



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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