From Sharon Macdonald 2002
Behind the Scenes at the Science
Museum Oxford: Berg

Taster

'The nation's museums and galleries are under the spotlight as never before. Changes in funding and management are clearly inevitable and an increasing number of directors now argue that these must be radical and rapid. . . In the heartland of the traditional museum business the vision of tomorrow is still obscure. The battlefield will be the marketplace and the casualties will be those museums that fail to appreciate the public no longer lives in the 19th century. . . the culture must change' (Director of the Science Museum, *The Times*, 1.5.1988).

'The Science Museum is in the grip of a cultural revolution' (Science Museum curator, *Science Museum Annual Review* 1989).

'I detect with appreciation [the Science Museum's] first steps to becoming not only the nation's showplace for the best in contemporary science and technology but its expanding role in promoting a broader public understanding of these important issues. . . Industrial success depends on national attitudes to science, engineering and manufacturing' (the then Prime Minister, letter to the Science Museum Trustees, published in *Science Museum Review*, 1987).

'Just because it's the first exhibition to be really carried out since the new Director, yes, that does mean that all eyes are upon us. We're the guinea pigs! . . .' (Project Manager of Food exhibition, 1988).

'So the assumption was that just because we were an all female team all we would be doing was showing a bit of cookery' (Member of the Food team, 1990).

'It's not as lively as I'd expected', 'It doesn't look so very different from everywhere else', 'It's a bit flat' (Discussion, Food team, after opening of gallery 1989).

'This gallery has a supermarket logic' (*The Food Programme*, Radio 4, 1989).

'It's so refreshing to see something where people can interact with the exhibits, take part and actually touch things. It's so different to, for instance, the Science Museum of my childhood when everything was in glass cases and you had to read a lot of very small print to know anything', 'I didn't think food was very – was *science*. . . Well, it has to be – it's in the Science Museum', '. . .being cynical, I was a bit suspicious of how much McDonald's and Sainsbury's and so forth is pushed at you - but then, there you are.' 'But, you know, I would imagine they would use experts' (Science Museum visitors, 1990).

Admission: Going In

The aim of carrying out ethnographic research in the Science Museum was to study the construction of science in museum exhibitions, exploring the agendas and assumptions involved in creating science for the public. On 3 October 1988, the day that I began fieldwork, admission charges were introduced at the Science Museum. This was one of the first national museums in Britain to initiate what was later to become a much more widespread practice of charging for admission, a practice which was, and continues to be, highly controversial.[1] There were pickets and media reporters at the main entrance to the Museum and many (though not all) of the Museum staff were wearing 'Stop Charges at the Science Museum!' stickers.[2]

Although I had read about debates over the possible 'commodification' or 'Disneyization' of museums, and had read articles about charging which had appeared in the press in the preceding months, I had not fully appreciated the passion that the introduction of charging would generate, the national and historical significance with which it would be imbued, or the many other changes in museums – and national culture more broadly – with which it would be associated. Neither had I anticipated the degree of contention which it, and its associated changes, would arouse within the Museum itself. This seemed to be an important moment in the history of public culture, one which was bound up with more widespread shifts in the relationships between national institutions and their publics and the government. Debates, many of which had been long simmering, were thrown into particularly sharp relief: debates over public accountability, consumerism, the role of national cultural institutions, knowledge, authority and authorship. To be permitted to do fieldwork in an institution so much engaged with these dilemmas, and whose actions were seen as so symbolically significant, was a great privilege. It was exciting, absorbing, demanding and, sometimes, a political nightmare.

At the time, although fascinating and ethnographically irresistible, the debates over museums and their changes sometimes felt like a distraction from the main stated aim of the ethnographic research – to investigate the construction of science for the public. Like other researchers working on 'the public understanding of science', I sometimes worried that 'science' was disappearing from the study.[3] However, as I was to find, these debates and changes in the Science Museum were thoroughly enmeshed with (though not simply determinative of) the ways in which 'science' was imagined into public display.

On day one of fieldwork, a delay on the Circle Line (something with which I was to become all too familiar) had made me late for a meeting with Mr Suthers, the head of the Museum's newly created Division of Public Services. So, instead of rushing to join the commotion at the Museum's main entrance, I followed the instructions that Mr Suthers had given me by phone the previous week and slipped into the Post Office next door where there was an entrance leading to some of the Museum offices. The warder checked that the divisional head was still available to see me and I was given directions – up what felt like 'secret' staircases behind the scenes of the Museum – to his office. Mr Suthers, a bearded and very amiable Yorkshireman, was not wearing a 'Stop charges at the Science Museum!' sticker. He was dressed smartly and arose to shake my hand. As I apologised for my lateness and sat down, my eyes fell upon the capacious glass bowl of fruit and bottles of Perrier on his wide and tidy desk. 'Very healthy,' I remarked. He grinned: 'Well, we like to try to give the right impression.'

