Conflicting and entangled human–nature relationships: A discursive-material analysis of the documentary film Kiruna - A Brand New World

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Abstract

1. *Kiruna - A Brand New World* (2019) is a documentary film directed by Greta Stocklassa, and produced by the Czech company Analog Vision. It analyses the move of (part of) Kiruna, a north-Swedish mining city, which is threatened by destruction because of the operations of the state-owned ore mining company, Luossavaara-Kiirunavaara (LKAB). The film focusses on the lives of a number of inhabitants, including Timo, a local activist opposing the move, the teenage Sami Maja and Abdalrahman, a teenage refugee from Yemen.

2. Our discursive-material analysis (see Carpentier, 2017) focusses on how the film represents and intervenes in a discursive-material struggle over the identity of three actors—the soil, the city and the mine—and their interconnections.

3. The article starts with a theoretical discussion on discourse theory, enriched by new materialist approaches, to develop a theoretical framework that does justice to the discursive-material entanglement.

4. This framework is then used to identify a hegemonic cluster of discourses that give meaning to nature, consisting of anthropocentrism, dualism and prometheanism, and a counterhegemonic cluster, consisting of ecocentrism, integrationism and survivalism.

5. The analysis shows that the documentary film shows the workings of the hegemonic cluster (centred around the topoi of progress and TINA), but also visualizes the gaps in, and limits of, this hegemonic cluster. Second, the film also gently highlights the discursive-material conflict by giving voice to those who identify with the counterhegemonic discourses, and by representing the soil as having material agency, resisting its exploitation.

Keywords
discourse theory, discursive-material struggles, documentary film, hegemony, Kiruna, material agency, natureculture, new materialism
1 | INTRODUCTION

The discursive construction of nature, or the ways that we give meaning to nature, is a highly relevant social and political process, and the research interest for this ‘constructed nature of nature’ (Dingler, 2005; Dryzek, 2013; Hajer, 1995) has slowly gained more prominence in environmental studies, and in environmental communication. This increased attention motivated Milstein (2009, 346) to include environmental discourse studies—in her encyclopaedia entry on ‘Environmental Communication Theories’—and write that ‘many environmental communication scholars have been interested in discourse theory informed by poststructuralism, as well as contemporary disciplines such as science studies and cultural studies’. These discursive approaches have focussed our attention on how nature discourses can change over time, but also how different discourses engage in struggles over the meanings allocated to the same subjects, objects and processes. At the same time, these approaches have taken considerable care to emphasize that this does not imply that ‘anything goes’, but that—in contrast—discourses also fixate meanings, sometimes in insurmountable ways.

At the same time, in the same recent decades, we also find a stronger acknowledgement of material agency, supported by an ontology of entanglement (Barad, 2007; Haraway, 2003, 2016). These approaches have often been grouped together under the label of new materialism. One of their communalities is that they emphasize—as also this article does—that the material should not be allocated a secondary role. The material is not a passive recipient of meaning, situated outside these discursive struggles, but the material can actively engage with these struggles, which transforms them into entangled, discursive-material struggles.

The documentary film Kiruna - A Brand New World that we will analyse in this article deals with a north-Swedish mining city, which is threatened by land subsidence—or the ‘sinking’ of the soil—forcing its centre to be moved 3 km east. Theoretically supported by an articulation of discourse theory with new materialism, our analysis shows how this film communicates about a discursive-material struggle between the film's three main actors—the soil, the city and the mine. In this film, we can find a cluster of dominant discourses (anthropocentrism, dualism and prometheanism, as we will show later on) invoked by the mine and by a considerable part of the city, legitimating the mine’s powerful position. At the same time, the film also communicates the existence of a cluster of ecocentrism, integrationist and survivalist discourses that resist these dominant ways of thinking about the mine (and the city and the soil), which shows the gaps in these dominant discourses. Importantly, the documentary film acknowledges the material agency of the soil, which becomes seen as integrated into this counterhegemonic pushback.

As a mostly observational documentary film, Kiruna - A Brand New World allows unpacking the logics of discursive-material struggles, by choosing to focus on (the observation of) these struggles and thus rendering them visible, also giving voice to the different—and arguably more sustainable—ways of thinking, that provide alternatives to still dominant discourses. This is where this documentary film becomes an intervention, which is part of the (sub)genre of the environmental (or green) documentary. This (sub)genre has significantly gained in popularity in the 21st century (Cooper, 2018; Duvall, 2017; Hughes, 2014), also building on critiques of earlier media representations of the environment (Blewitt, 2010). Even if we always need to be careful not to overestimate the impact of one film, the film’s importance is strengthened through its integration into this broader wave of environmental documentary films that engage—in a wide variety of ways—with sustainability and that form a collective and sustained intervention into the discursive-material struggles over the environment.

2 | THE DISCOURSIVE-MATERIAL KNOT

In order to theorize the workings of these discursive-material struggles, we will start with a more general discussion on discourse theory, keeping in mind that the field of discourse studies—rather confusingly—incorporates a wide variety of approaches, with many different definitions of discourse, even though they all still share a focus on how meaning structures social reality and how these meanings themselves are structured in particular ways. In this text, we are interested in the more macro(con)textual approaches (Carpentier & De Cleen, 2007; Carpentier, 2017, 15 and ff), which constitute one tradition within the field of discourse studies, often referred to as discourse theory. One reason for selecting discourse theory is that it already contains a series of bridges to ensure that the material is sufficiently validated. These bridges will be highlighted, and complemented with new materialist discussions, allowing for the theorization of a non-hierarchical relationship between the material and the discursive.

