-Hudges et al (2003).

Chapter 7: Mediated Togetherness

1. The description of technology and its placement at the Contact Centre as well as some of the examples of encounters across the communication environment appear in Räsänen et al (2005).

2. The basic technical principles were described in the introduction, Chapter 1. For a more comprehensive description of the complete set of technology needed to create a communication environment like this as well as other technical details see Erixon et al (2001) but also the AMT website, URL: www.amt.kth.se/projekt/face2face/.

3. The technical breakdowns are yet another aspect that connects the use of the communication environment to actions outside of the immediate use context. The socio-cultural context at the time of the breakdown is somewhat immediate in time and place but points to other actions and organizations that might be in distant places.

4. The “final” form here refers to a certain level of completeness. As mentioned above, artefacts transform continuously while they are used and talked about. They may never be accomplished as “final.”

5. Invisibility or disappearance of technology, of course, is not always the goal and is not always desirable. It is even believed unlikely to happen (Charmers 2004). Some tools and technologies are intended to be visible, for example, in order to emphasize a person’s identity and status (e.g. Douglas and Isherwood 1996). Some technologies should be visible because of potential danger if they are not (Ilsted-Hjelm 2004). Yet, objects and technology represent different things for their various users. What is invisible for one person is visible for someone else. For example, a mobile phone is in one sense not *visible* to me, but visible for the designer of mobile telephone systems. But again, then they are used for something else; they are not just “tools.”

6. As mentioned earlier, no major construction work was done in the existing interior and architectural features apart from moving the unattached interior around.

7. The frame holding the mirrors was initially measured and ordered to fit a particular projection technology. However, the projector did not work together with the mirrors, but returned the picture in green colour. Therefore, the project team decided to use television sets instead. However, the size of the television set was smaller than the frame. Because of the limited resources in the project, it was not possible to change the frame size. This may be seen as an example on how practical design decisions in the project also affected the experienced outcome.

8. Obviously, different use of a spatial setting can also change the experienced character of the setting. For example, a street corner can serve as an outdoor café for families during the daytime and as a place to hang around for drug addicts during the night.

9. This also shows the importance of using various research techniques in order to capture what is “going on” in the field (see e.g. Blomberg et al 2003). I believe it also strengthens the need of “knowing” the particular field. Sometimes, an extended time period for the research is necessary in order to achieve that.

References

- Agar, M. H. (1980). *The Professional Stranger: An Informal Introduction to Ethnography*. Orlando: Academic Press.
- Agre, P. E. (2001). Changing Places: Contexts of Awareness in Computing. In T. P. Moran (Ed.), *Human-Computer Interaction*, 16, 177-192.
- Alvesson M. (2003). Critical Organizational Theory. In B. Czarniawska and G. Sevón (Eds.), *The Northern Lights: Organizational Theory in Scandinavia*. Copenhagen: Copenhagen Business School Press.
- Alvesson M. (2001). *Understanding Organizational Culture*. London: Sage Publications.
- Alvesson M. (1993). *Cultural Perspectives on Organizations*. Cambridge: Cambridge University Press.
- Alvesson, M. and Billing Y. (1997). *Understanding Gender and Organizations*. London: Sage Publications.
- Amit, V. (2000). Introduction: Constructing the Field. In V. Amit (Ed.), *Constructing the Field: Ethnographic Fieldwork in the Contemporary World*. European Association of Social Anthropologists. London: Routledge.
- AMT website (nd). Viewed November 5, 2006. URL: www.amt.kth.se/projekt/face2face/
- Anderson, B. (1991). *Imagined Community: Reflections on the Origin and Spread of Nationalism*. London: Verso.
- Anderson, R. J. (1994). Representations and Requirements: The Value of Ethnography in System Design. *Human-Computer Interaction*, 9(2), 151-182.
- The Archipelago Foundation (2000). *Stockholms Skärgårdsguide*. Skärgårdsstiftelsen i Stockholms län in co-operation with Bokförlaget Prisma.
- Artman, H. and Y. Wærn (1999). Distributed Cognition in an Emergency Co-ordination Center. *Cognition, Technology & Work*, 1(4), 237-247.
- Artman, H. and Y. Wærn (1996). Creation and Loss of Cognitive Empathy at an Emergency Control Centre. In *Proceedings ECCE'96*, 41-46.
- Asplund, J. (1991). *Essä om Gemenskap och Gesellschaft*. Göteborg: Bokförlaget Korpen.
- Augustsson, F. and Å. Sandberg (2003). IT i omvandlingen av arbetsorganisationer. In C. Von Otter (Ed.), *Ute och inne i svenskt arbetsliv*. Stockholm: Arbetsliv i omvandling, Arbetslivsinstitutet.
- Bader, G. and J. M. Nyce (1998). When Only the Self Is Real: Theory and Practice In the Development Community. *The Journal of Computer Documentation*, 22(1), 5-10.
- Backström, M., Herrman, L. (Nomos Management AB) and A. Wiberg (Arbetslagarkonsult. AB) (2000). *Call Center i utveckling. Långsiktigt och hållbart arbete med kunder på distans. Fallstudie vid Polismyndigheten i Stockholms Läns Anmälningcentral på Sandhamn och Arholma*. August 28, 2000. Stockholm: Nomos Management AB and Arbetslagarkonsult. AB.
- Ball, L. J. and T. C. Ormerod (2000). Putting ethnography to Work: The Case for a Cognitive Ethnography of Design. *International Journal of Human-Computer Studies*, 53(1), 147-168.

