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EXAMINING EXHIBITS: INTERACTION IN MUSEUMS AND GALLERIES

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Abstract

It is often assumed that the design of artefacts and environments shapes the ways in which people act and experience them. Designers and managers consider the material environment as defining people's behavioural responses. Museums and galleries provide us with an example *par excellence* in this regard. They display artefacts that have been carefully created to encourage particular kinds of behaviour and experience. They provide social scientists with a 'natural laboratory' in which we can study the relationship between behaviour and the physical environment. This paper draws on video fragments recorded at one particular exhibit displayed in the Science Museum London. It discusses how visitors produce their experience of the exhibit in and through their action and interaction. We explore individuals' action at the exhibit as well as the ways in which participants examine the artefact in concert with others, both companions and others who happen to be there. The paper concludes with a brief discussion about the implications of the observations for our understanding of the relationship between design and behaviour.

Keywords:
museums, design, interaction, ethnomethodology, video

1 . Museum and Ecology

Museums and galleries provide examples, *par excellence*, of social institutions in which images, objects and artefacts, of a varying provenance and design, are exhibited for public consumption and appreciation. These images, objects and artefacts may consist of pictures and paintings, drawn from past or current cultures, of reassembled creatures from our natural history, or scientific developments displaying human achievements. Museums and galleries have provided a rich and varied domain to address such contemporary issues as, for example, the 'politics of display' (Macdonald 1999) or the intentions of the curator, manager or exhibition developer whose aims can be deconstructed through the design and arrangement of the displayed objects and artefacts

(Greenberg, Ferguson & Nairne 1996; Karp & Lavine 1991; Macdonald 1999; Pearce 1994). These and related interests including for example studies of visitor behaviour, will often treat the museum or gallery, the exhibitions and the exhibit, as a framework which patterns the conduct of participants and shapes the meaning(s) and interpretation which individuals will derive when visiting the particular institution. In a sense therefore, it is assumed that museums and galleries provide an 'ecology' which encompasses and configures the aesthetic and practical experience and conduct of visitors.

In this paper we would like to adopt a different standpoint. Rather than assume that the design of exhibits and exhibitions influences, even determines, the conduct and experience of visitors, we wish to consider how individuals themselves, both alone and in concert with each other, look at, examine, and inspect, particular exhibits and navigate exhibition spaces. In particular, we are concerned with the ways in which visitors, through their actions and interaction, constitute the meaning and intelligibility of exhibits and exhibitions. In directing attention towards the conduct of those confronted by a given exhibition, we wish to suggest that the immediate environment, whether it is a gallery, a stage set in a theatre, or the background to an installation, does not so much frame the experience of participants, but, rather is reflexively constituted, in and through, their conduct. The sense or meaning of the scene and its occasioned properties, is in flux; it ongoingly emerges, moment-by-moment, within the developing action and interaction of the participants themselves.

The 'unpredictability' of visitor behaviour in museums and galleries has long been a source of some frustration to curators and exhibition designers. Visitors often fail to navigate the exhibition in the way that is hoped, and it is increasingly recognised that many fail to read or digest the information that curators have gone to some trouble to provide. In other words, those responsible for designing and developing an exhibition, find that individuals fail to recognise or respond to the meanings and messages that they have attempted to entail in particular images, objects and artefacts. Malcolm Baker, from the V&A in London, characterises this problem succinctly in his recent introduction to the catalogue for a major international exhibition. "How a visitor interacts with artworks and their settings is determined by personal needs, associations, biases, and fantasies rather than by institutional recommendations" (Baker 1998: 18-19).

In this light it is worth mentioning that we are witnessing the emergence of a burgeoning body of research concerned with the behaviour of visitors in museums and galleries. The study of visitor behaviour was introduced to measure the effectiveness of exhibits and their design. Within this field it has