Macro(con)textual approaches use a definition of discourse that is not so much looking at discourse-as-language, but as representational or ideological structures. Discourse is defined here as what Gee calls Big D Discourse, which is ‘[...] always more than just language,’ and refers to ‘[...] saying (writing)-doing-being-valuing-believing combinations’ (Gee, 1990, 142—emphasis removed). Similarly, Laclau and Mouffe (1985, 105) define (this version of) the concept of discourse as a structured entity that is the result of articulation, which is, in turn, viewed as ‘[...] any practice establishing a relation among elements such that their identity is modified as a result of the articulatory practice.’ In these macro(con)textual approaches, discourses are frameworks of intelligibility, necessary ways of knowing the world, that are condensed in, and communicated through, what Hall (1997) called signifying practices. At the same time, these

1We prefer here the term ‘soil’ over ‘landscape’, as ‘landscape’ also connotes the ‘collective shaping of the earth over time’ (Crang, 1998, 17-18).

2It is also part of the increased media attention for the Arctic, while ‘Before the late 1990s, the Arctic did not figure prominently in the mainstream media’ (Nilsson & Christensen, 2019, 4).
knowledges about social reality (or discourses) are not the same as language, but what is behind language.

Discourse theory—as most approaches in discourse studies—is grounded in a non-essentialist perspective, which implies in practice that discourses are characterized by a combination of rigidity and contingency. Discourses are not completely stable and rigid frameworks, but they are structures of meaning that (can) become re-articulated through political intervention, and that can be made stable and even hegemonic through discursive struggles. But this stability is not total and permanent, and contingency is generated at two (interconnected) levels. At the intra-discursive level, there is a multitude of discursive elements that can be used to construct a discourse, but that are also always readily available for it to be changed (through the process of re-articulation). Moreover, discourses are not exclusive in their relation to the objects they (aim to) provide meaning to; there is a discursive multitude, and at this inter-discursive level, the struggle between discourses that (aim to) provide meaning to the same object (or subject) differently generates contingency as well.

Still, even at the most basic level—for example, the meaning of a stone—the discursive is both indispensable and not-all-encompassing, and both stable and contingent, as Laclau and Mouffe (1990, 108) illustrate with the example of a stone, which ‘[…] exists independently of any system of social relation […] it is, for instance, either a projectile or an object of aesthetic contemplation only within a specific discursive configuration.’ At a less basic level, a similar argument can, for instance, be made for the construction of nature, humanity, animality, … which are objects of fierce discursive struggles and whose meanings are thus far from sedimented, even if hegemonic discourses (e.g. anthropocentrism—see below) do exist.

This brings us to the material. Even when Laclau and Mouffe’s discourse theory includes the strong acknowledgement that the material exists outside the discursive, discourse theory’s focus tends to be on the discursive, and how the material receives its meaning(s). Arguably, this emphasis places the material in a more passive position and does not do sufficient justice to the idea that also the material can exercise agency, articulating the material as ‘agental matter’ (Barad, 2007, 246) or as ‘generative matter’, a concept that Dolphijn and van der Tuin (2012, 93) attributed to DeLanda (1996). Moreover, discourse theory’s emphasis on the discursive—and how it generates meaning(s) for the material—also conceals the dynamics of the interaction between the discursive and the material, which can be captured with the concept of (discursive-material) entanglement, or which one of us has earlier labelled the discursive-material knot (Carpentier, 2017).

One field, where this problem has been addressed, is in new materialist theory, where we can find references to what these authors call a ‘material-semiotic actor’ (Haraway, 1988, 595) or a ‘material-discursive’ (Barad, 2007) approach.2 When more radically combining the ontological positions of discourse theory and new materialism, we can argue for a non-hierarchical perspective that does justice to both the agentic and structuring capacities of the discursive and the material. This articulation of discourse theory and new materialism allows acknowledging the capacity of the discursive to structure the social reality by generating frameworks of intelligibility, that are sometimes extremely rigid, and sometimes extremely fluid structures of meaning, that are never permanent nor all-encompassing. Simultaneously, this articulation of discourse theory and new materialism also allows us to emphasize the capacity of the material to exercise its agencies, which, in turn, implies that the material can also impact on the discursive. For instance, death, as a deeply material process, has invited for the development of a wide range of discourses, including religious afterlife discourses, to be generated. A similar argument can be used when talking about what we call nature, because—to use Stengers’s words (2015, 42)—‘Gaia intrudes’. Also Haraway (2016, 43) makes this point: ‘Gaia’s intrusion into our affairs is a radically materialist event’, which—we would like to add—is also a strong, almost irresistible, invitation to discursively make it. Moreover, this intrusion, with its material nature, impacts on our discursifications: It ‘intrudes on our categories of thought’ and it ‘intrudes on thinking itself’. (Haraway, 2016, 43).