- Bauman, Z. (1995/1998). *Life in Fragments: Essays in Postmodern Morality*. Malden, Massachusetts: Blackwell Publishers.
- Bellotti, V. and P. Dourish (1997). Rant and RAVE: Experimental and Experiential Accounts of a Media Space. In K. E. Finn, A. J. Sellen and S. B. Wilbur (Eds.), *Video-Mediated Communication*. Mahwah, New Jersey: Lawrence Erlbaum Associates, Publishers.
- Bentley, R., Hughes, J. A., Randall, D., Rodden, T., Sawyer, P., Shapiro, D. and I. Sommerville (1992). Ethnographically-Informed System Design for Air Traffic Control. In *Proceedings of the 1992 ACM Conference on Computer-supported Cooperative Work*, 123-129.
- Bjerknes, G., Ehn, P. and M. Kyng (1987). *Computers and Democracy: A Scandinavian Challenge*. Aldershot: Abley.
- Bloch, M. (1992). What Goes Without Saying: The Conceptualization of Zafimaniry Society. In A. Kuper (Ed.), *Conceptualizing Society*. London: Routledge.
- Blomberg, J. L. (1995). Ethnography: Aligning Field Studies of Work and System Design. In A. F. Monk and N. Gilbert (Eds.), *Perspectives on HCI: Diverse Approaches*. London: Academic Press.
- Blomberg, J., Burrell, M. and G. Guest (2003). An Ethnographic Approach to Design. In J. A. Jacko and A. Sears, (Eds.), *The human-computer interaction Handbook: Fundamentals, Evolving Technologies and Emerging Applications*. New Jersey: Lawrence Erlbaum Associates, 964-986.
- Blomberg, J., Giacomi, J., Mosher, A. and P. Swenton-Wall (1993). Ethnographic Field Methods and Their Relation to Design. In D. Schuler and A. Nimioka (Eds.), *Participatory Design: Principles and Practice*. London: Lawrence Erlbaum, 123-155.
- Bly, S. A., Harrison, S. R. and S. Irwin (1993). Media Spaces: Bringing People Together in a Video, Audio and Computing Environment. *Communications of the ACM*, 36(1), 28-47.
- Boden, D. and H. L. Molotch (1994). The Compulsion of Proximity. In R. Friedland and D. Boden (Eds.), *NowHere: Space, Time and Modernity*. Berkeley: University of California Press.
- Bogdan, C. (2003). *IT Design for Amateur Communities*. Doctoral thesis. Stockholm: The Department of Numerical Analysis and Computing Science, the Royal Institute of Technology.
- Bourdieu, P. (2004). *Science of Science and Reflexivity*. Chicago: The University of Chicago Press.
- Bourdieu, P. (1993). *Kultur sociologiska texter*. In selection by D. Broady and M. Palme. Stockholm: Brutus Östlings Bokförlag Symposion.
- Bourdieu, P. (1984/1996). *Distinction: A Social Critique of the Judgement of Taste*. Cambridge: Harvard University Press.
- Bourdieu, P., Chamboredon, J-C. and J-C. Passeron (1991). *The Craft of Sociology: Epistemological Preliminaries*. Berlin: Walter de Gruyter.
- Brissman, T. and B. Hedenstierna (1984). *25 år i Sockhoms skärgård*. Stockholm: Skärgårdstiftelsen.
- Brown, B. and M. Perry (2002). Of Maps and Guidebooks: Designing Geographical Technologies. In *Proceedings of the Conference on Designing Interactive Systems (DIS2002)*, 246-254.
- Button, G. and Dourish, P. (1996). Technomethodology: Paradoxes and Possibilities. In *Proceedings of the 1996 Conference on Human Factors in Computing Systems*, 19-26.
- Bälter, O. (2002). A Longitudinal Study of Attitude Changes in a Medical Service Organization After an Email Introduction. *Interacting with Computers*, 14(5), 503-519.
- Bälter, O. and A. Lantz (1995). What Causes Problems with Email? In *Proceedings of Information Technology Interfaces*, 179-186.
- Bødker, S. (2006). When Second Wave HCI Meets Third Wave Challenges [Keynote]. In A. I. Mørch, K. Morgan, T. Bratteteig, G. Ghosh and D. Svanæs (Eds.), *Proceedings of the Fourth Nordic Conference on Human-Computer Interaction (NordiCHI2006)*, 1-8.

