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Lehn, Dirk vom; Heath, Christian; Hindmarsh, Jon

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Dirk vom Lehn
Christian Heath
Jon Hindmarsh
King's College London

This article explores how individuals, both alone and together, examine exhibits in museums and galleries. Drawing on ethnomethodology and conversation analysis, it focuses on the ways in which visitors encounter and experience exhibits and how their activities are organized, at least in part, with intimate regard to the actions of others in the domain, both companions and "strangers." This study contributes to the long-standing concerns of symbolic interactionism with (mutual) attention and involvement, materiality and social relations, and interpersonal communication. The data consist of video recordings of naturally occurring action and interaction in various museums and galleries.

While guidebooks may suggest what a visitor should look at, and even the route that he or she should follow—and the meanings that the single individual might read into the objects encountered along the way—will only rarely coincide with the strategic thinking of the Museum's planners. How a visitor interacts with artworks and their settings is determined by personal needs, associations, biases, and fantasies rather than by institutional recommendations. In considering this history—that of response to, and reception of, the collections—the issue is not with the Museum defined by its official aims and aspirations, but with how it is reconstituted in the individual imagination.
                    —Malcolm Baker and Brenda Richardson, *A Grand Design*

Participation framework: when a word is spoken all those who happen to be in perceptual range of the event will have some sort of participation status relative to it. The codification of these various positions and the normative specifications of appropriate conduct with each provide an essential background for interaction analysis—whether (I presume) in our own society or any other.
                              —Erving Goffman, *Forms of Talk*

Direct all correspondence to Dirk vom Lehn, Work, Interaction & Technology Research Group, The Management Centre, King's College, London, Franklin-Wilkins Building, London SE1 9NN, United Kingdom; *e-mail*: dirk.vom_lehn@kcl.ac.uk.

Over the past decade or so, there has been increased political commitment to enhancing museums and galleries and encouraging public access to both the arts and the sciences. Substantial public and private funding has been invested, major institutions have been transformed, and new exhibition spaces have been created both in Europe and in North America. Underlying these developments we find a burgeoning interest in redesigning collections and creating exhibitions and institutions that will serve to encourage new forms of participation and experience and contribute to public life and sociability. Surprisingly perhaps, a substantial corpus of sociological research about the conduct and interaction of museum and gallery visitors has not accompanied these developments. Many studies have considered more general issues such as the origins and development of collections; the politics of display and the role of museums in society have formed an important locus of research. Those studies that address "visitor behavior" primarily derive from an interest in cognition and learning, rather than the social and interactional organization of people's conduct and experience.

In this article, we explore how individuals, both alone and with others, examine exhibits in museums and galleries. We draw examples from science centers, museums, and art institutions and, through the detailed analysis of video-recorded episodes, discuss the ways in which people "interact" with and around particular exhibits. The analysis reveals how an encounter with, and experience of, museum exhibits emerges in and through the interaction of those within "perceptual range of the event" (see Goffman 1981), not just those who are in some sense "together," but also others who just happen to be within the "same" space. We hope the article also makes a small methodological contribution: an illustration of the ways in which video-based field studies coupled with a relevant analytic framework can provide resources for exploring the social and interactional organization of conduct with, and around, objects and artifacts.

This study complements contemporary research in symbolic interactionism and contributes to our understanding of a number of substantive concerns and analytic issues in the discipline. For example, it builds on the long-standing interest of symbolic interactionism with (mutual) attention and involvement. It explores how people in museums and galleries continually coordinate their conduct with each other and configure their participation both in each other's activities and with the objects and artifacts within that space. Unlike other major figures in the emergence of sociology, Mead[1] (1932a, 1932b, 1934) and Blumer (1969) place the object at the heart of the analytic agenda, demonstrating its importance to social interaction, perception, and identity. "Object" for them includes activities, events, material realities, and any other phenomena that, in Blumer's terms, can become the focus of self-distance and reflection. In different ways, their commitment to the object and materiality has permeated a range of research in symbolic interactionism (Becker et al. 1961; Hughes 1984; Star 1989) and cognate studies (Streeck 1984).

This interest in objects and materiality has not formed a principal concern for a rather different tradition of research in symbolic interactionism, namely studies of

behavior in public places (e.g., Goffman 1963, 1971; Joseph 1998; Lofland 1985, 1998; Wolfinger 1995; and in a rather different vein, Kendon 1990; Ryave and Schenkein 1974; Sudnow 1972; Watson and Lee 1993). These rich and varied studies of interaction have provided extraordinary insight into the production and coordination of conduct and interaction but have been less concerned with objects and artifacts and the ways in which they mediate and are constituted through human activity. A few exceptions are worth mentioning. For example, Hall's (1966) ecological studies investigate the influence of the built environment on human behavior. Also, an important body of research has emerged that explores how individuals use specific objects as symbolic representations for the cities in which they live and work (e.g., Wohl and Strauss 1958), and how objects and their arrangement in public spaces can serve as sources of aesthetic and interactional pleasure (Lofland 1998). Very rarely, however, do we find studies that explore the use of objects in interaction in public settings. Goffman's work on how objects can be used to structure private spaces within public places is a notable exception. For instance, he notes how participants use books, newspapers, and the like as "involvement shields" (Goffman 1959, 1963).

Museums and galleries provide an opportunity to interweave these seemingly distinct concerns with interaction through objects and behavior in public places. They facilitate studying how material properties of the environment, namely exhibits, feature in, and are constituted through, interaction among people within the same space. Galleries and museums also provide an interesting substantive domain for addressing a pervasive theme in symbolic interactionist research: how meaning and experience arises in, and through, interaction even among people who may simply happen to be in each other's presence. Detailed studies of interpersonal communication in museums and galleries can contribute to these concerns by revealing how objects and artifacts are momentarily seen and experienced through social interaction.

Our empirical analysis begins with an exploration of how people define contexts of viewing and then examines how they are drawn to look at particular exhibits and how they act when approaching them. We then consider how people animate exhibits for others and attempt to engender particular forms of participation and experience. Finally, we consider peripheral awareness of other visitors and, in particular, how visitors mutually monitor each others' conduct and participation. This article, therefore, touches on a range of issues of contemporary relevance to symbolic interactionism that we believe should feature more prominently on the broader sociological agenda. Before addressing these issues, however, we discuss the literature from various fields that bears on our analysis of interaction in museums and galleries.

