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WRITING NATURE

by Kristin Asdal & Gro Ween

This special issue of the Nordic Journal of Science and Technology Studies is interested in how nature, in different versions and forms, is invited into our studies, analyses, and stories. How is it that we “write nature”? How is it that we provide space for, and actually describe the actors, agents, or surroundings, in our stories and analyses? The articles in the issue each deal with different understandings of both the practices of writing and the introduction of various natures into these. In this introduction to the issue the editors engage with actor-network theory as a material semiotic resource for writing nature. We propose to foreground actor-network theory as a writing tool, at the expense of actor-network theory as a distinct vocabulary. In doing this and pointing out the semiotic origins to material-semiotics we also want to problematize a clear-cut material approach to writing nature.

Keywords: Writing nature, actor-network theory, material semiotics

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Introduction

It is now close to thirty years since Michel Callon published his much-debated "Some Elements of a Sociology of Translation: Domestication of the Scallops and the Fishermen of St Brieuc Bay" (Callon 1986). Despite the ensuing controversy and even fury (Asdal et al. 2007), the approach the paper advocated has come to have lasting and wide-reaching effects. As is probably well known to most science and technology studies scholars, Callon's paper argued for a different kind of symmetry than had so far been advocated by the sociology of scientific knowledge tradition (SSK). The SSK tradition argued in favor of symmetry in the sense that all scientific knowledge claims ought to be treated with the same approach and explained by use of the same resources. Hence, it urged scholars to study so-called scientific failures and successes by the same method. This approach sought to overcome the longstanding debate between internalist and externalist explanations of science.

The actor-network theory approach, pursued by Callon, Latour, Law, and Akrieh, implied another version of symmetry. The understanding here was that the SSK approach to symmetry was indeed highly problematic, as it replaced the asymmetry it wanted to eliminate with another, giving social science, or social categories,

the upper hand (see also Latour 1992; Callon & Latour 1992). Social categories became the "untouched" resource for how to explain science. Hence, the result was a kind of chauvinism on behalf of the social sciences: a social constructivism. The actor-network or material-semiotic approach that was developed and promoted as an alternative suggested that "nature" had to be invited in in more open-ended ways. According to this alternative, one was not to decide beforehand who or what entities could have agency. Hence, "nature" *could* affect the outcome of events. Who or what an actor was was exactly the question.

The ensuing debate came largely to revolve around the question of agency, and the approach was often taken to imply that nature, animals, or non-humans *did* have agency. The question was treated as if it was indeed decided beforehand. What started as an attempt at methodological innovation became a debate over principles: *Could* non-humans be said to have agency? Or in a more outraged tone: How ridiculous even to suggest that animals could have agency! Was this to say that there were no intrinsic differences between humans and non-humans?

Beyond the question of nature's agency

This special issue of the *Nordic Journal of Science and Technology Studies* takes the above discussion as its point of departure. However, the issue is not to try and figure out the extent to which non-humans may have agency. Rather, we are interested in how nature, in different versions and forms, are invited into our studies, analyses, and stories. Interestingly, even if the debate has loomed large (perhaps even more in classrooms and corridors than in academic papers), it has to a surprisingly little extent been concerned with the question of "how." That is, how is it that we "write nature"? How is it that we provide space for, and actually *describe* the actors, agents, or surroundings, in our stories and analyses?

In the existing "nature writing" within and indeed far beyond approaches inspired by actor-network theory or material semiotics, we have come to learn of and appreciate a series of stimulating, challenging, and experimenting approaches. A series of excellent writers, beyond academia, have developed their own kinds of writing on nature. But still, how do we as scholars write and discuss nature? What are the tools and concepts that we use, and how do we experiment on and test these tools and concepts out? Not even actor-network theory proponents themselves have always experimented much when dealing with this issue. It could be critically argued, for instance, that Callon's (1986) way of describing "nature"—or scallops, to be precise—was actually quite conventional social science in that scallops, or the larvae, were entities

with "interests"; they were "unwilling" to anchor themselves (2), "refused" to enter the collectors (16), "detached themselves" from the research project (16), and "would not follow" the first anchored larvae (16; for related criticisms of, in part, Bruno Latour's work, see Haraway 1992, 1997).

Inscribing and re-presenting

However, rather than limiting our space to yet another critique (or an encomium), this special issue acknowledges these difficulties and turns instead to how nature is or potentially can be taken into account in our writing. How can we describe and narrate nature? How does nature come to life in our writing practices? How are nature-objects, "environments," or bodies written into our analyses? Hence, the overriding question of this special issue concerns how we write nature. The point of departure, then, is that it is far from enough to *state* non-human agency (or not). What we need is to address is the craft that goes into *describing*—a word whose literal meaning is "to write down" (from Latin *de*-down + *scribere* -to write). So how do we re-present? Present anew what we saw, observed, read, or heard? And, when is it—for instance, when ascribing agency to nature—that we react, that we think that, well, this is going too far?

This special issue has its roots in the "Writing Nature" seminar series at the University of Oslo, organized by the Nature and the Natural

¹ <http://www.uio.no/english/research/interfaculty-research-areas/kultrans>



research group as part of the interfaculty KULTRANS research program.¹ To begin with, we did not so much question or explicitly discuss our distinct disciplinary backgrounds. Instead, we simply came together around our shared research interest and object: nature. As time passed, however, we decided to more explicitly and reflexively test out the ways in which our methods and disciplinary resources mattered. We held a series of seminars where the question was how we write nature, whether in anthropology, STS, cultural history, animal studies, or medicine and health studies. Integral to the series was a PhD course on precisely this topic, "Writing Nature", where we, together with Bruno Latour, were trying to collectively answer the following question:² "If nature is no longer a backdrop but one of the participants in all courses of action, what will be modified in your ways of writing?" So that is another way of posing the "writing nature" question: How do we move from "backgrounding" to "foregrounding" nature?

During the workshop we made lists of possible new questions that could then be asked, and then we simply tried them out. What, for instance, is the difference between influence, interest, capacity, abilities, wants, and rights? And why is it problematic to say what plants *do* versus what they are? What are the tolerable, even intelligible ways of introducing action and agency, and when are we shocked? How can we become sensitive to things? How can we

re-describe without shocking? How can we develop a descriptive tonality? What sorts of agency do we grant? And what are the resources we have at our disposal, in doing our writing?

In approaching the above questions, we will as part of this introduction delve a bit more deeply into the double motivation behind this issue, namely the questions of writing in general and of how to write about "nature" in particular. Actor-network theory will be foregrounded as a writing tool, at the expense of actor-network theory as a distinct vocabulary. Actor-network theory has successfully made its way into the academy as a sociological theory. However, when being interpreted as a *theory* and employed with a more or less ready-made vocabulary, one certainly runs the risks of emptying this approach of its descriptive ambitions. If we simply employ a theory, the risk is that too little happens in our *own* descriptions and the materials that we were meant to study.

Rather than simply grasping actor-network theory as a sociological or social science theory, we suggest that we instead turn to the semiotic roots of the approach. This may in turn allow us to use actor-network theory more profoundly to focus on how we describe things, and hence to explore further the topic of this special issue, namely how we *write* nature.

Redescribing actor-network theory as a writing tool

Another name for actor-network theory is material semiotics. The famous concept of the "actant," brought into the picture in order to overcome the (a priori) distinction between humans and non-humans, is taken directly from semiotics. According to the French literary scholars Greimas and Courtés (1979), "an actant can be thought of as that which accomplishes an act ... independently of all other determinations." Thus, to quote Tesnière, from which this term is borrowed, "actants are beings or things that participate in a process in any form whatsoever, be it only a walk-on part and in the most passive way" (Tesnière in Greimas & Courtés 1979: 5). Following this definition of the "actant," the issue is not so much to ascribe agency, even less human agency. The "actant" is whoever or whatever that takes part in the process—and in any form whatsoever. The challenge then, as it can be seen from this semiotic tradition, is not restricted to ascribing or adding liveliness, but it can also be to provide space for and explore the significance of the passive entities, agents, or actors. Hence, we cannot take "liveliness" or agency for granted. We need to take an interest in the various distinct and multiple forms of participation in that which we study. So again, how do we describe events and objects?

Highlighting the semiotic tradition as a link to actor-network

theory, or simply addressing it and reflecting upon it more thoroughly as a material-semiotic tradition, may in turn be a way of broadening the scope of "writing nature" as a descriptive genre that in our opinion requires as much *literary and narrating work* as *theory and vocabulary*.

Becoming instrumentized

The above is not to say that we ought to seek a safe retreat in our own texts, and nothing beyond texts. That is not what we, in inviting for this special issue, have been after. Rather, we need to ask: What are the means by which we write and inscribe? What are the tools we use for inscribing and for inscription? And what about the tools employed by the actors (or actants, if we will) that we study and engage with? One of the classic actor-network studies, Bruno Latour and Steve Woolgar's *Laboratory Life* (1986), can serve as an illustration. In chapter two, for instance, the tools with which Latour and Woolgar, the ethnographers, entered the lab were, precisely, the kind of semiotic tools referred to above. This again affected what Latour and Woolgar (1986) saw in the lab, namely that what the scientists did was inscription work; indeed, the scientists were "manic writers." Contrary to other workplaces, like a factory—where writing, for instance in the form of reporting

² The course was developed and organized by Kristin Asdal and Helge Jordheim as a joint venture with Center for Technology, Innovation and Culture (TIK) and KULTRANS in October–November 2012. Thank you to all the PhD-candidates and teachers who contributed to the event. Thank you in particular to Bruno Latour. The course was supported by the Norwegian Research Council by way of the project *Innovations/transformations*



on production activities, was only a secondary activity—writing was the main activity for scientists. Academic papers, published after having been drafted and redrafted, report upon the outcome of a series of inscription practices. They translate “nature objects,” a guinea pig for example, into test-results and graphs (Latour & Woolgar, 1986).

This is an approach that is far from considering nature to be something we can have direct access to. As Latour put it again in our workshop, “There is no way of letting nature have a direct say; that is only a positivist dream. Nature is hooked up on systems of productions: nature is ‘apparatused.’” So how is a nature-object, water for example, allowed to have different properties according to the different apparatuses that engage it? Hence, following this approach, to be become instrumentized or apparatused is *integral to being realized*. Nature becomes real through various forms of apparatuses or instruments.

So what are the mediations? How can we situate ourselves so that we see the instrument? And moreover, how can we learn from the natural sciences? Or as Latour put it while simultaneously pointing out that “speech apparatuses” are indeed highly complex things: How can we give ourselves as much freedom as the scientists give themselves? And how can we, in doing that, make ourselves and the nature objects that we study sensitive, that is, to “instrument” and “to become instrumented”?

Interestingly then, in stressing a material-semiotic approach, we may open more up for literary and linguistic resources, even as we draw cultural studies and natural sciences closer together. The question concerns which methods we use. Following Latour,

Nature writing

A goal of this introduction is to re-describe actor-network theory and to reclaim it as a writing tool, one that may render us sensitive to practices and techniques that enable us to capture nature in its numerous forms. We are in essence trying to listen in to and provide space for some of the ways in which we have learned to write nature in the humanities and social sciences. This issue is the result of a one-year seminar series where we invited scholars to reflect upon how they wrote nature, what they want to tell, and how they have learned to see what they do (Haraway 1988).

In this special issue, this is done in several ways, as the project was always multi-disciplinary in its ambition. We invited scholars from both the humanities and social sciences to come together in a focus on how to actually write nature. Scholars brought different bits of nature, and engagement with a variety of theoretical resources and methodologies. There are many animals, sometimes animals specified, such as the horse or the otter, Knut the Polar bear, or more generic animals, such as laboratory ones. In museums,

natural science might be somewhat better at this because of its “factual” approach. In contrast, the romanticizing approach that has accompanied the humanities can arguably be seen as a “remnant” of modernity. But this is of course open for discussion: perhaps Latour undervalues the significance of a broader register of tools. In any event, we need to address both how the sciences may learn from the humanities and how the humanities may learn from the sciences.

Importantly, underlining a material-semiotic approach also problematizes and questions a clear-cut *material* approach, as if that existed. Following a material-semiotic approach, there is no such thing as pure materiality: Materiality can be said to simplify the agent, so that there are only causes and consequences left. So what we need to address are the inscription devices, the tools, the mediations. It is because we write that we capture something about the world, and hence the writing does not stand in between us and the nature we are trying to access. On the contrary, writing about nature is what does the work.

By 1999, Latour himself wanted to give up on the entire actor-network theory approach, writing that “there are four things that do not work with actor-network theory: the word actor, the word network, the word theory and the hyphen! Four nails in the coffin” (Latour 1999: 15). Latour concluded that actor-network theory had not provided what he was after. However, giving up proved difficult, and his effort to do so resulted in yet another book, *Reassembling the Social* (Latour 2005). Latour aimed to explain in more detail what the actor-network theory was meant to be about. He placed great emphasis on description, stressing that it was indeed the trickiest part of our trade.

Nature is molded into and physically enclosed as scientific facts or as monsters and curiosa. There are efforts to protect nature and safeguard humanity from its consequences and disasters, such as hurricanes and plagues. The natures we offer, in other words, come in all shapes and sizes, and embody a variety of materialities and mediating technologies. Our challenge to the writers was primarily to make the empirical material speak, write the material, and make room for multiple kinds of agency in the non-human, in awareness of the differences between re-presentation and representation.

Some nature writings here are based upon ethnographic methods, such as Rune Flikke’s and Karen Syse’s texts. Both these two writers start out by leaving nature largely open, by use of different methodologies inviting parts of nature to fall in and out of sight (Ingold 2007: 87). In ethnographic methods, approaches to nature are largely open-ended, related to long-term fieldwork where the researcher attempts to pinpoint nature through a variety of different sources: conversations, participant observation, a variety of



written texts, and both everyday practices and practices set apart from everyday life. In contemporary anthropology, three theoretical approaches to nature predominate: the phenomenological, the perspectivist, and the material semiotic. This text does not provide scope for going into their differences. What these approaches have in common is their attention to detail and to ontological differences. These approaches also feature a similar kind of challenge, that is, the methodological and technical challenge of how to see, trace, and describe the bits of nature that are in the process of becoming the subject of our inquiry.

Flikke, in his article, argues for an ontological and phenomenological approach to studying healing rituals within the African Independent Churches in South Africa. Through ethnographic evidence he argues that the healing rituals are misrepresented in more traditional epistemologically tuned studies, and suggests that a better understanding is to be achieved through a focus on Latour's 'natures-cultures' or Haraway's 'naturecultures', thus showing how health and well-being are achieved through a creative process which continuously strive to break down any distinction of nature and culture as separate entities. He argues that the contemporary healing rituals, which surfaced in South Africa in the mid eighteen-seventies, were a sensible and experience based reactions to the colonial contact zones of a racist Colonial regime dependent on African labor.

Ween describes bits of nature often overlooked by anthropologists, that is the nature inscribed in bureaucratic processes and documents. The emphasis on the experience-near, the oral, over the written, in the anthropological participant observation, undertaken in the course of fieldwork, has made a number of anthropologists disinterested in written texts, and particularly bureaucratic texts. Likewise, the anthropologists' focus on "elsewhere" rather than "here", and on "studying down" rather than "studying up," has made law and bureaucracy unavailable. In recent years, however, scholars such as Marilyn Strathern (2000) and Annelise Riles (2000) have introduced bureaucracy as a site of ethnographic inquiry. Ween, describes the bits of nature that came to stand out in two articles that she formerly wrote about the Sami, rights, and natural resource management (Ween 2009, 2012). In natural resource management, knowledge of nature—and hence nature—is produced through public documents, Norwegian Official Reports (NOUs), policy documents, and international commissions, conventions, and action plans. Both stories involve natural resource management processes, where some entities were put into play by use of highly specialized inscription devices that enabled some narratives to travel further and become more significant than others. As Ween reveals, what will become controversial and what narratives will become foregrounded are not entirely predictable.

Although a cultural historian, Karen Syse also employs an ethnographic approach in her article "Stumbling over Animals in the Landscape: Methodological Accidents and Anecdotes." Syse describes how animals unexpectedly intervened in two of her fieldwork

sites in Norway and Scotland. Syse plays on the theme of animal agency when she describes how the multiplicity of approaches allowed in ethnographic fieldwork enables animals to surprise her with their presence, noting that "the stories about animals that the men I interviewed told me were unexpected and unintentional."

The tension between texts and ethnographic fieldwork is also played out in Druglitrø's text. Her starting point is an articulated need for *radical historicizing*, that is, an effort to include animals and nature into studies of the social, and her assertion is that lab animals can be tended to through texts as much as through ethnographic fieldwork. Quoting Asdal (2012), she asserts that texts are not only material objects, but must be read generously as events, as actions, as ways and means of changing the realities in which they are made part of. In this perspective, a historian's job is not only to "recapture" the past, but to mobilize the past, for it to influence issues of the present. She asks, "What kind of questions and approaches are needed in order for us to include animals in our histories that reveal the crucial importance of animals (philosophically, socially and materially) in the making of our realities?"

In "Nature and texts in glass cases," Brenna is inspired by Haraway's (1989) study of natural history museums. Methodologically speaking this implies not writing about nature 'as such', but as cultural histories of ways of representing nature. With a view on the changes made to museum displays in Bergen Museum in the early 19th century, she considers these changes as signs to be deciphered to get to a particular way of crafting nature. These changes of display involved moving objects from being available for touching and engaging to be in glass cases. In the disciplining of the former museum nature, the glass case became an important actor. Glass cases served to produce a new culturally specific nature; a museum nature. Encased in glass, scientific museum nature was made available to everyone.

Rebelling against constructionist ways of writing medical history, Stein introduces the "diagnostic act" as a way of doing medical semiotics. The diagnostic act enables views of how signs speak through the physical body. The title "Getting the Pox" points to the engagement with the physical body that this methodology prescribes. Stein insists that there are no hidden meanings behind visible signs or symptoms. The body with its particular symptoms, as other natures, must be read as they are enacted, as fragments of analytical categories and particular epistemologies.

Staying in the museum world, cultural historian Camilla Ruud treats us to a view of monsters in late-eighteenth-century Spain's Cabinet of Natural History in Madrid. Ruud describes how a pair of conjoined twins was enacted by way of scientific, religious, political, and cultural practices, and thus became a monstrous museum object. In her version of writing nature, however, it is letters, testimonies, and contemporary learned literature that are used to trace the babies' way from birth and into the museum shelves. But Ruud distances herself from a strictly text-based research approach,



asserting that cultural historians aim to describe a much broader reality than a text-based one. The scant amount of existing texts means that a cultural historian must use these existing texts to make larger assumptions. Part of the work involves establishing plausible historical surroundings to the material. Ruud exemplifies this with her use of the eighteenth-century philosopher Feijoo to explain the context within which the babies in question were allowed to become monstrous.

Also, other cultural historians have used context to illuminate particular parts of nature here. Staying with animals, cultural historian Guro Flinterud's contribution presents a media analysis of the numerous descriptions of the famous polar bear Knut, who lived in the Berlin Zoo from 2006 to 2011. Flinterud describes how she was challenged by a newspaper article wherein Knut the Polar bear became an actor, a cultural producer, and a participant in the creation of cultural meaning. Animals, Flinterud argues, "not only live with us, but take part in the negotiation of meaning." In Flinterud's description, Knut contributed to his own celebrity story, in a similar way to Callon's scallops, by *not* complying with the script imposed by the national media and by introducing animalness to the otherwise quite anthropomorphic narratives.

Moving from celebrity animals to celebrity natural disasters, cultural historian Kyrre Kverndokk employs similar methods as Flinterud when analyzing the media coverage of Hurricane Katrina. Kverndokk argues against previous disasters historians' descriptions, who claim that natural evils do not have any seemingly relation to moral evils after the Lisbon earthquake. Kverndokk argues against previous disasters historians' descriptions, who claim that

natural evils do not have any seemingly relation to moral evils after the Lisbon earthquake. In contrast, Kverndokk argues that we still understand disasters in light of the problem of evil. In Norwegian media representations of Hurricane Katrina, as part of the late modern climate discourse, the distinction between nature and morals became blurred. Nature and morals are again intertwined, and natural evils and moral evils are again interconnected.

All in all, these contributors represent a broad range of approaches to nature writing. We hope that the contributions may trigger the imagination and provide room to reflect upon attempts, including your own, to let nature in.

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WRITING 'NATURECULTURES' IN ZULU ZIONIST HEALING

by Rune Flikke

In this article my primary aim is to argue for an ontological and phenomenological approach to studying healing rituals within the African Independent Churches in South Africa. Through ethnographic evidence I will argue that the healing rituals are misrepresented in more traditional epistemologically tuned studies, and suggest that a better understanding is to be achieved through a focus on Latour's 'natures-cultures' or Haraway's 'naturecultures', thus showing how health and well-being are achieved through a creative process which continuously strive to break down any distinction of nature and culture as separate entities. I conclude by arguing that the contemporary healing rituals, which surfaced in South Africa in the mid eighteen-seventies, were a sensible and experience based reactions to the colonial contact zones of a racist Colonial regime dependent on African labor.

Keywords: Naturecultures, healing rituals, South Africa, colonialism

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Introduction

My first efforts to 'write nature' surfaced as I was doing research on African Independent Churches (AIC) in South Africa. My experiences coincided with those made by the missionary cum anthropologist Bengt Sundkler who quoted an AIC leader stating: "This is not a church, it's a hospital" (Sundkler 1961, 152). As an active participant in numerous healing rituals over a period of three years, the number of references made to the natural environment throughout the diagnostic and healing processes struck me. A key element was how the rituals aimed to transcend boundaries between subject and object; nature and culture. My fieldwork was situated in a major black, urban township in KwaZulu-Natal where my informants were regularly diagnosed as getting sick from changes in the urban environment, and as I will show occasionally took the natural herbal remedies of *umuthi* to get well.¹ However, they would not only consume medical remedies collected in the natural environment. This use was also accompanied by ritualistic use of hygienic commodities and movements through the landscape. For my urban informants healing was something captured

in travels between their urban homes and rural homesteads (to be close to the ancestral spirits), through nights spent on desolate mountaintops and cleansing rituals at the pristine beaches surrounding metropolitan Durban.

In this article I have two concerns. First I will outline why my early, epistemologically tuned analyses were theoretically insufficient in the study of Zulu Zionist healing rituals. My second and main concern is to give an empirical outline of how the ritual practices transformed health into flows between 'nature' and 'culture', in ways best captured by the theoretical approaches of Latour's 'natures-cultures' (1993), or Haraway's un-hyphenated 'naturecultures', which I prefer (2003). The healing rituals emerged as a stage where healing was sought through blending of 'nature' and 'culture'. Health was achieved when humans, non-humans and spirits were harmoniously merged as aspects of one another (Latour 1993). However, let me start by outlining the ethnographic context for my work.

The environment as illness and health

Illness in the context of Zulu culture is not a self-explanatory category, and needs an explanation to bring us closer to an understanding of the connection between illness, health, culture and nature. When my informants talked about what I have translated as 'illness', they would use the native term *ubumnyama*, or a derivative of *mnyama*, meaning darkness. When they spoke English, they would simply state that this or that person had 'bad luck'. Illness could thus refer to what we conceptualize as disease, as well as poverty, regular struggles with boyfriends and girlfriends or flunking exams even though s/he were smart and studied hard. A ritual expert I discussed the term with explained *ubumnyama* as a state of being where the afflicted was 'walking in darkness'. It was conceptualised as a state of being where the sufferer generated problems through their mere existence. 'Bad luck' had become part of the sufferer's physical constitution (cf. Flikke 2003a, 2005). As I was gradually introduced to this problem by participating in healing rituals, I was made aware that the underlying cause was *insila*, which literally could be translated as 'body dirt'.

Insila was conceptualized as a source of generalized misfortune where substances with negative metaphysical qualities could be picked up and shed in various places. The struggle to get well and maintain health was linked to having control over the physical substances encountered through everyday life. There were no indications of any easy or simplistic divisions between 'nature and tradition' as good, and 'culture and modernity' as bad. Rather,

nature was amoral and could pollute through tracks, *imikhondo*, left by certain animals shedding 'harmful tracks' (*imikhondo emibi*) as they moved about (Ngubane 1977), or through natural phenomena such as lightning strikes, which would infuse a place with the spiritual power of the heavens. This power was not destructive in and of itself, but considered too powerful for most people to handle (Berglund 1989, Flikke 1994).

Furthermore, a number of consumer goods such as soaps and candles were central ingredients in healing rituals, alongside the 'traditional' herbal remedies.² In fact, the congregation I worked with stressed the Christian message while tuning down the ancestral aspects of their heritage in order to be able to participate more freely in contemporary urban life. *Umuthi* was avoided as much as possible because of the strong connotation to traditionalism, ancestral spirits and the evils of witchcraft. Instead soaps, bath salts, Vicks and other hygienic products were preferred. These products were applied in the same manner as *umuthi*, but without activating traditional ancestral spirits who regularly demanded that 'their children' should adhere to traditional taboos and ritual practices.

Practices of ritual abstention, referred to as *hlonipa* (Bryant 1949), were experienced as incompatible with wage labor and urban life in general. Through consumption of such hygienic remedies the healers aimed at establishing a harmonious balance between the individuals and their social (including ancestral spirits) and natural

¹ *Umuthi* (plur. *imithi*) is the pre-colonial Zulu herbal remedies used in witchcraft (*umuthi omnyama*) as well as healing (*umuthi omhlope*). The same remedies can be used for both good and evil. The literal translation is tree, shrub, plant or wooden substances.

² Though I use the terms 'modernity' and 'tradition' I do not subscribe to these classifications. Rather, the emphasis I place on balance between the subject and her surroundings emphasize that the 'traditional', pre-colonial, emphasis was placed on dynamic adaptation. In other words; you are 'traditional' in the way you change and adapt to the ever changing surroundings, rather than insisting on remaining the way you were.



surroundings. For instance, my informants lived in urban townships and needed to cultivate their relations to the rural, traditional way of life of their ancestors. A majority of the illnesses I encountered were diagnosed as caused by traditionalist ancestral spirits who

did not feel respected due to their descendants' urban lifestyle. I will return to this below. Let me now outline my early approaches to the topic and how I came to see these as insufficient.

Early analytical approaches

My early approaches to the topic were largely framed within two analytical traditions, namely political economy and symbolic anthropology. I will quickly outline these approaches, their strengths and why they led me into an analytical deadlock.

Much of the South African anthropology, sociology and historiography, have been shaped within the theoretical framework of political economy - for valid reasons. Within this context a large emphasis is placed on the 1870s. This is a decade of war and conflict. The gold and diamond discoveries spurred rapid urbanization. This concurred with the dramatic economic depression in Europe from 1873-1894 (Wolf 1982) and a change in colonial policy; away from the 'civilizing mission' and towards a focus on colonies as a way to generate economic surplus to counter the domestic depression (Flikke 2005). Over the next several decades this resulted in a long string of Native Laws aimed at increasing control over the African populations. This is also the decade when the AIC surfaced, splitting off from the mission churches and establishing their own Zion; a domain where they could be free from the oppression of the colonial society and worshipping a Black savior (Barrett 1968, Sundkler 1961, 1976).

The rapid industrialization and urbanization also had dramatic effects on the natural environment. The previously naked hills were planted with imported trees, as timber was needed to fuel the industrial growth - much like oil is an indicator of economic growth in contemporary society. Water, always a scarce resource in the region, was rerouted and channeled in ways that can be traced on demographic maps over income distribution even today (Nustad 2011). Nature needed to be exploited to create growth (Sachs 1993) and changes in the natural environment was an indicator of the racist and exploitative colonial society (Flikke 2013).

Despite the fact that most of my informants were conscious of the atrocities of the Colonial, Union and Apartheid regimes, it was never conceptualized as a primary source of their suffering. Instead they were seen as secondary causes, an experience encountered by other researchers as well (Comaroff and Comaroff 1987). One very common explanation given to me by a ritual expert was that Mission work and labor migration tore the clans apart in two distinguishable camps: the Christian *kholwa* and the Traditional *khonza* (Flikke 2006). I was told that this split caused disharmony within the family, thus locating disharmony in the family unit as the cause

of affliction. In a study of Bantu healing rituals Janzen shed light on this when he argued that conceptions of health are captured in the notion of leading a balanced life (Janzen 1992). In Zulu, the root *lunga*, used in greetings (wishing people health and well-being) include the notion of 'balance' (ibid.:64) and harmony with the natural and social environment. To reestablish harmony and balance is thus a goal of the healing process. In order to achieve this the rituals focused on the manipulation of places and relations to living and departed relatives to achieve healing (Flikke 2001).

I have so far focused on the empirical claim that healing practices and conceptions that support these practices are best captured through the theoretical focus on 'naturecultures'. For the Zulu, the distinction between nature as external and culture as learnt and internal is foreign. The relevance of nature and culture for well-being is realized by blending the boundaries between the two and successfully manipulate both natural and cultural objects. This happens within a paradigm where health and well-being is the result of a harmonious blending of the individual with his or her surroundings.

Since the ancestral spirits were part of the everyday life world of the Zulu Zionists, the 'traditional' lifestyle of the ancestors needed to be integrated harmoniously with a modern, urban life style. Some of my informants would strive to save money to build a rondavel (traditional Zulu hut) in their back yard. Once back from work, they would kick off their shoes, get rid of their European clothing and sit down in the rondavel to commune with the ancestors, showing them respect by adapting to their ways. Hence their physical surroundings were in harmony with their own spiritual constitution, which through the presence of ancestral spirits were of a historical nature and plagued by the split between *kholwa* and *khonza*. By treating the ancestral spirits with such respect, they would create an atmosphere where it was possible to enter into a dialogue with the ancestral spirits. They would inform them of their difficult circumstances and the demands of contemporary urban life, a lifestyle they would need to engage with (for instance through wage labor), in order to secure the well-being of their family. This would heal the rift between the *kholwa* and the *khonza* and create the harmony needed for healing.



Healing: placing 'naturecultures' in the body

The Zionist congregation I had joined would meet once a month at Saturday around sunset for a ritual process that would end with a meal at sunrise on Sunday morning. We would start with cleansing ceremonies for the congregation and proceeded with a ritual process aimed to restore harmony in the family of one member who 'walked in darkness', hence suffering from 'bad-luck'. Harmony also needed to be restored between the concerned and her ancestral fellowship. Through this ceremony, referred to as an *ilathi* ('altar'), the afflicted would physically shed the bad-luck in the form of *insila*. Once the polluting substances were removed the congregation would physically work on a fabric, leaving their own ritually cleansed substances (*insila*) on the cloth. This would later be sewn into a church robe worn at future rituals. The afflicted would be covered with the good, protective substances of the congregation and transferred from a state of *ubumnyama* to one of *ezimhlope*, 'good-luck' or health, literally translated as 'the white ones'. The slaughter of chickens was a central part of the process, and the chicken blood would be used in the cleansing ceremony which prepared us for the next stage in the ritual process.