- Bødker, S., Ehn, P., Sjögren, D. and Y. Sundblad (2000). Co-operative Design: Perspectives on 20 Years with "The Scandinavian IT Design Model" [Keynote]. In J. Gulliksen, A. Lantz, L. Oestreicher and K. Severinson Eklundh (Eds.), *Proceedings of Nordic Conference on Human-Computer Interaction (NordiCHI2000)*, 23-25.
- Callaghan, G. and P. Thompson (2001). Edwards Revisited: Technical Control and Call Centres. In Magnusson and Ottosson (Eds.), *Economic and Industrial Democracy: An International Journal* London: Sage, 22(1), 13-37.
- Casey, E. (1996). How to Get from Space to Place in a Fairly Short Stretch of Time: Phenomenological Prolegomena. In S. Feld and K. H. Basso (Eds.), *Senses of Place*. Santa Fe, NM: School of American Research Press.
- Certeau, de M. (1984/1988). *The Practice of Everyday Life*. Berkeley: University of California Press.
- Chaiklin, S. and J. Lave (1993). *Understanding Practice: Perspectives on Activity and Context*. Cambridge: Cambridge University Press.
- Chalmers, M. (2004). A Historical View of Context. *Computer Supported Cooperative Work*, 13 (3), 223-247.
- Clammer, J. (1984). Approaches to Ethnographic Research. In R. F. Ellen (Ed.), *Ethnographic Research: a Guide to General Conduct*. London: Academic Press.
- Cockburn, C. (1994). The Circuit of Technology: Gender, Identity and Power. In R. Silverstone and E. Hirsch (Eds.), *Consuming Technologies: Media and Information in Domestic Spaces*. London: Routledge.
- Cohen, A. P. (1985/1995). *The Symbolic Construction of Community*. London: Routledge.
- A Comprehensive Swedish-English Dictionary (Stora svensk-engelska ordboken) (1988). Stockholm: Esselte Studiums AB, (*sambörighetskänsla*).
- County Administrative Board (*Länsstyrelsen i Stockholms Län*) (2001-05-16). "Pressmeddelande 2001-05-16: 37 miljoner kronor till svenska öar". Retrieved October 11, 2004, from URL: www.ab.lst.se/templates/PressRelease_____4808.asp.
- County Administrative Board (1997). Sjöfartsverkets utlikar i Stockholms skärgård: förutsättningar för fortsatt verksamhet. *Underlagsmaterial* Nr 23, October 1997. Länsstyrelsen i Stockholms Län, Enheten för regional utveckling.
- County Administrative Board (1993). Stockholms skärgård inför 2000-talet: 7-punktsprogram för skärgården fram till år 2000. *Rapport* 1993:5. Länsstyrelsen i Stockholms Län, Enheten för regional utveckling.
- County Administrative Board and RTK (1999). *Skärgårdsfakta Stockholms Län*. Länsstyrelsen i Stockholms Län and Regionplane- och trafikkontoret (RTK) (The Office of Regional Planning and Urban Transportation).
- Crabtree, A. (2004). Taking Technomethodology Seriously: Hybrid Change in the Ethnomethodology-Design Relationship. *European Journal of Information Systems*, 13(3), 195-209.
- Crabtree, A. and T. Rodden (2002). Ethnography and Design? In *Proceedings of the International Workshop on "Interpretive" Approaches to Information Systems and Computing Research*, 70-74.
- Czarniawska B. and G. Sevón (Eds.) (2003). *The Northern Lights: Organizational Theory in Scandinavia*. Copenhagen: Copenhagen Business School Press.
- Dagens Industri (2004-10-28). *Snart dags ringa Estland för färdtjänst i Sverige*.
- Dagens Nyheter (2004-06-10). *Skolan på Ornö räddas kvar*.
- Daryl Slack, J. (1996). The Theory and Method of Articulation in Cultural Studies. In D. Morley and K-H. Chen (Eds.), *Stuart Hall: Critical Dialogues in Cultural Studies*. New York: Routledge.
- Daun, Å. (1969/1970). *Upp till kamp i Båtskärsnäs: En etnologisk studie av ett samhälle inför industrimedläggelse*. Verdandi-debatt nr 41. Prisma.
- Davies, C. A. (1999). *Reflexive Ethnography: A Guide to Researching Selves and Others*. London: Routledge.

- Dekker, S. W. A. And J. M. Nyce (2004). How Can Ergonomics Influence Design? Moving from Research Findings to Future Systems. *Ergonomics*, 47(15), 1624-1639.
- Dey, A. K., Abowd G. D. and D. Salber (2001). A Conceptual Framework and a Toolkit for Supporting the Rapid Prototyping of Context-Aware Applications. In T. Moran (Ed.), *Human-Computer Interaction*, 16, 97-166.
- Dilley, R. (1999). Introduction: The Problem of Context. In R. Dilley (Ed.), *The Problem of Context*. New York: Berghahn Books.
- Douglas, M. and B. Isherwood (1996). *The World of Goods: Towards an Anthropology of Consumption*. London: Routledge.
- Dourish P. (2006). Implications for Design. In *Proceedings of the SIGCHI conference on Human Factors in computing systems (CHI2006)*, 541-550.
- Dourish, P. (2004). What We Talk about When We Talk about Context. *Personal and Ubiquitous Computing*, 8(1), 19-30.
- Dourish, P. (2001b). *Where the Action Is: the Foundations of Embodied Interaction*. Cambridge: MIT Press.
- Dourish, P. (2001a). Seeking a Foundation for Context-Aware Computing. *Human-Computer Interaction*, 16, 229-241.
- Dourish, P. and S. Bly (1992). Portholes: Supporting Awareness in a Distributed Work Group. In *Proceedings of the SIGCHI conference on Human factors in computing systems*, 541-547.
- Dourish, P., Adler, A., Bellotti, V. and A. Henderson (1996). Your Place or Mine? Learning from Long-term Use of Audio-video Communication. *Computer Supported Cooperative Work: Journal of Collaborative Computing*, 5(1), 33-62.
- Ekman, G. (1999). *Från text till batong: Om poliser, busar och svennar*. Doctoral thesis. Stockholm: Ekonomiska Forskningsinstitutet, Handeshögskolan.
- Engeström, Y. (1993). Developmental Studies of Work as a Testbench of Activity Theory: The Case of Primary Care Medical Practice. In S. Chaiklin and J. Lave (Eds.), *Understanding Practice: Perspectives on Activity and Context*. Cambridge: Cambridge University Press.
- Erixon, M., Gullström-Hughes, C., Lenman S., Räsänen M., Thuresson, B., Westerlund, B. and A. Wiberg (2001). Kommunikation och samhörighet på distans: rapport från förstudie. Technical report. CID-reports, CID-150. Stockholm: The Royal Institute of Technology.
- Forsythe, D. E. (1999). It's Just a Matter of Common Sense: Ethnography as Invisible Work. *Computer Supported Cooperative Work* 8, 127-145.
- Foucault, M. (1987/2003). *Övervakning och straff: fängelsets födelse*. Fjärde upplagan. Lund: Arkiv förlag.
- Frenkel, S. T., Korczynski, M., Shire K. A. and M. Tam (1999). *On the Front Line: Organization of Work in the Information Economy*. Ithaca: Cornell University Press.
- Friedland R. and D. Boden (Eds.), *NowHere: Space, Time and Modernity*. Berkeley: University of California Press.
- Frykman, J. and N. Gilje (2003). Being There: An Introduction. In J. Frykman and N. Gilje (Eds.), *Being There*. Lund: Nordic Academic Press.
- Garfinkel, H. (1967/2002). *Studies in Ethnomethodology*. Cambridge: Polity Press.
- Garsten, C. (1994). *Apple World: Core and Periphery in a Transnational Organizational Culture*. Stockholm: Stockholm Studies in Social Anthropology.
- Garsten, C. (1999). Electronic Meeting Places and Virtual Communities: Information Technology and Translocal Organizational Culture. *Antropologiska Studier* Nr.62-63, 1999, 43-59.
- Garsten, C. and H. Wulff (2003). From People of the Book to People of the Screen. In C. Garsten and H. Wulff (Eds.), *New Technologies at Work: People, Screens and Social Virtuality*. Oxford: Berg.
- Gaver, W. W. (1992). The Affordances of Media Spaces for Collaboration. In *Proceedings of the 1992 ACM conference on Computer-supported Cooperative Work*, 17-24.

