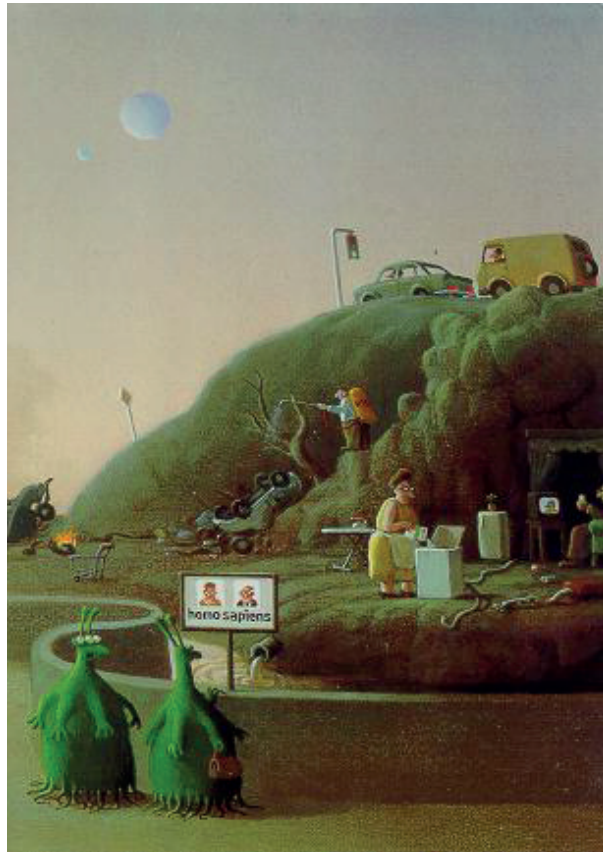


Negotiating nature on display – Discourse and ideology in natural history museums



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Masters thesis in Human Geography

Department of Geography

Trondheim 2006

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ABSTRACT

This thesis considers exhibitions in natural history museums as a process of negotiation between three parties: the museum as an institution, the museum staff, and the visitors. These represent different interests that shape exhibitions relating to nature. The thesis asks the following main question: In what way do discourses play a role in the staff's work within natural history museums? The empirical sources are based on interviews conducted with staff members from eight different natural history museums: six in Austria and two in Norway. The interviews are analysed based on the principles of discourse psychology and critical discourse analysis. The theoretical framework is based on postmodernism as a reaction and countermovement to modernism. Kant's theory of knowledge, the concept of representation and discourse theory are considered in relation to one another and form an ontological departure for the epistemology. The methodology combines critical discourse analysis and discourse psychology as applied to conversational text. The discourse analysis reveals different discourses concerning the museum as institution, professional museum staff, and the visitors. The thesis concludes that the museum as institution is characterised by a knowledge culture/tradition that was particularly substantiated during the Enlightenment. In turn, the knowledge tradition is characterised by discourse that places expectations regarding the procedures of the employee, but also through the visitors' expectations as to what a museum is and what the exhibitions provide them with. The employees meet the museum understood as discourse through mainly three different strategies for how exhibitions should function. I call these strategies 'action promotion', 'communication focus' and 'political context'. In this way, the identities and actions of the employees depend considerably on their personal relationship to the museum as a concept and discourse, as well as to the visitors' presumptions, expectations and experiences concerning museums.

Keywords: discourse, ideology, identity, natural history, history of science, museum, postmodernism, post-structuralism, discourse analysis, conversation analysis.

ZUSAMMENFASSUNG

Diese Master-Arbeit betrachtet die Ausstellung eines naturgeschichtlichen Museums als Ergebnis eines Verhandlungsprozesses zwischen drei Parteien mit unterschiedlichen Interessen: dem Museumspersonal, dem Museum als Institution sowie dem Publikum. Die Hauptfragestellung der Arbeit lautet: In welcher Weise spielen Diskurse in der Arbeit der wissenschaftlichen Angestellten naturgeschichtlicher Museen eine Rolle? Der theoretische Rahmen der Arbeit basiert auf dem Postmodernismus als einer Reaktion auf und Gegenbewegung zum Modernismus. Kants Erkenntnistheorie, das Konzept der Repräsentation sowie die Diskurstheorie bilden zusammen die ontologische Grundlage der Epistemologie. Die Methodologie kombiniert gesprächsbezogene kritische Diskursanalyse und Diskurspsychologie. Das empirische Material besteht aus Interviews mit wissenschaftlichen Angestellten acht naturgeschichtlicher Museen, davon sechs in Österreich und zwei in Norwegen. Die Diskursanalyse deckt unterschiedliche Diskurse hinsichtlich des Museums als Institution, der wissenschaftlichen Angestellten sowie des Publikums auf. Die Arbeit schlussfolgert, dass das Museum als Institution von einer Wissenskultur gekennzeichnet ist, die insbesondere in der Zeit der Aufklärung begründet ist. Diese Kultur ist insofern diskursgeprägt, als dass sie bestimmte Erwartungen an die Arbeit des Museumspersonals beinhaltet, aber auch durch die Erwartungen des Publikums an ein Museum und seine Ausstellungen. Die Angestellten nähern sich dem Museum als Diskurs, indem sie hauptsächlich drei verschiedene Strategien im Hinblick auf die Funktion von Ausstellungen verfolgen: Inspiration zu eigenständigem Handeln ("Handlungspromotion"), auf das Publikum zugeschnittene Kommunikation ("Kommunikationsfokus") sowie Einbeziehung politischen Kontexts. Insofern hängen Identität und Handeln der Angestellten stark von ihrer persönlichen Beziehung zum Museum als Konzept und Diskurs ab, ebenso wie von ihren Annahmen bezüglich der Erwartungen des Publikums und dessen Erfahrungen mit Museen.

Stichwörter: Diskurs, Ideologie, Identität, Naturgeschichte, Wissenschaftsgeschichte, Museum, Postmodernismus, Poststrukturalismus, Diskursanalyse, Gesprächsanalyse.

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*der mensch heißt mensch
weil er irgendwann erkämpft
weil er hofft und liebt
weil er mitfühlt und vergibt*

Grönemeyer 2002

Sigurd Solhaug Nielsen, Trondheim 2006

PREFACE

I'm sitting in a circular room. The light is dimmed and it's hard to differ between colours, but I found my way in here OK. I'm not alone. There are people around me buzzing politely in a mix of different languages. I am waiting. They are waiting, fumbling with papers; jackets come off, some look restlessly about them, while others look thoughtfully into the air, thinking, observing. Some more people come as the time is approaching the hour. We have been told what is going to happen more or less, but haven't seen it before, so I guess we are all curious about how it will all turn out. More time passes by. The clock is past the hour now, so it should be anytime soon. It's getting quiet. The buzz is now limited to just a few mumblings now and then, or a giggle. The silence is felt. We're almost impatient when suddenly the dim light, as from nowhere fades, into complete darkness. For three seconds there is absolute silence, absolute black. Waiting ... then, a rumbling sound grows fast, develops into a full string chord and the field of vision is filled with the bright lights from a twinkling glacial landscape of snow and ice. We float, as a bird on wings high up in the sky. I have to turn my head from left to right and back again in order to perceive the vastness of the scene. Five projectors capture a 180° view over Norway's largest glacier. It is a stunning view. The white ice-cap below us lies completely still, seemingly. Deep into the glacier there are forces of immense complexity and power, a chaos of ice, water and rock. Yet from a bird's-eye view all its complexity is elegantly hidden. I'm in the Norwegian Glacier Museum (Norsk Bremuseum), witnessing a representation of a piece of nature: a representation based on technology and the cultural gaze of the human.

This passage describes an experience from one of the many visits I made to various museums as part of the fieldwork relating to this thesis. It captures the experience of nature in museums and puts it on the agenda. Being well aware that as a scholar I may not represent the average way of experiencing natural history museums, I nonetheless think the culture of going inside a building to experience 'nature' is somehow worth questioning. Indeed, it may seem like a bizarre activity. Just outside the building of the Norwegian Glacier Museum, a few metres from where I had my bird's-eye view over the glacier, there are the astonishing fjord landscapes of western Norway, seemingly stretching into infinity. In private I enjoy experiencing nature in a number of ways. I like to put up a tent in the woods to have a feeling of sleeping outdoors. I climb mountains to feel the rock under my hands and experience steep

inaccessible places. I thoroughly enjoy rowing a boat to feel a closeness to water and waves, but in everyday talk I would under no circumstance include visits to natural history museums as one of the ways I experience nature. Yet, this is what such museums in many ways strive for. By informing and educating the public it is argued that people will *understand* nature more profoundly and thus subsequent outdoor experiences will be more significant. Why is that? Nature is just as much physically present before and after visiting a museum. Do we really need help to see it, to actually sense what is outside the museum building? What about the early hunters and gatherers in the Holocene? We tend to think of them as being a prime example of being *in touch* with nature, yet they did not have museums or any academic institutions to guide them out in the wild. As one of my respondents in this study said: ‘*even under your roof there is also nature*’ (Kurzthaler 19.08.2004). This suggests that nature is everywhere, regardless of the knowledge we might have of it. This must be an undisputed truth. Yet, we somehow seem to be in need of information about nature. At this point I would anticipate that the reader has come up with a number of reasons why natural history museums matter. Most people appreciate being told how things in nature work the way they do. As Bunkše (2004: 13) states in his highly personal contribution to human geography: ‘*How much would one miss by not knowing the forces that shape our air, waters, and the land!*’ Further, much literature has been written about the need to understand processes in nature (Frøyland 2002). It is my hope that the insight provided by this thesis, instead of supporting what we already know and take for granted in our everyday lives, may give further support and rise to profound questions such as the role of natural history museums. Everything can and should be questioned. Without the human ability to ask questions, museums would not have existed, and without further questioning, museums will simply continue to exist the way they do today.

INTRODUCTION

One of the places through which we acquire ideas and knowledge about nature are natural history museums. A museum can be defined as follows:

A building or portion of a building used for the storing, preservation and exhibition of objects considered to be of lasting value or interest, as objects illustrative of antiquities, natural history, fine and industrial art, etc.; an institution responsible for such a building or collection. (Shorter Oxford English Dictionary 2002)

This definition does not problematise to any degree the museum as an institution that defines certain types of knowledge and objects as privileged. However, it is following the writing of Michel Foucault (1977) that a more critical understanding of institutions – such as the museum – has emerged. Most noteworthy is Bennett's (1995) Foucault-inspired book *The Birth of the Museum*. Bennett's contribution focuses on how the museum as an institution and enlightenment project produced certain subjectivities such as the 'visitor' and the 'curator' in the 19th century (Bennett 1995, Rose 2001). This perspective should still be applicable today as museums have continued to build on the tradition that was substantiated particularly during the Enlightenment period, though also what is being put inside the museum should be studied. Natural history museums constitute institutionalised knowledge on nature and represent it to the public. It should be critically questioned how these value that particular knowledge and who takes part in the process of negotiating it. In view of this, it became clear to me that the focus on natural history museums and specifically the culture of exhibiting had to be of importance. Once I realised the educational potential of museums and the somewhat hidden but nonetheless important power to define and claim knowledge, two questions arose: What forces are at work to give certain types of knowledge or objects of nature the status of being worthy to be exhibited? What determines how the knowledge or objects will be exhibited? It was these that led me to understand discourse as a relevant methodology for critically studying the natural history museum.

From my own visits to museums, I became fascinated by how the natural history museum as an institution appears as a dynamic place. The physical structure encapsulates exhibitions, staff and visitors, and creates a space of social interactions where nature is the object of study. It struck me that the constituents were in dialogue with each other, each influencing the other.

For my purposes, it became insufficient not to regard this as a totality. However, particularly the professional staff appeared to be a key factor, based on their responsibility for the institution and the particular practice of representing nature. At the same time, I recognised that they operate within a very complex institution. Museums constitute a particular history as a concept within public debate. In addition, their visitors represent demands for information and entertainment, and effect the proceedings and practices within the museum. As such, the whole process of putting nature on display and the way the exhibitions are managed appeared to be a process of negotiation between several parties and interests. It appeared to be a process where some discourses appeared influential. In this thesis I ask the following research questions:

In what way do discourses play a role in the staff's work within natural history museums?

This question will be addressed through the two following sub-questions:

What role do museums as institutions play in the staff's negotiations in their work with exhibitions?

What role do visitors play in the staff's negotiations in their work with exhibitions?

In responding to these questions I have chosen to focus on nature on display in various natural history museums in Norway and Austria. I have interviewed professional members of staff in eight different museums. These conversations are analysed using a discourse analytical approach. Language is a basic prerequisite in social processes. It also plays a vital role in how we relate to and conceptualise nature, and it represents a critical element in exhibition practices from the museum staff's perspective. Therefore, language and the facts a conversation constitutes, can be studied in order to understand the negotiations museum staff take part in. Natural history museums collectively represent formalised bases of information on our knowledge of nature. The staff represent the formal authority to create displays of that knowledge, but in this process they do not work in isolation from the visitors or the museum as a historical and commercial institution. The three elements together can be read as a process of negotiating nature on display. This relationship is illustrated in Fig. 1.

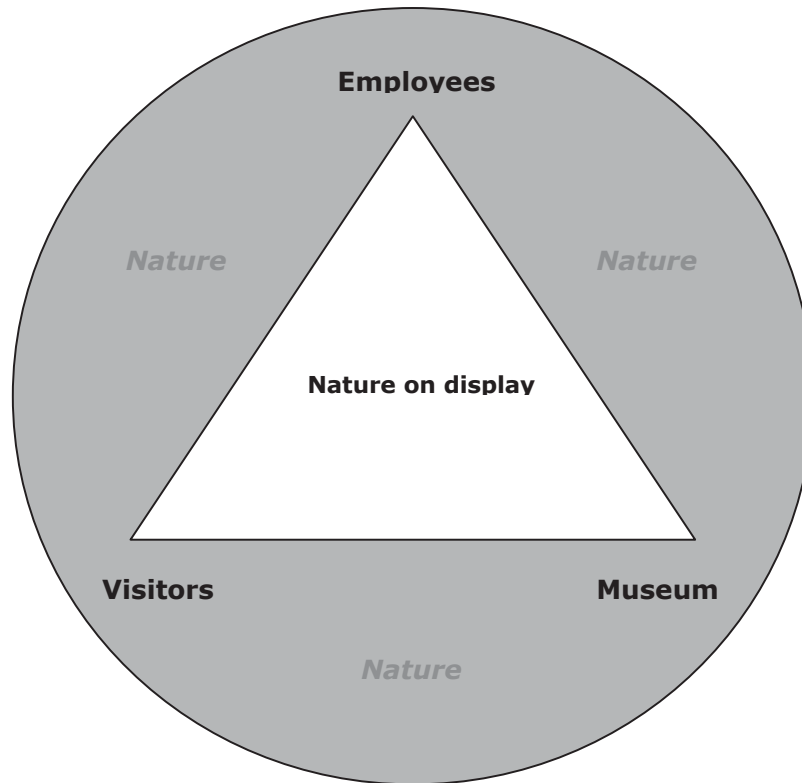


Fig. 1. *The triad represents the museum, employees and visitors negotiating nature on display. The surrounding circle represents nature as it presents itself to us.*

Fig. 1 shows nature on display as being in constant negotiation via the three elements. *The employees* possess the formal professional knowledge on how nature is to be understood and they represent the actual practice of creating displays of nature. *The museum* as institution represents the formal frame that the staff operate within. According to Scott, institutions are:

multifaceted, durable, social structures made of symbolic elements, social activities and material resources. (Scott 2001: 49)

The museum as institution is constituted through its historical development, its commercial interests and its contemporary status as a knowledge provider. The museum is utterly dependent on its visitors. Therefore, *the visitors'* experience and judgement of the exhibitions represent an implied crucial factor in the staff's work. I would argue there is good reason to consider all three elements as equally important. As such, I do not suggest any hierarchical relationship between them. Due to the feasibility and scope of a master's thesis, my focus had to centre on one of the three elements. Thus, the staff, their role and their way of representing

nature form the core of the analysis in this thesis, and the perspective from which the museum and the visitors is considered. I have found support for emphasising the role of the visitors through literature on museums in general:

in addition to what gets shown in museums, attention needs also to be paid to the processes of showing, who takes part in those processes and their consequences for the relations they establish between the museum and the visitor ... it is imperative that the role of the curator be shifted away from that of the source of an expertise whose function is to organize a representation claiming the status of knowledge and towards that of the possessor of a technical competence whose function is to assist groups outside the museum to use its resources to make authored statements within it. (Bennett 1995: 103–104)

Bennett urges knowledge in two respects. First, he suggests that the elements involved in the process of representing should be understood. Second, this understanding should critically be used to propose a change of the relationship between the staff members and their visitors. Professional members of staff, or curators as they are often called, have a wide range of responsibilities. They evaluate existing exhibitions, make sure their objects and themes are managed properly and ensure that they are communicated to the public, but they are also often involved in the daily practices of selling tickets, welcoming visitors and conducting guided tours. Still, the creation of exhibitions is perhaps more concrete evidence of the museum staff's influence on representations of nature and the ongoing production and reproduction of discourses. From this perspective it can be argued that staff have the power to define nature. Accordingly, this represents a good reason to question their role.

The structure of this thesis is as follows:

Chapter 1 is a presentation of the historical development of natural history museums from the Renaissance to postmodernity. It is demonstrated how natural history museums have reflected the parallel history of the natural sciences and been an instrument of change in educating the public. The aim (in the chapter) is to establish an understanding of the rationality of the natural history museum. It provides a background for considering the contemporary museum staff in the subsequent analysis. The historical presentation is given first because it provides vital knowledge in order to understand contemporary discourses within natural history museums.

Introduction

Chapter 2 provides a presentation of the institutions and staff upon which the analysis is based. It also provides an overview of the fieldwork and the processing of interview material.

Chapter 3 forms the theoretical and methodological foundation of the thesis. Part I is a presentation of postmodernist thinking as an attitude in scientific research and demonstrates the link between Immanuel Kant's theory of knowledge, and the concepts of representation and discourse. Part II suggests ways of studying discourses, how they may be detected and subsequently analysed. It is imperative that theory and method are considered under the same heading as in studies of discourse they presuppose each other.

Chapter 4 represents the analysis of the empirical sources. Text excerpts from interviews with professional staff members are presented and analysed in terms of discourse. I exemplify, analyse and discuss how conversations constitute discourses through uttered phrases, and show how conversations are influenced, and at times governed by, discourse.

The summary, discussion and conclusions relating to my findings from the analysis are presented in Chapter 5. I also discuss how discourse studies can be relevant and useful in changing future policies related to natural history museums.

1

MUSEUMS IN SOCIETY

1.1 Introduction

This chapter presents background knowledge for the museum element distinguished in the triad in the Introduction. I believe this becomes particularly useful in relation to the nature and design of the major analysis performed in this thesis. It provides the reader with the contextual framework in which the assumptions in the analysis are based on. I aim to explore the historical development of museums and natural history museums in particular. I suggest that an understanding of contemporary museums is best targeted through a historical approximation. In particular, I attempt to demonstrate how the changing understanding of nature has been reflected in museums. I also aim to show how the museum has been subject to change in accordance with shifting opinions on their visitors and the general public.

The structure is inspired by Sharon Macdonald's (1998) article 'Exhibitions of power and powers of exhibition', which highlights the major tendencies and developments of the museum. Macdonald identifies three major paradigms, corresponding roughly to the Renaissance, the Enlightenment and early modern period, and the postmodern society. I have tried to emphasize in particular the development of the natural history museum, but this is by no means a distinct and isolated story. I have found it necessary to draw on the history of science, political and social history, as well as the development of museums in general.

Part I: Renaissance – The birth of the museum

Tracing the blurred contours on the origins of museums one readily discovers the practice of collecting as an elementary principle. The idea of gathering items without a purely practical value has been an activity recognised for thousands of years. The value of an item is not found within the item itself, it has to be considered in terms of the social system surrounding it. Vergo (1989) suggests that as early as from the beginning of civilisation, there have been certain institutions such as churches and temples housing these objects, confirming their

status by sheltering them in a certain sanctuary, and securing important objects from those less important. This principle of ranking objects, can be considered as a very basic property to be found all throughout the history of the museum, which by contemporary standards we can read as negotiations of power: ‘*The very act of collecting has a political or ideological or aesthetic dimension which cannot be overlooked*’ (Vergo 1989: 2). This suggests that collected objects are valued objects, which means they must represent something of higher value compared to non-collected items. The property of valuing objects is important to note as this has traditionally defined what was also considered to be important objects of study, and thus led to the elucidation and development of knowledge. When it comes to the valuing of natural objects and phenomena, the natural history museum is perhaps the most apparent example we can look to in this respect.

Most sources trace the origins of natural history museums to ambitious monarchs, royals and scholars from the upper classes, who, especially in the 15th century Renaissance period, collected rare items, natural or cultural, and displayed them within a confined space, as a strategy to demonstrate their power and status. This is a view that is expressed in a number of sources and is rooted in the Renaissance socio-political context (Bennett 1995, Macdonald 1998, Thorsen 2003). Although these ‘museums’, or rather cabinets, were not open to the public, Hooper-Greenhill asserts that their initial target stretched far beyond the private spheres, claiming public status:

[T]he function of princely collections during the Renaissance was ‘to recreate the world in miniature around the central figure of the prince who thus claimed dominion over the world symbolically as he did in reality’ (Hooper-Greenhill cited in Bennett 1995: 95).

They thus served more as research centres and hence were far removed from the concept of the modern museum as we know it today. The exhibitions were in the hands of private owners. It was, for example, a common ideal for young gentlemen, as part of their education and sense of cultural refinement, to visit these cabinets and simply see the unfamiliar, but access was only assigned if it fulfilled the demands of a respectable gentleman. Sharing a variety of names – museum, *studioli*, *cabinets des curieux*, *Wunderkammern*, *Kunstkammern* – the owners made use of spaces where objects were randomly organised in *naturalia* or *artificialia*, the borders of which were quite vague as a *naturalia* object could be refined and consequently displayed inside an art cabinet. The collections had no separate administration,

but were run and supplemented by their affluent owners. They have to be considered as an important resource for the contemporary scholars of science. Not only could monarchs afford the often resource-demanding process of collecting items, but they were also in the position to finance the research carried out on them. Consequently, one has to suspect that the development of the sciences and early initiation of the universities were guided by the interests of a private upper-class viewpoint; hence, too, it is fair to conclude that this was with a much intertwined relationship between science and representatives of the economically affluent.

1.2 Valued objects

It is reasonable, then, to question what was actually valued in these collections. Partly, it had to do with the curiosity of the unknown. The world was there to be discovered and thought of as being within grasp. According to Thorsen (2003), this reflected an intellectual attitude guided by the outstanding and exotic to be found in life. Objects representing a part of what was unknown then became valued, as they were associated with the valued knowledge that accompanied them. Accordingly, rare and exotic objects were given high priority. However, as objects were disconnected from their natural habitat or context and recast in a space of exhibition they appeared more exotic than when they were in situ, thereby adding an element of wonder. As a result the collections would have represented a world which appeared strange to most people, with objects coming from places that few if any had been to (Pedersen 2003). The experience was evidently one of being amazed by presentations of the rare and extreme of all kinds. Despite the attention given to singular objects it does not appear that the aim was to provide full information about them, putting them into a system or context. The objects being displayed could be exhibited in symmetrical order accompanied by texts of various characters such as personal descriptions and notes, fables, and their practical function, along with stories ascribed to them (Nielsen et al. 1993, Macdonald 1998). This more or less random organisation of objects reflects the Renaissance episteme on knowledge and classification. The observer was in this respect totally entitled to describe the object on his (or her) own terms. This means there was to a large extent an anthropocentric understanding of nature where regards and disregards were proclaimed according to the objects' value for mankind.

1.3 A relationship of man and nature

It was not necessarily the case that there was complete disorder in the understanding and interpretation of plants and animals (although it appeared so to later modern scientists who had developed and refined a system of taxonomy). While being well aware that the natural world had a life of its own, naturalists of the Renaissance looked for the hidden resemblance in plants and animals with clear references to man and his social world. This had consequences for the descriptions of nature and more interestingly for the modes of classification. For example, in Britain, plants and herbs for medicinal purposes were sorted according to which part of the body they would heal. Those not used for such purposes could be classified according to their taste, smell or edibility. For animals, three categories existed: edible and inedible; wild and tame; useful and useless (Thomas 1983). While Thomas' description might reflect a hands-on viewpoint, as of a farmer having to deal with soil, plants or animals each day, others point to different scenes and spectacles that could have taken place in that time and thus leave a different image, as Foucault (2004: 143) contends: '*To the Renaissance, the strangeness of animals was a spectacle: it was featured in fairs, in tournaments, in fictitious or real combats, in reconstitutions of legends in which the bestiary displayed its ageless fables*'. Thus far, the purpose of my argument has been to highlight the fact that the prevailing gaze of nature had clear consequences for how nature was to be valued and consequently displayed.

1.4 Nature in the private sphere

The collections in the Renaissance were in theory and practice private, not public property. There existed no idea of a public that was going to be enlightened through the experience of such collections. In extreme cases only one person at a time would be allowed entry and in doing so they would have to fulfil certain formal requirements (Bennett 1995). This means that the spaces of wonders and fascination which the *Wunderkammer* represented would circulate within carefully selected representatives of the upper class. When we talk of museums by definition it is common to ascribe certain public qualities, in the sense of being available and open to anyone who might wish to experience their content (NOU 1996). Therefore, in order for museums to thrive throughout Europe certain changes had to come about, which occurred in the period between the 18th and 19th century. This phase represents in many respects a demarcation line for most European societies, a turn in technical, social and political modernisation. Museums were not unaffected by this overall cultural turnaround. As will be revealed in the following sections, changes in the culture of public awareness and

social behaviour came parallel with other developments in classification systems and thus practices relating to exhibitions.

Part II: Enlightenment and early modern period – Science and social upbringing

The Enlightenment corresponds roughly to the period 1680–1820. The relatively short time interval represents a period in Europe when several of the modern sciences were established through a scholarly culture of collecting, organising knowledge and exhibiting. The Enlightenment took on the tradition from Isaac Newton and the scientific revolution, but the scope of science was widened to include moral imperatives. It was believed that moral and social development were being held back by ignorance about how the world and its natural phenomena worked. New systems of classification were developed and used to explain and put order to the world as it appeared (Huxley 2005). As such, the Enlightenment represents a time when the sciences went through serious progress in terms of organising principles. Systems of classification were refined and gave scientists the tools with which specimens could be studied and compared to one another. Museums were one place where this scientific knowledge would be represented. It was also during the Enlightenment that many of the earlier collections left the hands of the private owner and were gathered in the name of scientific societies and associations – the forerunners of the modern museum. At the same time as they served the means of contemporary scientific ambitions in exploring and naming the world, they were also places for targeting specific educational aims relating to the public. Simultaneously, there was also the emergence of modern forms of government. Foucault has been a forerunner in making visible the diverse and subtle ways in which these new technologies of regulation – the hospital, the asylum and the prison – worked (Heede 2002). The museum has not been exempt from being investigated through this perspective. The latter perspective has been critically investigated by many as it represents an evident example of demonstrations of power. There is a large spectrum of power negotiations in the development of a gazing culture, which museums represent. More precisely, the museum can be viewed as a scene, a stage of acting where the visitors, the physical complex and its staff constitute negotiations of power (Jordanova 1989, Bennett 1995, Macdonald 1998).

During the Enlightenment and early modern period the museum underwent development in three areas in particular. First, museums had to conform to the public sphere, a departure from

their earlier sanctuary-like character. Second, they had to reflect a modernised view on nature and knowledge in their exhibitions. Third, attention was drawn towards the visitors. Ideally, the museum was to be developed into a space of observation and regulation, implying that it should be able to set an example of proper social attitude and behaviour. These three changes are elaborated upon in the following.