Around midnight we would ascend a hill in the neighborhood to be close to God for a couple of hours of praying. This hill was revealed to the prophet through a vision (Flikke 1994). Its status as a holy place was attached to the many lightning strikes that had hit the area. Also, I was told, a large snake with a head burning like a torch lived there. On our return the chickens would have been cooked along with other food items and presented at the altar during the *ilathi*. The process closed with a communal meal hosted by the afflicted. The congregation was part of the healing procedure as we were consuming food that was cleansed and blessed.

One process was hardly ever enough to reestablish well-being for the concerned. As mentioned in the introduction, they would in addition often travel to their ancestral homestead to be close to their ancestral spirits. Furthermore, they would travel to a local beach, or local crossroad such as marketplaces and bus stops, to be ritually cleansed at night. Here the polluted body dirt, *insila emibi*, was shed and washed off into the cool pure ocean, or carried away by an unknowing by-passer the next day. As mentioned in the introduction, the congregation I worked with preferred to utilize soaps and bath salts, which was referred to as *itche labelungu*, 'the white man's stones' in the healing rituals. However, they would at times use the traditional herbal remedies *imithi* (plur.) in order to show respect to ancestral spirits from the *khonza* (traditional) part of their clan.

Health and the smell of naturecultures

It has been argued that in the Euro-American cultural context, nature is primarily consumed visually (Urry 1990) and is understood as something external that 'comes to us' and is experienced through

I was intrigued by the use of modern consumer goods until I read *Reaction to Conquest* (Hunter 1936). Here Monica Hunter referred to a white trader in Transkei who around 1915 killed a big python. In the head of the python he found some rocks that he used in his bath every evening, growing very rich in the process. Incidentally 1915 is the year all commentators has singled out as the year the AIC started its rapid growth (Barrett 1968). These rocks were referred to as 'the white man's stones' (*itche labelungu*), the same as the bath salts I was cleansed with almost hundred years later. This indicates that there is a need to conduct historical research and focus on the body, body politics, and the cultural constructions of the senses in order to analyze the healing rituals. Further archival research revealed that a sanitation hysteria that plagued King William's Town during the latter half of the 1870s, was dealt with through the washing of public spaces where the European and African populations would meet; such as markets, hospitals and prisons. The strong industrial detergent Jays Fluid was utilized for these purposes back then, and was still the primary ingredient used by my Zulu Zionist informants when premises where being cleansed of evil.

So far we have seen how sickness and health are viewed as aspects of the natural and built environment in the form of substances, *insila*, that can both pollute and heal. Furthermore, I have shown how substances such as herbal remedies, blood, and hygienic consumer goods are manipulated to affect negative consequences of both nature and the built environment. These are approaches to 'naturecultures' that cannot be captured through political economy, nor through studies of British colonialial transplants of alien plants and animals in efforts to recreate their home country in the areas they settled (Lien and Davison 2010, Lien 2007).

The ritual blending of nature and culture I met through the Zionist ritual practices are meeting points of an unequal and highly contested character. The colonial, apartheid and post-apartheid societies continue to change and reshape both nature and culture (Flikke 2013), yet the implications of these changes are contested. My Zulu Zionist friends enjoyed most aspects of urban life, and the key to success was to use physical substances (*insila*) — natural as well as consumer products — to ritually adapt and merge their experiences and inner spiritual constitution with the external natural and urban, social environments. In one area these practices struck close to the Victorian colonialists perceptions of the environment.

our senses. As Urry later emphasized, it is the visual environment that give particular significance to involvement of the other senses (Urry 1992). Two points are problematic in this context. First, the



primacy given to sight should not be taken for granted. Second, I encountered some archival material that made me think that my initial research was based on a faulty ontology.

Starting with the first of the two, visual primacy has not always dominated western culture. The travelogues of the early explorers of Africa are full of meticulous notes on temperatures, humidity, wind directions and altitudes. I have suggested that these may be read as medical notes on how to travel as safe as possible in the tropical environment (Flikke 2003b). As several commentators have pointed out, the European view of tropical nature was an imaginative construct, more than an empirical description (Stepan 2001, Comaroff 1993). During the 18th and nineteenth century disease was increasingly viewed as an integrated aspect of the tropical environment. Furthermore, Schoenwald, quoting the sanitary reformer Edwin Chadwick, pointed out that smell was the central sense to be used when the Victorians navigated the urban environment filled with the threats of diseases, death and decay. According to this humoral theory of health, rotting organic material released the poisonous gas miasma, which was the primary disease vector in the epidemics that regularly plagued the cities of Europe in the nineteenth century. The Victorians considered that "all smell is, if it be intense [...] disease" (Schoenwald 1973: 681).

As pointed out by the Comaroffs, the Europeans were also preoccupied with the 'greasy African' as a source of disease (Comaroff 1993,

Comaroff and Comaroff 1991). Here the grease was imagined as a source of miasma making European travelers keep their distance (cf. Fabian 2000, 81). In this context it is worthwhile investigating how the Victorian colonialists and the African populations sensed transformations of the natural environment during the nineteenth century. In my case smell surfaced as a significant aspect of locating diseased people and places. One of the areas this surfaced was the production of hygienic articles, which grew to become Africa's second largest industry after mining (Burke 1996b). These products were both gendered and racialized along the lines of smell where the more carbolic smelling products were made for African manual laborers (Burke 1996a and b).

Alfred Gell has pointed out that smell is an 'anticipatory sign' that leads our attention directly to its source when sensed (Gell 1977), leaving little room for idiosyncrasy and interpretation. Studies seem to agree that smells are culturally and historically structured. In the words of Rachel Herz: "nothing stinks, but thinking makes it so" (Herz 2006: 202). Furthermore, smells are processed in the limbic system, which is the emotional center of the brain (cf. Flikke 2013). This means that the olfactory significance of the world is established through externalization. This leads back to my second objection to epistemologically tuned studies of Zulu healing practices: they are built on an insufficient ontology. This ontology is one which is largely built on the 'one world, many interpretations' rather than having the body as starting point for projections of 'many worlds'.

The direction of the senses

My early work was largely concerned with analyses of meaning. I had analyzed the symbolic contents of the ritual proceedings, and elicited how it made sense in view of Zulu culture as well as the colonial contact zone. I furthermore presented the internal logic of the procedures and argued that it was a creative technique which enabled Zulu Zionists to adapt to, as well as engage with, the larger South African community (Flikke 1994, 2001). The problem with these analyses was how the ritual procedures looked too exotic and based on misunderstandings of the disease vector. I knew this was wrong since a couple of my informants were trained as nurses and worked in hospitals in and around Durban. Why then did they persist with water, soap and bath-salt when the diseases they battled needed to be treated with antibiotics, ARVs, clean drinking water, sanitary measurements, and so on? And why did it work? I witnessed, over and over again, lives being changed in significant ways through these procedures.

The way the historical documents frequently coupled health, sanitation and olfaction revealed a need to investigate how the Victorian colonialists and Africans entering the South African labor market, would perceive of these contact zones. Would the smell of soap evoke the same associations as they do today? What would soap signify and how would people interact with it? How did the

Africans experience being washed with soap, and how would the olfactory traces of soap be experienced? There is, in other words, a need to shift focus from epistemology to ontology. In order to approach these questions, there is a need to understand the body as historically structured and approach it through a phenomenological perspective.

Csordas formulated this starting point for analyses in a rather lucid manner when he wrote that the phenomenological approach to:

embodiment begins from the methodological postulate that the body is not an object to be studied in relation to culture, but is to be considered as the subject of culture, or in other words as the existential ground of culture. (Csordas 1990)

What this means in practical methodological terms is to try to stop taking the world 'out there' as a starting point, trying to trace the meaning it might have within local epistemological terms, but rather look at the world we live in as starting in our bodies and externalized through our senses.

As already mentioned, these hygienic consumer goods were gendered and racialized. The products for African male laborers were



strongly carbolic and easily detected from quiet a distance (Burke 1996a). Within the historical and cultural framework of Victorian South Africa where strong organic smells were considered disease, it is not unlikely that Europeans who were dependent on African labor would use their noses to pick out the workers. Those that smelled of soap were conceived as disease free. In this context the Africans who washed with soaps would be hired on a more regular basis than the unwashed, and hence have a better economic foundation, eat better and in general be blessed by 'the white ones'

(ezimhlope, meaning 'good luck'). There is in other words an experiential reality behind the contemporary Zulu Zionist healing rituals that is beyond the grasp of epistemologically tuned approaches. The central factor in this particular nature-culture nexus would be olfaction. In order to correctly capture the significance of smell in Victorian bodies, there is a need to acknowledge that the colonial and postcolonial Zulu Zionist bodies were differently structured in relation to smells.

Concluding remarks

The repositioning of the body as the subject of culture has substantial consequences for the line of questions drawn up in social science analyses. In my case the shift from viewing the body as the object of culture, to its subject, enabled me to reframe my questions in a way that brought African subjectivity, experience and externalization to the foreground. The archival discoveries made it obvious that the contemporary Zulu Zionist healing practices were not only based on Victorian sensibilities; they also made me aware of the fact that my previous analyses were based on a faulty ontology. If we take the phenomenological methodology of Csordas seriously and start with the body and follow the senses out into the world, it becomes clear that the contemporary healing practices are based on African experiences and interactions with the British Victorian colonial society. When all strong organic smells are conceived as disease then the

nose would be a guiding factor when hiring African laborers. Those who washed with soap would thus increase their chances of securing a job. With increased income, health would improve with it. Soap would in other words lift people from darkness (ubumnyama) to the blessings of enlightenment (ezimhlope), just as I experienced a hundred years after these practices were born in the colonial contact zone of Victorian South Africa.

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STUMBLING OVER ANIMALS IN THE LANDSCAPE

Methodological Accidents and Anecdotes

by Karen Victoria Lykke Syse

This article explores the potential of giving animals a more prominent role in landscape studies. Through an historical constructivist approach, animals can function as object, text, happening, and as a fragment of a larger environmental history. Using empirical examples from Norway and Scotland, animals' symbolic, social, and cultural availability are addressed. After presenting two case studies I claim that we can enrich our understanding of rural landscapes by including animals. Animals help uncover the meanings people embed in their landscape. By using the term animalscape, animals can more straightforwardly be incorporated both methodologically and analytically in rural studies.

Keywords: Animalscape, Constructivism, Animal landscapes, Environmental history, Animal studies

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We were driving timber. One day there was this massive log lying at the edge of a bog. My brother and I were thinking 'this won't be easy to haul onto the timber pile'. We put Blacky to the task. Blacky tries again and again but he can't move the log. We chop down two small trees to use as levers to get the large log sliding – we wedge them under the log; Blacky understands he's been given help, and he hauls the massive log onto the timber pile at high speed! We go and talk to him

to praise him, and he keeps looking back at the huge log, to show us that he could do what we didn't think he could to. And this was the first time I learnt about the immense power contained in a horse, while at the same time I was taught how to get the horse to understand that we work as a team, and that together, we can manage any log.

(Håvard, forester)

Stumbling

The main object of my studies has been rural landscapes and landscape perceptions. In order to investigate this, I have used oral history and ethnography as a means to understand the interaction between people and landscapes. In 2000 I developed a methodology of combining oral history with walk-about ethnography in order to grasp what rural landscapes entailed in the past and present to the people were working in them (Syse 2000). I use the landscape in five different ways: Firstly, as an arena for interview and secondly, as a trigger for narratives. Thirdly, I study the landscape's physicality as material culture; with objects, relics, and biological material traces of the past and present. Fourthly, I read the landscape as a physical manifestation of changing agricultural practices. Finally, the landscape is explored as a field where environmental and political changes are acted out. Consequently, I use the physical environment both actively and passively through ethnographic fieldwork.

An inspiration for this methodology was classic oral history methodology (Evans 1962, Thompson 1988), and the work of the anthropologist Tim Ingold and his important article *The temporality of the landscape* (1993). Ingold states that landscape encapsulates two concepts: 'time' and 'work'. He views life as time in process and landscape as being formed by (among other things) human work over time. He uses the term 'temporality' to define landscape, and calls the working-landscape a 'taskscape' (Ingold 1993: 153): "Just as the landscape is an array of related features, so – by analogy – the task-scape is an array of related activities." (Ingold 2000: 195). However, trying to understand these activities proved to be impossible without considering animals. This is why I use the term stumbling in the title of this chapter; illustrating that although animals were not initially the object of my study, they constantly appeared both through narratives and by tangible physical traces, requiring

me to address them whether I had intended to or not. As such, and particularly in a historical perspective, one can go one step further and call the taskscape an animalscape.

Agricultural landscapes are still filled with animals and animal-meetings. If you walk across a pasture, your boots will sink into grass nibbled short by grazing sheep. When you pass a farm steading, a reeking silage pit will remind you of the animal's need for winter feeding. Going up a hill or into a forest, a pungent smell might tell you that a fox has just passed by. Sounds of birds and insects, bleating sheep, bellowing cows and barking dogs make their presence and saturate the landscape with their agency; reminding us that this landscape is also an animalscape. Farmers harvest fodder for beasts and accommodate grazing for them. Hunters use the landscape actively and consciously to get within shooting range of their prey. In the past, foresters could not drive timber without working with their horses.

As already mentioned, animals were not my main concern as a cultural historian – landscape history and environmental conflicts were – and I apply the term animalscape as a consequence of my fieldwork. Initially, none of the questions in my interview guides were about animals. Although I knew I would meet animals both through texts, narratives and physically, the animals were not a direct object of my study so everything related to animals came indirectly. However animals became both analytical categories and key symbols for me. Using examples from fieldwork in Norway and Scotland, I'll exemplify how animals were used to convey morality, trust, kindness, and understanding in interviews and narratives which were intended to be about changing landscapes. Animals were also used as mediators in environmental conflicts.

A forester and his horse

Before forestry was mechanized, forest laborers could be divided into loggers, drivers and floaters. The loggers first chopped down the trees before stripping off branches and bark in the forest. Trunks were divided into logs, and left to be pulled by horsepower and placed in piles along the roadside by timber drivers. Later these

fairly small piles of timber were driven to either a river or a larger forestry road to be driven or floated to the closest sea port.

In order to drive timber, one needed horses, and in order to have horses one needed a farm where one could grow oats and other



fodder. In Nordmarka (a forest north of Oslo), farms and smallholdings were dispersed throughout the forest, and tenants were often by contract obliged to work for the estate owner. Smallholders and farmers who owned their own land would also sell their labor to larger estates during the winter months when there was little farm work. Nordmarka was a lively peasant community in the outskirts of Oslo, and the sounds of bleating sheep, lowing cattle, axe blows, falling timber, sleigh bells, and neighing must have made the forest seem both a populated and animated dwelling place (Halberg 1993, Tveite 1964, Syse 2012, Syse 2000).

The opening quote of this article is a transcript from an interview with the timber driver Håvard. When Håvard was conveying the changes in land-use and forestry practice, he used the landscape as a physical anchorage for memory. This memory also contained a series of horse-stories, used to convey changing values and changing human-animal relations. Håvard's horses were his work-mates, and they could only manage to pull heavy timber loads through cooperation. They worked side by side all winter, and the horses were considered members of the family as well as energetic horsepower. Håvard would talk just as much – if not more – about horses as he did about landscapes, as it was the horse that let him maneuver timber through the forest landscape, as well as huge forest extractors that have changed the forest landscape and created environmental conflicts in the present.

As Håvard and I were walking through the forest during a walk-about interview, he stopped by an old timber-run. This was the place a horse had been tamed, he said. He had bought the horse cheap because it was so nervous the farrier couldn't put shoes on it. According to Håvard, it must have been ill treated by a previous owner. The horse wouldn't stand still when they attached the timber load to it, and they had to be two men to work it – one to hold the horse still and one to attach the timber load. Neither Håvard nor the farrier could manage to shoe the horse, and so he made it run barefoot up and down the steep hills of this particular timber-run. The horse didn't even stop to eat; it was too nervous and restless. Håvard and his brother treated it kindly but drove the horse hard to exhaust it. After three days the horse understood that the men would not hurt it, and so it would stop and eat some hay between runs. After four days one man could shoe the horse alone. A mutual bond of trust had been established between man and horse, and it had become a kind and cooperative working horse. Håvard explained that he even used it as a loose-horse, which is the term for a horse that can work without a harness.

The story above, and the way it was narrated, explains the way an understanding was established between the forester and his horse, and how this understanding was appreciated by them both. The horse trusted that Håvard wouldn't hurt it, and Håvard knew how to establish this confidence. He understood the horse's personality and eventually came to trust it completely. In addition, Håvard and his horse were friends who worked together. This sense of unity and trust is also conveyed in the introductory quote – the

forester had to make the horse understand they were a team, and Håvard had to understand the way the horse thought. The horse was a thinking sentient being that had to be treated like a friend, it wasn't just a machine which could be switched on and off. Håvard knew the horse's peculiarities. He communicated to the horse both through his voice and actions, and interpreted the horse's response through its personality and life history.

According to the agricultural historian Bruvoll, the horse was part of masculine culture within the woods, and this bonding between man and horse is often communicated by foresters' stories about their labor and their horses (1998: 203). The horse and the horse-man were a team. In the days in which horses were used for timber driving, the lack of roads and transport often made it convenient for the foresters to live in the forest rather than commute from the surrounding villages. This created a unique feeling of community and camaraderie among both foresters and their horses that disappeared when forestry was mechanized. The ethnologist Liv Emma Thorsen describes a similar collegial situation among Norwegian milk-maids in the period before milking was mechanized. Thorsen also explains how milk maids and farmers wives conveyed a sense of loss when milking-machines replaced hand-milking. This loss was related to the relationship between woman and cow; that although the hand milking was laborious, the sense of wellbeing associated with the direct contact with the animals was highly valued. (Thorsen 1993: 145).

The importance of human-animal relations, and what the animals actually signified, was never explicitly mentioned by the foresters in my study. At the same time Håvard, the main informant and forester, expressed his innermost feelings through the stories he told about the relationship he had with his horse. For instance, family relations – how he felt about leaving his wife and children for long periods during winter – were typical vulnerabilities he would communicate through stories about his horse. He admired the horse's immense strength, but spoke just as much about other aspects of their relationship. For instance, he explained the lovely smell in the horses stable, he talked about the way the horse greeted him by neighing and how it apparently liked him, and he explained how this was a great comfort on cold winter mornings. He showed love and appreciation to a fellow being and was given affection and respect in return. His loneliness was soothed by his horse. Håvard's many horse stories were central to his understandings of labor and the land, and used as tools to communicate emotions and values he felt uncomfortable about stating directly. Horses and horse-stories were Håvard's way of stating feelings he felt awkward about talking about – they were the narrative lines that filled in what was left between the lines.

Trust was a word often used by Håvard and other foresters about their horses. The horses and men had a bond of trust between them, and this contract could not be transferred to the tractors which the horses gave way to in the 1970s. Physically speaking, the labor was harder for a timber driver using a horse than one driving



a tractor. The driver had to haul and attach the logs to the horse. Using a tractor made life easier physically, yet the transformation from horsepower to mechanical power was not easy.

Although Håvard had driven thousands of cubic metres of timber using a horse, he didn't know much about how to drive a forestry tractor. He didn't understand the machine's physics, nor did he comprehend its limitations. The horse would express its limits, while the tractor's limits were only brought to bear by calamities: Håvard's tractor once tipped over several times and he was almost killed. He stated that driving a tractor took the joy out of his work. The camaraderie disappeared, and the comfort of time spent chatting with the horse disappeared. With the tractor, life in the forest became a lonely life. Rather than getting up early, entering a warm stable to feed and water horses, he would switch on the ignition of

a cold machine to get started. While the horse needed oats, water and words of encouragement to get going in the morning – in addition to some more oats, water, as well as a good rub-down in the evening, the tractor needed mechanical insight and hard cash to keep running. A flat tyre meant a financial setback and hours of lost labour. When horses disappeared from Håvard's life, it wasn't only that he stopped buying oats, started buying petrol, and worked the forest in a different manner. His whole life changed, and how this change came about was described thickly through stories about horses. This retrospective and perhaps nostalgic account made me aware of the importance of animals in the past, but it also sets the scene for talking about animals in the present. The next section will explain how a particular animal was given the role of mediator for environmental conflicts.

Mediating with the otter

In 2005, I spent 6 months in a village on the west coast of Scotland. I was conducting research for a larger study on land-use changes in Argyll, and moved over with my three children (see Syse 2009, 2010, 2013). About 500 people lived in the village. It was a very scenic and idyllic place, and many people from urban areas both in Scotland and England had moved here, seeking a more tranquil setting to raise their families. Many of the old cottages had also been made into second homes. My children started the local village school, and very soon we all became part of village life. A thing that surprised me was all the talk about otters in the village. Every morning, the local school bus stopped on the single track road outside my cold-comfort farmhouse. The children would hop in, put on their seat belts, and on the second turn in the road after our house, they would be told to look out of the window and see if they could see an otter. The same procedure would be repeated on their way back from school in the afternoon.

Whenever I met someone new, they would welcome me to the village and ask me whether or not I had seen any otters yet. I had expected polite conversation to be about the weather, as the wet and damp weather on the west coast of Scotland could be an easy topic to talk about. However, polite conversation seemed to be centered on the local otters. Many other animals could actually be seen around the village. The fields were full of sheep and cows, and almost all families had pet dogs or cats. A beautiful osprey would sail across the sky over the loch, barn owls were hooting outside my windows, and once I'd let the window open a bit too long I even had a bat in my bedroom. Nevertheless, people were terribly preoccupied by otters. Even though we have otters in Norway, and even though I've done fieldwork in areas I know they have been present, I can't ever remember having talked about otters sightings to anyone before. Otters obviously played a central role in the Argyll landscape.

I had rented the farmhouse fully furnished, and there were books in the bookshelves. Two of these books were 70's paperback editions

of Tarka the Otter (Williamson 1927) and Ring of Bright Water (Maxwell 1960). I immediately read and re-read these books, as I remember having read Tarka the Otter as a child, as well as a vague memory of having seen a film called Ring of Bright Water. Reading the books also made me more aware of otters and otter-chat. I discovered that there was a film director who worked for BBC and had made otter documentaries. There was a photographer who captured otters, and there was also a painter who made her living drawing and painting otter images. As the village was known to have sea otters swimming about, artists came by from other parts of Britain too, hoping to capture an otter through their lenses or on canvas. Interestingly, it wasn't just artists; bus-drivers and incomers living in the village were preoccupied with otters as well. I discovered that one of the farmer's dogs was called 'Mij', named after the otter in Ring of Bright Water. I was doing walk-about ethnography, and part of my methodology was to ask my informants to take me to a favorite place in their working landscape. One of the farmers took me to the top of a hill with a good view over a sandy bay with crystal clear turquoise water. He said he enjoyed coming up here in an attempt to spot an otter.

I've seen three otters here, diving about. Every time I'm over I'll come over and stop here, and see if I can see one. Occasionally... You don't see them all the time. You've got to live here all the time and you'll see otters. I think if I count how many I've seen, over thirty years, they're not many. So the chances of coming out, and actually seeing them, are... not great, but people think that oh there are otters about there, I'll just... I mean I could show you where they play and all of that, their puddles and their tracks... they're always coming in for fresh water. To play in it. (Cameron, farmer)

The study I conducted (Syse 2009) involved interviewing people who had a working relationship with the land, so a couple of representatives from the governmental agency Scottish Natural



Heritage (SNH) were also included in my research. When one of the SNH officers and me were driving along the road, he suddenly stepped on his brakes to show me an otter holt with tell-tale tracks sliding down towards a small loch.

Many of the SNH brochures and leaflets that referred to biodiversity had images of otters on them. By now I had asked myself what all this fuss about the otter could signify. Otters were obviously enigmatic animals that had become particularly popular in Britain through literature and film, but although *Watership Down* was a popular book (Adams 1972) and later a film (1978) anthropomorphizing rabbits, people never mentioned rabbits unless they were squashed under a car tire or got into the vegetable patch. Perhaps otters were particularly apt symbols? According to Mary Douglas, creatures that defy classification are particularly suitable symbols (Douglas, 1975: 30). The otter, in many ways, defies classification. It is a mammal – but spends most of its time in water. It also has webbed feet – almost resembling the feet of a waterfowl rather than the furry paws of most other similar looking mammals. Moreover the otter's front paws have humanoid finger-like extremities that can be used to handle small objects. Otter can even use stones as tools to open mussels. Although the otter is indisputably an animal, the way it behaves and uses tools can be associated with human beings.

Another noticeable feature of otters is that they are ambiguous and liminal creatures. Liminal creatures are ambiguous and defy ordinary classification. Like the owl and the bat, the otter is partly nocturnal and because of this, difficult to see. This ambiguity is central, as it makes otters especially apt symbols. In mythology and folk belief, ambiguous plants, objects, animals, places, and periods are often regarded particularly magical, with strong symbolic associations. An example of this is the mistletoe; symbiotically attached to tree branches it is a plant with magical properties, growing midway between heaven and earth. It is still thought of as having medicinal properties and is used symbolically at Christmas time – another highly symbolic time of year, culturally replacing the dangerous time of winter solstice. Bats, that look like mice but fly like birds – in the dark – are also examples of liminal creatures with high symbolic values associated to them.

Even though certain of the examples I give above might seem curious to modern people, other properties of liminality are commonly acknowledged. Liminality can cure, and liminality can initiate a transformation or alteration in direction. For instance, crossroads are common metaphors and practical places for direction change. In Scandinavia, the rite of confirmation changes the way people regard you from child to young adult. Weddings and funerals – both rites of passage – take you from one state into the next and the state in between the two is a liminal ambiguous state. Neither nor. Since

the otter is indisputably a liminal creature, it is particularly suitable to associate with various kinds of symbolism. However, although I argue that otters are liminal in an anthropological sense, does this mean that it can be given agency enough to convey environmental values and mediate environmental conflicts?

Environmental degradation and pollution led to a serious decline in otter populations in the 1970's. According to the UK Biodiversity Action Plan, the main reason for this was pollutants in watercourses – especially involving an increase in Polychlorinated biphenyls (PCBs). Also, otters had less prey to feed on because of the poor water quality, and riverbanks provided less protection needed for breeding and resting. Other reasons for the decline in otter numbers were unfortunate incidents like road accidents or drowning in eel traps. All in all, the decline in otters was the results of all the environmental problems of industrialization. In many ways, we can compare the role of the otter to that of the canary; in the times of coal mining a canary would be kept in the mine to ensure that the air was good enough for people to survive in. If the canary died, it was time to get out of the mine. In the same way, the otter can be regarded as a key species which indicates the state of the environment. Being a top predator, it is particularly susceptible to pollutants. It needs clean water and functioning wetland ecosystems to survive, and if otters are present in any given place, this tells us that the ecosystem is in order (Crawford 2003).

During the twentieth century, British otters were transferred from being vermin – quarry worth hunting on as it would prey on fish stocks – to becoming a unifying symbol of purity. There seem to be very few conflicts regarding otters; they are simply regarded as a positive and charming species of wildlife. One can even state that otters give people optimism, as the various environmental schemes to bring them back have been so successful. Otters are living proof that environmental action can work (Syse 2013). Due to this, otters have been given an active role, as they cement relations and bridge various interest groups within the Argyll landscape. Everyone appreciated otters; maybe this was the result of various conservation schemes that had been ongoing since the 1960's, and maybe it was because of books, films and other outputs of popular culture. Perhaps it was because of the otter's sweet face; far easier to appreciate than other wild species of the animalscape in need of protection, like toads or adders. Otters were until as late as 1978 still a target for hunters, and a creature considered a pest by some despite its rapidly declining numbers. After successful campaigns it was offered a new role as 'pet of the nation'. It was later used as symbol by environmentalists, who emphasized its vulnerable status due to industrial pollution.¹

¹ A more comprehensive argument about the otter's role as an environmental symbol can be found in Syse (2013).



Accepting animal agency and presenting to academia

The geographer Lewis Holloway writes that “[t]he ways in which people understand and use different spaces and places influence their relationships with the various others (including animals) encountered there” (2003:147). This argument is built on a quite recent discourse about animal-human relations in the humanities and the social sciences. An essential question (and critique according to the geographer Chris Philo), is if the inclusion of animals always has been conditioned by a certain ‘human chauvinism’, so that animals are ignored if they lack utilitarian values. Chris Philo suggests an alternative perspective which involves looking at animals as a ‘social’ group indirectly constituted by human communities. As a group, they are subject to a variety of social and spatial inclusions and exclusions (Philo 1998: 103).

The two case studies I have outlined above, show how animals are included both socially and culturally – for instance as work mates, as conversation topics, as environmental symbols, and mediators. One could argue that both the horse and the otter have use in a utilitarian sense, as they become tools to solve certain tasks; horses used to drive timber and otters used as available symbol. But they were also included both spatially and socially. Following this argument, a landscape is not only a taskscape, and the result of human utilitarian actions, but also an animalscape. An animalscape is the result of human-animal relations. It is created and constructed through animals’ cultural involvement, and through both humans’ and animals’ feelings and emotions – exemplified above through the horse’s understanding of Håvard’s intention and the otter’s central position in human consciousness – despite its elusive nature.

The stories about Håvard’s horses were anecdotal. Discovering the importance of the otter in Argyll in Scotland was accidental. The stories about animals that the men I interviewed told me were unexpected and unintentional. Methodologically, this is a hard nut to crack. In interdisciplinary journals related to land use and landscape, animal meaning and agency are seldom given consideration. In a reviewer’s report for the article *Otters as Symbols in the British Environmental Discourse* (Syse 2013), the following statement illustrates that C. P. Snow’s two cultures still very much exists – even within interdisciplinary journals:

“The arguments presented in the paper are largely based on anecdotal observation and selected local opinion and it is recommended that an analysis of a structured questionnaire collated from a wide sector audience (farmers, foresters, fisherman, ecologists, engineers and members of the public) is carried out (of sufficient sample size). (...)The paper does present an original piece of work recognizing how a single species can provide a focus for cooperative working between different

interest groups to further its conservation and I would agree that the otter is a symbol of environmental discourse in Britain.”

In other words, the reviewer criticized the methodology because it was anecdotal, and qualitative, and he or she would have preferred a quantitative survey as the starting point for an analysis on whether or not otters were environmental symbols. Although the reviewer actually was convinced by the argument, he or she felt a need to question the methodological premises of the article and wished the conclusion had been reached in a way more in line with his or her scientific discipline. Accordingly, writing about animals in an environmental journal is a reflexive exercise for an academic belonging to the humanities. The humanities’ concern is what is, or makes us human, and thereby at times addresses and is part and parcel of a human-animal dichotomy; and at the same time humans – or human influence – is sometimes juxtaposed with nature or ‘the natural’. If our landscapes and taskscape incorporate animals, thereby acknowledging the animalscape, this dichotomy has the potential to dissolve.