- Gaver, W., Moran, T., MacLean, A., Lövsstrand, L., Dourish, P., Carter, K. and W. Buxton (1992). Realizing a Video Environment: Europarc's Rave System. In *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems*, 27-35.
- Gaver, B., Dunne T. and E. Pacenti (1999). Cultural Probes. *Interactions*, January and February, 21-29.
- Geertz, C. (1983/2000). *Local Knowledge: Further Essays in Interpretive Anthropology*. Basic Books.
- Geertz, C. (1973/1993). *The Interpretation of Cultures*. London: Fontana Press.
- Gerholm, L. and T. Gerholm (1992). *Doktorshatten: En studie av forskarutbildningen inom sex discipliner vid Stockholms universitet*. Stockholm: Carlssons Bokförlag.
- Giddens, A. (1984/2004). *The Constitution of Society*. Cambridge: Polity Press.
- Giddens, A. (1979/1990). *Central Problems in Social Theory: Action, Structure and Contradiction in Social Analysis*. Berkeley: University of California Press.
- Goffman, E. (1974/1986). *Frame Analysis: An Essay on the Organization of Experience*. Boston: Northeastern University Press.
- Goodwin C. and A. Duranti (1992/1997). Rethinking Context: An Introduction. In A. Duranti and C. Goodwin (Eds.), *Rethinking context: Language as an Interactive Phenomenon*. Cambridge: Cambridge University Press.
- Granér, R. (2004). *Patrullerande polisens yrkeskultur*. Doctoral thesis. Lund: Socialhögskolan.
- Granér, R. and M. Knutsson (2000). *Etik i polisarbete*. Lund: Studentlitteratur.
- Greenberg, S. (2001). Context as a Dynamic Construct. In T. P. Moran, (Ed.), *Human-Computer Interaction*, 16, 257-268.
- Groth, K. (2004). *On Knowing Who Knows: An Alternative Approach to Knowledge Management*. Doctoral thesis. Stockholm: The Department of Numerical Analysis and Computing Science, the Royal Institute of Technology.
- Gullström-Hughes, C., Erixon, M., Lenman, S., Räsänen, M., Thuresson, B., Westerlund, B. and A. Wiberg (2003). *Sambörighet på distans: Rapport från fas 1, 2:a september 2002-15:e januari 2003*. Technical report, CID reports, CID-248. Stockholm: The Royal Institute of Technology.
- Gupta, A. and J. Ferguson (1997a). Discipline and Practice: 'The Field' as Site, Method and Location in Anthropology. In A. Gupta and J. Ferguson (Eds.), *Anthropological Locations: Boundaries and Grounds of a Field Science*. Berkeley: University of California Press.
- Gupta, A. and J. Ferguson (1997b). Culture, Power, Place: Ethnography at the End of an Era. In A. Gupta and J. Ferguson (Eds.), *Culture, Power, Place: Explorations in Critical Anthropology*. Durham: Duke University Press.
- Gustavsson, A. (1981/1990). *Folklore och sociala konflikter: En studie av "skvaller" i ett fiskeläge*. Uppsala: Etnologiska Institutionens Småskriftserie.
- Gustavsson, B. (1995). The Human Values of Swedish Management. *Journal of Human Values*, 1(2), 153-172.
- Gusterson, H. (1997). Studying up Revisited. *Political and Legal Anthropology Review*, 20(1), 114-119.
- Hammersley M. and P. Atkinson (1995). *Ethnography: Principles in Practice*. London: Routledge.
- Hannerz, U. (2001). Anthropology. In N. Smelser and P. Baltes (Eds.), *International Encyclopedia of the Social and Behavioural Sciences*. Oxford: Elsevier.
- Hannerz, U. (1992). *Cultural Complexity: Studies in the Social Organization of Meaning*. New York: Columbia University Press.
- Haraway, D. J. (1991). Situated Knowledges: The Science Question in Feminism and the Privilege of Partial Perspective. In D. J. Haraway *Simians, Cyborgs, and Women: the Reinvention of Nature*. London: Free Association Books.
- Heath, C., Hindmarsh, J. and P. Luff (1999). Interaction in Isolation: The Dislocated World of the London Underground Train Driver. *Sociology*, 33(3), 555-575.