As Head of Public Services, Mr Suthers was responsible for those aspects of the Museum which were defined as dealing with 'the public'. Its tasks, which ranged from educational services and mounting exhibitions to managing the restaurants and toilets, could to some extent be defined as 'impression management'.[4] Public Services was concerned with managing and maintaining the Museum's 'front stage'. The Museum's other main division, 'Collections Management', dealt, as its name implies, with the Museum's collections of artefacts. It was focused on work which for the public was mostly 'back-stage': the acquisition, conservation, restoration, storage, researching and cataloguing of artefacts. To have named these sections of Museum organisation 'divisions' was highly appropriate, for, as I was to learn, the division between 'the objects' and 'the visitors' was one which ran through much of Museum discourse. Objects and visitors made different demands – demands which could not always be easily reconciled.

Mr Suthers explained the role of Public Services and outlined the recent managerial restructuring in the Museum for me. At the time I could not really grasp quite what had been collapsed into what, or appreciate its significance. 'Don't worry', he told me, 'You'll hear plenty more about it and you'll soon get the hang of it.' He was right. The restructuring was a recurrent topic of conversation in the Museum and usually one of the first things, especially in my early days, that Museum staff explained to me. It was regarded as crucial for understanding other things going on in the Museum, and, indeed, what was happening in 'the museum world' more generally. In particular, it was regarded as crucial for understanding exhibitions, the making of which was to be the focus of my study.

On my first day in the Museum I also met several other curators, most of whom seemed to walk and talk very fast, to joke a lot, to work in offices piled high with books, papers, intriguing-looking objects and coffee cups, and to be full of ideas and of a sense of 'living in interesting times' (as one put it). There was lots of talk of 'the Director', of 'before' and 'after', of 'the old guard', of the 'public understanding of science'. One curator told me that I would 'end up with a model of factional warfare', another that 'curators are stubborn buggers – the most opinionated people that you could ever meet – we are all convinced that we are right', and Mr Suthers described his job as '90 per cent firefighting'. This was a world behind the scenes that I had not quite expected. It seemed almost like the world of David Mamet's play, *The Museum of Science and Industry Story* (1988), in which Chicago's Museum of Science and Industry comes alive at night with skirmishing groups – railroad workers living in the transport exhibits, miners in a display of coal mining, 'Potowatamies' in an area devoted to 'primitive technologies' – seeking to stake out and protect their own territories and interests while commenting ironically on the museum's subject matter and its role. My task was to enter the behind-the-scenes world of the Science Museum, to find out how it works, what kinds of passions and ideas motivate practice, and whether and how this percolates into the science that is put on public display.

Framing and Following

This research was part of a broader programme of research on the 'public understanding of science', research which sought to investigate understandings of science in diverse public settings.[5] Studying the makers and consumers of a science exhibition was a means of following the

processes involved in 'translating' expert scientific knowledge into knowledge for a lay public. One of the particular interests of the research was to consider how the specific demands of museum exhibition would shape what was presented to the public and also what visitors would make of it. In an earlier study of the making of a science television programme, Roger Silverstone (who devised the Science Museum research) had shown how televisual demands (such as, the need for a good story and dramatic pictures) 'framed' and shaped the representation of science.[6] What kinds of demands would a three-dimensional exhibition, a representation which would remain in place for a decade or more, make on the representation and understanding of science? By observing the day-to-day activities and negotiations involved in producing an exhibition, the hope was that such demands would become evident – as indeed they did.

As I have already noted, and as will be described more fully in the chapters which follow, the museum study also spread beyond these concerns with the nature of the medium to consider the nature of the broader cultural 'moment'. Given that the changes under way within the Science Museum were of such pervasive local concern, given that the exhibition whose making I was following in detail was explicitly framed in terms of such changes, and given the echoes that I heard at so many museum conferences and other museums that I visited, this I felt to be inevitable. What this means for the account which follows is that this is a story about a particular time as well as a particular place. This specificity is important. It is important not only because specificity matters but also because it throws some of the more long-standing features and ambivalences of museum ambition and practice into relief. Like the 'social dramas' of which Victor Turner has written, this 'time-place' seems to me to be worth speaking from, in order to speak of and to broader political-cultural concerns.[7]

Edging beyond original research aims and reformulating some of the models initially used is often a consequence of ethnographic research as the ethnographer struggles to make sense of local priorities and ways of seeing. As well as spreading wider, this ethnography also shows that the 'communication model' with which the research began – a model in which science was taken from the world of science and translated by the museum into something to be 'responded to' by the public – is far too neat in practice. By participant-observing messy actuality, it becomes clear that scientists sometimes intervene later than this model would imply and visitors earlier. Moreover, the process itself, while in some respects a matter of translation, is more multi-faceted and did not straightforwardly 'begin' – or indeed 'end' – with 'the science'. Neither, indeed, are 'science', 'scientists', 'the public' or 'museum staff' necessarily homogeneous groups or categories. Carrying out ethnography highlights some of the important differences within each of these – differences which have significant consequences for the kinds of displays, and forms of knowledge, constructed.