been widely assumed that through an appropriate design, visitor behaviour and experience can be shaped with regard to the designers' intentions (Bitgood 1994; Screven 1976). Studies of visitor behaviour, to a large extent, consider the museum visit as a series of individual encounters with exhibits (Bitgood & Patterson 1987; see critiques by Lawrence 1993 and McManus 1996). Relying upon findings from behavioural sciences the early visitor studies mainly tracked visitors' navigation through exhibitions and measured the attractiveness of exhibits based upon time-indices (Melton 1933, 1972). The increasing concern with museums' "educational role in society" (Hooper-Greenhill 1991; Hooper-Greenhill 1994) has been reflected in the change of interest within visitor studies from behavioural to cognitive ('learning') and most recently social aspects of the museum visit. It is argued that museums and galleries provide visitors with 'informal learning environments' (Hein 1998) where they make experience by viewing and examining exhibits in and through the interaction with others (Blud 1990a; Butler & Sussman 1989; Leinhardt, Crowley & Knutson 2002; McManus 1987, 1988). As yet however relatively little research has been undertaken that is concerned with the ways in which visitors interact with each other, and through their action and interaction constitute the sense and significance of the images, objects and artefacts placed in museums and galleries (a few exceptions are, Heath & vom Lehn 2004; vom Lehn, Heath & Hindmarsh 2001; vom Lehn, Heath & Knoblauch 2001).

The tension between the goals and plans of the design team, i.e. curators, managers and exhibit developers, and the conduct of individuals reflect corresponding debates within very different intellectual traditions, namely HCI (Human-Computer Interaction) and Artificial Intelligence (AI). There is growing recognition, amongst those who develop and implement more complex technological artefacts, that the behaviour of 'users' rarely reflects the formalised goals and plans envisaged either by designers or those who try to explain the interaction of individuals with computers. Following the work of Suchman (1987) and others, it is argued that the plans and goals of designers, whether software engineers or alternatively museum curators, installation artists, or software engineers, are inevitably subject to circumstances under which individuals confront and experience the particular objects and artefacts, and that their activities are shaped with regard to the contingencies which inevitably emerge in everyday practical situations. These debates are increasingly turning analytic attention towards the ways in which objects and artefacts gain their sense and significance through the emergent action and interaction of the participants themselves.

If we place the social and interactional constitution of an exhibition at the heart of the analytic agenda, then it raises various methodological issues. The conventional data used in social science research, whether interview responses or even field observations, becomes problematic. It is clear that such materials, however observant the researcher, can only provide the crudest rendition of the participants' conduct. Video-recordings of the naturally occurring behaviour perhaps provide more useful resources, allowing the researcher to capture a version of the participants' conduct, and to subject to repeated scrutiny, using slow motion facilities and the like. Moreover, unlike a great deal of social science research, video-recordings allow the researcher to show colleagues, even participants, the data on which an analysis is based, and invite their comment and consideration. Most importantly however, video-recordings provide the possibility to begin to scrutinise human conduct in fine detail, and to begin to consider how participants themselves accomplish their own actions and activities and coordinate them with others. The technology, coupled with an analytic orientation deriving from ethnomethodology and conversation analysis (Garfinkel 1967; Sacks 1974, 1992), provides the resources through which we can begin to address the social and interactional constitution of 'features' or 'properties' of an exhibition.

The materials used for the purpose of this paper have been collected as part of a small project conducted in The Science Museum. After extensive observational studies and discussions with museum staff we set up video cameras in the 'Challenge of Materials Gallery' close to selected exhibits. In order to inform, and secure the support of visitors, notices were placed at all of the entrances to the galleries as well as near the exhibit(s). The notices explained the purpose of the project and that data would be used only for research and teaching purposes. They also provided visitors with the opportunity to refuse to be recorded and offered visitors the opportunity to have the recording destroyed if they were unhappy, in any way, with what had occurred. During the recordings a researcher and a member of museum staff were continually nearby the camera(s) to respond to visitors' requests. A number of visitors approached us to discuss the nature of the project further, but no visitors refused to participate. In this paper, we consider the conduct of participants in and around, one particular exhibit, a tank displaying the properties of various materials. The analysis is naturalistic; concerned with beginning to explicate how individuals approach and examine a particular feature of the museum's ecology.