MUSEUMS AND SOCIAL ORGANIZATION

Sociological research reveals a long-standing interest in museums and galleries. Not surprisingly, however, this research principally concerns itself with museums as social institutions and, in particular, how collections and their displays reflect

broader sociopolitical issues and concerns. So, for example, we find studies of the origins and development of collections and the museum (e.g., Alexander 1996; Stocking 1985), of the politics of display, classification, and taxonomy (e.g., Bennett 1995; Fyfe 1998; Macdonald 1999), and more generally of the role and function of museums in society (e.g., Fyfe and Ross 1996; Hooper-Greenhill 1994; Wittlin 1949). However, relatively little research in mainstream sociology addresses how people perceive and experience artworks and artifacts in museums and galleries (e.g., Bruder and Ucok 2000).[2]

Bourdieu's (1984, 1997) work is an important exception in this respect. He does not focus primarily on conduct and experience in museums and galleries but retains a conceptual commitment to broader social developments and directs analytic attention toward how the ability to comprehend the meaning of artworks relies on a cultural code people acquire through their socialization in families and schools (Bourdieu 1997:322). The perception of and communication about art distinguishes social classes and contributes to the reproduction of social structures. Bourdieu's writings have significantly influenced current debates about art perception and experience in sociology.[3] However, neither Bourdieu's essays nor those that draw on his work look at how people in interaction with others ordinarily encounter and experience exhibits in museums and galleries. They attend to pervasive societal distinctions that shape individual perception rather than the practical organization of visiting museums and looking at exhibitions. With regard to a rather different body of research, Blumer (1969) points to the limitations of these more conventional (primarily variable) approaches to social phenomena and their seeming disregard for the social and interactional construction of meaning and experience.

Although not primarily sociological, a substantial corpus of social science research studies the conduct of visitors in museums and galleries. The field, which has come to be known as visitor studies, emerged in North America in the late 1920s (e.g., Melton 1933; Robinson 1928) and focuses on the "effectiveness" of exhibits (Screven 1976; Shettel 1976). Until recently, such research primarily studied the conduct and cognition of individual visitors and their encounters with experiences of specific exhibits (e.g., Bitgood 1994; Bitgood and Patterson 1987; Screven 1976; Shettel 1976; for an overview see Klein 1997; for a critique, see Lawrence 1993). However, there is growing recognition that people often visit museums with others and that their experience of exhibits and exhibitions arises in discussion with companions, family members, and others within a group (see, e.g., Diamond 1986; McManus 1987, 1988). Indeed, proponents of visitor studies increasingly contend that we need to undertake more detailed studies of social interaction with and around exhibits to understand how people behave in and experience museums (Falk and Dierking 1992, 2000; Lawrence 1993; Leichter, Hensel, and Larsen 1989).

Thus, a developing body of research has begun to examine interaction between people in museums and galleries and the ways in which exhibits are experienced through the collaboration of visitors. This research includes studies about how different groups influence what a visitor sees and learns (e.g. Blud 1990; McManus

1987, 1988). Also, it shows how the design of an exhibition, its labels and the like, can influence what different members of a family learn about it (see, e.g., Hensel 1987; Litwak 1996). These studies have primarily focused on talk and the verbal exchanges of visitors. Even researchers who collect video data (rather than audio recordings and field observations) have disregarded the visual and bodily conduct of the visitors to a large extent. This reflects a wider trend in social science, namely its language bias and seeming disinterest in bodily conduct and the material environment.

Interestingly, studies of the behavior of visitors in museums and galleries reveal little awareness of the work of Mead (e.g., 1932a, 1932b, 1934), research in symbolic interactionism, or contemporary developments in sociology. For example, Mead's (1932b) radical discussion of the social constitution of the object and the relationship between artifact and practice remains unacknowledged. Its significance remains unknown in studies of visitor behavior, despite its wide-ranging implications for understanding the (social) perception of exhibits. More curious perhaps, given the social psychological thrust of many of these studies, is the lack of reference to Goffman, even though almost all of his early essays provide extraordinary insight into the situated and flexible organization of social interaction. Moreover, more recent work in symbolic interactionism, in particular, perhaps, the rich and varied studies concerned with behavior in public places that have some bearing on our understanding of the conduct and cognition in museums (see, e.g., Karp, Stone, and Yoels 1991; Lofland 1985, 1998), appears to have had little influence on the research about visitor behavior. We believe this undermines both the observational and the conceptual contribution of a substantial body of empirical studies.

Aside from its substantive interest, research on conduct and interaction in museums and galleries bears on contemporary developments in the social and cognitive sciences. Particularly over the past decade we have witnessed a burgeoning body of research concerned with the social and situated constitution of the object. Consequently, the growing corpus of sociological studies of scientific practice (see, e.g., Clarke 1998; Knorr-Cetina 1981; Lynch and Woolgar 1990) has had a profound impact on considering and conceptualizing material reality and has led to a body of rich and varied ethnographic studies of the use of everyday objects and artifacts (see Latour 1992; Lave 1988). We have also seen the emergence of "workplace studies" and naturalistic research, from various disciplines and analytic standpoints, concerned with how tools and technologies are used and constituted in complex organizational environments (see Luff, Hindmarsh, and Heath 2000).

Symbolic interactionism has played a critical part in these and related initiatives and helped to chart the wider sociological relevancies, both conceptual and empirical, of studies of the object and the material environment. For example, there is a body of research investigating the relations among personal identity, objects, and place (e.g., Habermas 1999; Milligan 1998; Silver 1996). Also, researchers have considered how (boundary) objects are socially constructed and used to mediate between different social worlds or arenas (e.g., Clarke 1991; Star 1989); some have related symbolic interactionist conceptualizations of the material world to other approaches, such

as actor-network theory (e.g., Strübing 1998; Timmermans 1998). Smith (1996), through drawing on the works of Mead and Bakhtin, concentrates on the interactional practices through which participants interweave actions and the material environment, a stance that comes much closer to the approach taken here.

Museums and galleries provide an important opportunity to interweave contemporary interest in the social constitution of the object and material environment with the long-standing concern with social interaction. These settings provide a natural laboratory that makes it easier to investigate how people, who may know little about each other or the objects before them, make sense of and constitute aspects of the material environment in and through their interaction with each other. Studies of conduct and interaction in museums and galleries therefore may not only contribute to contemporary issues in symbolic interactionism and the social and cognitive sciences, but could also shed new light on the ways in which those with a more practical interest in museums and galleries examine and consider the behavior of visitors.