- Heath, C. and P. Luff (1992). Collaboration and Control: Crisis Management and Multimedia Technology in London Underground Line Control Rooms. *Journal of Computer Supported Cooperative Works*, 1(1), 24-48.
- Heath, C. and P. Luff (1991). Disembodied Conduct: Communication through Video in a Multimedia Office Environment. In S. P. Robertson, G. M. Olson and J. S. Olson (Eds.), *ACM SIGCHI Conference on Human Factors in Computing Systems*, 99-103.
- Hedenstierna, B. (1990). *Skärgårdsöar och fiskekobbar: Natur, bygd och näringsliv i Stockholms skärgård. Del 2. Södra skärgården genom tiderna*. Stockholm: Rabén & Sjögren.
- Hedenstierna, B. (1960). *Geographic Features of Stockholms Skärgård: Excursion in Stockholms skärgård*. International Geographical Congress.
- Hedman, A. (2004). *Visitor Orientation in Context: The Historically Rooted Production of Soft Places*. Doctoral thesis. Stockholm: The Department of Numerical Analysis and Computing Science, the Royal Institute of Technology.
- Herzfeld, M. (2001). *Anthropology: Theoretical Practice in Culture and Society*. Malden: Blackwell Publishers.
- Holgersson, S. (2005). *Yrke: Polis – Yrkeskunskap, motivation, IT-system och andra förutsättningar för polisarbete*. Doctoral thesis. Linköping: Linköping Studies in Arts and Science.
- Holy, L. (1999). Contextualisation and Paradigm Shifts. In R. Dillej (Ed.), *The Problem of Context*. New York: Berghahn Books.
- Holy, L. (1984). Theory, Methodology and the Research Process. In R. F. Ellen, (Ed.), *Ethnographic research: A Guide to General Conduct*. London: Academic Press.
- Hughes, J., King, V., Rodden T. and H. Andersen (1994). Moving out from the Control Room: Ethnography in System Design. In *Proceedings of the Conference on Computer-supported Cooperative Work*, 429-439.
- Hughes, J. A., Randall, D. and D. Shapiro (1993). From Ethnographic to System Design: Some Experiences from the Field. *Computer Supported Cooperative Work* 1, 123-141.
- Jackson, A (1987). Reflections on Ethnography at Home and the ASA. In Jackson, Anthony (Ed.), *Anthropology at Home*. London: Tavistock Publications.
- Ilshammar, L. (2002). *Offentlighetens nya rum. Teknik och politik i Sverige 1969-1999*. Doctoral thesis. Örebro: Örebro Studies in History.
- Ilsted-Hjelm, S. (2004). *Making Sense: Design for Well-being*. Doctoral thesis. Stockholm: The Department of Numerical Analysis and Computing Science, the Royal Institute of Technology.
- ISO 9241-11:1998, definition 3.5, "context of use". Swedish Institute for Standards (1999). ISO 13407: *European Standard for Human-centred Design Processes for Interactive Systems*. Stockholm: SIS Standardiseringsgruppen STG.
- Jonson, E. (1954). *Leva i skärgård*. Stockholm: Rabén & Sjögren.
- Kristensson Ugglå, B. (2002). *Slaget om verkligheten: Filosofi, Omvärldsanalys, Tolkning*. Stockholm: Brutus Östlings Bokförlag Symposion.
- Kuper, A. (1992). Introduction. In Kuper, Adam (Ed.), *Conceptualizing Society*. London: Routledge.
- Lantz, A., Räsänen, M. and P-A. Forstorp (2005). Role Expectations and Relationships in Cooperative Design Project. Technical report, IPlab-reports, IPlab-250. Stockholm: The Royal Institute of Technology.
- Lave, J. (1988). *Cognition in Practice: Mind, Mathematics and Culture in Everyday Live*. Cambridge: Cambridge University Press.
- Lederman, R. (1990). Pretexts for Ethnography: On Reading Fieldnotes. In R. Sanjek (Ed.), *Fieldnotes: The Makings of Anthropology*. Ithaca: Cornell University Press.
- Lefebvre, H. (1974/1991). *The Production of Space*. Oxford: Blackwell Publishing.
- Lenman, S., Räsänen, M. and B. Thuresson (2002). A User-Oriented Approach to Building a Video Community in a Distributed Workplace. In Binder, T., Gregory, J., Wagner, I. (Eds.), *PDC 02 Proceedings of the Participatory Design Conference*, 324-327.