2. Discovering Exhibits

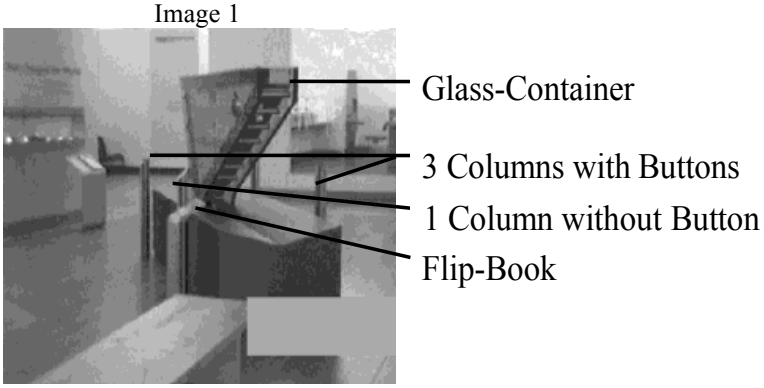
The literature concerned with visitor behaviour and learning widely accepts that exhibition design provides visitors with structure not only for their behaviour within exhibition spaces but also for their intellectual exploration. Indices like 'stopping power' ('frequency of stops') and 'holding power' ('duration of viewing') (Shettel 1968, 1973, 2001) are attempts to assess the efficiency, success and intrinsic interest of exhibits and exhibition spaces. These types of measurement, however, widely neglect that visitors normally do not come on their own to museums but with companions (group or family members) and they meet others who happen to be in the same exhibition. Researchers of visitor behaviour tend to conceptualise the visitor as passively receiving object exposed to the exhibits that they encounter and examine one after the other.

The analysis presented in this section will investigate how visitors both alone and in collaboration with others, discover exhibits. In particular, we focus on what happens in front of, and beside, exhibits; how visitors organise their activities at the exhibit-face; indeed these moments of social interaction might be considered by Garfinkel (1967), to be a 'fat moment' in the study of visitor behaviour.

The activities studied for the purpose of this paper have occurred around the exhibit located in the entrance area of the 'Challenge of Materials' gallery. This particular exhibit, which appears throughout the paper, is a glass-tank that displays different kinds of materials. The basic idea of the exhibit is to introduce visitors to the notion that 'materials' are not only solids but also liquids and gases.

Placed around the platform onto which the tank is mounted, there are four columns and a flip-book. Three of the columns feature buttons which allow visitors to manipulate 'materials' in different sections within the tank. The flip-book contains information about the purpose of the exhibit and its components - what can be seen, what can be activated and what can be learnt (Image 1).

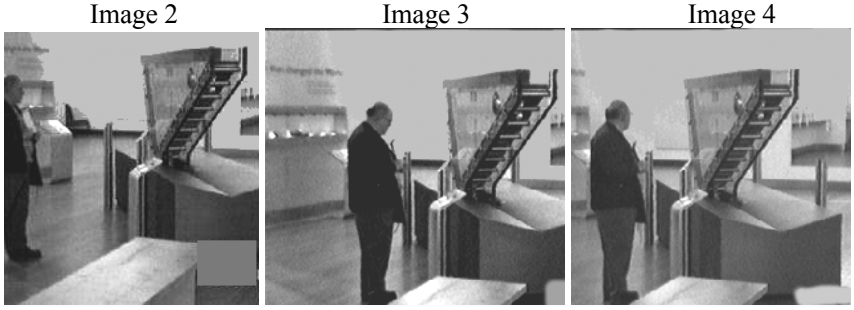
Image 1



2.1. Looking at Exhibits

Consider the following fragment. An individual visitor approaches the glass-tank. As he approaches the exhibit he glances towards the artefact (Image 2) and then adopts a position close to the 'flip-book' that contains information about it (Image 3). The visitor reads the information on the open pages of the flip-book and recurrently turns to look at features of the exhibit as he reads. It would seem that by looking at the exhibit, he relates information in the book to the glass-container (Images 4). Indeed, as he browses through the pages of the flip-book, his gaze continually alternates between the flip-book and the tank (Image 5 & 6). Then, the visitor looks up and moves across the exhibit, whilst directing his gaze towards its different sections (Image 7).

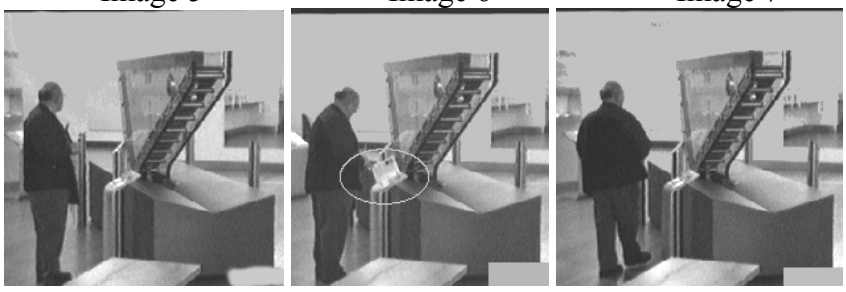
Image 2 Image 3 Image 4



'Looking' is obviously one important feature of the visitor's activities when discovering the exhibit. However, a term such as 'looking' is a gloss for a whole host of different actions and activities that constitute the exploration and

examination of a museum exhibit. We can see from this fragment, that looking consists of a series of interrelated actions through which the visitor makes