Following the local players and trying to understand their concerns and their ways of seeing and doing, was, then, a principal and in many ways traditional aim of this ethnography. While ethnographic research often has the useful capacity to redefine itself and move beyond its original remit, it does nevertheless inevitably begin somewhere and with particular players. Most often these are human players. An important strand of social research on science and technology, which has come to be called actor network theory, has, however, argued that we should not accord agency only to humans.[8] Instead, we should recognise that non-humans (particular technologies or objects for example) may also be actors and exercise agency. While this perspective sometimes seems to me to pay too little attention to language and classification, taking into account the actions of the non-human as well as the human does more empirical justice to the case here than would considering only human actions. Moreover, one of the problems that an ethnographer working in a relatively 'unexotic' setting may face is how to defamiliarise the familiar.[9] Trying to overcome my own original presuppositions about agency, and the discreteness of the social and the technical, was a useful defamiliarising strategy which helped me to see, or frame, things in new ways. In the story below, my own beginning point was 'the exhibition' – an exhibition about food which came to be called 'Food for Thought. The Sainsbury Gallery'. In terms of primary actors, this led me to pay particular day-to-day attention to a group of Museum staff charged with the task of creating the exhibition; but beyond this I attempted to follow a myriad of different kinds of actors who came to be involved as the exhibition was negotiated into being.[10]

Writing in and Reading off

As Handler and Gable point out in their superb study of Colonial Williamsburg, 'most research on museums has proceeded by ignoring much of what happens in them.'[11] Instead, it is generally based on the finished exhibition, with a tendency to assume that researcher interpretations somehow map onto meanings 'written in' by the culture

producers. Moreover, just who (or what) is 'the culture producer' is also rather unproblematically assigned. Sometimes it is the particular individuals who have been directly involved who are so assigned, at others it is institutions in general, 'the state', 'dominant ideology' or 'corporate capitalism' (with these sometimes being elided with one another). What an ethnography, especially one coupled with historical and political-economic analysis, can provide is a fuller account of the nature and complexities of production: of the disjunctions, disagreements and 'surprise outcomes' involved in cultural production. It can highlight what did not survive into finished form as well as what did, and also some of the reasons for particular angles or gaps. As the ethnography here shows, agency and authorship – the social allocation of agency – are contested and negotiated in ways which have consequences for the nature of the cultural product and for some of the ways in which it will be interpreted.

In chapter four I set out in more detail an 'authorial puzzle' which constitutes a main plot of this book. In brief, this was the fact that the food exhibition turned out differently in some significant respects from the Museum exhibition team's expectations. For the exhibition team, it was an opportunity to create a democratising, empowering exhibition. Yet, the final product also came to be interpreted as a representation of a rather less than democratising free-market enterprise culture in which the public is expected to make choices but denied some of the means to make them. How an exhibition can end up different from original intentions in politically significant respects is one of the stories that this ethnography tells. It shows us that the process which is sometimes called 'encoding' in cultural studies can be just as multi-faceted and disjunctive with cultural texts as 'decoding' by audiences.[12]

As we shall see below, exhibition team members themselves give accounts for the disparity between their original aims and the finished exhibition. My account differs from these, however. This is not because their accounts are dishonest (though given the importance of impression management in an institution like the Science Museum it is likely that any account will be carefully constructed). Rather, it is because events are understood, described and even perceived according to particular conventions and circumstances. The ethnographer tries to understand these and also to draw attention to assumptions and details that participants may have taken for granted or not noticed.[13]

My account here has also benefited from being able to move backwards and forwards across time to use insights derived from visitors to revisit the material on exhibitionary production and *vice-versa*. I should also note that, while I am critical of analyses of cultural products which simply 'read off' production and intention (or, indeed, consumption) from 'texts', I also think that theoretically-informed critical readings of cultural products are a valid and often insightful contribution to understanding. Such analyses seek to explore the possible significations of specific representations through an understanding of broader cultural practices of meaning construction.[14] Sometimes, in discussion in the Museum and at museum conferences, I have heard comments to the effect that such analyses are redundant and that all that matters is 'what the visitors think'. While I agree that it is important to research visitors (chapter eight discusses this in detail), this is ideally coupled with consideration of more critically-informed accounts. The task of any audience research is not simply to celebrate whatever visitors, viewers or readers do or say but also to consider what they do not and the reasons for both. Moreover, the move towards rather uncritical celebration of visitor or viewer 'readings', plus the dismissal of what might be called 'deep expertise', chimes with a particular cultural constellation (explored in this book) in which there is a privileging of the consumer ('the customer is always right') and a distrust of certain forms of expertise and complexity. This cultural perspective – which in various areas of public life is becoming secured as a kind of moral principle – is not without its problems, and one aim of this ethnography is to highlight some of its easily unnoticed side effects.