- Lindgren, A. and P. Sederblad (2004). Teamworking and Emotional Labour in Call Centres. In C. Garsten and K. Jacobsson (Eds.), *Learning To Be Employable: New Agendas on Work, Responsibility and Learning in a Globalizing World*. Hampshire: Plagrove Macmillan.
- Lindfeldt, M. (2003). *Liv i Stockholms skärgård: Minnen från en svunnen kultur och dess människor*. Stiftelsen Husarö Hembygdsgård.
- Lundin, S. and L. Åkesson (1999). Introduction: The Amalgamation of Technology and Culture. In S. Lundin and L. Åkesson (Eds.), *Amalgamations: Fusing Technology and Culture*. Lund: Nordic Academic Press.
- Löfgren, O. (1987). Deconstructing Swedishness: Culture and Class in Modern Sweden. In A. Jackson (Ed.), *Anthropology at Home*. London and New York: Tavistock Publications.
- Löfgren, O. (1974/1984). Fiskelägen och sjöfartssamhällen. In M. Hellspong and O. Löfgren (Eds.), *Land och stad: Svenska samhällstyper och livsformer från medeltid till nutid*. Lund: Liber förlag.
- Löfgren, O. and M. Wikdahl (1999). Domesticating Cyberdreams. In S. Lundin and L. Åkesson (Eds.), *Amalgamations: Fusing Technology and Culture*. Lund: Nordic Academic Press.
- Mackay, H. (1996). Theorising the IT/Society Relationship. In N. Heap, T. Ray, E. Geoff, M. Robin and H. Mackay (Eds.), *Information Technology and Society*. London: Sage Publications.
- Mackay, W. E., Ratzner, A. V. and P. Janeczek (2000). Video Artifacts for Design: Bridging the Gap Between Abstraction and Detail. In *Proceedings of the Conference on Designing Interactive Systems (DIS2000)*, 72-82.
- Mackey, W. E. (1999). Media Spaces: Environments for Informal Multimedia Interaction. In M. Beaudouin-Lafon (Ed.), *Computer Supported Co-operative work*, 7, 55-82.
- Malinowski, B. (1922/1961). *Argonauts of the Western Pacific*. New York: E. P. Dutton & Co.
- Mantei, M. M., Baecker, R. M., Sellen, A. J., Buxton, W. A. S., Milligan, T. and B. Wellman (1991). Experiences in the Use of a Media Space. In *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems*, 203-208.
- Mead, M. (1943). *Coming of Age in Samoa: A Study of Adolescence and Sex in Primitive Societies*. Harmondsworth: Penguin.
- Metro (2004-03-01). *Allt färre anmäler brott direkt till polisstationen*.
- Mitchell, W. J. (1995/1996). *City of Bits: Space, Place, and the Infobahn*. Cambridge, Massachusetts: MIT Press.
- Moerman, M. (1988/1990). *Talking Culture: Ethnography and Conversation Analysis*. Philadelphia: University of Pennsylvania Press.
- Moran, T. P. (1994). Introduction to This Special Issue on Context in Design. *Human-Computer Interaction*, 9, 1-2.
- Moran, T. P. and R. J. Anderson (1990). The Workaday World As a Paradigm for CSCW Design. In *Proceedings of the 1990 ACM Conference on Computer-supported Cooperative Work*, 381-393.
- Männikkö-Barbutiu, S. (2002). *Senior Cyborgs: About Appropriation of Personal Computers Among Some Swedish Elderly People*. Doctoral thesis. Stockholm: Department of Computer and Systems Sciences Stockholm University/The Royal Institute of Technology.
- Nardi, B. A. (1997). The Use of Ethnographic Methods in Design and Evaluation: Chapter 15. In M. Helander, T.K. Landauer and P. Prabhu (Eds.), *Handbook of Human-Computer Interaction*, second edition, 361-366. Elsevier Science B.V.
- Nardi, B. A. (1996). Studying Context: A Comparison of Activity Theory, Situated Action Models, and Distributed Cognition. In B. A. Nardi (Ed.), *Context and consciousness: Activity Theory and Human-Computer Interaction*. Cambridge, MA: MIT Press.
- National Police Board (2005). *A presentation of the Swedish Police Service 2005*. Second edition January 2005. Retrieved September 17, 2006 from URL: www.polisen.se
- Nisbet, R. A. (1966/2002). *The Sociological Tradition*. New Brunswick: Transaction Publishers.

- The Nordic Council of Ministers (1985). Yrkeskombinationerna i skärgården. *Nordiska Ministerrådets Skärgårdsprojekt: Gränsregionalt samarbete mellan Stockholmsregionen, Åland och Åboland*. Stockholm: Nordiska Ministerrådet.
- Norman, K. (2005). *Call Centre Work: Characteristics, Physical, and Psychosocial Exposure, and Health Related Outcomes*. Doctoral thesis. Linköping: Department of Work and Health, Linköping University.
- Normark, M. (2005). *Work and Technology Use in Centers of Coordination: Reflections on the Relationship Between Situated Practice and Artifact Design*. Doctoral thesis. Stockholm: The Department of Numerical Analysis and Computing Science, the Royal Institute of Technology.
- Nyce, J. M. and G. Bader (2002). On Foundational Categories in Software Development. In C. Floyd, Y. Dittrich and R. Klischewski (Eds.), *Social thinking: Software in Practice*. Cambridge: MIT Press.
- Nyce, J. M. and Löwgren, J. (1995). Toward Foundational Analysis in Human-Computer Interaction. In Thomas, P. J. (Ed.), *The Social and Interactional Dimensions of Human-Computer Interfaces*. New York, NY: Cambridge University Press.
- O'Brien M. (1998). The Sociology of Anthony Giddens: An Introduction. In A. Giddens and C. Pierson (Eds.), *Conversations with Anthony Giddens: Making Sense of Modernity*. Cambridge: Polity Press.
- Orlikowski, W. J. (1994). Technological Frames: Making Sense of Information Technology in Organization. *ACM Transactions on Information Systems*, 12(2), 174-207.
- Orlikowski, W. J. (1992). Learning from Notes: Organizational Issues in Groupware Implementation. In *Proceedings of the 1992 ACM Conference on Computer-supported Cooperative Work*, 362-369.
- Orlikowski, W. J. and J. D. Hofman (1997). An Improvisational Model of Change Management: The Case of Groupware Technologies. *Sloan Management Review*, 38(2), 11-22.
- The Oxford English Dictionary (1989). Second edition, volume III cham-creeky. Oxford: Clarendon Press, (*context, control*).
- The Oxford English Dictionary (1989). Second edition, volume XVII Su-Thrivingly. Oxford: Clarendon Press, (*surveillance*).
- The Oxford English Dictionary (1989). Second edition, volume XVIII Thro-Unelucidated. Oxford: Clarendon Press, (*togetherness*).
- Pfaffenberger, B. (1988). Fetishized Objects and Humanised Nature: Towards an Anthropology of Technology. *Man: The Journal of the Royal Anthropological Institute*, 23, 236-252.
- Pinch, T. J. and W. E. Bijker (1987). The Social Construction of Facts and Artifacts: Or How the Sociology of Science and the Sociology of Technology Might Benefit Each Other. In W. E. Bijker, T. P. Hughes and T. J. Pinch (Eds.), *The Social Construction of Technological Systems: New Directions in the Sociology and History of Technology*. Cambridge, MA: MIT Press.
- Police authority (2006-06-30). *Personalstatistik redovisad av Polisen 2006-06-30. Avser perioden 2006-01-01 till 2006-06-30*. Retrieved September 17, 2006 from URL: www.polisen.se
- Preece, J., Rogers, Y. and H. Sharp (2002). *Interaction Design: Beyond Human-Computer Interaction*. New York: John Wiley & Sons.
- Pycoc, J. and J. Bowers (1996). Getting Others To Get It Right. An Ethnography of Design Work in the Fashion Industry. In *Proceedings of the 1996 ACM Conference on Computer Supported Cooperative Work*, 219-228.
- Richardson, R. and V. Belt (2001). Saved by the Bell? Call Centres and Economic Development in Less Favoured Regions. In Magnusson and Ottosson (Eds.), *Economic and Industrial Democracy: An International Journal*, 22(1), 67-98.
- Ricoeur, P. (1988/1992). Vad är en text? In P. Kemp and B. Kristensson (Eds.), *Från text till handling: En antologi om hermeneutik*. Stockholm: Brutus Östlings Bokförlag Symposion.