This ontology of entanglement, with its non-hierarchical relationship of the discursive and material, needs one further qualification, as the omnipresence of this entanglement does not automatically imply that every set of discourses signifying practices and materials are always and necessarily perfectly balanced in every situation or event. In order to distinguish between the ontological and ontic level, the concept of the assemblage can be used to refer to concrete articulations of these discourses, signifying practices and materials. In his discussion of the assemblage, DeLanda (2016, 11) refers to the assemblage as an ‘irreducible social whole produced by relations of exteriority, a whole that does not totalise its parts’. In an earlier book, DeLanda (2006, 10) explained that these relations of exteriority imply ‘that a component part of an assemblage may be detached from it and plugged into a different assemblage in which its interactions are different’. This emphasis on both irreducibility and contingency (through re-articulation) renders the notion of the assemblage well-suited for capturing the ontic level of entanglement, maintaining an emphasis on contingency, and acknowledging the always unique combination of material and discursive components. To use DeLanda’s (2006, 12) words, the components of assemblages may play variable roles.

2New materialist theory still has a slight tendency of privileging the material over the discursive (or the representational, or the semiotic, as this realm is often labelled in new materialist theory), but this can easily be avoided.

from a purely material role at one extreme of the axis, to a purely expressive role at the other extreme. These roles are variable and may occur in mixtures, that is, a given component may play a mixture of material and expressive roles by exercising different sets of capacities.
3 | A DISCOURSE-MATERIAL KNOT APPROACH TO NATURE

3.1 | The discursive construction of nature and beyond

The logics of the discursive-material knot can be applied to a wide variety of social realities, but the realm of the environment seems to be quite appropriate as a field of study. This emphasis on the constructed nature of nature has, of course, been pointed out by many others. At the same time, there is a wide variety of (discursive or social) constructionist approaches deployed in environmental studies, which is nicely illustrated by Yearley’s (2002, 274) opening sentence, ‘[n]umerous authors in Britain, continental Europe, and North America have deployed constructionist arguments in their analyses of environmental problems’, immediately followed by the qualification that ‘their precise understanding of constructionism differs’. One instance of an approach related to one that we are using here is Luke’s (1999, 108) work, who is using a Foucauldian perspective, when writing that the environment ‘must not be understood either as the naturally given sphere of all ecological processes that human power keeps under control or as a mysterious domain of obscure terrestrial events which human knowledge works to explain’. Instead, he continues, the environment ‘emerges as a very historical artifact of expert management that is largely constructed by techno-scientific interventions’. Nature, environment, sustainability, ... are all signifiers—and in discourse-theoretical terms: nodal points—articulated in a series of discourses that give meaning to these material realities in a variety of ways, that are contingent over space and time, constructed through political negotiations (Dingler, 2005, 214). In his introduction of The Politics of the Earth, Dryzek (2013, 5) provides an accessible summary, by pointing to the conceptual history of these signifiers, when he raises these three questions (among others):

What is the environment? The environment did not exist as a concept anywhere until the 1960s. [...] What is climate? Once climate was thought of as average weather. More recently it has been conceptualized as an integrated biogeophysical system highly vulnerable to human interference. [...] What is the Earth? We have long known it is a planet, but the idea that it might be a finite planet with limited capacities to support human life has only received attention since the late 1960s.

However important (this analytical focus on) the discursive construction of nature is, we should not fall into the trap of postulating a hierarchy between the discursive and the material. We should thus keep in mind the ‘ontologically real and active, lively presence’ (Goodman, 2001, 181) of nature, as what Bennett (2010) calls vibrant matter. Or, in Iwachiv’s (1997, 30—emphasis removed) words: ‘reality is a collective creation of human and nonhuman actors (and “actants”) engaged in a variety of activities and practices which produce, reproduce and negotiate the multiple “worlds” we inhabit’. Of course, ‘we always come to understand “natural” entities posited as ontologically real and outside us through and in terms of categories, concepts and language’ (Castree, 1995, 15), but we should also take the materiality of nature seriously, together with its agencies, diversities and contingencies (ibid., 13). Nature itself is a ‘sociomaterial entanglement’ (Arias-Maldonado, 2015); it is ‘an active becoming, a creative not-quite-human force capable of producing the new’. (Bennet, 2010, 118—emphasis removed)

3.2 | Discursive and material conflicts on/with nature

These entanglements are not necessarily consensual and harmonious. Here discourse theory’s strong focus on conflict provides us with an important starting point, allowing us to emphasize the intense discursive struggles over the signification of nature. Arguably, a cluster of hegemonic discourses still exists, which consists out of a combination of three interrelated discourses. The first discourse, anthropocentrism, is grounded in a value hierarchy, and privileges humans through the position that ‘only human interests count, and that value only enters the natural world at the point of its transformation into product for human consumption’ (Hay, 2002, 33). This discourse is supported by instrumentalism, which implies that ‘the natural world and all its resources exist solely for human use, use that need not be restrained or limited in any way’ (Corbett, 2006, 28). The second discourse of this hegemonic cluster is dualism, which regulates the (absence of an) interconnection between nature and culture, which we will represent here as ‘nature//culture’. With its origins in Cartesian thought, dualism articulates nature to refer ‘to everything which is not human and distinguished from the work of humanity. Thus “nature” is opposed to culture, to history, to convention, to what is artificially worked or produced, in short, to everything which is defining of the order of humanity’ (Soper, 1995, 15). The third discourse of the hegemonic cluster is what Dryzek (2013, 52, see also Murphy, 2017) called prometheanism, and is defined as the confidence in the boundless capacity of humans to resolve problems: ‘Prometheans have unlimited confidence in the ability of humans and their technologies to overcome any problems—including environmental problems’.