Exoticism, Parallels and Overlaps

When I began this research, the Science Museum was already both familiar and unfamiliar to me. Like many members of the British public, especially the middle-classes, I had visited the Museum before. One Museum wisdom has it that most visitors come three times – at the age of nine, then with a child of nine, and finally with a grandchild of nine. In fact, this was usually related with reference to masculine gender: 'He comes at nine, then as a father. . .' Perhaps this is why I had missed out on my own visit at nine (or at any other years during my childhood), and had to wait until the next stage (though my children were younger than nine at the time). Nevertheless, when I began the research, the Museum was already in some senses familiar to me as a place which I had visited, and more broadly as part of a genre, of museums, which were part of my own cultural landscape. It was also, however, deeply unfamiliar both in the sense that there was much – especially about its workings – that I had never encountered

before, and also in that it remained an exotic and even magical place for me. I loved the immensity of the Science Museum and its almost surreal internal diversity, and the possibility of going behind the scenes of this world felt like – and was – a great adventure.

I can still almost viscerally feel the excitement that I first felt on being able to go from the front-stage of the Museum displays through doors, often hidden at the back of galleries, into what initially seemed to be a maze of footfall-echoey staircases and doors to mysterious offices. I liked having my own key to be able to use these doors, and being able to move, unchallenged by the security warders who manned the boundary, from visitor space to curator space. However, although the Museum retained its magic for me and although I continue to find the workings of museums fascinating, much of the day-to-day activity in that world behind the scenes was familiar and even mundane office life: writing (mostly at computers), reading, 'shuffling paper' (as routine administration is referred to), making telephone calls, photocopying, picking up and sending faxes, having coffee, holding meetings, chatting, and leaving and arriving for other meetings or conferences, or perhaps for a spot of shopping. Much of this, and its everyday tribulations and celebrations – someone going off sick, the photocopier breaking down, misplacing an urgently needed file, a promotion, a birthday, a piece accepted for publication – was very much like the routine academic milieu.

The parallels with my own university world ran deeper, however. National museums and universities are both public institutions in receipt of state funding; both have an educational and public service remit. Museum staff, like university staff, are concerned with issues of knowledge, communication and research. At the time of my fieldwork, museums and universities were pursuing sponsorship and their publics (visitors or students) more actively than previously; and in both there were claims that research was under threat. There was talk, and evidence, of 'cutbacks', 'efficiency savings', 'managerial restructurings' and 'down-sizing'. Moreover, new forms of audit, with an accompanying tide of bureaucracy, were being introduced, and yet more – especially performance indicators – were looming on the horizon.[15] There was also a level of concern, that we have now come to take for granted but which then felt new in its intensity, with PR (the management and creation of good public relations) and its accoutrements of corporate images and logos, and careful use of the media.

The Museum was not, however, identical with the university. Museum staff also had particular concerns – with objects and conservation, with

gallery space, with the national status of the institution, with their own specific promotion practices – which, while analogous in some respects, were also important to understand in themselves. In the account which follows my primary aim is to describe the museum context and allow the reader to contemplate any analogies. Nevertheless, one of my motives for returning to this Science Museum material is my own continued awareness of parallels between the dilemmas and debates which I witnessed in the Museum and those in other areas of public life, especially, though not exclusively, in universities. In trying to make sense of how the best of intentions from very capable people can end up by having ramifications which they do not expect, I have returned again and again in my thoughts to the case described here. What was going on in the Science Museum illustrates well some of the issues raised by changes underway in many public institutions. I have myself welcomed some of these changes – trying to find less arrogant and more attractive and interactive ways of engaging with visitors, students or audiences, for example – but I am also deeply concerned about some of the consequences for our conceptions of knowledge and for our cultural ambitions more generally. I will return to this in the final chapter.

The Museum context also overlapped with the university world. Museum staff sometimes attended the same conferences as myself; we shared common academic acquaintances; some Museum staff worked on similar topics to academics I knew and had work published in the same edited volumes. In the Museum I was as likely to find people willing to discuss with me, say, actor network theory, as I was in the university. One senior member of the Museum staff was working on a project that was funded under the same programme as mine, the Economic and Social Research Council's 'Public Understanding of Science' programme, which provided us with the opportunity for some most illuminating conversations. He also held a visiting chair at a neighbouring university. Another Museum employee, who had published on matters of museological representation, helped to negotiate access for the research. He sat on the interview board at which I was appointed and acted to some extent as an unofficial local research supervisor as well as being a tremendous source of insight and intellectual discussion.