1.5 Public scope and nation building

It is with the opening up of the museum that museums came to be identified as institutions with an educational role. This was a big transition from the earlier private collections, but at the start it was more theoretical than a mirror of the actual situation (NOU 1996, Bryson 2003, Sloan 2005). The British Museum is considered to be one of the oldest museums in the world open to the general public and was initiated after the will of Sir Hans Sloane, President of the Royal Society. Sloane was a scientist who knew Sir Isaac Newton personally. His bequest proved noble, and gives an impression of the attitude typical of the Enlightenment period:

nothing tends more to raise our ideas of the power, wisdom, goodness, providence, and other perfections of the Deity ... than the enlargement of our knowledge in the works of nature, I do will and desire that for the promoting of these noble ends, the glory of God, and the good of man, my collection in all its branches may be, if possible be kept and preserved together whole. (Sloane cited in Sloan 2005: 14)

However when The British Museum opened in 1759 as the first public museum and library in the world, it had strong restrictions governing who was allowed to enter to view the exhibits. Visitors had to apply as much as two weeks in advance and just the fact that the museum claimed an entrance fee excluded a large proportion of potential visitors. There was debate among scientists as to whether museums should be fully open to the public or serve as a closed centre for those who were knowledgeable. A proponent of the latter was Sir Joseph Banks, a natural historian and later President of the Royal Society. He made important contributions to the museum by collecting natural specimens from remote areas, but was also a salesman and had a strong interest in Britain's economy. Despite proponents claiming dominion over access to scientific knowledge, The British Museum was permanently opened to the general public in 1857. With the new public policy, attempts were made to meet the different needs by regulating opening hours according to the different types of visitors. This

was something that had been initiated with the Great Exhibition at Crystal Palace in 1851. It involved the opening of exhibitions during the evenings, but also adjusting prices for different groups. This ensured that also the working class could venture into the museum, but notably not at the same time as the upper classes. This policy obviously had a great effect; visitor numbers increased from *c.* 700,000 in 1850 to over 2 million in 1851 (Bennett 1995). While certainly being able to attract people to the museum, the new public strategies clearly maintained the fear held by upper classes of rubbing shoulders with the lower classes. What is possibly more important to note than the upholding of class divisions is the establishment of the exhibition complex not only as a new phenomenon but as a means of moral and cultural regulation (Hooper-Greenhill 1992, Bennett 1995). For lower and middle classes the museum would serve as an alternative to life in the taverns, which was associated with filthy and debauched behaviour. The increased awareness of museums' ability to educate the public was utterly in line with ideals of the Enlightenment. Scholars such as Sloane in particular saw the need for science to be mediated beyond academic circles.¹ The idea was also that as general public took part in this public context of orderly knowledge, they would be trained in good manners, adopting positive impulses partly through rules such as not eating inside the museum, not touching exhibits and advice on suitable clothes to be worn, but also in more subtle forms. Architecture also came to play an important role as the public not only could observe knowledge stored within it, but also be seen observing it. It is no understatement that it was generally considered that museums could function as a governmental instrument in moral influence. Together with other moral programmes such as amusement parks museums could to some extent substitute for an increase in police force, the token of direct governmental uphold of law and order. The aforementioned cases are taken from British context, though other sources reveal similar trends for the whole of Europe, although they did not follow exactly the same course (NOU 1996, Pedersen 2003).

It would be insufficient to explain the political interest in the public with regards to only the social control or moral upbringing. The tendency also had very much to do with the formation of nation states, and the need to promote national identity. In particular, art institutions played a crucial role in this respect, through illustrating romantic nationalism (Nielsen et al. 1993). This was also a period when there was a division of museums into more specialised categories. It is worth noting that most of the specialised museums established in early 19th

¹ It should be noted that Sloane operated with the support of King George III who was also well informed of the progress made in the sciences.

century were 'scientific', which would have implied reflecting natural history. This, in turn, was connected with the development and eventual establishment of subdisciplines in universities and academia. Museums within the natural sciences would often work as a prolongation of this development. Contrasted with 21st century exhibition thinking with pedagogy and user-friendly learning, the picture was quite different at the time. While present-day museums stress not boring the public and accommodate trends in design and multimedia, early science museums would have demanded the same accommodation from their visitors, representing a specialised and professional view on and understanding of nature. I find it important once again to consider what exactly lies behind this change in conception. The next section is therefore a view on the development of taxonomy and the culture of classification.

1.6 A new way of looking

First, the specialisation in the natural sciences developed out of a different way of viewing nature than had been the case in the Renaissance. As Thomas (1983) points out, the process of change in perception was a very slow one, and the man-centred point of departure for classifying nature was to influence new ideas for a very long time. Many commentators saw the need to classify plants and animals according to their use and value for man, simply because of mankind's dependency and close relation to nature, i.e. out of pure practical use. In spite of these claiming voices and arguments, new ways of understanding emerged where the vision was prioritised over other senses (Thomas 1983, Wonders 1993, Macdonald 1998, Birkeland 2002, Foucault 2004). There emerged a way of viewing and judging plants and animals purely for their intrinsic qualities. The fixation and defining of natural objects would become established as a system of its own based on this very elemental property of humans to compare and order. This also represented a break with the religious reasoning of nature and animals. Although not denying that God was the cause of creation, there was a profound belief in an inherent system and order of nature that was there to be discovered. Thomas (1983) points to the fact that 19th century commentators argued that all systems of classification were artificial and a system a priori did not exist in nature itself. Nature knew nothing of species or the way to classify them. It seems to have been of some satisfaction, then, to establish a system of categorising that as much as possible took its direct point of departure in nature, so as to honour nature's own terms. As God was always an inseparable part of nature, the approach in science was reasonably termed natural theology. It should also be mentioned that the development of classification systems was also a result of technological

improvements, one of which was the microscope. The latter helped the property of seeing to become more powerful. It established the vision as the sense from which everything should be recognised and acknowledged. It also fitted well with the rationality that was provided with the increased prestige of the physical sciences (Foucault 2004). Eventually these circumstances led to the establishment of and regard for Carl von Linné's system of categorising plants. He developed a school of taxonomy where plants were categorised according to a two-part system of genus and species, clustering species under taxonomic banners. This system is still used today, but it is important to note that Linné only tried to reveal God's plan and suggested no development of the species, tacitly agreeing that they were static creations. Linné's taxonomy became an example to be followed in the categorising of animals as well, although, the transition in zoology was not as great as in botany (Thomas 1983, Campbell 1996, NOU 1996, Huxley 2005).

The questions asked during the Enlightenment were profound, seeking to solve problems that had been the subject of human enquiry for hundreds of years. One of these was the question of from where and how life came into being. This was a very sensitive issue as it touched upon and disturbed ideas that were deeply rooted in Christianity, and the widespread belief that nature was brought about by one creator. As suggested in the description of Linné's system, it was common to believe that the physical world was a static one, with each species created to fit perfectly within the system as a whole. The eruptive suggestion that animals developed from principles of specialisation, eventually outsourcing competing species, was established in 1859 with Charles Darwin's publication *On the Origin of Species* (2003 [1859]). Darwin's idea suggested that change in the natural world occurred over time, and that natural selection occurred with competition and adaptation. Although it was treated with widespread scepticism he acted in line with Enlightenment ideals, believing strongly in humans' duty and ability to bring understanding and order in the world. Also, in this era, the world was not to be understood as static, but fundamentally historic and evolutionary (Campbell 1996, Pedersen 2003). As will be described in the next section, these fundamental acknowledgements had profound implications for the work in museums and the culture of exhibiting.

1.7 Exhibiting the scientific episteme

Major shifts in the sciences also affected museums. In the case of natural history museums, the overall tendency was that of specialisation, causing the establishment of new institutions

named according to the sort of materials being represented, such as for example museums of geology and zoology. This means that the understanding of singular objects was totally changed. Rather than looking for the exceptional and rare, the focus was changed towards the typical and representative. The exhibitions were meant to reflect the principles in science and would therefore be filled with series of similar specimens, showing their historical development and their relation to one another. Scholars suggested that the collections and exhibitions should reflect the classificatory system being used in science (Macdonald 1998, Bennett 1995, NOU 1996). This would involve the compilation of objects with similar properties, time period and origin. Each item would serve as a representation of the typical, but under the umbrella of the larger series. The object would no longer stand out and cause wonder and excitement in itself. This might lead one to believe that single objects lost some of their earlier status. While this might have been true for the visitors that had little knowledge about the classification of species, it was by no means the case for the scientists, as each specimen deserved full inspection. Description and classifying equalled knowledge and understanding (Jordanova 1989). Therefore, it could be that much attention was still given to the singular object, but this was perhaps more so for the scientist serving the new ideals of science rather than the public whose approach was limited compared to the trained eye of the scientist. Here we also find support for the notion that museums in the new era demanded much more from their visitors than previously. This is not to suggest that this top-down attitude to the public was intentional on the part of museums. Rather, it was a consequence of the changing philosophical foundation leading to an alteration of exhibition practices, which the public would have to adapt to.

In Part II, I have demonstrated how natural history museums reflected the scientific and social aims established by the Enlightenment period. It is evident that the museum was a natural instrument in fulfilling these aims in mainly two ways. First, the museum was able to provide private collections with a unifying formal structure under the banner of societies and associations, initially established as museums. The museums also worked well in reflecting the scientific ideals by collecting and exhibiting objects in accordance with the order set by classificatory systems. As such, the museums established themselves as knowledge defining institutions (Hooper-Greenhill 1992). Second, museums during the Enlightenment attempted to fulfil the ideals of a morally and well-informed society by providing scientific knowledge to the public.

Part III: Postmodern period – Diversity and visual competition

Following the development of natural history museums, I suggest a less distinctive parallel between developments in science and political ideas on the one hand and museum policies on the other. Museums seem to play a less representative, specular role for contemporary political movements as opposed to the distinct and clear-cut projects of the Enlightenment period. Still, many museums of the postmodern society can be seen as a result of historical trends and developments. Elements of the past will always be present in a physical or social sense in modern institutions. This should be kept in mind as I elaborate on the more recent trends in the following.

1.8 Post-war developments – diversification

As the political and economic climate has changed radically since the birth of the museum, the latter have ended up being less of a direct instrument of power for political bodies. This is to say that their rationality is less articulated through formalised policies, taking less part in governmental plans to democratize and educate the general public; at the very least, their political means and targets are less clear cut. The debate over the museum's role in society is nonetheless relevant. I would argue that the influence of contemporary museums has taken clearly different and perhaps more subtle and diverse forms. One factor explaining this can be related to the specialisation in fields of knowledge in general, opening up for greater variety in museum institutions. This has definitely led to the upheaval of the *universal museum*, which corresponds to the museum concept of the Enlightenment (Sloan 2005). The post-war era has found itself in a huge transition in terms of the opening up of new and different voices, both culturally and politically. At least within the Western context, it is fair to say that this era represents an expansion of specialised interests, fields of refined knowledge and understanding, and the mixing of these (Smith 2001). The last 50 years of museum development has seen the establishment of many specialised museums, allowing the diverse elements of the Anglo-American culture to find its place in a museum. The diversity is represented in the way smaller components of our culture or nature may constitute the theme of a single museum. Two examples of such institutions are represented in this thesis: the Norwegian Glacier Museum and Styrrassic Park, which have specialised on one phenomenon or time-slice of our knowledge about nature, respectively glaciers and dinosaurs. In such museums, nature is not represented in a holistic sense but rather in a specialised and demarcated way. The establishment of many of these specialised museums is often initiated

by smaller interest groups, associations, unions, or societies. Thus, the museums have become a means for particular interest groups to state, manifest and promote their chosen perspective, in contrast to being projects in service of the nation as was typical of institutions of the 18th and 19th century.

1.9 Adjusting to visitors' level and needs

Macdonald (1998) highlights the growth and development of two particular types of museums throughout the last century, namely industrial heritage sites and science centres. The two differ particularly in their way of handling and relating to time. Industrial heritage sites attempt to reveal a certain epoch as it was, presenting a slice of the time-scale. Science centres are concerned with universal technical mechanisms and laws which can be viewed as more disconnected from time and place. The term 'science centre' finds its focus mainly through the natural sciences. The emergence of this type possibly reflects the steady increase of specialisation in related disciplines and technology in general. As 19th century museums were able to function as a reflection of the discipline of biology or geology for instance, recent developments in science, with the accompanying establishment of diverse subdisciplines, means that museums and their staff have had to take on a different role. In other words, science has become so specialised that it no longer makes sense to represent it as it is. Instead, it requires adjustments towards user friendly representations, a task which has found its natural place in museums and science centres. This defines the role of museums as more of a negotiator or mediator between science and the public, in contrast to the 19th century idea of museums as the place to observe science as it was practised by scholars. There has been an apparent shift in the relationship between the museums, including their staff responsible for exhibitions, and museum visitors. Pedagogical considerations are clearly at work when exhibitions are designed to suit the needs of the visitors. This is a particularly important characteristic by contemporary museum standards. This will be more properly exemplified in the following section.

1.10 Retrospective and interactive exhibitions

The recent trend for museums to adjust their mediation of knowledge to the visitor level is particularly evident in two respects. The first concerns the actual premises of how we understand scientific thinking. The perspective chosen for the public to take part in exhibitions has taken a more critical turn. Instead of just representing empirical facts as they are, teaching physical laws, demonstrating natural mechanisms, and displaying statistics, there

has been a growing interest in showing how these facts were generated to begin with. This means the communication of research methodology has gained increased importance with the emergence of science centres. This in turn represents a democratic move in exhibition thinking. It reflects an attitude where visitors are invited to take a look behind the curtain and use their own reasoning to understand how science actually works. It involves science being rendered open, and disposed to criticism much more than before (Macdonald 1998). Contemporary exhibitions tend therefore to represent science as more transparent, and hence retrospective. Science is no longer represented as some mysterious activity operated by prominent scientists.

Another major change concerns the practical modes of display and the way the public are invited to experience the exhibitions. Science centres introduced hands-on exhibition techniques and interactivity, involving the public in much more active ways than previously (Macdonald 1998). Inviting the public not only to gain insights into the methodologies but also to actively take part in scientific experiments represents an altogether bigger transformation. It is a change in how the public is defined as a spectator. While it may be true to say that the public visitors to museums during the Enlightenment and early modern period were nothing more than spectators, hands-on exhibition techniques define the public as active participants. They are active in the process of learning and understanding, and it is fair to say that they are responsible for what they learn in a much more dynamic way than before. The reading of text, the investigation of plates and wallcharts, the observation of installations and tableaus are all typical properties of older exhibition standards, but it is a standard where visitors learn only by reading and looking, a rather passive activity. In contrast, hands-on experiments will encourage the visitor to engage in the purpose of the phenomenon of interest, follow the progress through self-conducted experimenting, and actively view and understand the outcome, which in many cases will vary according to the level of engagement involved. It is fair to conclude that the changes in the display of science, both in terms of perspective and practical exhibition standards, have brought about some major changes in how the visitor is defined and invited to understand the content. Further, it can be argued that the visitors represent a pronounced element of power in the sense that they are given careful consideration when exhibitions are designed (Hooper-Greenhill 1994). However, the museum still has to be held responsible for the clearly political process of selection and representation of objects and the knowledge about them. Hence, the need to address the nature of these processes has not become less important. What needs to be considered when studying these

processes is that the museum and its staff only represent one side, and the visitors and the assumptions made about their needs are equally important factors in defining what is being represented and the way it is represented in museums today.

1.11 Concluding remarks

In this chapter I have shown how the emergence of natural history museums has reflected the developing understanding of nature along with changing ideals in education and the communication of knowledge. I have shown how natural history museums have always been sources of knowledge and represented places for the negotiation of this. I would argue that three central elements can be distinguished in this negotiation and these are easily recognised throughout history. First, private interests during the Renaissance generated an interest in exploring the world and acquiring knowledge about it through collecting and studying natural artefacts. As collections grew and developments were made in classification systems, the increase in systematised knowledge of nature was managed by scholars and scientists. Along with political support from governmental bodies, this paved way for the establishment of scientific associations, later to be defined as museums. Scholars and scientists secured the museums with a scientific content and represented the first element as the *staff* of the natural history museum. Second, the Enlightenment saw the formalisation of a range of scientific subdisciplines through increasingly institutionalised bodies manifested through scientific associations and museums. These comprised the formalised policies and statutes along with an organisational structure that the staff could operate within. The *museum* and its institutional body thus represent the second element. Third, collections and exhibitions have always been presented to an audience. However, it was not until the postmodern era that lay visitors were acknowledged as an influential factor in representing knowledge in the natural history museum. *The visitors* therefore comprise the third element.

The historical account provided by this chapter has given support for understanding museums in terms of the triad represented in the Introduction (Fig. 1). It is the museum staff, the museum and the visitors which together negotiate the defining and representation of knowledge in natural history museums. The three represent different sets of forces, limitations and possibilities and create an intertwined set of power relations. However, it has been evident throughout the history how scientists and especially museum staff represent the final step in decision making, in their management and the creation of exhibitions, and similar

programmes of education. It is for this reason the museum staff is under specific consideration in the final analysis in this thesis (Chapter 4).

2

A FIRST IMPRESSION OF EMPIRICAL SOURCES – SELECTION AND PROCESSING

This chapter aims to give a first insight into the empirical material used in the analysis. I concentrate on the process of data collection and the reasoning behind choices that were made under way. The process from choosing institutions to conducting the interviews is also accounted for as well as listing the different institutions and their respective members of staff. The chapter covers the practical side of methodological considerations.

2.1 Museums in Norway and Austria

Eight interviews were carried out in seven different museums, two of them in Norway, the other five in Austria. The last interview concerned a temporary, outdoor exhibition in Innsbruck. Some interesting parallels exist between the two nations when they are examined more closely. Norway and Austria are both small countries with relatively low population figures. They have extensive mountainous areas, but also flat lands with more fertile soils, together with many rural settlements and few city clusters. This involves, for both parties, the presence of scenic landscapes with much variation and extensive recreational qualities, which combined represent a substantial component in the cultural identity. Both countries rely heavily on their rural, pronounced natural qualities in promoting the country internationally and the qualities constitute a vital element in people's national identity (Witoszek 1998). Accordingly, these characteristics are likely to have an implicit role in the interviews.

2.1.1 Choosing museums

In choosing institutions I followed a list of natural history museums provided by ICOM (International Council of Museums) and made personal contact with museum staff by phone or e-mail. The list of natural history museums is rather long for both countries. Many of the larger museums had several sections, often separating the more

cultural from the natural. This means that the museums listed are not necessarily only natural history museums, but can also be represented through their natural history section while the organisation as a whole presented other cultural exhibitions too. An example was Haus der Natur in Salzburg, which had exhibitions spanning from an anthropological view on the culture of tattooing, to an exhibition on the physicist Christian Doppler, and to purely geological exhibitions. The museums were chosen on the basis of partly what seemed feasible and partly what seemed to be an interesting institution to include in the study. A further consideration was that the number of interviews had to be limited when considering the research design. In selecting from a long list of museums in each country, variation and diversity in type of museum were prioritised over practical circumstances. This was particularly important in trying to grasp the great diversity which natural history museums represent and considering the discourses relating to them.

2.1.2 The respondents

Just as important as the selection of institutions was the question of who to interview. I maintained a strong policy to only interview professional staff that had experience of designing exhibitions, though their roles in this could vary quite considerably. The underlying thought here was that professional staff are the ones with most influence and responsibility for the professional content of the museum. They are not just actors in making exhibitions, but appear in everything from developing museum policy and profile to infrastructural improvements, elements that all contribute to the constitution of the museum. In addition to having education from the natural sciences, the respondents revealed backgrounds as diverse as psychology, music, architecture, and history. Only four of the eight persons interviewed had backgrounds in physical geography, physics and biology, which were the kind of backgrounds I had expected them to have. In the following, a list of the different institutions and employees I interviewed is presented. The particular thematic focus present in each interview is also listed, although each conversation developed from the same interview guide. The museums are listed in alphabetical order.

Haus der Natur, Salzburg, Austria (established 1923). This is an extensive natural history museum located in the centre of Salzburg. With over 80 exhibition rooms, including a reptile zoo and an aquarium, the museum hosts up to 300,000 visitors

throughout the year. I interviewed *Karl Forcher*, curator in the natural sciences (mineralogy, geology, glaciology, physics, and palaeontology). His academic background is a PhD in physics and mineralogy. During the conversation we focused on an exhibition opened in 2004 on the River Salzach running through the Salzburg district.

Hohe Tauern National Park Visitor Centre, Matrei, Austria (established 2002). The centre is located in a small village and has a small exhibition covering animal life and environment of Hohe Tauern National Park. Visitors are mainly generated during the summer and number up to 20,000 per year. I interviewed *Mag.¹ Martin Kurzthaler*, Deputy Director and PR executive. He had studied biology and earth sciences at the University of Innsbruck. The interview focused on the permanent exhibition and its design and construction.

Inatura, Dornbirn, Austria (Fig. 2) (established in the 1960s as Naturschau, moved and reopened in 2003 as Inatura). The museum is located in buildings that originally formed an industrial site. The thorough renovation resulted in an architectural interplay with both the remains of the former industry as well as the natural history exhibitions. Permanent exhibitions cover biology, ecology and disaster management. The museum hopes to stabilise visitor numbers at *c.*100,000 per year. I interviewed PR executive *Klaus Zimmermann*, who holds a PhD in zoology, and we focused on the permanent exhibitions.

Norwegian Glacier Museum, Fjærland, Norway (Fig. 3) (established 1992). The museum is located on the rural western coast and has a distinct concrete architecture. In 2004, 51,000 people visited the museum. The museum depends entirely on summer tourism as it is closed during winter time. As well as wall posters and moving models, its exhibits invite the visitors to participate in hands-on experiments with real ice from the nearby glacier Jostedalbreen. I interviewed *Karen Weichert*, curator in charge of exhibitions. She holds a master's degree in physical geography. The interview focused on the museum's permanent exhibition on glaciers and another planned exhibition on climate changes.

¹ Mag. is Magister (Master of Science or Arts) in abbreviated form.



Fig. 2. *Inatura*. The remains of the industrial hall can be identified from the heavy metal scaffolding and a crane (in the background). Copyright © Inatura. Photo: Dietmar Walser (2003).



Fig. 3. *The Norwegian Glacier Museum*. The architecture is in contrast to the surrounding mountainous landscape. Photo: Sigurd S. Nielsen (2004).

Österreichischer Alpenverein Museum, Innsbruck, Austria (established 1911 in Munich. Facilities in Innsbruck were provided during the 1970s). This museum represents the Austrian Alpine Association. It reveals the beginning of mountaineering through a permanent art exhibition. The exhibition is characterised by classical paintings and 19th century reliefs depicting alpine scenery. Visitor numbers vary between 2000 and 3000 per year, depending on the temporary exhibition. I interviewed *Veronika Raich*, assistant to the chief executive. She has an academic background in psychology and interdisciplinary gender studies. In the interview, we focused on the permanent exhibitions and the communication of these.

Styrassic Park, Bad Gleichenberg, Austria (established 1999). This is an outdoor park with full-scale sculptured dinosaurs. They are displayed in chronological order (according to the palaeontological timescale) alongside a walkway which is designed to guide visitors to follow a chronological route. Although it has parallels to an amusement park, it attracts visitors of all ages. Visitor numbers are *c.*80,000 a year. I interviewed *Mag. Markus Ulrich* who is initiator and *Park-Geschäftsführer*, as well as a professor of music. This interview was carried out with the help of interpreter and staff member Dr Elisabeth Newzella.

Vertikal, an outdoor exhibition showing the interdependence between the city and surrounding mountain chain of Innsbruck, the Nordkette. The exhibition was initiated by the Österreichischer Alpenverein Museum, Innsbruck. The exhibition was on display for six months in 2002. It consisted of a variety of installations throughout the city centre and attracted over 50,000 people. I interviewed *Dr. Wolfgang Meixner* who was employed as the curator and coordinator for Vertikal. He has worked with different exhibition projects and is currently a research assistant at the Department of History, University of Innsbruck. The interview focused on the Vertikal exhibition and the process of creating it.

Vitenskapsmuseet, Section of Natural History, Trondheim, Norway (established 1815 as an institution with scientific and educational aims. The museum became an independent institution in 1951). Its history is closely linked to the Royal Norwegian Scientific Society from 1815. The natural history exhibitions display birds, fish, mammals, and minerals. Northern European habitats are also presented in separate

dioramas. I interviewed Marit Sørungård, architect and project supervisor for exhibitions. The interview focused on the permanent displays, a temporary dinosaur exhibition, and an exhibition of owls.

2.2 The interviews

With regard to the comparability between the interviews, I found it sufficient to decide upon a specific agenda (relating to the research problem) that was common to all of the interviews. When talking to each respondent, I referred to a sheet of paper with questions to remind me of the issues that needed to be touched upon.² The interviews took form of a semi-structured interview. It was a conversation in development rather than a pure question and response situation. I made efforts to ensure that the respondent could elaborate as freely as possible on the issues. In general, the questions operated on two levels. Some questions invited the respondent to share his or her personal opinion to a greater extent. This often challenged them to express opinions that were more or less politically charged. Other questions approached the respondents as representatives of their institution. These questions were often related to a specific exhibition that they had taken part in creating. Although the museums and the specific exhibitions in question were thematically different, the material turned out to be comparable through the use of a common agenda and focus throughout the interview. The value of the interviews is to be found in other ways than the thematic one. In the analysis, the focus is raised to investigate the prerequisites of the spoken and its political connotations. However, it is imperative to consider my role as a researcher, regardless of how well prepared or 'scientifically correct' my approach to the respondents was. This is to suggest that I consider myself as an inseparable part of the outcome of the interview. This is elaborated upon further in Chapter 3, Part II.

In course of the interview, considerations were made to appear somewhat neutral in everything from presenting myself, as to what to wear and how to behave. I followed a formal-informal approach relative to the respondent, as suggested by McCracken (1988). He suggests that consideration should be given to the respondent and the interviewer should act accordingly, seeking not to provoke contrasts or act in a

² See Appendix 2 for full interview guide.

confrontational manner. On arrival, I consistently presented my project and explained what I was seeking to obtain from the interview. All responded positively to the request to give their informed consent to participate in the interviews. Two respondents wanted insight into the transcribed text used for analysis before printing and one preferred to read the analysis. All conversations were recorded on a portable recorder. The sessions with the respondents differed quite considerably from one to another. As a researcher, I had a clear agenda as to what had to be covered in the interview, including subsequent questioning, but apart from that I was open to any other suggestions proposed by the respondents regarding my general visit to their museum. In most cases we had a short briefing in the lobby or in the café before continuing with the formal interview in more private circumstances. In a few cases, I was personally given a guided tour of the exhibition, and this led to some interesting discussions and elaborations relating to my project. In other places I was more or less left on my own before or after the interview, and I attempted to experience the museum as any other visitor. The personal experiences of the respondents and their involvement in the local contexts in both Austria and Norway represent cultural knowledge that I acquired throughout my fieldwork. Such experiences have influenced my way of approaching and thus analysing the empirical sources in both conscious and unconscious ways. The context of the interview and my personal contribution to the material is naturally very difficult to reflect in a scientific report and is something which the reader does not have access to. Accordingly, I have attempted to provide the most necessary contextual information through the above descriptions of the museums and the respondents, as well as in a few places in the analysis. However, it should be acknowledged that very much is lost in the transition from when the actual interview took place to when the text is read by the reader. To help the reader, I have provided a CD with the soundtracks of the excerpts selected for analysis. The CD should be regarded as for additional reference only, in case the reader finds it difficult to gain an image of the scene simply from reading the transcripts presented in Chapter IV.³

³ The CD is located in Appendix 3 and consists of 6 tracks corresponding to Parts I–VI in Chapter 4.

2.3 Processing empirical material – A preparation for analysis

It is an unfortunate but also a very readily apparent fact that very little from the interviews is reflected in the report. Discourse analysis requires much space for elaboration, mainly because analysing contextual circumstances and the subsequent detecting of narratives and discourses is a highly qualitative process. It is a method and scheme which needs to be developed totally according to the empirical material in question, and the process by no means represents a step-by-step method compared to the more strict deductive methods of quantitative studies. Once the theoretical and methodological apparatus is prepared, there still remains a lot of work for the researcher in finding the way into the abstract passages and corridors of discourse. Hence, much space is devoted to the elaborative analysis, and little is reflected from the interviews.

The interview text presented and analysed requires some explanation. As most parts of the interviews are left out, the respondents and what they said are only represented by a few examples. The actual demarcation and selection of texts is therefore quite significant. The process is described step by step in the following. The method I used in this process is not described in any textbooks. It was a process of trial and error, designed to test the research problem I had outlined prior to carrying out the fieldwork. First, I transcribed the interviews in full in the order that they were recorded on the disc, with time references so I could easily trace the audio passage at a later stage. While transcribing, I highlighted some of the text in a different colour which initially seemed noteworthy and also noted relevant keywords in separate documents, one for each interview. The highlighted texts were the ones considered relevant for analysis. After transcribing a few interviews, some repeated patterns appeared in the list of keywords. I then used a final document to write a common list of themes reflected in all of the interviews. This grew from a sheet of keywords to a rather systematic document with headlines, subsequent notes, and references to the highlighted texts in the different interviews. This final document provided several hints and suggestions as to how the material could be organised and presented in the analysis. In the final stage, I read the highlighted passages repeatedly at regular intervals before deciding upon the final layout of what parts to analyse. Although this process meant a lot of work, considering only a small part of the transcripts would ultimately be used, I nevertheless found it to be very useful. First, through

transcribing the whole interview I was forced to examine the details of the interview and the resulting text. Through the process I started to consider the interviews differently than I had done at the time of interviewing. I saw nuances and entries which I previously had not seen and started to think in terms of discourse with a somewhat gentle approach. I slowly became aware of the many layers which spoken texts in particular represent. Finally, I identified excerpts that as much as possible were representative of the respondents' messages and provided rich sources for the identification of discourses. Six of the eight interviews are presented with a text excerpt in the analysis (Parts I–VI). The other two were left out, as I considered them not to provide any new insights (they are, however, referred to throughout the analysis).