Image 5 Image 6 Image 7



relevant, and gives significance to, particular features of the exhibit. In particular, he can be seen to relate textual information in the flip-book to the visible features of the glass-container. As Coulter and Parsons argue with regard to the idea of 'seeing':

..the characterization of our visual orientations to the world is both variable and extraordinarily subtle in its range of possibilities. Blanket attributions of 'seeing' to normally sighted persons in ordinary circumstances will not capture these distinctions. Even if we grant that many visual-perceptual verbs in their conventional contexts of use can be subject to attributions of 'seeing', it is clear that we can, and do, *distinguish between* [them] ... We say such things as: ... 'You weren't just looking at me, you were *staring* at me!'

Coulter & Parsons (1991: 262)

Through the various displays of reading, inspecting, glancing, admiring and so forth, the visitor 'ongoingly', and moment-by-moment, constitutes the sense of the exhibit and its potential interest and relevance. Treating the exhibit as if it has inherent appeal as a whole, not only ignores the complex array of actions undertaken by the visitor when he views the artefact, but underplays how an exhibit's interest or lack of it, is accomplished, in and through, the visitor's conduct and it ignores how particular features of that exhibit are inspected or ignored, glanced at or looked past and so forth.

Designers of museum exhibitions (often) assume that visitors follow a pre-defined path (Hall 1987: 17)[1]. This conception is based on psychological studies, in particular behaviourist and cognitivist research. Our analysis here suggests that individuals examining and make sense of exhibits by accomplishing a series of actions and activities through which they moment-by-

moment produce the context in which they view and experience the artefact. The fragment illuminates that different ways of looking which when studied in the sequence of their production can be taken as evidence for the visitors' actual sequence of orientation to the exhibition.

The exhibit offers visitors numerous opportunities of participation and examination. Some of these opportunities are described and explained in the flip-book; visitors can look through the three glass-cones filled with air, water and oil and see a refracted image of the exhibition on the opposite side; they can look underneath underneath the surface of the tank and see the opposite side upside down, or they can press the three buttons placed around the tank. Visitors who examine the exhibit do not exhaust all the opportunities of participation provided by the exhibit. They normally explore one or two exhibit features, often without having read the flip-book, and then leave the artefact. Their participation with and around the glass-tank is not predetermined by its design, but the exhibit features serve them as resources to carry out the actions and activities by virtue of which they examine and make sense of the exhibit.

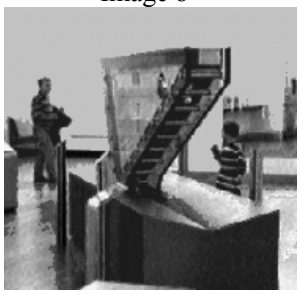
The fragment suggests that the ways in which participants approach and examine exhibits emerge dynamically and contingently through the actions and activities that they perform. They are not prefigured by the design of the material environment and therefore cannot be understood by quantitative measurements like ‘stopping’ and ‘holding’ power. The analysis has started to explore the ways in which visitors organise their actions and activities, so as to inspect (features of) a particular exhibit. The kinds of looking that arise at exhibits, may well be relevant to explicating the ways in which visitors perceive and experience exhibits and even how they gain knowledge or learn. Moreover, the behaviour of visitors in The Science Museum, suggest that when stopping and dwelling at exhibits, visitors actively contribute to, and generate, the “ecology of participation” (Heath, Luff, vom Lehn, Hindmarsh & Cleverly 2002) in which they 'perceive' exhibits, by searching for particular features and not others, by reading particular pages and not others, and by choosing to manipulate (or not) particular interactive features of the exhibit (such as the buttons that were totally ignored in the above sequence). Indeed, exhibits and their features are ongoingly constituted through the sequence of actions and activities that visitors undertake as they stand before and view an artefact. We will pursue these two arguments within the following sections.