Some Museum staff knew a lot about anthropology. We sometimes discussed it, Museum staff joking about being 'my tribe' and about my observation of their 'savage customs'. One curator wrote a wonderful illuminating short spoof called 'The Museum People: an interactive

ethnographic experience' – heavily influenced by Colin Turnbull's study of the Ik – which she presented to me as a foretaste of my observations of the 'bizarre behaviours' of museum staff to which she was looking forward. Some others in the Museum configured my work through the less exoticised frames of management consultancy and organisational expertise (on which others at my university were, at the time, collaborating with the Museum). For them, I was there to 'look at how we make decisions' (as several staff put it) and to come up with a plan of action to improve this. As a recently completed management consultancy exercise by a private company was widely believed to have led to restructuring and redundancies in the Museum, there was also, naturally enough, some initial suspicion about what I might be doing there.

Many Museum staff were reflexive, and often ironic, droll and self-critical, about their work and about museums more generally. Insightful though this was, it sometimes led me to worry about whether I would have any 'extra' layers of analysis to add to those already offered by my 'subjects'. Nevertheless, the bringing together of different strands of Museum life, and attention to a fast-moving process on which it is not always easy for the participants to reflect at the time, makes an ethnographic portrayal by a participant-observer different from *in situ* accounts. So too does the way in which an anthropologist might choose to frame and explore the material. I hope, then, that what follows may offer some new ways of seeing for those involved as well as restating what they already know.

In producing this account I have over the years benefited enormously from the opportunity to discuss my work with Museum staff and to present it at a number of seminars and conferences in the Museum. Such dialogue with those we seek to write about is not necessarily unproblematic but, culturally shaped as it inevitably is, it undoubtedly helps further understanding, especially in the context of highlighting misunderstanding.[16] In formal terms, the Science Museum did not have any rights of censorship over what I produced. I have, however, sought comments on draft material and have tried as far as possible, where this did not infringe upon the integrity of my analysis, to take these into account. What is described here was in many ways a learning process for all involved. It is being published many years after the events it describes and the participants' lives have moved on. All members of the exhibition team with whom I worked, for example, have had their then temporary promotions confirmed. All have gone on to make significant and impressive contributions to museums and exhibitions.

Names and Identities

Carrying out research in a large public institution raises certain particular problems. I could not, I believe, conceal the identity of the place in which I worked. The Science Museum is important for being Britain's National Museum of Science and Industry. Its national (and international) status is a key aspect of its particular public and institutional dynamic. Neither could identities of some of those working in it easily be disguised. For example, the Museum had one Director – Dr (now Sir) Neil Cossons – a well-known public figure. While I do not use pseudonyms, however, I do quote members of the Museum without giving their names where this is not relevant; also, of course, when they spoke to me on the understanding that I would not reveal their identities.

There was a complex politics of naming in the Museum. Staff of higher rank, especially those at the level of Keeper, were mostly referred to by a title and surname (at least to their face) by those junior to them, and by first names by those of equal or higher status, though there were notable exceptions of individuals who preferred to be addressed by their first name by all staff of whatever rank. The names that I use here are those which I generally used at the time to address Museum staff. Thus, I use first names for members of the exhibition team with whom I worked, but use a title and surname for the Museum's Director. Only very senior staff (and only some of those) used the Director's first name when they spoke to him, and I was surprised to find that many addressed him simply as 'Director'. The Head of Public Services, Mr Suthers, would, I am sure, have been happy to be 'Terry', and this is how he was widely addressed. Younger staff, however, were more likely to call him 'Mr Suthers' and as I perceived myself as rather junior at the time, I do so too.

Following the Exhibition

In practical terms, much of my ethnographic following of the making of an exhibition was carried out in the two neighbouring offices where the exhibition team was located. The smaller office was the base of the Project Leader and the Project Manager; the larger was occupied by the four other members of the Team. I generally spent more time in the latter, partly because it was less cramped, and also because, with more occupants, there tended to be more discussion. The Leader and Manager frequently popped in with the latest 'developments' and for

coffee and biscuits (to which there was an 'ode' on one of the cupboard doors). In addition to office-based work, however, Team members would frequently go on visits outside the Museum (to other museums for ideas or to borrow artefacts, to food companies, to nutritional advisors, to designers, to auctions) and inside it – on 'recs' or 'reccies' (requisitions – chasing up things which they wished to use in the exhibition),[17] to collect faxes,[18] or to the Museum workshops and other services to check on how certain reconstructions or interactive exhibits were getting on. They also crossed the boundary into the main Museum to carry out visitor research, and, once the exhibition was actually being built, to watch and participate in its construction and 'shop-fitting' (as the furnishing stage of the gallery creation was called).

With six different members of staff often going off in different directions I had to make decisions, often on the spur of the moment, about whom to accompany. Sometimes this was limited by the fact that they had not asked for prior permission from those they were visiting for me to join them and felt it might be awkward (as to a food company concerned about industrial espionage). Mostly, though, I simply opted for whatever sounded the most interesting. Despite the fact that it was impossible directly to observe everything involved in exhibition-construction, Team members would report on their excursions at regular Team meetings (as well as sometimes discussing them informally in the office) which acted in some ways as an 'obligatory passage point',[19] in this case, in the movement of results of excursions into the exhibition itself.