2.4 Translation of Norwegian interviews

The two interviews conducted in Norwegian were first transcribed in their original language and subsequently treated the same way as the other interviews. When I had chosen the relevant parts for analysis, these were translated into English and then presented in the analysis. Such translation is problematic because reported speech and the way people talk is very difficult to translate accurately. In discourse analysis it is not the information content that is primarily of interest, but more importantly, the way things are uttered and phrased. However, during the analysis I kept the original interview in my mind and used this as a reference more often than the English version. Also, for Norwegian speaking readers, I have attached the original Norwegian transcript in Appendix 1. This can be used as a supplement to the English translation presented in the analysis, much in the same way as the audio-samples.

3

SCIENTIFIC ATTITUDE – THEORY AND METHODOLOGY

The potential development within a discipline is perhaps best targeted by introducing unconventional perspectives. That is to suggest a point of view where reality is rediscovered as seen with a renewed gaze, the well-known and obvious facts are detected and acknowledged in a different way than earlier. In addition to the effect of discovery, new approaches may contribute to the elucidation of connections and synthesis in a seemingly complex material. (Pedersen 1994: 15, my translation)

3.1 Introduction

The citation above is to be read as a response to what characterises development in science. Pedersen urge a type of science which dares to challenge the established ways of seeing. He also seems to suggest a type of science which is open to leaving the secure base of mainstream theory and methodology in order to investigate new ways of understanding. I would argue that these issues are opportune in the debate of postmodernity and its consequences for scientific approaches. In its widest sense, this implies that every established truth, even the scientifically established ones, may be doubted and eventually rejected. However, even postmodernists cannot avoid the seeking of truth systems, a world understood through a fixation of meaning (Phillips 2001). Validity is perhaps the greatest challenge faced by qualitative studies. In seeking validity, the path of the qualitative scientist should appear illuminated and transparent. This means that every step in the process should be revealed and the reader invited to judge along with the writer on the path of epistemological doubt. This chapter is a defence of postmodern research and represents the theoretical and methodological foundation for the analytical apparatus applied in the analysis.

In Part I of the present chapter I will outline a theoretical framework to support the understanding of relevant concepts and prepare a foundation for further analysis. The stage is set by first introducing postmodern thinking as a critique of modernist humanity and classical reasoning. I then examine Kant's theory of knowledge. I consider this to be the very point of departure from where humans gain impressions so that, in turn, they may be retold or represented (through for example exhibits in museums). It is sought explained how

investigating the ontological level provides an important entry to the fundamental understanding of social constructivism. Representation and discourse theory is then examined in detail. The sections progressively follow the line of argument. Part II considers discourse as a methodological tool. The research design of this thesis is distinguished by a floating boarder between theory and method. This is reasoned in that discourse as a phenomenon and concept rests on assumptions made interchangeably on the theoretical and methodological level, and thus forming a necessary whole. For this reason, I have discussed issues and concepts at length.

Part I: Theoretical level

3.2 The postmodern tradition – attitude and project

3.2.1 Modernity and science

Postmodernisation, the process of moving from modernity to postmodernity, should not be studied and understood partially. It is an all-embracing phenomenon demanding insights into historical aspects of technology, art, philosophy, and social mentality. In exploring the postmodern scientific tradition I find it useful to contrast with modernity. Trends and paradigms do not establish or manifest themselves out of nothing. New trends arise most likely as a reaction to something established. The growth of a new trend is often an attempt to improve and enlighten the old way of thinking (Duncan 1996, Peet 1998, Holt-Jensen 1999). As such, I would argue that postmodernity is best explained as a reaction to modernity. Modernity may be said to stem from the scientific and industrial revolution in the 18th century and onwards. Developments in technology made way for larger projects, not just in terms of trade, commerce and material wealth, but also in terms of how societies were thought of as dynamic and, more important, manageable. This involved also a great deal of standardisation and ‘common thinking’, at least in the Western part of the world. One key proponent in describing these fundamental changes is the sociologist Anthony Giddens. Most striking is his writing on how systems of trust in social relations have been an essential cornerstone for modernity to develop (Giddens 1990). It is also worth noting that modernity opposed its preceding Enlightenment period by introducing an increased emphasis on cultural and human aspects of society. Humans were also understood within a historical totality, as part of a development (Dybvig & Dybvig 2003). This should partly be addressed to the technical innovations that occurred within the industrial revolution. At no time before was progress more visible than in this phase, through developments in machinery and industry, changing

the history of labour and overall economy so profoundly. Considering these historical facts it is not difficult to understand that there prevailed a certain optimism in rationality and technology, leaving an attitude of wanting to free people from the restraints of the past. Initially, modernism represented social and cultural expressions stemming from a strong belief in common sense and the development of progressively better theories. These were thought of as basic prerequisites for a better society. A collective belief in scientific and technological progress was the guarantee for mankind's advances.

The idea of an emancipating rationality was not least present in the modern scientific tradition culminating throughout the 20th century. Modernity brought with it a rationality based on quantitative studies and hard facts (Hubbard et al. 2002). Structuralism, realism and positivism are philosophies which are identified within the realm of modernity and all constitute the project of the Enlightenment period (Cloke et al. 1991). They suggest ways of viewing the world that are intriguing and I would address this to the fact that they are very precise in their suggestion as to how this world is put together and works. Structuralism seeks, beneath a chaotic social sphere, to identify the structures and mechanisms that initially govern us all. Realism uses abstraction to explore relations between structures, mechanisms and events. Positivism strongly holds science as the only bidder of valid knowledge. These are pinpointing beliefs, seeking to establish rationalities of truth as tools for stability and prediction (Holt-Jensen 1999, Jørgensen & Phillips 1999, Smith 2001). Through these tools, or ways of seeing, modernism in general sees the world to a great extent as manageable.

3.2.2 Postmodernism and plurality

The emergence of postmodern thinking brought with it much scepticism as particularly grand theories and the generally visionary view on society were abandoned (Smith 2001). By the 1960s and 1970s, modernity reached a new phase through new standards of living, the upheaval of the traditional labour classes, and the emergence of more consumer-oriented economies. This meant that cultural and social identity would be defined to a large extent through consumption and expenditure, leaving identity to be ruled by commercialism. These were changes that gave room for a counterattack on the modern ideals. On a more general level it could be said that postmodernisation spins off a different understanding of people's role in society, describing the individual as consumer as opposed to producer. Consumption in this sense means consumption of symbols and tokens, as a drive towards identity, but it is an identity in constant change, fluctuating with trends and fashions (Meyer 2005). Values are

unstable and shifting with media's production of signs, leaving identities in a constant flow. Even personality has in the postmodern transition been given a much more relative status. Although modernist thinking believes that superficial layers exist and put limits to social interaction, it is believed that behind these layers or 'masks' we can trace an ultimate, more real identity (Smith 2001). This stands in contrast to postmodernism thinking that the final personality cannot be pinpointed or framed. There is no real self behind the socially constructed identities.

Thus far, it is reasonable to say that postmodernism brought with it heavy components of scepticism, pluralism and relativism. This is also reflected within the sciences and attempts to understand society. There is a stronger awareness and recognition of the complexity of the world. This means that every attempt to describe or prove some universal mechanism is only of limited value. The goal is no longer to try and grasp the whole complexity, identifying truths, structures or hidden mechanisms. I choose to identify two ways of reading the introduction of postmodern tendencies within science. First, postmodernism is a sceptical reading of and reaction to the modern optimistic ideal. Second, it is an embracement of the more reticent scientific aims. If modernist ideals can be seen as a political programme (or rationality) being promoted and promised with enough striking power for some period of time, it is very likely that some countermovement will occur. Just like any political party constantly trying to convince the majority of the advantages of their agenda. Voters will tire after some time if all they hear is talk and do not see the results originally promised. An alternative is forced to come out of the closet. I am not necessarily arguing that modernism at some point had to come to an end. In fact, we still live very much with modernist reasoning around us, but with the entry of postmodernism we are not so readily obsessed with simple enthusiasm over the healing effects and grand endeavours of modernism. As Peet argues:

Post modern philosophy ... is more than a critique of reason, it is a critique of modern humanity, a critique of the existing human ideals, a critique of ways of knowing and being taken for granted since the eighteenth century. (Peet 1998: 196)

3.2.3 The attitude of postmodernism - Identifying power structures

I prefer to call postmodernism an attitude with reference to Peet (1998: 6). Postmodernism is not just a point of departure for further study. It is not just a suggestion of how to read the

world as it is. It is just as much a counterattack on established ways of seeing and a reminder of the sometimes limiting effects of structuralism and similar instructing theoretical movements. It may work as a grinding paper on the clear-sighted lenses used by modernist philosophy, and restrict the utopia of a stable, well organised society. In this line of thought there are clearly power structures to be addressed. Postmodernity in this sense sees the project of modernity as demonstrations of power. These demonstrations are thought to permeate society on a number of levels. How these are to be addressed or identified depends only on which one of them the eye is fixed upon. Sometimes they are seen as intertwined mechanisms, permeating physical structures and body actions, and sometimes they may be addressed in more closed circles (Meyer 2005). Modernity can be read as a rationality, legitimised and held up by constructed truth statements. That is, reasoned practices are true practices. The practice, or correct mode of action, is given a well-founded sense of meaning (Peet 1998). This is exactly what postmodernist philosophy wants to avoid because there can be no correct mode of action. A modernist standpoint implies an essentialist view on human nature and postmodernism is, on the contrary, purely non-essentialistic.

3.2.4 Facing the critique of postmodernism

In the foregoing sections I have tried to outline ‘the project’ of postmodernism. In particular, I have emphasised the transition from modernity to postmodernity and given insights into the process of postmodernisation. I would argue that to proclaim postmodern values demands this way of entry, acknowledging the stages of development in political rationality. The strength of postmodern thinking is that it will always be connected to the preceding phase of modernity, and then as a countermovement. We are now in a postmodern age, but it is not isolated from modernity, nor has postmodernism replaced modernity. Modernity is a necessary, inseparable part of postmodernity (Duncan 1996). In this way of understanding, the classical critique of postmodernity is automatically undermined. Main objections to postmodernity relate to its relativist and pluralistic features. It is said that it undermines human progress (at least, the belief in such). It is also said to leave nothing but indignation and indifference to the world. This is too abstract and leaves us with no new trail to follow (Dear 1998, Smith 2001, Hubbard et al. 2002). I find this critique hard to support. If we look at what the project of postmodernism is, we find that it does not necessarily disagree with structuralistic or positivist views upon the world. It does not try to repress a structuralistic view. At the same time, it does not try to present a new order. What it does is to consider modernist ideals as an insufficient base for understanding and planning social life. It calls for

attention to the complexity of the world (Cloke et al. 1991). However, as postmodernism has opened up for many new voices and subdisciplines within the sciences, matters need to be substantiated a lot more than before. I would argue that operating in postmodern, and then also in plural, conditions require more operationalising, reasoning and logical argumentation. Validating theories and ideas, for example, is a much more tricky business within a landscape of plurality. In such a landscape, the rationality upon which to build ideas becomes unstable and multifaceted. It could be said that postmodernism has spun off a problematic and difficult, but highly necessary focus on questions touching the epistemological level. This is also why I have given the ontological and epistemological questions ample space in this chapter, which are focused on in the following.

3.3 Epistemology and ontology

Epistemology rests on theories of knowledge, also termed ontology. Ontology is the defined area from where we may derive accountable figures and results. It defines the limits for our understanding within a selected field. I have so far argued for a postmodern attitude in my research, and will continue to outline the more theoretical base of knowledge. Here, I present Immanuel Kant's (1724–1804) most important contribution to ontology and epistemology, and demonstrate his relevance to the contemporary concept of representation.

3.3.1 Kant's theory of knowledge

In total, Kant's theory of knowledge is a rather long argument and a full understanding of it generally demands thorough elaboration of many concepts, which there is no room for here. However, I will try to provide a presentation which provides the most important essence. As I understand it, Kant tried to balance the linkage between empiricism and rationalism, and demonstrated an overall solid system of thought. In turn, he gave the understanding of experience and knowledge a new base which has remained convincing to this today (Hartnack 1994).

Preceding Kant in the eighteenth century, empiricism was the ruling line of thought, most commonly represented by David Hume. Kant's idea stated that up until the time of Hume, the subject, the observer of all phenomena, was a forgotten element in the knowledge accounts (Dybvig & Dybvig 2003). With the Copernican Turn, Kant turns to the subject and considers the ideas of the rationalist and empiricist side by side.

This implies that both the physical world, as we may call it, and the subject, the observer, are assigned thorough attention simultaneously. The critical point in considering sensual experience is – according to Kant – that we must distinguish between the thing as we observe it and the thing itself (Dybvig & Dybvig 2003). Things simply cannot be grasped as they present themselves without our presence. I will briefly explain how Kant reached this conclusion. One of his aims was to understand the limits to our common sense, or more correctly, to explore the range of our reason. He did this through what he referred to as a critical philosophy. Kant argued that there are different categories of the intellect that are wholly necessary prerequisites in order for us to gain experience. It is by these categories we see the rationalist side of Kant. An impression cannot turn into an experience unless the categories of the intellect work to sort and classify it. The intellectual categories represent the toolset of the brain, so that the world appears systematised and in order. Kant delineated what he called two basic prerequisites for knowledge: substance and form. A substance must first be sensed and finally we must understand it via form, which refers to ourselves. This can be visualised more clearly in the following scheme (Fig. 4).

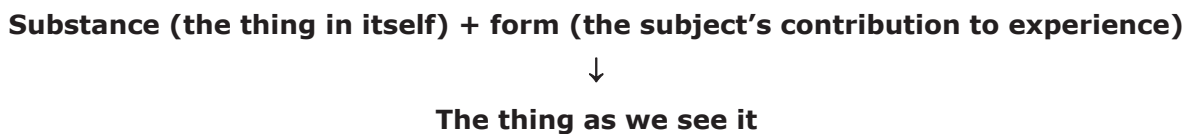


Fig. 4. *A schematic account of Kant's theory of cognition. (Dybvig & Dybvig 2003: 247, my translation).*

The rationalist in Kant states that human knowledge has other knowledge references than just experience. Humans possess the categories of the intellect which exist a priori. This means they precede any experience. The categories of the intellect need not and cannot be verified via experience. The two most essential of these are substance and causality. Another important concept that Kant operated with are the forms of sensibility, time and space. In a way, these two precede the categories of the intellect. All sensing by humans take place first and foremost in time and space. The forms of sensibility exist also a priori and are necessary for us to even perceive the sensation. Without them we would not be able to perceive anything at all. Forms of sensibility define the first step in the sensation process and constitute time-space fixation. Then, our categories of the intellect can help us to understand these sensations and give us a clear feeling of what they actually are. Ultimately, not only can we understand them, but also put them in relation to one another. It is only at this point we may

identify something as experience, according to Kant. Hence, without the categories of the intellect, our sensations would appear to us as a pure chaos. Thus, Kant introduced the important distinction of the thing-in-itself and the thing as we see it.

I consider that Kant's ontology provides a good foundation for further inquiry about representation. Before moving on to the concept of representation, I will comment on Kant's ideas and suggest their close linkages to more modern ideas.

3.3.2 A modern reading of Kant's ontology

In his ontology, Kant touched upon the important aspect of what humans actually see and record in sensual experience. He indicated and explored in a convincing manner what is out there and what is inside us as human beings. The thing-in-itself is assigned status as a clearly separate entity, although humans cannot conceptualize it directly. Something exists even without us observing it. As such, Kant elaborated on the limits to our knowledge, and left us with a self-imposed modesty in what we can know and what we cannot know. With the example of the thing-in-itself, he is very clear that we cannot have the experience of it. We cannot observe the very thing that 'exists' only as a prerequisite for us to observe.

In the following, I will explain one of the ways Kant can be read with postmodern eyes. I have earlier argued for a postmodernist attitude and find good reason to demonstrate it here too. I would argue that Kant was an important proponent to give rise to the understanding of what we today term social constructivism, namely the idea that humans in their social interactions make up one reality out of many possible ones and establish truth systems in their interacting (Mortensen 2001). Wenneberg states the following about social constructivism: '*It attempts to unmask that things which on the surface are regarded as natural or seen as a result of a natural development, are in fact not*' (2000: 72–73, my translation). Social constructivism thus problematises notions and beliefs that are commonly regarded as natural and deconstructs ideas of essentialistic, deterministic, and God-given conceptions. Kant, however, did not go as far as this, but with his Copernican turn and distinguishing the thing-in-itself from the observing subject, he stimulated the notion that humans themselves create the image of what they observe. In other words, this is not to say that Kant was the first constructivist. What he did was to remind us that there is a 'reality' that cannot be grasped without our presence. This very important distinction is enough, I believe, to credit him for at least paving the way for the idea that definitions of knowledge and hence truth can be socially

constructed, for example the forms of sensibility, time and space. Through these, a concept of the past (as something opposed to the present) appears to us as a matter of course, but this is only because we mentally organise things and events in this manner (Neumann 2001). What may be said to exist is the thing-in-itself, but it exists only as a means for our experience. The thing-in-itself is not within our grasp. What Kant teaches us is that what we actually perceive can only be a representation of the thing-in-itself, which I hereafter refer to as the represented. This is how Kant's theory becomes relevant to this project. From the discussion above, I have indirectly stated that we are all confined to perceive the world as represented. In the next section I elaborate on the concept of representation and its inherent qualities as a social phenomenon.

3.4 Representations – Representing the represented

Representation is a fairly modern concept that has emerged in the more contemporary social sciences. Normally it has a less cognitive focus than we saw with Kant and instead tends to focus on how humans constantly reproduce signs and messages in their interaction and communication on all levels. In dealing with representation, some geographers focus on representations of place through, for example, travel advertisements in newspapers. As such, the concept is important within geography as a discipline because it provides an important tool with which to study place and space. This understanding of representation is emphasised by Holloway & Hubbard (2001). Representation may be linked not only to place, but also to everything else we relate to. In the book chapter titled “‘This is not a landscape’: Circulating reference and land shaping”, Olwig (2004: 42) describes representations as follows:

[representations] can be expressed in the form of spoken or written language, by graphic and pictorial means, or by a combination of the graphic and the written, as in a theorem in geometry.

The particular constitution of representation may therefore be understood as taking a number of forms. It may be summed up as all the channels humans are able to communicate through. Olwig mentions language, visual illustrations, and the combination of the two. At first thought, one might believe that the concept of representation refers to types of communication where the particular message is somewhat clear, for example through text or landscape photographs – statements where the observer is at least able to understand what the piece of text means or see what is to be found on the photograph – but this is not the case. There is nothing in the definition of representation that demands a well-performed, clear, focused, and

convincing demonstration. Representation may just as well include abstract works of art too, although what is represented or referred to might be less clear. Holloway & Hubbard (2001) include even fashion and body language in the sphere of representation.

The point is that representation will always refer to something, and I would argue that this something is a somewhat tricky issue. As is clear from the discussion of Kant's ontology, searching for *the represented* is impossible. *The represented* is, in a Kantian sense, beyond reach of the human brain. Instead, we have to focus on representations as a way for humans to unfold and communicate. In doing so we are implicitly aware that representations do not mirror some reality out there. However, we also need to include representations derived from other human beings. We take up representations from other people in some form or another, make them our own, chew on them and work them over, and represent them further as a re-represented representation. This means we find ourselves in a circular negotiation where representations are being re-represented over and over indefinitely. I have found support for the idea of circularity in representing processes in Olwig's chapter. He discusses the relationship between representations of landscape, how these are intertwined, with the first influencing the second, and vice versa:

The particular form of representation can shape the landscape represented, and the landscape thus represented can shape its representation. This circularity, furthermore, can end in a form of self-referential circulating reference in which the landscape is shaped in its own representational image, and the distinction between the representation, and that which is represented, is lost. (Olwig 2004: 42)

Thus it can be understood that trying to understand representations as isolated phenomena is not easy, but even if they cannot be said to reflect a reality they are no less relevant. As both Holloway & Hubbard (2001) and Olwig (2004) uphold, representations are no less real for us as human beings. Representations are what humans have to relate to, and therefore they need to be taken seriously. They are our conception of the reality as we know it (Wenneberg 2000). We can now move one step further in understanding the concept of representation.

It follows that for a representation to mean something, the observer has to possess some kind of experience or reference material. In the widest sense, this refers to all possible experiences an individual may be said to have up until that point he or she observes a representation. It is

via this reference material the observer may process and make order of what they see. This cognitive process may be described as follows. The representation is manifested, passes through a mental grid and unfolds itself in the mind, and is hurled into the big mixture of reference material. There it is stored until it is once again uttered, but now in a different form, maybe as a response or a comment. As we now can imagine, what a representation actually communicates to the observer is not just dependent on the representation and its author, but also the receiver. This suggests that when we are exposed to a representation we use our background experiences to receive a particular message. As Holloway et al. suggest, '*there is an inherent inseparability between the represent-er and represent-ed*' (Holloway et al. 2003: 323). In the strictest sense, without a foundation of earlier experience we would probably not be able to read a representation, nor represent anything by ourselves. In the following I will focus on even more complicated aspects of the relationship between representation and observer.

3.4.1 Representation and selectivity

One very essential inherent property of representation is that it will always represent a partial and subjective view. It is not the case that representation may comprise a totality of all possible views. Representations can only include parts of the bigger picture. For example, an uttered phrase or sentence may refer to a specific phenomenon. The phrase is then only able to capture a very narrow view related to this phenomenon, although it may be understood in very many different ways. The same phenomenon may be talked about, understood, and referred to in endless variations. Another example might be a typical landscape representation, such as an early 20th century relief (Fig. 5).



Fig. 5. *Grossglockner*, Edward Theodore Compton (1918). Photo: © Alpenverein-Museum, Innsbruck.

The relief in Fig. 5 shows a mountain, but the picture is only able to frame it from one perspective at a time. From being ‘alive’ and in situ, where all its shades, perspectives and aspects are manifested, it is then fixed by the painter onto the canvas in two dimensions. The artist has no other option than to choose one out of an endless number of possible perspectives. I would argue that we are facing the same problem in the case of the uttered phrase. This is undoubtedly limited due to the fact that a phenomena may be understood, just like a mountain, from an endless number of viewpoints. So far, the subject’s role in representing is seen as limited. The process of representing is negatively charged in that it implies the inevitable act of framing one perspective, an act of reducing a multifaceted phenomenon into an angled and biased representation.

At the same time as this conduct of choice is an inevitable and perhaps unfortunate fact, it can also be understood as somewhat more complex. The conduct of perspective choice is not just something that is forced upon us. We may have no other choice than to take up a perspective, to take a stand so to speak, but this is also something that can be done actively (Holloway & Hubbard 2001). A subject or an interest group may want to promote a particular view according to their interests. A perspective may then be chosen so as to support and spread this particular understanding. In the following, the act of representing may be understood as a

game where some parties are more powerful than others. For example, those that possess the property to speak via public media, for instance, are likely to have greater influence than those only able to spread their message to their neighbour. A person or group may be in a position to express themselves via an authority or ‘institution’:

Institutions impose restrictions by defining legal, moral and cultural boundaries setting off legitimate from illegitimate activities. But it is essential to recognise that institutions also support and empower activities and actors. Institutions provide guidelines and resources for acting as well as prohibitions and constraints on action. (Scott 2001: 50)

Here, institutions are considered with regard to representing formalised statements and practices which function both positively and negatively for the participants (Solhaug 2003). The museum should be exemplified as such an institution, particularly in view of their staff and visitors.

3.5 Discourse and its links to power, text and materiality

The power negotiations ongoing in the process of representing are highly complex. While it was suggested in the previous section that those disposing the public speech are the ones with greater influence, it is undoubtedly clear that on a general level individuals are less able to influence and promote their interests than, for example, a political party. I would argue that this understanding and addressing of power is too narrow. It suggests a top-down definition of power. However, by elaborating on the concept of representation I hope to make it clear that the author of any given representation and the receiver are an inseparable entity. It lies in the interests of the author that the message received is the same as the one originally intended (except in those cases where a more free interpretation is desirable) (Jørgensen & Phillips 1999). It is therefore imperative that the author keeps this in mind in the process of formulating text, or drawing the lines of an image. As such, the author needs to adapt to some level of conformity, some common tongue, or as mentioned earlier, a ‘shared system of meaning’. This realm, which might be termed discourse, represents what authors, proponents and speakers always relate to in some way or another. Discourse works to mirror the spoken and written word, thereby providing it with meaning. Discourse in this sense refers to that ‘shared system of meaning’, to that order which makes a statement meaningful.

Definitions of discourse are provided by many scholars, and they tend to vary depending on the context they are sought applied in. The following should be regarded as an approximation suited to this project; it is not the only definition possible. Jones (2003: 25) offers a broad definition of the term:

A discourse can be broadly understood as any discussion or exchange of ideas, expressed through conversation and dialogue, talks and lectures, and/or writings that treat a subject systematically and at some length.

While this definition suggests that discourse appears as soon as a notion is stated, or even as soon as an uttering takes place, it does not take into account the critical perspective of language. What can be noted further is that discourse is suggested to appear through an elaboration of some theme, which in turn suggests that discourse appears through a series of notions and statements, i.e. constituent parts that make up a whole. Discourse sums up groups of narratives and representations which take place in a material space, whether they be linguistic phrases, practices, modes, habits, or elements simply constituting the context and finally a culture (Neumann 2001). Discourse in relation to context, then, becomes the sphere that is ever-present in order for something to give meaning.¹ In tracing the more or less abstract constituent parts, I refer to narratives as a useful entry. In its simplest form a narrative is a: ‘*spoken or written account of events*’ (Oxford English Learners Dictionary 1989). Hence, a narrative refers to the actual spoken or written sentence about an event, while it may be interpreted in relation to its discourse on a higher level. This leads to the understanding that narratives are what make up discourse altogether, but it is also through discourse that we understand narratives. As Barnes & Duncan (1992: 8) state: ‘*discourses are practices of signification, thereby providing a framework for understanding the world*’. For example, I use the term narrative in the analysis to refer to some specific statements and utterances made by the respondents and most often I interpret these in the light of a superior discourse. In this sense, my notion of what the overriding discourse is influences my way of interpreting the uttered piece. This two-way dynamic suggests that discourse not only works to define uttered statements with meaning, or as Livingstone (1992: 341) more critically named them: ‘*strategies of moral manipulation*’, discourses are dynamic too. To conclude, discourse may be preliminary summed up as follows:

¹ For the sake of clarity, it should be noted that I understand the three ideas of context, culture and discourse as closely linked together and thus representing slight variations of the same. I believe we can without problem state that both context and discourse are culture, or for that matter that culture and discourse are context.

[D]iscourses are both enabling as well as constraining: they determine answers to questions as well as the questions that can be asked. More generally, a discourse constitutes the limits within which ideas and practices are considered to be natural; that is, they set the bounds on what questions are considered relevant or even intelligible. These limits are by no means fixed however (Barnes & Duncan 1992: 8).

As this definition proposes, discourses are just as much a result of speech as speech and text are a result of discourse. In order to pursue a more profound understanding of the conceptualisation of discourses I will, in the following, refer to one of the key proponents within the field. The French philosopher Michel Foucault is considered to be one of the main proponents in elaborations on discourse (Jørgensen & Phillips 1999, Heede 2002). In fact, most developments of discourse theory today stem from his apparatus of notions. In his main work, *The Order of Things*, Foucault (2004) demonstrates particularly how language has played a crucial role in how our world of meaning has come to be through language. From the very first human grunt, language has increasingly developed into a finer system, a grid where words are dependent on each other, until it finally became so rich that humans could develop themselves through technological advancements, and attain the society we have today. According to Foucault, a development like this would not be possible without language and he demonstrates this very convincingly throughout his book by referring to manuscripts from a wide range of literal epochs in Western civilisation.