2.2. Looking Together

There is a growing recognition in Visitor Studies and cognate areas of research that the 'museum experience' (Falk & Dierking 1992, 2000) is produced through collaboration between visitors who act and interact in the same space. However, they often presume that the material design of an exhibition together with other information resources prefigure the visitors' experience of exhibitions. Investigations suggest that the social relationships between visitors influence their learning from the museum. They highlight that different exhibits facilitate the emergence of different kinds of interaction (Blud 1990b; McManus 1987); however, they tend to differentiate different kinds of interaction by variables external to the interaction, namely the participants' socio-demographic background. Relatively little research is being undertaken that investigates the ways in which social interaction at exhibits is organised through the participants' actions and activities.

This section considers how two people who approach the glass-tank collaboratively explore it in and through their interaction with each other. Paul and his son, Tom, have come together to the exhibition. After having explored some sections of the Challenge of Materials gallery they arrive by the glass-tank. Paul moves past and turns towards a different part of the museum when his son veers off and turns to the tank. Indeed, he actually crosses the path of his father to approach it. After having arrived at the exhibit, Tom calls his father over ("Daddy"). The boy's actions encourage, if not demand, that his father comes and looks at the exhibit, and in so doing, generates the momentary relevance of the exhibit for him.

Image 8

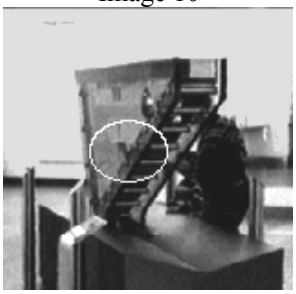


B: Daddy

Image 9

What is this?

Image 10



F: See this liquid here?
That's actually a metal.
That's mercury

While the father moves towards Tom's position at the tank the boy orients himself towards a place close to the centre of the tank. When Paul arrives by his side his son says "What is this?" and thus encourages the father to view the object and to explain it. Paul thereupon takes a position in the centre of the tank and begins to 'scan' the exhibit. He then picks out one particular feature to describe - "See this liquid here? That's actually a metal. That's mercury".

In such a way, Paul renders a particular section of the exhibit noticeable for his son, and points out this feature of the exhibit in answer to the question. So, firstly, the boy encourages the man to approach the exhibit, then the man draws their joint attention to one part of it. Moreover, his answer to the question provides a way of seeing the exhibit 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, and with regard to the design of the tank, it is not mercury at all, but air bubbles rising through oil.

The analysis suggests that it would be wrong to assume the exhibit itself attracted both individuals separately. Rather, the man's relationship and interest in the boy draws him in. To look at them as 'individual' visitors, therefore, would be misleading. Rather, examining their actions as a pair, reveal the interactional dynamic through which they approach and discover the exhibit together. Drawing on the observed sequence we can argue that the design of the exhibit did not give a 'frame' to the visitors' experience but in and through interaction with each other the visitors have produced the features of the exhibit which they have appreciated and made sense of in the moment of their discovery.

The observations from this section can be summarised as follows: firstly, visitors not only experience exhibits and their features through their individually accomplished actions but (also) are attracted to and experience, exhibits as well as (certain) features of exhibits through the interaction with those they are with. Actions and activities between the participants are interactionally organised such that individual actions cannot be understood as individual responses to the exhibit but only as socially organised accomplishments. And secondly, the fragment suggests that exhibits are appreciated and experienced in and through interaction which relies on naturally produced and coordinated actions and activities, and is not prefigured by the design of the material environment.

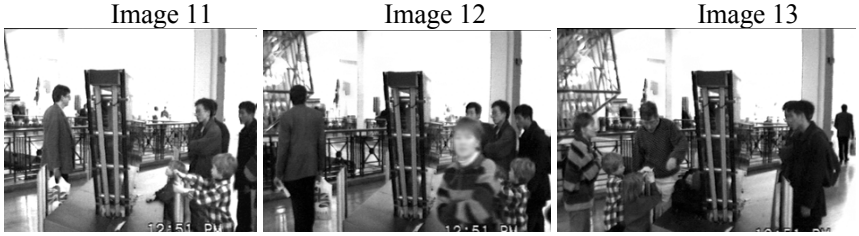
2.3. Peripheral Participation

Visitors not only come with companions to museums but also meet people in the locale of exhibits who just happen to be there at the same time. The visitor studies literature takes into consideration the presence of strangers in two ways. First, researchers accept that the presence of other people impacts on visitors' behaviour in museums, an impact they describe as "social influence" (Bitgood 1993). And second, they have detected that visitors often 'model' the actions of others when examining exhibits (Koran 1972; Koran, Koran, Foster & Dierking 1988). They consider 'modeling' as 'learning behaviour' and define it as "the ability to learn by copying the behavior of other members of one's society" (Falk & Dierking 1992: 49). They argue that exhibition designers may be able to exploit this observation and provide visitors with models at exhibits that exemplify how to examine and make sense of the artefacts.