In addition to following the Team members, I also carried out semi-structured interviews with many other Museum staff, especially those involved in exhibition-making. There were also two other new exhibitions being planned during the period of my fieldwork – Flight Pad (an interactive exhibition linked to the Aeronautics Gallery) and Information Age (a new computing gallery) – and I attended some of the meetings for these exhibitions. I interviewed some of the staff involved, partly to try to get a sense of similarities with, and differences from, the Food exhibition. Another development which I tracked, discussed in chapter three, was an ambitious attempt to 'rewrite' the whole Museum, known as the Gallery Plan. I attended meetings for this and also interviewed many of the staff involved. There was also plenty of opportunity for more informal discussion with Museum staff – over lunch (which was often at Imperial College next door), in corridors, at social events such as the Christmas parties and in the Design Studio up at the top of the Museum where I had been given a

desk (well away from the Food team so that I could 'escape' if necessary). The Museum's 'in-house' designers, who occupied this large open-plan office, were not working on the Food exhibition. In a new development, there had been a decision to use outside designers. Not surprisingly, this was regarded with some annoyance, and created a starting point for much informal discussion of changes under way in the Museum.

My research was not, however, bound by the physical boundaries of the Museum. In addition to following the Food team to meetings outside (to a 'Retreat' in Lancashire, to visit designers in Chester, or to film-editing studios in Soho, for example), I also sought to locate the Science Museum experience within the broader museum world (a phrase used by those with whom I worked) by visiting other museums and heritage sites (especially those which were discussed in the Science Museum) and interviewing staff there. These included the National Museum of Photography, Film and Television in Bradford and The National Railway Museum at York, which, together with the Science Museum, constitute the National Museum of Science and Industry (sharing financial and managerial arrangements to a large extent). It also included other science museums and science centres, such as the Manchester Museum of Science and Industry, the Birmingham Museum of Science and Industry, and Xperiment! in Liverpool. I also went to influential new sites such as Jorvik, Ironbridge Gorge Museum, Green's Mill, the Design Museum and the Museum of the Moving Image, and also other museums in London, especially in the South Kensington area (the Natural History Museum and the Victoria and Albert). I was able to attend a number of conferences dedicated to discussing museums' developments (including the large international 'Museums 2000' conference),[20] and also a course which involved visiting innovative museums in the north west of England with other museum personnel and hearing about examples from other parts of the world, including the United States, Canada and Finland. All of this gave me an understanding of some of the likely background knowledge of those with whom I was dealing (many museum staff making visits to other museums in order to develop their ideas about exhibition) as well as both alternative ways of doing things, plus the web of institutions and concerns within which the exhibition was likely to be interpreted.

Following the exhibition's life after opening – its life with visitors – was also an important aspect of the research design. This allowed exploration of the extent to which the 'actual' visitors to the Food exhibition corresponded to those imagined by the Team and designers, and of the ways in which they appropriated the exhibition more

generally. The methodology as well as some of the results of this research are discussed in more detail in chapter eight.

Book Structure

In this book I bring together an account of exhibitionary production with analysis of the finished exhibition and visitor study of it. In doing so, I have struggled over two particular presentational difficulties: (1) Whether to keep these three dimensions – production, text, consumption – separate (as to some extent they were in the real time of the research) or to allow them to overlap (which helps to throw some of the issues into relief and make the analytic point that they are interrelated); (2) Whether to give a narrative rendering of exhibition-production or to focus on themes. In the end, I have tried to do something of all of these. The book mainly keeps production, text and consumption separate, partly because there is a narrative development following the time-plotted process built into the structuring of my account, but also because it allows the finished exhibition and visitors to intrude into production where this helps throw questions into relief. Similarly, while I focus mainly on particular themes – otherwise I feared that the narrative would read too much like a set of details (complexity can overwhelm) – I also try to convey a sense of the narrative. To some extent here I have been stimulated by the textual freedoms of novels such as Kate Atkinson's *Behind the Scenes at the Museum* (1995) (which also provided inspiration for my title), which use movement between different time-frames in the unravelling of their plots. My account uses changes of tense for similar reasons.[21]

Related to this presentational difficulty, I have also found myself somewhat torn between producing a 'messy text' in the sense used by George Marcus – a text which resists closure and the evocation of totality – and the narrative compulsion to tell a story, which seems to invoke a move towards closure as Janet Hoskins has noted.[22] Messiness had resonance for the complexity and ethical fuzziness of much that I wanted to say about the Museum; but it also seemed to me that there were certain stories that needed telling and that without some tidying up (which is, of course, inevitable) these would be submerged. So, again, rather than try to make an either or selection I have tried to work with this tension and to produce a narrative account, with a sense of direction which results from following a process, but which also tries not to lose the sense of what was in many respects a messy business.