It is not difficult for anyone, even those that have not read Foucault's work, to agree with his understanding of language as crucial in all human conduct. However, what is more noteworthy is Foucault's and other post-structuralists' understanding of the ruling effects of language. Post-structuralists have always been occupied with making visible the formalising practice of structural linguistics, and, as such, work under the ideology of postmodernism and towards what they believe is a more just conception of the world.² It is important to note that this have not lead to clear suggestions as to how the world should be perceived, but rather to suggest how meaning is caught up in social processes (Pratt 2000). Furthermore, the social negotiation of fixating meaning is considered a field of struggle, strategy and power. Post-structuralists do not operate with a top-down definition of power because the power cannot be

² Post-structuralism represented by Foucault, Derrida, Lacan, Deleuze, Baudrillard, Lyotard, and Kristeva, opposed the formalism of structuralist linguistics and the knowledge it represented (Pratt 2000). Post-structuralism as a movement is, however, not elaborated upon here.

located to one actor more than another. Also, power does not reside solitary in the subject doing the uttering because it is always the case that he or she is adapting to certain rules of communication. Influenced by post-structuralist thinking, I would suggest then that power is preferably defined and located within discourse, and not to some individual or particular group of people. Hence, power can be defined as: *strategies, practices and techniques*. (Johnston 2000: 629-630)

The power of discourse and its ruling effect is ever-present in so far as we act within a context. Context is defined as:

[C]ircumstances in which something happens or in which something is to be considered. (Oxford English Learners Dictionary 1989)

Context can thus be understood as the surroundings, physical and mental, i.e. the space in which human action and interaction take place. What defines the context is very much up to the humans that interact within it, and what they regard as essential. It will depend on the phenomenon being constituted. Now, considering discourse in relation to context, discourse traces the context in terms of text. That means everything considered to constitute context can be linked to references of text. In one way, discourse establishes a way of reading the world as text. This can be argued through the notion stated by Hubbard et al, (2002: 124), in that ‘*communication relies on the existence of language in its written, spoken, and metaphorical forms*’. This gives us further support for the notion stating ‘everything is text’. While this may be a bold statement in itself, it is important to see the linkage between what might be termed materiality, text and discourse. Once again, we can turn to Kant and the thing-in-itself. Where materiality may be defined as the world as it somehow presents itself to us, or we might even call it the thing-in-itself, it becomes cultivated once it is perceived and finally represented. In other words, the transition from the material, physical world is dynamic as all practices and human interactions are perceived via established mental categories and further referred to within the confines of language (Jørgensen & Phillips 1999, Neumann 2001, Phillips 2001). As such, a certain materiality is absorbed into language and speech as the use of nouns ostensibly refers to our surrounding objects. Tuan (1991) elaborates on how language in relation to the conception of place has been neglected by geographers. One assertion of place in relation to language and human understanding is that places are constructed mentally as they are debated and negotiated, but Tuan goes deeper to suggest that:

Words ... can have the power to render objects, which were formerly invisible because unattended, visible, and impart to them a certain character: thus a mere rise on a flat surface becomes something far more – a place that promises to open up to other places – when it is named 'Mount Prospect'.
(Tuan 1991: 684)

This is to suggest that the 'simple' act of defining surroundings by ostensive definition has clearly discursive consequences, since once defined, a word denoting an object will interact with other words. Words are given meaning through other words. For example 'hot' is given meaning by what it is not, namely the opposite, which is 'cold'. Consequently, words are what make up speech and text. They constitute narratives, stories that can be linked to the overriding discourse. It is in this way that I believe discourses can be traced to materiality.

Furthermore, discourse can be said to be linked to materiality in the sense of institutionalised practices. This is an understanding that is demonstrated by Neumann (2001), who points to how discourses in institutions are maintained and substantiated socially through routines, norms, common understandings and the repetitive character of these. For example, each character defines its own role according to how they believe they should act to such an extent that they make up a rationality of truths that become very difficult to resist or object to. As such, discourses of common practice provide guidelines to performativity and body-action – an understanding that is in line with Tuan's argument. Tuan calls for an understanding where language is considered as powerful because it has the effect of putting ideas and policies into practice, and further maintaining them. He is very clear that language itself does not change landscapes, but as he states: '*Speech is a component of the total force that transforms nature into a human place*' (Tuan 1991: 685). As such, subjects are subordinated the realm of language. Humanity and language are co-constitutive: '*our way of talking does not reflect the world, our identities and social relations neutrally, but plays an active role in creating and altering them*' (Jørgensen & Phillips 1999: 9, my translation).

3.6 Comments relating to Part I

Part I, the theoretical part of this chapter, has aimed at positioning my viewpoint in a scientific tradition as well as exploring the ontological foundation for representation and discourse. Kant's arguments in metaphysics and ontology were given space in order to pursue a focus on how representation and discourse are connected to materiality. In Part II, I take a

step further and focus on method and methodology as seen in relation to discourse analysis. I find it imperative to stress that the point from which I separate the two parts of the chapter in no way represents a fixed border. In discourse analysis, the play between theory and method is in constant negotiation. As Jørgensen & Phillips (1999) argue, discourse analysis must not be applied disconnected from the theoretical and methodological foundation. Assumptions as what is suggested to exist in this world (theoretical level) have consequences for what is focused on in the analysis and the way in which this is pursued (i.e. at a methodological level). Part II will therefore examine in detail how discourses may be traced. A methodological framework fitted to the empirical material in the analysis will then be suggested.

Part II – Grasping discourse

3.7 Discourse analysis

Having gone through basic theoretical notions on discourse in Part I, I now turn to the more specific understanding and conceptualisation of discourse as applied in the analysis. A basic notion in discourse analysis is that there is no method that is universally applicable. A wide range of textbooks suggest ways to go about approaching discourse analysis. They may provide insights into how to understand the layering of text, how to differentiate between these and how discourses can be traced and sketched from a given empirical source. However, what makes one analytical application more suitable than another depends on the empirical material. That is because language and narratives appear in so many forms. Each project must be considered as unique, and the methodological design must be considered thereafter. This means that a project may draw upon a series of techniques and approaches in order to bring the material to life, so to speak. A common problem in discourse analysis is the nearness to the empirical material. At first glance the text may appear as unproblematic, as if it was not related to discourse. This can lead to a state where there does not seem to be much within it other than what is actually said. The problem may be more apparent in cases where the researcher is in harmony with the culture he or she is studying. Then it is more difficult to see how the given cultural system is dependent on narratives and specific subject positions in order to maintain its potency. A certain critical distance is necessary in order to pursue discourse analysis as the latter will necessarily involve the analysis of culture. According to Sørensen (2005), cultural analysis can help us to detect the codes and rules of interpretation underlying all human conduct and communication. This distance is never fully reached, but

favourable over the other. It is very likely that they may be alternated. For example, a discourse on the individual level (discourse psychology) may be connected to another at a higher level, thereby touching upon the critical discourse perspective. In this study, the main emphasis will emanate from the critical discourse analysis, but discourse psychology will also provide useful entries to the material. I will now outline the more detailed aspects of these two approximations that I consider most relevant. I base my outline on Jørgensen & Phillips (1999).

3.7.1 Critical discourse analysis

First, it is suggested that social and cultural processes have a linguistic-discursive character. As an example, landscapes represent language formations in so far as they are consumed and 'read' from the constant process of representing (Olwig 2004, Widgren 2004). Second, discourse is both constituting and constituted. This implies that discourse works to shape future discourses as well as possibly representing an example of a contemporary situation. In other words, discourse is both an action from which humans affect the world, and time-place specific. Third, language is analysed empirically in a social context. This is in contrast to discourse psychology which makes use of rhetorical analysis, tending to isolate an individual's statements from the discourse on a higher level. Fourth, discourse constitutes ideology in that it tends to frame and embrace groups of people working according to their common interests. Fifth, discourse should represent a critical point of view. This means discourse is not studied in order to neutrally report what is going on. Rather, it should engage in and inspire social change. This is with reference to how discourse and parties that represent it constitute power. The critical point is to reveal practices as generated through discourse, and exemplify the structures of ordering power. Although not directly representing anyone's side, it is believed that the results of critical discourse analysis could be one step in the urge for social change, suggesting that a different world is possible. The approach represents, then, a mission of justice, as it in some respects seeks to identify what unconsciously works to affect us all (Jørgensen & Phillips 1999, Phillips 2001). The connection becomes clear when looking at museums, and this project in particular. It is suggested that knowledge and policies regarding nature are both constituted and constituting in museums. In this project these notions are mediated via interviews with curators. The task is then to demonstrate that this view (as exemplified by both researcher and respondent) is a selected view. It is a view that is chosen as one out of many alternatives.

3.7.2 Discourse psychology

Discourse psychology is sometimes explained as a countermovement to cognitivism. Cognitivism argues that language is a reflection of reality. It further regards the individual as independent, possessing a somewhat static identity. On the contrary, discourse psychology sees identity as integrated in social processes, assuming that it is something dynamic and variable. Our way to understand the world is context dependent (Jørgensen & Phillips 1999). Discourse psychology views group processes as vital in discourse formation. As such, identity is interesting, as people have a propensity to identify themselves according to a group, manifesting a group mentality. Finally, discourse psychology focuses on the relationship between attitudes and actions. A mismatch between ideology and practical life can often be traced and provides an interesting insight into the negotiation of different interests and identities going on at the individual level. Ideology and identity will, in this respect, be an important aspect when considering employees in natural history museums. However, discourse psychology does not just become relevant as a mere strategy and approach in the analysis. I suggest that it is an inevitable perspective because the empirical material is in interview form. This will be elaborated in the following.

3.7.3 Discourse analysis of interview talk

The discussion so far has focused on typical formal representations of discourse. There is a tendency to think of discourse in terms of formalised pieces of text. It has been noted that discourse can be manifested through simple utterances or spoken phrases, but I would argue that a majority of discourse analyses investigate material such as film productions, textbooks, novels, paintings, and brochures. What all of these sources have in common is that they are created without the helping hand of the scientist. To use the words of Condor (1997: 117), the material *'pre-exist in the involvement of the researcher'*. This can be seen as an advantage in that it gives support to the notion of the scientist as a mere observer and commentator. This issue becomes somewhat more problematic in interview text which forms the basis of this thesis. Thus, the material can hardly be said to present itself to the scientist objectively. The interviewer and the respondent take part in a dialogue where information and knowledge are exchanged. Most common in a discourse psychological approach is the semi-structured interview (Phillips 2001). This kind of interview invites the respondent to elaborate freely on relevant issues, but the agenda is controlled and maintained by the interviewer. This base provides examples of knowledge production, and examples of discourse. Rooted in the post-structural perspective that language plays an inherently fundamental role in our understanding

and that any claim to truth is evidence of positions of power, I would argue that this knowledge must be viewed in terms of its context. It must be considered in light of the circumstances it took place in, both from the viewpoint of the respondent and the interviewer and/or researcher. The knowledge production manifested in the interview then becomes dialogic. For example, the outcome depends very much on who I, as a researcher, believe the respondent is, and what assumptions about me the respondent bases his answers on. As such, the questions may, for instance, be analysed in terms of which identity the respondent seems to draw upon interchangeably. Therefore, I choose not to consider the respondent's utterances isolated from my own, or isolated from the context in which they took place. The interview may then be understood as a process of mutual self-positioning. This is a suggestion as to how conversation works as a result of the existence of discourses. Discourses, as such, may be said to represent a variety of identities, a hat to be taken on and off, some identities in conflict, others working to substantiate each other. In the following, I will outline the concept of the research process as dialogic and its controversies.

3.8 Discourse analysis as dialogic research

It should be noted that the semi-structured interview used in discourse analysis does not necessarily differ from interviews carried out in relation to qualitative studies not pursuing a focus on discourse. The major difference lies in the transcription process, presentation of the transcribed material and the subsequent analysis. The crucial point for the discourse analyst lies at the interception between interviewing and analysing. An ethical problem might, however, arise when the researcher prepares for a conversation that on the surface seems like nothing more than an exchange of information and an otherwise friendly talk, but consequently undertakes an analysis where the actual information in the interview is considered indirectly interesting since the main object is to consider the premises for the spoken (discourse analysis). The moral dilemma arises through the fact that the respondent, although he or she may be informed of the object of the project, seldom has the necessary background in social sciences to understand what really is going on. To take the position of devil's advocate, the researcher then appears somewhat cynical, and conducts a conversation only in order to prove his or her example. This notion of critique is heavily expressed by Condor (1997), as she comments on dialogic enquiries to be used in discourse analysis:

It may well seem to the respondents that the interviewer is genuinely interested in hearing their story, in learning about their experiences, or in discussing the social or the natural world with them. In fact, it is

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probably the case that the researcher has led them to believe that this is the case in order to obtain their co-operation. But there the similarity with dialogic fieldwork ends. For there is no reciprocal sharing of knowledge (or, at least, the research reports do not tell us of any). Rather than engaging in a two-way debate the researcher typically poses questions and the researched dutifully respond. (Condor 1997: 116–117)

Condor points to the respondents as being somewhat seduced, or at least that the researcher strategically shares only one side of the story in order to gain cooperation. Condor's more thorough objection regards the tendencies in the analysis of the researcher to keenly interest themselves in the respondent while leaving the crucial footprints made by themselves out of focus. She argues further that the research is not dialogic, due to the fact that the research results are only indirectly suggested during the interview. According to Condor, the interview is not dialogic because the interview is only considered as a means for further research. There is no equal cooperation in gaining new knowledge. I interpret the critique as stating that if the research could be termed dialogic, then the morally implied accusations towards the researcher would fall apart. A reply to these issues thus becomes a vital point for discourse analysts who depend on interviews. Condor's critique somewhat defines the point at which this kind of research may be legitimised or not. The critique relies on the use of semi-structured interviews as a method in connection with discourse analysis (Phillips 2001).

I support Condor's claim that respondents are not fully invited to join a dialogic process. However, in my opinion it is not possible for them to do so. Discourse analysis has to remain the domain of the researcher. One response to Condor could be to suggest that the researcher should invite the interviewer to see in the same way as him or her, and thus achieve a more dialogic situation. Yet it does not follow that just because the researcher has knowledge about discourses and may adjust the interview accordingly, they should include the respondent into the same world. This is to suggest that fully dialogic circumstances, based on discourse analytical premises, are not achievable in interviews because the respondents are not and cannot be co-scientists. I believe the researcher has no other choice than to treat the interview as if it was for use in a non-discourse analytical situation. It lies in the nature of general discourse analysis that the researcher will not focus on the spoken or written on a theoretical level but instead attempt to explore the circumstances under which the statements give meaning. To invite the respondent to view the themes raised during the interview in a discourse analytical perspective would probably lead to a strange dialogue. Should we

conclude from this that the semi-structured interview is unfit for discourse analysis? I would say no, and in the following argument I lend support to Phillips (2001) who provides a thorough response to Condor, and good logic as to how to value knowledge derived from discourse analysis of interview material. The response to Condor provides not just a defence, but also positive substance to a much debated methodological apparatus.

3.8.1 A response to Condor

First, Phillips' (2001) response to Condor starts with an approval of theory-based knowledge. At the same time, she also promotes different requirements to dialogic knowledge. She claims that dialogic knowledge does not imply that analysis and research results are derived through a co-production with the respondents. The analysis thus performed by the researcher has value in the epistemological premises stated by social constructivism. This position asserts that the value of research is not measured in terms of the respondents' level of interpretation and its correlation with that of the researcher. The theory-based interpretation of the interview may have value in itself independent of what the respondent may think of it. Phillips further contends that this is not so because the researcher has privileged access to knowledge, but because the results of the analysis provide a different type of knowledge than what is called for in studies not embracing the perspectives of discourses. In her own words:

It is through the use of theoretical knowledge in interplay with the topic in question the researcher clears the path to new knowledge, that suggests alternative constellations of the world, rather than 'just' reproducing the respondent's knowledge and thus the existing constellation of the world.
(Phillips 2001: 105, my translation)

It is clear, then, that Phillips suggests that the critical point is not to be found in the interview itself, but rather in the subsequent analysis and writing of the report. Phillips demonstrates that Condor's critique is up to date and to a certain degree called for within the tradition of discourse research in psychology. She agrees that most discourse psychologists do not meet the requirements for a dialogic approach. The emphasis in Phillips' counterattack on Condor's demurs rests on the advantages of discourse analysis. For example, analysis requires fairly long quotations from the conversations, often to a higher degree than in conventional use of interviews. Both the respondent's and researcher's voice are included. This is necessary in order to achieve a preferable degree of transparency of the analysis. The reader is more likely to follow researcher's way of thinking, and to judge for themselves and consider whether they

agree or disagree with the analysis thus performed. However, full honesty regarding the sources can never be fully attained. It should be recognised as an inevitable fact, and to some extent taken account for, that the interview as a whole is cut into pieces and put together in a fashion governed by the author (Jørgensen 2001, Phillips 2001).

Another advantage of discourse analysis concerns the aspects of reflexivity. According to Phillips (2001), the demands for full reflexivity are derived from the background of the epistemological doubt that social constructivism represents. The issue of reflexivity is hereby understood as being conscious of the researcher's role in engaging with the empirical material on all levels, from interview to analysis (McCracken 1988, Jørgensen 2001, Valentine 2001). This consciousness should not only take place in the researcher's head, but it should also be demonstrated in the scientific report, by openly discussing the premises for the empirical material. More precisely, this means that in presenting empirical sources and the appurtenant analysis, a retrospective voice should be present, never considering a respondent's statements as disconnected from the researcher's involvement with them. This becomes especially crucial when dealing with interviews performed by the researcher. To conclude, Phillips (2001) meet Condor's (1997) critique by highlighting the latently positive advantages posed by discourse analysis, but demands that only a strict fulfilment of these may categorise the research as both dialogic and critical. It is further suggested that fulfilling these requirements implies transparency on all levels. Transparency involves for the researcher to present his or hers work openly, and reveal all aspects of the research process to the reader.

3.9 Final analytical strategies

The discussion in Parts I and II have theoretically and methodologically prepared for what is to be found in the analysis. They provide both theoretical support for the discourse analysis and also help in what to look for when analysing. In the final part of this chapter I would like to recall the triad represented in the Introduction (Fig. 1), and point out how it is applied in the analysis.

The museum staff's statements are analysed based on the text excerpts taken from the interviews. The main discourse analytical technique applied in the analysis can be referred to as detail enlargement. Detail enlargement refers to the focus on specific parts of the text identified by the researcher (Jørgensen 2001). The details are emphasised in order to understand the premises for the spoken. Statements may give meaning through, for example,

dichotomies, representations and discourses. These can only be clarified by investigating them closely so that different layers of the text are revealed. As my respondents' statements constitute notions about exhibitions, museums, visitors, and their own role, all three parties in the triad will be drawn upon and I will detect discourses that are related to each of them. However, the concepts of 'identity' and 'interest' and 'ideology' become relevant to the research questions asked in the Introduction. These are underlying premises for the employees and their statements. They will be drawn upon in the analysis and conclusion. The first considers the identity of the employees. Ryan & Deci (2003) suggest the following definition of identity:

Plainly put, individuals acquire identities over time, identities whose origins and meanings derive from people's interactions with the social groups and organizations that surround them. In turn, these identities, once adopted, play a significant role in the organizations and regulation of people's everyday lives. (Ryan & Deci 2003: 252)

The identity of the employees is thus an underlying premise in all statements made by the employees. However, parts of the analysis explicitly focuses on the employees' identity as this is an important aspect in their process of negotiating between the museum and the visitors. In this sense it becomes important to address the employees' interests. To what extent do the employees' statements reflect their own interests? Interest is hereby understood as:

a fascination and a drive towards something. (Bandura 1986: 243)

Bandura understands interest as a relation between subject and object. In the case of the museum staff, I identify interests in a somewhat political sense. For example, when they talk of the visitors' experiences of an exhibition, a part of their statements can be understood as a description of the interests of the visitors, namely to achieve a positive experience. However, visitors' interests can also be ascribed to the interests of the employees if the latter feel a responsibility for the visitors' well-being. From this, it can be understood that it may be difficult to locate interest to a particular group or person. This is taken into account, both in the analysis and in subsequent conclusions. The focus on interests is, however, relevant because it can be linked to the concept of 'ideology'. Ideology can be understood as:

a system of signification which facilitates the pursuit of particular interests and which sustains specific relations of domination. (Thompson cited in Gregory 2000: 369)

Ideology can thus be understood as a force that works to maintain a particular set of interests. It is clear that ideology is linked to power, as it may work to sustain *relations of domination*. As such, identity, interest and ideology should be considered as relevant concepts in the study of discourse relating to employees' negotiation with institution and visitor.

3.10 Final comments and conclusion to Chapter 3

In Part I, I sought to provide a thorough defence for postmodern thinking as a counter-reaction to modernist ideals. I developed my own ontological framework by linking Kant's theory of knowledge to the concept of representation and discourse. This provided a framework from which epistemological enquiry could be developed. The epistemological framework was elaborated in Part II, where I presented techniques and entries for grasping discourses. I related this specifically to my own project by problematising the use of interview material in discourse analysis.

As a whole, I believe I have provided a well-founded argument for applying unconventional perspectives within this project. Finally, I would add that the aim of this chapter and application of discourse analysis is in line with the humanistic tradition in human geography that appeared in the 1970s and which still seems to have validity today. One of the tradition's main targets was:

to understand the lifeworlds of individuals and 'the taken-for-granted dimensions of experience, the unquestioned meanings and routinized determinants of behaviour'. (Limb & Dwyer 2001: 3)

At the same time as identifying discourses, discourse analysis implicitly demonstrates that a different conception of the world is possible. That means studies of discourse imply a clearly ideological component in that they put words to what leads to '*the unquestioned meanings and routinized determinants of behaviour*' (Jørgensen & Phillips 1999).

4

ANALYSIS

The following Parts I–VI provide text excerpts from the interviews conducted with employees in natural history museums and a discourse analysis of these.¹ The excerpts presented here are the ones I considered most relevant to answer my research questions. Each part starts with an introduction and finishes with a concluding remark.

Part I

*4.1 ... the Glacier Museum concerns precisely that process of popularization, which is a very difficult subject area*²

Introduction

The role and identity of the scientific staff members are important considerations in the proceedings of natural history museums. Their integrity plays a large influential role in defining knowledge and representing it to the visitors. It is this integrity and the way it is negotiated and maintained which is studied here. The following excerpt represents a discussion where Karen Weichert from the Norwegian Glacier Museum is concerned about the professional and scientific profile of the museum. She elaborates on the importance of appointing a staff member with a scientific background to the institution. She thinks this is particularly important for keeping the museum scientifically updated, and for mediating scientific knowledge reliably to the visitors. Karen is in a position where she balances between the level of professional science and the level of the audience in her work. The subsequent analysis will demonstrate how her identity as a scientific staff member is negotiated between these two respects, which discourses she and the interviewer draw upon, and how these work to substantiate the importance of her work as a scientific staff member. The analysis of this text excerpt considers in particular the dynamic between interviewer and respondent. This means the discourse psychological level is emphasised, but also critical

¹ As mentioned in Chapter 2, two respondents are not presented by text excerpts as I considered them not to provide any additional insights. All eight respondents are, however, referred to throughout the analysis.

² (Weichert 05.07.2004)

discourse analysis is applied. I found this approximation to be most suited to investigate Karen's role as a museum staff member.

1 Sigurd: So do you consider the museum to be more than just an amusement centre? More than just plain
2 exhibits?

3

4 Karen: Yes, well it has to do with the fact that there is a professional member of staff here. This is not
5 obvious for a museum. At least not in Norway.

6

7 Sigurd: Because there are many who haven't one?

8

9 Karen: Yes, there are many museums that don't have the capacity to engage a professional staff member.
10 They may hire services ... but that is not the same as engaging a professional staff member on a
11 permanent basis, with the exception of the large museums, of course. The Glacier Museum is
12 considered to be a small museum.

13

14 Sigurd: Hmm [confirming].

15

16 Karen: And the fact that there is a professional staff member here shows that the museum maintains a certain
17 status in the sciences and that the museum staff wish to be linked to a certain scientific environment.
18 Well, I think if this had not been the case, then probably many other professionals wouldn't stop off
19 here when on field trips. They'd maybe stroll through the exhibition, but then stopping here to
20 exchange news or experiences in their specialist field or discussing such ... That wouldn't have
21 happened if there wasn't a professional staff member here.

22

23 Sigurd: So do you get many enquiries from specialists?

24

25 Karen: Yes. So, it easily happens, well when you're referring to universities and schools and so forth, that
26 the Glacier Museum becomes something of an attraction. There can be tuition, or students and pupils
27 can come here to work on projects. That is when you create an environment for academic standard
28 and such, and I think that ... It has always been in the interests of the Glacier Museum to represent
29 such a site. Not just a museum with an exhibition, but ...

30

31 Sigurd: Do I understand you correctly if you say that the museum can be a link through its way of
32 representing science on a more popular level, not just ... in a way, that middle course between
33 professional staff and general tourists. Well, there are some students, like you say, and ...

34

35 Karen: I have the impression that, at least when I talk to some of my professional contacts, that they consider
36 the Glacier Museum as a window out to the lay people in a way, something they can use to

Analysis

37 disseminate the results of their research out to the common people. Well, it is often the case that the
38 scientific community discuss internally. I think many regard the Glacier Museum as such a site.
39
40 Sigurd: ... Where they can also air their ideas and maybe secure some response in that way?
41
43 Karen: Hmm [confirming].
44
45 Sigurd: So you welcome new input to the museum? It's not just your task to spread knowledge but you
46 should also be aware of current developments in the sciences?
47
48 Karen: Yes. And the main task here at the Glacier Museum concerns precisely that process of
49 popularization, which is a very difficult subject area. Well, to write about rather complicated
50 scientific issues in a way that everybody can understand, and in a way that explains things simply, but
51 at the same time is not incorrect, because often, that is what happens in the media, which I have
52 talked about too, that they ask for a simple opinion, nothing complicated, and when they express that
53 simple opinion, it is often misleading, but it is possible to express things so they do not misinform.
54 That is the really big challenge [smiles].

(Weichert 05.07.2004, my translation)³

In the beginning, I asked how Karen regarded the museum and indirectly compared it to an amusement centre (1-2). The question has a follow-up phrase '*more than just plain exhibits*'. In this way the question is charged with a notion of the museum in its present form as mainly a place for amusement or that there is something missing in today's situation, as if it should be something more than just exhibits. It is an open question, but it does beg a positive reply, though without containing any hints as to what specifically this 'more' should be. Karen's reply saying that the museum is more than just the exhibits is related to the fact that the museum is represented by a professional staff member and she states that this is not a common situation with reference to Norwegian conditions (4-5). Karen's reply to the interviewer should partly be explained with reference to what the discussion was about earlier on, and to the fact that Karen plays an expert role herself having being trained as a physical geographer. I would argue that this is an example of storytelling. The story or line of argument about the professional staff and a professionally oriented institution started earlier in the conversation, which is not cited above. So when the interviewer asked the question in line 1, the notion of professionalism in the museum is continued from preceding conversations and as such is a part of a continuous story.

³ An audio version of the excerpt can be found in Appendix 3, track 1. See Appendix 1 for the original transcription in Norwegian.

I would argue that the focus on the staff member and the professional approximation to the work is imprinted throughout the excerpt in lines 4-54, where Karen clearly speaks with an identity as staff member. This can be observed from the flow of the conversation. The respondent is in a mode where she elaborates freely, only interrupted by more or less confirming responses or follow-up questions. As such, the story is not interrupted, but continues freely. The respondent has personal motivation to contribute and elaborate on the topic and the interviewer is only inviting different aspects of the same topic and does not change the agenda. However Karen's identity as scientific staff member is in negotiation as two aspects of her job are considered important in the conversation. First, she secures the scientific level of the museum and keeps it updated. Second, she ensures that visitors have suitable insight into this, with no misconceptions of scientific knowledge and concepts. In lines 5-7, the situation of the Norwegian Glacier Museum is considered fortunate in that it has a professional post, despite its small size. The positive effects of this fact are elaborated in lines 16-17, and are substantiated in the interviewer's follow-up question (23), '*So do you get many enquiries from specialists?*', which is confirmed (25) before she, on her own initiative, reveals the propensity of the museum to be used for direct educational purposes, rather than just for visitors simply walking through the exhibition (26-28). Then the story ends at lines 28-29 with the phrase: '*It has always been in the interests of the Glacier Museum to represent such a site. Not just a museum with an exhibition, but ...*' When looking at the conversation in lines 1-29, the point which was suggested already with the question formulated in lines 1-2 is answered in line 4, but takes a detour, before it is finalised (lines 28-29). This move serves to substantiate the idea of the professional employee as something positive. The fact that the museum has a professional position generates a different type of visitor to the museum, one with special interests and special qualifications to study natural processes.

What are the underlying presumptions for these statements? I would argue that we can recognise some connotations in the phrases that support the idea of the institution as striving for professionalism and living up to what is 'appropriate' for the museum. This is contrasted with the alternative, which is an institution without any professional staff. In the conversation, there are the expectations that are built up in lines 1-2 through the question '*More than just plain exhibits?*' The question is charged with an unfavourable prospect when it is suggested that the museum could be compared to an amusement centre. Considering the position and background of Karen as a physical geographer, this is likely to be a description she prefers to

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dissociate herself and the museum from. The formulation of the question gives rise to expectancy for the museum to be something more, and the call for this is heard in lines 28-29 with the respondent saying: *'It has always been in the interests of the Glacier Museum to represent such a site. Not just a museum with an exhibition, but ...'*

In lines 1-29, I identify two discourses about different types of museums. One discourse may be distinguished as the obsolete museum, with no professional staff members and thus with less scientific quality. This is most notably suggested with the comparison of the amusement centre at the start, but also because the discourse is well-supported in the conversation until line 29. Furthermore, a museum without a professional staff may lack scientific integrity and is consequently considered not sufficiently professional for students or other specialists to stop by and *'exchange news or experiences in their specialist field'* (20). The other discourse represents the museum as professionally up to date, reflecting contemporary research. Such a discourse and understanding defines the museum to be a reflection of the tenets of contemporary science. It substantiates the link between science and museum. Karen supports this when she says: *'but them stopping here to exchange news or experiences in their specialist field or discussing such ... That wouldn't have happened if there wasn't a professional staff member here'* (19-21). This trend is evident throughout the history of the museums which was emphasised in Chapter 1, Part II. It was demonstrated how developments and trends in science were reflected particularly in early museums. A main driving force in this process was scholars' private interests in generating natural knowledge and who considered the museum as the proper place for this knowledge to be passed on to the lay audience. This is also evident today, as is demonstrated through Karen's relationship to scholars within her own specialist field and the museum's scientific field.