METHODOLOGICAL CONSIDERATIONS

In this article, we draw on the essays of Goffman (see, e.g., 1963, 1981) and Kendon (1990), as well as the analytic orientation of ethnomethodology (Garfinkel 1967) and conversation analysis (Sacks 1992). This study arises in the light of the growing body of research concerned with the social and interactional organization of visual, vocal, and tactile aspects of human conduct (see, e.g., Goodwin 1981; Goodwin and Goodwin 1996; Heath 1986; Heath and Luff 1992; Whalen 1995; and in a rather different vein, Streeck 1984). Our approach directs analytic attention toward resources, the practices and the reasoning that participants rely on in producing social actions and activities and in making sense of the conduct of others. We focus in particular on the sequential character of the participants' conduct and how they accomplish their actions and activities in and through interaction with others, both those they are "with" and others who happen to be within the "same space."

For those with an interest in the conduct and interaction of museum visitors, video recordings, augmented by field observations, offer certain advantages over more conventional data. They provide an opportunity to capture versions of the participants' actions and activities and subject them to repeated scrutiny, using slow-motion facilities and the like. Videos provide access to the fine details of human conduct and interaction, their talk and bodily conduct as it emerges moment by moment, details that are unavailable through more conventional data including materials gathered by interview or field observation. Video recordings also provide researchers with the opportunity, at least in public settings such as colloquia and conferences, to show and discuss analytic observations with regard to the data themselves.

Symbolic interactionism has a long and distinguished history of the use of observational approaches to explicate and uncover the detailed organization of various

activities. In terms of the analysis of video recordings, for example, the "Iowa School" drew on contemporary developments in symbolic interactionism as well as on the work of Mead and Goffman to develop and employ video-based methods to explore the dynamics of social relationships, how social actions emerge, and how they are temporally organized (see Couch and Hintz 1975). Our analytic orientation differs from (and hopefully complements) these studies, providing us with a vehicle to explicate the interactional and sequential organization of the participants' conduct as it emerges through their verbal and embodied activities.

Of course, video recordings augmented by field observation do not provide the whole picture and are not without their problems. First, they are a version of the event and, while having certain advantages over other observational techniques, cannot be accorded an ultimately objective status. Second, there is a long-standing concern with the reliability of the data and people's reaction to the camera (see the various contributions in Prosser 1998). Some researchers in the field of museum studies suggest that video recording is less obtrusive than field observation and reduces the reactivity of observational methods (see Morrissey 1991; Phillips 1995). In addition, Goffman's powerful discussion of participation points to the inevitable significance of an individual within range of an event and, in particular, the person's contribution to the interaction (Goffman 1981:3). In undertaking both field observation and video recording, we, like other field researchers (e.g., Goodwin 1981; Grimshaw 1982a, 1982b; Harper 1994; Prosser 1998), are highly sensitive to our part within the scene and our influence on the scene. We took precautions to both reduce "reactivity" and assess data for influence of the recording.

For the present study, the researcher physically separated the camera from the action by mounting it to a wall or attaching it to a tripod some distance from the exhibit. Once set up, the researcher left the camera to record the action, only returning occasionally to change tapes. Very few visitors glanced at the camera and even fewer made faces, waved, or otherwise observably responded to the camera (see also Hensel 1987 for similar findings). As CCTV begins to proliferate in public arenas, cameras may be increasingly common in our everyday affairs. We specifically reviewed instances in which participants themselves attend to the equipment and/or recording. These examples, and related materials, were subjected to analysis and provided us with some relatively straightforward procedures for reducing any reactivity.

A further important issue regarding visual data is a general ethical concern with the production and analysis of audio-visual recordings of members of the public. As a result, we discussed this issue at great length with the visitor studies managers and curators of the relevant museums. For the purpose of the study, we placed notices at all of the entrances to the galleries as well as near the exhibit(s), to warn visitors and to secure their support. The notices explained the purpose of the project and stated that data would be used only for research and teaching purposes. We also provided visitors with the opportunity to refuse to be recorded and offered the opportunity to have recordings deleted if they wished. A number of visitors ap-

proached either the researcher or a member of the museum staff to discuss the nature of the project, but no visitor refused to participate.

The data (recordings and field observations) were gathered in various museums and galleries, including Nottingham Castle, Green's Mill Science Centre, Djanogly Art Gallery (all Nottingham), and the Science and Victoria and Albert Museums in London. We deliberately gathered materials from a wide range of museums and galleries. We wanted to explore conduct and interaction in different kinds of exhibition space and with different sorts of exhibits: aesthetic, applied scientific, interactive, noninteractive, and the like.[4] Altogether we collected approximately three hundred hours of video data and a substantial corpus of field observations. We also held lengthy discussions with curators, museum managers, and visitors. The recorded data provided the foundation for developing the analysis. We began by reviewing all materials and logging events and activities of initial interest. As we undertook analysis we developed collection tapes, in which we gathered candidate instances of particular activities. The analysis proceeded "case by case" and involved the detailed investigation of particular fragments of data. Ordinarily the analysis involved the transcription and mapping of conduct and interaction and the detailed study of interactional or potential interactional character of particular actions and activities. We drew on the transcription system and techniques widely used in conversation analysis and cognate approaches to the study of social interaction (Goodwin 1981; Heath 1986; Kendon 1990). Through the detailed analysis of single instances and comparing and contrasting characteristic actions and activities between various fragments, we began to identify the patterns and organization of conduct and interaction. In common with more traditional ethnography, we selected these instances as they provide interesting or clear examples to reflect the more common themes that we explore.

CONFIGURING EXHIBITS

Studies of visitor behavior largely characterize their experience as a series of individual encounters with particular exhibits. Visitors' actions are conceived as behavioral or cognitive responses to exhibits. These studies grant exhibits the "power" to attract and hold visitors' attention and attempt to measure, quantitatively, stopping or holding power. In this way, researchers attempt to determine the "effectiveness" of exhibits (e.g., Bitgood and Patterson 1987; Shettel 1976). Only recently have researchers begun to consider how visitors actively construct the meaning of exhibits and exhibitions (e.g., Bruder and Ucok 2000; Hein 1998; Silverman 1995). Despite this recent shift of interest, studies of visitor behavior still assume that the experiences of exhibits largely derive from their design and layout.