Other authors suggest that whilst 'modeling' may be an important aspect of visitor behaviour and learning, other, more complex forms of social interaction emerge at exhibits (Blud 1990a: 50). The following fragment begins to explore how visitors coordinate their participation with an exhibit. It focuses on the phenomenon of 'mutual monitoring' in exhibition spaces and illuminates ways in which visitors socially organise their action and activity at and around exhibits.

A man, Michael, stands on the left side of the glass-tank. On the other side, are a small group comprised of Gaby, Bobby, Franz and Mona (both not visible on Image 11). Peter presses the button on the column while his sister girl watches the air bubbles rising in the pipes. Franz stands behind and explains the exhibit with regard to the children's actions.

Image 11 Image 12 Image 13



As the family explores the exhibit, another group of visitors (C) arrives to their right and begin to look at the tank. Our interest is in how these three groups of visitors subsequently move around the exhibit, as they would seem highly sensitive to one another's movements.

As Bobby and Gaby examine one part of the tank for some time Michael on the opposite side gradually turns away from the exhibit. The mother of the children has observed the events at the tank and as she spots the man's change in visual orientation begins to move around the exhibit, shortly followed by her husband who says, "Let's have a look around here" (Image 12).

They enter the space left by the other man and, a brief moment later, arrange themselves as a group around the column on the left of the glass-container - once again, the children press the button on the column while Franz provides an explanation of the link between the button and the moving bubbles in the container. Similarly, the other group of visitors takes the opportunity of the family's movement to occupy the space on the right and to examine other sections of the exhibit (Image 13).

The fragment begins to reveal how visitors are sensitive to the presence of others and in various ways monitor each other's actions and activities. In the case at hand for example, as the man to the right turns around and walks away, the family takes the opportunity to move into the space he previously occupied. Over a few moments, the three groups of visitors standing around the exhibit, shift their positions in turn. The man turns to leave, the family moves into his position and the other group moves into the space left by the family. In such a way, each group moves to explore different parts of the same exhibit and they tie these movements to the activities of 'strangers' (as well as their companions). It would seem that in such instances, visitors are 'peripherally aware' of the conduct of others and use that awareness to co-ordinate their own actions. They do not, for example, explicitly ask if another is about to move, but rather they

can see through their actions when they might move and indeed when they do move. As Goffman suggests, the 'social situation' is

> ... an environment of mutual monitoring possibilities, anywhere within which an individual will find himself accessible to the naked senses of all others who are 'present', and similarly find themselves in one another's immediate presence, and it lasts until the next-to-last person leaves. (Goffman 1972: 63)

To further illustrate this argument briefly consider the following fragment. A man approaches the tank and after a brief glance touches and presses one of the bolts that hold the glass structure. He inspects the object for a brief moment and then moves on to examine other parts of the tank (Image 14).

Image 14 Image 15 Image 16

As the man leaves this part of the exhibit a boy, Tom, approaches the glass-tank. He first turns around and then orients to the screw the man has been inspecting a moment earlier. He briefly touches the screw and when it does not seem to have a function moves further along the tank. Tom is followed by his little brother, Jim, who has monitored his brother's actions at the exhibit. The little boy walks towards the tank and then inspects the screw the man and his brother Tom have been examining.

The fragment illustrates that visitors are sensitive not only to and peripherally aware of events in their local environment but also that they use their observations as a resource for examining the exhibition. However, visitors do not simply copy or model the conduct of others but their examination of an exhibit emerges contingently in the situation at hand. The way in which they examine an exhibit is not pre-figured by the actions of another visitor but they

arise in the light of what they have done previously and ongoing events in the locale.

With regard to the relation between the designed environment and observed conduct it can be argued that visitors 'time' their actions with others who act and interact in the same environment at the same time. They co-ordinate their activities with those they have come with to the exhibition and thus use and experience exhibits in and through interaction with them. The fragments discussed in this section also have drawn attention to how museum visitors remain peripherally aware of and sensitive to others they have not come with to the exhibition. They produce their actions with regard to their monitoring of events in the locale. Indeed the fragment has indicated that visitors not only sequentially organise their actions and activities with those they are with but also with others who happen to be in the same space.