However, it is not just the interests of single scientists that work to substantiate and support a scientific profile. I would argue there is a clear link between the scientific profile and those who initiated the museum. All initiators of Norwegian Glacier Museum are within the expert fields of natural science, amongst them the International Glaciological Society, University of Bergen, and University of Oslo. These are represented through their scientific support in different projects within the museum (Norsk Bremuseum 2005). Also, elsewhere in the interview, Karen explains how the museum has professional status by cooperating with these and other research institutions (Weichert 05.07.2004). I believe this explains why Karen chooses to lend support to the understanding of 'her' museum as professionally capable in the

above text excerpt. Karen is not alone in striving for professionalism in the museum, but takes part in a formal scientific framework. This can be kept in mind as, in the following section, I consider the last part of the conversation and look at how the museum is considered to be a link between ‘the realm of science’ and ‘the public’.

In the passage in lines 31-54, there is an underlying presumption of science as generally being out of reach for the general public. The museum is then considered the proper medium to pass scientific knowledge on in a more accessible form. There is little in this passage that explains why museums should have this role; rather, it is more or less taken for granted. When this is not sought explained or spoken of, I would argue it has to do with the subject position of Karen during the passage. This is identified by looking at how a particular image of science is created and how museums and their staff are able to render this at a more common level. Karen identifies herself in such a role as mediator of scientific knowledge. In this respect, it is not necessary to draw upon stories to legitimize the activity. It is more an underlying notion throughout the conversation.

In replying to how the museum provides science on a more accessible level for the public, Karen makes reference to her professional contacts and describes how she experiences their relationship to the museum: ‘*something they can use to disseminate the results of their research out to the common people*’ (36-37). In this way it is not just her as a professional staff member who identifies the museum as a place to pass on scientific findings. There is a whole group of people who share this view and together they regard the museum as a common place to reach out to the public. What underlies these statements by Karen is that there must be a common opinion among scientists that the mediation of their findings is important. Some of the value is regarded in terms of its potential to reach out to the broader public and not just within the confines of scientific journals and among colleagues: ‘*Well, it is often the case that the scientific community discuss internally*’ (37-38). This is a phrase that mirrors scientific scholars as having a tendency to mingle with each other, to the extent that they become a club for the few who are on the inside of science. The phrase also rests on a stereotypical view of scientists as perhaps poorly equipped to talk about their activity in everyday language. The way it is presented by Karen, this represents something unfavourable.

In lines 40-46 the interviewer turns the focus to how knowledge is both received and mediated in the museum and particularly to the flow of information between members of

Analysis

scientific disciplines and museum staff. Karen quickly addresses her reply to the difficult task of turning scientific information into so-called user-friendly information (48-54). To substantiate the importance of this work, Karen draws upon a comparison with how the media often misunderstand scientific concepts. It is an underlying assumption that the media often try to turn scientific knowledge into user-friendly knowledge and in doing so share the same role as museums. However, here it is used to contrast with the undesirable situation of the media's often distorted representation of scientific knowledge, paying too much attention to commercial interests: *'because often, that is what happens in the media, which I have talked about too, that they ask for a simple opinion, nothing complicated, and when they express that simple opinion, it is often misleading, but it is possible to express things so they do not misinform. That is the really big challenge [smiles].'* (51-54) (Fig. 7).



Fig. 7. Visitors in the Norwegian Glacier Museum viewing text and video projection. From the exhibition *'Ötzi - the man from the ice'*. Photo: Sigurd S. Nielsen (2004).

The reference to the media's tendency to have the wrong idea about science puts the professional staff of the museum in a more favourable position, as they are capable of

presenting the facts correctly. As Karen says, it is '*the really big challenge*', meaning that it is both the central task of her job, but also that it requires careful judgement and thorough understanding of the topic in question. The contrast between the museum's and the media's representation of scientific knowledge serves to legitimate her work. It also works to represent her job as meaningful in providing more precise explanations of scientific knowledge as opposed to the media.

Concluding remarks to Part I

The preceding conversation and analysis reveals on one level how Karen positions herself in relation to the interviewer, speaking with the identity of a scientific staff member. This was investigated by considering the dynamic between the interviewer and respondent which constituted the discourse psychological level. The identity of the staff member is revealed in the way her work is justified through her own elaboration. Pretty much on her own initiative, she is keen to reveal to the interviewer how her work has importance in both keeping updated on science in general and in mediating this to the lay visitor. Karen's elaboration of justifying her work can be addressed to a discourse on what is generally expected behaviour from people in her position. This was particularly evident in her independent style, taking the initiative to explain to the interviewer the course of her work and why it matters. On another level, the analysis also revealed discourses that could be identified independently of the dynamic of the conversation and thus the critical discourse analysis was in use. This perspective was linked to the identity of Karen which is in negotiation between pure scientific knowledge and the mediation of the same. As Karen emphasised, the '*process of popularization, which is a very difficult subject area*' (48-49), meaning that in the process of mediating science Karen has to maintain both the role of the scientist and at the same time communicate on the level of the visitors. She ends up being in negotiation between the two. Finally, two discourses about the museum were distinguished where the scientific staff member constituted a key component. The first described the museum where the lack of a scientific member of staff was equated with the lack of scientific integrity. The other described a museum capable of reflecting contemporary science because of presence of the scientific staff member. These were clearly at work throughout the conversation, when Karen defended her role by favouring the latter discourse. The analysis has shown how the identity of a staff member is imprinted with discourse, in that certain expectations of 'being scientific' follow from their position and provide guidelines as to how they view their work and express it to others, in this case the interviewer. It has also given insights into how the ideal of

scientific knowledge may characterise the work of the staff member and is consequently sought imprinted in exhibitions and the general profile of the institution. This insight has provided the background for taking a closer look at the relationship between institution and employee and, more specifically, how the two influence each other and constitute a two-way relationship. This relationship is further considered in Part II.

Part II

4.2 It doesn't work to be a specialist in a museum⁴

Introduction

In this text excerpt I look at how museum staff view the process from being appointed to what happened the following years. This is a perspective that is partly based on assumptions of how institutions work to mould people into specific roles with all the implications this might have for their work. It assumes that discursive practices, and invisible codes and rules represent demands according to a given situation and that people have a tendency to adapt rather than oppose to these (Neumann 2001). While this is a typically critical understanding of discourse that underlines its restrictive and suppressive tendencies, discourse can also be understood as representing possibilities from which people operate. This is evident in the conversation with Karl Forcher, as it reveals how he as an employee represents influential power in performing his tasks in the museum. The following analysis aims at demonstrating how practice within the institution is embedded in discourse, and how discourse can both represent emancipatory as well as liberating forces on the employee. Accordingly, I tend to focus less on the psychological dynamics in the conversation and place emphasis on the methodology of critical discourse analysis. Karl Forcher had been working in Haus der Natur in Salzburg for six years at the time when the interview took place.

1 Sigurd: And, can you tell me a bit about how your first time as an employee on a museum was? I mean what
2 were your expectations ... how did you receive other employees' expectations, for example?

3

4 Karl: Well, my first, my first impressions ... You have to know this is a very old building. My first
5 impression was to get around here in the right way will be the first hard work for the first three or

⁴ Forcher 30.08.2004

6 four weeks, to find [laughs] the spaces [in the museum]. The expectations I had were ... I thought I
7 would deal with the minerals, fossils ... And this is my main work. It was the expectations of the
8 house [museum] and colleagues too, but as it is in life, it spread away and it spread out ... it's a
9 process of learning. I learned what is running in this house. And, the house learned. Especially the
10 director learned what this man really does, and what he's able to do.

11

12 Sigurd: Hmm [confirming].

13

14 Karl: So I got the physics, and the Ice Age and all this, uh things, to my ... work.

15

16 Sigurd: Did you feel that your relationship to your work and especially the professional side of it, I mean the
17 fossils and the natural sciences ... Do you feel that this relationship has changed over time? I mean,
18 what you think is important ... in dealing with natural sciences, for example?

19

20 Karl: Compared to the time at the university?

21

22 Sigurd: For example. If you have made any new, sort of ... change of mind in some way.

23

24 Karl: Yes, of course ... When you are coming from university science you are a good specialist. You *should*
25 be a good specialist [laughter]. And I thought I was a specialist, but in here you have to have a very
26 broad knowledge, and you have to widen your mind. It doesn't work to be a specialist in a museum.
27 It's ... in a small museum like ours, it's ... it would be OK for the museum ... and the questions ...
28 which are coming to me ... are quite different to the questions ... you have as a scientist at the
29 university. So you have some basic questions in here to answer, and you have to answer them briefly.
30 ... When you're writing a thesis you have a lot of paper space, but when you write a description, you
31 have 10 words, 12 words, 15 words, and what I learned, what I had to learn ... I think it's easier to
32 write 30 pages, than to write a half page ...

33

34 Sigurd: Yes.

35

36 Karl: ... about one theme. And it's quite hard to make a short understandable description.

(Forcher 30.08.2004)⁵

In Karl's first response to the interviewer he draws attention to the particular age of the museum (4-10). We have an impression that the physical building is characterised by an old-fashioned distribution of rooms which one has to stumble around. While it is phrased in a somewhat joking manner, ending with laughter, it serves to focus on an experience of the museum with reference to its architecture. A point demonstrated by Sørensen (2003) is how

⁵ An audio version of the excerpt can be found in Appendix 3, track 2.

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museums often are characterised by architecture that has a distinct symbolic function, often stemming from the 18th century and the ambitious ideals of the Enlightenment to understand and spread knowledge of the world. Today, many older natural history museums still reside in these buildings which manifest a formal agenda through the use of high-sounding expressions. The building or ‘the frame’ of the exhibitions provides the objects with a sanctuary-like space. It is not just the objects that are protected, but also the scientific facts and stories that go with them, constituting the formal knowledge that resides within the building (Rose 2001). This can be confirmed just by looking to contemporary museology where scholars operate with museums understood as *cathedrals of science* or *temples of nature* (Wonders 1993, Sørensen 2003). A most striking example of such architecture is found in London, at Museum of Natural History at Kensington (Fig. 8).



Fig. 8. *Museum of Natural History, Kensington, London*. Photo: Sigurd S. Nielsen (2003).

Haus der Natur in Salzburg does not represent such an example of architecture although the building’s age is notable both on the outside and inside as it was established in 1923. It is this discourse of the formal institution that Karl’s response may be linked to. It is a discourse about the museum as representing formal practice and scientific objectivity. His reference to this is confirmed when he referred to his expectations: ‘*The expectations I had were ... I thought I would deal with the minerals, fossils ... And this is my main work. It was the expectations of the house [museum] and colleagues too*’ (6-8). This phrase gives an image of

the professional researcher in a museum working scientifically and living up to scientific ideals. This tells us something about what kind of activities are normally expected to take place within the museum walls. I would argue that it is typically this side which is often presented and promoted, not just by the staff members through their jobs, but also in the way museums present themselves to the public as a physical object (manifested through architecture, for example). The point is to see how certain aspects of, for example, a job are focused on and highlighted in order to appear as having a certain integrity. I would like to draw a parallel to the concept of representation as was elaborated on theoretically in Chapter 3. The image of Karl's job, as dealing with minerals and fossils, is a representation, a selected viewpoint among a series of other tasks which his job consists of in practice. To Karl, this representation is the favourable viewpoint because it legitimates his position as a professional employee. The utterance in lines 6-8 is connected to discourse as it represents a particular way of talking. In this case, discourse is present in that a certain image of the job as a staff member is favoured so as to appear meaningful. Yet as Karl hints at, his work consists of other activities than mere scientific ones: *'The expectations I had were ... I thought I would deal with the minerals, fossils ... And this is my main work. ... but as it is in life, it spread away and it spread out ... it's a process of learning, I learned what is running in this house. And, the house learned. Especially the director learned what this man really does, and what he's able to do'* (6-10). His occupation is not just about dealing with minerals and fossils, but it is moulded into the life and practice of *the house*. The house, or the museum, is not just a place for him to adapt to the practices and responsibilities, but also a place that needs to see him for who he is. Thus, we can identify a two-way process between the employer and the museum where none of the parties necessarily rules the other. There is space for Karl to adjust his work according to his capabilities, while at the same time there are responsibilities that need to be met, represented by the demands of the institution. These duties are interrelated mechanisms, partly psychologically generated, partly rooted in the history and culture of the museum, and partly influenced by factors too abstract to take account of.⁶ The complex negotiation between institution and employee is investigated further in the next section as I consider the second part of the excerpt, lines 14-36.

⁶ This complexity was elaborated in Chapter 3 in the discussion of postmodernism. It was suggested that postmodernism believes the world in its widest sense is endlessly complex and that this cannot be fully comprehended through scientific methods.

In lines 16-18, Karl is invited to elaborate more specifically on what has changed during the time he has been working at the museum in contrast to when he was working at the university. Throughout Karl's response to this question there is established a dichotomy between university work and museum work. The university represents specialisation and expertise, and does not correspond to the kind of expertise needed in museums: *'It doesn't work to be a specialist in a museum. ... the questions ... which are coming to me ... are quite different to the questions ... you have as a scientist at the university'* (26-29). Karl elaborates on the different situation within the museum as opposed to the university. The questions being raised in the two institutions call for completely different actions. At the same time, Karl is appointed to work in the same discipline as he was at the university. This implies that in a museum there is a very different approach to scientific knowledge of nature and how it is treated. The difference stems from the fact that museums nowadays strive to represent scientific knowledge with the lay audience in mind.⁷ This was also evident in the conversation with Karen Weichert from the Norwegian Glacier Museum (Part I). In contemporary museums, objects and the knowledge about them are represented with educational considerations. The exhibitions operate on the level of the lay visitor, rather than simply reflecting science as it is investigated by the expert. Today, this might seem to be a quite typical practice for a museum. It is a strategy to please their societal role, but looking back in history this represents some changes to the culture of exhibiting. It was argued in Chapter 1, Part II, that early natural history museums constituted a mere reflection of contemporary science, and proved inaccessible to visitors possessing little or no background from the sciences. Considering the historical contrast with contemporary exhibition methodologies, there must have been a greater gap between science and 'the commoner' in early museums. Typical of these exhibitions was the focus on single specimens presented with little information other than their Latin name. Such forms of exhibiting appear today as typically archaic, and can still be found, but they appear more as remains of past ideals rather than a contemporary construct (Fig. 9, pg. 79). The level at which Karl clearly identifies his role therefore represents a change in the culture of museum work and thus a change to the conception of museums. The task of the museum is not to represent science as it is, but to mediate science on a level adapted to the visitors. This is not to say that contemporary museums do not represent science. They do, but in a strategically, thoughtful and adjusting

⁷ It should be stressed that this is a generalised notion. Museums do carry out scientific research at university level. Likewise, universities and their researchers do accomplish science with an audience in mind. My comments are based on Karl's representation of his own work.

way. It becomes crucial, then, to note how the visitors are an underlying presumption in Karl's response: '*So you have some basic questions in here to answer, and you have to answer them briefly. ... what I had to learn ... I think it's easier to write 30 pages, than to write a half page ... - about one theme. And it's quite hard to make a short understandable description*' (29-36). The *short understandable description* refers here to the texts accompanying the exhibitions which are read by the visitors. As Karl stated, they need to be precise. When he says it is easier to write 30 pages rather than a half page, he refers to university science which in its elaborating scientific style does not suit the level of the visitors. Museum texts need to be short, but still contain the most necessary information, so as to offer the necessary insight and not risk being boring. In Karl's response, visitor considerations play an implicit role and represent a change in the conception of the natural history museum. The visitors are an inevitable element of museums and they place restrictions on the work of the employees. It is probably true that museum visitors have always played a crucial role, but as was elaborated in Chapter 1, Part III, it is in the postmodern period that visitors have come to play a particularly influential role in the policies and proceedings of natural history museums.

Concluding remarks to Part II

Employees are granted with the delicate task to mediate scientific knowledge to their visitors and it should be imperative to question what factors influence this work. These perspectives have been revealed in the analysis which considered in particular the two-way relationship between museum and employee. It has been demonstrated how the discourse of the museum understood as a formal scientific institution, exemplified by the Museum of Natural History in London, is representative of the conventional understanding of the museum. This discourse was drawn upon in Karl's elaboration on his own work and it was revealed that it imposed guidelines on both Karl's and the house's (museum's) expectations relating to the job. The discourse of the formal museum may seem to represent an obvious description of how museums should be today in their role of representing scientific knowledge. It is, after all, expected that museums provide accurate representations of science and a certain formalised 'objective' view of knowledge. However, critical considerations should be taken into account when this discourse results in practices that are taken for granted. It would be an exaggeration to conclude that this is so for Karl in his work, but it is appropriate to note how the discourse influences employees in their work and further influences the way museums are regarded and given status in society. This is not least important when considering the fact that there is no

such thing as objective representations of the knowledge provided by the museum and their employees. Although the latter are surrounded by the formal guidelines set down by the museum, the employees are constantly in the process of decision making when it comes to what to represent and how to represent it. This process was touched upon in the last part of the analysis as (in Karl's statements) the visitors proved to play an implicit role. It was further argued that the role of the visitors represents a vital change in the understanding of contemporary museum and the way the employees consider their tasks. I conclude that the discourse of the formal museum, representing scientific work and the mediation of formalised knowledge, has changed radically from that during the early modern period. This was evident in the way Karl elaborated on his own work within Haus der Natur. The analyses of interviews with Karen Weichert and Karl Forcher have focused on the employees' relationship to their respective museums; in the following, attention is turned towards exhibition styles.

Part III

4.3 In our house it's ... an ugly word, it's infotainment⁸

Introduction

Inatura represents one of the most recently designed exhibition complexes presented in this analysis. It stands out as an overall thoughtfully designed complex arranged within the structural frame of a former industrial building (Fig. 2, pg. 26). The following text excerpt focuses on different exhibition styles and the experience of these from Klaus Zimmermann's point of view. The analysis focuses on how young and old exhibitions can be valued differently relative to a historical or a contemporary context. For example, a museum display in the 1960s functions differently today than it did when it was first mounted, some 45 years back. How Klaus regards the exhibition of his own museum and how it corresponds with contemporary ideals of representing nature in museums will also be examined. Finally, the discourses revealed underway will bring understanding to why this type of exhibitions is targeted from the employees' point of view.

⁸ Zimmermann 20.08.2004

1 Sigurd: If you compare the two types of exhibitions, the one from the 1960s and the one today, what sort of
2 image of nature do you think people are left with when they experience the two different types? Is it
3 possible to put words to the two types of experience?

4

5 Klaus: ... I don't think that it is that different. So if you imagine that you have somebody now, from the
6 sixties who visited this museum, I think it's very similar. It was very new [in the 1960s] to see the
7 animals of the forest directly in the forest. It was as new as our concept here in this house is new. The
8 things that changed are that now it's possible to make displays that can be touched, for example. The
9 difference is that you can make fantastic films and photographs and multimedia applications. So I
10 think in this modern museum you have much more chance to get even closer to nature. But the
11 feeling, I think, is somehow the same. It's just another time.⁹

12

13 Sigurd: And the understanding as well, do you think that's the same as, well, the understanding of the
14 nature?

15

16 Klaus: Understanding ... I think it is similar in many ways, but there are things that have changed. Changes
17 with new acknowledgements of science, for example. Changing climate, the influence of human
18 beings and things like that have changed in science. So you have to show all these things in a new
19 museum and you have different themes, I think, that way.

20

21 Sigurd: And if you compare some of your visits to other natural history museums, what do you think this
22 museum represents? As better quality or less quality?

23

24 Klaus: OK. First thing, I have to tell you, I am not a man that loves to visit so many museums. I'm not that
25 experienced, but OK, as I'm doing my job, I have seen many houses that also cooperate with us, so I
26 think I can say something about this. And it's maybe also the same to be compared with our old
27 house. And there's also a difference. A museum in a classical style overloads you with information,
28 very often with only written information. People would learn something in a not so good way, I think.
29 And I think many of the museums are more of this type, that there's much science, there are many
30 words to read and no entertainment. In our house it's ... it's an ugly word, it's 'infotainment'.

31

32 Sigurd: 'Infotainment'?

33

34 Karl: Yes. It's not a good word, but it tells the truth, I think. And so our house is some kind of museum, but
35 there are also elements of adventure park or things like that. It's a mixture. It's also unusual to have
36 that many living animals and plants in a museum. Then we also have elements of a zoological garden,
37 so I think it's really something new, something different. But it's easier to go through and view all the
38 things and also be entertained, of course. For me, it's a better way to learn all the things. So if visitors

⁹ See Chapter 2 for a presentation of the museum. Inatura was recently moved and rebuilt. Klaus contrasts the recent situation to that of the 1960s.

Analysis

39 want to learn more, we have info posts, more than 100 different info points with several themes and
40 it's also part of our concept that if people want to know more about the theme, they should come to
41 us to ask for that. We will help them, so it's also a part of this.

(Zimmermann 20.08.2004)¹⁰

It is noteworthy how Klaus acknowledges the old exhibition style as not being less valuable than the contemporary ones simply because it corresponded to what was common practice and thus sensible at the time (lines 5-11). According to him, exhibitions in the 1960s with their typical habitat dioramas (which filled much of the old version of Inatura, at the time named Naturschau)¹¹ provided just as much astonishment regarding nature as contemporary exhibitions do today. I argued in Chapter 1, Part II, that earlier exhibition practices were less adapted to the level of the audience, being more a direct reflection of science. While this may be true of exhibitions dating from as far back as the 19th century, I believe the argument can still be applied to exhibitions of the 1960s. What should be added to this perspective is the point made by Klaus above. That is, the public excitement generated by exhibitions may have been just as much present in the past as it is now. It is easy to fall into the trap of branding older fashion and styles as dull, simply because they appear so to us now. Hence, saying that the visitors in the past had to adjust themselves to another scientific-professional level might be true, but it would be wrong to conclude from this that people were consequently bored by the process. This is a point which is also stated by the French geographer Paul Claval, when he says that we,

are often prisoners of contemporary logic and cannot see the qualities of old works which cannot be integrated into our system ... at the time it had just as much relevance as what continues to interest us today: it was part of what the episteme of the time indicated was knowledge. (Claval cited in Holt-Jensen 1999: 21)

This is a point which it is important to consider when one compares and contrasts contemporary situations with historical ones. Klaus clearly approves of old exhibitions in their original context: *'It was very new [in the 1960s] to see the animals of the forest directly in the forest. It was as new as our concept here in this house is new'* (6-7).¹² However, he believes they fail to equally inspire the audience of today, which suggests that modes of

¹⁰ An audio version of the excerpt can be found in Appendix 3, track 3.

¹¹ Information acquired from Zimmermann (20.08.2004)

¹² Refers to the replica or model forest habitat displays in the dioramas in the old museum

fashion and exhibition practices have changed. What may have caused these changes to occur? Klaus says that much remains the same today, but mentions in particular the development in making displays (including stuffed animals), and within multimedia technology. Klaus suggest a development and specialisation in exhibition techniques. Consequently, he says these techniques make it possible to come closer to nature than in a more traditional museum but at the same time, *'the feeling, I think, is somehow the same. It's just another time'* (10-11). Later, when responding to the interviewer's question of how old versus new exhibition techniques promote the same type of understanding, he includes progress in science, knowledge of our environment and humans' role in it (16-18). As he says, in addition to technological improvement, new understandings and conceptualisations of nature and nature-culture relationships need to be reflected in the museums and this calls for new exhibition practices. Still, the experience of nature in museums today is not much different than that of the 1960s, which implies that advances in science and technology do not change our intrinsic conception of nature, but rather our basic mode of perceiving it. In other words, the development represents a change of mind in interpreting visual or sensual impressions and categorising them accordingly. Although Klaus may approve of the earlier museums as they presented themselves when they were new, they appear differently today, and do not work in the same way. Our mode of perceiving has changed and in visiting traditional museums, we experience them with contemporary eyes and the exhibitions stand out as archaic. An example of such a museum is found in Muséum National d'Historie Naturelle, Paris (Fig. 9). One of their main exhibition halls reveals seemingly endless numbers of skeletons of mammals and birds, and also species' organs preserved in alcohol containers, all exemplifying the methods and rationality of the natural sciences from former times. No information other than the Latin name of the species is provided. My personal experience of this was that it was truly fascinating. To me, the exhibition appeared very old-fashioned. What I found intriguing was the artistic expression of all the skeletons arranged in symmetrical order, all pointing in the same direction, suggesting a collective parade of creatures of the past. The rectangular parade was so densely arranged with skeletons that it could only be observed from a walkway around it.



Fig. 9. *Muséum National d'Histoire Naturelle, Paris. The main hall consists of a parade of animal skeletons. Photo: Robert Kosin (2005).*

To my eyes it was a demonstration of classical natural science reminiscent of a different time. However, in this experience I also missed being informed and educated. I felt a desire to be informed of either the purpose of the exhibition, or about the animals in more detail, i.e. a habit which I have become accustomed to through previous visits to museums. Yet these perspectives were completely absent here. Clearly, my experience of the natural history museum in Paris was a meeting of different times, where past ideals did not correspond to contemporary ones. This story is an example which serves to demonstrate that old exhibition techniques may have value in that they will always communicate something to the public. In my case it resulted in an aesthetically pleasing experience, but not much more than that. A change of exhibition practices is called for when a museum wishes to communicate a more particular and fixed message to its audience. Relating to Klaus' statements when he disapproves of exhibition styles where the purely scientific expression is emphasised: *'I think many of the museums are more of this type, that there's much science ... and no*

entertainment' (29-30). By this, he means he is in conflict with the expression of the natural history museum in Paris because it is not in line with pedagogical ideals of our time.

Klaus exemplifies his point of view through a conventional apprehension of the museum: '*A museum in a classical style overloads you with information, very often with only written information ... And I think many of the museums are more of this type, that there's much science, there are many words to read and no entertainment*' (27-30). This objection to traditional museums proved to be widespread among most of my respondents (Ulrich 17.08.2004, Kurzthaler 19.08.2004, Meixner 31.08.2004, Raich 31.08.2004, Sørungård 10.09.2004). According to them, in such museums visitors never have the time or energy to minutely examine the whole exhibition and there are few elements of surprise and entertainment, which is a view supported by the other respondents. Science, in a conventional sense of the museum, is presented in a tedious way. In this context, Klaus substantiates and makes attractive the opposite ideal, the idea of the museum as entertaining and fun. At this point I think it is fair to distinguish a discourse which many museums today find themselves caught in. It is a rhetoric that emerged as museums have come to compete with the growing flow of visual presentations in the postmodern society. It explains the museum as allocated to compete in the common arena where consumers have an immense variety of visual offers open to them, as was discussed in Chapter 1, Part III. As a response to this, recent trends in the development of natural history museums show increased emphasis on interactivity and multimedia technology in their exhibits. This can be considered as a strategy in avoiding being labelled a traditional museum, a term which (as I have demonstrated) has negative connotations. The strategy has involved an emphasis on entertainment and pleasure from the exhibitions and promoted profile, as is especially the case for both Inatura during their reconstruction (Zimmermann 20.08.2004) and the newly established Styriassic Park in Bad Gleichenberg (Ulrich 17.08.2004).

In line 30 Klaus introduces the word 'infotainment' as a response to the somewhat negatively charged 'old, traditional museum'. It is a combination of the word information, representing the typical traditional notion of what museums are, and entertainment, representing what many museums strive for in the competition relating to visual displays. Information is, however, something museums have to offer in order to maintain their professional integrity, as was discussed and analysed in Part I, in the conversation with Karen Weichert. Thus, infotainment, as a combination, meets the critique of museums as boring. It is clear, then, that

Analysis

museums in a common understanding of the term do not cover what Klaus regards his museum as representing. He needs to point to other references to describe his museums. In his opinion, parts of the institution can be described as a museum, but this needs to be widened with other labels, such as adventure park and zoological garden, and can thus be described as: ‘*a mixture ... something new, something different*’ (35-37). The point I want to make clear here is how the word ‘museum’ is evidently charged with its clear resemblance to traditional exhibition styles, as in the extreme case of Muséum National d’Histoire Naturelle, Paris (Fig. 9). It is fair to state that Inatura represents an unconventional and interesting contribution among the many natural history museums, which was my personal experience too.¹³ To me, the museum complex appeared particularly interesting because the architecture took departure from an industrial plant erected in the 19th century. The remnants of former industry could be observed both on the inside and outside through the typical brick facade and some industrial artefacts such as turbines which had been left in the museum. These elements put the exhibits in a surprising context. That is to say, the building and the material artefacts did not correspond to my (and probably other visitors’) idea and expectation of what a museum is like. Personally, I felt this made me more interested and urged me to explore the contents more open-mindedly. The setting and context in which I undertook a study of nature was new to me and hence avoided the conventional understanding and discourse of the ‘museum’. The actual displays, with their presentation of models and animals, were also somewhat unconventional. With particular techniques in materials and lighting systems, they emphasised and brought to life the elements of design that nature represents (Fig. 10).