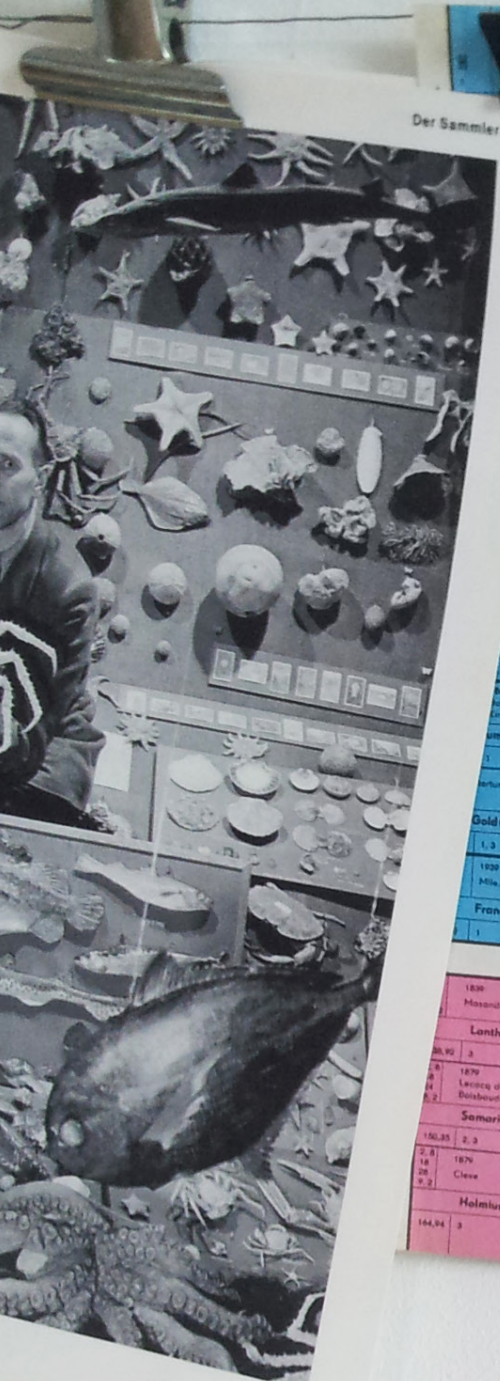
The academic disciplines representing the humanities use methods that are primarily analytical, critical, or speculative in nature, as distinguished from the mainly empirical approaches of the natural as well as most of the social sciences. Our sources are usually objects, texts, happenings or fragments of these three (Jordheim 2007). By offering an historical constructivist approach, looking at animals as object, text, happening and also as a fragment of a larger environmental history and story, I argue that a larger picture can both be unveiled and understood by the researcher. Referring to Steven Baker, Holloway states how animals have a “symbolic availability” allowing them to be drawn upon in the construction of meaning (Baker 1993: 5, Holloway 2003: 148). In landscape studies, this meaning can be revealed by consciously giving the animals a more prominent role. Using the term animalscape allows the animals to step forward and be included both methodologically and analytically in rural studies. My fieldwork showed how people constructed and narrated the environmental and emotional meanings that were important to them through animal narratives. By addressing these animals’ symbolic, social and cultural availability and using this as a starting point rather than a stumbling block, we have the potential to both enrich our understanding of and uncover the meanings embedded in the rural landscape.

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Der Sammler

Be 1808 Wöhler 4 9.012	B 1808 Gay-Lussac, Davy, Thénard 3 10,82	C Alterum 2 12,010	N 1772 Daniel Rutherford 7 14,009	O 1774 Pflanzels Schweife 8 16,000	F 1869 Moissan 9 19,00
Beryllium	Bor	Kohlenstoff	Stickstoff	Sauerstoff	Fluor
Mg 1808 Davy 12 24,32	Al 1827 Wöhler 13 26,99	Si 1823 Berzelius 14 28,09	P 1669 Brand 15 30,97	S Alterum 16 32,06	Cl 1774 Schwabe 17 35,45
Magnesium	Aluminium	Silizium	Phosphor	Schwefel	Chlor
Ca 1808 Davy 20 40,08	Sc 1879 Nilson 21 44,96	Ti 1791 Gregor Klaproth 22 47,88	V 1830 Sefström 23 50,94	Cr 1774 Gahn 24 52,00	Mn 1774 Gahn 25 54,94
Calcium	Scandium	Titan	Vanadium	Chrom	Mangan
Cu Alterum 29 63,55	Zn 1875 Levan de Boisboudran 30 65,39	Ge 1866 Winkler 32 72,62	As Alterum 33 74,91	Se 1817 Berzelius 34 78,96	Br 1826 Boisard 35 79,90
Zink	Gallium	Germanium	Arsen	Selen	Brom
Sr 1808 Davy 38 87,63	Y 1828 Wöhler 39 88,91	Zr 1824 Berzelius 40 91,22	Nb 1801 Hatchett 41 92,91	Mo 1781 Horn 42 95,94	Tc 1937 Fajans, Segre 43 98,91
Strontium	Yttrium	Zirkonium	Niob	Molybdän	Technetium*
Ag 1807 Stromeyer 47 107,87	Cd 1843 Reich, Richer 48 112,41	Sn Alterum 50 118,71	Sb Alterum 51 121,76	Te 1862 Müller 52 127,60	W 1781 Cronstedt 53 183,85
Silber	Cadmium	Indium	Zinn	Antimon	Tellur
Ba 1808 Berzelius 56 137,33	Hg 1801 Crookes 80 200,59	Tl 1861 Crookes 81 204,38	Pb Alterum 82 207,21	Bi 1432 Valentinus 83 208,98	Po 1841 M. Curie 84 209,00
Barium	Quecksilber	Thallium	Blei	Wismut	Polonium*
Au Alterum 79 196,97	Ra 1896 M. und P. Curie 88 226,03	Ac 1896 Klapanow, Berzelius 89 227,03	La 1838 Masander 57 138,91	Ce 1803 Klapanow, Berzelius 58 140,12	Pr 1805 Auer von Welsbach 59 140,91
Gold (Aurum)	Radium*	Actiniden	Lanthan	Zer (Ce)	Proseodym
Fr 1902 M. Curie 87 223,02	Ac 1896 Klapanow, Berzelius 89 227,03	La 1838 Masander 57 138,91	Sm 1879 Lecoq de Boisboudran 62 150,35	Eu 1800 Marignac 63 151,96	Gd 1843 Cleve 64 157,25
Franzium*	Actinium*	Actiniden	Samarium	Eurprium	Gadolinium
			Ho 1879 Cleve 67 164,93	Er 1843 Moissan 68 167,26	Tm 1879 Cleve 69 168,93
			Hm 1879 Cleve 67 164,93	Erbium	Thulium
					Ytterbium
					Lutetium

La 1838 Masander 57 138,91	Ce 1803 Klapanow, Berzelius 58 140,12	Pr 1805 Auer von Welsbach 59 140,91	Nd 1843 Cleve 60 144,24	Pm 1845 Mendeleev, Curtis 61 K
Lanthan	Zer (Ce)	Proseodym	Neodym	Promethium*
Sm 1879 Lecoq de Boisboudran 62 150,35	Eu 1800 Marignac 63 151,96	Gd 1843 Cleve 64 157,25	Tb 1843 Masander 65 158,93	Dy 1866 Lecoq de Boisboudran 66 K
Samarium	Eurprium	Gadolinium	Terbium	Dysprosium
Ho 1879 Cleve 67 164,93	Er 1843 Moissan 68 167,26	Tm 1879 Cleve 69 168,93	Yb 1878 Marignac 70 173,05	Lu 1907 Auer von Welsbach 71 K
Holmium	Erbium	Thulium	Ytterbium	Lutetium

Ac 1899 Debierne 89 227,03	Th 1828 Berzelius 90 K	Pa 1902 Curie 91 K	U 1781 Cronstedt 92 238,03	Np 1940 McKenzie 93 K	Pu 1940 Curie 94 K	Am 1944 Segrè 95 K	Cm 1951 Segrè 96 K	Bk 1959 Segrè 97 K	Cf 1950 Segrè 98 K	Es 1952 Segrè 99 K	Fm 1952 Segrè 100 K
Actinium*	Thorium*	Protactinium*	Uranium*	Neptunium*	Plutonium*	Americium*	Curium*	Berkelium*	Californium*	Einsteinium*	Fermium*

AMBIENT DES MEERES

... in allen Wesen dieser Erde verankert sind gewisse physiologische instinktive Bindungen an das Wasser, aus dem alles Leben seinen An- genommen hat. Kein Wesen kann ganz ohne Wasser existieren - die rechte des Meerwassers strecken auch heute noch in jeder Zelle. Und es kann eine Gruppe von Landtieren gegeben, von der nicht irgendwam eine oder andere Teil wieder zurückgekehrt wäre ins Meer. Die Wale, die sen mit Seehund und Seelöwe - sie sind luftatmende Säugetiere, deren ahren aus irgendeinem Grund vom Festland ins Meer hinübergewech-

... sind. Und von Pol zu Pol dehnt das vielgestaltige Volk der Wasservögel genauso gut wie seine Vettern a- begannen einzelne Gruppen w- bald, nachdem ihre unmittelba- im Wasser zum Dasein auf dem Während der gleichen Zeit, in d- auf den Kontinenten gelangte gleiche Hegemonie in den Meer- die Ichthyosaurier, die Plesios- kröten. In den Schieferen des J-

Balz und Paarung





TRACKING NATURE INSCRIBED

Nature in Rights and Bureaucratic Practice

by Gro Birgit Ween

Indigenous people live in places that non-indigenous people generally consider nature. As these peoples' livelihoods often are in this nature, their lives are frequently bureaucratised in ways that most of us would never encounter. This article describes my long-term effort to find ways to explore such bureaucratic processes in practice as part of my contribution to an environmental anthropology. I describe how I methodologically and theoretically explore such processes by using two examples of my writing, the articles "Blåfjella-Skjækerfjella nasjonalpark: Naturforvaltning som produksjon av natur/sted" and "Enacting Human and Non-Human Indigenous Salmon, Sami and Norwegian Natural Resource Management". The first text describes Sami reindeer herders fighting the establishment of a national park. The other concerns an attempt of the Directorate of Nature Management to reregulate sea salmon fishing. Comparing these two articles, I show the variety of bits of nature that are materialised in bureaucratic process. Agency within such bureaucratic processes is explored with references to the materialities of the coined terms, texts bits, conventions and other legal references, as well as the numbers produced in the documents. Circulated, these bits of nature certainly influence the outcome of environmental controversies – they can contribute to naturalising particular narratives or foreseen outcomes.

Keywords: Bureaucratic process, documents, numbers, narratives, indigenous peoples.

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Introduction

My anthropological work concerns indigenous people, people that live in places that non-indigenous people generally consider as nature. As these people's livelihoods are often in this nature, their lives are frequently bureaucratised in ways that most of us would never encounter.

For a long time, when anthropologists wrote about nature and bureaucratic processes, the usual strategy was to focus on laws behind natural resource management practices – the conventions and regulations, citing paragraphs of national and international laws. Alternatively, anthropologists engaged coined terms – for instance “national parks”, “biodiversity”, “alien species”, and “the common good of mankind” – in a general kind of discourse analysis. One example of such is Kalland's (Kalland and Sejersen 2005) analysis of the “super-whale”. This humorous piece elaborated on the various characteristics attributed to the whale by the different voices in the anti-whaling lobby. The analysis did not make an effort to localise these voices since the rhetorical benefit was in lumping all claims together (Kalland and Sejersen 2005). In my opinion, such efforts to deconstruct terms, concepts, and laws in environmental discourse masked rather than revealed the process and practices which the terms were part of. By reading these simple forms of discourse analysis, I learned little about how some

of those nature narratives became dominant and how exactly they came to conceal the existence of others. There was also scarce concern regarding nature, or the materialities that enter into the production of nature.

These shortcomings motivated me to open up my anthropological practice by examining how nature becomes enacted in natural resource management practice. My aim is to study legal and bureaucratic nature writings and how these texts affect the natures which indigenous peoples engaged with. Several efforts in this regard were already made in the 1990s, when anthropological writings on indigenous peoples started to look at bureaucratic practices. They were however, more concerned with the interface between local and bureaucratic knowledge and the ontological impossibility of merging the two, rather than on the analysis of the workings of bureaucratic practice in itself (Nadasdy 2003).

In this article, I describe my search for the adequate anthropological tools that help me to get theoretically and methodologically closer to the inscriptions circulated in bureaucratic documents; as well as their potential to shape, intervene, and co-produce the nature that is considered to exist “out there” – the kind of nature that indigenous peoples engage with in their subsistence practices.

An Anthropological biography

This anthropological endeavor started when I was studying in Australia. I observed back then the gentrification of the northern towns as the tourist industry became the second successful coloniser of the Australian coastline. City Council by-laws changed vacant land within the city borders from being nature to becoming culture. In this process, the Aboriginal vagrants that inhabited this land were forced out (Ween 1997). This actually happened about the same time as Aboriginal people's rights to nature became articulated in the Australian Native Title Act (1993), and Aboriginal rights to land became an issue in the Australian courts. I was struck by how, in Darwin, newspapers and talk-back radio managed to create such a powerful image of the Aboriginal savage threatening white suburbia in the middle of an Aboriginal rights era.

As part of this Native Title regime, anthropologists largely spoke to legal institutions and the law. Anthropologists saw their position as translators between Aboriginal worldviews and legal institutions (Ween 2006). Anthropologists were empowered as expert witnesses to transform Aboriginal lives and nature practices into data that satisfied the legally determined criteria, in the hope of achieving legal recognition of Aboriginal rights to land.

A decade later, indigenous land rights cases appeared in the Norwegian High Court (Bjerkli and Thuen 1999, Bjerkli 2004, Bjerkli

and Eythorsson 2011, Ween 2006). To my surprise, while Native Title anthropologists had been made part of the academic anthropological tradition in Australia, such anthropological efforts were treated differently in Norway. Indigenous rights work was considered applied anthropology, and a completely different species, particularly from environmental anthropology's view. Even though anthropological documentation of indigenous nature practices stood at the core of such legal practices (see e.g., Peterson and Rigsby 1998, Bjerkli 2004, Scott 2005). In its efforts to engage with more powerful knowledge practices like law and the courts, applied anthropology became disqualified as normative.

Reflecting on how to include the experiences of this important legal work into my environmental anthropology, I realised the need to shift focus. Such processes could not be understood with reference to people alone (neither indigenous nor bureaucrats). If I was aiming to grasp what was going on, I had to include the artifacts of bureaucracy. I would have to examine how documents could shift action and perform tasks, as well as, how these documents and texts interact in processes in dynamic and contingent ways, and often with unpredictable results (Latour 1996, Shore et al. 2011).

I discovered that these were trails that anthropologists tended to avoid since documents were generally considered boring. Since



anthropologists often worked in countries where bureaucratic documents were not generally available, those documents, laws, and regulations were considered avoidable as well. However, even in countries where management of nature depends less on laws, documents, and policy than others there is no doubt that nature management still intervenes in local practices (see e.g., Nustad 2013, Nustad and Sundnes 2013). Therefore, it is not only in countries like Norway where an anthropologist would seem

uninformed attempting to describe what happens in/with nature without relating to bureaucratic practices. As Shore et al. (2011) state, there are few people nowadays not touched in certain way by the classificatory logics and regulatory power of politics. Even if infrastructures of governance are not present in the same way as in our part of the world, people still find their lives and livelihoods subject to policies of remote governments, national and international agencies (Shore et al. 2011).

Nature as an artefact, documents as artefacts

The way in which I understand 'nature practices' has been largely influenced from early stages by STS and material semiotic approaches. In concrete, I focus on examining how nature is enacted. These perspectives argue that there is always more than one nature. Furthermore, they also claim that nature is not out there to be studied in a unique manner, since it is not something that only lends itself to one kind of description. Therefore, we should be aware about the fact that the ways in which nature is described serve to establish one kind of nature. Description, inscription, and the act of writing themselves have agency. Written narratives can intervene in and affect other descriptions. They can be powerful and influence the materialities they intend to describe as well as people's everyday lives. Nature is produced from such an understanding; or rather, as it is produced in entanglements of places, human and non-human actors, it is co-produced (Asdal 2003, 2011). Therefore, in these practices, nature is not made by a single actor or institution, but has to become a premise for more than one to have an effect.

STS and material semiotic approaches grant agency to non-human actors like documents, legal texts, and other bureaucratic devices (see e.g., Asdal 2003, 2011). These approaches have also seeped into anthropological practices (see Riles 2001). For instance, in her study of The Fijian preparations for the UN Women's Conference in Beijing, Annelise Riles (2001) not only followed the artifacts of institutional activity, and the objects and subjects of bureaucratic practice; but also how this practice was conceived and what kind of responses it elicited (2001:xiv). In his study of how indigenous work in Chaco became global, Mario Blaser (2010) was concerned with the ways in which modern knowledge practices are performed, including how different knowledges involved in indigenous rights work engage with each other.

In this paper I return to the bits of nature that became significant to me in my previous work. In concrete, I draw on the findings from two articles I have written about the Norwegian Sami, Sami rights, and natural resource management processes. The first article examines the establishment of a national park and is entitled "Blåfjella-Skjækerfjella nasjonalpark: Naturforvaltning som produksjon av natur/sted" (Ween 2009). The second one – "Enacting Human and Non-Human Indigenous Salmon, Sami and Norwegian

Natural Resource Management" (Ween 2012) – describes the attempts to introduce new regulations for sea salmon fishing. In both cases, nature narratives were foregrounded in ways that rendered Sami practices invisible. Natural resource management processes put entities into play in such ways that they travel further and become more significant than the competing Sami processes.

Both stories involved cases of competing narratives. The first study described the establishment of Blåfjella-Skjækerfjella National Park. The narratives played out in this case were (1) the story of the urgent need to protect a bit of nature – the largest connected piece of wilderness in Southern Norway – and at the same time; and (2) the Sami rights narrative – the rights of the reindeer herders to practice their livelihood. In this case, the Sami reindeer herders lost. The second case regarded a suggestion from the Directorate of Nature Management of reregulating sea salmon fisheries. The two competing narratives in this case were (1) the story of the urgent need to protect wild Atlantic salmon; and (2) and the description of the need to protect a very vulnerable Sea Sami population that depended on salmon fishing for their livelihood. This time, the Sami narrative won.

As illustrated above by the story about Aboriginal vagrants and Native Title Rights, it is important to note what happens when two narratives compete for attention. Kristin Asdal (2003) has successfully explored the playing out of controversies in environmental politics – including the human and non-human actors involved in them. Two of the cases she studies date from 1970s, when environmental pollution first became an issue in Norway. One of the stories started with some sick cows in Årdal and ended up as a case of massive aluminum emissions. The second one describes how a planned oil-fuelled power plant went from being a naturalised part of the ongoing industrialisation to becoming a contentious environmental issue (Asdal 2003). Both cases became important issues in the establishment of the Ministry of Environment in Norway (Asdal 2011). These controversies remind us of the existence of many kinds of agency, as well as the different ways that legal texts, propositions, regulations, and policy notes have to potentially enforce great changes – yet the networks in which they are put into play are not entirely predictable (Asdal 2003, 2011, Marres 2005). It is not always apparent who succeeds in producing an



authoritative narrative. The historian William Cronon (1991) argues that the very authority with which a narrative presents its vision is achieved by obscuring large proportions of reality. Narrative foregrounds and backgrounds hide discontinuities and contradictory experiences. A powerful narrative constructs common sense,

Bits of nature

As Kristin Asdal argues, we should study both the successful and the unsuccessful bureaucratic processes. Often we learn as much (or more) from studying what went wrong as from stories of what went right (Law 2004a; Asdal 2003, 2011). In order to explore processes of competing narratives I will dwell on the bits of nature that circulate in bureaucratic nature practices. In natural resource management, knowledge of nature and hence, nature (as we see it) is produced through public documents, Norwegian Official Reports (NOU), other policy documents, international commissions, conventions, and action plans.

In networks of natural resource management actions, policy documents become central actors; they contribute to coining terms that generate new agency, in turn constituting new natures. Latour (1987) argues that, when put into motion, such terms have agency. Motion is what happens when terms are repeated, referred to, and spread in new documents and publications - often in a number of different formats, such as pictures, graphs and numbers. Through such movements terms become coined, they become entities (Ernst 1999).

In Norwegian natural resource management, terms such as "biological diversity", "local governance", and "sustainable development" are widely employed. Repeated use confirms the existence of these entities and contributes to making them increasingly real. In use, they are translated into new formats. They become numbers in reports or statistics to be reported to global institutions such as the UN. Numbers add value to these entities. The same occurs when they become part of maps or even the reason for making new maps and other kind of graphic illustrations (Latour 1987, see also Strathern 2000).

The ability of a narrative to convince depends on several factors. It is not only matter of the coined terms that are circulated, but bureaucratic documents themselves are also important. The circulation of them contributes to authorise the narrative. The more the documents, the terms they make use of, and the narratives in them are repeated and circulated; the truer they become (Latour 1987:26, Riles 2006:13). Through circulation of documents and ongoing repetitions of the known; terms, entities, and facts are established, orders are confirmed, and narratives added to (Riles 2001).

The materialities of these documents are also convincing (Riles 2006); for instance, the actual layout of the physical papers (texts

making the contingent seem determined and the artificial seem natural. It obscures the fact that actions are potentially valued in different ways (Cronon 1991). In the following, I will explore the bits of nature in bureaucratic processes that contributes to this.

from Ministries have great letter heads). There are recognisable details in the aesthetics, the structure, the paragraphs, the appearance of ministers as signatures and the use of quotes as well as the ways in which legal conventions, tables, and figures appear (Riles 2001). Significant documents, such as Norwegian Official Reports (NOU) have a distinct binding, with the Norwegian state emblem of the lion on the front. The handling in of these documents also contributes to making them accountable. Commission secretaries are photographed handing in such documents to the relevant minister. The weight of bounded documents with the logo of a Ministry on it has an effect - lined up as a series of identical looking publications on the bookshelf of a senior bureaucrat. On the inside are the logos and rules for how texts should be presented, with the particular aesthetic of Ministry standards - the fonts, the rules regarding text structure, the choice of words, the references to laws and conventions, and the use of brackets. It is interesting to explore how, in some documents, every word is negotiated, texts are circulated endlessly by correct bureaucratic procedure - from senior executive officers to their superiors, between sections and departments, within the same Ministry, or between Ministries (Neumann 2013). Moreover, how documents are heard, commented on by NGOs and other stakeholders, reawakened to compromise, or seemingly come to terms with comments and commitments.

In both these writings, I wanted to point out that bureaucratic language is a rhetorical and aesthetic practice with an elaborate formal style. One of the most significant aspects of this particular writing genre is the absence of human actors. This serves to underline that the reason for what is presented is an authority that goes beyond the individual officer who has composed particular texts (Riles 2001).

Numbers as well play a particular part, both as an aesthetic device, and as a tool for conviction. Verran (2010) describes how the use of numbers in bureaucratic nature practices has risen dramatically in the last few years. Verran is interested in numbers' capacity to carry human endeavors, attributing this to what she calls "a fantasy of an inexhaustible accumulation" (2010:177). In her opinion, numbers are convincing because they are both needy and agile. Numbers are dependent because they are not in themselves complete. In themselves, numbers have little meaning; their meaning comes from the context they are placed in and the entities they are connected with (Verran 2010). Numbers are therefore inherently unstable. In combination with other actors they may



become activated and may change meaning (Verran 2010). These characteristics are what enable numbers to create new phenomenon. By establishing relations between one and many, numbers provide authority to particular stories.

In both the cases I described, numbers created a sense of urgency; the largest connected piece of Norwegian wilderness was disappearing, along with the Atlantic salmon. Assembling wholes and parts through numbers also provides other kinds of agency (Verran 2010:1771). Annelise Riles talks about the element of competition created by the unending project of revision, demands of accountability, and reporting between projects, ministries, and states (Riles 2001:176).

In the coming discussion of my two papers about nature in bureaucratic processes, numbers serve to singularise, to hide heterogeneity, and give authority to particular narratives. However, numbers do not always succeed in becoming magical in making particular narratives seem like the only viable solution (Verran 2010).

Natural resource management institutions produce natures that others cannot avoid evoking. By referring to specific paragraphs in international laws, new realities are constituted (Riles 2001, Pottage and Mundy 2004). Moreover, the existence of multiple and heterogeneous bodies of conventions – both national and international – enables a situation where all parties can refer to several terms and entities – as documents, parts of conventions, and paragraphs – that may legitimise and confirm their arguments. In other words, there is an inherent flexibility to the apparently rigid production of text in bureaucratic practice (Riles 2001). Within this maze of possible narratives, the ones to succeed are those that create a strong sense of reason, a sense of being the only possibility – as Cronon (1991) says, what becomes true is what makes the artificial real. In order to foreground one narrative to the exclusion of others, one must make this heterogeneous mass of bits of nature singular – certain parts are omitted, others are cited, and documents circulate with admissions and omissions. Annelise Riles says that to study bureaucratic practice we must follow the governing practices as if they were routes in a map. We must observe the roads and landscapes being made, which routes people take, and the ones that become ignored (Riles 2001: 13). What is foregrounded and backgrounded is essential to our understanding.

In the article about establishment process of the national park – “Blåfjella-Skjækerfjella nasjonalpark: Naturforvaltning som produksjon av natur/sted” (Ween 2009) – both the natural resource management institutions and the Sami interests made use of different sections of national and international legislation to evoke their respective natures and places (Riles 2001: 13). Eventually, the Ministry of Environment succeeded in producing the nature that became real, namely “the largest remaining piece of connected wilderness in Southern Norway”. This nature then became physically inscribed in place: signs were posted, walking tracks were made, reindeer were fenced off, parking lots and tourist facilities

were built; all serving to reinforce the artificial made real, the entity “Blåfjella-Skjækerfjella National Park”.

In the second text – “Enacting Human and Non-Human Indigenous Salmon, Sami and Norwegian Natural Resource Management” (Ween 2012) – the Ministry of Environment failed. In both cases, the Ministry’s position was contested, but in this second case, the Ministry never managed to produce a narrative with sufficient authority. In this article I suggested that the reason why this failed was because of the Ministry did not succeed in concealing existing discontinuities in their narrative, nor the presence of other narratives.

In the bureaucratic documents that followed the Ministry of Environment’s suggestion of new regulation of sea salmon fishing, numbers were introduced at several points in the argumentation. Numbers were included in the text to demonstrate the value of Norwegian wild salmon, positioning the number of wild salmon in Norway and elsewhere in the world to illustrate national and international concerns. When an endangered species was established, numbers were put into use connecting the wild salmon with economic value. The use of numbers made apparent that sports fishermen practicing catch and release (rather than Sea Sami fishermen) would be the most sustainable use of the fish. Most importantly, numbers served to make this grand narrative appear apolitical.

These efforts of making salmon into a vehicle for tourist sports fishing almost succeeded in concealing the competing narrative, emphasising the need to protect the equally endangered Sea Sami and their rights. To remove all doubt, the Ministry of Environment commissioned a research report – used by the Directorate of Nature Management – to argue that there no longer was such a thing as Sea Sami people, nor culture. However, this is where it all went wrong. The efforts to conceal the existence of the Sea Sami became too reductionist and too heavy-handed. Protests from the Sea Sami, Sami politicians, the Sami Parliament and a number of prominent researchers became so loud that it was impossible to present Sea Sami culture as having vanished. In the end, the proposed re-regulation was dropped (Ween 2012).

The Directorate of Natural Resource Management’s webpage announcing the lack of existing Sea Sami culture (and hence the lack of need for concern of non-sports fishing uses of the salmon) became a “mammoth”, and can no longer be found on their webpages, unless one really wants to. In this case, the Directorate did not succeed in making one nature appear apolitical since sufficient amounts of very articulated people did not support the bureaucratic extermination of the Sea Sami. The existence of an alternative narrative, the Sea Sami rights narrative, served to naturalise human–salmon relations instead of the sports fishing narrative drawn up by the Directorate.

We find similar stories of political controversies also in Law’s writing (2004b). His article about the foot and mouth epidemic in the UK in 2001 draws upon similar competing models between the



common good and the relevant collective; involving assumptions of the relations between centre and periphery, local and national interests, and knowledge (Asdal et al. 2008: 8). As in the case of the UK governmental response to the Foot and Mouth epidemic, my Sea Sami/sea salmon controversy included a similar kind of

structural failure. Such an unsuccessful attempt can be explained by its excessive compliance with the documents produced by the government itself, and the lack of social reflexivity or understanding that their summary of the research report could not make an indigenous group disappear.

Conclusion

By following the trails of bureaucratic documents produced in the course of natural resource management stories, I have traced how new natures and new kinds of Saminess were brought into being. I am aware of the disadvantages of this kind of work. Although there is a larger community of ANT-inspired anthropologists out there with an interest in documents and bureaucratic procedures – for instance Strathern (2000), Riles (2006), Pottage and Mundy (2004) –, this topic is often claimed to be dry material and not as appealing as other kinds of anthropology. Furthermore, bureaucratic practice is also difficult to translate from one language to another. In this case, it is challenging to describe Norwegian bureaucratic practice using a vocabulary that works in English.

My articles show how in different bureaucratic processes what is circulated – bits of texts, legal documents, numbers, and citations – can become part of different narratives. Some will remain and others disappear, but likewise, they could reappear as part of the same or other controversies. In these bureaucratic practices, circulation is important in itself. We all know the saying: "Just because you are paranoid doesn't mean there isn't someone trying to get

you". There might be reasons to be paranoid, but documents, laws, conventions, and policy documents also contribute to their own circulation. Moreover, there is more to the production of winning arguments in a controversy than succeeding in naturalising, to make singular by using bits of texts and numbers. As I have illustrated, not any kind of outrageous argument works (although some do), even if they might be connected to the right issue. Narratives must also be consistent and make sense in connection with other competing narratives.

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WRITING RADICAL LABORATORY ANIMAL HISTORIES

by Tone Druglitrø

In recent years historians have called for a radical historicizing to broaden the perspectives, stories and actors that are usually made subjects of historical investigations. The appeals have mainly come from scholars that have been concerned with historicizing nature and human-nature relations. But what does radical historicizing entail and why do we need it? The article presents a reflexive review of current methods and perspectives in the social sciences and humanities that have affected my own engagement with the history of laboratory animals in Norway. It presents an argument for doing historiography that reflects contemporary scholarly concerns on representation. Rather than seeking to “give animals histories of their own” I propose that radical historicizing should include writing histories of the entanglement and disentanglement of humans and other things and beings. This does not then involve a shift to writing animal stories for the sake of animals, but to write stories where humans and animals are considered mutually shaped and affected by each other, and how these interactions have world-transforming effects.

Keywords: historicizing, actor-network-theory, human-animal relations, laboratory animal science

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Introduction

In recent years historians have called for a *radical historicizing* to broaden the perspectives, stories and actors that are usually made subjects of historical investigations. The appeals have mainly come from scholars that have been concerned with historicizing nature and human-nature relations. But what does radical historicizing entail and why do we need it? In the anthology *Representing Animals* (Rothfels 2002) Erica Fudge, cultural historian of human-animal interactions and renaissance offers a left-handed blow to past and contemporary historicizing of animals. In her essay Fudge challenges us to rethink historical work involving animals and to consider what ethical work is performed by a "history of animals" that on the surface appears to be just another aspect of human history. What are the problematic aspects of animal histories Fudge is alerting us to? What does she mean by the history of animals appearing as only aspects of human history, and how does it relate to the historians ethical responsibility in the present? How are we to write animals in historical work?