- Rouncefield, M., Viller, S., Hughes, J.A. and T. Rodden (1995). Working with "Constant Interruption": CSCW and the Small Office. *The Information Society*, 11, 173-188.
- RTK (2004). *Promemoria: Skärgård i förändring: Skärgårdspolitiken och skärgårdens utveckling*. Regionplane- och trafikkontoret (RTK) (The Office of Regional Planning and Urban Transportation), No 8, June 2004.
- Räsänen, M. and S. Lindquist (2005). "Och du ska göra lite etno": Gestaltningar av etnografi inom MDI. In Bodil Axelsson and Johan Fornäs (Eds.), *Kulturstudier i Sverige. Nationell forskarkonferens*, Linköping Electronic Conference Proceedings ecp 015.
- Räsänen, M. and J. M. Nyce (2006). A new role for anthropology? Rewriting "Context" and "Analysis" in HCI Research. In A. I. Mørch, K. Morgan, T. Bratteteig, G. Ghosh and D. Svanæs (Eds.), *Proceedings of the Fourth Nordic Conference on Human-Computer Interaction (NordiCHI2006)*, 175-184.
- Räsänen, M., Thuresson, B. and A. Wiberg (2005). *Sambörighet på Distans: Slutrapport*. Technical report, CID reports, CID-325. Stockholm: The Royal Institute of Technology.
- Sahlins, M. (1981/1988). *Kapten Cooks Död*. Stockholm: Författarförlaget.
- Sahlins, M. (1974/1984). *Stone Age Economics*. London: Tavistock Publications.
- Salzer-Mörling, M. (1998). *Företag som kulturella uttryck*. Bjärred: Academia Adacta.
- Scarry, E. (1985). *The Body in Pain: the Making and Unmaking of the World*. New York: Oxford University Press.
- Schilit, B. N. and M. M. Theimer (1994). Disseminating Active Map Information to Mobile Hosts. *IEEE Network*, 8 (5): 22-32.
- Schmidt, K. (2000). The Critical Role of Workplace Studies in CSCW. In P. Luff, J. Hindmarsh and C. Heath (Eds.), *Workplace Studies: Recovering Work Practice and Informing System Design*. Cambridge: Cambridge University Press.
- Sellen E. (1997). Assessing Video-Mediated Communication: A Comparison of Different Analytic Approaches. In K. E. Finn, A. J. Sellen and S. B. Wilbur (Eds.), *Video-Mediated Communication*. Mahwah, New Jersey: Lawrence Erlbaum Associates, Publishers.
- Shapiro, D. (1994). The Limits of Ethnography: Combining Social Sciences for CSCW. In *Proceedings of the 1994 ACM Conference on Computer Supported Cooperative Work*, 417-428.
- SIKO (nd). *Välkomna till SIKO*. Viewed February 1, 2005 URL: <http://www.siko.org.se/>
- Silverstone, R. and E. Hirsch (Eds.) (1992). *Consuming Technologies: Media and Information in Domestic Spaces*. London: Routledge.
- Siskind, J. (1973/1975). *To Hunt in the Morning*. London: Oxford University Press.
- Skärgården (2004-06-03). *Skolan ödesfråga för Ornös framtid*.
- Skärgårdsnytt (2004-06-03). *Tår de skolan tar de ön!*
- Sobéus, U. (1997). *300 år av Försvarsansträngningar: Baggenstaket/Fällström Hörningsholm/Södertäljeinloppen*. Bohus: Militärhistoriska Förlaget.
- Spinuzzi, C. (2000). Investigating the Technology-Work Relationship: A Critical Comparison of Three Qualitative Field Methods. In *Proceedings of IEEE Professional Communication Society International Professional Communication Conference*, 419-432.
- Stenmark, H. (2005). *Polisens organisationskultur: en explorativ studie*. Doctoral thesis. Umeå: Faculty of Social Science, Umeå University.
- Stockholm County Council (*Stockholms läns landsting*) (May, 2006). *Skärgårdspolitiskt program för Stockholms läns landsting*. Prepared by Helene Norberg Konsult & Analys, RTN 2004-0205.
- Stoltz, C. (2004). *Calling for Call Centres: A Study of Call Centre Locations in a Swedish Rural Region*. Licentiate thesis. Linköping: Swedish Research School of Management and Technology, Linköping Studies in Science and Technology.
- Strandberg, C., Sandberg Å. and K. Norman (2006). Call centers i Sverige: En beskrivning av verksamhetsinriktning, human resource-metoder och prestationer. *Arbetslivsrapport 2006:20*. Stockholm: Arbetslivsinstitutet.