¹³ This should be treated with reservation as I clearly had another agenda than most visitors. My point of departure was a scientific one, but as far as possible I tried to put my own role as a researcher aside. As such, I consider that my private exploration of the exhibits was not much different than that of other visitors.



Fig. 10. *Inatura Museum. Display of fishes mounted on wall. Some aquariums are placed in between.* © Inatura. Photo: Dietmar Walser (2003).

It seemed to me that the visual expressions were prioritized over textual information. The positive, and somewhat surprising, experience I had of Inatura confirms the notion that the museum, understood as a word and a concept, is heavily charged with specific ideas. Further, we can easily see that the word ‘museum’ represents a category which is insufficient for Klaus’ description of his own workplace. It becomes crucial, then, to highlight what he thinks this new conception leads to: *‘it’s easier to go through and watch all the things and be entertained, of course. For me, it’s a better way to learn all the things’* (37-38). In other words, to present nature in the new conception of the museum, implicitly contrasted with the ‘conventional museum’, leads to a better way of learning. Klaus states that it is easier to be entertained when walking through and watching, not having to cope with large amounts of text. This is in line with the trend that was elaborated in Chapter 1. It was argued the postmodern society, with its flow of visual representation, has trained people in looking more than reading. Techniques in visual representations have become so advanced that museums emphasizing information through text run the risk of boring their visitors. Today’s visitors have a high expectancy of the visually impressive and museums need to act accordingly. Inatura seems to face this challenge according to Klaus, when he says that *‘it’s a better way to*

learn all the things' (38). If we are to interpret the respondent's statements even further, it can be argued that Inatura has adapted their exhibits to what may be seen as necessary for a museum to survive in the competition of visual representations. In this way, it is not necessarily Klaus and the museum who regards this way of representing nature is a good one in the first place. The institution may have sought to find their place in a demanding market, and are forced to adapt to the demands and needs from their potential visitors. This suggests they are subordinate to their visitors. However, there can be no ultimate answer to this question. What we can say is that museums have to balance with the trends in society, for example trends in the public's modes of perception.

So far the analysis has addressed museums as being in clear dialogue with the demands of the visitors. The more precise political-ideological strategy is, however, very evident in the following extract: *'we have info posts, more than 100 different info points ... and it's also part of our concept that if people want to know more about the theme, they should come to us to ask for that. We will help them, so it's also a part of this'* (39-41).¹⁴ So despite the exhibitions' focus on the visual, in-depth information is readily accessible to the visitors. It is still clear that this thought is embedded as part of the philosophy of the institution.¹⁵ I would argue that the philosophy represents a democratic move and it accounts quite considerably for Klaus' and Inatura's attitude to their visitors. The exhibitions function, at least in theory, to provide visitors with a visually undemanding experience, where observation of models, simulations, installations, and live animals encourage an open, experience-based, non-analytical insight into nature. Other respondents referred to a similar awakening effect and wonder from personal experience as one of the most important tasks of a natural history museum. It was suggested that such experiences would trigger a fascination for nature, leading to an urge for more knowledge and information (Ulrich 17.08.2004, Kurzthaler 19.08.2004, Meixner 31.08.2004). These three argued that this could motivate people to take the next step, and either read more about their newly discovered field of interest or take direct action simply by taking excursions into nature. In Inatura, however, this next step is sought incorporated into the exhibition by offering in-depth handouts. After being presented with a somewhat superficial, but perhaps conspicuous and intriguing impression of nature, the visitor

¹⁴ The info posts consisted of a holder with handouts located at strategic places throughout the exhibition. These contained in-depth information of plants, animals or other natural phenomena and people could take these with them if they wanted to.

¹⁵ This was also confirmed elsewhere in the interview with Klaus. Inatura runs a service for the public community where they receive enquires from private individuals concerning plant and animal species.

has the choice to read and take home some of the in-depth handouts in order to gain further information. I would argue that the information posts (info posts) with hand-outs represent an important element of freedom-of-choice, as will be explained in the following.

It might be argued that anyone has the freedom to read and learn what they like in a museum, and in theory this is correct. My objection to this stems from the notion that formally written representation of any given written material is crucial and can manifest the effect of disciplinary behaviour among visitors. For example, in museums, it might seem less important to read writing on a sheet of paper than, for instance, writing in large fonts, printed and mounted on a wall. In the latter example, text is manifesting, formalised, and truth-stating. This type of text is generally perceived as ‘essential information’ and is often regarded as something that should not be missed. Although there is nothing other than convention and long-established habit telling us that information on sheets of paper are less crucial, this is the way they are treated by many. Thus, text written in capitals and mounted on board in museums is regarded as being valued; visitors feel they need to read it in order to appreciate the point of the exhibition and hence risk feeling they have missed some essential idea if they do not read this information. Inatura, with its emphasis on visual aesthetics and experience-based learning, offers deep insights through information posts rather than wall-mounted texts. This should be regarded as a strategy of freedom-of-choice for the visitors and thus constitutes an important part of the ideological profile of the museum. The ideology is identified in how the museum chooses to grant the visitors with a more profound freedom-of-choice in what they wish to focus on in the exhibitions.

Concluding remarks to Part III

This analysis has given insights into how museums are under pressure in how they adapt to needs in a contemporary situation. This has been demonstrated by analysing how exhibitions dating from different periods of time work differently in a contemporary situation. I suggested there was a tendency for Klaus and other respondents to regard traditional museums as tedious and dull and that this notion is what contemporary museums and exhibition standards work against in order to appear attractive. The ‘museum’ and the way it is often comprehended are explained by reference to discourse. The discourse of the traditional ‘museum’ is revealed as imprinted with negatively charged connotations, and the museum as a concept is often regarded likewise. In the case of Inatura, the counter-reaction to this discourse has been to create an exhibition complex which redefines the conventional

apprehension of the ‘museum’. This was evident in how Klaus used the term ‘infotainment’ to more suitably describe his own museum, but his use of the term proved to be valid in practice too. I confirmed this by referring to my own experience of the museum, which was quite different from many other museums I have visited. The exhibition complex did not present me with any challenges to read lengthy texts, but was designed to give a visually pleasing experience of nature on display. Finally, I reached the conclusion that the design and layout of the complex describe some of the ideological profile of the museum. The exhibitions are not merely supposed to teach and educate in a top-down relationship from institution to visitors. The visitors are granted freedom-of-choice by actively looking up detailed information at the information posts and pursuing their interest in natural phenomena on their own initiative. In what follows, much the same theme of freedom of choice on the part of the visitor is discussed. The excerpt is taken from the interview conducted at the open-air museum Styrassic Park, in Bad Gleichenberg.

Part IV

4.4 You have to feel that this is a big history¹⁶

Introduction

The following text excerpt is taken from an interview with the founder and curator of Styrassic Park, Markus Ulrich.¹⁷ The museum is special in that it provides a trail where full-scale modelled dinosaurs are presented chronologically in a park-like area with abundant deciduous trees and ponds (Fig. 11). Informative texts are only sparsely provided. The excerpt discusses this way of representing the dinosaur era, which began *c.*245 million years ago (Bryson 2003, Dixon & Malam 2005). The analysis considers the respondent’s opinion on how the exhibition provides a particular type of knowledge to the visitors. Both the informal

¹⁶ Ulrich 17.08.2004

¹⁷ The specific interview situation merits further comment in this case. The interview was carried out with Dr Elisabeth Newzella acting as an interpreter. She was appointed to the museum and worked with the guided tours and general administration. She translated the interviewer’s questions into German and Markus’ responses into English, i.e. I have analysed a translated version of Markus Ulrich’s replies to my questions. Newzella also added comments from her own point of view. I was not provided with a word-by-word translation. However, I felt they both had a strong consensus and implicit agreement as to what the institution was about, and I therefore felt that the general outcome was not particularly coloured by having an interpreter present. I would like to stress that the somewhat special circumstances concerning the interview have also been taken into account in the following analysis.

way of representing scientific knowledge and the open-air setting of the park are considered. This will also provide insight into how the needs of the visitors are regarded in terms of learning about nature.



Fig. 11. *A family passing a model Brontosaurus in Styrrassic Park.* Photo: Sigurd S. Nielsen (2004).

1 Markus: I mean, we are walking from one place to the other, just telling brief histories about all these
2 animals, things which are not indicated at the information desk, but ... which you can also read in
3 specialist books if you want to.¹⁸ But what is interesting about the tour is that we tell a history with a
4 beginning and an end. We begin with first fish that emerged from the water and we end with the
5 meteorite which had caused the extinction of dinosaurs. So this is really a story and the guided tour
6 tells the story. This is the difference between just reading or looking.

7

8 Sigurd: ... and do you think this knowledge is important for people today? I mean, this information about
9 nature.

10

11 Markus: So, its very individual ... So, it's not important, the scientific thing, that you have to know all this.
12 What this park and my employer want to give the visitors is [the experience] that they are really

¹⁸ 'Information desk' refers to the information stands placed along the trail, providing information on the different species.

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13 fascinated, that history like this exists and at such a size. This is what we want to transmit to the
14 visitors. Of course, scientific things are in the fascination, yes, and in the tour, but we want to interest
15 the people in things that existed a long time before them so that they can be fascinated by this.

16

17 Sigurd: So the fascination is ...

18

19 Markus: ... is in the front line and then it's the scientific. It's not like in the school: you have to learn this
20 and this and this and this. You have to feel that this is a big history, and is very interesting. And if
21 you are fascinated you will want to know everything.

22

23 Sigurd: ... But regardless of whether it's important or not, do you think it plays an important role in people's
24 lives, for example?

25

26 Markus: It makes them richer. You don't need to know this ... It will not influence their [the visitors] life,
27 yes. It will not have a big role in their life, but it will make life much richer. And a lot of people begin
28 to think about this.

(Ulrich 17.08.2004)¹⁹

Considering lines 1 to 6, we are introduced to the scene where visitors are given a guided tour. Markus informs that the stories that are being told do not follow the content from the information stands placed around the dinosaur arrangements. Together, each story plays a part in the totality in the palaeontological history. What may be registered in particular is the emphasis on the technique of being told a story by someone rather than just reading or looking. The fact that the stories being told are not found elsewhere in the park, indicates that they emphasise a popular insight into the Mesozoic era, which was also the era of the dinosaurs, representing a time interval of *c.*180 million years (Dixon & Malam 2005). At this stage, the interview is concerned about what the museum provides to the visitors. Styrrasic Park in general promotes the greatness of the dinosaur era and plays on the enormous contrast between our time and *c.*245 million years ago, when dinosaurs appeared. The enormous timescale is impressive in itself, but so too is the size of the animals themselves. This perspective can be related to a tendency for humans to define their own present as the ultimate peak in history. We are used to phrases such as 'human impact on the physical environment has never been greater' and 'the world has never seen such exchange of information across territorial and ethnic borders', which work to support the notion of humans as the greatest achievement. When confronted with a world of dinosaurs, we are reminded that there was

¹⁹ An audio version of the excerpt can be found in Appendix 3, track 4.

something great going on before our existence that, at least in a physical sense, make humans and their activities appear quite insignificant. This is substantiated by the essential fact that the Mesozoic era lasted for 180 million years, whereas humans have been active for only a few thousand years. In this way, representations of the dinosaur era are awe-inspiring, and it becomes easily understandable why informing visitors through storytelling is effective. Storytelling can remind us of fables, myths and folktales and, as such, bring to life the rather sparse scientific facts we have about the dinosaurs. This also provides further indication that the scientific format, represented by printed facts and figures, may be unfit to teach and learn from about natural history. This opinion was clearly shared by Markus.

In lines 8-9, the interviewer asks for an opinion on whether the information provided by Styrrassic Park is important for people today. The question is openly formulated and gives no hints as to how this knowledge should be regarded, either as basic or fundamental information for instance. Neither does it reveal any attitude to the information provided in lines 1-6 as either scientific or non-scientific, but as we shall see the reply takes a clear standpoint on both these issues. Markus' reply (lines 11-21) reveals in its totality an underlying notion that the scientific aspects are not really what are important. What I find in Markus' statement is that science, within the context of the museum, is not worth studying unless it has some secondary effect to engage, fascinate and awaken a drive towards something. It also gives an impression that palaeontological science lives a life of its own and does not provide any requisite critical knowledge in the day-to-day business of life: *'it's not important, the scientific thing, that you have to know all this'* (11). However, as it appears later on in the interview, the stories that are derived from scientific facts can prove to have a strong value as a confrontation to the everyday life and activities of people. It is necessary here to refer to a statement preceding the interview excerpt above, since it shows more clearly what conception of the visitors characterised the conversation. Generally, the visitors were explained as a group which appreciates the relief of escaping the stress of everyday life:

So normal people that are the whole week in an office, in rooms, in school classes; they are always like this, and if they come here, and they want to learn something, but they learn it in a great way. They are running in nature and they feel well already from being outside. ... If you take a guided tour, you are told how it was, what they [the dinosaurs] did and so on and you hear the noise in the wood. You see a ... Sometimes you have the impression they [the dinosaurs] are still living. Ulrich 17.08.2004)

Analysis

The audience is thus seen as taking a step out from their daily habit, and also a step out from the world as they know it, and entering into an alien era of astounding animals and nature. This was a tendency that continued throughout the conversation. It could be argued that the image portrayed of the visitors rests upon imaginations of the urban dweller, unconscious and remote, somewhat drugged by modern lifestyles. From this we see how first and foremost Markus and also the interpreter Elisabeth Newzella position themselves in the interview. They have a message for the audience. They provide a wake-up call to an otherwise stagnant existence as a human being. The underlying story in lines 11-21 is that Styrrassic Park offers perspectives that contrast and confront the daily habits of mankind. This can make people stop, consider the dinosaur era that the museum presents, and in the next round provide a perspective on the humanity and its existence. It is as if the experience invites people to undertake a philosophical experiment and interchangeably see the existence of the dinosaur contrasted with the existence of humankind. I would argue that this maybe so, although the audience is not philosophically minded in the first place. A vital fact we should consider is that any human's view upon things, such as an artefact presenting itself to the human gaze, takes departure from an individual's cultural load (as was elaborated in Chapter 3, in the section 3.4 Representations – Representing the represented). The main point is that everything observed by humans is understood through a set of values and experiences gathered throughout a person's life. As such, a concept of dinosaurs is seen and understood through cultural lenses. Because of the awe-inspiring dimensions over the huge time-span, and the grand physical appearance of the exhibition, the human gaze upon the dinosaur era clashes with how we regard and define the human existence to such an extent that it may lead to a philosophical enquiry of some kind. Styrrassic Park represents an approach which has the ability to generate profound questions without using extensive elaborative texts (Fig. 12). The experience Styrrassic Park evokes in people can trigger the imagination of the dinosaur era and lead to a contemplation of human existence. More precisely, it may raise questions such as 'If dinosaurs were here before us, what comes after us?', 'What will eventually lead to our extinction?', and 'What do we do with the time we have left?' These are existential questions which have value far beyond the sphere of the museum.



Fig. 12. Full-scale model of a dinosaur, with accompanying text in Styrrassic Park. The sign to the right reads: 'Tyrannosaurus Rex (König der Herrscherechsen) – The biggest and most dangerous dinosaur ever found! His head was 1.8 metres long and his teeth 15 centimetres!' Photo: Sigurd S. Nielsen (2004).

Finally, I would like comment on the ideological aspects of Styrrassic Park. As was the case with Inatura, this is identified by looking at how Styrrassic Park defines the role of their visitors. As we have seen, the ideological point of departure for Markus starts with an understanding of the human as in need of pleasure and excitement, and more importantly enlightenment and awakening. This can be understood from how he compares the knowledge imparted at Styrrassic Park with the knowledge taught in schools: *'It's not like in the school: you have to learn this and this and this and this. You have to feel that this is a big history, and is very interesting. And if you are fascinated you will want to know everything'* (19-21). Instead, Styrrassic Park's knowledge: *'makes them richer. You don't need to know this ... It will not influence their life, yes. It will not have a big role in their [the visitors] life, but it will make life much richer'* (26-27). This quotation suggests that school knowledge (based upon scientific facts) is not always necessary. The comparison with school serves to underline the notion that science is often boring, and further, that science is only of secondary value. Science becomes valuable at the point when fascination is triggered, and an urge for more knowledge is present: *And if you are fascinated you will want to know everything* (20-21). Hence, Markus appropriates a great deal of the responsibility for learning to the visitors. Styrrassic Park has the function to trigger an interest, to gain an initial insight into some phenomena. This will, according to Markus, prepare visitors to continue to research for themselves. In this way, Markus describes Styrrassic Park's moral role far differently from that of the early museums described in Chapter 1. Early traditional museums emitted a somewhat moralistic role in defining and promoting a static natural history. The audience was to be disciplined and trained to a greater extent. Styrrassic Park, on the other hand, allows itself to

be openly at the disposal of the visitors through its less scientific, more experience-based approach. Further, much in the same way as with Inatura, the ideology is that the visitors are themselves responsible for learning individually and do not follow a clear strict educational programme laid out by the museum. This is evident from the way Styrrassic Park gives much room for imagination and interpretation in their exhibits.

Concluding remarks to Part IV

In the analysis I have demonstrated how Styrrassic Park makes use of an impressive time-scale and the grand size of prehistoric animals to awake the interest of visitors and trigger a fascination for nature. This was reasoned by Markus in that human's are in need of awakening from their day-to-day business of life, and thus the exhibitions could be used to encourage further questioning about what human's generally spend their time on. In this way, the analysis provided insights into how an exhibition can interact in a contemporary socio-political context without explicitly preparing for this. This shows a close resemblance to what I concluded was the ideological profile of Inatura in Part III. In Styrrassic Park, the visitors are also presented with a not very strict educational programme and are given much space for interpretation and imagination. This ideology was reasoned with reference to conventional ways of acquiring knowledge by school education, but also visits to conventional museums, and thus we can see that the discourse of the traditional 'museum', elaborated in Part III, was once again drawn upon.

It is also noteworthy how knowledge of dinosaurs is suggested to be experienced as opposed to learnt through text. The 'experience of nature' seems to represent a natural engagement, involving body action, and thus provoking a physical nearness to the natural elements. Markus dichotomises this with the old school of learning. That is, a process of learning involves plentiful studying, reading and interpreting, which makes one able to put words to things, and become the possessor of knowledge. Yet this perspective seems to lack an important human dimension which Markus seems to prefer. A dimension of the *feeling for nature* seems to have entered the discourse of museum experiences. According to Markus, in Styrrassic Park, a feeling for nature is something that cannot be fully achieved unless one has a sensory, physical involvement in the exhibitions. In this way, experience-based learning is valued over knowledge provided through texts.

Part V

4.5 ... it should be a high priority that museums contribute to people's love of nature²⁰

Introduction

This discussion took place in front of a natural habitat diorama (Vitenskapsmuseet) and is characterised by what was seen at the time. It differs from all the other interviews, which took place in offices or similar parts of the museum complex. Natural habitat dioramas as a way of exhibiting nature emerged for the first time in Sweden in the second half of the 19th century, and in some ways remained a popular exhibition technique up until the 1980s (Wonders 1993, Sørungård 10.09.2004). In comparison, the exhibition in Vitenskapsmuseet was established only 25–30 years ago. In what follows, the particular technique is discussed with reference to what it communicates. The analysis focuses on how the diorama as an exhibition technique communicates knowledge on nature. I analyse how dioramas presents themselves as an expression of natural sciences. In this way, the natural sciences are regarded as a separate discourse and grid from which nature is understood and exhibited in natural history museums. As such, I analyse an institutionalised way of seeing from the perspective of a traditional natural history museum, but also witness how Marit Sørungård identifies this in her own consideration of the exhibition.

1 Sigurd: If you consider what we see here, do you think it represents one particular type of knowledge? Is it a
2 type of knowledge about nature we see here? It is a way of representing nature too ...

3

4 Marit: It's like an encyclopaedia, in a way.

5

6 Sigurd: Yes.

7

8 Marit: Isn't it?

9

10 Marit: Well, you have each individual animal in three dimensions instead of a photograph, as in an
11 encyclopaedia, and you have something about what kind of environment they live in and you have
12 very brief facts about them, very little. Much less than in an encyclopaedia, and about habitats. And
13 this is how systematic exhibitions generally are. They are almost an encyclopaedia and that is what
14 the function of the museum has been traditionally ... You're welcome to go there and see how things
15 are systematized in a way ...

²⁰ (Sørungård 10.09.2004)

Analysis

16

17 Sigurd: That makes me think about science.

18

19 Marit: Yes, it is science. It is. So this is not something that ... It doesn't tell ... Well, it doesn't question
20 anything. I don't know what it tells us except from being lexical information.

21

22 Sigurd: ... do you think it appeals to people's feelings?

23

24 Marit: Well, it can provide appeal too, which I think could have been developed further... I think the beauty
25 aspect is important. I think it should be a high priority that museums contribute to people's love of
26 nature, because in this way you will care for it. If you don't see the point of something, you won't
27 care for it either. Therefore, if it is regarded as imperative that people should protect and take care of
28 nature, I believe in telling about all that is fascinating in nature, and then I would say that the beauty
29 aspect is important for quite a lot [of people]. It is something that can be easily combined with the
30 systematic exhibitions, I think it can work as a supplement which raises the systematic exhibition to a
31 higher level, because I think it's more or less taken for granted that university museums should have
32 systematic exhibitions. That's the way I see it, that it is something that university museums should
33 perhaps contribute to in society. Also, typically they have such lexical exhibitions, different themes ...
34 But, it can be linked to other things so that they cover more aspects. ...²¹ Maybe we could have
35 thematic exhibitions along the lines of 'There's a fox. Maybe it could have some problems, such as
36 scab infections?' It's a horrible theme, but ... Or, with the wolverine, you could link it to the conflict
37 with farm animals, sheep and so forth. You could easily supplement the permanent exhibitions with
38 current issues so that they [visitors] are more readily attracted to come and see the exhibitions,
39 because they are not static.

(Sørumgård 10.09.2004, my translation)²²

First, considering lines 1-15, the focus on knowledge is clearly initiated by the interviewer (1-2). It is implied that the diorama in question is a scientific knowledge-based presentation, but at the same time it is stated that: '*It is a way of representing nature too*' (2). This leads to a provoked contrast between the representation, the diorama itself, and the knowledge it represents, as if the two can be detached or disconnected and considered independently. The interviewer asks for the particular knowledge represented and at the same time emphasizes the diorama as a representation. This can be linked to the discussion on representation and the represented (Chapter 3), where I implied an inherent inseparable relationship between the two. However, the interviewer's formulation of the question suggests that it is somehow

²¹ Two lines from the interview transcript were removed at the respondent's request.

²² An audio version of the excerpt can be found in Appendix 3, track 5. See Appendix 1 for the original transcription in Norwegian.

possible to perceive and describe the two independently. This reveals a general propensity to strive for the uncultivated gaze, and a belief that we can perceive some things without references. Another way to interpret the somewhat contradictory formulation of the interviewer's question is that the last sentence in line 2 refers to the actual practice and technique of representing nature in dioramas. The technique appears, in this sense, as the result of an artist that emphasizes visual aesthetics more than scientific knowledge. Elaborating on what natural habitat dioramas are, Wonders (1993: 193) takes a middle course and states that: '*The primary function of the diorama is neither as an aesthetic expression nor as an illustrative medium for science but as a re-creation of outdoor nature*'. In the conversation though, it is the scientific expression which is identified when Marit replies. Lines 4-15 describe how Marit feels the exhibition can be compared to an encyclopaedia and represent lexical information. She describes the diorama and gives little attention to the aesthetic details of the animal or the painted landscape in the background (lines 10-15), nor does she put any emphasis on the artistic side of it. Rather, she considers it to be a pure technical description of the elements on display (Fig. 13).



Fig. 13. *Dioramas in Vitenskapsmuseet: Roe deer and brown bears from the Norwegian fauna.* Photo: Sigurd S. Nielsen (2006).

Analysis

It is important to note that Marit did draw attention to the information plate mounted next to the diorama. The information plate should, however, be considered as a very sparse informative supplement. It provides the name of the animal, ecological habitat and geographical distribution, and adds little or no excitement to the static expression of the stuffed animal: *'And this is how systematic exhibitions generally are. They are almost an encyclopaedia ... You're welcome to go there and see how things are systematised in a way'* (13-15). Marit describes the exhibitions as a mere reflection of science. When she refers to the systematic exhibitions, it is with reference to the taxonomical system that biologists and ecologists make use of to categorise and order species in relation to one another. As was elaborated in Chapter 1, this is a tradition that developed with scholars such as Carl von Linné and Charles Darwin (Campbell 1996). Marit clearly indicates that the classification systems is represented in the museum not as a system alone, but is revealed indirectly in how the exhibition is presented and organised. It is used as a leading principle in presenting nature and represents an order through which nature is to be considered. One specific diorama in an exhibition represents one element in a superior ecosystem. This means that one diorama or habitat does not represent the ultimate piece of information, let alone lose its meaning because it does not appear to be part of a system. It should be observed and considered in relation to the other natural habitat dioramas. It is when seen in comparison to other dioramas that differences and characteristics in both animals and habitats appear. Further, because of the sparse textual information provided for each diorama, there is no story attached to them, nothing other than an identity in the form of the common name of the species, the Latin name, its physical environment, and its geographical distribution. The system of classification and systematisation represents categories from which each species is considered and labelled.

It should be noted that the value of the typical diorama exhibition technique was commented upon by other respondents. Martin Kurzthaler from the Hohe Tauern Visitor Centre was clear in his opinion of this way of representing nature:

You should have a history behind everything, a history that impresses the people. Only telling the name and how long it blooms and where it grows is senseless; it's useless to say. They [visitors] will never keep in their mind ... the name of this plant or this tree, but what people are interested in is the story behind things, what they are good for, whether there are any useful things, whether there is a history behind it, if there some mythology behind it, and so they must combine something. If they are able to combine a plant with something else, then you have won. (Kurzthaler 19.08.2004)

As such, the natural habitat exhibition in Vitenskapsmuseet captures only the stereotypical image of the habitat. The constituent parts of the habitat, the plants and animals, are emphasized so as to appear in their most typical form. Nature is presented as if there are clear borders between the habitats, but this is most often not how it appears out in the wild. The diorama technique does not illustrate how the principles of classification are not given from nature itself and how the boundaries of ecological habitats are often blurred when they are observed in the wild. Thus, I would argue that Marit identifies and draws upon a discourse which captures the grid rooted in the scientific tradition of natural history. It is a grid that represents an order through which nature is interpreted and understood. I think it is fair to say that her way of responding reveals a certain scepticism and identifies some limitations in this way of exhibiting nature. There is an inherent limitation in that people go there only in order to ‘*see how things are systematised*’ (14-15). This notion is confirmed (lines 19-20) when she states that it does not question anything, which further suggests that the exhibition does not position itself according to a socio-political context. Natural science presents itself through its sphere of neutrality, and acts in a self-appointed rationality and integrity, living a life of its own, so to speak (Pedersen 1996). It should be clear by now that this so-called sphere of neutrality is by no means acknowledged by the author of this thesis. I choose to use the term in this case as I suggest a discourse of natural science can be distinguished as being somehow neutral in that it has emerged as a rationality of truth statements that seldom are challenged (Pedersen 1996, Birkeland 2002). The lexical information referred to by Marit connotes to the idea of natural science as neutral knowledge. This is not to say that this is the opinion of Marit. Rather, it indicates which understanding and meaning she lends support to in expressing herself, and thus exemplify the constitution of both context and discourse. Hooper-Greenhill points to the practice of naming objects in museums according to the standards of the scientist:

This terse nomenclature has in the past been so naturalised in museums as to be almost invisible. In some museums, the information given is so embedded in the curatorial code as to be incomprehensible to those who do not understand it. (Hooper-Greenhill 1994: 116)

As can be seen, the practice of naming objects represents a clearly discursive feature in that it is naturalised, and taken for granted.