The calls for radical historicizing propose *reflexivity* in our studies involving animals; that is, to reflect on how we engage (or fail to engage) with animals in the histories we write and how we engage with them in relation to, situated in and as part of ongoing debates and controversies involving animals. This is not only important because of disciplinary reflexivity but also, Fudge argues, because "the history of animals is a necessary part of our reconceptualization of ourselves as humans" (2002: 5). In this way she invites a shift from human-focused histories to histories where animals are placed next to humans. Radical historicizing thus involves a commitment to reformulate methodological assumptions and implications for how non-humans are or should be included in our studies. Such methodological concerns on historical writing have

been presented and deliberated in the fields of STS and history of science represented (in addition to Fudge) particularly by Asdal (2011), Haraway (1989) and Latour (2005). Even though all of these scholars, including Fudge, are concerned with constructions and materiality and how representations are inherently linked to materiality, the latter three mobilize a somewhat different version of radical historicizing which involves specific methodological commitments on how we are to widen the scope of who gets to be enacted as part of our stories and in what ways.

In this article I seek to build on Fudge's call for radical historicizing, but place her arguments in dialogue with methodological assumptions developed in the fields of STS and history of science. I will do so by discussing methodological and theoretical strategies in my own work where I have traced the development and establishment of a laboratory animal science industry in Norway in the period 1950s to the 1980s. Further, I will highlight and discuss work I have drawn upon and been inspired by to reflect on the methodological resources offered by STS and history of science for doing radical historicizing. Thus, the article presents a reflexive review of current methods and perspectives in the social sciences and humanities that have affected my engagement with the history of laboratory animals. It presents an argument for doing historiography that reflects contemporary scholarly concerns on representation: Rather than seeking to "give animals histories of their own" I propose that radical historicizing should include writing histories of the entanglement and disentanglement of humans and other things and beings. This does not then involve a shift to writing animal stories for the sake of animals, but to write stories where humans and animals are considered mutually shaped and affected by each other, and how these interactions have world-transforming effects.

"Animal histories" – wanted utopia or not?

Animal histories have often been deemed impossible as they fail to include the two fundamental ingredients of history: *text* and *temporality*. Animals do not leave documents that capture their histories and they do not have a sense of time as we humans have. Rather, they have tended to be "used" in historical accounts to show something particular about human practices and worlds and as such made into powerful symbols (with an emphasis on symbol rather than "real"). In reality then the history of animals has been the history of human attitudes towards animals (Fudge 2002: 5). Fudge identifies the problem of animal histories as linked to the discussions within history between *empiricism* and *post-structuralism* where the former believe that the past is recoverable to history through an objective analysis of its documents, while the latter sees history as constructed. The difference affects how historians can know and understand the past (2002: 6). This is a very important point and is as I see it at the heart of disciplinary debates

on the subject of history in general: How to reconstruct the past that fits reality the best. For instance, the distinction presented by Fudge sounds familiar when thinking of the debates on the relationship between STS and history of science foregrounded by Lorraine Daston (2009), Sheila Jasanoff (2000) and Peter Dear & Sheila Jasanoff (2010).

The history of science have been more in line with the empiricist approach in that they have been concerned with understanding science on its own terms, in specific historical moments, by attending to its practices. STS on the other hand follows the constructivist approach (or we better call it a post-constructivist approach as it should not be mistaken with social constructivism, see Asdal 2003). Studies in STS have shown that by regarding science as a set of cultural practices we also need to reject notions that scientific and technological development work as cumulative evolutionary



processes; Science and society is shaped in contingent, local, and specific practices. Further, STS is influenced by critical traditions such as feminism and other social movements. This has involved the promotion of critical questions such as what stories are told by whom and of who, and assertions that there exist other promising realities in addition to science, challenging and shaping scientific development. Tracing practices and heterogeneous actors will offer more forceful representations of how science works and how it is organized and accepted in society. From an actor-network-theory (ANT) perspective we would ask: Is there only one reality? Is the past made up of one real history? Isn't it plausible that rather than one real story there are several (often incoherent) histories to tell depending on the questions you ask, the actors you follow, and the connections you trace?

When investigating the efforts of establishing a laboratory animal science industry and producing particular laboratory animals, I attended to a large and heterogeneous body of texts. I often felt like the hard-working, trail-sniffing ant Latour talks about in *Reassembling the Social* (2005: 9) when "knitting" the history together from blueprints, notes, White papers, letters, books, pamphlets, reports, bulletins, newsletters, academic publications, comic strips, photographs and so forth. Latour reminds us in his (re-)introduction to ANT that it was never meant to be a theoretical model and those who relate to it as such have a tendency to misunderstand the real potential of ANT; ANT is an empirical method: "...the historical name is 'actor-network-theory', a name that is so awkward, so confusing, so meaningless that it deserves to be kept... I was ready to drop this label for more elaborate ones...until someone pointed out to me that the acronym A.N.T. was perfectly fit for a blind, myopic, workaholic, trail-sniffing, and collective traveler. An ant writing for other ants" (p. 9). Knitting "my" story together involved a constant tracing of connections between people, things and animals. Sometimes the animals could be present in the texts even though they were not mentioned or easily identified. For instance, in the statistics based on the distribution and care of laboratory animals or in the blueprints of the animal house. In other texts there were elaborations on different species of animals or concerns regarding the housing of the animals. Further, some texts were interesting to analyze not only by content but also by form, such as the bureaucratic make up of the Animal Protection Act (1974).

The methodological principles offered by ANT enabled an "ethnographic" approach to doing historical investigations through texts in similar ways as anthropologists do real-time research and observations. Interestingly, STS scholars have made the statement of "follow the actors" a mantra for doing real-time research but have missed the opportunity to think of this in terms of historical work. Kristin Asdal has pointed to this in a recent article in *Science in Context*, where she proposes that ANT can be read as a way of investigation that "ought to be cherished as the historian's method"; Even if historians have tended to see "context" as their most precious tool, whereas the trademark of actor-network theory has been the opposite, namely to contest context (2012: 381).

What Asdal proposes is to turn the conventional historian's way of working on its head, as does Fudge. However, drawing upon ANT resources Asdal is more explicit about how to go about doing this. She claims that we can just as well trace practices by attending to texts as we can as ethnographers following the actors in real time. In a recent book *Tekst og historie* (2010) she and other humanist scholars illustrate how texts are not only material objects, but must be read generously as events, as actions, as ways and means of changing the realities in which they are made part of. Asdal has shown how this works as an extremely fruitful method in her book *Politikkens natur - naturens politikk* from 2011 where she tells the story of Norwegian controversies on different nature issues by attending to the interlinked practices of science, politics and the public. By mobilizing ANT as an empirical philosophy that helps her to trace how actors come together and form different nature objects, she is also able to trace how these different assemblages enact different, but related, contexts/versions of reality.

If we look at studies working at the intersections of history of science, STS and cultural history they have been very concerned with overcoming the issues of merely *using animals* by taking into account the mutually shaping material and semiotic practices in which animals and humans interact. In studies of laboratory animals/organisms this has been particularly evident. I pay much of my debt to these studies in terms of providing perspectives on standardization practices in science: For instance, Robert Kohler's (1994) book on the *Drosophila* fly and the development of genetics in T.H. Morgan's laboratory reveal the material practices of the laboratory and the work that goes into standardizing an organism for science. Kohler's objective is not primarily to write a history about the fly however the flies are given attention in his book as curious research materials for Morgan and his team. Kohler tells the story both to say something about the nature and norms of scientific work and organization of work and to say something about the emergence of genetics as a particular scientific discipline dependent on the fly. Still, a relevant critique of Kohler is that the fly is left to do the dirty work in the dark corners of the story, while others like T.H. Morgan gets the leading act as hero.

Karen Rader (2004) has in similar ways told the story of the JAX mouse and the work of CC Little in standardizing and establishing the world's first trademarked strain of laboratory mice. Rader is more conscious about how she represents the mice in her book, for instance by showing how the breeding of mice were linked to cultural practices of mouse fancying and that the meeting of cultural practices and science was central to producing the standardized mouse. By making a link between cultural and scientific practices, the mouse is portrayed as the complex result of negotiations between heterogeneous actors (including the mice themselves). The mice is highlighted in Rader's story as the heroes, however are given the role as understudies in the narrative. While Rader proposed the JAX mouse to represent a standard that were carried as a rallying symbol for genetic science, she did not consider how and when particular version of the JAX mouse was present and when it



was not. What is often left out in the narratives are explicit reflections and considerations of how the animal enters or disappears from the story – when is it at the center, when is it decentered, when does it matter, and in what ways? Taking these aspects into the narrative tells us something about the animal and the different human-animal relations in particular moments and situated practices, i.e. *what humans and animals are in their multiplicity*.

Robert G. W. Kirk (2005) was particularly concerned with the issue of what a laboratory animal is in his thesis on laboratory animal science in the UK in the period between the 1930s and the 1970s. Kirk head on criticizes current sociological and historical research on laboratory animals and their depiction as deindividualised technologies in science. Sociological as well as several history of science studies have been satisfied with concluding that animals turn into technologies when entering the scientific laboratory (i.e. Birke et al 2007; Lynch 1988). The consequence of this these studies claim, is that animals are deprived of any moral status in the laboratory, thus the natural animal disappears and all that is left is technology. Kirk challenges these conclusions in his thesis by showing how laboratory animals were far from deindividualised technologies in the making of large-scale public health research programs in the 1940s. He show how new standards of laboratory animal quality became

interlinked with new standards for welfare that helped individualize the animals. Each animal needed careful construction and attention in order to perform well as a laboratory animal. Kirk however ends his story before he can show us how the individualization of the animal was done in practice. What work does an “individualized laboratory animal” do, compared to, say, a deindividualised?

All of the above histories of animals are really stories about something more than the animal. In her essay Fudge emphasizes the value of attending to the material practices and use of animals throughout history: “it is in use – in the material relation with the animal – that representation must be grounded”, she writes (2002:7). Maybe the crucial question then is not if or how the stories of animals are animal histories or not, but rather what kind of questions and approaches are needed in order for us to include animals in our histories that reveal the crucial importance of animals (both philosophically, socially and materially) in the making of our realities. In her work Haraway (e.g. 2008) invites us to understand animal and human histories as co-entangled and co-emerging, as *modes of becoming with*. In such a view, animal histories per se represent a utopia that is not wanted because what we should do is rather to tell animal stories in interaction with humans.

Transforming humans and animals

Drawing upon STS and history of science studies, radical historicizing has in my own work involved a concern with how human-animal practices emerge, how they are made sense of, and how spaces and contexts of human-animal relations have been shaped and organized by these interactions. I have traced the establishment of a laboratory animal science and industry in Norway between 1950s and 1980s. The aim of the project was to understand what a laboratory animal was and how it was transformed in a particular historical practice. The research questions were framed around the animal however directed at the human practices in which animals were involved. I sought to understand how the practices of using animals in biomedical research had been shaped and maintained over time; what were the challenges, and what values were integrated in the practices of producing, caring for, and using animals for research?

The question of *what is a laboratory animal* thus pointed to a range of other technoscientific, cultural and historically situated processes including humans, animals, politics, technologies, and scientific methods and theories. For instance, the establishment of a laboratory animal science industry was intrinsically linked to public health politics such as the testing and control of vaccines and industrial products, and diagnosing diseases. These public health programs became increasingly based on animal experimentation as animal experimentation had become intrinsic to the practices of biomedicine (that is, the combination of biology, veterinary and medical sciences) during the past decades. Scientific knowledge production in the biomedical sciences was seen as a crucial part

of clinical practices, and clinical practice was increasingly based on work in the laboratory. The need for purpose-bred laboratory animals was pressing as many scientists used animals that had unknown origin and history of health and disease, and experiments were deemed to be unreliable as the physiological and pathological processes in the animal had not been controlled from the start.

These unknown factors challenged how scientists could know what really affected particular experimental results. Routine testing and production of vaccines and diagnosing disease involved repetitive experiments and comparison between a body of animals of more or less identical genetic and pathogenic composition. This meant that the animals needed not only to be of known origin, genetic and pathogenic composition, but also to be procurable on a large scale. Thus, close to identical animals were needed in vast numbers. Trying to meet the emerging needs of identical animals generated national and international efforts to standardize animals both genetically and pathogenically. The animals that were produced for use in routine science came to be known as *specific pathogen free animals* (SPF), which was a term that specified its standard of health and value as laboratory animal.

To investigate the transformation of laboratory animals in these processes I based the analysis on insights from STS (including actor-network-theory) and history of science, in particular Bruno Latour (1996) and Adele Clarke (1987). I start the story by investigating how laboratory animals became established as crucial tools



for science and how the scientists worked towards establishing a laboratory animal science industry, in particular the building of a large-scale production unit for standardized laboratory animals. Latour's book *Aramis, or the love of technology* (1996) has been particularly helpful in conceptualizing how a technological project develops (or fail to develop) from vision to reality and the negotiations and challenges involved in realizing new technoscientific objects. Together with Clarke's work that emphasizes the importance of attending to not only the objects of science, but also their *infrastructural arrangements*, Latour's work and other STS studies have brought the technology to life in the study in terms of recognizing its importance for the realization of scientific knowledge

production in the first place. The concept of infrastructural arrangements includes not only the architectonic aspects of science (such as the lab or the animal house), but the research materials, theories, methods, instruments and so on. All of these aspects are part of the infrastructural arrangements of producing science and they are interlinked in complex ways. Even the laboratory animal is part of the infrastructural arrangements (see also Fujimura 1996), exemplified by the significance of maintaining SPF standards, in a way that they were at the same time intrinsically constitutive of the infrastructure and strangely hidden by being one element among a myriad of necessary tools, people and machines.

The role of infrastructures and practices of care in laboratory animal science

The Norwegian scientists had already in the early 1950s recognized that a central part of performing disease control was to have proper infrastructures for housing and care for the animals. Housing and using SPF and other specifically defined animals, the control of hygiene became intrinsic to the practices of the animal house. The animal house came to be regarded as an extended part of the laboratory. A constant tinkering was going on to adjust the technological and human infrastructures to the maintenance of the animal's health and quality as laboratory animals.

As the care of laboratory animals became increasingly regarded as a crucial part of scientific knowledge production, new personnel were trained to meet the new standards for laboratory animal husbandry. I argue that the practices of care and the caretakers (animal technicians) became part of the infrastructural arrangements of laboratory animal science. The animal house became dependent on establishing a standard for skilled care performed by the animal technicians as part of a scientific team. Skilled care involved knowledge into the disciplines of biology, veterinary medicine, anatomy, physiology, epidemiology, but also knowing the individual animal in order to identify when the animal was healthy and when it was not. Further, it involved technical skills such as keeping filing systems recording the animals' age, weight, and health, taking routine tests, keeping animals stress free and even killing diseased or "left-over" animals. The practices of caring were thus intimately linked to the goals of maintaining the animals in line with the laboratory animal standard (SPF), and emphasized the role of the animal and the animal technicians as central parts of the practices of producing science. This does not mean that laboratory animal science was an exclusively calculative practice; that the care practices and knowledge production of the animal house and the laboratory were standardized and thus made no room for practices defying the rigid regime of health.

Recent studies in feminist technoscience have on the contrary helped us understand scientific practices and knowledge production not only as calculative but involving unexpected situations that require tinkering and attentiveness (i.e. Mol 2008; Haraway 2008). In this

view tinkering is part of calculation practices and challenges the idea of calculative regimes as perceived in the conformist, technocratic sense of the term. Ruth Harrison's (1965) description of animals as machines in the emerging modernized food production systems in the 1960s is both fitting and not. The laboratory animals can be described as machines constructed to do particular tasks, however to maintain them as useful machines required responsiveness and attentiveness by the animal technicians. The human-animal relation then – the ability of animal technicians to respond to and learn from the animals to keep them healthy – was integrated in the practice of producing and keeping laboratory animals as well as producing reliable science. The technicians were expected to perform multiple forms of caring to maintain practices of calculation.

By attending to how infrastructures were built and practices of care developed and organized inside of or integral to these infrastructures, I was able to trace how the animal was transformed and how it was both an effect of and affected the practices of laboratory animal science. I argue in line with Haraway (2008) that in constructing a standardized laboratory animal science practice, the animal was made into a co-worker; laboratory animals became working animals that needed attention and caring and the animal technicians needed thus to know the individual animals. Even though the housing and use of animals were highly regulated in terms of hygienic concerns and reliable scientific knowledge production, these instrumental relations should not be seen as reductionist in the conventional meaning of the word (e.g. Haraway 2008, Fox Keller 1983).

Relating to the animal as technology in the laboratory can actually mean the exact opposite of this: The animal as technology is more valued in this particular setting than the animal that is not. Tresselt (2011) also points to this in her master thesis, where she show how the utility and use of the laboratory animal helps constitute the animal's value and identity; not just because animal technicians know that their use (possibly) has wider positive consequences in terms of health objectives, but also in order for the animals to perform their so called "labness". By combining the reading of newsletters, animal



house reports, and scientific and political guidelines and regulations for animal care, and the reading of work in feminist technoscience on care and technology and human-animal relations (i.e. Mol 2008; Mol, Moser, Pols 2010; Haraway 2008; Holmberg & Ideland 2009), I argue that the animals were constituted as both technologies and natural beings, and that these aspects were intrinsically linked. Even though I wasn't able to observe animal technicians using, handling, and caring for the animals in real-time, I was able to trace how care practices were organized in the animal house and how different forms of care and welfare concerns became part of the scientific practices of experimenting on animals.

For my work the feminist perspectives has drawn attention to the links between organizing bodies and relations and scientific standards and politics of health. They have activated my way of engaging with the material; my way of reading and interpreting the story. It allowed me both to conceptualize and describe the practices of the animal house but also to be attentive to the importance of care as part of the work of standardizing laboratory animal science in the first place and how these mundane practices of science were both innovative and constitutive of public health work.

Paying attention to the texts available to trace these connections were also valuable clues to the status and role of animal technicians and laboratory animals. Even though expertise on husbandry and care practices came to be highly valued in the system of public health science, the animal technicians are as silent in the texts as the animals. Their silence, that is, their absence, in the texts as narrators that make insight in the practices of the animal house possible for the historian, makes for speculative historicizing in many

respects. However, as feminist scholars and historians alike have shown, considering the importance of what is not present has an analytical value in itself; it can be indications of the low status of animals and animal technicians in science compared to scientists even though their importance were proved and argued for again and again. This further emphasizes the multiplicity and tension that embodied the standardized laboratory animal.

A combined attentiveness to how work in the animal house was organized and the texts available to reconstruct the negotiations and strategies for doing so, proves to be fruitful to understanding how animals were transformed into compound standards for public health science (as well as in relation to the public concerns on animal welfare, see below). Further, looking at the practices of care and organizing life invites insights to how different welfare concerns developed. Failing to pay attention to such other alternative and perhaps more promising realities, leaves them, as Ingunn Moser has argued, "unrecognized, and so become disarticulated and made absent, and in consequence, become weaker and less real" (2011: 707-708). By combining the ANT approach of trail-sniffing with perspectives from feminist technoscience on how practices of care and tinkering have world-transforming effects, these mundane practices of science became visible and significant. The fruitfulness of attending to mundane practices was particularly evident when investigating the emergence of laboratory animal science as the concerns that presented themselves in care practices could be traced all the way from the infrastructural and practical aspects of housing, the quality and morals of science and society, and the politics of public health; thus, linking humans and animals together in multiple, intricate and experimental ways.

Understanding the controversy of laboratory animals in science and society

In writing the history of laboratory animals in Norway it was thus necessary to do a double tracing: One of the material practices of the animal house and the laboratory, and the other on how the technoscientific spaces of science were envisioned, built, and organized for public health. Following the animal and how it was organized and made sense of in these different modes of ordering, led me to conclude that the animals were in fact constituted as compound welfare standards as their composition and use depended on multiple forms of care and welfare concerns; animal welfare, public health and welfare, and reliable scientific knowledge production. The materiality of the animal – that is, the genetic and pathogenic composition representing a particular standard of health – became intrinsically linked to the standard of health in the general public and the standard of Norwegian science. To establish a link between human and animal welfare was crucial also in terms of legitimizing the practice in the general public.

Animal experimentation has always been a contested practice, and has regularly been subject to controversies between scientists and parts of the public. By asserting that laboratory animal science

was a practice intensely concerned with both human and animal welfare and was driven by scientific expertise and technoscientific infrastructures, scientists were during the 1960s able to constitute the practice as a fundamentally welfare-oriented endeavor. Despite this rhetoric, critical outcries to the use of animals in experiments escalated during the 1970s in Europe and the US, and ideas of animals having rights were put forward as strategies for protecting animals against being inflicted unnecessary pain. In Norway animal rightists challenged the emerging practice by accusing scientists to be driven by a pure logic of the mind rather than a more sympathetic "logic of the heart". Fostering sentiments that were only linked to the rational mind were dangerous and challenged people's abilities to care for not only other than humans but also fellow humans, the rightists claimed. The issue of animal welfare and rights were according to the critics of animal experimentation a matter of concern in line with discrimination based on race, poverty, and gender. The scientists responded by pointing to the successes of animal-based science as well as the expertise and infrastructures of science, and how important animal-based science was for ensuring prosperity and health. In this view, and by law, the animal's pain did not



outweigh the gain as long as the pain could be alleviated or controlled by skilled care and husbandry practices.

Rather than understanding the conflict as stalemate in a non-productive way, I have argued that the science-public interaction on the issue of laboratory animals have (re-)enforced the rational combination of welfare and economy proposed by the scientists. As the scientists could point to a powerful materiality, the animal rightists could not provide technoscientific solutions to the challenges of public health, and thus were deemed to propose unpromising and unviable futures (Druglitrø 2013). STS and ANT resources have been particularly useful to trace the connections between intersecting modes of ordering laboratory animals and to understand how laboratory animals are given multiple (but

partially connected) identities in the controversy, but also how, as Fudge has argued, the centrality of practices of ordering animals in human societies to the reconceptualization of ourselves as human beings.¹ The story of laboratory animal science in Norway is a radical history of the making of the Norwegian welfare state in the aftermath of the 2nd World War, narrated by attending to how humans and animals are co-constructed at the intersections of scientific, public and political actors. The practice of using animals in medical science has been and still is central in generating questions of how to live with animals, how to use animals, and how to link animal bodies to human bodies, thus being highly productive in forming our ideas and practices of human-animal relationships and human-animal natures.

Radical historicizing as attentive historicizing

To conclude I want to pick up on where I opened this essay, by attending to the call for radical historicizing. I agree with Fudge that there is a need for radical historicizing in terms of including animals and nature in our studies of the social, and to be explicit about it. The history of animals is not merely a trend in the ever-widening reach of historical scholarship; it is much more than that. It is a development of existing debates in the discipline and the social and humanist sciences as well as in human relationships to nature, emphasizing the situatedness of both author and subject matters (Fudge 2002: 5). Even though radical historicizing seems somewhat different from an ANT perspective than from a cultural historian's perspective as proposed by Fudge, the difference should not be overemphasized. Fudge's point about radical historicizing is descriptive of what I have tried to do in my work. That is, to bring an engagement from the present into historical events and issues. A historian has as its job not only to "recapture" the past, but to mobilize the past in order to have impact on issues of the present, for instance such as the massive scale on the use of animals today in science and food production. However, Fudge claims that this could only be done at the expense of the human, by placing the human "next to the animals, rather than as the users of the animals" (p. 15). Radical historicizing from an ANT point of view would be to start from a symmetrical standpoint, as also Fudge proposes, but not at the expense of the human; to write radical histories would not be at the expense of anything (so to speak), as it would be concerned with assembling the matters of concern and materialities in a particular historically situated practice, and trace how these assemblages produce particular contexts or realities. The question of "who is empowered to act, and who is not?" is a better description of the starting point for a historical analysis mobilized by ANT resources (Harbers 2005: 14). Rather than being "managerial" as critics have claimed, I have experienced ANT to be quite the opposite; it opens up for what we can awkwardly call relational imagining.² That is, to imagine richer

worlds that can help us break worn-out patterns of experiencing and reasoning. Isn't this what Haraway means when she says that the coupled acts of writing and research is at the same time factual, fictional, and fabulated? (2013).

Fudge's approach is part of the same move as many other scholars working in social science and the humanities today are hoping for in terms of writing the histories and ethnographies of nature and animals. The urge to broaden current historiography including changing how we understand and tell stories of the past comes from many parts of STS, cultural history and the history of science. Geoffrey Bowker said so expressively in a talk at the KULTRANS conference Regimes of Temporality in Oslo in June 2013 that we need to change the stories of the past that we currently live with in order to transform the present and the future. Fudge's claim is the same, so is as I read them Asdal's, Latour's and Haraway's and others. Radical historicizing is to be attentive to whom we invite to take part in our analysis of past events and for what reasons. In the same way as scientists tinker in the animal house, attentive experimentation by the historian is necessary in order to provide rich histories and to take notice of the intricate intermingling of heterogeneous actors and worlds. Including animals in the history of science have proved to do exactly this, but could perhaps be even more radical if paired up more closely with methodological principles offered by actor-network-theory and science and technology studies.

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¹ For more on the science-society relationship and public engagement in science, see Irwin 2001 and Irwin and Horst 2010.

² For critiques of ANT see Amsterdamska 1990 and Elam 1999.



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NATURE AND TEXTS IN GLASS CASES

The vitrine as a tool for textualizing nature

by Brita Brenna

What can glass cases teach us about how nature is written or read? This article seeks to understand the work done by glass cases in Bergen Museum in Norway around 1900 specifically, and more generally how glass cases was an important tool for making natural history museums into textual media. In this article it is claimed that when we focus on how natural history museums manufacture culturally specific museum nature, it is a legacy of a reform movement that set out to “discipline” museum nature around 1900 in order to make nature legible for “everyman”. An important museum movement by the end of the nineteenth century worked to make natural museums into places where one could learn by reading, not by touching or engaging with the natural objects, qua objects. This insistence on making nature readable, it is claimed, should make us cautious about analysing natural history museums as texts.

Keywords: glass case, natural history museum, museum reform, museum nature

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Introduction

Natural history museums are institutions that have as their main rationale to make nature visible. They have, however, been analysed as sites for telling stories about nature. As Donna Haraway has shown so forcefully, these are stories imbued with moral and scientific authority. In her analysis of the American Museum of Natural History in New York Haraway insisted that natural history museums are storytellers that offer visitors carefully crafted stories about nature. More precisely she offers us a reading of the institution American Museum of Natural History, of the installation of the world famous dioramas, and of their creator Carl Akeley. She analyses the architecture and the ground plan of the museum, the ornamentation and exhibits, the dioramas and taxidermy, as meaningful signs that can be deciphered to tell a story about a particular crafting of nature. "H.F. Osborn, president of the American Museum from 1908-33, thought Akeley was Africa's biographer. This essay will argue that Akeley is America's biographer, or rather a biographer of a part of North America" (Haraway 1984-85: 21). In Haraway's reading, the museum does not first and foremost tell stories about nature, but about a culture that represents nature in particular ways.

After Haraway and other scholars who have analysed natural history museums, writing about these museums is not so much about writing about nature 'as such', as it is to write cultural histories of ways of representing nature. Nature in natural

history museums has been made visible by these scholars as a very particular form of nature which is thoroughly entangled with culture. According to science historian Sam Alberti, natural history museums do not contain nature, but 'museum nature'; a particular form of nature, made up of "the practices of collecting, preservation, and displaying certain things – animals, plants, fossils and rocks – and the conceptual and exhibitionary frameworks in which they are set" (Alberti 2008: 74).

The analyses of natural history museums as storytelling devices have given us important insights into how these museums work, how they craft particular versions of nature and Western relations to nature. However, the use of narrative and text as concepts for the analysis of these museums also begs the question of how these buildings – filled with stones and bones, furs and skins, glass, iron and stucco – can be reduced to storytelling machines. As I want to show in this article, when we focus on how these museums manufacture culturally specific museum nature, it is a legacy of a reform movement that set out to 'discipline' museum nature around 1900, to make nature legible for 'everyman'. An important museum movement by the end of the nineteenth century worked to make natural museum into places where one could learn by reading, not by touching or engaging with the natural objects, *qua* objects. This insistence on making nature readable, I will claim, should make us cautious about analysing natural history museums as texts.

Bergen Museum: A glass case case

Inspired first by Donna Haraway and later by the fast-growing group of scholars who study natural history museums, I have explored how 'museum nature' was produced in a local natural history museum in Norway.¹ Established in 1825, Bergen Museum is the oldest museum institution in Norway. Originally it was a universal museum, covering cultural history, archaeology, art and natural history disciplines, and it has had a long and successful history as a research institution. Especially in the latter half of the nineteenth century it was an important site for natural history research in Norway, and my research has focused on this particular period of its history (Brenna 2013, Eriksen 2009).

One of the peculiarities of this museum today is that the Norwegian Directorate for Cultural Heritage has signalled that they want to list the architecture and museum furniture in the monumental stone building which was inaugurated as a museum in 1867. This means, more specifically, that the glass cases, which are the main museum furniture in this building, will be preserved for the future, but it also means that they have acquired a specific status as objects of cultural value. The value of the natural objects that the glass cases were built

to protect has declined; that of the cases themselves has increased. Paradoxically, as the glass cases become heritage, the museum nature inside them is left to be taken care of – by the museum. The cases that were built for the natural objects are now detached from the objects and treated as pieces of architectural heritage.

Why, and for whom, are the glass cases important? What work do the glass cases do in Bergen Museum in the years around 1900? In this article I want to focus on one particular aspect of glass case work: The display of museum nature as a book to be read.

Today, glass cases are universal emblems of 'the museum'. They are signs of museum-ness, of a particular way of making things both visible and out of reach. In museum literature the glass case has often figured as a synecdoche, as a part that stands for the whole (see for example Henning 2006). In a long tradition of museum critique the glass case has been a metaphor for what museums do to objects. Museums, it is claimed, decontextualizes objects, severs their bonds to any original context, and taps them for monetary and use-value.² However, these critiques have a tendency to treat

¹ This article is based on my previous work on glass cases in Bergen Museum see Brenna 2013. For histories of natural history museums see in particular Beckman 1999, Thorsen et. al 2013, Yanni 2005.

² For decontextualization see de Quincy (2012). For the transformation of value-thesis see for example the influential definition of "a collection" developed by Krystof Pomian (1988:16).



the glass cases as 'black boxes'; self-evident museum features that do not need further investigation.

Looking back at the history of collecting and museums, glass and glass cases were not always the essential tools for display and storage. Historians of museums have shown how the interactions that took place in the museums changed from the eighteenth to the mid-nineteenth century, and I want to claim that glass technologies played a role in this change. "Solely viewing a collection was considered a superficial means of apprehending it," write Constance Classens and David Howes, about early-modern collections (2006:202). Visitors were invited not only to touch and smell, but to listen and talk. A collection could be a place for sociability, and visitors were there together with the caretaker or owner. Classens and Howes situates the transition from a multisensory to a purely visual museum practice in the years from the Enlightenment up to the mid-nineteenth century. This is the period when glass cases came to dominate the museums. However, Tony Bennett has localized the transformation of collections to the nineteenth century when collections increasingly were organized and labelled as texts set up to satisfy the eye. This was a sensory universe "in which the museum visitor is no longer to be engaged in conversation but is rather envisaged as an eye that is both detached from and placed before nature, as a reader before a text" (Bennett 1998:353).