Consider the fragment recorded at the Djanogly Art Gallery (University of Nottingham) involving an individual looking at a number of prints. As the visitor walked along, he simultaneously cast his eyes across the range of prints displayed on the wall. His ability to simultaneously walk and view is essential to our under-

standing of how he experiences these prints. In particular, the pace of his walk and his successive glances at the exhibits are critical to how he sees and experiences them. He did not "stop," and yet it is clear that the prints held his visual attention

FIGURE 1.1   FIGURE 1.2   FIGURE 1.3

(Figures 1.1–1.3). As he reached the middle of this range of exhibits, the visitor stopped opposite a particular print (Figure 1.4). "Stopping" in this example is characterized by the position of the man's body in regard to the wall: he turned his lower limbs toward the wall so that his upper body faced the prints.[5] We might ordi-

FIGURE 1.4   FIGURE 1.5   FIGURE 1.6

narily begin to measure the stopping power or holding power of the exhibit at this stage. However, as is apparent in Figures 1.4–1.6, the print directly before him did not solely hold his attention, as we might imagine. Although Figure 1.4 shows the man gazing at the exhibit directly opposite him, a moment later he turned from that print and looked toward the prints on his right (Figure 1.5). He then turned to the left to once again glance at the prints he had passed (Figure 1.6).

The visitor thus assembles a context in which each exhibit is seen. Each print is seen in the light of the previous one. They are not viewed in isolation, but rather the visitor is active in configuring the context in which the next is viewed. In turning to a next print, it is seen in the light of the former, and similarly the former is retrospectively reconstituted with regard to the one now at hand. The video fragment points to how the visitor actively produced the context in which individual exhibits were examined and experienced. It suggests that the constitution and experience of the picture is produced in the light of his immediately prior experience of looking at pictures he passed by and is continually reshaped and reconfigured by retrospective and prospective looking toward exhibits displayed in the local milieu.

It appears that visitors have very different ways of looking at exhibits and of configuring, momentarily, the arrangement of objects that they experience. This ongoing constitution of a gestalt seems at odds with the idea that particular exhibits have "stopping power" (see Shettel 1976) and that researchers can simply assess participation in museums and galleries through one or two "visitor behaviors." The example points to a more flexible and dynamic notion of how participants view and constitute their experience of exhibits.

NEGOTIATING ACCESS TO EXHIBITS

People often visit museums and galleries with companions, and the presence of others is important for how individuals experience exhibitions. However, relatively little research is concerned with the organization of social interaction in exhibitions—how couples or groups navigate, encounter, share, and experience them together. Moreover, many quantitative measurements of visitor behavior disregard the influence of others within the museum or gallery. Studies that take account of the presence of others tend to regard "copresence" as merely an additional "social factor" alongside others, such as environmental and psychological factors, that have an impact on the conduct of the individual visitor (e.g., Bitgood and Patterson 1987). As we previously noted, since the late 1980s interest has grown in investigating how social interaction between visitors affects how people view and experience exhibitions (e.g., McManus 1987; Silverman 1995; Tunnicliffe, Lucas, and Osborne 1997). However, these studies often use audio recordings and concentrate mainly on talk, so to a large extent they ignore the bodily and tactile conduct of participants and how talk and interaction is embedded in the material environment.

The presence of others can influence a visitor's choice of what to see in a museum or gallery. Indeed, one person often takes it upon himself or herself to encourage his or her companion to look at a particular exhibit. Consider Figure 2.1, which shows a child and his father visiting the "Challenge of Materials" gallery at the Science Museum in London. This exhibit is a glass container that displays different kinds of materials. The basic idea of the exhibit is to introduce visitors to the notion that "materials" consist of not only solids, such as fabrics, but also liquids and gases (see Figure 2.1). Four columns and a flip-book were placed around the plat-

form, onto which the tank was mounted. Three of the columns featured buttons that allow visitors to manipulate "materials" in different sections in the tank. The flip-book contained information about the purpose of the exhibit and its components—what can be seen, what can be activated, and what can be learned.
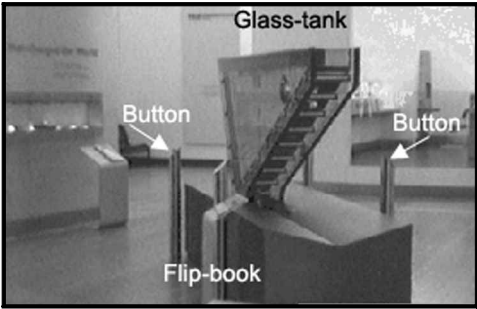
FIGURE 2.1

The next three images (Figures 2.2–2.4) show a man and a boy in the entrance area of the gallery. Whereas the man has passed the glass container without stopping, the young boy turned around and approaches the exhibit. After having arrived at the exhibit, the boy called the man over ("Daddy") (Figure 2.2). The boy's actions encouraged, if not demanded, that his father come and look at the exhibit and in so doing generated the momentary relevance of the object for him (Figure 2.3).

After his arrival and a brief glance over the exhibit, the father took a position by the boy, picked out one particular section of the exhibit, and began to explain its

FIGURE 2.2

B: Daddy

FIGURE 2.3

B: What is this?
F: Ehm it's a model
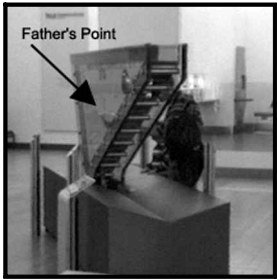
FIGURE 2.4

F: See this liq this liquid
   here
B: mhm
F: That's actually a metal
B: mhm
F: That's mercury

content to the boy. The father held the rolled map in his right hand and made use of it as a pointing device to pick out the section in the exhibit he then started talking about (Figure 2.4).

Considering the interaction between father and son, it would be wrong to suggest that the exhibit itself attracted both individuals separately. Rather, the man's relationship and interest in the boy drew him in. To look at them as "individual" visitors, therefore, would be misleading. Rather, examining their actions as a pair reveals the interactional dynamic by which they approach the exhibit together. Having successfully encouraged his father to view the object, the boy asked him to explain it ("What is this?"). The man then began to "scan" the exhibit and pick out one feature to describe ("See this liq this liquid here?"). The man rendered a particular section of the exhibit noticeable for the boy and pointed out this feature of the exhibit in answer to the question. The boy encouraged the man to approach the exhibit, then the man drew their joint attention to one part of it. Moreover, his answer to the question provided a way of seeing the object, and in so doing they mutually constitute the sense of what it is: they establish, if only momentarily, a "common sense" of what they are looking at. Interestingly, there is no mercury in the tank, only air, oil, and water.

Following this brief exchange, the father turned to go in, saying, "What else is to see?" whereupon the boy turned away from the tank and followed the man. So social interaction among the participants not only drew the man to the exhibit but was also critical to the length of time they stood at the exhibit and their decision to move on.