- Strathern, M. (1995). Foreword: Shifting context. In M. Strathern (Ed.), *Shifting Contexts: Transformations in Anthropological Knowledge*. London: Routledge.
- Suchman, L. A. (1987/1990). *Plans and Situated Actions: The Problem of Human Machine Communication*. Cambridge: Cambridge University Press.
- Svenska Akademiens Ordbok (nd). Viewed October 31, 2006 URL: [http://g3.spraakdata.gu.se, \(gemenskap\)](http://g3.spraakdata.gu.se/(gemenskap)).
- Taylor, P. and P. Bain (2001). Trade Unions, Workers' Rights and the Frontier of Control in UK Call Centres. In L. Magnusson and J. Ottosson (Eds.), *Economic and Industrial Democracy: An International Journal*. 22(1), 13-37. London: Sage.
- Taxen, G. (2005). *Participatory Design in Museums: Visitor-Oriented Perspective on Exhibition Design*. Doctoral thesis. Stockholm: The Department of Numerical Analysis and Computing Science, the Royal Institute of Technology.
- Tollmar, K., Chincholle, D., Klasson, B. and T. Stephanson (2001). VideoCafé: Exploring Mediaspaces in Public Places within Organizations. *BIT, Behaviour & Information Technology*, 20(2), 101-110.
- Tonkin, E. (1984). Producing Data: Participant Observation. In R. F. Ellen. (Ed.), *Ethnographic Research: A Guide to General Conduct*. London: Academic Press.
- Toomingas, A., Hagman, M., Hansson Risberg, E. and K. Norman (2003). Arbetsförhållanden och hälsa vid ett urval av callcenterföretag i Sverige. *Arbetslivsrapport 2003:10*. Stockholm: Arbetslivsinstitutet.
- Tönnies, F. (1957/1996). *Community & Society: Gemeinschaft und Gesellschaft*. New Brunswick: Transaction Publishers.
- Uimonen, P. (2003a). Networking as a Form of Life: The Transnational Movement of Internet Pioneers. In C. Garsten and H. Wulff (Eds.), *New Technologies at Work: People, Screens and Social Virtuality*. Oxford: Berg.
- Uimonen, P. (2003b). Networks of Global Interaction, *Cambridge Review of International Affairs*, 16(2), 273-286.
- Uimonen, P. (2001). *Transnational.Dynamics@Development.Net. Internet, Modernization and Globalization*. Stockholm Studies in Social Anthropology, 49. Stockholm: Almqvist & Wiksell International.
- Ullman, M. (1997). När ryssen togs till hjälp mot dansken: Om den ryska örlogsflottans inkvartering i Stockholms skärgård 1743-1744. *Örlogshistoriska episoder*, 25, 25-27. Mariehamn: Ålandstryckeriet.
- Urry, J. (1984). A History of Field Methods. In R. F. Ellen. (Ed.), *Ethnographic Research: A Guide to General Conduct*. London: Academic Press.
- Van Maanen, J. (2001). Afterword: Native 'R' Us: Some Notes on the Ethnography of Organizations. In D. N. Gellner and E. Hirsch (Eds.), *Inside Organizations, Anthropologists at Work*. Oxford & New York: Berg.
- Wacquant L. J. D. (2006). Habitus. In J. Beckert and M. Zafirovski *International Encyclopedia of Economic Sociology*. London: Routledge.
- Wacquant L. J. D. (1992b). Toward a Social Praxeology: The Structure and Logic of Bourdieu's Sociology. In P. Bourdieu and L. J. D. Wacquant *An Invitation to Reflexive Sociology*. Chicago: The University of Chicago Press.
- Wacquant L. J. D. (1992a). Preface. In P. Bourdieu and L. J. D. Wacquant *An Invitation to Reflexive Sociology*. Chicago: The University of Chicago Press.
- Webster, F. (1995/2000). *Theories of the Information Society*. London: Routledge.
- Weiner, A. B. (1988). *The Trobrianders of Papua New Guinea*. New York: Holt, Rinehart and Winston.
- Westerlund, B., Lindqvist, S. and Y. Sundblad (2003). Co-designing with and for Families. In *Proceedings for the Conference Good Bad Irrelevant, COST269: User Aspects of ICTs*, 290-294.

- Whittaker, S. and B. O'Conaill (1997). The Role of Vision in Face-to-Face and Mediated Communication. In K. E. Finn, A. J. Sellen and S. B. Wilbur (Eds.), *Video-Mediated Communication*. Mahwah, New Jersey: Lawrence Erlbaum Associates, Publishers.
- Wixon, D. and K. Holtzblatt (1990). Contextual Design: An Emergent View of System Design. In *Proceedings of the SIGCHI conference on Human factors in computing systems*, 329-336.
- Wolcott, H. F. (1990). Making a Study "More Ethnographic". *Journal of Contemporary Ethnography*, 19(1), 44-73.
- Wulff, H. (2000). Access to a Closed World: Methods for a Multilocal Study on Ballet as a Career. In V. Amit (Ed.), *Constructing the Field: Ethnographic Fieldwork in the Contemporary World*. London: Routledge.
- Wästberg, P. (1973/2000). *Sommaröarna: en bok om stockholmarnas skärgård*. Stockholm: Wahlström & Widstrand.
- Zuboff, S. (1988). *In the Age of the Smart Machine: The Future of Work and Power*. New York: Basic Books.
- Åkerman, A. (1995). *Stockholms Skärgård från A till Ö*. Natur och Kultur.
- Åbonde-Wickström, G. (1987). Varför bor så få kvinnor i skärgården? *Skärgårdsliv på kvinnovis, Seminariet Kvinnor vill bo i skärgården*. Nordisk Ministerråd, 47, 7-15.