Museum staff, during the time that I worked with them, were being urged, in increasingly forceful terms, to consider and define their 'target audience'. In writing this book it occurred to me that I should do the same and I struggled to try to decide which, of those various possible audiences jostling in my head (Museum staff, anthropologists, academics, people working in museums more generally, myself. . . .), should really be my 'target'. As I did so, however, I came to the view that this 'aim and fire' model was rather impoverishing. If I kept only one audience in mind my task would certainly have been simpler, but it seems to me that the process of mentally negotiating between different audiences and struggling to find ways that can talk across boundaries is a key part of thinking and writing. Some of my hopes are that those who work in museums and related cultural institutions will find that my account of the Science Museum illuminates aspects of their own practice, assumptions and dilemmas, as well as other ways of doing things. I have thought about the issues which I discuss in relation to debates in anthropology, sociology, cultural, media, museum, science and organisational studies, and I hope that the book highlights the relevance of the museum as a subject of study to these (and perhaps other) disciplinary areas, at the same time showing the worth of these debates and an ethnographic perspective to those already interested in museums and science.

The Chapters

Chapter two, 'Cultural Revolution in South Kensington', is an account, told primarily through a focus on the national museums in London and on the Science Museum in particular, of the changes – sometimes described in the press and in the Museum as 'revolutionary' – under way in museums and related institutions at the time of my fieldwork. As well as giving an account of what seems to me to be an important period in public culture and in the development of public understanding of science initiatives, this chapter also provides a broader context, taking us further behind the historical facades of London's museum quarter.

Chapter three explores some of the cultural changes under way and how they were organisationally negotiated by telling the story of an attempt to revise thematically the whole Science Museum and reorganise its exhibition spaces. This is a chapter about the search for 'vision' and the struggle with revision. The processes and debates involved highlight

the ways in which possibilities were culturally framed within the Museum: what was sacrosanct, what was repugnant, what felt compelling, what seemed dangerous, what looked irreconcilable. The chapter also shows something of the workings of the Museum: who and what mattered, who and what could make a difference, who and what could make it happen – or not.

Chapters four to seven delve further into these matters. They ethnographically follow the making of a particular exhibition, Food for Thought, which was at the time regarded as something of a 'flagship'. These chapters tell the story of the multiple hopes and ambitions of those involved in making the exhibition, their labours to 'get science across' to the public, their assumptions about the nature of 'science', of 'the public' and of how these might be brought together. These are chapters about struggles with authorship and materialising dreams, about conflicting demands and desires (between 'object love' and 'clear messages', for example), about how a final exhibition may be subtly and unexpectedly shaped along the way by matters which may have seemed trivial or been taken for granted at the time.

Chapter eight moves to the exhibition's reception by visitors. Here my aim is to explore not only congruencies with and differences from the virtual visitor imagined during the construction of the exhibition but also the frameworks within which visitors 'read', and physically engage with the exhibition, and to some extent, as I argue, with exhibitions (especially those of science) more generally. As we will see in the production of the exhibition, critical discussion of the politics of display tends to be foreclosed, and as in previous chapters I am concerned to understand why this is so.

Chapter nine moves beyond the ethnographic account to a broader discussion of the cultural changes described, and of the politics of the production and consumption of science for the public. The chapter, and the book, ends with a consideration of some of the implications of this for more recent – and possible future – developments in museums and public culture.

Notes

1. In 1997 the new Labour Secretary of State at the new Department of Culture, Media and Sport announced, as one of his first ambitions, that he would abolish admission charges at national museums. However, it was only in the run-up to a general election in 2001 that measures to achieve this were put in place and while some national museums welcomed the decision, others were more reluctant, arguing that it failed to recognise the nature of the new consumer. The Science Museum announced that it would abolish charges by late 2001. For a useful review of arguments see *Museums and Galleries Commission* 1997; and for current government policy: http://www.culture.gov.uk. Also see chapter nine below.

2. Where I use Museum with a capital M, I am referring to the Science Museum.

3. Similar worries were shared by researchers on some of the other Public Understanding of Science projects ongoing at the time. As we came to realise, however, this apparent 'disappearance' of science was an important feature of the ways in which it was locally contextualised. Alan Irwin and Brian Wynne, in a volume bringing together some of the work on the Public Understanding of Science programme, observe that: 'the "disappearance" of science does not mean that it serves an unimportant role in such situations – it is more that "science" as a category blurs into other areas of social practice and contestation' (Irwin and Wynne 1996a: 13).

4. This term is from Goffman 1969. The theatrical terms 'front-stage' and 'back-stage' which I use below are from Goffman's dramaturgical model. See also Law 1994.

5. The programme was funded by the Economic and Social Research Council. I discuss some further aspects of this programme, and the wider emphasis on The Public Understanding of Science, in chapter two. See Irwin and Wynne 1996 for some of the work of the programme.