Video therefore provides access to some of the details of interaction at exhibits not accessible through interviews or field observation alone. Through interaction, visitors not only encourage each other to view particular exhibits but also shape each other's access to and participation with the artifact in various ways. The father's pointing and naming of the object was accountably recognized by the boy's comment, after which the father picked up to continue the sequence and eventually to move on to a different section in the museum. The participants' discussion of the exhibit, how they organize their talk, and the things they say are inextricably bound to their bodily conduct and the presence of the exhibit itself.

People are not only drawn to look at exhibits by those they are with, but also, as the photographs and dialogues above suggest, what they see, and the conclusions they draw may arise in and through interaction with other(s). In the following fragment from a small Science Centre in Nottingham, a man and a woman approached an exhibit and attempted to solve the puzzle it posed. How they dealt with, literally handled the puzzle, arose through their interaction, in particular in the ways in which the man attempts to shape the (limited) participation of his partner.

The exhibit in question was located in the center of the exhibition space; it was called the "Puzzle Table." In addition to three other puzzles on one side of the table, visitors were encouraged to dismantle and then reassemble the so-called Pyramid

FIGURE 2.5a   FIGURE 2.5b

Puzzle, a 3-D jigsaw (Figures 2.5a & 2.5b). The fragment began when a man took a position by the Pyramid Puzzle by directing his gaze downward and remaining in the same posture for a few moments (Figure 2.6).

FIGURE 2.6

A few seconds later, a woman appeared to the left of the image. The man stretched with his left hand toward the puzzle to take hold of the first piece and at the same time turned to his right, as if inviting the woman to join the activity (Figure 2.7). As the woman positioned herself to face the exhibit, the man moved his right foot forward to lie between the woman and the table (Figure 2.8). During his turn, the man's upper body remained slightly bowed forward and his gaze directed toward the puzzle. By sliding his right foot forward he produced a physical "bar-

FIGURE 2.7   FIGURE 2.8

rier" the woman would have to cross if she were to get her hands on the puzzle. It is as if the man encourages the woman to join him at the puzzle table while simultaneously obstructing her from taking hold of the puzzle; he encouraged the woman to act as an audience for his play rather than as a player in the game itself. Initially, the woman did not attempt to get close to the puzzle but took a position behind the man's foot (Figure 2.8). Only after she watched the man for about ten seconds did the woman change her position and move closer to the puzzle by stepping around the protruding foot. From this position, she was able to reach for pieces of the puzzle and manipulate them with the man (Figure 2.9).

FIGURE 2.9

Following the woman's change of position, the man bent farther over the puzzle and picked up all of the pieces at once, further restricting her access to the exhibit. Even when she began to reach out to take a piece, she ended up transforming her arm movement to point at the puzzle. She moved to manipulate the puzzle, but ended up directing the man's actions, as he withheld the pieces from her. Although the man invited the woman to view his use of the puzzle, his actions subtly worked to obstruct her active manipulation of that puzzle. Moreover, his body movement seemed to be closely coordinated with the woman's approach to the puzzle table and her attempts to coparticipate in the man's actions.

In this fragment, therefore, we can see how visitors coordinate their actions when viewing and manipulating exhibits and begin to identify how they continually establish particular forms of participation with the artifact. It is not simply the "attractiveness" or "interest" of the exhibit that determines how long individuals spend with an artifact, or how they experience its effects. Rather, through interaction with each other, visitors negotiate access to and participation in the exhibit, and it is through this interaction that they come to experience an exhibit in highly contingent and situationally relevant ways. Visitors' access to and interaction with an exhibit is shaped by their interaction with their companions through which they "negotiate" their continued participation with that exhibit.

In the fragment above, even as the man drew his participation in the exhibit to completion, the woman seemed discouraged from manipulating the pieces herself. The man placed the last piece of the puzzle on the table (Figure 2.10) and then began to leave the puzzle table (Figure 2.11). However, in finishing the puzzle, he did not stand back to allow his companion access to the table but rather stepped

FIGURE 2.10   FIGURE 2.11

forward, between her and the puzzle, once again limiting her access to the exhibit and discouraging her participation.

We can begin to see how one's decision to look at a particular exhibit and how one views it and even manipulates particular artifacts may arise in and through one's interaction with others. Individuals shape each others' access to and participation with particular exhibits and through interaction with each other organize their museum visit. Therefore, what is seen, how it is seen, what is said and discussed, and the experience that people have of particular exhibits arise in and through their interaction with others.

Goffman (1963) introduced the notions of "focused" and "unfocused" interaction as different forms through which two or more participants engage with each other. The two fragments discussed in this section have begun to demonstrate how participants transform and reshape such forms of interaction while varying their orientation to features of the material environment and their companions. The detailed analysis of the two fragments provides evidence of how participants momentarily produce a "single focus of attention" by referring to features of the environment.[6] The participants renewed "joint" focus moment by moment and continuously constituted it. The two fragments have begun to illuminate how, through interaction, individuals render visible relevant aspects of the environment and how they learn about an exhibit by monitoring others. Such "micro-negotiations" involving vocal, visual, and tactile conduct escape the net of more traditional ways of investigating conduct and cognition in museums and galleries.

AWARENESS OF OTHERS

We begin to see from the discussion thus far how individuals continually configure the ways in which they navigate and examine particular exhibits. We can also see how the presence of others, people they are with, permeates the ways in which they select, inspect, and even manipulate exhibits. In this way, the presence of others has an important impact on the conclusions visitors draw and their overall experience of the museum or gallery. Exhibitions, however, are largely public or semipublic domains; they are ordinarily peopled by others, not simply those we are with, but also

others who just "happen to be in perceptual range of the event" (Goffman 1981:3). To a large extent, studies of visitor behavior in museums and galleries have paid little attention to how the presence of strangers features in how people navigate and examine exhibits. However, studies of behavior in public places (e.g., Goffman 1963; Kendon 1990; Lofland 1985, 1998) suggest that the conduct of others might have a profound impact on how people organize their actions and activities within museums and galleries.

Let us return to the Science Museum in London. A family consisting of a young girl and boy and their parents inspected one side of exhibits, while a lone man stood on the other side (father and mother, not visible in Figure 3.1). The boy pressed the
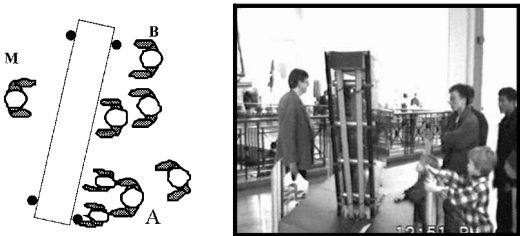
FIGURE 3.1

button on the pillar while the girl watched air bubbles rising through pipes as he pressed the button. Their father gave explanations related to the children's interaction with the exhibit. Our interest was in how the man (M) and the two groups of visitors subsequently moved around the exhibit. It turned out that they can be seen to be highly sensitive to one another's movements.