Bennett's interpretation is that this sensory regime was intensified during the nineteenth century, in a constant struggle by the museums to distance themselves from popular forms of entertainment. The result was, however, not that museum invited the public to appreciate nature aesthetically, as pictures, but to stand before nature, as "a reader before a text," as quoted above. The natural history museums were at the forefront of this increased textualization. Perhaps nature threatened to be too unruly and was judged too difficult to decipher for the ordinary visitor? The glass case was a technology for making nature less multifarious, and the message could be controlled by turning nature into illustrations of texts. Might it be so that our willingness to read museums is a legacy of a project that intended to reduce nature to 'nature writing'?

How to read nature out of glass cases?

On the following pages I will present this change in the meaning and use of museum objects, seen, so to say, through the lens of the glass cases in Bergen. The glass cases are powerful in their

presence in Bergen Museum today, but also when one confronts the museum in old pictures, the physical presence of glass cases is strong. This is the typical impression we get from the pictures from natural history museums around 1900. However, "glass case" is hardly a word that functions as a searchable key in most museum archives. At a first glance, they are almost invisible in the internal notes and local correspondence in the archives of Bergen Museum, but they can be seen in the international correspondence. The local practice of building and producing the cases on site has left few traces. The international trade, on the other hand, can be studied through the letters to glass case producers, their marketing materials, and the reports from visits to the metropolitan natural history museums in Paris and London. Glass cases were international commodities, and museum technologies were international.

One important resource for researching the insistent but inert glass cases has been methods and concepts from Science and Technology Studies. The concept of the 'black box', as it has been defined by Bruno Latour, can be used to investigate the means through which glass cases have become such self-evident features in museums (see Latour 1987). One of the tenets in actor-network theory has been to inquire how facts are fabricated, and to follow the trails of how something is made into established knowledge. These rules of method gave me good reasons to start my studies by opening up the paradoxically well lit and transparent black boxes in Bergen Museum. A black box stands for and condenses a complex network. The smooth and transparent vitrines can be viewed as such complex ensembles that incorporate the work and the agency of a long range of different actors. Glass cases, as all black boxes, are difficult to decipher by merely looking. Made to be looked through, transparency is precisely their point. To understand the way vitrines work, it seems necessary to study how they came into being and to search for the different actors that have made them come into being. We need to make visible the networks and actors that make them stable.

One way to open the glass cases as black boxes is to follow the traces of the international networks that were at work in the museums around 1900. The glass cases in Bergen Museum can be studied as a complex ensemble of actors – some of whom acted at a long distance – and the trails can be followed to the furniture making, journals, and correspondence in other museums.

Dividing the museum, dividing nature

Glass can be seen as an important agent for the making of the public museum in the nineteenth century. New production methods and increasingly cheaper and larger glass plates helped museums become places where a large public in anonymous crowds could experience contact with natural objects.³ With the help of glass,

the objects could be locked up, safe from dirt, dust and the touch of visitors, who could thus move around the museum without constant supervision. Glass could be given the duty to organize the geography of the museum, to allow some bodies to access some spaces, and to prevent others. The most succinct example

³ For the history of glass in the nineteenth century, see Armstrong 2008.



of this comes from Thomas Huxley's 1868 design for a museum in Manchester (see Yanni 2005). His plan was ingenious in its use of glass as a physical boundary and marker of who was allowed to be where. One part of the museum was intended for the public, who could study the natural objects behind glass from their position in the public division of the museum. Behind these glass panes, the animals could be situated in safe distance from the public. So could the curators. In the curator's division, scientists and students could approach the stuffed animals and other natural objects freely. While the curator could move around at the backstage, able to handle and physically engage with the natural objects, the visitor could only look. Huxley's plan was not adopted in its full consequences in museum design in his own time. However, his plan to make only a small part of the collection visible to the public while the scientist could have access to the whole, was gradually realized in museums around the world (see Kretschmann 2006 for the importance of this reform in Germany).

This ideal of the divided museum, where the public and the curators were separated and had unequal access to the displayed objects, was important for Bergen Museum from the 1890s. In 1890, the curator of the botany department, later the secretary and in the end director of the museum, Jørgen Brunchorst, went on a study trip to Britain and France. He was deeply impressed by his visit to the newly finished natural museum in South Kensington. Two years later he proposed to rearrange the natural history department in the museum according to the new standards set in London.

Brunchorst had a special admiration for the glass cases in South Kensington; "they are quite elegant, but also very expensive, as mahogany, glass and wrought iron are the predominant materials used for desks, as well as for free-standing glass cases and wall-cabinets" (Brunchorst 1891:XV). These luxury items would be impossible to import to Bergen. The organization was more adaptable: the choreography of visitors, the curators, and the objects on exhibit. Brunchorst was inspired by the collections' systematic displays, separate departments for research, instructive and detailed labels, and the illustrations in the form of maps and drawings. In all the departments that caught his attention there had been "great emphasis on communication of knowledge to the visiting public; with an emphasis on forcing the visitors not simply to satisfy their curiosity, but really to learn something." This was even more so, he claimed, in the case of the 'introductory collection' in the hall of the museum: "... this collection is an elaborate and comprehensive text book in 'general zoology' and 'general botany'." (Brunchorst 1891:XIX). He described this as a text book paraphrased onto labels which meticulously described every specific object. The labels explained the

specimens, and the specimens served as illustrations for the labels, as Brunchorst described it. "After a thorough examination of one of these glass cases one has been taught many hours worth of zoology within less than half an hour," he exclaimed (Brunchorst 1891:XX).

The emphasis was on learning. Learning could be achieved by making a radical break in the institution – between the part devoted to science, and the part devoted to instruction of 'everyman'. Throughout the yearbook entry, Brunchorst stressed that the objects needed to be instructive for visitors and accessible for scientists. Following upon this, in 1891 Brunchorst presented, in a draft to his peers, a plan for the reorganization of the natural history department of Bergen Museum.⁴ Now some objects would be 'textbook material', others the basis for research.

Brunchorst had listened carefully to leading international voices, not least the director of the natural history department of the British Museum, William Henry Flower. In an 1889 address, Flower told the British Association for the Advancement of Science that "I believe that the main cause of what may be fairly termed the failure of the majority of museums – especially museums of natural history – to perform the functions that might be legitimately expected of them is that they nearly always confound together the two distinct objects which they may fulfill [research and instruction], and by attempting to combine both in the same exhibition practically accomplish neither." (Flower 1998:15) For Flower, putting a complete collection on display was as absurd as framing and hanging onto the walls all the book pages of the British Library. Hence he called for a strict separation between public and scientific collections. Or put in our terms – the collection was no longer a collection; it should be divided into an exhibition for the public and a study collection for the scientist.

The most pertinent points of Flower's argument concern the status and being of the natural objects in these two different realms. The research collection should allow for careful investigations of the objects, and the objects should be treated as books in a library, as references. In the public gallery, the number of the objects should be limited, "according to the nature of the subject to be illustrated and the space available." (Flower 1998:17) The exhibition object in the glass case was an illustration. As with Brunchorst, we see how natural objects acquired differentiated meanings: For the researcher the object was to be investigated, touched and smelled and handled. For the visitor, the object was to be seen at a safe distance, properly explained. The glass case would be the technology for disseminating the knowledge gained by touching and handling to the uneducated public. It should serve like an illustrated book

⁴ Bergen Museum Naturhistorisk avd. VIII D a 3, Brev 1891-1893, Statsarkivet in Bergen.

⁵ The principle points to be aimed at in the research collection was, Flower stated, "the preservation of the objects from all influences deleterious to them, especially dust, light, and damp; their absolutely correct identification, and record of every circumstance that need be known of their history; their classification and storage in such a manner that each one can be found without difficulty or loss of time; and, both on account of expense as well as convenience of access, they should be made to occupy as small a space as is compatible with these requirements." (Flower 1898:16).



where the text carried the intended meaning that the objects illustrated. "Above all," wrote Flower, "the purpose for which each specimen is exhibited, and the main lesson to be derived from it, must be distinctly indicated by the labels affixed, both as headings of the various divisions of the series, and to the individual specimens. A well-arranged educational museum has been defined as a collection of instructive labels illustrated by well-selected specimens." (Flower 1998:18) Here Flower cites the powerful and influential museum spokesperson and Assistant Secretary to the United States National Museum, George Browne Goode, who was particularly keen on labeling objects, but also on stressing the pedagogic potential of object-lessons (see Annual Report 1980, Bennett 1995 and 1999). Flower and Goode were museum reformers whose writings and practical museum work reached a large audience of museum professionals.

Brunchorst in Bergen approached The Smithsonian in Washington, after having read a report in their yearbook on glass cases, written by precisely George Brown Goode. Brunchorst's means of being abreast with the development of museum organisation and technologies were, as we have seen, travels to museums where the museum Flower directed became a model of emulation. Other means at hand in a province in Norway was to read museum reports and journals, and to correspond. Together with Flower, Goode came to epitomize the new museum politics and pedagogy in the last decades of the nineteenth century. For Brunchorst Goode's writings were not least important because he explained how glass cases should be built, how they should be installed and how they should be furnished to serve as instructors for the public.

For Goode, museum cases were active educators, and education was promoted as one of the main ambitions of a well-organized museum. The new museum building that opened up in Bergen in 1898 had two lecture halls, in addition to the large amount of glass cases. And glass cases were important tools for good museum education, as Goode stated it: "Each well-arranged case with its display of specimens and labels is a perpetual lecturer, and the

thousands of such constantly on duty in every large museum have their effect upon a much larger number of minds than the individual efforts of the scientific staff, no matter how industrious with their pens or in the lecture room" (Goode 1893:23). To fulfill this duty, the cases would have to be of glass, "the very best of glass in the largest possible sizes" (Goode 1893:23). There should be as little wood as possible and even the top – no matter what its size – should be of glass. Maximum glass would enable light to fall upon the objects in the largest possible degree.

The theory which had led to the development of the cases that Goode presented in the accompanying drawings was based on reading objects as texts: The manner of reading the case should be from left to right, and each panel should stand for itself, "like the page of a book". What is surprising is that Goode, who has become famous for his object-based approach to learning, relied so heavily on a textual approach to museum display. But he relied, as did Flower and Brunchorst, on the idea that education, which was the museum's fundamental idea for them, needed words for transmission, and that in the public museum, the objects functioned as mere illustrations of the knowledge that one could obtain from the written word. Thus, visible objects and translucent cases were important for making the public read. Museum labels would be the companion to better museum cases. "The art of label writing is in its infancy," wrote Goode, "and there are doubtless possibilities of educational results through the agency of labels and specimens which are not as yet at all understood." (Goode 1893:37).

In Bergen Museum, we can follow staff making new labels in the various parts of the museum, year by year, under Brunchorst's administration. What exact labels that were produced at this time is hard to ascertain, the point is that the work of first furnishing the building with good glass cases, and thereafter presenting the objects for the public with the appropriate labelling, was considered a task worthy of mentioning in the yearly reports of the natural history department of the museum; Goode's message had been received and the curators in Bergen were actively taking part in writing nature.

Conclusion: Glass cases as epistemological technologies

This nature came, as shown, in different forms. The glass case wrote nature with pedagogic letters, nature would be interpreted by the curators and presented to the public as an illustration accompanying a text. It is discernible how museum objects underwent a transformation in this period: from unique specimens to illustrations. But at the back of the museum, in the research collection, nature could exist in more variety, in larger series, and in many versions. There natural objects were research objects, and they were important as objects. Popular nature and scientific nature were thus divided. As we have seen, glass cases helped pave the way for the public museum as we know it, a place where a large anonymous crowd could gather in front of objects which could be seen without intervention. As museum reformers realized that objects needed

interpretation to be correctly read by a larger audience, they relied on texts in the form of labels, and the objects became illustrations of the texts. The glass cases became text-books.

I started by voicing skepticism about relying on textual metaphors when analyzing museum nature, because the exhibitions in natural history museums were crafted to be read. Nobody has claimed that one should abstain from analyzing Italian renaissance paintings symbolically because they are made according to elaborate symbolical schemata. However, one could claim that there are more to the paintings than symbols, as I would claim that there are more to natural history museums than texts. Donna Haraway has stressed the material-semiotic character of, among other things, the



taxidermied animals in museums (Haraway 1984-85). Her reading of the American Museum of Natural History involves more than reading it as text. She insists on the material and semiotic presence of the natural objects. This is also a way to read glass cases and I will claim, the work glass cases do: They are material-semiotic actors, and surprisingly they were actors that took part in textualizing nature in the late nineteenth century. My claim then, is that it is important to look at the material presence of glass cases to be able to see how they became important as textualizing technologies.

Labels and other texts are perhaps more obvious candidates to do research on when looking for how nature is textualized in natural history museums. So why the glass case? The glass case story from Bergen Museum presents reading as the privileged mode to present nature to a larger public in museums in this period and in

this the glass case served as an important actor. Both of these facts are surprising, and at odds with an understanding of museums as sites where one is confronted with the real material object. Today, glass cases are used to produce aesthetic effects as much as scientific facts. Glass cases are made use of to make the objects visible as material entities. In many instances they deliberately seem to produce cultural value rather than natural facts. Maybe this is the best answer to the question of why the Bergen glass cases are listed and not the natural objects that they protect: They have become visible as technologies that produce cultural value.

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'GETTING' THE POX

Reflections by an Historian on How to Write the History of Early Modern Disease

by Claudia Stein

This article reflects upon the recent return to linear history writing in medical history. It takes as its starting point a critique of the current return to constructivist ideas, suggesting the use of other methodological choices and interpretations to the surviving archival and textual sources of the sixteenth century pox. My investigation analyses the diagnostic act as an effort to bring together a study of medical semiotics. Medical semiotics considers how signs speak through the physical body, coached within a particular epistemology. There are no hidden meanings behind the visible sign or symptom - it is transparent to the calculative and authoritative gaze and language of the doctor. It concerns how diseases came into being, the relationships they have constituted, the power they have secured and the actual knowledge/power they have eclipsed or are eclipsing. From such a perspective, "getting the pox" is not a bad thing. A methodological turn to medical semiotics reminds us that the history of disease should be an inquiry both into the grounds of our current knowledge and beliefs about disease and how they inspire our writing, as well as the analytical categories that establish their inevitability.

Keywords: medical history, medical semiotics, constructivism

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Introduction

Something strange has happened in the history of disease. Not long ago, when socio-cultural representations were the rage, disease was the laboratory for all kinds of application of constructionist ideas. But recently the laboratory has closed. Today in the writing on disease we witness a silent return to the empirical, the material, and the 'real'. As Sander Gilman has observed, the study of health and disease as a time and space-specific representation has lost its allure, especially in Anglo-American scholarship. Indeed, the approach is increasingly disqualified as 'merely' the interest of a subjective history with no potential for more universal and transcendental meanings (Gilman 2011). Universal meanings or 'lessons' to be learned from the past are what now 'sells'; the premises of theories of representation do not. Many historians of disease, inspired by the new 'objective' technologies of medical science, such as genetic engineering and brain scanning, are at the forefront of this new move to 'the real.' A telling example is the multi-volume *Biographies of Disease*, written and edited by eminent historians of medicine.¹ In their stories of cholera, diabetes, asthma and so on, from ancient Greece to modern times, they embrace, wittingly or unwittingly, the old and worn method of retrospective diagnosis (Tattersall 2009, Jackson 2009, Hamlin 2009). We are back to linear stories of origin and continuity that the first generation of professional medical historians at the turn of the last century were so fond of, and through which they celebrated medical progress and ingenious doctors.

Like Gilman, I am disconcerted by this return, which seems ill-fitted to our post-postmodern times. Or, is it precisely because of our post-postmodern way of life that such histories of continuity and origin have new appeal? Could it be that they offer solace and a feeling of control and security in a world that fetishizes fluidity and constant change? Recently, in publications written with the historian of science and medicine Roger Cooter, I explored the possible reasons for this new empiricism and the problems it raises (Cooter and Stein 2013). Here I want to turn away from the methodological challenges of the present to reflect more on those of the past. Drawing on my presentation for the 'Writing Nature in the History of Medicine' lecture series at Oslo University in May 2013, I want to take this opportunity to re-engage with my earlier work on the history of the sixteenth-century pox to ask what methodological aims I was then pursuing, and why. As a social historian working on the history of disease in the 1990s, why was I so excited and challenged by constructionist ideas? And how did those ideas ultimately shape my choice and interpretation of the surviving archival and textual sources on the pox? At the end of this walk down memory lane I want briefly to return to the present, to reflect on whether constructionist ideas in the history of disease ought now to be abandoned in the light of the new essentialist claims.

What is the French Pox?

When I first encountered constructionist ideas of disease I was working on the history of an epidemic that spread like a wildfire across Europe at the end of the fifteenth century. Like the Black Death roughly 150 years before, this new epidemic took its victims by surprise and quickly turned them into rotting piles of flesh (Stein 2009). Contemporary German-speaking authors who commented on the epidemic had no doubt about who was to blame. They traced it back to a specific historical event: the invasion of the Italian peninsula in 1494 by the armies of the French king, Charles VIII (1483-1498). They believed that the disease (a divine punishment of course) first erupted among Charles' mercenaries, who at the cessation of the hostilities, returned to their respective homelands, thus spreading the new plague throughout Europe. In the German lands the disease was therefore labelled the French pox (*Franzosenpocken*), the French disease (*Franzosenkrankheit*) or, in Latin, *morbus gallicus*.²

Blaming someone other than God for the epidemic was one thing; but it was another to know how to confront it. Learned treatises in both Latin and German soon proliferated, presenting cosmological

and physiological interpretations, and offering various therapies. But the confrontation with the pox was not confined to the world of letters. As ever-greater numbers of despairing victims hammered at the doors of civic charitable institutions, begging for help, the southern imperial city of Augsburg, one of Germany's main trading centres at the time, was one of the first communities to practically respond to the new threat. In 1495, the town converted an old plague house into a civic pox hospital. This was then followed by the opening of two private hospitals in the city in 1523/24 and 1572, financed by members of the richest merchant-banker family in Europe at the time, the Fuggers.³ Treatment in all three hospitals was free.

What struck me as odd was that while the early modern medical literature and the surviving hospital records in Augsburg demonstrated that contemporaries struggled to come to terms with the nature of this unknown disease, the secondary literature barely recognised this. Instead the secondary literature identified the disease as venereal syphilis and confidently constructed its narrative around this biological 'fact', reducing it to one that focuses only on sexuality (Cooter 2013, Stein 2009).⁴ The belief that the

¹ The series was edited by William E. Bynum and his wife Helen. An exception to this tendency is the volume by Sander Gilman on obesity (Gilman 2009).

² It is probably little wonder that the pox were called 'Mal de Naples' in France. In fact, each European country had its own name for it (Bloch 1901).

³ For a detailed discussion of the Fugger family' endowment of the pox hospitals and the myths surrounding it, see Stein (2009).

⁴ One of the few exceptions is the study by Arizzabalaga et al. (1997).



French pox was in fact the sexually transmittable disease entity of venereal syphilis (a view that became hegemonic around the turn of the last century when the causal agent of venereal disease was first isolated in 1905 by the two German physicians Erich Hoffmann and Fritz Schaudinn) led historians to turn their attention primarily to archival and textual evidence that allegedly demonstrated the impact of the pox on sexual behaviour and moral attitudes of early modern European society.

This perspective fitted well with the widely accepted thesis at the time that proclaimed the 'birth' of the modern civilized individual during the Renaissance. Historians of syphilis argued that this process of individualisation was accelerated by the sudden appearance of venereal disease on European shores (Burckhardt 1990 [1878], Bloch 1901, Bloch and Loewenstein 1912). While sexual activity had been a matter of little restraint during the Middle Ages, they argued, the sudden arrival of syphilis made sixteenth-century contemporaries much more suspicious and cautious about the pleasures of the flesh. The closure of municipal brothels, the stigmatisation of prostitutes, and the abolition of the public bath culture – which are indeed reported in sixteenth-century European sources – were interpreted as direct responses to the sudden appearance of the French pox and its alleged influence on individual and collective human sexual behaviour, morals and values.

I have shown elsewhere how this 'sex-focused' selection and interpretation of sixteenth-century source materials on the pox was deeply shaped by late nineteenth- early twentieth-century concerns about sexually transmitted diseases which preoccupied not only the minds of the new medical elite of laboratory bacteriologists but also politicians and the public at large (Stein 2009, Sauerteig 1999). In Germany, for example, the discussion of the 'Lustseuche' (lust disease) as venereal syphilis was then named, and its perceived threat to the individual, the family, the state and the German race, was one of the central themes of social and political policies. Debates raged not only in the scientific community over its biological identity, but also, among the wider public.

The social roots of the disease, its dissemination, and how to measure it were all widely discussed with, ultimately, the regulation of prostitutes (the alleged chief propagators of the 'sexual vice') becoming the consensual solution. Syphilis hysteria was not peculiar to Germany. During the last decade of the nineteenth century doctors and lawyers, administrators, diplomats, church

leaders, representatives of ethical and humanitarian movements, and women's organisations from all over the world met at a series of international conferences to collaborate on strategies to solve the acute problems posed by syphilis and prostitution. The many contemporary 'histories of syphilis' written by medical practitioners (some of them bestsellers) offered a historical dimension to the perceived threat. Attention was paid to the origin of venereal syphilis and to different socio-cultural reactions to it throughout the centuries. The power of such histories of syphilis only ceased after World War II when the widespread introduction of antibiotics quieted fears over sex and disease.

With the advent of Aids in the 1980s, however, many of these deep-seated anxieties were rekindled, along with the old historical narratives. Perceived as primarily sexually transmitted, Aids initially challenged the post-war success story of bacteriology – indeed it put the whole bacteriological paradigm of Western medical science into question (Wolff 2012). Accompanying this was the rise of new 'histories of syphilis' and other sexually transmissible diseases, most of which simply repeated the old well-known old stories. As one author put it,

Then came the shock, at the moment when the Renaissance was beginning to unfold its petals into full bloom. The epidemic proportions of the new plague and the virulence of its effects turned the promiscuous habits of the time into a mortal danger. The bath houses were the first to suffer, and their closure was followed by restrictive measures directed against prostitutes and brothels in all cities of Europe'. (Fabricius 1994:17)

In retrospect I believe that my own interest in the pox was also initially sparked by the arrival of Aids and the challenges it presented to Western medicine. But the 're-emerging' of such worn narratives nevertheless troubled me. This was because since the 1990s the studies of early modern sexuality and prostitution that I had drawn on in my research had convincingly refuted these myths, demonstrating that the closure of bathhouses and brothels had little to do with the new disease, but in fact more to do with the increasing economic difficulties that beset brothel-owners, circumstances intimately linked to the propagation and implementation of new and stricter moral standards introduced with the Protestant Reformation (Roper 1991, Schuster 1992).

Histories of disease

However, the new 'histories of syphilis' in the wake of Aids stubbornly disregarded this scholarship -- the scholarship that I was then poring my heart into (see for example Quétel 1992). But even more interesting to me was their refusal to engage with major challenges in historical methodology at the time. I myself was then working through Foucault's ideas (Foucault 1973, 1989) and engaging with

ideas debated in sociology, social science studies, and the history and philosophy of science and technology that problematised the production of scientific knowledge. The proposition of this work was that the experience of disease, its recognition and description was indivisible from the practices and logic of its treatment and institutionalisation – in short, that it was socially constructed. This



was useful and challenging to think with, although I was probably not the only one bewildered by the great variety of views how exactly disease was supposed to be constructed (Hacking 2000). I also liked the political work these scholars were doing when they exposed the silent epistemological assumptions, hidden behind allegedly 'objective' knowledge-producing practices about disease such as laboratory experimentalism.

I began to wonder why historians of medicine, particularly those working on past diseases such as the pox, hesitated seriously to engage with the core ideas of social constructionism. Over the course of my research I gathered that this avoidance had to do with long-standing intellectual traditions in the history of medicine, which had been approaching the question of disease in history rather differently. One of the oldest and strongest of these traditions, reaching back to the turn of the last century when the history of medicine turned into an academic discipline, investigated disease from the perspective of public health. These historians therefore evaluated the impact of disease on individuals and populations. State policy was therefore their central point of reference. It is not difficult to see how the arrival of Aids revitalised this form of history writing on disease, which relied upon contemporary policy debate.⁵ Tracing individual and social reactions to specific disease over time, such narratives did not problematise the very object of their investigation, the disease itself. Rather, they treated it as a transhistorical and a stable category, while the socio-cultural reactions to it were represented as being in flux.

I detected a similar take on the history of disease among social and cultural historians of medicine, another strong tradition in this field of scholarship (Cooter 2006). Social history of medicine, originating in the 1930s but strengthened in the 60s and 70s through a leftist political agenda that critiqued and questioned power relationships in medicine, turned away from the progress stories of doctors and scientists. Its practitioners embraced 'a history from below', choosing heroes who had previously remained silent in medical history writing – notably patients, particularly women, that mad or the poor. But their narratives strongly focussed on the social reactions to disease: how knowledge about the disease under investigation came into being in any social context was not inquired into. Although medical sociologists in the 1980s and 1990s turned to the social construction of knowledge of disease it remained a minority interest among historians of medicine. Stronger was the compulsion to cultural history, triggered a move to literary and anthropological sources and methodological approaches.

In order to take into stock this new enthusiasm for 'culture' and the methodological changes that went with it, one of the doyens of medical history, Charles Rosenberg suggested replacing the category of 'social context' with 'cultural framing' (Rosenberg

1989, Golden 1992). His suggestion was warmly embraced by many Anglo-American historians of medicine, however, it was predominantly used as a smokescreen to continue what they had done before, namely focussing on the reconstruction of reactions to disease in the past.⁶ By and large, what past societies believed the physiological reality of a disease to be remained unexplored. The task was left to those specialised more in the history of ideas in science and the historical epistemology of natural knowledge.

With regard to the investigation of early modern diseases such as the pox, this was confined mainly to historians who had the necessary expertise in ancient languages and philosophy. Although a small specialised field of study, much interesting literature on early modern conceptions of disease stemmed from it, which took into account the complicated logic and rhetoric of medieval scholasticism and mechanistic philosophies related to the human body emerging in the sixteenth-century (Siraisi 2002, Maclean 2002, Nance 2001). I appreciated these studies because they did not write stories of continuity and origin, but rather underlined the incommensurability of early modern ideas of disease with today's views, particularly that of specific disease entities.

I was amazed to discern, however, that such works hardly influenced studies on the socio-cultural reaction to early modern disease, and vice-versa; for the most part they simply flourished alongside each other (see for example Wilson 2000). Moreover, it became apparent that the most challenging of the suggestions of social constructionism was not discussed, namely that in order to understand disease (past or present) we need to bring together theories of disease and technologies of its treatment with the wider-knowledge generating socio-cultural context in which they are situated. Any understanding of disease is a product of scientific thinking and practice as well as its multiple mediations in a specific socio-cultural space at a given moment in time.

My own work on the pox aimed at bringing together two as yet distinct fields of scholarship with their different ways of 're-constructing' disease in the past. How, I wondered, ought we to understand the socio-cultural responses to the pox in light of sixteenth-century medical discourses on disease causation, symptoms, and signs? I also wanted to know how the bodily experience of the pox and its treatment in a specific social space shaped and structured the intellectual thinking and writing about it. How could we get at, what I came to call, the 'negotiated identity' of the sixteenth-century pox? In order to explore these questions, I suggested turning attention to archival and textual materials that might highlight the very moment when disease identity was established in the public domain, that is, to the moment of the diagnostic act itself (Cunningham 2002).

⁵ In retrospect, it is ironic that it was also the time, when it became first apparent that 'the state', particularly in the Anglophone world, was preparing its retreat from its responsibilities regarding health and medical care of its citizens.

⁶ This is an interesting development because Rosenberg's suggestion of 'framing' was not a simple rejection of the challenge of constructionism. Rosenberg was aware of

the provisional nature of knowledge, particularly in regard to disease. He even pointed out that social historians of medicine had 'failed to focus on the connection between biological event, its perception by patient and practitioner, and the collective effort to make cognitive and policy sense out of this perception' (Rosenberg and Golden 1992:xvi).



With regard to pox in the fifteenth and sixteenth centuries, it was through the questions that were asked and answered at the time, the decisions made, and the actions that were taken during the act of diagnosis, that we might glimpse the negotiation of its identity. The investigation of the 'diagnostic act', I suggested, allowed bringing together the study of medical semiotics (that is the theoretical reflections on the meaning of physical signs) with the various practices in deciphering and treating physical symptoms at the bedside in a specific socio-cultural setting. Let me, by way of example, turn to such 'diagnostic acts' in the wards of the civic hospital in Augsburg. From this we can discern some of the potential of the study of the 'diagnostic acts' for the understanding of early modern diseases more generally.

In the early hours of a cold January morning in 1618 Philip Ess, accompanied by his wife, presented himself at the municipal pox hospital in Augsburg (Stein 2009). They were convinced that he was suffering from the French pox and had previously sought the advice of different healers. The hospital's medical team, a barber-surgeon and an academic physician, examined Ess' carefully in the presence of other witnesses. Ess turned out to be a controversial case. After having discussed his symptoms in great detail, the participants of the examination came to the following verdict: Ess' signs simultaneously pointed to the French pox AND to a disease that was identified as 'elefantiasis'. (In medical treatises at the time, the latter was classified as one of the four possible forms of leprosy). Because the signs that pointed to the French pox outnumbered those hinting at leprosy, the medical team decided that a cure in the pox hospital might be beneficial. Ess was then accepted to the male ward. However, only a week later he appears in the hospital record once again. On one of their daily rounds through the wards, his body had attracted the attention of the medical practitioners, and after having kept him under close supervision for a couple of days, they reached the verdict that his signs had morphed into unambiguous signs of leprosy. Their diagnosis triggered immediate consequences for Ess's institutional fate: considered a health threat to the other hospital inmates, he was immediately dismissed from the pox hospital.

From today's point of view Philip Ess's changing diagnosis strikes us as bizarre. But the surviving hospital archival material reveal that his body was only one of many in the civic hospital (and indeed in the two private ones run by the Fugger family) which harboured several diseases simultaneously and whose physical signs of the pox later developed into signs considered to be related to another ailment. In order to explain these phenomena of disease metamorphosis, we must turn to what stands at its core, namely the early modern conception of the physical sign. It is this specific understanding of physical signs, I argue, that allowed for a central characteristic of early modern medicine, its general flexibility and fluidity of disease definition and classification.