Analysis

The interviewer introduces the element of the feelings in line 22, and in her response Marit captures the beauty aspect (lines 24-29), which I noted was absent earlier (10-20). This suggests that the exhibition as it appears today does not cover or underline the beauty of animals. As mentioned, Marit did not point to the aesthetic qualities in the first part and I will comment further on this here, because it is when seen in contrast to lines 24-29 that my point becomes clear. In reasoning why the beauty or aesthetic value was not emphasised earlier, I would argue it is related to how we choose to consider an exhibit. This is profoundly related to discourse. The discourse I refer to emphasises the scientific grid which is so evident in the natural habitat dioramas. The representation of the animals is clearly reasoned through the principles of natural science. It is not reasoned through the inherent beauty aspects of the animals or their habitats. Science is prioritized over beauty and, in particular, a specific classification system (Wonders 1993). This is not to suggest that properties of beauty are absent in the dioramas. I am sure anyone could find beauty in them and thus argue that walking through Vitenskapsmuseet is an aesthetic experience. However, I would emphasise that we have an example of the power of discourse, in that the interviewer and respondent emphasise other properties than the ones concerning aesthetics. As such, the eyes of the observer(s) are what constitute the cultural gaze. In addition, I think the discourse of scientific rationality can be somehow generalised when trying to consider the institution independently from the conversation. Natural habitat dioramas, as a culture of exhibiting, stem from traditions of the natural sciences in how nature is studied and thus regarded. It is without doubt true to say that aesthetics play an important role in motivating biologists, ecologists, bio-geographers, and others to study nature, but aesthetics have not played a crucial role in the methodological classification and subsequent study of nature. According to Thomas (1983), aesthetic attributes as a departure for systematic scientific work more or less ceased in the 18th century when scholars began to consider the anatomical structure of animals instead of just their bodily appearance. So, when Marit underlines the importance of love and care for nature (25-30), it stands in contrast to what she earlier observed and commented upon in her own exhibition (1-20). She uses the same logic as was revealed in the conversations with Karl Forcher (30.08.2004) and Markus Ulrich (17.08.2004), saying that fascination and aspiration by the visitors trigger a desire to acquire both more knowledge and to care for nature. Further, she does not think that systematic exhibitions are that far off the target of providing people with an aesthetic experience. According to her, there are only minor technical adjustments that need to be done. The beauty aspect, she says, *'is something that can be easily combined with the systematical exhibitions, I think it can work as a supplement which raises the*

systematic exhibition to a higher level' (29-31).²³ In fact, there is little here indicating there is something inherently wrong with using stuffed animals against a painted landscape background. So really, when natural habitat dioramas are criticised for being out of fashion, or too scientifically minded, the critique does not necessarily focus on the concept of the natural habitat diorama, but more on the wrapping and what surrounds them. This brings further support to the notion that what surrounds the displays, everything from accompanying texts to the physical appearance of the exhibition hall, to the institution considered as a whole, affects people's experience of the dioramas, and thus their understanding of nature.

Concluding remarks to Part V

The most notable discourse drawn upon in this analysis concerned natural science, which suggests one way of understanding nature with reference to classification and systematisation. It was demonstrated how this understanding is limited in representing nature as experienced in the wild. Marit is quite aware of the scientific expression that dioramas represent and identified the limitations of the technique. In doing so, she works against the discourse of natural science in the culture of exhibiting. Marit calls for alternatives, as she disapproves of the ability of the exhibition to engage in contemporary debates and discussions about nature. Instead, she urges for exhibitions that reflect how contemporary society relates to and manages wild animals, for example: *'Or, with the wolverine, you could link it to the conflict with farm animals, sheep and so forth. You could easily supplement the permanent exhibitions with current issues'* (36-38).²⁴ This suggests that the exhibitions should step out of the culture of exhibiting which typically reflects natural science, and appears detached from the socio-political context. Another discursive feature was revealed as Marit expressed concern over the tendency for university museums to take systematic exhibitions for granted. This discourse represents the natural history museum as being caught up in natural science and the subsequent culture of exhibiting. This notion was also supported by Hooper-Greenhill (1994).²⁵ Natural science has become the norm and rationality from which natural history museums should represent nature. From Marit's point of view, this is unfavourable. Thus, I have identified a conflict between the employee and the discourse that Marit thinks is imprinted in university museums.

²³ Elsewhere in the interview, Marit suggested that simply adding sound effects or replacing the old information plates could improve the quality of the dioramas (10.09.2004).

²⁴ The wolverine is a protected animal in parts of Norway. At the same time, it represents a threat to sheep grazing freely in the out-fields. This has led to conflict between farmers and the protection policies initiated by the Norwegian government.

²⁵ In Marit's case this applied to natural history museums in general.

Part VI

4.6 To promise more than visitors will maybe see later ... it seems to be necessary.

Otherwise you will not be able to attract visitors ²⁶

Introduction

The following excerpt is from an interview conducted at Hohe Tauern National Park in Matrei, Austria. In this conversation, Martin Kurzthaler elaborates on the use of technology in exhibitions. This is to a great extent reasoned by what he thinks represents the visitor's mode of perception. Underlying this is the notion that, in a world of advanced technology and competition in visual displays, humans have become accustomed to certain ways of perceiving and acquiring information. This is analysed in what follows, when I examine in detail how the employee reasons and favours certain exhibition practices and at the same time disapproves of others. This perspective sheds light on how a discourse of a contemporary mode of perceiving can establish a rationality of how to represent nature.

1 Martin: Yes, but to come to the point. Nature XXX²⁷ cannot really preserve nature. This must be done by all
2 the people and ... they [museum exhibitions] are good for raising the public awareness. ... There are
3 so many natural [history] museums in big towns – Vienna, London and everywhere – but mostly they
4 are designed in a very old-fashioned way, with only dead animals and dead insects, millions of dead
5 insects, and that's not the way to present nature. I've seen one really good natural museum in Cape
6 Town.

7

8 Sigurd: In Cape Town?

9

10 Martin: Yes, it was extremely impressive.

11

12 Sigurd: What was impressive about it?

13

14 Martin: It was totally artificial. There was only technique. ...

15

16 Sigurd: Technical, you mean?

17

18 Martin: Technical. Absolutely. Not even one plant, nothing. Just by ... with also these three dimensional

²⁶ Kurzthaler 19.08.2004

²⁷ XX or XXX in transcript refers to inaudible syllables.

19 things. For example, there are bones. This was the only thing from nature that is on display, the bones
20 of a whale, a blue whale. There were these big, huge bones hanging in the big hall, and you had to sit
21 in the cabins and there was the sound of whales – how they really sing – and suddenly the bones
22 started moving, and then the skin appeared, and then water, and then they switched on the light, and
23 again these bones. ... but it was really something like a totally ... you are meant to swim beside this
24 whale. It was really impressive, but no dead animals anywhere.

25

26 Sigurd: So you think you can use technical devices as much you like?

27

28 Martin: Yes, of course.

29

30 Sigurd: As a long as you create a good experience ...

31

32 Martin: Yes, the more the better. I think it's ... what is really important is that the people get an idea of the
33 size of animals. For example, we have pupils from Munich who have never seen a cow before in their
34 life. They have seen them on the television, and they have seen them in books, pictures and so, but
35 when they see cows for the first time in their life they're totally ... 'They're so big' ... almost like an
36 elephant ... [laughs]. Exhibitions should be able to give an idea of the size of, of the behaviour of the
37 animals, but with as much technique as possible, not ... Text and pictures do not ... these times are
38 over.

40

41 Sigurd: Hmm.

42

43 Martin: Every little six year old is better on the computer than me. They are used to these technical things,
44 and we have to work like this and if ... I think nowadays making an exhibition is not so easy. You
45 have to use all these high-tech things to make it good. Otherwise you will not attract people and then
46 the exhibition is meaningless.

47

48 Sigurd: So attempts at bringing nature into exhibitions, I mean nature as it is, for example dead animals, is a
49 poor way to ... It makes nature boring in a way, then?

50

51 Martin: Yes. It makes real nature boring. Because people expect to see all these animals in the nature when
52 they are going out in the nature and they will not see it [because they are hard to spot, shy or rare].
53 We promise something they will never see. Therefore they are walking around, 'where are all these
54 animals?', huh? They will not see them and then we promise something they will not see. But as we
55 discussed before, it's not possible to present nature in an exhibition. Therefore [because] nature is too
56 complicated. There are so many things that you will never be able to present nature in a right way.
57 You only can give an idea. To promise more than visitors will maybe see later ... it seems to be
58 necessary. Otherwise you will not be able to attract visitors. We have to be spectacular in a way. If
59 you are making an exhibition about artists, about painters, or a museum, mostly you have pictures of

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60 very, very famous painters, of XX XX, or Picasso and then you can attract people, not with pictures
61 by painters nobody knows. You will not have visitors, although they also might be beautiful and also
62 paint good pictures, but you must have Picasso to attract people, and you have to make a slideshow
63 like this to attract people, not only pictures of some glaciers. That's not enough.

(Kurzthaler 19.08.2004)²⁸

The first five lines deserve particular attention as I believe important discursive features are revealed here. Lines 1-2 contain a statement where Martin reveals some of the values and ideologies he carries with him in his work. Its connotation refers to an attitude where the people are the only ones to preserve nature. It is a response to the misconception that nature can take care of things itself and rests on some negative experience that people tend to be reluctant to see the consequences of their actions. In Martin's view, human influence has degraded nature from its earlier condition, and thus it is their responsibility to take evasive action and save ecosystems from further degradation. Also, in saying it is the people's task to do this, it is suggested that governmentally initiated laws and regulations are not enough. What is called for is an overall change of mentality and in this respect (he states later) the museums can be a good place to start. Martin says there are many natural museums that possess the potential of bringing the right understanding of nature, but suggests that they fail to do so (lines 2-5). He draws on a discourse of the archaic scientific museum, consisting of '*dead animals and dead insects*' (4). He does not seem to honour the value of such representations. It is possible to identify the same line of thought here as in the interview with Sørungård (10.09.2004). The somewhat scientific tradition reflected in many natural history museums fails to engage people in the contemporary debates about nature and this also counts for the specimen collections in big cities such as Vienna and London, as well as the natural habitat dioramas in Vitenskapsmuseet in Trondheim.

In what follows, Martin tells a story from a museum experience he had in Cape Town (5-24). It was a personal experience which obviously moved him. What is particularly noteworthy is that this experience is characterised by a complete absence of natural elements, except from the bones of the whale that were used as a basis for the animation that followed (Fig. 14). It was a pure technological representation of nature. The aesthetic element was emphasised in a very apparent way. Without having experienced it myself, I can readily imagine from his description the somehow slow and gentle, wavy movements of a gigantic blue whale. It is

²⁸ An audio version of the excerpt can be found in Appendix 3, track 6.

reasonable to assume that the effect of the bones must have given the animation an authentic touch. Martin also describes how the representation was programmed into stages, each following naturally from one to the next : *‘There were these big, huge bones hanging in the big hall, and you had to sit in the cabins and there was the sound of whales – how they really sing – and suddenly the bones started moving, and then the skin appeared, and then water, and then they switched on the light, and again these bones (20-23)*. This adds support to the notion of the authenticity in this representation. It started with the bones as the remains of a real animal, constituting the presence of the physical, something that is actually there. Then there is a gliding transition over to the movement of the bones, giving life to the inanimate bones, followed by the appearance of the skin of the whale, along with sound effects. Although the latter two elements are completely non-physical, I assume it appeared more real than it would have done without the stepwise transition starting with the bones. As Martin described it: *‘it was really something like a totally ... you meant to swim beside this whale. It was really impressive’ (23-24)*.



Fig. 14. *Blue whale skeleton in the natural history collection at Iziko South African Museum, Cape Town. It measures 20.5 metres in length. © Iziko Museums of Cape Town. Photo: Cecil Kortjie (2006).*

What this part and the following lines 26-32 show is that a purely technical approach in representing nature can be argued for. The logic behind this notion is that technical

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representations can be used to provoke awe-inspiring experiences. In the case with the 3D blue whale visualisation, it will always be a representation, not a reflection of whales as seen in the ocean. Yet it helps people to experience something they do not have access to out in the wild. As such, it makes unavailable phenomena at least within reach, and it is perhaps fair to say that this particular visualisation is more *felt*, than say a blue whale seen on television. Also, for practical reasons, a blue whale cannot be featured in an indoors exhibition or a zoo. So, in this case, the museum can be said to be a mediator for phenomena out of reach for most people, and the experience is unique because the whale is visualised in full scale. On the other hand, we can question the extent to which this demonstration of technology is a strategy used by the museum to simply respond to the needs of a visually demanding audience. The technology may represent an attraction they know will capture the attention of the audience. If so, the museum is fulfilling customer demands rather than promoting their own interests, so to speak. Of course, a middle course is achievable, but I would argue that the intersection between visitor interests and the interests of the institution (independent of their visitors) is a very important subject for debate. Who influences who, and consequently, who influences the way we perceive and understand nature?

Martin goes so far as to say, the more technology you use, the better (32). Does this claim represent the interests of him and the visitor centre, or the interests of the visitor, or both? In this case, it is difficult to give any clear indication simply from considering his statement. However, I think it is fair to say that most would agree that a museum has to be considered as a result of both parties, i.e. that you cannot separate the two (Hooper-Greenhill 1991; 1994). The museum is a public institution that, among other things, aims to teach and educate the public. However, I would argue that on a discursive level, this question becomes more complex, as the discourses linked to this debate point in many directions. Taking the example from lines 32-38, it is argued that the pupils from Munich have very little sense of nature as it is observed in the wild in contrast to the television. Due to this fact it becomes important to design exhibitions that use full-scale representations: '*[Visitors should be able to] get an idea of the size of animals*' (32-33). This hints at the extensive culture of media representation through television or newspapers: *They have seen them on the television, and they have seen them in books, pictures and so ...*' (34). It is implied that these media are unable to capture the scale of natural objects, and thus work to establish a set of mental references where nature is out of scale. For Martin, the discourse of young people today possessing a wrong conception of the scale of things has become a means for reasoning around natural history exhibits. It is a

rationality from which the museum (including Martin) has founded its strategy upon, and further leads to an ideology where the museum is the agent to correct delusions among the public by representing a somewhat more realistic image of nature. Interestingly, this ideology and strategy should, according to Martin, be realised with ‘*as much technique as possible, not ... Text and pictures do not ... these times are over*’ (37–38). When this perspective is compared to the debate concerning natural habitat dioramas in Part V, we see a whole different logic in use. The thought behind the dioramas is to bring nature inside the museum as much as possible, or as Wonders (1993: 193) expresses it, dioramas are ‘*a re-creation of outdoor nature*’. The idea here is to take natural elements as they are outside and simply recast them into the space of an exhibition. On the contrary, as Martin sees it, this is misunderstood, because what is actually presented is a dead animal, not nature as it is seen out in the wild. Still, stuffed animals on display capture the real sizes of animals, which Martin believes is important, but this does not pay justice to the practice of presenting dead animals. Here, I lend support to some notions that were presented elsewhere in the interview, a discussion concerning the specific use of stuffed animals:

If an animal is dead, it should be dead, not filled with some ... I don't know what is filled inside these dead animals, but ... Nothing is more dead than a dead animal because people like animals. They like [seeing] them around and running and playing together and here they see an animal doing nothing. Sometimes I can see, for example, children in our exhibition looking at these poor animals [thinking] ‘why are they dead?’ and ‘why are they here?’. (Kurzthaler 19.08.2004)

So, the use of dead animals is, according to Martin, not a good strategy. The technique is not valued because it can work to contrast the living element of nature. Instead, the element of *the living* in exhibitions can be achieved with the use of technology. I would argue that this is reasoned by Martin with two different lines of thought. The first is the one already elaborated, namely the use of dead animals in exhibitions can overshadow the intended pedagogical value and thus represent exactly what nature is not, namely dead. The second line of thought calls for technology to simulate what characterises life – movement, growth and ageing – as with the example of the blue whale in Cape Town. Here we see the interests of both Martin and the institution at work. Although, the idea of stuffed animals as excluding the living element is reasoned against the visitors’ experiences, it is also a claim posed by Martin. It is not a notion simply stating ‘our visitors do not like stuffed animals and therefore we avoid the use of such’. It is just as much a personal opinion. Technology is also considered a good strategy

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because this represents the general level of contemporary ways of communicating. It speaks the language of contemporary audience, so to speak, and I would argue that museums are more or less forced into the all-embracing competition of visual displays and thus more of a governed agent rather than a governing agent.

The fact that people are used to perceive messages through electronic media is reasoned in lines 43-46. This also adds support to what was reasoned earlier, namely the notion of museums as '*designed in a very old-fashioned way*' (4), and the idea of technology as the solution to correct nature representation: '*They are used to these technical things, and we have to work like this ...*' (43-44). Technology has become the means through which statements and messages should ideally be mediated. It represents a norm from which visitors (at least some) build their expectations upon. Also, as Martin says, '*You have to use all these high-tech things to make it good. Otherwise you will not attract people and then the exhibition is meaningless*' (44-46). This confirms the idea that the success of an exhibition may be measured through the number of visitors, and thus makes museums profoundly dependent of ensuring that their visitors are pleased, if they ever come in the first place.

The elaboration in lines 48-63 is an example of how visitors may be profoundly influenced by nature representation in museums. It grants the museum with distinctive influential abilities, instead of being defined as being in some backwash of a hypermodern culture. The interviewer introduces the perspective by referring to the use of stuffed animals and suggesting that it is a poor way of presenting nature, but also that it can make experiences in the wild something of a disappointment (48-49). Martin's response underlines how the use of stuffed animals in exhibitions might give the wrong idea of how nature actually appears. He points to the fact that animals presented in exhibitions can be very hard to spot out in the wild, and thus it may bring disappointment to the outdoor experience (51-55). In referring to visitors exploring nature on their own initiative, he says: '*they are walking around, "where are all these animals, huh?" They will not see them and thus we promise something they will not see*' (53-54). This is, however, not suggested by Martin in an absolute sense. Most people are aware that museums represent 'highlights' from nature, a selected viewpoint. For example, dioramas often picture animals in a 'natural setting', usually together with other species from their ecological habitat. As such, the diorama is like a scene in a film. It is more or less staged in that it is framed by a small room, often with a window to protect it. This room separates the spectators from the animals, and keeps visitors from interfering with the

scene. Visitors cannot, at least in most cases, step into and interfere with how the stage is set. They may observe the animals from a series of perspectives, but always from the outside. The effect of the scene is also substantiated in that it represents a situation which most people will never see out in the wild. A diorama represents an exclusive image of nature, regardless of whether it is out of fashion or characterised as a scientific representation of nature. It is exclusive simply by virtue of its arranged character, providing an unusual scene from nature. This is to suggest that museums also, along with popular media's nature representations, affect the set of references that the public use to interpret nature on their own. Although museums are an agent in the competing world of visual representations, and are idealised by some in the sense that they should represent a counter-voice to extreme popular representations (Weichert 05.07.2004), they cannot comprehend the complexity that nature represent. They are forced into representing nature in selected ways, and cannot be neutral in this process: *'There are so many things that you will never be able to present nature in a right way. You only can give an idea'* (56-57). Martin clearly acknowledges the idea of museums as unable to capture and represent nature in its complexity. I believe this can explain his propensity to suggest an extensive use of technology (26-38). As nature is too complex to be represented *as it is*, we may have no other choice than to exploit the cultivated gaze, and consequently allow the use of technology to represent nature.

Concluding remarks to Part VI

The analysis started out by identifying how Martin regards human's moral role in the environment. Degradation of the natural environment was considered to be the responsibility of humans and as such we gained an insight into his personal ideology in providing knowledge on nature, and how exhibitions can help provoke a feeling of responsibility among the visitors. The rest of the analysis focused on the use of technology in exhibitions. Technology is reasoned from mainly two perspectives. First, it has to be understood as the means from which exhibitions should communicate with their visitors. As people are used to technological visual displays this became a reasonable strategy to base exhibitions on. Second, technology is seen as favourable as it lets go of the impossible ideal of representing nature correctly. The nature in the wild is regarded as too complex to be represented correctly. Therefore technology should be exploited to trigger fascination and evoke wonder among the visitors. The contrast is exemplified by the diorama where nature as it is in the wild is sought mirrored in the museum. In Martin's opinion, this technique captures more what nature is not, by portraying static nature and dead animals. Therefore it was unfavourable. Lastly, I have

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suggested that museum exhibitions should be considered as yet another medium, along with other media such as TV and films, from where we acquire our somewhat distorted image of nature.

5

SUMMARY, DISCUSSION AND CONCLUSION

This chapter will emphasize the main findings of the analysis in Chapter IV, discuss these findings and derive some conclusions. Finally, I take the opportunity to raise the level of sight and discuss the importance of discourse studies.

5.1 Empirical results

I started the analysis in Chapter IV by investigating the role of the employee from a professional point of view. Karen (Part I), emphasised the importance of the presence of scientific competence in museums' representation of scientific knowledge on nature. Her role as employee was reasoned through a discourse of an unfortunate situation where visitors are provided with inaccurate and possible inaccurate information about natural processes. It should be noted that her role was also substantiated by being the guarantor for providing visitors with precise information and, as such, representing the scientific profile of the museum.

A parallel with Karen's situation can be identified in the analysis of what Karl (Part II) informed, in that they both identify themselves as representatives of natural science. In the case of Karl, I put emphasis on institutionalised practices and argued that his elaboration of his work should be understood from the norms and conventions that follow from his position as a scientific employee. I argued that a discourse of the museum representing formal practice and scientific objectivity had played a key role in his work. This was considered to be in contrast to his experience from university science and the museum had led him to become accustomed to a different way of thinking in how to represent information from the natural sciences, thus revealing the discursive character of institutional practice. It was also identified that visitors have come to play an increasing role in the making of exhibitions on nature, where the scientific level is sought accustomed to the lay audience.

A clearly evident example of this trend was observed in the analysis of Klaus' statements (Part III). He used the word 'infotainment' to describe his exhibition and the way it

communicates to the visitors. I suggested his use of the term was a strategy to avoid the unfavourable category of the common ‘museum’, which he associated with tedious representations of scientific material and plentiful text. From Klaus’ statements and my own experience of the museum, I came to the conclusion that the exhibitions represent an implicit ideology which provides visitors with responsibility for their own learning outcome. The exhibitions function simply to trigger a fascination from which the visitors can pursue their own further enquiries through available in-depth handouts.

This trend seemed to come into full expression in the analysis of Markus’ statements (Part IV). The exhibition’s focus on the experience of modelled dinosaurs, accompanied only by a brief text, is an extension of the exhibition concept in Part III, where much the same focus was applied to exhibiting single animals and not on elaborative text. I also pointed out how the effect of the open air setting created a departure from the conventional learning environment, which supported the experience-based profile of the exhibition. The analysis also revealed that even a non-analytic experience-based exhibition can be effective in generating an interest in nature and consequently questioning general human conduct by playing on space/time contrasts (the dinosaur era represents a contrast to contemporary society).

A quite different exhibition was analysed through the conversation with Marit and the way she described the natural habitat diorama (Part V). Here, I found that the exhibition represented a reflection of the natural sciences and its classification systems. The diorama as an exhibition technique is determined from the discourse of natural science. It contains no reference to any socio-political context. A conflict between this discourse and Marit’s position was suggested in that she favoured alternative techniques. In her opinion, exhibitions of nature should relate to the way we deal with and manage nature in the contemporary context.

In the conversation with Martin (Part VI), emphasis was on the practice of using technology to represent nature. This analysis clarified how the visitor’s mode of perception can be considered from the employee’s point of view. In a world of visual representations, technological displays were considered to be the best strategy with which to meet the visitors’ mode of perceiving. The analysis also identified that the use of technology could be justified by the idea that nature in its complexity cannot be fully comprehended by any exhibition.

Martin also highlighted the fact that the use of dead animals in exhibitions can negatively underline a static image of nature. As an alternative, technology could be exploited to create lively representations, and evoke wonder and fascination among the visitors.

5.2 Discussion

I have listed what I consider describe the most important findings of my analysis. I will now single out some of them and discuss these in view of the triad presented in the Introduction (Fig. 1).

5.2.1 An archaeology of the museum - Museums as discourse

Very different museums have been investigated through the analysis of the text excerpts. They represent a huge span in historical origin and thematic content. Also, their exhibition techniques and philosophies show great variety. However, they all seem, in some way or another, to build on a history of museums, described in detail in Chapter I. This history reveals that museums have established themselves as knowledge providers and, to a great extent, places where scientific facts are mediated through a variety of techniques to the lay visitor. However, the birth of the museum should be understood through scholars' desire to bring order and understanding to the world. This profound idea reached its climax during the period of Enlightenment, which also saw the establishment of the formal structures of the museum. During this period, museums were given a locality through designated buildings, icons in the public room, often with distinct architectural expressions. They were also provided with an organisational structure, and were opened to the public for general enlightenment and education. This history describes the archaeology of the museum and I believe it is this tradition that contemporary museums operate within. The basic idea and concept of the museum has not changed very much. This tradition represents a discourse which describes museums basically as sources of valued knowledge and enlightenment for society.

The discourse of the 'museum' was demonstrated in the analysis by emphasising the various ways the employees understand and relate to it. I concluded that several of my respondents believed that many museums present tedious exhibitions, which emphasise extensive use of texts, avoid putting the exhibits in a socio-political context, and thus focus less on experience-based learning. This understanding of museums is related to the discourse of the 'museum', and several employees demonstrated their aversion to this. Instead, they suggested alternative

ways of representing nature, either through technology, emphasising aesthetic aspects through modern design and exhibition layout (Fig. 10, pg. 82), or through using alternatives to the traditional physical complex by providing a park setting from which to locate their exhibitions (Fig. 11, pg. 86). The exhibitions my respondents elaborated on provided evidence that the discourse does not only play a role in employees' elaboration, but also manifests itself through the various ways natural history museums – in postmodern society – strategically choose to represent nature. In the sense of an institution representing tradition and museum culture, this discourse can be said to represent the 'museum' in the triad illustrated in the Introduction (Fig. 1, pg. 3). In this triad, the 'museum' represents a history and a tradition from which contemporary natural history museums define their role and the employee's role and influence practices of displaying nature. The specific strategies the museums and their employees apply will be discussed in what follows in relation to the visitors.

5.2.2 The visitors

The empirical findings revealed that the employee's notions about the visitors played an important role for exhibiting nature. The way this was elaborated by the employee's demonstrated that they consider the visitors as one of their main targets in this respect. This means it is desirable that the visitors can expect a certain outcome from their experience of the museum. However, my respondents emphasised different aspects when considering visitors' experience of exhibitions, which I have defined as falling into three categories: 1) 'action promotion', which implies the extent to which the exhibition encourages and triggers further questioning beyond the displays; 2) 'communication focus', which implies the extent to which the exhibition communicates with the visitor's mode of perceiving; and 3) 'political context', which implies the extent to which the exhibition address itself to contemporary debates on nature and the socio-political context. I would argue that these categories can be read as parts of the employees' identity.

'Action promotion' was most notable in Parts III, IV and VI. With reference to how the exhibition should provide insights, Klaus favoured Inatura's exhibition since it was representative of an aesthetically pleasing exhibition that was entertaining to walk through and where information through text was de-emphasized. Instead, there were information posts, with in-depth information (handouts) about natural phenomena available to be picked up by the visitor who wanted to learn more. This gave the visitors responsibility for their own learning outcome. I have treated this as the first category because the idea of the in-depth

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handouts communicates with the visitor's own interests in actively pursuing information according to their individual fascination for nature. In Part IV, Markus characterised people's lifestyle (by drawing upon a discourse) as somehow detached from nature. The Styrrassic Park exhibition provided an informal setting from which the visitors could study nature in natural setting (i.e. through the park setting). The idea was that in this way the experience created a feeling of well-being at the same time as the dinosaur era could be investigated. I analysed that this could lead to further enquiry and contemplation of the general human conduct and what humans devote their lives to. In Part VI, Martin explained the need for humans to preserve and take care of nature as nature cannot take care of itself. Therefore, museums should be understood as good places for generating the public awareness. This was reasoned from the fact that the general public, including the visitors, are in need of knowledge about nature in order for them to be able to take better care of their environment.

'Communication focus' was evident in Parts III, IV and VI, where Klaus, Markus and Martin expressed their aversion towards traditional exhibition concepts because they do not correspond to the contemporary mode of perceiving by the visitors. As the postmodern society has opened up for a greater variety of visual displays and ways of expressing ideas and concepts, traditional exhibition styles do not communicate with this. Therefore the respondents in Parts III, IV and VI argued in different ways for a new conceptualisation of the traditional 'museum'. All emphasised experience-based learning by being entertained throughout the exhibits. Klaus used the expression 'infotainment' to describe this, and Inatura's exhibition which is distinguished by a pronounced, aesthetically designed exhibition. Markus' response revealed that the outdoor setting of Styrrassic Park provided the visitors with a relaxed learning environment. Martin argued that technology was a preferable strategy to positively communicate with the visitors.

'Political context' was evident in Part V. Marit expressed concern for the natural habitat diorama's ability to communicate with the lay visitor's relationship to nature. Instead, she urged for exhibitions which communicate with how nature is managed in society. This means that nature exhibited with an explicit reference to the socio-political context is more accessible to the visitors. It communicates directly with the visitors' engagement with nature in everyday life, as opposed to the more scientific expression of the natural habitat diorama.

I have now shown three categories from which the employees consider exhibitions in relation to visitors' experiences. They represent three ways in which visitors can evaluate an exhibition. This variety also indicates that the employees value exhibitions quite differently. It shows a repertoire from which the employees can choose from. Which of these are taken into account is a possible subject for further enquiry. Discourse analysis could be a valuable instrument in detecting the reasons why any one of these categories is applied in a given case.

5.2.3 The employees

It can be argued that the perspective of the employee is applied in all the results. I would argue the emphasis of the findings reveals the negotiation between employee and museum, and between employee and visitor. However, some of the findings reflect the employee's own identity more explicitly. The employees are not only in negotiation in the discourses of the museum and the visitors; their own identity as separate from the museum and the visitors should also be considered in the process of putting nature on display.