Figure 3.2 shows that the man to the left turned away from the exhibit. Meanwhile the woman who stood behind the children on the right began to move around it. Her partner followed and called to the children, "Let's have a look 'round here."
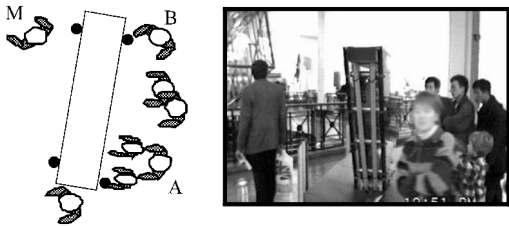

FIGURE 3.2

They entered the space left by the other man. A brief moment later they arranged themselves as a group around the pillar on the left of the glass container; once again, the children pressed the button on the pillar while the man provides an explanation of the link between the button and the events in the container. Similarly, the other group of visitors took the opportunity of the family's movement to occupy

the space to their left formerly occupied by the family, to examine other sections of the exhibit (Figure 3.3).

This series reveals how visitors are sensitive to the presence of others and in various

FIGURE 3.3

ways monitor each others' actions and activities. In the case at hand, as the man to the left turned around and walked away, the family took the opportunity to move into the space he previously occupied. Over a few moments, the three groups of visitors standing around the exhibit shifted their positions in turn. The man turned to leave, the family moved into his position, and the other group moved into the space left by the family. In such a way, each group moved to explore different parts of the same exhibit, and they tied these movements to the activities of strangers (as well as their companions). By temporally organizing their actions and activities, the visitors did not intrude in others' spaces but kept involved with a certain section of the exhibit until space was made available.

Yet visitors to museums are not simply sensitive to the actions of others in order to organize their movement around the exhibition floor or to gain access to particular positions with regard to a specific exhibit. They also glean information about what might be interesting or novel about an exhibit and how an exhibit might be used or interpreted. For example, at a gross level, crowds around one part of the exhibition might either attract others to approach or indeed deter people from trying to get near. However, the discussion of the following fragment sheds light on a subtler example of the ways in which groups of individuals organize their own participation in an exhibit with regard to the activities and discussions of others who happen to be in the same space at the same time.

Rather than simply consider how people coordinate their movements around the exhibition space, we explore how visitors' perceptions and experiences of exhibits is achieved by virtue of a sensitivity to the actions of others around the same exhibit. Moreover, the fragment reveals how companions can organize their interaction around, and experience of, an exhibit with intimate regard to the interactions of other groups of visitors.

The following sequence of images shows two "groups" of visitors at the glass container. A man and a woman stood to the left of the exhibit, and a girl and her father stand to the right (Figure 3.4). After having inspected the glass container for a few seconds, the girl called to her father, "Daddy? What's happening here?" and pointed to part of the exhibit (Figure 3.5). The couple on the opposite side could see

FIGURE 3.4   FIGURE 3.5   FIGURE 3.6

G: Daddy? What's happening here?

her pointing through the glass container. As the girl pointed, the man stepped closer, followed immediately by the woman. As they got closer they both leaned in to look at the phenomenon indicated by the girl (Figure 3.6). Thus, in pointing to the exhibit, the girl engendered a sequence of actions undertaken by both the man and the woman, individuals that she neither knew nor was "with." Although she intended her actions explicitly for her father, they have the concomitant effect of drawing certain features of the exhibit to the attention of complete strangers.

Therefore, a certain feature of the exhibit was rendered noticeable for the couple on the left by virtue of the interaction between the young girl and the man she was with. Interaction between companions in the museum can render visible features of the exhibition that may otherwise remain "hidden" or unnoticed by others.

The interaction of others is often used as a resource by which (groups of) individuals may decide whether to look at or inspect an exhibit. Consider, for instance, how a crowd of people standing around an exhibit, possibly laughing or pointing, might intrigue others walking around the museum or gallery. Similarly, the girl's question elicited a particular kind of looking and inspecting of the exhibit by the couple. In other cases, the pressing of the buttons on the columns by one individual can encourage a stranger to turn to look for a button on a column near him or her. Therefore, visitors not only notice features on exhibits, but their very use and experience of the exhibit remains sensitive to the presence of others and others' orientation to it.

The "museum experience" not only arises continually in and through the actions and activities of visitors, but it depends on how visitors remain aware of and sensitive to the conduct of others "who happen to be in perceptual range of the event" (Goffman 1981:3). The visual, vocal, and tactile conduct of others provides resources for looking, seeing, and experiencing the various exhibits. Visitors' awareness and monitoring of the actions of others influences what exhibits they look at, how they negotiate access to exhibits with others, their looking, touching, and talking, and their very appreciation and understanding of the various objects and artifacts they confront. Consequently, they create actions and activities not only in the light of accomplishments produced in the "center" of their attention but also in the light of what occurs in the "periphery" (see Goffman 1981). Of course, center and periphery, foreground and background of actions and activities are ongoingly constituted and interlinked through participants' activities.

In exhibition spaces the copresence of a variety of visitors who do not have a prior history of social action together is an everyday phenomenon. In a certain way, these exhibits are not only constituted in and through interaction among companions, but are encountered and perceived with regard to the actions and orientations of all those sharing the same local environment. The fragment just above illustrates the relationship between different forms of interaction among visitors in the same local milieu; more comprehensive research into this issue certainly is required.

In sum, both fragments reveal how visitors continually monitored their environment and were "peripherally aware" of and aligned their activities to the conduct and performance of others in their environment. Visitors use their awareness of others' conduct as a resource to coordinate and accomplish their own actions and thus seamlessly produce and interlink the center and periphery of their actions. The first instance illustrated how peripheral awareness of the activities of others allowed three groups at the glass container to negotiate their relative positions around an exhibit. The second video fragment revealed how the museum experience of visitors can be fundamentally influenced by the activities of others.