Today the term 'disease' refers to a pattern of signs that hang together and recur in more or less the same way, in successive

individuals. It is only the recurrence of a pattern of events, a number of elements combined in a definite relationship, chronological and geographical, which we label a 'disease' (King 1980). A disease consist of a congeries of different signs - no single sign, by itself, makes a 'disease entity', such as venereal syphilis, for instance. On this basis contemporary medicine tends to differentiate between subjective 'symptoms' that are only felt by the sick individual, and objective 'signs', which can be detected by another person (Wear 2000). The other person is usually a physician who is expected to organise the 'chaos' of subjective symptoms and to arrange them into a logical, coherent order, associated with a specific disease entity, and described in a medical textbook or visually represented in a medical atlas. Ostensibly, there is no hidden meaning behind the visible sign or symptom; it is transparent to the calculating and authoritative gaze and language of the doctor (Foucault 1973).

Our conception of physical signs of disease would have struck sixteenth-century contemporaries as extremely odd. For them disease and sign were bound together by structure of sensibility incommensurable to ours (Stein 2009). The most striking difference is that physical signs were relatively open to a number of possible meanings conceivably pointing in different directions. A sign was not restricted in its meaning as a signifier of a specific disease entity, but rather, could point to causes that, within the logic of sixteenth-century medical reasoning, were not necessarily related to disease at all. Signs could also point to the present state of the body (natural, non-natural, or even preternatural) at the time of the examination. Further, they possessed a historical dimension and provided clues about past or future physical experiences and possible developments of the disease in question.

The ultimate meaning of how physical sign related to disease had to be gained through the interpretation of its sensible qualities. A crucial consequence of this understanding was that it provided no space for a radical distinction between superior (in terms of truth value) 'objective' knowledge, owned by the medical practitioner and the (subordinated 'subjective') knowledge felt by the patient. Every diagnosis was inextricably bound up with the disease experience of the ailing individual. As put by one of the very few early modern social historians of medicine to focus on disease construction once put it, 'the description of the patient's subjective symptoms of feelings, the patient's story as it were, were made part of the description of disease...' (Wear 2000:128). Diagnosing was a complicated and subtle business that relied as much on the experiences, opinions and interpretations of the sufferer as on the professional expertise of the medical practitioner. In fact, the archival material of the pox hospitals in Augsburg revealed that the decisive moment which turned a sign into a sign of the pox was the encounter between the medical practitioners and the applicant in the examination room of the Augsburg civic pox hospital.

The narrative of the sufferer was crucial to making the physical signs 'speak'. This peculiar understanding of bodily signs, at least from our perspective, was ultimately couched in an epistemology



that was based on Aristotelian natural philosophy (Stein 2009). As for Aristotle all knowledge acquisition began with empirical sense experiences, the aim of all knowledge of natural things (including diseases) was to grasp their universal feature through deductive reasoning. In the Aristotelian sense a sensible sign physical therefore was not meaningful in itself but only tentatively pointed to something hidden, the invisible nature or essence of disease. This Aristotelian notion was supported and reinforced by the early-modern idea of a dualistic body, a major symbolic opposition in Western medicine from its first formulation in the ancient Greek Hippocratic treatises. Until far into the eighteenth century the human body was considered a place of hidden and secret activities. Only through the physical signs on the surface of the skin could a sick individual and his or her medical practitioners speculate about the secrets happening inside (Duden 1992).

This understanding was not restricted to learned individuals; it circulated widely among all levels of early modern society (Fissell 2004). The participants in the act of diagnosis at the civic pox hospital, although differing widely in their social and vocational background, shared similar fundamental views of the functioning of the human body to that of medical practitioners – a fact that often led to serious debates over the actual meaning of signs. One example from the civic pox hospital is that of Walburga Reuchart who had brought her three-year old daughter there for an examination (Stein 2009). The girl was a serious and heart-breaking case, her body covered in open lesions and ulcers and she was in terrible pain. However, Doctor Zeller and barber-surgeon Gablinger came to the conclusion that the girl's signs were not related to the French pox but rather to some kind of poisonous and infectious rash. They therefore refused Reuchart admission and advised her to present her daughter at the Hospital of the Holy Ghost (an odd decision, because this hospital was reserved for old people and strictly refused the admission of suffers with open lesions identified as infectious).

Walburga Reuchart questioned the verdict mainly because she had identified her daughter's lesions as signs of the pox. Although she was widowed and without any substantial financial means, she managed to obtain the supporting opinion of several healers in town, all whom confirmed her own suspicion, including the medical practitioners at the civic Holy Ghost Hospital. Walburga Reuchart's conviction of the meaning of her daughter's signs which, she claimed, had been gained through her own experiences with the pox, is but one example from the hospital records which suggest that sick and their relatives, the medical practitioners in the examination room at the civic hospital in Augsburg all spoke essentially the same language; they were equal partners in a 'unitarian medical world' which allowed them to negotiate the meaning of the bodily signs (Jones and Brockliss 1997).

However, the identity of the pox at the pox hospital, I argue, was not only shaped by the negotiation over shared knowledge of the

body and the natural world at the moment of the examination. The dynamic of the diagnostic act was also closely linked to the institutional setting in which it took place (Stein 2009). The civic pox hospital in Augsburg was part of a large network of institutions that, for historical, administrative and financial reasons, specialised in treating and caring different diseases and illnesses (leprosy, plague, old age-related ailments, surgical and so on). The definition and differentiation of these different physical conditions involved constant negotiation between the inmates, the appointed medical team and staff, as well as the civic authorities that oversaw the individual institution. In the case of the pox in Augsburg's civic pox hospital it took almost twenty years of intense and often furious debate between the hospital's two medical practitioners, with colleagues in rivaling institutions and civic authorities to define what the pox was and fix the respective responsibilities regarding its treatment. Only at the end of such protracted struggles, did the pox diagnosis and its cure come to rest authoritatively with the academic physicians. This triumph cannot be simply understood as rooted in academic credentials; it was also intimately linked to the physicians close links to the city's ruling elite (the majority married patrician women) that allowed them to influence major decisions in the area of public health. In my study I have shown that their rise to power had immediate important consequence for the ways the pox were conceptualised, diagnosed and treated in the civic hospital.

However, it has to be remembered that physicians' power over the pox diagnosis could never be absolute. Due to the specific understanding of physical signs, the diagnostic judgement reached during the examination of sick individuals such as Philip Ess or Walburger Ruechart's daughter was always a merger between the academic physician and the surgeon understanding and agreement of the patient's condition and the sick's (or his and her relatives') perception on the condition. The verdict was a picture of disease that seemed to all the parties involved to be a meaningful reflection of the sick's condition at a particular moment in time. Most importantly, it was understood by everyone involved that this verdict was not set in stone but flexible and could be altered if the diagnostic circumstances changed.⁷ Diagnostic results were ever open to question and to change, along with the authority of those who had reached them.

What do we gain by investigating the sixteenth-century diseases through the prism of the diagnostic act? Instead of 'transplanting into the past the hidden or potential existence of the future', as the sociologists of science Bruno Latour once described the methodology of retrospective diagnosis, the investigation of the diagnostic act itself takes the historicity of the human body and its functioning seriously (Latour 2000:250). What emerges is that the identity of diseases such as the pox was not fixed, but flexible, fluid, temporal and local. By linking both the specific socio-cultural environment in which these diseases occurred and were treated, and the world of early modern medical and philosophical reasoning about this

⁷ For cases in which the changing diagnostic environment produced different diagnostic verdicts in the very same individual, see Stein (2009).



disease and its relationship to complicated and multi-faceted interactions between the human body and the God-created wider world (the so-called micro-macrocosm), we can catch a glimpse at how utterly different the pox was 'made up' and that it cannot be identified with our modern disease entity of venereal syphilis.

The reconstruction of the diagnostic act estranges the past and thus undermines the idea of an invisible bond between the past and present, which most 'histories of syphilis' silently assume. No longer does the present appear as the necessary or inevitable outcome of the past.

Concluding Remarks: 'Getting' the Pox

Why is it important to keep on estranging the past in the history of disease? Why resist the old narratives of origin and continuity? Why not simply admit that the enthusiasm for constructionism, my own included, reflected a specific moment in Western academic thinking of the 1980s and 1990s, which has now passed. And if it is now passé, why not simply return to what most historians of disease have always done well, the socio-cultural reconstruction of the reactions to disease over time?

The reason why I resist is because I believe that it is only through histories of discontinuity that we can maintain to keep a critical distance from the scientific beliefs of the present. It is this distance that permits us to observe and investigate, for example, the current obsession with the neurosciences (that has begun to affect the way historians reconstruct the past).⁸ Foucault's genealogical approach, which encouraged attending to discontinuities in history, permits us, moreover, to investigate how such obsessions

come into being. Historical investigation into the history of disease should be an inquiry both into the grounds of our current knowledge and beliefs about disease (which inspire history writing) and the analytical categories that establish its "inevitability," that is, understand that the current discussion is itself an interpretation of reality, not reality itself. Historians of disease can contribute to such a history of the present by identifying the sources of current values about disease – how they came into being, the relationships they have constituted, the power they have secured and, most importantly, the actual knowledge/power they have eclipsed or are eclipsing. 'Getting' the pox, I'm tempted to say, is no bad thing.

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⁸ For a recent insightful debate on virtues and vices of neurohistory see *Isis* 105,1 (2014): 100–154.



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'THERE IS NOT ONE SINGLE THING THAT RESEMBLES THIS ONE.'

Writing human monsters in late eighteenth-century Spain

by Lise Camilla Ruud

The article discusses how a malformed set of twins turned into a museum object at the late eighteenth-century el Real Gabinete de Historia Natural in Madrid. Foregrounding the practices through which the twins transformed, it is made clear how museum objects result from de-centered processes. Two different enactments are discussed. The first encompasses the process by which the malformed set of twins transformed into a specimen of interest to the learned. The second enactment addresses how the twins were transported to Madrid through practices of charity. These two versions differed radically, yet they were intimately intertwined, and dependent upon one another.

Keywords: human monsters, eighteenth-century Spain, natural history, museums

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Introduction

On March 19, 1795, in the village of Rueda, Maria Miguel y Alonso gave birth to two malformed, conjoined girls (Calatayud 2000). The midwife, seeing that they were about to die, lacking time to wait for the priest, baptized them. A priest, Bernardo Ximeno, arrived shortly after the time of death, and what he saw fascinated him deeply. Due to his interest in science and his privileged position as village priest, Ximeno was not only able to see things differently than the others present, he also had the power to enact the girls in the way he thought best. His identity as priest and his disciplinary interests enabled him to make a monster out of Maria Miguel y Alonso's and Santiago Benito Rubio's offspring, one suitable for the Royal Cabinet of Natural History in Madrid.

Today's scholars write nature, and so did late eighteenth-century naturalists. The conjoined twins do no longer exist, what remains today are written words about them. Letters, testimonies and contemporary learned literature will be used to trace the babies' way from birth and into the museum shelves. The method implies a close reading of written sources and a nearsighted focus on details. Malformed babies were written, but the main purpose of this article is not to identify a purely textual universe. Rather, monsters will be seen as performance; as something that is being done (Damsholt et al. 2009). A point of departure is Annemarie Mol's argument that objects are enacted realities; things come into being through different practices, and the foregrounding of these practices results in multiplicity (Mol 2002). Monsters are not understood as objective realities out there in wait of discovery; rather, the knowledge materialized in and through them will be seen as a decentered process. A monster can be multiple since it is done differently, since various versions are enacted and produced through the incorporation of it in different practices. The field of monster studies straddles various disciplines, such as history of science, cultural history, sociology, literary studies and anthropology. An original contribution of this article is the use of STS terminology to address the question of monsters, in order to breathe new life into a subject that traditionally has been looked at through other methodological angles.

A monster of interest to the curiosos

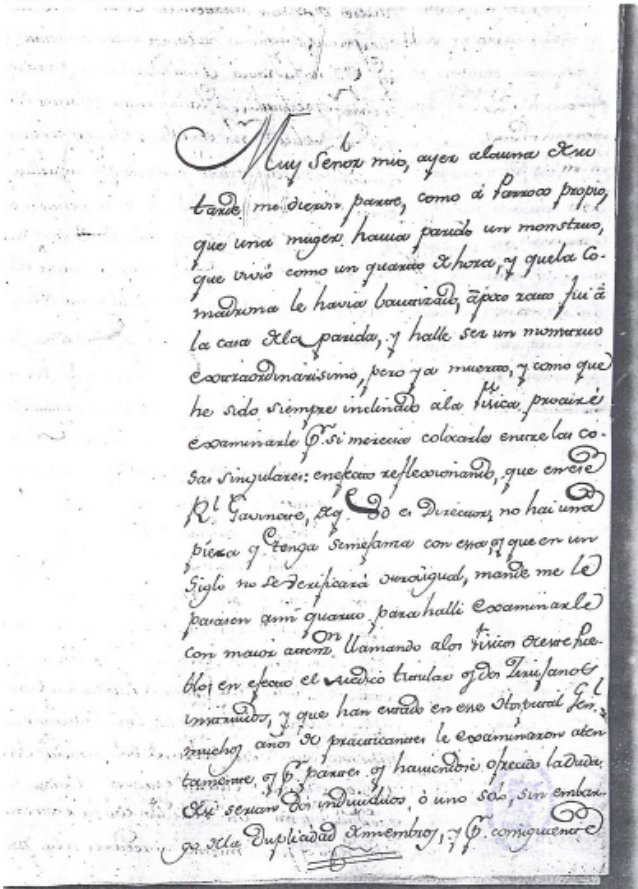
The day after the monstrous birth, Ximeno sent a letter to the director at the Royal Cabinet, Eugenio Izquierdo: "My master. Yesterday at one o'clock in the afternoon I was told, as the local priest, that a woman had given birth to a monster, that lived for about a quarter of an hour, and that a midwife had baptized it, shortly after I went to the house of the birth, and there I saw a very

The Royal Cabinet of Natural History in Madrid was established by Carlos III in 1773 by the acquisition of the extensive collections owned by the Creole Pedro Franco Dávila, and it opened as Spain's first public museum in 1776. The Cabinet formed part of the centralizing efforts and extensive reforms implemented by the Bourbon crown throughout the eighteenth century, and the museum was foreseen to assist scientific progress; to educate the public; to restore imperial dignity and royal glory, and to strengthen Madrid's status as metropolis and as capital. The Royal Cabinet in Madrid formed part of a broader, European trend, being consistent with what sovereigns across Europe did for their subjects. Eighteenth-century public museums were manifold in terms of their collections, and in contrast to the specialized museums of later centuries, they displayed objects from nature's three kingdoms; what was later termed archaeological and ethnographical artifacts; as well as art, jewelry, handicraft and scientific instruments.

Monsters, both human and animal, formed part of these manifold collections. When museum staff and naturalists wrote monsters, they transformed them. Malformed babies were integrated in scientific, religious, political and cultural different practices in order to become museum objects. The article lays out two ways that a pair of conjoined twins were enacted in late eighteenth-century Spain, both initiated by the above-mentioned priest Ximeno. The first enactment or version encompasses the process by which the twins were donated to the Royal Cabinet in Madrid, in which they were no longer understood as malformed babies, but studied and exhibited as monsters of interest to the curiosos. The second enactment addresses how a demonstration of poverty and charity determined the physical relocation of the twins to Madrid. Central to the argument is that these two enactments, or versions, were intimately intertwined, and dependent upon one another. The following section concerns the first enactment.

extraordinary monster, but already dead, and since I have always been inclined to physics I procured to examine it in order to see if it was worthy of being placed among the singular things." Ximeno believed the creature to be so rare that: "In the Royal Cabinet (...) there is not one single thing that resembles this one, and in a century it will not be another."

¹ All Spanish translations from Calatayud (2000) "Muy señor mio, ayer a la una de la tarde me dieron parte, como a Parroco propio, que una muger havia parido un monstruo, que vivió como un quarto de hora, y que la comadrona le havia bautizado, á poco rato fui a la casa de la parida, y halle ser un monstruo extraordinarísimo, pero ya muerto, y como que he sido siempre inclinado á la física procuré examinarle por si merecía colocarle entre las cosas singulares" and "en ese Real Gavinete (...) no hai una pieza que tenga semejanza con esa, y que en un siglo no se verificará otro igual."



First page of letter from Ximeno to the museum director

When Ximeno arrived at the family's house, he immediately called upon the local elite of learned men. He also called for a physician and two surgeons, in order for them to examine the extraordinary monster ("monstruo extraordinarísimo"). Based on the examination and dissection, performed with the priest present, a testimony was written. The monster was described as "one of the most rare and particular phenomena of nature, and without doubt it will serve in the future for the admiration of the most curious and learned."² A critical problem was to determine whether the corpse was composed of one or two individuals. Examined from the outside, the monster could be seen as one or two human beings. From the waist down it seemed to be two; the four thighs, legs, and feet strengthened this assumption. From the waist and up, the question became more complicated. There was one abdomen, with one shared navel, one breast with two nipples, and "the two creatures seem to compose only one head of an ovoid figure, and in this a very perfect face with all its members and corresponding

senses: eyes, mouth, nose, and ears, demonstrating in all parts a natural and due proportions."³ However, it had two sets of ears, one of which were very small and located close to one another at the back of the head. In addition, the neck was proportionally too large as compared to the rest of the torso.

Further, the physician and the two surgeons performed an interior examination, instead of a complete dissection "in order not to destroy such a marvelous machine."⁴ They examined parts of the head, and dissected only the lower part of the abdomen. These investigations led to the conclusion that it had two brains, even though the interior dissection demonstrated the abdomen to consist of "only one caveat without any particular division." But by examining from the mouth and down the two existing esophagi, the assumption that there were actually two individuals united inside the creature was strengthened: "deducing from all of this that in this monster there were two Souls."⁵

The testimony adheres to eighteenth-century conventions for the anatomical description of monsters, exhibiting a focus on the irregular and abnormal. Monsters became increasingly frequent as collectibles during the eighteenth century, resulting in a plethora of published descriptions (Hagner 1999, Moscoso 1998, Daston and Park 2001). In response to the abundance of such descriptions, anatomists argued that the endless repetition of what was already known was of little interest. Instead, the focus should be on the most singular characteristics of the monsters (Moscoso 2001). Within eighteenth-century anatomy, monsters were used to reinforce ideas about what was normal, rather than as examples of a wider category of monstrous. By investigating the monstrous, normality could be explored and monsters seen as having an analogical relationship with the normal. A focus on their singular characteristics highlighted this relationship, and the descriptions and investigations centered on the integration of the monstrous into the regularities of nature (Hagner 1999). By adhering to such conventions, the learned produced a distinct version of the monstrous babies: they were rare and valuable owing to their embodied monstrosities.

The description, then, followed contemporary scientific conventions. This argument connects to a recent debate within 'monsterology.' Lorraine Daston and Katharine Park argue that monsters were associated with vulgarity and "banished to the margins of natural history" during the eighteenth century (Daston and Park 2001:359). Laura Lunger Knoppers and Joan B. Landes, however, have argued for a more complex, historically specific narrative of monsters, rather than one which primarily follows the rise and decline of the monstrous in relationship to science, while leaving out a broad

² "es uno ve los fenómenos mas raros y particulares ve la naturaleza, y que sin duda serviría de admiración en lo subsesivo alos mas curiosos y Sabios"

³ "las dos criaturas componen al parecer una sola caveza ve figura oblongada, y en ella una cara muy perfecta con todos sus miembros y sentidos correspondientes: ojos, boca, nariz, y orejas, guardando en todas partes una natural y devida proporción."

⁴ "por no destruir una maquina tan maravillosa". On the mechanization of nature and monsters, see Asma (2009)

⁵ "sola una cavidad sin Division especial en ella" and "deduciendo de todo lo dicho que en el tal monstruo havia dos Almas."



range of metaphorical and political uses of the monstrous (Lunger Knoppers and Landes 2004). Michael Hagner has observed that the eighteenth century witnessed a considerable increase in the representation of monsters, and that therefore one should take a closer look at the spaces of representation and the integrative practices where "monsters were pushed to get in" (Hagner 1999:175). Similarly, Andrew Curran and Patrick Graillie point to the lack of a coherent definition of the monstrous within Eighteenth-century thought (Curran and Graillie 1997).⁶ Following the recommendations of these scholars, one can take a closer look at words and statements in the sources that, following Daston and Wonder's argument, at first glance would seem to be misplaced, words that point out of a pure and "scientific" situation. The testimony concluded that the monster must have had two souls. Religion and science intertwined in the text, how can this be understood?

The conclusion about the two souls echoed a decades-long debate among anatomists and naturalists, in particular the conclusions drawn by Benito Jerónimo Feijoo in the sixth letter in the first volume of *Cartas Eruditas y Curiosas* (Feijoo 1777).⁷ Here, a "monstruo bicipite" (a two-headed monster), stillborn in the village Medina Sidonia in the south of Spain in 1736, is discussed at length. Central to the philosopher's discussion are criteria for deciding the number of individuals: many authors had argued about whether the brain or the heart should be the decisive organ. Feijoo concluded that even though the brain was the most important criterion in comparison with the heart, there would also always be both two brains and two hearts if there were two individuals in a monster (Feijoo 1777). A determination of the number of individuals was of anatomical importance according to Feijoo, but it also had a theological and moral dimension: if a monster consisted of two individuals, then it also had two souls. If it had two souls, then the monster needed to be baptized as two individuals before they died, in order to avoid leaving the souls in limbo. In the case of the monster from Medina Sidonia, the birth had come to a halt, the mother had died, and the fetus not 'born.' Only one leg had emerged, and seeing that the baby was about to die, the midwife had baptized it. Of course, at this point no one suspected the baby to be two individuals, and it was baptized as one ("ego te baptizo"). Later, the fetus was extracted by force, revealing its two-headed, four-armed and two-legged form. Only one leg had been touched and baptized during the ceremony. Whose leg was it? If the leg belonged to only one of the individuals, then at least this one could have been saved. Feijoo grounding his arguments on human anatomy as well as experience with living monsters of a similar

kind, concluded that each of the legs were inhabited by both souls. The baptism was not valid for any of the two. The midwife should have touched the leg saying the formula in plural ("vos baptizo"), or she should have done it two times on the same leg, and the second time conditionally ("ego te baptizo" and "si non est baptizatus"), since one could not be sure if there in fact were two souls before a dissection had been performed. There are no explicit mentioning of the philosopher in the archival letters, Feijoo however, was among the most read and influential authors at the time, and it is very likely that Ximeno, Izquierdo, Clavijo, as well as physicians and surgeons who wrote the testimonies were familiar with Feijoo's text. In the case of the Rueda monster there is no mention of a plural baptism in the documents. The two girls died within a quarter of an hour after birth, and perhaps no one thought about the need for a plural christening. Later, after the dissection, it was too late, and unless the midwife had uttered the "ego te baptizo" while holding onto a part that undoubtedly belonged to one of them, it meant that both of the two souls remained in limbo.

The Cabinet of Natural History had some twenty years earlier received testimony of another, similar case. In 1773, a "monstrous girl" ("niña monstruo") was born in the village of Montealegre, in Murcia. She had one seemingly normal body, but her head consisted of "two small faces" ("carrillos"), each with a nose, a mouth, and one eye – in addition, there was one shared, merged eye in the forehead. She had lived for about one day, and the testimony describes how she "sucked honey with both mouths at the same time" while alive.⁸ Here also, the need for determining whether it was one or two individuals was the central issue. This preoccupation becomes particularly visible in the description of how she died:

In its death, or decease, one realized, and noticed that the mouth in the right small face breathed its last gasps, and died one and a half hour before the other one. And one experienced the right side to be pale, cold, without respiration, and deceased with all the signs of a true cadaver, while the other side of the face on the contrary maintained and conserved itself through the mentioned amount of time with all vital functions and operations, and from these circumstances, and qualities one was able to see that it was a proper living. She was christened as soon as she was born by the midwife as if there was not more than one Creature, but then the Priest became suspicious, maybe they were two, and she [the midwife] christened her again in plural, conditionally as two.⁹

⁶ See also Lafuente and Moscoso (2000), Moscoso (1998) and Maerker (2006).
⁷ For discussions of human monstrosities in early modern Spain and the Spanish Empire, see Behrend-Martinez (2005), Few (2007) and Velasco (2007)

⁸ "por ambas bocas a un mismo tiempo chupaba la miel."
⁹ "En su muerte, ó fallecimiento se advirtió, y notó que la boca del carrillo derecho dio las ultimas boqueadas, y murió hora y media antes, que la otra. Pues se experimentó aquel lado derecho palido, frío, sin respiración, y difunto con todos los señas de un verdadero cadáver, mas el otro lado de cara por el contrario se mantuvo y conservo por dicho espacio con todas las funciones y operaciones vitales, por cuyas circunstancias, y cualidades se hechaba de ver un verdadero y propio viviente. Fue bautizada luego que nació por la Comadre o Partera como si no hubiera mas que una Criatura, mas el Cura entrando en sospecha, si serian dos, la volvió a bautizar en plural como a dos condicionalmente."



At the core of the learned discussions of human monsters were questions about individuals as physical beings to be anatomically identified, and souls in need of baptism. Religion and anatomy were not separate, they intertwined. In the Montealegre case it

had been realized in time that there were two souls inside the monstrous body, and the midwife had uttered the correct phrases. The Rueda girls do not seem to have had the same fate.

Integrating the monster in practices of charity

Ximeno initiated two enactments of the monstrous babies. The one discussed hitherto implied scientific and religious practices, and was necessary for the babies to transform into objects of scientific curiosity. The second enactment encompassed a very different set of practices. The malformed babies were placed within a broader public and political sphere, where culturally and temporally specific transactions of money, value, and honor – necessary for the actual transport of the babies to Madrid – took place between the highest and lowest layers of society. In the letter to the museum director, Ximeno recommended, and this he underscored two times, that the news about the incident ought to be announced in the royal newsletter *la Gazeta*.¹⁰ The monster belonged within a public sphere. Not only as a specimen of interest to the learned, but also as an incident of interest to a broader public. Once the villagers learned about what had happened to the family, they gathered outside the house: “The news was barely spread before the entire village, moved to pity, passed by the place to make themselves certain of the incident, and wanting to help, they gave their alms to the woman that newly had given birth, solemn poor,” as Ximeno explained in the letter to the Cabinet.¹¹ In Rueda, the girls immediately attracted public attention, however, Ximeno’s actions contributed to the transformation of it into a public matter of a much larger scale. This he did by defining it as a singular object worthy of being placed at the Cabinet, as discussed previously, and also by defining it as an object worthy of being mobilized and transported in a specific way.

Ximeno, fearing the corpse might be damaged if handled by inexperienced people during transportation, suggested that the father, Santiago Benito Rubio, should be responsible for its shipment: “(...) so that they do not damage it for me, I wanted the driver to be the father of the fetus himself.” Further, Ximeno suggested a first stop in Aranjuez, “so that their majesties can see it before it is placed in the Cabinet.” The parents’ extreme poverty, according to the priest, qualified them for receiving alms, not only from the villagers, but also from the King. At the Aranjuez estate, the royal family could contemplate the monster and “these poor parents” could receive alms “out of the benevolence from our beloved Monarchs.”¹²

Afterwards, the father should present the flask at the Cabinet in Madrid. The suggestion was based on the family’s status as ‘solemn poor’ – a degree of poverty that required certification by the mayor or the priest (Carasa Soto 1987). Ximeno had stressed their poverty in the first letter, and he underscored it again in a second letter: “(...) when I met with his wife just after she had given birth, I found that they did not even have enough to make her a stewpot.”¹³ Thus, their poverty was certified. José Clavijo, vice-director at the museum, passed the argument on to the minister of the state underscoring how the priest “assures that they are so poor that their means do not even suffice for the necessary food for the mother on the day that she gave birth.”

The accepted status as solemn poor combined with their possession of the singular monster, and the father’s voluntariness, made them worthy of receiving alms from the King, “considering the attention given by this good man, having brought this peculiar phenomenon to the Royal Cabinet, and the trip he has voluntarily done only for this reason, and likewise his poverty, certified by the mentioned priest.” Clavijo, towards the minister of the state, argued that it was for “your excellencies mercy to deign and condescend the gratification that pleases you.”¹⁴ Ximeno suggested expansion of the geographical and hierarchical classification of their poverty. Solemn poor were by law prohibited from begging outside of their living environment (Carasa Soto 1987) It was this expansion that mobilized, and enabled the transport of, the corpse to Madrid.

Rubio was given an amount of 20 doblones. The money was not payment; it did not imply any economical calculation of what the specimen had cost, or of its value as a museum specimen. The sum was characterized as charity and alms. Rubio had to publicly demonstrate his poverty, and by bringing the monster voluntarily he accepted and demonstrated the dignity and obligations associated with his poverty. At the same time, he demonstrated the mercy and dignity of the King. The incident was an exemplary demonstration of charity: the poor little man (“pobrecito”) encountered the highest and most benevolent (“nuestros amados Monarchas”). Rubio’s misfortune¹⁴ was highly staged, overdone,

¹⁰ Human monsters were rare, but perhaps not as rare as Ximeno believed them to be. The Royal Cabinet had various specimens similar to this one. A reason why Ximeno claimed there was nothing similar in the museum could have been that these monsters were not displayed to the public, but were set aside and shown only to special invitees. See Calatayud (1987).

¹¹ “Apenas se divulgó esta noticia, quando se conmovio todo el Pueblo, y paso a cerciorarse del hecho auxiliando con sus limosnas a la recién parida pobre de solemnidad.”

¹² “que no me maleen, he querido sea su conductor el mismo Padre del feto” and “esos pobrecitos Padres” and “una limosna

de la benevolencia de nuestros amados Monarchas.”

¹³ “quando llegue asu Muger parilla hallé no tenían con que ponerla un Puchero.”

¹⁴ “asegura que son tan pobres que ni aun alcanzaron sus facultades para el preciso alimento de la Madre el día de su parto” and “respecto à la atención que ha tenido este buen hombre en traer al Real Gabinete este fenómeno tan peregrino, y al viage que ha hecho voluntariamente para este solo fin, como también à su pobreza, certificada por el mencionado Cura (...) la piedad de VE se digne concederle la gratificación que sea de su agrado.”

and caricatured, in an encounter that emphasized the extreme distance between giver and receiver.¹⁵ The staging of poverty also connects to the cultivation of both splendor and accessibility by the eighteenth-century Bourbons – alms given to Rubio would express both proximity and royal glory (Peset 2008).