This hegemonic cluster of discourse—even if it is still hegemonic—is deeply contested, through a wide variety of discourses that have been attempting to dislocate it, with varying degrees of success. Of course, these counterhegemonic discourses might develop very different strategies—tackling the hegemonic cluster head-on, or trying to dis/re-articulate only parts of it—and they may have

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4 These three discourses are those particularly relevant to our case study, and have been selected through a retroductive approach (see later). Obviously, other discourses are (or can be) connected to this cluster. One example—for instance thematized by Foster et al. (2010)—is capitalism, which is very much intertwined with instrumentalism.

5 The label is potentially confusing, as—in Greek mythology—Prometheus not only provided an ultimate technological solution (fire) to humankind, but was also severely punished for this act by Zeus.
many different articulations, being a much less rigid and coherent cluster. In Gramscian terms, these dislocatory strategies could be grounded in a (discursive) war of manoeuvre or a war of position. A first component of this counterhegemonic cluster is ecocentrism (or biocentrism), which constitutes humans as ‘no more or no less important than other portions of [the web of all life]’ (Corbett, 2006, 27), which implies a horizontalization of the human, other biotic and abiotic realms of life, or, in Corbett’s (2006, 27) words, a replacement of hierarchy by heterarchy. A second component is what we can call abiotic realms of life, or, in Corbett’s (2006, 27) words, a replacement of hierarchy by heterarchy. A second component is what we can call integrationism or entanglementism, which conceptualizes the interconnectivity of nature and culture, very much in line with the logics of the discursive-material knot. In The Companion Species Manifesto, Haraway (2003) introduced the notion of ‘natureculture’, to capture this ‘inseparability in ecological relationships that are both biophysically and socially formed’ (Malone & Ovenden, 2017, 1), in the following terms:

There cannot be just one companion species; there have to be at least two to make one. It is in the syntax; it is in the flesh. Dogs are about the inescapable, contradictory story of relationships—coconstitutive relationships in which none of the partners pre-exist the relating, and the relating is never done once and for all. Historical specificity and contingent mutability rule all the way down, into nature and culture, into naturecultures. There is no foundation; there are only elephants supporting elephants all the way down. (Haraway, 2003: 12)

Finally (as the overview in Table 1 shows), this counterhegemonic cluster also has a discourse on problem control, emphasizing that human intervention has its limits. Dryzek (2013) labels this discourse of limits and survival, survivalism. As Fisher (2017, 39) writes, survivalists believe ‘that current rates of economic growth, abuse of the collective commons, depletion of renewable resources, ecological destruction, and population increases are out of control and leading to an unprecedented—even apocalyptic in the view of some—ecological crisis’.

But again, we should be careful not to exclusively focus on the discursive, and avoid relegating the material to a secondary position. The material actively intervenes in these discursive struggles, transforming them into discursive-material struggles. As Haraway (2003, 17) writes, ‘animals “hail” us to account for the regimes in which they and we must live. We “hail” them into our constructs of nature and culture, with major consequences of life and death, health and illness, longevity and extinction. We also live with each other in the flesh in ways not exhausted by our ideologies. Stories are much bigger than ideologies. In that is our hope’. The logics of the discursive-material knot also implies that the material-we-call-nature can dislocate existing discourses, by generating events that undermine particular discursive structures. In this sense, the hegemonic cluster of anthropocentrism/dualism/prometheanism seems to be an obvious target of these dislocations through nature’s ability to speak and act back, disrupting the idea of human centrality and omnipotence. But this hegemonic cluster has proven to be resilient, and strategies of discursive repair have proven to be often successful. Moreover, even if the material seems to invite—rather incessantly—to side with the counterhegemonic cluster, nature’s disruptive and dislocatory force can also affect this counterhegemonic cluster, as for instance, conservationist and preservationist attempts are frustrated by nature’s reluctance to be conserved or preserved.

### TABLE 1 Hegemonic and counterhegemonic discourses

| Hegemonic | Counterhegemonic |
|-----------|-----------------|
| Value Hierarchy | Anthropocentrism (supported by Instrumentalism) | Ecocentrism |
| Interconnection | Dualism (‘nature//culture’) | Integrationism or entanglementism (‘natureculture’) |
| Problem Control | Prometheanism (Solutionism) | Survivalism |

4 | KIRUNA - A BRAND NEW WORLD

These discursive-material struggles over nature are waged at a wide variety of locations, in many different societal fields. The field that we want to focus on in this article is the media field, with its many signifying machines that allow discourses to circulate widely, even if each media assemblage has its own specificities (and limits). One thing that renders media, and in particular audiovisual media, specific is that they can visualize the material, giving the material a presence as material, while simultaneously transforming it into a signifying practice (e.g. through editorial decisions on what to show, and how). Of course, as for instance Parikka (2015) emphasizes, media machines have their own materialities.