DISCUSSION

This article presents an analysis of the kinds of issues that may enrich our understanding of visitor behavior in museums and galleries. Throughout, we have attempted to reveal how visitors actively create the contexts in which they experience particular exhibits. Thus we have attempted to demonstrate how the physical environment remains only one influence on how an individual exhibit is encountered and seen by a visitor. For example, the way an individual orders her looking at different exhibits contextualizes how the next one is seen and how the last one is (re)characterized. Similarly, the actions of others (both companions and strangers) have a critical influence on what gets looked at, for how long, and in what manner. Indeed, as groups of visitors gather around an exhibit, they mutually constitute the sense of what they see and the relevance of that seeing. In this concluding section, we wish to examine the various implications and contributions that this study makes to symbolic interactionism, visitor studies, and, potentially, the design of exhibits and exhibitions.

The brief analysis presented here bears on research in symbolic interactionism in several ways. For example, Mead (1932a, 1932b, 1934) discusses the ways in which objects are constituted. Although he as well as Blumer (1969) highlight the constitution of social (immaterial) objects, Mead, in particular, provides a radical alternative to behaviorism, delineating the ways in which social organization features in the production and intelligibility of objects and in configuring the relations between self, perception, and material realities. In the fragments discussed here, however, we can begin to see how the perception and constitution of objects is dependent on occasioned configured relations between features of the physical local milieu and,

critically, the emerging interaction of those who happen to be in the same space. This does not deny the importance of how the individual takes the objects' perspective and the contingent process of "self-indication" so powerfully developed by Blumer (1969) but rather points to the ways in which the affordances and qualities of objects depend on the emerging action and interaction of participants themselves. Thus the physical environment is reflexively constituted within the developing course of the participants' conduct, which configures relevancies, ways of seeing, and the very intelligibility of the material setting (see also Heath and Hindmarsh 2000; Hindmarsh and Heath 2000).

These issues also contribute to a related set of concerns in symbolic interactionist research: the central analytic and conceptual concern with human interaction. As we suggested earlier, a long-standing body of research in, and cognate to, symbolic interactionism addresses the socially organized character of social interaction. Indeed, for scholars such as Strauss, Goffman, and Hughes, social interaction is the most pervasive and fundamental feature of human society and sociability. For example, Hughes (1984:508) acknowledges the powerful influence of Simmel and Tarde on his own and his students' work when he suggests: "The subject matter of sociology is interaction. Conversation of verbal and other gestures is an almost constant activity of human beings. The main business of sociology is to gain systematic knowledge of social rhetoric." Until recently, however, the focus on social interaction in the rich and varied ethnographic studies we find in symbolic interactionism has largely ignored how the physical environment and material realities affect conduct and interaction and are constituted through conduct and interaction. In various ways, a range of studies address this lack of concern, especially those concerned with the development of specialized tools and technologies (see, e.g., Star 1996). As yet, however, the ways in which more mundane objects and artifacts feature in, bear on, and are reflexively constituted through social interaction remain largely unexplicated, leaving us with a curiously not so much "disembodied," but "dematerialized" understanding of conduct and action. This gap would appear contrary to Mead's analytic concerns and many of the programmatic statements concerning symbolic interactionism. Video-based studies of interaction in museums and galleries provide an opportunity to develop our understanding of action and interaction and in particular to develop a more powerful understanding of the relationship between ecologies and interaction, objects and conduct, and material and social realities. Thus we hope to demonstrate in a small way how analytic considerations inform certain versions of conversation analytic research and may be fruitfully brought to bear on one or two of the central issues that formed the focus of earlier theoretical and empirical research in symbolic interactionism.

Still, it is not simply an approach or type of data that may contribute to symbolic interactionism but perhaps the analysis of a particular substantive domain. Museums and galleries provide a natural laboratory in which to examine conduct and interaction with and around objects and artifacts and to consider how mundane competence and practice is brought to bear in making sense of specialized exhibits and technical

information. Museums provide an opportunity to explore how the "affordances" and experience of objects and artifacts emerge within and are constituted through interaction, interaction that inextricably relies on a social organization which informs the very ways in which things are seen and experienced. Galleries and museums provide a rich domain with which to build an alternative social psychology, a social psychology that demonstrates the social, interactional, and situational character of practical cognition and experience.

This work also points toward new and novel directions for studies of behavior in public places. Although the extent to which museums and galleries can be classed as "public" places may be debated, they do constitute environments in which a variety of individuals, with a range of previous acquaintance, come into relatively close contact by navigating enclosed spaces and looking at the same objects, often at the same time. Thus this article aims to make a small contribution to the development of a sociology that examines social interaction between whoever, as they pass by one another and go about their daily business.

There are numerous domains and occasions in which individuals who may not have met before share the same proximal location, whether that be a waiting room, a museum, a shopping mall, or the street. These chance encounters may last ten minutes or merely be a fleeting moment. However, relatively few studies have charted how individuals organize and coordinate their conduct with others who they drift by or momentarily come into contact with. It would seem a valuable addition to contemporary interactional sociology to explicate these forms of contact: the glances, the smiles, the brief utterances, the negotiation of where and how to pass by others, or the even subtler sensitivities to the presence and conduct of others that we have begun to examine in the last fragments in this article.

Studies have been conducted to explicate the character and organization of social interaction between individuals in public places. The most prominent among these studies probably stem from Goffman (e.g., 1959, 1963, 1971), who began to elaborate on a number of useful conceptual ideas for gaining a general understanding of how people's activities in the same domain are interrelated. Taking a rather different direction, Ryave and Schenkein (1974) adopted an ethnomethodological viewpoint to investigate the practical organization of walking in public. Watson and Lee (1993) further developed in their approach their analyses of such events as "queuing" at bus stops. Also, Wolfinger (1995) recently observed the "social dynamics of pedestrian interaction" and explored the social and collaborative practices people employ and rely on when navigating public environments. Further exploration of such moments may enrich our understandings of and shed a new light on the "invisible chains" that tie us together (see Elias 1988:33).

In addition, this article has presented the importance of objects and artifacts for the shaping and mediation of interaction. In particular, we have started to consider how individuals notice features of the world that are brought to their attention simply by the glance or utterance of another nearby. Public spaces are populated and structured by a huge number of objects and artifacts, yet studies on behavior in

public places rarely consider the relations between talk-in-interaction and the material environment.