6. See Silverstone 1985. The term 'framing', which indicates the concerns within which science is located, is used in the title of this detailed narrative of the creation of a BBC *Horizon* programme about the Green Revolution. In chapter nine I discuss the concept further. Silverstone 1988, 1989, 1991 and 1992 contain discussion of museums as media and consideration of some of their differences from other media, especially television.

7. See chapter one of Turner 1974 for a discussion of social dramas; and also chapter nine below.

8. Some of the classic works making this argument are Callon 1986, Callon, Law and Rip 1986 and Latour 1987. John Law's ethnographic study (1994) of a science organisation is a sustained example of the use of this perspective

which also contains reflective criticisms of it (as well as reflections on parallels with management in universities); and Latour's semi-ethnographic account of the plans for a 'guided-transportation' scheme for Paris engagingly follows an ultimately doomed process using actor network ideas (1996). For discussion of some of the shortcomings as well as further potential of this perspective see the contributions to Law and Hassard 1999.

9. Strathern's discussion of what she calls 'auto-anthropology' (1987) highlights some of the particular difficulties which may be involved where the anthropologist shares cultural presuppositions with the people being studied. I have discussed this and 'parallel context ethnography' further with reference to my work in the Science Museum in Macdonald 1997.

10. The notion of 'following' the actors is used by Latour (1987) in his account of how to study science and technology; and Marcus (1998: ch.3) discusses different modes of 'following' (e.g. of persons, things or metaphors) as a means of avoiding predefining the boundaries of what is being studied.

11. Handler and Gable 1997: 9. Their own study is one of the notable exceptions; so too, though less extensively, are O'Hanlon 1993, Sabbagh 2000 and Schneider 1998. Others commenting on the paucity of research on what goes on in museums, and calling for ethnographic study, include Karp 1991: 24, Clifford 1997: 166, González, Nader and Ou 1999: 111 and Shelton (forthcoming). The same is much the case for cultural and media studies generally: see, for example, Howell 1997, Silverstone 1994, Thomas 1999 and Willis 1997.

12. The influential model of 'encoding' and 'decoding' in relation to cultural texts was devised by Stuart Hall (1980). David Morley notes that part of the significance of this model was that it moved analytical emphasis from the meaning of a text to 'the conditions of a practice' (Morley 1995: 302). See also McGuigan 1992: ch.4; and Stevenson 1995: ch.1.

13. I have discussed strengths of an ethnographic perspective in relation to the Science Museum in particular and organisations more generally in Macdonald 2001. Other chapters in the collection by Gellner and Hirsch 2001 also highlight reasons for an anthropological perspective on organisations, as do chapters in Wright 1994. Book-length ethnographic accounts of organisations which I have found illuminating include: on museums and museum-like institutions – Davis 1997 and Handler and Gable 1997; on culture producers – Becker 1982, Born 1995, Miller 1997, Wulff 1998; and on science and technology – Downey 1998; Gusterson 1996, Kidder 1982, Latour and Woolgar 1979, Law 1994, Rabinow 1996, Traweek 1988, and Zabusky 1995.

14. For a useful discussion of different strands in such analyses as well as a set of illustrative examples – including one on museums by Henrietta Lidchi 1997 – see Hall 1997. Some particularly illuminating examples in relation to museums include Bal 1996, Bennett 1995, Duncan 1995, Haraway 1992, and Kirschenblatt-Gimblett 1998.

15. See chapter two.

16. One misunderstanding concerned my use of inverted commas. It is worth noting here as an example of a particular problem of fieldwork conducted in the same language in which it is written about. In addition to using inverted commas in ways common to many kinds of writing (to indicate a quote, a term or a technical concept), I also use inverted commas to indicate (especially on the first instance or where this is not necessarily clear from the context) terms which were used in the local case. In other words, these are 'indigenous terms', even though they may be very familiar to the reader. Were the study of people whose native language was not English, the originals of these terms would probably be given. This is a common ethnographic convention which implies no value judgment about what is being described.

17. A requisition is the paperwork required to get things done, especially to move objects from one part of the museum to another (or from one site to another). Without this authorisation many tasks cannot be accomplished and therefore 'recs' are a frequent subject of curatorial concern.

18. At this time fax machines were relatively novel and the Science Museum had just one central fax machine. Exhibition team members had to collect faxes from this, several floors and corridors – and sometimes a queue – away.

19. This term is from Latour (1987: 150) in his account of how to follow scientists and study 'science in action'.

20. Boylan 1992 is the proceedings of this conference (complete with audience discussion) and gives a good sense of some of the debates under way at the time. It includes a contribution by the Director of the Science Museum, Neil Cossons, which provoked a good deal of debate (Cossons 1992).

21. I use changes of tense to remind of the fact that the action that I describe is located in the past, to convey a sense of engagement and lived present, and to unsettle. See Davis 1992 for insightful discussions of the complexities of tense in ethnography.

22. See Marcus 1998, especially chapter eight; and Hoskins 1998, especially pp.4–7.