Within this media field, with its multitude of options, we want to focus on one particular media product, a documentary film from 2019, called **Kiruna - A Brand New World**, directed by the Swedish-Czech director Greta Stocklassa, a former student at the Film and TV School of the Academy of Performing Arts (FAMU) in Prague. The documentary’s other contributors include, Stanislav Adam (director of photography), Hana Dvořáčková (editing) and Pavel Jan (music/sound). The film was produced by Anolog Vision, in cooperation with FAMU, PFX and the Filmtalent Zlín Foundation. This 87-min-long film is a particular signifying practice that intervenes into the discursive-material struggles over nature—which renders it highly relevant to our discussion—through its thematic choice (the moving of a substantial part of a Swedish city), and its explicit representation of the struggles that accompany this large-scale project.
The documentary film shows the struggles between the inhabitants of the city, as they identify with different future projects, focussing on three inhabitants, Maja Jannock Björnström, a high-school student with Sami roots, Abdalrahman Josef, a Yemeni refugee waiting for his Swedish residence permit, and Timo Vilgats, a high-school teacher and activist. But the film also represents the conflict between the city and the mining company, and the conflict between the soil and its human occupants.

These conflicts are very much related to the origins, history, economic activity and reasons of existence of Kiruna, a city in North-Sweden, about 150 km above the Arctic Circle with around 18,000 inhabitants. The Sami settled in the area about 6,000 years ago, when the European ice sheet melted. There are good indications that the Sami were already aware of the iron ore reserves in the two mountains, now called Luossavaara and Kiirunavaara, near what was later to become Kiruna, before the Swedish state became interested in the region, in the 17th century. As Nurmi (2019, 90) argues, ‘The rise of mining enterprises’ in the 17th century ‘has been viewed as an iconic example of Swedish colonial affairs in early modern Lapland [or Sapmi, as is preferred here]’. The construction of these mines was part of a broader colonial project, driven by political, economic and religious reasons, and legitimated ‘as the fulfilment of the divine commandment to appropriate and make use of land’ (Naum, 2016, 493). Even if the domination of the Sami by the Swedish state (and people) occurred with different intensities over time, with endless discursive-material struggles over identity and resources, neither the discrimination of the Sami, nor their struggle for indigenous rights has ceased to exist.

After the original Swedish interest in the territory, it took almost another 250 years for the Luossavaara-Kiirunavaara Aktiebolag (LKAB) mining company to become established, in 1,890. The Swedish industrial revolution—or ‘industrial transformation’, as Magnusson (2000, 106) prefers to call this period ‘from the mid-nineteenth century until the First World War’—stretched out into the Arctic. As Sotoca (2020, 76) argued, this resulted at the turn of the 20th century in the construction of a ‘technological megasystem’ in Sweden’s north, with ‘hydropower plants, railway tracks and military installations’. As part of the permission granted to LKAB to prevent the repetition of the mistakes made with the construction of an earlier mining town (Malmberget) (Sotoca, 2020, 77)—the company was required to ‘guarantee housing and other facilities for its incoming workers’ and ‘[a] model company town was developed, with high housing standards’ (Sjöholm, 2020). Mining operations (and the city of Kiruna) were further boosted by the development of the Malmbanan (the Iron Ore Line), a railroad eventually connecting Kiruna with both the Norwegian city of Narvik (and the Atlantic) and the Swedish Luleå (and the Gulf of Bothnia). Currently, LKAB mines about 80% of all iron ore within the European Union, with 31.3 billion SEK net sales and a 6.1 billion SEK dividend in 2019 (LKAB, 2020, 3). The mine in Kiruna, in the Kiirunavaara mountain, is an important component of LKAB’s operations: it is ‘the world’s largest underground mine – it contains about 250 miles [400 km] of roads – and the ore body is 2.5 miles [4 km] long [...] and reaches a depth of 1.25 miles [2 km]. As of today, approximately one-third of the ore has been extracted.’ (Nilsson, 2017, 433).

The mine also makes the city of Kiruna an example of a single-industry community (even if Kiruna is also a centre for space research), rendering the city highly dependent on the mine; as a local saying goes: ‘Kiruna catches a cold if LKAB sneezes’ (cited in Nilsson, 2017, 433). The mine is not uncontested, as is the case with many mining activities in the Arctic. Zachrisson and Beland Lindahl’s (2019, 4) analysis of what they call a Swedish ‘national-level mining-sceptical movement’ shows the establishment of a number of NGOs in the 2000s and 2010s, whose aim is to ‘reduce negative environmental impact of mining and to increase mineral recycling’. These NGOs aligned with Sami community representatives, who protest the negative impact on the environment and on reindeer herding (see Bäck, 1993; Österlin & Raitio, 2020). A more recent problem is caused by the iron ore body stretching out underneath the city; the continuation of mining operations will lead to land subsidence, eventually destroying (a large part of) the city. In 2004, the local city council thus announced that (most of) the city will be moved; the actual move started in 2014, and is estimated to affect 6,000 people. In September 2020, LKAB—which is obliged to finance the move—announced that ‘[b]y 2035, the current city centre will have been phased out and the new, developed centre will be in place, three kilometres to the east’.