In the case of Karen and Karl (Parts I and II), I was able to identify part of their professional identity. Karen elaborated on her role as representing the scientific profile of the museum, and being a key element in securing scientifically correct representations of nature. I revealed that Karen's identity was in negotiation between the level of professional natural science and the popularization of such material. It was notable how she did not identify any necessary conflict between the two levels: *'it is possible to express things so they do not misinform'* (Weichert 05.07.2004). This means that in her professional identity, Karen is striving towards scientifically correct representations. In Karl's case I revealed how institutional practice within the museum was a present discourse in his elaboration of the work. Institutional practice had made him accustomed to a way of thinking with the audience in mind: *'in here you have to have a very broad knowledge, and you have to widen your mind. It doesn't work to be a specialist in a museum'* (Forcher 30.08.2004). Karl explained the way of thinking in museums as representing a contrast to his university background. There was little indication that the museum way of thinking made him compromise the knowledge of the natural sciences he had acquired from university. He only stated that the specialist approach has limited value in his work with exhibitions. In case of both Karen and Karl, I have revealed how their roles as employees are defined from the practices that conventionally take place within a museum. This made clear a discursive element of the museum by its institutional influence on its employees. Much the same conclusion may be drawn from both Karen's and

Karl's statements. They both have a specialist background and need to adjust themselves to the level of the visitors through the discursive practice of the museum. This does not necessarily mean they have to compromise their basic professional identity. It should also be noted that how the museum communicates with its visitors is an implied factor in their work, which is to suggest that Karen and Karl are not appointed to the museum only to work with scientific knowledge on nature. The main target in their work is the mediation of science to the visitors of the museum.

In the conversation with Marit in Part V, a conflict of interests could be detected. This can be understood as an expression for the negotiation of her identity. Her interests were identified through her approval for exhibitions that engage in a socio-political context. This was in conflict with the diorama exhibition in Vitenskapsmuseet, which arguably was a mere reflection of the discourse of the scientific way of understanding nature. However, one can not conclude that Marit's scientific interests (and identity) are totally suppressed in the course of her work. What may be concluded from her statement is that part of her identity depends on the degree to which exhibitions relate to a socio-political context. This should be understood as a concern for the visitor's ability to interpret and engage in exhibitions. This is to say that exhibitions relating to a socio-political context communicate better with the visitors and their background.

So far I have referred to explicit evidence of the employees' interests in Parts I, II and V. Looking more broadly at my findings, the employees implicitly spoke of their identity and interests when they commented upon the visitors, the exhibitions and the museum. Their views and opinions are implicit in many of their statements. However, a precise analysis of this is difficult and is therefore not elaborated on here. Still, I would like to point out that discourses play a vital role in most of their statements and in the way my respondents expressed their approval of different types of representation of nature. The respondents tended to approve of exhibitions which work for the benefit of the visitors (for example, in Parts III and IV, they approved of entertainment and experience aspects) as opposed to museums during the Enlightenment.

5.3 Conclusion

Finally, I return to the questions raised initially in the Introduction. My findings and discussion reveal that the museum as an institution plays a vital role in the employees'

negotiation within natural museums. Chapter 1 revealed that natural history museums share a rich history as an institution, providing knowledge and enlightenment to their visitors and society in general. This became evident in the findings, as museums understood as discourse were drawn upon by the employees in their elaboration of their work and represented a key element in how their role is defined. The museum as institution and discourse thus represents the formal frame within which employee's carry out their work, and the findings pointed to both possibilities and limitations that this leads to in representing and displaying nature. The second question regarded how the visitors played a role in the employees' negotiations in their work with exhibitions. The findings and discussion revealed that the employees' judgement of exhibitions depended to a high degree on how they regarded the exhibitions value for the visitors. This was singled out in the discussion mainly through the three points: 'action promotion', 'communication focus' and 'political context'. The professional identity, and consequent actions regarding exhibitions, of the employees relies to a great extent on the presumed experience of representations of nature by the visitors. It can be concluded from this that visitors play a key role in museum staff's negotiations in their work with exhibitions.

5.4 Discourse studies and policy change – An epistemological comment

I would like to propose that one of the profound ways that discourse studies contribute positively lies in the way they detect ways of acting that are taken for granted. This means that at the same time as identifying discourses, discourse studies also demonstrate that a different conception of the world is possible. The implicit ideology is that discourse analysis work is fuelled by a drive towards a more just society in some way or another. This is due to its ability to detect relations of power and identify who takes advantage of it and who is suppressed by it (Jørgen & Phillips 1999). As Rydin (2005) suggests, important contributions of discourse studies have been made to policy making, and especially institutions and environments characterised by formalising practices, either through the use of formal language or the general management of rules and regulations. This is to suggest that discourse analysis projects should be careful to study fields which have relevance to a socio-political context and the people that take part within it. In this sense, institutions become relevant objects of study as they are representatives of private and public, and often political, interests. In fact, most of the discourse-related references that inspired this thesis represent cases with an emphasis on policy making bodies (Bennett 1995, Dryzek 1997, Macdonald 1998, Jørgensen 2001, Crang 2003, Rydin 2003, Scollon & Scollon 2003, Renolen 2005, Sørensen 2005). It is an important task to study the rationalities which such bodies represent as they are

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highly influential through their public status. However, the somewhat ideological point which discourse studies represent, does not end here. As Rydin (2005) argues, discourse studies should also be understood as a step towards policy change (a change of policy presupposes discourse detection). It is only through recognising how processes of policy making work that we may also be able to change them:

A discourse approach can reveal features of the policymaking organization in terms of its prevailing norms and routines, which contribute to a mobilization of bias within that organization. Again this can help explain path dependency; it can also suggest discursive strategies for managing communication and the practices of policymakers in order to undermine such path dependency. (Rydin 2005: 77)

This suggests that studies of discourse are not just concerned with making visible the non-visible, and the detection and highlighting of discourses. Rydin further contends that the findings represent in themselves discursive strategies, which may be actively taken advantage of in the next step. A natural step forward would be to suggest a change of the policies and power relations just analysed. In this way, discourse studies also represent an epistemology that not only urges for social change, but also provide a toolset with which the actual policies can be provoked and altered.

The emphasis on the formal ways of representing is clearly present in this thesis too. The policy making that natural history museums and their staff represent has been thoroughly outlined (especially throughout Chapters I, IV and V). It has been argued that they represent a sense of formalised and scientifically reasoned impetus. Thus, they may be regarded as one out of many policy making bodies suggesting institutionalised ways of representing and understanding nature, in turn influencing and educating a larger audience. The knowledge that this thesis represents should thus be seen as a contribution to the need that Bennett called for (see Introduction), when he urged that:

it is imperative that the role of the curator be shifted away from that of the source of an expertise whose function is to organize a representation claiming the status of knowledge and towards that of the possessor of a technical competence whose function is to assist groups outside the museum to use its resources to make authored statements within it. (Bennett 1995: 103–104)

Accordingly, this thesis could be used strategically to urge for a shift in the role of employees in museums. Nonetheless, throughout this critical project I have pursued the notion that was proclaimed in the Preface. The role of natural history museums and their employees should be questioned simply due to their educational role within public knowledge on nature. Without raising questions about established notions and policies, there can be no change in future courses.

REFERENCES

- Bandura, A. (1986) *Social Foundations of Thought and Action – a Social Cognitive Theory*. Prentice Hall: Englewood Cliffs, N.J.
- Barnes, T.J. & Duncan, J.S. (1992) Introduction: Writing worlds. Barnes, T.J. & Duncan, J.S. (eds.) *Writing Worlds – Discourse Text and Metaphor in the Representation of Landscape* (pp. 1–17). Routledge: London.
- Bennett, T. (1995) *The Birth of the Museum. History, Theory, Politics*. Routledge: London.
- Birkeland, I.J. (2002) Kjønn og kunnskapsmakt: Det mannlige blikket. Meyer, S. & Myklebust, S. (eds.) *Kunnskapsmakt* (pp. 52–68). Gyldendal Norsk Forlag: Oslo.
- Bryson, B. (2003) *A Short History of Nearly Everything*. Bryson Books: New York.
- Bunkše, E.V. (2004) *Geography and the Art of Life*. The John Hopkins University Press: Baltimore, MA.
- Campbell, N.A. (1996) *Biology*. Benjamin Cummings: Redwood City, CA.
- Cloke, P., Philo, C. & Sadler, D. (1991) *Approaching Human Geography. An Introduction to Contemporary Theoretical Debates*. Paul Chapman: London.
- Condor, S. (1997) And so say all of us? Some thoughts on ‘experimental democratization’ as an aim for critical social psychologists. Ibáñez, T. & Íñiguez, L. (eds.) *Critical Social Psychology* (pp. 111–146). Sage, London.
- Crang, M. (2003) On display. The poetics, politics and interpretation of exhibitions. Blunt, A., Gruffud, P., May, J., Ogborn, M., Pinder, D. (eds.) *Cultural Geography in Practice* (pp. 255–271). Arnold: London.
- Darwin, C. (2003 [1859]) *On the Origin of Species*. Natural History Museum: London.

- Dear, M. (1998) The postmodern challenge: Reconstructing human geography. *Transactions, Institute of British Geographers* 13, 262–274.
- Dixon, D. & Malam, J. (2005) *Dinosaurer*. Damm: Oslo.
- Dryzek, J.S. (1997) *The Politics of the Earth: Environmental Discourses*. Oxford University Press: Oxford.
- Duncan, N. (1996). Postmodernism in human geography. Earle, C., Mathewson, K. & Kenzer, M.S. (eds.) *Concepts in Human Geography* (pp. 429–459). Rowman and Littlefield: London.
- Dybvig, D.D. & Dybvig, M. (2003) *Det tenkende mennesket. Filosofi- og vitenskapshistorie med vitenskapsteori*. Tapir Akademisk Forlag: Trondheim.
- Foucault, M. (1977) *Discipline and Punish: The Birth of the Prison*. Allen Lane: London.
- Foucault, M. (2004) *The Order of Things*. Routledge: New York.
- Frøyland, M. (2002). *Fra gråstein til ekte sølv - en modell og et teoretisk rammeverk for hvordan museene kan bidra til å øke folks naturvitenskapelige forståelse, med geologi som eksempel*. Doctoral thesis. Universitetet i Oslo: Oslo.
- Giddens, A. (1990) *The Consequences of Modernity*. Polity Press: Cambridge.
- Gregory, D. (2000) Ideology. In Johnston, R.J., Gregory, D., Pratt, G. & Watts, M. (eds.) *The Dictionary of Human Geography*. 4th ed. (pp. 369–370). Blackwell: Oxford.
- Hartnack, J. (1994) *Immanuel Kant – En indføring og fortolkning af hans erkendelsesteori, etik og æstetik*. C A Reitzels Forlag: København.
- Heede, D. (2002) *Det Tomme Mennesket. Introduktion til Michel Foucault*. Museum Tusulanums Forlag: København.

References

- Holloway, L. & Hubbard, P. (2001) *People and Place – The Extraordinary Geographies of Everyday Life*. Pearson Education: Harlow.
- Holloway, S.L., Rice, S. P., Valentine, G. (2003) *Key Concepts in Geography*. Sage: London.
- Holt-Jensen, A. (1999) *Geography: History and Concepts – Student's Guide*. Sage: London.
- Hooper-Greenhill, E. (1991) *Writing a museum education policy*. Department of museum studies: Leicester.
- Hooper-Greenhill, E. (1992) *Museums and the Shaping of Knowledge*. Routledge: London.
- Hooper-Greenhill, E. (1994) *Museums and Their Visitors*. Routledge: London.
- Hubbard, P., Kitchin, R., Bartley, B. & Fuller, D. (2002) *Thinking Geographically*. Continuum: London.
- Huxley, R. (2005) Challenging the dogma: Classifying and describing the natural world. Sloan, K. (ed.) *Enlightenment – Discovering the World in the Eighteenth Century* (pp. 70–79). The British Museum Press: London.
- Johnston R.J. (2000) *Power*. Johnston, R.J., Gregory, D., Pratt, G. & Watts, M. (eds.) *The Dictionary of Human Geography*. 4th ed. (pp. 629-630). Blackwell: Oxford.
- Jones, M. (2003) The concept of 'cultural landscape' – Discourse and narratives. Palang, H. & Fry, G. (eds.) *Landscape Interfaces: Cultural Heritage in Changing Landscapes* (pp. 21–52). Landscape Series 1. Kluwer Academic: Dordrecht.
- Jordanova, L. (1989) Objects of knowledge. Vergo, P. (ed.) *The New Museology* (pp. 22–40). Reaktion Books: London.
- Jørgensen, M.W. (2001) Diskursanalytiske strategier. Christrup, H., Mortensen, A.T. & Pedersen, C.H. (eds.) *At begribe og bevæge kommunikationsprocesser – om metoder*

i forskningspraksis (pp. 231–257). Institutt for Kommunikation, Journalistik og Datalogi: Roskilde.

Jørgensen, M.W. & Phillips, L. (1999) *Diskursanalyse som teori og metode*. Roskilde Universitetsforlag: Frederiksberg.

Limb, M. & Dwyer, C. (2001) *Qualitative Methodologies for Geographers – Issues and Debates*. Oxford University Press: New York.

Livingstone, D.N. (1992) *The Geographical Tradition*. Blackwell: Oxford.

Macdonald, S. (1998) Exhibition of power and powers of exhibition: An introduction to the politics of display. Macdonald, S. (ed.) *The Politics of Display. Museums, Science, Culture* (pp. 1–24). Routledge: London.

McCracken, G. (1988) *The Long Interview*. Sage: Thousand Oaks, CA.

Meyer, S. (2005) *Den lille Machiavelli*. Aschehoug & Co: Oslo.

Mortensen, A.T. (2001) Bemærkning om socialkonstruktivisme. Chrstrup, H., Mortensen, A.T. & Pedersen, C.H. (eds.) *At begribe og bevæge kommunikationsprocesser – om metoder i forskningspraksis* (pp. 97–137). Institutt for Kommunikation, Journalistik og Datalogi: Roskilde.

Neumann, I.B. (2001). *Mening, materialitet, makt: En innføring i diskursanalyse*. Fagbokforlaget: Bergen.

Nielsen, A.V., Becker, A. & Flindt, W. (1993) *Museum Europa: en udstilling om det europæiske museum fra renæssancen til vor tid*. Nationalmuseet: København.

Norsk Bremuseum. (2005) <http://www.bre.museum.no> (accessed 20.10.2005).

NOU. 1996:7 *Museum: Mangfold, minne, møtestad*. Statens Forvaltningstjeneste: Oslo.

References

- Olwig, K.R. (2004) 'This is not a landscape': Circulating reference and land shaping. Palang, H., Sooväli, H., Antrop, M. & Setten, G. (eds.) *European Rural Landscapes. Persistence and Change in a Globalising Environment* (pp. 41-66). Kluwer Academic: Dordrecht
- Oxford English Learners Dictionary* (1989) Oxford University Press: Oxford.
- Pedersen, K. (1996) Naturen som diskursiv konstruktion. *Dansk Sociologi* 7:2, 37–50.
- Pedersen, R. (1994) Hva er fremskritt i forskningen? *Museumsnettverket – Agrarsamfunnets materielle kultur* 4, 15–30. Norges forskningsråd: Oslo.
- Pedersen, R. (2003) Noen trekk av museenes historie i Norge frem til tidlig 1900-tall. Amundsen, A.B., Rogan, B. & Stang, M.C. (eds.) *Museer i fortid og nåtid. Essays i museums kunnskap* (pp. 25–45). Novus: Gjøvik
- Peet, R. (1998) *Modern Geographical Thought*. Blackwell: Oxford.
- Phillips, L. (2001) Forskning i tvivl – en refleksiv evaluering af det diskursanalytiske interview som metode til kritiske studier. In Christrup, H., Mortensen, A.T. & Pedersen, C.H. (eds.) *At begribe og bevæge kommunikationsprocesser – om metoder i forskningspraksis* (pp. 97–137). Institutt for Kommunikation, Journalistik og Datalogi: Roskilde.
- Pratt, G. (2000) Post-structuralism. Johnston, R.J., Gregory, D., Pratt, G. & Watts, M. (eds.) *The Dictionary of Human Geography*. 4th ed. (p. 625). Blackwell: Oxford.
- Renolen, M. (2005) *Nye fedre i gamle spor? En diskursanalyse av farskap i norske partiprogrammer*. Master's thesis in Interdisciplinary Studies of Culture. NTNU: Trondheim.
- Rose, G. (2001) *Visual Methodologies – an Introduction to the Interpretation of Visual Materials*. Sage: London.

- Ryan, R.M. & Deci, E.L. (2003) On assimilating identities to the self-determination theory perspective on internalization and integrity within cultures. Leary, I.M.R. & Tangney, J.P. (eds.) *Handbook of Self and Identity* (pp. 253-274). Guilford Press: New York.
- Rydin, Y. (2003) *Conflict, Consensus, and Rationality in Environmental Planning. An Institutional Discourse Approach*. Oxford University Press: Oxford.
- Rydin, Y. (2005) Geographical knowledge and policy: The positive contribution of discourse studies. *Area* 37:1, 73–78.
- Scollon, R. & Scollon, S.W. (2003) *Discourses in Place – Language in the Material World*. Routledge: London.
- Scott, R.W. (2001) *Institutions and Organizations*. Sage: London.
- Shorter Oxford English Dictionary* (2002) Clarendon Press: Oxford.
- Sloan, K. (2005) ‘Aimed at universality and belonging to the nation’: The Enlightenment and the British Museum. Sloan, K. (ed.) *Enlightenment – Discovering the World in the Eighteenth Century* (pp. 12–25). The British Museum Press: London.
- Smith, P. (2001) *Cultural Theory, an Introduction*. Blackwell: Oxford.
- Solhaug, T. (2003) *Utdanning til demokratisk medborgerskap*. Doctoral thesis. Institutt for lærerutdanning og skoleutvikling, Universitetet i Oslo: Oslo.
- Sørensen, E. (2003) Templer for museene. Museumsarkitektur. Amundsen, A.B., Rogan, B. & Stang, M.C. (eds.) *Museer i fortid og nåtid – Essays i museumskunnskap* (pp. 187–207). Novus: Gjøvik.
- Sørensen, S.Ø. (2005) *Girlpower = maskulinitetskrise? Kulturanalyse av forhandlinger om maskulinitet i jenteblander*. Master’s thesis in Interdisciplinary Studies of Culture. NTNU: Trondheim.

References

- Thomas, K. (1983) *Man and the Natural World. Changing Attitudes in England 1500-1800*. Penguin Books: London.
- Thorsen, L.E. (2003) Sjøkua og flodhesten – utstoppede dyr som kulturhistoriske bilder. Amundsen, A.B., Rogan, B. & Stang, M.C. (eds.) *Museer i fortid og nåtid. Essays i museumskunnskap* (pp. 300–316). Novus: Gjøvik.
- Tuan, Y. (1991) Language and the making of place: A narrative-descriptive approach. *Annals of the Association of American Geographers* 81:4, 684–696.
- Valentine, G. (2001) At the drawing board: Developing a research design. Limb, M. & Dwyer, C. (eds.) *Qualitative Methodologies for Geographers* (pp. 41–54), Oxford University Press: New York.
- Vergo, P. (1989) Introduction. Vergo, P. (ed.) *The New Museology* (pp. 1–5). Reaktion Books: London.
- Wenneberg, S.B. (2000) *Socialkonstruktivisme – Positioner, problemer og perspektiver*. Samfundslitteratur: Fredriksberg.
- Widgren, M. (2004) Can landscapes be read? Palang, H., Sooväli, H., Antrop, M. & Setten, G. (eds.) *European Rural Landscapes. Persistence and Change in a Globalising Environment* (pp. 455–466). Kluwer Academic: Dordrecht.
- Witoszek, N. (1998) *Norske naturmytologier. Fra Edda til økofilosofi*. Pax Forlag: Oslo.
- Wonders, K. (1993) *Habitat dioramas. Illusions of Wilderness in Museums of Natural History*. Acta Universitatis Upsaliensis, Series 25. Figura Nova: Uppsala.

Respondents

Forcher, Karl. Haus der Natur, Salzburg. 30.08.2004

Kurzthaler, Martin. Hohe Tauern National Park Visitor Centre, Matri. 19.08.2004

Meixner, Wolfgang. Vertikal exhibition, Innsbruck. 31.08.2004

Raich, Veronika. Österreichischer Alpenverein Museum, Innsbruck. 31.08.2004

Sørumgård, Marit. Vitenskapsmuseet, Section of Natural History, Trondheim. 10.09.2004

Ulrich, Markus. Styrassic Park, Bad Gleichenberg. 17.08.2004

Weichert, Karen. The Norwegian Glacier Museum, Fjærland. 05.07.2004

Zimmermann, Klaus. Inatura, Dornbirn. 20.08.2004

APPENDIX 1

Original transcripts in Norwegian

Karen Weichert. Norsk Bremuseum, Fjærland.

- 1 Sigurd: Så ser du på museet som mer enn et opplevelsessenter egentlig? Mer enn bare rene utstillinger?
2
- 3 Karen: Ja, altså det har noe å gjøre med det faktum at det jobber en fagperson her. Det er jo ikke sjølsagt for
4 et museum. I hvertfall i Norge.
5
- 6 Sigurd: Med tanke på at det finnes mange som ikke har det eller?
7
- 8 Karen: Ja, det finnes mange museer som ikke har kapasitet å ansette en fagperson. Altså de leier kanskje inn
9 tjenester fra ulike... - men det er ikke det samme som at en fagperson er fast på museet, altså utenom
10 de store musea selvsagt. Bremuseet er jo helst et lite museum.
11
- 12 Sigurd: Hmm.
13
- 14 Karen: Og akkurat det at det er en fagperson her viser og at museet vil holde et visst nivå når det gjelder
15 faget og at de vil knytte til seg et visst faglig miljø. Altså, jeg tror ikke hvis det ikke var en fagperson
16 her at så mange andre fagpersoner ville for eksempel stoppe her når de var på ekskursjoner. De ville
17 kanskje gå gjennom utstillingen, men at de stopper her og utbytter faglige nyheter eller erfaringer
18 eller diskuterer sånne... Det hadde ikke skjedd hvis det ikke var en fagperson her.
19
- 20 Sigurd: Du får en del henvendelser fra faglig hold?
21
- 22 Karen: Ja. Så, og det er jo fort, altså når du snakker om universitet og skoler og sånt at da Bremuseet blir
23 brukt litt sånn som plaster. Både undervisning kan finne sted, eller studenter og elever kan komme og
24 jobbe med prosjekt. Det er da du skaper et miljø for fagkvalitet og den biten, og det tror jeg at... Det
25 har alltid vært av interesse for Bremuseet å være en sånn plass. Ikke bare et museum med en
26 utstilling, men...
27
- 28 Sigurd: Forstår jeg deg riktig hvis du mener da at museet kan være et bindeledd med å trekke forskningen
29 ned på et mer allment nivå som ikke bare... -på en måte det mellomsjiktet da mellom faglig personale
30 og vanlige turister. Altså det finnes noen studenter som du sier også...
31
- 32 Karen: Jeg har og inntrykket, hvertfall når jeg snakker med noen av de fagkontaktene som jeg har at de ser

33 på Bremuseet som et vindu ut til de vanlige folka liksom, noe som de kan bruke til å formidle sine
34 resultat, sin forskning ut til de helt vanlige. Altså ofte så er det slik at fagfolkene diskuterer seg i
35 blant. Jeg tror mange oppfatter Bremuseet som en sånn plass.

36

37 Sigurd: - Hvor de også kan sende sine impulser og kanskje få respons på den måten?

38

39 Karen: Hmm

40

41 Sigurd: Så du er opptatt av at det skal komme input til museet. Det er ikke bare deres oppgave å spre
43 kunnskap men dere skal også hente inn ny kunnskap.

44

45 Karen: Ja. Også den store jobben som da skjer på Bremuseet er akkurat den populariseringen, altså noe som
46 er et veldig vanskelig fagområde. Altså å skrive om kanskje kompliserte vitenskapelige ting på et
47 språk som alle skjønner, og på en måte som forklarer det enkelt, men likevel ikke blir feil. Fordi ofte,
48 det er jo det som skjer i mediene som jeg snakka om og, at de vil ha en enkel påstand, ikke noe
49 komplisert og det når de formulerer den enkle påstanden slik så blir den ofte feil, men det går og an å
50 formulere ting slik at de ikke blir feil. Det er egentlig det som er den store oppgaven. [smil]

Weichert 05.07.2004¹

Marit Sørungård. Vitenskapsmuseet, Trondheim.

1 Sigurd: Hvis du ser dette under ett, synes du det representerer en bestemt type kunnskap? Er det en type
2 kunnskap om naturen vi ser her? Det er jo en måte å representere natur på og...

3

4 Marit: Det er litt som et leksikon på et vis.

5

6 Sigurd: Ja.

7

8 Marit: Er det ikke det?

9

10 Marit: Altså du har hvert enkelt dyr i tre dimensjoner i stedet for et fotografi som er i et leksikon, også har
11 du noe om hva slags landskap de lever i også har du veldig korte faktaopplysninger om de, veldig lite.
12 Mye mindre enn i et leksikon, og om leveområdene. Og systematiske utstillinger er vel stort sett sånn.
13 De er nærmest et leksikon og det er jo noe av funksjonen til museet har vært tradisjonelt og med at du
14 har liksom... Du skal kunne gå dit og kunne se på hvordan ting er systematisert liksom...

15

¹ As a word by word translation is impossible, the line numbering does not always correspond between Norwegian and English transcripts. This also applies to the transcript for Sørungård (10.09.2004).

Appendix

16 Sigurd: Da tenker jeg straks veldig mye på vitenskap jeg.

17

18 Marit: Ja det er vitenskap. Det er det jo. Så dette er jo ikke noe som... Det forteller jo liksom ikke... Altså

19 det problematiserer jo ingenting. Hva det forteller uten å være leksikale opplysninger, det vet jeg

20 ikke.

21

22 Sigurd: Um... gir det en appell til noen følelser hos folk tror du?

23

24 Marit: Altså det det kan gi appell til som jeg synes at en kunne ha videreutviklet... Jeg synes jo det med

25 skjønnhet er viktig jeg. Jeg synes jo det er et overordnet mål at museene skal bidra til at du er glad i

26 naturen, for derigjennom vil du ønske å ta vare på den. Hvis det er noe du ikke ser verdien i så ønsker

27 du heller ikke å ta vare på den. Derfor, hvis det er et overordnet mål at menneskene skal beskytte og

28 ta vare på, og verne naturen, så tror jeg det å fortelle om alt det som er fascinerende i naturen, og da

29 mener jeg også det med skjønnhet er faktisk et viktig aspekt for ganske mange. Det er noe som en

30 godt kan kombinere med de systematiske utstillingene synes jeg, som kan komme som et tillegg og

31 som bare hever de systematiske utstillingen på et høyere nivå, for jeg tror at det er mer eller mindre

32 vedtatt at universitetsmuseer skal ha systematiske utstillinger. Slik har jeg oppfattet det. Det vil jeg

33 tro, at det er en del som universitetsmuseene kanskje skal bidra med i samfunnet. De skal også ha

34 nærmest litt sånne leksikale utstillinger, forskjellige tema. Men, det kan kobles med andre ting slik at

35 de kan fungere på flere forskjellige plan [...] ² Kanskje en kan tenke seg å lage temautstillinger som

36 gikk på "ja, der er det en rev, kanskje den kunne ha noen problemer omkring skabb for eksempel?"

37 Det er et grusomt tema, men... Eller med Jerven så kunne du ta opp konflikten med husdyr og sau og

38 sånn. Da kunne en lett supplere de faste utstillingene med dagsaktuelle ting som gjør at folk kanskje

39 lettere kommer og ser på utstillingene fordi det ikke er statisk altså.

(Sørumgård 10.09.2004)

² Two lines from the interview were removed the respondent's request.

APPENDIX 2

Interview guide

Background

Ask for informed consent. Ok to be translated into English? Age, sex, background, position, number of years at work?

The work/context

How did you experience the time as a new employee? Did you have expectations of the working environment, the one you replaced or other employees? Was there a particular consensus in the museum on your job? How did you relate to this? Do you feel your relationship to work has changed over time? If so, in what way? Have you experienced any development in your relationship to work over time?

The professional work

Tell about an exhibition project you have participated in.

What was the theme, what role did you have, what did you think of as important in the process, was there anything that particularly engaged you?

What was the most important aspect about what you were planning to exhibit?

Did you agree upon the focus?

How was the knowledge about nature treated in the process?

Were there any questions to the professional message?

Was the knowledge pre-defined? If so, who defined it to begin with?

Can you point to any circumstance that particularly shaped the outcome?

What about external factors such as architecture, and the visitors? Did these influence the project in any way?

APPENDIX 3

CD with audio samples

Tracks 1–6 correspond to the text excerpts presented in Chapter IV, Parts I–VI.