This article also has more practical relevance for researchers in visitor studies and indeed for museums practitioners. In the field of visitor studies, the use of video by researchers remains relatively rare (see Morrissey 1991; Phillips 1995; Tulley and Lucas 1991), and yet more traditional observational methods are increasingly promoted as useful tools for evaluation (e.g., Hein 1998). Our study highlights some of the "value added" by detailed analysis of sequences of video over, for example, quantitative measures of visitor movement and activity. We do not say that such measures have no value but merely suggest that video materials can supplement their findings. For example, are visitors always "held" by the exhibit when they stop before it, or is it just that, on occasion, the exhibit provides a place at which to stand and chat with a companion? Based on the observations given in the three empirical sections of this article, it makes sense to supplement ordinarily applied quantitative measurements as accounts of how visitors respond to certain exhibits or of what visitors learn from exhibits with video-based analyses to gain deeper insights into how visitors manage their experiences of exhibits.[7]

Research in visitor studies often differentiates between findings made in different types of museums and hesitates to compare observations across museum types. The discussion of video-recorded fragments in this article suggests that visitors' conduct and interaction in different types of museum are comparable. However, more detailed explorations are necessary to study the particular characteristics of interaction at and around certain types of exhibit (see vom Lehn et al. 2001).

Nonetheless, our contribution to visitor studies may be more than simply methodological. A growing interest among curators, museum managers, artists, and designers concerns reshaping or even creating exhibits and exhibitions to enhance the participation of visitors. Artists may use advanced technologies, such as virtual reality, to create installations in which a number of individuals can participate collaboratively. Science centers and even more traditional arts museums are redesigning exhibits and exhibitions to enhance interactivity and involvement between visitors.

Interestingly, to a large extent museum professionals undertake these innovations without regard to the social sciences and with little attention to an understanding of social interaction or participation. Designers, artists, and curators bring to bear their commonsense understandings and theories of interaction to create exhibits and exhibitions and through practical experience attempt to embody particular characteristics and affordances into objects and artifacts. They conduct evaluation, yet, as we pointed out earlier, to a large extent visitor studies focus on individuals and the cognitive rather than the possibility of encouraging communication, participation, and mutual experience. Perhaps not surprisingly, designers and curators are disappointed by the public's reaction to pieces designed to enhance participation and collaboration; they often fail to engender the forms of interaction anticipated.

The pieces tend to individualize action rather than enhance communication, and visitors often fail to grasp even the most basic facts and ideas thought to be embodied in the exhibit (see Baker and Richardson 1998).

Our projects are not only concerned with the sociological analysis of conduct and interaction in museums and galleries. They also involve the "evaluation" of exhibits and exhibitions, studies of the design, and the creation of artworks and installations. For example, an important part of a very recent investigation involves video-based examinations of new interactive exhibits designed to encourage new forms of participation in science museums and art galleries. We have conducted studies of high-tech "immersive VR" art exhibits. However, when comparing such exhibits with the more mundane exhibits discussed here, we find that they are deficient in certain respects. Although they generally increase the participation of visitors with the exhibit itself, they often impoverish rather than enhance the possibilities for interaction, collaboration, and discussion *between* visitors (see vom Lehn and Heath 2000; vom Lehn et al. 2000; vom Lehn, Heath, and Knoblauch 2001; and for similar findings, see Büscher et al. 2001). Video-based field studies of the conduct and interaction with and around exhibits provide a resource for assessing, in detail, how people respond to and deal with the particular piece. This can begin to identify how exhibits may be transformed to enhance participation and secure relevant ways of acting and seeing.

To this end we are also working closely with artists and designers in the *creation* of exhibits. Thus, we draw on our empirical findings to inform the design, in an attempt to promote social interaction and debate around and with regard to the exhibit. For example, along with Jason Cleverly, a well-established English artist who creates figurative automata and interactive installations, we helped to design a mixed media piece (*Deus Oculi*) that was planned to engender surprise and curiosity and to encourage interaction between visitors (both those together and those in the same space). It was exhibited at a major arts fair in London, and we video-recorded and observed people's response (a detailed discussion can be found in vom Lehn et al. 2000). Suffice it to say that while the piece served to facilitate surprise, curiosity, aesthetic appreciation, discussion, and chance encounters, in part it achieved its effects by virtue of inadvertent decisions, even mistakes, we made in its creation.

In the longer term it will be interesting to see the extent to which naturalistic studies of interaction can usefully inform the design and deployment of exhibits in museums and galleries. More important perhaps, these more applied or practical concerns direct attention to the more academic relevance of museums and galleries, not just to symbolic interactionism but to all those with an interest in interaction with and around objects and artifacts. Unlike many of the settings we study, museums and galleries provide an unprecedented opportunity for those with an interest in interaction to undertake small-scale naturalistic experiments that examine how the transformation or creation of an exhibit serves to facilitate, encourage, and even engender particular forms of interaction and participation.

NOTES

1. For an overview on Mead's works on the sociology of the physical world, see McCarthy 1984 and Joas [1985] 1997.
2. Trondsen (1976) investigates how the public order in art museums depends on the visitors' commitment to self-control; this argument has been further investigated by Bennett (1995), who also takes into consideration how the architecture of museums and the arrangement of the exhibits create an arena in which visitors can continually observe each others' behavior.
3. Loer (1996:11) notes that studies in the sociology of art and culture (e.g., Bourdieu 1984; Schulze 1992) are preoccupied with how people communicate about art but are not interested in how artworks and cultural objects are perceived and experienced.
4. In this article we address some generic issues and characteristics that arise across the materials gathered in the different museums and galleries. These help to illuminate themes that pervade symbolic interactionism and bear on the interactional organization of conduct in museums and galleries. Studies of particular interactional characteristics of certain types of exhibits are addressed elsewhere (see, for example, vom Lehn and Heath 2000; vom Lehn et al. 2000).
5. With regard to the issue of how the position of the lower limbs is related to the actual orientation of participants, see Kendon's (1990) article on the F-formation or Schegloff's (1998) paper on body torque.
6. In this regard, see Kendon (1990) and Hensel (1987), who describe "formations" of participants around a single focus (e.g., an exhibit) as stable units.
7. Indeed, the use of video as a methodological tool would seem to have a number of benefits over traditional techniques and could well prove a valuable resource for museum professionals themselves. In particular, it provides repeated access to the activities of visitors and their use of exhibits. This may be very useful in the design and evaluation process. As Gammon and Graham (1998:7–8) note, "As audience advocates we frequently conduct observations, but other members of the project team do not usually have the opportunity to do so."

   Their suggestion is to give designers exercises to involve them in observing visitor behavior for themselves and to sensitize them to the experience of visiting museums for the first time. However, video may be an alternative, in that it provides a common resource that members of a team can look at, discuss, and debate together. Indeed, this may also be a useful contribution for observational researchers who work in teams.

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