5 | A DISCURSIVE-MATERIAL TRIANGLE OF CONFLICT IN KIRUNA – A BRAND NEW WORLD

Our discursive-material analysis sees the documentary film itself as a discursive-material assemblage, with its own aesthetics, audiovisual language and materiality. As a discursive-material analysis (see Carpentier, 2017), our analysis deployed discourse-theoretical and new materialist theoretical concepts (e.g. hegemony) as sensitizing concepts, as is common in qualitative research (following Blumer, 1969). A second cluster of sensitizing concepts was produced through the literature review of the (discursive) environmental studies literature (e.g. the hegemony of anthropocentrism). Through the confrontation of the empirical data with the sensitizing concepts—in what Glynos and Howarth (2007) call a retroductive approach—the analytical categories (that structure this article) were developed. At
the more practical level, qualitative coding methods were used, as is common in textual analysis (Saldaña, 2013), enriched with visual and multimodal analysis methods (Kress & van Leeuwen, 2001; Rose, 2016).

Through several coding cycles, supported by our sensitizing concepts, we identified three main actors, which are simultaneously three assemblages, namely the mine, the city and the soil, and analysed their identities. Their identity is constructed in a particular way, which is already connected to the struggle between hegemonic and counterhegemonic positions (also by acknowledging the agency of the soil). Especially in the second part of the analysis, this discursive-material struggle becomes clear, as this triangle of interconnections not only and necessarily consists of harmonious relations, but is also (seen to be) represented through a series of (sometimes intense) conflicts.

5.1 | The identities of the mine, city and soil

The film represents the soil in two main—and almost contradictory—ways. First, the film shows its vastness and suggests that the soil is untouched, as the first part of the opening shot demonstrates (see Figure 1). When the film starts, we see the endless forest, stretching out over the hills, covered in snow. This spatial vastness also suggests a temporal dimension, where this spatial arrangement is suggested to have been like this for centuries.

The same opening shot already indicates a second representation of the soil, when slowly but surely, a freight train makes its way, from one side of the screen to the other, demonstrating the human capacity to master this vast nature. Several other shots show a scarred landscape, as for instance in Figure 2. Simultaneous with these images of the opened-up soil, we can hear the sound of an explosion, originating from the mine exploitation.

The second actor of the documentary film, the mine, is also signified in two main ways. First, we see the mine as a symbol of modernist technological achievement and a source of (economic) progress (supporting the city and the entire country), where the mine is equated with the LKAB company through the logic of ownership. One key series of scenes focusses on a tourist visit to the mine. During this visit, we get to hear an upbeat voice, during the screening of a promotional video, with celebratory statements, such as: ‘From the iron ore we mine in one day, one could build more than six Eiffel towers’ and ‘We create new job opportunities. We see a bright future and as we always have, we see new and exciting challenges ahead’. During the start of the visit, we hear the guide introducing the visit with the following words, again stressing the exceptionality and enormity of the mine, which is only emphasized by the bus driving inside the mine’s tunnels, making the visitors (and even the bus) look quite small:

Welcome to the guided tour to the Kirunavaara mine and the LKAB. My name is Gunbritt and I will be your guide. Our driver is called Åke. The engine pulling the train is called lore and it is the most powerful electrical locomotive of the world. This 13 story building is our main office in Kiruna. The architect, named Hakon Ahlberg, wanted this building to look like the UN building in New York.

The same visit also brings out the second signification of the mine that the documentary film generates: The mine is the cause of damage and destruction, to the soil and to the city. The mine guide is shown to stand in front of a 2-m-high representation of the mine, and very clearly explains how the mining operations will damage the city, using a TINA\textsuperscript{12} topos, which supports the mine’s instrumentalism, but also its domination over the city, making the gap in the anthropocentric discourse visible (as not all humans enjoy the same centrality). When actually questioned about the choices left to the inhabitants, she answers briefly (that there is no choice) and then quickly manoeuvres the group of visitors to a near-by set-up where visitors can simulate an explosion (‘be the blaster’).

\textsuperscript{11}Or actants, in the language of Actor Network Theory (see Latour, 2005).

\textsuperscript{12}TINA stands for ‘There Is No Alternative’.
Guide: This side is called the hanging wall and it is very important for our method of mining. We continuously pour granite there, filling up the holes after we’ve mined the iron ore. But of course, we can’t fill up every millimetre or centimetre. So this hanging wall is starting to lean, which means it cracks up here. And what do we have here? That’s where our city is. We need to move this part now. This line is called the ‘The 2033 Border’ and it means that by year 2033 this part of the town has to be gone.

Visitor: If someone doesn’t want to move what happens to them?

Guide: There is not much to do, then. You will be forced to move. So. Who wants to be the blaster today?

The third actor in the documentary film, the city (and its inhabitants) is represented in a more complex way. One representation of Kiruna is as a regular (average) Swedish city, as a location of everyday life, administration, culture, tradition and memory. Everyday life is represented as a mixture of boredom and playfulness. For instance, Abdalrahman is shown playing table tennis and later football, Maja is shown to go clubbing (which includes witnessing a fist fight in the club), attending a Sami Youth party, a graduation ceremony and dinner, with Timo giving a speech at the latter occasion. But we also see the materiality of the city, with its many houses, facilities and infrastructures, including those which are considered especially precious, for instance, the wooden Kiruna Church, which has the shape of a Sami goahti and was voted Sweden’s most beautiful building in 2001 (and will be moved around 2025-2026), the 1963 town hall designed by Artur von Schmalensee (demolished in the spring of 2019, with the exception of the town hall bell tower which was moved in 2017) and The Crystal, the new town hall, designed by Henning Larsen and inaugurated in 2018. It is this infrastructural materiality that generates a divide (or even a dualism) between the urban space and nature—signified by a shot that shows houses close to an abyss (see Figure 3)—while the inhabitants move beyond these boundaries more easily, for instance, when they are shown going ice-fishing.