Turning again to the use of quantitative measures of 'stopping power', 'holding power' and the like, it would seem appropriate to suggest that the movements of others will have some import for how long an individual stops at an exhibit or at a particular part of an exhibit. One may not move to a new exhibit if a stranger is there already. It may be rude or intrusive to stand close to them and to manipulate the same buttons or cranks. So, the length of time a visitor stands at an exhibit will be effected by the movements of others - maybe extending the 'holding power' of exhibits adjoining popular exhibits, as people 'wait' to get on them. The way visitors use and experience the exhibit and the time they spend in its local environment does not rely upon the design but is fundamentally influenced by the co-presence of others, those they have come with but also those who just happen to be in the same space.

3. Discussion

This paper presents a preliminary analysis of the ways in which visitors orient to, examine and make sense of exhibits in museums and galleries. We have attempted to demonstrate that the material environment developed by museum managers and designers with a particular intention is only one of the resources visitors draw on when they encounter and examine exhibits. Visitors are active in the creation of the context in which they experience an exhibition. Their action and interaction continually and ongoingly reshape and renew the context in which the exhibits are viewed, examined and made sense of.

The context in which visitors view exhibits is interactionally produced between companions or indeed visitors who happen to share the same space. Research in museum education and visitor studies argues that social and interactional encounters at exhibits are a prime motivation for people to come to museums (Butler & Sussman 1989). They also maintain that talk and interaction at exhibits help enhance visitors' experience of the museum (Leinhardt, Crowley & Knutson 2002). However, relatively little research in the field illuminates the ways in which talk and interaction arise at exhibits. This paper demonstrates encounters of individual visitors with individual exhibits are a rare exception. Exhibits normally are examined and made sense of in highly contingent forms of interaction and participation between visitors both those who have come together and others who happen to meet in the same space.

Our observations suggest that indicators of visitors' responses to exhibits that prevail current practice in visitor studies and evaluation (Shettel 2001) do not capture the complexity of the social situation unfolding at the exhibit-face. Visitors who do not stop at exhibits may still view and experience them as they walk past. Walking as well as viewing is comprised of a complex range of actions and activities that this paper only has touched on.

The observation also may make a contribution to current debates in the social and cognitive sciences. Various efforts are on the way to investigate how interaction, communication and cognition are interrelated (Hutchins 1992; Nardi 1996). This paper sheds light on the ways in which participants see and experience the material environment they act upon, and how seeing often emerges in social interaction. Through pointing and referencing they constitute the objects that, if only momentarily, feature in their interaction with each other. Further research explores in more detail how participants come to see and experience exhibits in certain ways (Heath & vom Lehn 2004).

This paper has taken 'visitor behaviour' in exhibitions as an example to shed light on the relationship between behaviour and the physical environment. It has begun to consider how distinction between the material environment, the designed environment and the action and interaction of participants is questionable. The designed environment and the sense and determination of its features, arises, moment-by-moment, in and through the participants' action and interaction. Through their conduct, participants reflexively constitute the sense and relevance of the environment, and render it visible and intelligible both for themselves and others who happen to be in the same space. To separate the material environment from the conduct of the participants inevitably leads to a

quasi deterministic model of human conduct, presupposing that the environment and the ways in which it is configured engender particular patterns of action and experience. We wish to suggest, that in taking the conduct and interaction of the participants seriously, we begin to explicate how an ecology of participation is produced within which people examine, use and make sense of aspects of the environment that is constituted and, reflexively encountered, and given its occasioned sense and determination in and through the participants' action and interaction. The exhibition, its meanings and intelligibility, is a concerted and practical accomplishment of participants themselves; participants who are in interaction, both with those they are with and others who happen to be in the same space.

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Endnotes

[1] Hall (1987: 18) gives the example of 'The Bauhaus' 1919-1928 exhibition in New York's Museum of Modern Art where "shapes and footprints on the floor were used to direct the walking visitors". An extraordinary example for an attempt to determine visitors' way through an exhibition can be seen in the 'Tower of London' where in order to view the 'Crown Jewels' visitors have to step on an automated pavement which transports them along the displays.