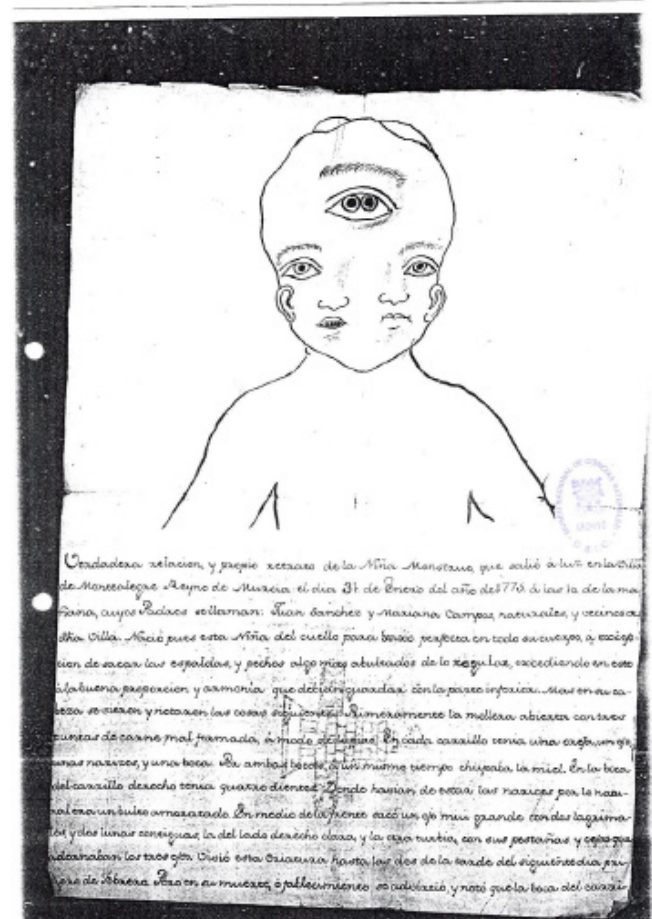
Rubio's voluntariness was different to the one seen among contributors to the museum that were of high rank. While high rank contributors underscored their desire to contribute to the enlightenment of the nation, or their sense of patriotism, Rubio's voluntariness was rather a manifestation of how he, with dignity, accepted his status as solemn poor. That he in fact contributed to augmentation of the Cabinet's collections, and hence to the advancement of natural history, was irrelevant to the staged scene of charity.

This version of the human monster, then, depended upon how the monster was integrated to practices of charity. This charity also had its more laconic and practical sides. For instance, it was practical for the Cabinet to rely on this charity practice, in order to acquire the specimen. It was fragile, and the best guarantee for a safe arrival was probably that the father delivered it. Further, the sum of 20 doblones must have been essential for Rubio and his wife as means of sustaining life.¹⁶ Upon arrival in Madrid, Clavijo ordered the caretaker to receive the human monster and arrange for its placement inside a flask with alcohol. The caretaker was also told that Rubio should not be paid at the Cabinet, since he would be paid at the post office. The Cabinet was not a charity institution; the reason why Clavijo wanted to include the Rueda-monster in the collection was due to its status as an interesting specimen. Flexibility and creativity was often necessary to make objects flow towards the museum.

Two enactments: different, intertwined and dependent upon one another

Following Mol's argument, a monster is "more than one but less than many" (Mol 2002:55). Yet it is not fragmented into being many, since the different versions of an object tend to hang together – and this "begs the question of how they are related" (ibid.) What kind of museum object was created on the way from Rueda to Madrid? Two very different versions have been identified; how were they related? Could they exist at the same time and in the same place, or were they mutually exclusive (Law and Singleton 2003)? The versions belonged within radically different practices and one might think that they would not appear together. When one version was enacted, the other version was only implicitly present. When Rubio's status as exemplary poor was defined, it had not very much to do with the monster as a specimen for natural history. When the erudites talked about the monster as a singular phenomenon, the parents' poverty was not relevant. Still, one version depended upon the presence of the other; the one could not exist without the other. And they both led to the same place: the Cabinet. Mobilization, through the scaling up of charity practices, was crucial for transformation of the malformed girls into a museum object.

In order for the monster to arrive at the museum, the two enactments had to flow together. If one of them had failed, the result might have been a rupture in the chain leading towards the museum, and the consequent collapse of one or both versions. This had actually been the case with the Montealegre monster, mentioned previously. When the museum received the news about the incident, Dávila had asked for the specimen to be sent as well, but this was impossible since "they buried her" soon after the time of death. In that case, no similar charity-practice had been activated, with the result that a potential version of her as a curious museum object collapsed, and only the written testimony remained.



First page of the testimony about the monstrous girl from Montealegre, Murcia.

¹⁵ The argument here borrows from Engebretsen's discussions about exemplary poverty in early-modern France. See Engebretsen (2012).

¹⁶ One cannot tell from the documents whether Santiago Benito Rubio actually went to Aranjuez or not, before he delivered his offspring to the Cabinet



Another father, Facundo Izquierdo, brought his monstrous offspring to Madrid (Catalayud 1987). This specimen had been destroyed by a surgeon in the attempt to conserve it. Probably after advice from learned Gentlemen in his village, the father had delivered the corpse to the surgeon, in order to later bring it, in a preserved state, to the Royal Cabinet. Due to the surgeon's lack of experience, however, it was destroyed and hence of no use for the museum. In this case, it could be enacted only within a charity-practice; the father was given money so he could return to his village. The collapse of one version still stimulated the coming into being of the other version.

In the Cabinet's ongoing collection of animal monsters, there was a case where two such versions collapsed. Diego Nuñez, an apothecary in Astorga, offered a monstrous cat to the Cabinet. The cat had belonged to a woman in the village, who wanted to dispose herself of it, and Nuñez procured it. The museum vice-director demonstrated gratitude, and assured that the donation would be mentioned to the minister of the state Godoy, and the King. The cat was delivered well-preserved, and accompanied by a letter making it clear that Nuñez was hoping for some economic compensation.

Conclusion

Eighteenth century naturalists' writings have been the point of departure in this article. I started with a letter, and followed the traces in it, from small villages to Madrid, through other letters and testimonies. Taking a point of departure in archival sources, the discussion has still aimed at picturing a broader reality than a purely textual one. Conjoined twins were incorporated in many different practices on their way to the museum display cases – practices that sat their mark on the malformed babies and transformed them into museum objects. In the article, two different enactments initiated by a village priest have been discussed. One version encompassed the process by which the malformed set of twins transformed into a specimen to be studied by the curiosos and exhibited at the Royal Cabinet in Madrid. The second enactment addressed how

Additionally, and even more provocative for vice-director Clavijo, Nuñez's uncle, living with his nephew, had added the draft to a letter destined to Godoy, in which he asked for a pension or annuity in return for the valuable gift to the museum. Clavijo rejected the request, explaining that the cat had been "offered without any condition" and that if he had known of their expectations, he would have turned down the offer, since "at the Royal Cabinet there is no lack of monsters, if not identical, then at least very similar." Further, he considered it "a much exaggerated thing" that the uncle, who seemingly had nothing to do with the issue, requested a pension.¹⁷ Nuñez and his uncle tried to enact the cat in a way similar to the two versions discussed: as a singular, interesting specimen worthy of being placed at the museum, and themselves as worthy of receiving alms. The two men, however, made the connection between the versions themselves. Both versions collapsed: their poverty was not certified, neither was the monster considered particularly interesting (Catalayud 2000).¹⁸ These cases demonstrate nuances in how versions were connected, and in particular, how versions had to be done well, by competent actors having the sufficient, formal authority to claim these connections; low-rank people were not in such a position.

the twins were transported to Madrid through a demonstration of poverty and charity. The two versions differed radically, yet they were intimately intertwined, and dependent upon one another. Foregrounding the broad range of different practices through which the twins transformed into a museum object has made it clear how the museum monsters resulted from a de-centered process – and that museum objects indeed are multiple.

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¹⁷ "ofrecido sin condicion alguna" and "en el Real Gabinete no faltan monstruos, sino identicos, à lo menos bastante parecidos" and "cosa mui agena."

¹⁸ Contributors from lower societal layers are rarely mentioned in the museum archives. The offering of monstrous specimens, humans or animals such, from poor people hoping for some economical compensation, seems to have been the only inflow practice in which poor people appear as contributors to the Cabinet of Natural History.



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STEALING FROM BAKHTIN

Writing the Voices of the "Voiceless"

by Guro Flinterud

This essay investigates an approach to writing about animals within the humanities. The goal is to focus attention on animals as actors, rather than speaking on their behalf. By combining Mikhail Bakhtin's theory of speech genres with Donna Haraway's perspectives on co-habitation between all species, I suggest that a careful attention to animals as communication partners might give us a tool to capture the contribution animals make in the creation of history and culture. Two examples will be provided to illustrate this concept: The first example is a media story about celebrity polar bear Knut. The second example is an oral account of human-animal interaction in the zoo.

Keywords: Bakhtin, speech genres, folklore studies, animal studies, polar bear Knut

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Introduction

The impact of animals on human culture is gradually becoming an acknowledged fact in the human and social sciences. Animals are our companions, for millennia they have fed us, clothed us, pulled our plows, and sniffed out our prey. Yet the animals themselves are often silenced in our accounts—it is easy to write about what we use them for and what they mean to us, but more challenging to think about what they do to us. In this essay I investigate the possibilities that lie in using theories from folklore studies as a method to capture those voices that often are silenced in the humanities.

The case study used to exemplify this way of writing is the celebrity polar bear Knut, who lived in the Berlin Zoo from 2006 to 2011. Knut was abandoned by his mother after birth, and thus hand-reared by the zoo staff, in particular zookeeper Thomas Dörflein. He quickly became a media favourite in Germany, and at almost four months

age he rose to world stardom after an animal rights activist was quoted in the German tabloid Bild as saying that Knut's upbringing was unnatural, and that he should be killed.

This is however not an essay about polar bear Knut as such, but an experience based essay on how one might approach text in order to write animals within the humanities. What kind of contribution does the polar bear in question have in the stories that were told? How might we discover the wordless communication of animals within our word-filled accounts? I will present first the theoretical grounds that inspired me to think the animal as an actor in creating cultural meaning, with theories drawn from Mikhail Bakhtin paired with perspectives provided by Donna Haraway, and then present two examples of how I have used this to write about animals as cultural producers.¹

Voices, echoes and meetings

Coming into animal studies from folklore and cultural studies, I was preoccupied with voices. I had studied human cultural expressions through analysing verbal utterances, drawing on linguist and literary scholar Mikhail Bakhtin's theory on speech genres (Bakhtin 1986). In his influential essay "The problem of speech genres," Bakhtin investigates the utterance and its part in creating and sustaining culture. In order to communicate, Bakhtin claims, humans make use of speech genres appropriate to the context in which we want to be understood. We might succeed or fail, depending on whether or not our interpretation of the context matches that of those with whom we want to communicate. Every articulate human master an extended repertoire of speech genres, most of which are utilized without our even knowing it; we automatically speak differently to our mothers and the girl at the supermarket check out. When writing a formal letter, most people are aware that there are conventions to be followed, but we might not be so conscious that we are following similar conventions when communicating with friends on Facebook.

The importance of the utterance for a cultural theorist lies in the exchange between the individual utterance and the context in which it is uttered. In every utterance, one finds a trace of previous utterances that tie it to a larger context, and an expectation of future responses. When expressing ourselves we make use of generic knowledge, but our expressions are at the same time singular, expressing the individual creativity of each person. Communication is dependent on certain stable elements, but it is also always marked by the speaker's individual interpretation and use of these elements. As a method for analysing culture, this theory encourages close reading of textual and verbal expressions,

looking for recurrent elements, quotations and references as well as their creative reworking and perhaps most interesting, sites where communication breaks down. It encourages us to ask with whom our sources communicate, whose voices are echoed and who are addressed? And through these investigations, we can start to form understandings of how meaning is created, negotiated and sustained, how humans go about our lives continuously creating and re-creating the cultures we live in through interacting.

Using this theory as a foundation, I had been studying fan cultures, writing humans through repeating their words, quoting them, making utterances that echoed theirs and pointing this out. Playing with words while also conforming to the speech genre of the academic essay. There is however a latent criticism in this way of analysing culture, in that it relies so heavily on words, written or spoken, while excluding gestures or visual communication. In his essay, Bakhtin does not explicitly exclude the possibility of including non-verbal communication; but nevertheless, his theory has during the last decades been utilized mainly within the realm of the textual and verbal.

Promptly after commencing my project on polar bear Knut, my conception of academic writing, so reliant on the Bakhtinian method, was challenged by thoughts within animal studies pointing out that if we want to investigate human-animal relations, it is not enough to just write humans. Donna Haraway starts her book *When Species Meet* asking "whom and what do I touch when I touch my dog?" (Haraway 2008:3). From the point of view of a Bakhtinian understanding of communication, this seemingly simple question contains a key to a whole new understanding of writing. First of all,

¹ For an in depth analysis of the two cases presented here, see Flinterud (2013).



the dog in this situation is both a whom and a what. Both subject and object. Second, the idea that touch is an important aspect of this relation. In her book, Haraway presents stories that are created through the co-habitation of humans and animals. She highlights meetings, insisting that humans and other animals are companions, stressing the importance of living together as separate yet co-dependent species. The key concept she uses is becoming with, which in a Bakhtinian understanding could be seen as introducing

an expanded understanding of interaction in the creation of cultural meaning. And this, I would argue, is the crucial contribution of Haraway's perspective for writing animals in the humanities: what become stories about our cultures and societies is created through lived relations, not just spoken or written ones. The texts that we as scholars within the humanities read are first and foremost accounts of lived relations, and it is our job to make sure the wordless communications of animals are not lost in translation.

Writing animals in the media

The interest for my research came through media texts, more specifically I wanted to write about Knut as a celebrity. The main claim was that the animal celebrity is different from the human celebrity, and that a close study of the animal celebrity would add to our understandings of the celebrity phenomenon. This entails that when a category generally reserved for humans is represented by an animal, our conceptions of what is human and what is animal is challenged. Writing about the animal as celebrity can prove to be a difficult task, because the very definition of what an animal is, is challenged by its existence. The Bakhtinian understanding of communication sketched above provides a pragmatic approach to this problem, as we are allowed to assume that we are not writing humans and animals, but communications between individuals.

Knut was celebritised through several media, the most active of which were the tabloids. The initial reports belonged to a genre of animal stories found not only in tabloids, but increasingly also in more serious news channels, presumably to provide relief from the "hard news" of politics, war and catastrophe (Molloy 2011). The initial story of Knut, from early on individualized with a name, was a story about a cute polar bear cub who was abandoned by his mother, but saved and nursed back to life by the self-sacrificing zookeeper Thomas Dörflein, also individualized in the stories.

The national tabloid Bild was perhaps the most important actor in the celebritisation of Knut. In their first report, on January 25, 2007, their headline read "Poor, cute polar bear Knut", followed in capital letters by: "You will never see your mom again, because she would eat you" (Colmenares 2007). On top of the page, capital letters printed in black proclaim: "Animal drama in the Berlin Zoo" (Colmenares 2007) Tabloids work within a sensationalist speech genre, and it is obvious that the story of Knut lends itself well to this form: there is a drama unfolding, it involves a baby animal who is at once cute and to be pitied, and a mother who is a potential cannibal. The three exciting claims are illustrated by two photos of the cute cub, one where he is lying on his back lifting his front paw as if waving to the camera, another where he is being held upright by his front paws, echoing images of human babies being held up to practice walking. A third photo shows a close up of the two polar bear parents in their zoo enclosure.

On the surface, this page fits neatly into the tabloid genre. We hear echoes of the abandoned child, the bad mother, and of drama, an all-purpose description in tabloid depictions, this time specified as an animal drama. In other words, it is easy to analyse it as being about humans. The animal in question here has not done very much, the journalist writing has never met him, and there is arguably not much direct communication going on between human and animal making out the basis for the early tabloid news coverage of Knut. The story is created to evoke our sympathies for the abandoned child. Describing Knut as "poor," it is assumed that Knut misses his mother and that he wants to see her again, but that he will not be able to because of her cannibalistic tendencies. This last description stands as particularly grotesque in the setting, as it is the only description that refers to actual polar bear behaviour: polar bear mothers who are not able to nurse their new-born cubs often eat them. When giving birth in the wild, polar bears spend months in a snow cave without access to food. The mere process of birth severely eats into the bear's energy reserves, and if she then had to struggle for hours to get the cubs to suckle, she would have died from exhaustion along with the cubs. Her instincts of self preservation then rather makes her leave the cubs for dead, and starving as she surely is, she often eats their flesh in order to regain her strength. This is the scientific explanation as told by the zoo biologists, but it sounds terrible when described in the tabloid setting, where the statement stands not as a description of animal behaviour, but of the potential actions of one singular polar bear, and a mother at that.

From the three main statements of the tabloid story, one animal is indeed readily present: not Knut, but his mother. This immediately comes down to a description of her potential behaviour. This behaviour is not just associated with animals, but also with "savage humans." Echoed in the idea of a mother eating her child is the image of the savage cannibal, somehow existing on the borders between humans and animals, or of a Medea killing her children. Writing from an animal studies point of view, I find that the crucial question in this case is not just what associations were spurred by the description, but also who initiated the description in the first place? And this question goes straight back to Haraway asking about her dog. There is both a "whom" and a "what" that would be lost in an analysis that does not take into account the female



polar bear and what she communicated and initiated through her actions. Indeed, the story about the poor Knut would never have come about had it not been for the actions of a female polar bear giving birth in the Berlin Zoo. Analysing the Bild story without acknowledging these actions would be writing the animal out of the story. The reference to cannibals could be read as a response to previous utterances about beings consuming members of their own species, but it could just as well be interpreted as addressing a certain association in the readers' imaginations. What spurs these associations is the behaviour of the polar bear leaving her cubs after several unsuccessful attempts at suckling them. Hence, the story of Knut in the tabloids could be read as a response to the female polar bear, who is then translated into the evil mother to communicate to the readers in their expected speech genre. With Haraway's perspective, we are allowed to notice that there is a wider story here, told by a female polar bear who year after year have experienced stressful and failed births at the zoo.

Writing animals in the zoo

After Knut's first public appearance in the zoo at four months, the until then mostly singular narrative of "cute Knut" developed in several directions as people were allowed access to view him directly. Translations into the spectacularizing tabloid speech genre could still be read in newspapers and on the Internet in years to come, but inside the zoo gates, regular visitors—self-ascribed "Knutians", I identify them as fans—developed their own narratives of who and what Knut was, dependent on their individual meetings with him. The stories they told about their interactions with Knut were clearly experienced by them as communication.

It has been argued in scholarship that zoos provide us with wrongful representations of nature.² The animals there are not "real" animals, it is claimed. True as this might be on a conceptual level, it does not follow that the beings that reside in zoos are not still sentient beings. Like Knut, most zoo mammals today are born in captivity, where they arguably never develop many of the behaviours they would acquire in the wild. Yet that does not mean that they are not still living beings, and in most cases social beings. There is however a tension running through these discussions that will never be solved, concerning animal suffering. Where does one draw the line between unusual behaviour and behaviour that express suffering? This question is crucial not only for zoo ethics, but also because it reflects the unsolvable tension between wanting to write the animal on its own terms and always on some level ending up writing a human interpretation. As I am interested in mapping out the polar bear's contribution to the creation of his story, I have tried to convey the actors' points of view rather than position myself in this debate. It is however an important issue to contemplate, and my goal is to highlight Knut's impact in creating cultural meaning, leaving the question of ethics open for the reader's interpretation.

But what about Knut, the cub at the center of attention? At this point he is described with two words, "poor" and "cute." "Poor" is, as we have seen, connected to the abandoning mother, referring to the idea of the child mourning the loss of his mother. Cute, however, describes a response to the animal body. At two months age, Knut had arguably not done very much on his own, but his generic cuteness as polar bear cub was an important factor in making the story interesting to readers. At such an early stage of celebrityisation Knut arguably did not have a strong voice in the telling of the story yet, but the effect of his appearance on humans should not be undermined as a driving force for the tabloids. So despite the obvious anthropomorphization in this tabloid article, a reading that pays attention to the actors in the story reveal that there are two animals whose communication is crucial for the narrative development.

Entering the zoo with the intention of listening to the Knutians' stories, I believe that taking the perspective that it is merely about people looking at an animal would be limiting for creating an understanding of what was going on. In the specific case of Knut and the Knutians, there is an important aspect of communication in the stories told, and Knut's contribution to this should not be undermined. A favourite story, both of the Knutians and mine, is the story of Knut and the ball game. Already at seven months age, Knut had grown considerably, and the presence of human playmates gradually disappeared from inside his enclosure. Biologically, however, he was still a cub, still playful and contact seeking. He would seek contact with the crowd outside the fence, sitting up on two legs facing them, sometimes waving at them or holding up objects in front of one eye, perhaps mimicking the many visitors waving to him and taking photos. The zoo director was opposed to having playthings in the enclosure, apart from natural objects such as a tree trunk. The Knutians however, who had fallen in love with Knut's playfulness, would bring toys for him to play with, in particular balls that they would toss into his enclosure. At one point, Knut started to catch the balls thrown in to him in his mouth and fling them back out to the crowd. The audience threw the ball back in, and this developed into an exchange that could go on for quite some time. Soon, every Knutian entered the zoo every day hoping for a ball game. This continued until just before his third birthday, when the female polar bear Giovanna moved into his enclosure. With the arrival of a mate of his own species, Knut soon turned his attention towards her rather than the human crowd.

I started my fieldwork soon after Giovanna was moved in with Knut, so I never experienced the ballgame myself. Yet when I was talking to the Knutians, this was a story that they all wanted to tell.

² See for instance Mullan and Marvin (1999) and Acampora (2005).



One of my main informants also wrote about this incidence in her blog, and in both the oral and written account she stressed that the ballgame was Knut's invention (Meier 2011). He might have gotten the idea from people continuously tossing things into his enclosure, she admitted, but aside from this, he made up the rules. First of all, he was the one who started the game. The game was not on just because someone threw in a ball, the game started when he decided to pick it up and throw it back. He was also quite impatient, so if some tourist wanted to keep the ball or it was for some reason not thrown back in due time, he lost interest. According to the stories, he was also quite strict about people lingering in a small area between the fence and the glass wall of his moat people were forbidden to enter this area by the zoo, and if the ball landed here and someone jumped in to fetch it, Knut would end the game if they did not leave it immediately after.

In this story, Knut's animality is much more readily present than in the media example. Yet there is an interesting dynamic here that is important to catch in the analysis. Knut is obviously an active part in creating this story, but the active Knut as he is described by the Knutians could also be read as a human version. He is described as relating to the throwing of the ball as a game, he is ascribed

intentions and even morals through punishing trespassers. In the previous example, the evil mother from the tabloid speech genre could be written as animal in the analysis with reference to the instinctual behaviour of her species. In this story, there exists no such reference. A polar bear playing catch is a construct of the zoo setting. The Knutians obviously relished in the attention that Knut showed them, and their story is about an inventive and contact seeking animal. Critics of the zoo, however, might add this unusual behaviour to the list of stereotypic behaviour performed by an under-stimulated animal. The fact that he stopped the activity as soon as he was presented to a female of his own species might even support such a view. Then again, the fans would argue, his preference for a species mate does not rule out the possibility that he enjoyed playing with the ball when he was alone in the enclosure. Both these interpretations tell a story about human-animal communication, and they show how difficult it can be to write animals in cultural analysis, where the very concept "animal" proves itself to be tainted with opinion as soon as it is expressed in words. Again I would argue that the most honest position from which to write this is the combination of a Bakhtinian search for the diverse voices, and a Haraway-inspired awareness that these voices come about in the interaction between animal and human.

Conclusion

Writing animals in cultural analysis is largely dependent on a change in perspective. Following Haraway, I argue that animals not only live with us, but also take part in the negotiation of meaning. Through taking seriously the contributions of animals, and pinpointing not only the meanings we give to them but what they inspire us to think and do, I argue that we can deepen our understanding of cultural processes. The two examples presented in this essay present two approaches to writing animals in cultural analysis, both of which highlight the importance of paying attention to the relation between the real animal as an actor and "the animal" as concept. As with all communication, one can never fully know the "real intentions" of the other, and in reading a verbal utterance as a response to silent communication with an animal, there is no way of claiming that the outcome is a way of writing the Animal with capital A, or even the individual animal in question. What the above examples do show is how an attention to the voice of the animal, discerned through the description of behaviour, sometimes with reference to ethological knowledge of the species, might add a dimension to the analysis that would otherwise be lost. Taking animals seriously as conversational partners might provide a way to deepen our understanding of how culture is created, sustained, and re-created through interaction.

Reading Haraway on Bakhtinian terms provides an opening into capturing animals in our texts, as our stories are created not just through speech, but also through the echoes of a silent communication with animals in our verbal utterances. Meetings between

human and animal that leave their mark in writing do not merely relate the human point of view; they should rather be understood as responses. We do not just talk about animals, we communicate with them, and traces of this communication can be glimpsed in verbal utterances. If every utterance is the result of previous conversation, then surely utterances made about animals results from meetings, where the animal communicates something to the human that makes the human want to talk about it. This does not imply that we can capture the "real intention" of the animal's communication, as in all communication we are still limited to capturing echoes within the human speaker's interpretation. But what this approach opens up for is a reading that comes closer to the animal that is experienced by the speaker through communication. It encourages us to read our sources in a way that will enable us to write not just what ideas lies in the texts, but also how these ideas are created in the meeting between human and animal. The creation of culture happens not only as intertextuality, but also as inter-action. The goal is to be able to write a cultural analysis that includes animals' influence in the creation of meaning. That is, writing animals the same way that we have previously been writing humans.

Guro Flinterud received her PhD from the Department of Culture Studies and Oriental Languages at the University of Oslo with the thesis "A Polyphonic Polar Bear. Animal and Celebrity in Twenty-First Century Popular Culture."



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MEDIATING THE MORALS OF DISASTERS

Hurricane Katrina in Norwegian News Media

by Kyrre Kverndokk

The Norwegian media responses to Hurricane Katrina were structured around three well-established sets of motifs in a globalized late modern disaster discourse: 1) The collapse of civil society, 2) Social vulnerability 2) Extreme weather and global warming. These sets of motifs portray relationships or non-relationships between natural evil and moral evil. Starting with Voltaire's description of Candide's arrival in Lisbon after the earthquake I discuss how an 18th century disaster discourse is echoed in contemporary media narratives. This paper explores a folkloristic and narratological approach to writing nature. I use Hurricane Katrina as a case for studying Norwegian media disaster narratives. In these narratives I am concerned with how such narratives transform disasters from being acts of nature to become issues of morale. Modern disaster narratives have more complex historical roots than often claimed. This complexity is mirrored in the media representations of Hurricane Katrina.

Keywords: Disaster; Hurricane Katrina; mass media; natural evil

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Introduction

As soon as they recovered themselves a little they walked toward Lisbon. They had some money left, with which they hoped to save themselves from starving, after they had escaped drowning. Scarcely had they reached the city, lamenting the death of their benefactor, when they felt the earth tremble under their feet. The sea swelled and foamed in the harbour, and beat to pieces the vessels riding at anchor. Whirlwinds of fire and ashes covered the streets and public places; houses fell, roofs were flung upon the pavements, and the pavements were scattered. Thirty thousand inhabitants of all ages and sexes were crushed under the ruins. The sailor, whistling and swearing, said there was booty to be gained here.

"What can be the *sufficient reason* of this phenomenon?" said Pangloss.

"This is the Last Day!" cried Candide.

The sailor ran among the ruins, facing death to find money; finding it, he took it, got drunk, and having slept himself sober, purchased the favours of the first good-natured wench whom he met on the ruins of the destroyed houses, and in the midst of the dying and the dead. Pangloss pulled him by the sleeve.

"My friend," said he, "this is not right. You sin against the *universal reason*; you choose your time badly." (Voltaire [1759] 1918:19–20)

In his poem of 1756 on the Lisbon earthquake and in the paradigmatic novel *Candide* three years later, Voltaire used the earthquake as an opportunity to argue against the optimism of the mid-18th century. In polemic terms he argued against the idea that, despite such a dreadful disaster, we still live in the best of all possible worlds, and claimed that no meaning could possibly lie behind such a catastrophe. At the same time, he also argued against an opposite position, what the historian Kevin Rozario has termed a pessimistic cosmic fatalism, the widespread idea of calamities as the rightful divine punishment of sinful man (Rozario, 2007:15). The Lisbon earthquake and Voltaire's polemic writings on the disaster are often referred to as a turning point in the western thought. It changed the way of thinking about disasters, nature, evil and morals (e.g. Löffler, 1999). In her now classic book *Evil in Western Thought*, the philosopher Susan Neiman writes: "Since Lisbon, natural evils no longer have any seemingly relation to moral evils; hence they no longer have meaning at all. Natural disaster is the object of attempts at prediction and control, not of interpretation" (Neiman, 2002:250). If this is the case, it is tempting to ask a rather naïve and simple question; if natural disasters really are fundamentally meaningless, how do we then make them understandable?

The ways Candide, his preceptor Pangloss, and the sailor respond

to the Lisbon earthquake in the opening quote seem surprisingly familiar to us today. Pangloss' call for a sufficient reason is referring to Leibniz and his concept of theodicy. We still call to have universal reasons behind disasters explained, though not in the same terms as Pangloss. Candide and the sailor's responses seem even more familiar, and are echoed in late modern disaster discourse. We still fear an apocalypse either in secular or religious terms and we too associate disaster areas with an uncontrollable state of looting and violence. The literature scholar Isak Winkel Holm claims that modern disaster discourse, or what he, with a reference to the philosopher Charles Taylor, terms the *social imaginary of disasters*, is structured according to a number of symbolic forms (Holm, 2012a; Holm, 2012b:21). He even claims that since the Lisbon earthquake, this cultural repertoire "of images structuring the cultural imagination of disaster in the Western world has, in fact, been surprisingly small and surprisingly stable" (Holm, 2012b:24). Following up on this claim, I will point out the very limited number of symbolic forms or cultural models of morals and disasters that appear when natural disasters are being mass mediated in a late modern world. To be more precise, the paper will discuss the ways relationships or non-relationships between disasters, nature, morals and evils were articulated in Norwegian media representations of Hurricane Katrina.

Writing nature from a folklore studies perspective involves a history of ideas written from below. Folklore studies is a discipline examining how cultural understandings, ideas and evaluations are distributed and negotiated through vernacular and popular cultural expressions, with an emphasis on culturally distributed narratives. Hence, the practice of writing nature in folklore studies may just as well be described as a practice of reading nature. Such reading of nature could, within folklore studies, be undertaken from a number of theoretical positions. My contribution has some connections to actor-network theory. It is often emphasized that the key term in actor-network theory, *actant*, is taken from the semiotics of Algirdas Julien Greimas. What is less known is that Greimas based his concept on the formalist Vladimir Propp's study of the morphology of folktales (Holbek, 1987:349–354). What Greimas describes as an actant, is in Propp's narratology called a *sphere of action*. In a sphere of action, the narrative character – the dramatis personae – and the narratological function of the character are amalgamated into one narratological unit (Propp, 1968:79). As an approach to a narratological reading of nature, I will focus on the spheres of action of natural forces and mankind in Norwegian media representations of Hurricane Katrina. Hence, in this narrative and rhetorical analysis, vernacular concepts of nature, social structure and human behavior represents the starting points for discussing how certain cultural models of morals and evil are articulated in the Norwegian media response to Hurricane Katrina.



Mediating Hurricane Katrina

Mass media is an arena for public sense making, and brings distant events to local audiences. Media audiences today are able to follow extreme and spectacular events around the world, such as natural disasters, in real time. Hence, media-made spectator aesthetics and well-structured narrative scripts have become crucial for how we perceive and understand disaster (Ekström, 2013:473). As such, global media networks put disasters on display by drawing on prefigured imaginations of disaster scenes. This became obvious when Hurricane Katrina struck New Orleans, and became a global media event.