A second representation positions Kiruna as a location of diversity (and the complexity it generates). Not only do we see political diversity, through the disagreement over the future of the city and the role of the mine (see below), but we also see the city’s cultural diversity. Here, two of the inhabitants that feature in the documentary, Maja and Abdalrahman, play a vital role. Abdalrahman, a Yemeni refugee, is seen living in Kiruna, mostly waiting for news about this residence permit application, sometimes interacting with local (white) inhabitants and mostly dreaming about moving to Stockholm. Maja, who has a Sami mother, renders the Sami and their culture visible, for instance, when she is seen to visit a Sami siida and finds herself among reindeer. But we also see the suppression of the Sami in past and present, as a reminder that anthropocentrism does not equal egalitarianism, in a variety of ways—we overhear a conversation with Maja’s Sami grandparents (who were not allowed to speak Sami) (see Figure 4), we see Maja reading an online news article about reindeer being killed, which has as main title ‘Hatet mot samerna’ (‘The hate against Sami people’) and we listen to an interview (on Nyhetsmorgon, a TV program on the TV4 channel) with Maxida Märak, a Sami singer and human rights activist:

Interviewer: What has your personal experience been through the years?

Maxida Märak: All kinds of things: I got beat up in Gällivare because I am a Sami. I got beat up in Kiruna because I am a Sami. I ended up in a serious fight in my hometown Jokkmokk because I am a Sami. And I have experienced a lot of political opinions, or rather

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13 A goahti is a Sami hut or tent.
14 https://www.kirunalapland.se/en/see-do/kiruna-church/
15 A siida is a pastoralistic community.
political hatred, because we, especially reindeer herders, use land the Swedish state would like to exploit and make some easy money on.

Finally, Kiruna is also represented as a modern city, firmly controlled by humans, despite the sometimes-dire living conditions. The city is only slightly more than a century old, built to accommodate the first miners, and its reconstruction is now very much the topic of the documentary. This human agency is visualized through the material moving of houses, that are lifted on trucks and driven to their new locations, but it is symbolized through the reoccurring shots of a maquette of the city in the old town hall. We see the changes mapped out on this maquette, with little houses being removed, and eventually, at the end, we see the entire maquette being disassembled, as also the old town hall has to be demolished.

At the same time, the documentary film offers us a representation about representation, as we can witness the (official) framing of the changes through the topos of progress (which connects to all three discourses of the hegemonic cluster). In a video about the new town hall, integrated into the documentary, we can hear one example of this framing:

As we have to build a big part of the town again, we have the opportunity to customise what we are building: What kind of real estate do we need, what kind of spaces do we need … You have to have the courage to think outside the box. Develop and create a new foundation, a better foundation. It’s important to always keep looking ahead. Despite the demolitions and the construction sites, life goes on here and now.

When we see the inauguration ceremony of the new town hall, we also find this framing, through the metaphor of the phoenix, which features in the lyrics of a song which was sung during the ceremony: ‘From the dust of the old, the town rises again, the fire will burn again, like a phoenix. And nothing lasts forever but everything starts again! We are those who know that, we know!’ These signifying practices turn out to be—at least partially—convincing for (or already shared with) the inhabitants, even when the documentary film also clearly shows. Both the official communication, and also the everyday conversations in the city, align themselves with these signifying practices, which are grounded in prometheanism—the idea that humans are perfectly capable of solving these kinds of problems. A considerable part of the documentary film shows exactly this. We see houses placed on trucks, moving through the landscape, as they are driven to their new location (Figure 6), a process

Imagine! How amazing it will be in 50 years! And everyone will be saying: ‘What a fantastic city hall we have! Do you remember the old one, with the weird iron structure on top? That looked like crap.’

5.2 | Conflicting interconnections

The documentary film places significant emphasis on the interconnections between the three actors, which also implies that the film structurally aligns itself with a natureculture discourse, which, arguably, generates the backbone of its intervention. But this film also demonstrates that the natureculture assemblage (of the soil, city and mine) is not necessarily harmonious, but that it is—in contrast—characterized by a series of tensions and conflicts.

The first interconnection (as represented in the film) is between the mine and the city. The city has been constructed to serve the needs of the mining industry and it is represented as strongly dependent on the mine. Visually, this is represented in the film through a series of shots that show the mine (on the mountain) towering over the city (see, e.g. Figure 5). On two occasions, we can also hear the explosions (as a result of the mining), which serve as permanent reminders of the presence (and dominance) of the mine.

But this relationship of dependency—where the mine has contributed to the city’s and the country’s prosperity—is now the cause of the city’s (partial) destruction and relocation. Apart from the city’s economic and symbolic dependency on the mine, their relationship is also deeply material, as the mine will cause the city to sink into the soil, if it is not moved. As mentioned before, there is a strong presence of the TINA topos, rendering the idea of closing the mine unthinkable, combined with a framing of the move as progress, which the film also clearly shows. Both the official communication, and also the everyday conversations in the city, align themselves with these signifying practices, which are grounded in prometheanism—the idea that humans are perfectly capable of solving these kinds of problems. A considerable part of the documentary film shows exactly this. We see houses placed on trucks, moving through the landscape, as they are driven to their new location (Figure 6), a process
which is articulated as a formidable and impressive achievement. We also see the grandeur of the new Kiruna, with the new town hall being constructed and eventually inaugurated (and the old bell tower being moved there).