Hurricane Katrina was a tragedy for the people of New Orleans and the surrounding areas. However, it was far from being the most devastating natural disaster in modern history. It was even far from being the most devastating disaster in 2005, but it was without doubt one of the most media-exposed disasters ever. The track of the hurricane was broadcasted live around the world almost minute by minute even before it hit the coast of Louisiana and Mississippi on the morning of August 29, 2005. The sociologists Russell Dynes and Havidán Rodríguez have shown how the American TV coverage of the hurricane was structured after a limited number of narrative motifs, such as a state of chaos, looting and the absence of the authorities. They argue that these motifs followed a well-established script of disaster narratives. These narratives were displayed almost before the catastrophe became reality (Dynes and Rodríguez, 2007). These motifs framed the disaster as a globally exposed, vivid TV drama. The European and the Norwegian media representations of the disaster were structured around topics and narrative motifs similar to those on American

TV. Hence, the media coverage first and foremost illustrated how globally integrated the media world is.

Western disaster discourse has been claimed to be heavily influenced by Hollywood movies and popular culture (Tierney et al., 2006; Webb, 2007; Žižek, 2005). However, it is certainly not only popular culture that structures how we imagine and represent disasters. Late modern disaster discourse has deep historical roots (Holm, 2012a:65). The Norwegian media coverage of Hurricane Katrina was, roughly speaking, structured after four main topics. One of them was the increase of petroleum prices, due to reduced oil production in the Mexican Gulf and heavily damaged oil refineries in the Gulf region. Several newspaper articles and national broadcast news reports discussed the impact the hurricane had on the Norwegian economy. Such kind of news illustrates how calamities and expectations of ruin and renewal are integrated in capitalism as a premise for economic development (Rozario, 2007). They illustrate how one man's profit is another's loss. However, such kinds of news first and foremost tell how the global economy works, and put little direct emphasis on either the disaster, or the disaster area. I will therefore leave this topic out of my further discussions, and concentrate on the three remaining topics, which I have called: "The collapse of civil society", "Social vulnerability" and "Extreme weather and global warming". These topics are all, in one way or another, dealing with relations between disasters, morals and evil. They are all handling the shocking news in ways that make it possible to cope with the meaninglessness of the disaster, in the sense that they place it into structures that make them morally and intellectually explainable for the media audience.

The collapse of civil society

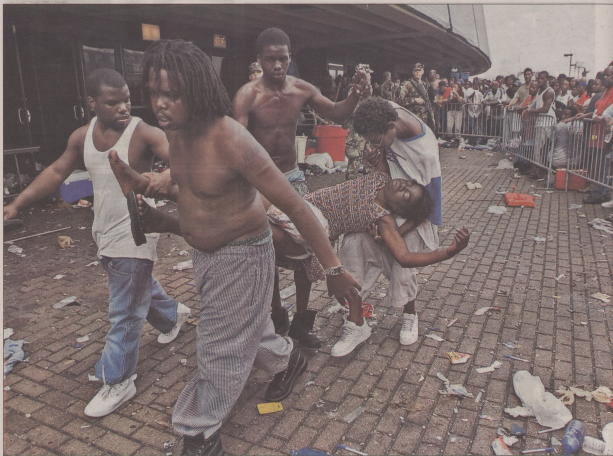
On September 2, 2005, four days after Hurricane Katrina made landfall, the tabloid *Dagbladet* could report that a state of lawlessness and helplessness dominated the flooded city of New Orleans. An article simply titled "Lawless and helpless" described a chaotic, dangerous and desperate situation where: "Criminals and desperate armed survivors are making the rescue work life-threatening, and the police lack resources" (*Dagbladet*, September 2 2005:12).¹ The article is heavily illustrated. Six illustrations document a seemingly tense state of chaos and violence. The state of chaos is especially emphasized in the two main illustrations placed above the text. One of these pictures shows four men helping a woman who has fainted (left main illustration, fig 1), while the other one shows armed police driving through the city in an armored vehicle (right main illustration, fig 2).

All the pictures in the article were distributed to the newspaper

through the international press agency Associated Press (AP). The picture of the armed police troops driving through the streets of New Orleans was shot by the AP photographer Eric Gay, and distributed globally. It was, among other places, also published in *Paris Match*. The French magazine commented upon it in laconic terms: "The only response: The army". *Paris Match* blamed the US authorities for treating New Orleans as another Afghanistan or Iraq (Kempf, 2013:14). The skepticism to American militarism was also present in Norway in the days after Hurricane Katrina. However, in this particular news report in *Dagbladet*, no such skepticism is uttered. The military presence is instead described as a necessity, which the pictures serve to illustrate. The caption to this picture reads: "(...) Armed gangs are now controlling most of the city center and the authorities lack resources" (*Dagbladet*, September 2, 2005:13),² while the caption the left main illustration reads:

¹ Translated from Norwegian: "Kriminelle og desperate overlevende med våpen gjør redningsarbeidet livsfarlig, og politiet mangler ressurser."

² Translated from Norwegian: "(...) En pansret bil med væpnede politifolk ruller i går inn i New Orleans gater. Væpnede gjenger kontrollerer nå store deler av sentrum, og myndighetene mangler ressurser."



PLYNDRING OG LIDELSE: New Orleans preges av kriminelle gjenger og ofre som lider. Her bæres en kvinne vekk etter å ha besvimt i det enorme tilfluktsstedet Superdome. Evakueringen av Superdome ble i går avbrutt etter at det ble avfyrt skudd mot et militært helikopter. Foto: M. Scott Mahoney/Army Times/AP

Lovløst og hjelpeløst

Kriminelle og desperate overlevende med våpen gjør redningsarbeidet livsfarlig, og politiet mangler ressurser.

Tar ikke lande
Sykehustene mangler mat, vann og strøm. Legene, forverler og ringte media for å få hjelp i går.

Behov for mer politi
50 000 soldater stanset i går den amerikanske politiyonen for å opprette orden og gi nødvendige tjenester etter øyeblikket.

Norske Espen Jensen først inn til hjembyen
Espen Jensen (23) kom i går som førstemann inn til hjembyen Slidell, utenfor New Orleans.

SAVNET: Musikklagetene Fatso Domino (77) ble drept savnet i New Orleans i går. Foto: AP

TUNGT BEVAPNET: Kystvakt soldater holder vakt for å stoppe omfattende plyndring. Foto: AP

VENTER PÅ REDNINGEN: Innbyggere venter fortløpt på å bli evakuert. Foto: David J. Phillip/AP



ENORM OPPGAVE: En pansert bil med væpnede politikkjell i går inn i New Orleans gater. Væpnede gjenger kontrollerer nå store deler av sentrum og myndighetene mangler ressurser. Foto: Eric Gay/AP

Superdome evakuert
– Jeg behandler ikke hundene min på dem måten, sa Edwards. Rundt hjørnet lå en gammel mann død på gaten.

Hjelparbeidet etter orkanen Katrina

Militærpolitiet er på plass
100 000 amerikanske soldater er på plass i Louisiana og Mississippi for å kontrollere situasjonen og forhindre lovløshet. Militærpolitiet er på plass på busser ut av katastrofeområdet.

17th Street Canal
17th Street Canal forblet på 1100 meter i 100 år. Det er nå 1000 meter dypere og 1000 meter bredere. Dette kan forhindre oversvømmelser.

Militærpolitiet er på plass
Militærpolitiet med drivstoff og strømgeneratorer har ankommet New Orleans. Spesieltstyrkes bilmannskaper deltar i søk og redningsarbeidet.

Figures 1 and 2, from Dagbladet, September 2, 2005 (Reproduction: The National Library of Norway)

Looting and suffering: New Orleans is dominated by criminal gangs and suffering victims. A woman is carried away after she has fainted in the enormous shelter of the Superdome. The evacuation of the Superdome was stopped yesterday after a gunshot was fired at a military helicopter (Dagbladet, September 2, 2005:12)³

This caption sums up the content of the article. It is noticeable that no persons are named in this text, not even the fainted woman, and the four men carrying her are just mentioned indirectly. The text is written in a passive form and contains remarkably few concrete persons. Even though both of the captions refer to looters, the actual pictures do not expose any looters, just victims and armed police. Hence, the captions are framing the pictures in ways that turn them into illustrations of a state of helplessness and lawlessness. This kind of portrayal of the situation inscribes the inhabitants of New Orleans into three possible subject passions.

³ Translated from Norwegian: "Plyndring og lidelse: New Orleans preges av kriminelle gjenger og ofre som lider. Her bæres en kvinne vekk etter å ha besvimt i det enorme tilfluktsstedet Superdome. Evakueringen av Superdome ble i går avbrutt etter at det ble avfyrt skudd mot et militært helikopter."

The term *lawless* defines two active positions, the looters or snipers shooting at the helicopter and the law represented by the military and the police, while the term *helpless* defines the rest of the population as passive victims.

However, stories of looting in the aftermath of the disaster were not unique for New Orleans. Such kinds of stories are among the most frequently told disaster narratives in modern times. Moreover, they are both told locally in disaster areas and distributed widely through mass media. The opening quote from *Candide* illustrates how looting was a topic already in the aftermath of the Lisbon earthquake. Reports of looting were published all around Europe after the earthquake. 151 year later, in 1906, local circulation of such stories caused a state of public fear after the San Francisco earthquake. The mayor of the city, Eugene Schmitz, encouraged the military troops and the police force to "KILL any and all persons found engaged in Looting or in the Commission of Any Other Crime" (quoted in Solnit, 2009:36).



In the aftermath of the Great Kantō earthquake in Japan in 1923, Korean guest workers were accused of starting fires and looting the ruins. As a consequence, groups of vigilantes in Kyoto and Yokohama lynched Koreans (Reilly, 2009:101). The examples of rumors and news reports on looting mobs in disaster areas are numerous. After the earthquake in Japan in 2011, Western news media even asked why the Japanese did *not* loot, implying a presumed normality of looting in disaster areas (*Dagbladet*, March 14, 2011, *The Washington Times*, March 14, 2011).

The disaster scholar Kathleen Tierney has remarked that stories about looting are not only frequently told and broadcast. Disaster narratives also frame how we handle disasters. Tierney and her colleagues also pointed out that such stories suddenly turned the often used metaphor for describing disaster areas – a war zone – into reality when 69 000 troops from the National Guard arrived New Orleans (Tierney et al., 2006). The governor of Louisiana, Kathleen Blanco, announced the appearance of these troops with a warning: “I have one message for these hoodlums: These troops know how to shoot and kill, and they are more than willing to do so if necessary, and I expect they will” (CNN, September 2, 2005). These words went around the world as an echo of the San Francisco mayor 99 years earlier. It later turned out that the stories of looting were highly exaggerated.

Stories of looting and destruction become urban legends, presented and widely distributed as true stories of extraordinary events, yet their truth content is difficult or impossible to verify. The chaos of a disaster scene generates such narratives, especially when the disaster wipes out an entire city. The folklorist Carl Lindahl even claims that: “The death of a city is the ultimate urban legend” (Lindahl, 2012:141). The collapse of modern city life followed by chaos and lawlessness is portrayed in a long list of disaster stories narrated and distributed in both Hollywood blockbusters and news reports. In the aftermath of Hurricane Katrina, legends about looters and snipers were told locally and distributed globally. These kinds of stories belong to what Lindahl terms as the master script of chaos. They are, according to him, projected from pre-existing cultural fear. Even though some gunshots probably were fired, the countless number of gunshots reported was for the most part never fired. The noisy soundtrack of the storm could perfectly well

be mistaken for gunshots, he claims (Lindahl, 2012:145). The intense noise worked as a vehicle in a literary transformation of meteorological forces into human forces, and into the sphere of action of the criminal antagonists in a human drama of chaos and order.

In general, legends are distributed narratives that are tested and shaped in collective processes of telling, transmission and re-telling. They are renegotiated and reformulated in a continual interplay between tellers and audiences in order to be accepted by the audience and eventually to be re-told (Bogatyrëv and Jakobson, [1929] 2005). In this sense they reflect culturally shared imaginations, evaluations and values. The article from *Dagbladet* was far from the only Norwegian news report focusing on looting and criminals shooting at helicopters. Such stories actually dominated the Norwegian press coverage of flooded New Orleans. Hence, it is likely to assume that the re-telling and re-contextualization of looting narratives from a local American context to a Norwegian media context to some extent reflects that the cultural imaginations these stories are based on also found resonance among a Norwegian media audience.

The article from *Dagbladet*, along with a number of similar news reports, reveals a certain kind of disaster imagination. In the Norwegian press, the lawlessness and helplessness of the people in New Orleans was explained partly in light of American social structures and partly due to fundamental human behavior uncovered when civilization was literally swept away. Hence, the true disaster was not the hurricane; it was rather the lawless and chaotic situation that apparently appeared in its aftermath. The hurricane was just a necessary background for the story. The storm prepared the scene for the incomprehensible actions of the looting antagonists. Nature, understood as the meteorological forces, had no active part in the drama and was thus not ascribed any explanatory value. Instead the stories about looting framed the disaster as a fundamental human-moral situation. The writer Rebecca Solnit, has pointed out that this kind of framing of disasters draws on an idea best formulated in Thomas Hobbes' concept of the state of nature, as a war of all against all (Solnit, 2009:91;241-242). My point is that this kind of narrative framing, so to speak, converts the catastrophe from a natural to a moral disaster, caused by the true nature of mankind.

Social vulnerability

An article in the regional newspaper *Adresseavisen* from December 28, 2005 was looking back on 2005 as a year of disasters. The chaos and disorder of the directly broadcast disaster in New Orleans was commented upon by asking these questions:

How can the wealthiest and most resource-rich country in the world not manage to help the population of New Orleans? How can a tourist city suddenly look like a city in the third world ravaged by civil war? (*Adresseavisen*, December 28, 2005:50)⁴

⁴ Translated from Norwegian: “Hvorfor klarte ikke verdens rikeste og mest ressurssterke land å komme befolkningen i New Orleans til unnsetning? Hvordan kan en turistby i Vesten plutselig se ut som en borgerkrigsherjet by i den tredje verden?”



The war metaphor was again repeated, but why was it put in connection to the third world? What was it with the pictures from New Orleans that made such an analogy possible?

This analogy reflects an idea about the interrelationship between development and vulnerability, and is based on an idea of a divide between natural hazards and disasters. This distinction is well established in both disaster studies and popular disaster discourse. Over the last 30 years it has been emphasized that it is social vulnerability that makes it possible for hazards to turn into disasters (Hewitt, 1997). This is by now a well-documented empirical fact. Nevertheless, this way of understanding disasters also has a discursive dimension. The concept of vulnerability implies an idea about the opposite – invulnerability, often referred to as resilience. While countries in the third world are generally considered to be more or less vulnerable to natural hazards, the western countries, on the other hand, are presumed to be more or less invulnerable. Vulnerability and development are in other words two sides of the same coin.

Hurricane Katrina exposed the vulnerability of American society to the world. It was a tremendous shock when the USA was unable to handle the situation. In an editorial article, the social democratic daily *Dagsavisen* wrote for instance: “The pictures from the disaster area are such pictures one would expect from a developing country, not a superpower” (*Dagsavisen*, September 10, 2005:3).⁵ In the aftermath of the hurricane, the phrase “the world’s only superpower” was used as a fixed rhetorical figure around the world; by Reuter’s news agency, in the German press, in Indian press and in Norway (e.g. NTB, September 2, 2005a; *Dagbladet*, September 3, 2005:9; Spiegel Online International, September 12, 2005; The Times of India, September 4, 2005). With the term *superpower*, a global, power political discourse was connected to a disaster discourse. The example from *Dagsavisen* clearly shows how the use of the term was based on a presumption that a superpower is supposed to be resilient per se. And likewise, that the third world as such was most likely to be vulnerable to disasters.

One consequence of the rhetoric in the quotes from *Adresseavisen* and *Dagsavisen* is that New Orleans and Louisiana are textually framed as semi-developed or as a third-world-like area. However, the problem seems to be that the development-vulnerability model did not necessarily fit reality. In the following example picked from a commentary in *Dagbladet*, this model collides with

the author’s knowledge about disaster management in two so-called developing countries:

One could almost believe this to happen in one of the least developed countries in the world, apart from the paradox that it is precisely the poor countries that are often very good at dealing with natural disasters. Bangladesh has simple and effective measures concerning flood and are doing reasonably well, in the same way as Cuba manages to handle the annual returning hurricanes. (*Dagbladet*, September 3, 2005: 9)⁶

The critique of the disaster management in the aftermath of the hurricane was highly politicized both in the USA and abroad. In quite direct terms it was directed against the Bush-administration, and in the USA also against FEMA (The Federal Emergency Management Agency). However, on a more fundamental level such kind of critical reports was about more than the stupidity of the Bush-administration. While narratives on looting thematize the collapse of social structures, reports on social vulnerability represent the opposite. They are all about social structures – political and institutional structures one would expect to be working but didn’t, and the structures that were working all too well – in this case, the armed forces.

In American public debates, Hurricane Katrina was characterized as an unnatural disaster (Lee, 2006; Reed, 2006; Hartman and Squires, 2006). The term *unnatural* was not used in the Norwegian press. Yet, both the news reports and the commentary referred to in this article were still in line with such an understanding of the disaster in the sense that *nature* was completely written out of this kind of analysis, in favor of structural and political explanations. An impression was given that modern, developed societies were expected to be natureproof, so to speak.⁷ When the disaster was written entirely into a political sphere of action, the possibilities were opened for drawing parallels to radically different catastrophe discourses; such as war, concentration camps and genocide discourses. *Dagbladet*, one of the largest Norwegian tabloids, for instance drew parallels between a temporary prison at a bus station in New Orleans and Guantanamo Bay (*Dagbladet*, September 14, 2005:9), while Norwegian News Agency (NTB) called the Superdome a concentration camp (NTB, September 2, 2005b). The concentration camp analogy gives a hint of a cultural model on structural evil, drawing on the idea of the banality of bureaucratic evil in Hannah Arendt’s sense.

Extreme weather and global warming – when nature strikes back

In the USA as well as in Europe, Hurricane Katrina was almost immediately linked to global warming, (Mooney, 2007:150; Boykoff,

2011:136). The profiled American environmentalist Bill McKibben called it “the first of many global warming disasters destined to

⁵ Translated from Norwegian: “Bildene fra katastrofeområdet er slikt man ville ventet fra et utviklingsland, ikke en supermakt.”

⁶ Translated from Norwegian: “Man skulle nesten tro at dette skjer i et av verdens minst utviklede land, bortsett fra det paradoksale at nettopp verdens fattige land ofte viser seg svært flinke til å håndtere naturkatastrofer. Bangladesh har enkle og gode tiltak mot flom og klarer seg brukbart, akkurat som Cuba klarer sine årvisse orkaner.”

⁷ Thanks to Adam Dodd for the term “natureproof”.



strike in the twenty-first century” (quoted in Hertsgaard, 2006:19). In Europe leading politicians such as the British Deputy Prime Minister John Prescott and the German Minister of the Environment Jürgen Trittin both related Hurricane Katrina to global warming, and in more or less direct ways blamed President Bush for the disaster, by not cutting down the emission of climate gasses and by not signing the Kyoto protocol (NTB, September 30, 2005; *The Observer*, September 11, 2005).

In Norway the climate debate connected to Hurricane Katrina was related to an upcoming parliamentary election, held on September 12. The hurricane was used to argue for the need of more radical measures in Norwegian environmental politics. Several Norwegian editorial articles used the hurricane as an example of what will happen in the near future. This excerpt is from an editorial in *Dagbladet*, August 31, 2005:

Katrina's ravages provide an object lesson in what happens when weather becomes extreme. The experts are careful not to directly link this particular hurricane to global warming. This year's hurricane season can become one of the worst, yet it may be a part of a 50 to 60-year weather cycle. But however, only various supporters of the oil industry, found among politicians and scientists, doubt that climate gas emission is warming the planet, causing climate changes and extreme weather. Hurricanes are not the only forms of extreme weather.

Warm, still weather that causes drought can be even more destructive.

Extreme weather in our own country [Norway] manifests itself as summer storms in the Western regions. Or we see it as bushes and small trees growing in the mountain plateaus where we are used to alpine vegetation. The Minister of Environmental Affairs, Knut Arild Hareide, promises that as long as his government is allowed to stay in power, the loss of Norwegian nature as we know it will be halted during the next Parliamentary term. This is an impressive promise that Hareide will be unable to keep when nature strikes back. (...) The goals of the Kyoto agreement are far from adequate in order to stop the increase in climate gas emissions. Extreme weather is a reminder of what awaits us if we don't do much, much more. Now. (*Dagbladet*, August 31, 2005:2)⁸

The message of this editorial is addressed to the prospective new Norwegian Minister of Environmental Affairs, yet the rhetorical use of Hurricane Katrina is not merely political. It is rather a way of reasoning that reflects a certain kind of catastrophe rationality.

⁸ Translated from Norwegian by Heidi Støa: "Katrinas herjinger er anskuelserundervisning om hva som skjer når været blir ekstremt. Ekspertene er forsiktede med å sette akkurat denne orkanen i direkte sammenheng med global oppvarming. Årets orkansesong kan bli blant de verste, men dette kan være del av en syklus på mellom 50 og 60 år. Det er likevel bare oljeindustriens ulike talspersoner blant politikere og forskere som betviler at utslipp av klimagasser varmer opp planeten, forårsaker klimaforandringer og ekstremt vær. Ekstremt vær trenger ikke være orkaner. Varmt, stille vær som forårsaker tørke, kan være minst like ødeleggende. Ekstremt vær i vårt land kan arte seg som stormer på Vestlandet mens det fortsatt er sommer.

The first paragraph of the quote is seemingly drawing on established climate research, but as the argument evolves, another kind of reasoning emerges. The climate research referred to in the first paragraph is based upon complex probability calculation with a long range of uncertainties, while the journalistic and popular climate discourse that soon brakes its way through the textual surface argues for simple and direct causality with global warming as the cause and singular weather disasters as the consequence (Kverndokk, 2011:171-174). This editorial does not only understand Hurricane Katrina as a foreshadowing of what is to come, but also associates Katrina with other kinds of weather phenomena. Rather than focusing on statistics or general, global impacts of climate change – such as rising sea levels – the article focuses upon concrete, Norwegian examples of extreme weather.

The term extreme weather is closely linked to a climate discourse, and works as a linguistic technology transforming different kinds of weather phenomena into phenomena of the same kind. This editorial links Norwegian summer storms and woodland where there used to be bare mountains to Hurricane Katrina by the use of this concept. As extreme weather, these weather phenomena are all indicators of global environmental processes. They work seemingly as direct evidences for how global warming is affecting the environment. However, the text tends to focus upon the message of these dramatic events, rather than the underlying causes of them. Consequently, quite different kinds of weather phenomena work together, establishing a worldwide pattern pointing towards a forthcoming climate crisis. In this sense the weather events operate rhetorically as communicative signs,⁹ bringing messages from nature about the future, and not as strict scientific evidences.

There are some striking structural similarities between the argumentative pattern in this text and early modern reasoning about disasters as divine signs or so called omens. In early modern sign-reading practice, phenomena in nature were interpreted as semiotic signs. Omens predicted a forthcoming disaster, most often Judgment Day. Natural phenomena were interpreted in light of eschatological verses in the Bible, working as modeling examples. Hence, this kind of reasoning was based on exemplarity, not probability. The particular sign was further linked to other peculiar incidents. An earthquake could, for instance, be associated with floods, heavy rainfall or even comets. Each one of these incidents was remarkable, but the semiotic pattern first appeared when they were linked together, and authorized each other as signs of the same kind. Together they would form a pattern of divine signs, predicting the end of the world. This was the case with most of the religious interpretations of the Lisbon earthquake (Kverndokk,

Eller som småskog på vidda der vi var vant til høyfjellsnatur. Miljøvernminister Knut Arild Hareide lover at bare regjeringen får beholde makta, skal tapet av norsk natur slik vi kjenner den, stanses i løpet av neste periode. Det er et voksent valglofte som Hareide er ute av stand til å holde når naturen slår tilbake. (...) Målene i Kyoto-avtalen er langt fra tilstrekkelige til å stanse økningen i utslipp av klimagasser. Ekstremt vær er en påminnelse om hva som venter om vi ikke gjør langt, langt mer. Nå."

⁹ Søren Kjørup has suggested the term communicative sign as a generic term for what Pierce terms as icons and symbols (Kjørup, 2002).



2010:64–67). Such signs in nature were, argumentatively speaking, empty examples, in the sense that the interpretation of them was not fixed, but depended upon the argumentative framing (Nicolaysen, 1999:131). A similar sign-reading practice can be traced in the editorial article from *Dagbladet*. The text establishes connections between phenomena of different kinds, appearing at totally different geographical locations by the use of the term extreme weather. By the use of this term they are transformed into being incidents of the same kind, working argumentatively-speaking as similar types of signs predicting a dark future.

Modernity is often described as the emergence of an ontological divide between nature and culture and between nature and morals

(Latour, 1993; Neiman, 2002:250). However, Bruno Latour has long since pointed out how hybrids of nature and culture are constantly being produced in the modern world. The modern divide between nature and morals also seems to blur in late modern climate discourse. Zygmunt Bauman describes modernity as a long detour in the way we think about fear and disasters (Bauman, 2006). Nature and morals are again intertwined, and natural evil and moral evil are again interconnected. There are similarities between late modern popular understandings of the relationship between disasters and global warming and early modern disaster interpretations in the argumentative structure, in the semiotic reading of nature, and in the idea of an interrelationship between nature and morals.

Conclusion: Disasters, morals and nature

The relationship between nature, morals and evil are set out rather differently in the three models sketched. Nature is written in and out of these models of disasters, morals and evil. These models are, however, not mutually exclusive. The differences between them are rather a question of scale. The Hobbesian model works on a cultural and local level, the banality of evil model works on a national, political level, while the 'nature strikes back' model operates on a global political level. The analysis in this paper further shows that the notion of (natural) disaster is not fixed in late modern disaster discourse. Its different conceptual levels make it complex, flexible, and interpretative. It is quite clear that a disaster is an object of continual interpretation and cultural negotiation and not merely "the object of attempts at prediction and control" (Neiman, 2002:250).

This paper has examined how rather different sorts of well-established cultural models on morals and evils structured representations and narrations of Hurricane Katrina in the Norwegian press. Such narrations always evolve in an intersection between cultural imaginations and the particular historic situation, and imply a renegotiating of the cultural model. This was also the case in the three cases discussed. The narration of the collapse of the civil society in the media representations of Hurricane Katrina drew heavily on legends circulating in the disaster area and in American mass media. The legends transformed the drama of the natural incident into dramaturgic raw material for stories about human morals and fundamental human evil. While in the media representations of social vulnerability the natural incident were completely written out of the discourse. Further, a rather fixed model of vulnerability and development was tested, but maintained by textually framing

New Orleans as semi-developed. This was done by drawing on rhetorical recourses pointing towards a model that has dominated thinking on structural human evil since the 1960s.

These models worked efficiently producing pure interpretative categories of nature and culture in the way they emphasize human morals and evil, rather than natural forces as explanatory factors. The last case I discussed is however far more complex, producing hybrids of nature and culture, and of nature and morals. The editorial article from *Dagbladet* treated the crucially important question about the consequences of the anthropocene in almost metaphysical terms. This kind of language is not merely metaphorical. It also reflects a reasoning that connects particular disasters to the climate crises. In this way of reasoning, nature is ascribed an agency and an autonomous sphere of action. Like God was considered as a rightful punisher in early modern Europe, nature, in this kind of late modern popular discourse is presented as an autonomous and rightful punisher. Nature and morals are again intertwined.

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ABOUT THE ARTIST

Maja Nilsen is a Norwegian artist, born in 1978 in Klæbu, Norway. Nilsen has an MFA from Trondheim Academy of Fine Art (2003-2005) and a BA from Trondheim and Dublin.

The work of Maja Nilsen is created from memory and imagination, residing somewhere in the tension between autobiographical reference points and poetically immersed dream worlds. She works in a cross/multimedia manner that mostly results in site-specific projects and collages.

Since 2005 Nilsen has been making public works and commissions developed from encounters, conversations and the researching of abandoned or forgotten histories. When working in different places and communities, she incorporates elements of these environments,

About *Underkamre*

Underkamre (2013), decoration at Hokksund Secondary School. The decoration consists of a 5 m long oak glass case containing a large number of collages mounted with pins. The project is grounded in Nilsen's fascination for the natural sciences, in this case entomology. Entomology (from Greek, entomos, "that which is cut in pieces or engraved/segmented") is the scientific study of insect. An entomologist collects and catalogues f.ex. beetles, butterflies and wasps.

For this project Nilsen has worked like an entomologist, but with the collage as technique and paper cutouts as her "insects". She is always collecting and looking for books to find the interesting elements that are to be given new and permanent life in new constellations. Most of the source books are old natural sciences tomes, books meant to enlighten us about natural phenomena, theories, explorers and the development of the Earth. The fact that the collages are gathered from old enlightenment books and commissioned by an institution for learning is therefore an important part of the project.

Insects as theme is intervoven in a wide range of works where among other the concept of metamorphosis has been central. Metamorphosis has roots in both biology, geology, mythology and illusions (magic tricks), and points to transformations; a pervasive physical change that individuals go through in their lifetime. The metamorphosis also alludes to the age of the pupils and the school as institution and incubator, which again can add layers of interpretation

such as existing epistemologies, local histories, tradition or myth into her practice.

Nilsen also concerns herself with historical characters, eras and myths that allow us to see our own time in relief. She is interested in how people live their lives and how we throughout history have tried to understand the world around us. How do we seek explanations of complex issues and phenomena throughout including science, religion and folklore? Her art tends to expose connectivity with the past, present and future existences.

In the last couple of years the importance of telling stories has become a stronger force in her artistic practise, which until now has consisted mainly of sculpture, collage, and site-specific projects.

and understanding to the work. The work plays with the four stages of insect life cycles, where they undergo a complete transformation: egg, larvae, pupae and adult.

The correspondance between micro and macro features prominently in Nilsen's oeuvre. Inspired by baroque *Wunderkammer* (cabinets of curiosities), she constructs staged microcosms where the categories of the objects remain undefined, and where her collages often reside in the liminal spaces between the mythological and the scientific.

The wunderkammer were also a mix of fiction and facts, and formed the basis of today's science museums. They illustrated the many ambiguities and metamorphoses of nature while simultaneously questioning the classification of objects. What is a coral actually? Is a gold-plated coconut nature or art? What does the horn of the unicorn look like?

In contrast to many larger decorations, with this work Nilsen works with many small elements, focusing on details and utilising fragile materials. In this way she invites the viewers to stop and look closer, studying the details out of curiosity, a nice contrast to a long and busy but otherwise empty corridor in a school. The aim is for the work to create new notions of the great unknown, fables about that which is invisible to the eye and everything around us that is still undiscovered. Perhaps it can engender wonder and contribute to new discussions within f.ex. philosophy, research and science...