But this idea of progress and improvement is not completely accepted. Timo, the teacher, plays a significant role in the articulation of this counterhegemonic discourse. He is quoted saying: ‘Now we’re doing this, as they call it, “city transformation”. “Building a new city”, according to the propaganda. But by now, we have mostly seen demolishing, so that’s also a matter of definition, what is a “move” and what is a demolition.’ Moreover, we also see this destruction visualized in the documentary, with a multitude of shots of bulldozers and cranes demolishing buildings (e.g. Figure 7).

One key scene is when Timo is playing with his two grandchildren. After they have built a house in Lego bricks, the following conversation takes place, after which the table is flipped and the Lego house crashes onto the living room floor:

Timo: The miner is coming [to the] home with his tractor.

Boy: She’s putting her stuff there!

Timo: But she’s driving into the house. You see?

Boy: You want to sell it, or what?

Timo: She’s about to destroy the house, you see?

Boy: No! Tomorrow! We will tear down the house tomorrow! No! […]

Timo: I think tomorrow has come and the house shall be destroyed.

The main sentiments conveyed through Timo are those of loss and nostalgia, where inhabitants feel uprooted as their access to their lieux de mémoire becomes severed. During one of the philosophy café meetings, Timo describes the consequences for his 23-old daughter: ‘The house has been torn down, her former school gets torn down. The park she used to play in disappears. There is no Kiruna left for her’. Timo also takes us to the location of his former apartment, which has been demolished. There he says: ‘I thought I would show you our old apartment. It’s a little hard to see but here we had our kitchen and the entrance, the address was Bromsgatan 8E. Here we used to have the dining room and a terrace with rabbits. Tilda and Einar were born while we were living here’. But the most dramatic evocation of this loss can be found in the shot of graffiti on a wall, saying ‘Kiruna is Dead’ (Figure 8).

The second interconnection is between the soil and the mine. The mine, even when—for a large extent—being located underground, leaves its traces on the surface, and is represented taking over the soil (and the city), gradually expanding and pushing away living populations (human, animal, vegetal). The mining-related activity has been causing significant deformations and alterations to the soil and the landscape, contributing to the degradation of the flora and fauna of the area. The soil is not only represented as scarred, but the agency for this scarring is attributed to the mine and its railroads, with the soil represented as being scarred by human mining activity (see Figure 2).

Interestingly and importantly, the soil is also attributed agency in this conflict, as it resists the mining activities: it trembles, it moves,
it cracks and slides, creating chasms and an unsafe environment for people and animals to live in. It dislocates the hegemonic discourses cluster, and the city assemblage. Here, again, we find a natureculture discourse in the documentary, demonstrating the interconnectedness of nature and culture, with an active role allocated to nature. Obviously, the land subsidence is the prime example of this, as it is forcing a (substantial part of a) city to move (and as it is the rationale behind the entire documentary). But the documentary also shows more small-scale changes to the infrastructures, as for instance, cracks in the floor (see Figure 9). Of course, the soil’s resistance is countered, by moving the city, so that the mining of the soil can continue.

Finally, also the third interconnection, between the soil and the city is represented in the documentary. The city often appears in the documentary as absorbed by nature, engulfed in darkness, fog or snow (see Figure 10). The frequent distant shots of the city as only a (small) part of the vast land construct the city as hosted by nature, as being the land’s guest. This image is strengthened by the portrayal of the seasonal climatic conditions determining a lot of people’s indoor and outdoor activities. And, as already mentioned earlier, the city is built on a part of land which, by responding to the mining activity, is now trembling and cracking, challenging the city’s vitality. This is a warning that the land that has hosted the city for the past 120 years cannot nurture the city and keep it safe any longer. Again, these elements represent the entanglement of culture and nature (and a natureculture discourse).

Here, we also need to unpack the questions about whose city this is, and who its inhabitants are, as their rights to the soil and its ownership are not uncontested. The soil is the objective of a conflict between the indigenous population, and the mine. Both voices are represented in the documentary. The mine’s position, which can be considered dominant, is clarified during the tourist visit, and the screening of the promotional video, where the voice-over emphasizes the benevolent role of the mine and ignores the existence of any conflict: ‘Thanks to the iron ore and the railway, the mining communities grew in this area. Nature, the Sami people and the industry have lived side by side here in times both good and bad. They have created growth in Sweden and also internationally’. But the documentary also gives voice to the Sami position, which is much more critical and activist, as a voice-over at a Sami Youth meeting demonstrates: ‘We have more than ten closed mines, two big mines working and another two set to open. The thick fir forest that should cast shadow over our reindeer is turned into barren, depleted pine plantations every year. The Sami Youth has the strength to become Sami’s own Rosa Parks. I know that you can, want to and have the courage to do it’. Through these Sami voices, but also through the representation of the plurality of cultures—some of which have non-dualist orientations—a counterhegemonic ecocentrism discourse, and its resistance against anthropocentrism and instrumentalism, together with the gaps within anthropocentrism itself (because of its non-egalitarianism) gain visibility.

This is further enhanced by showing that the close attachment to place (and to the soil) is not exclusively attributed to the Sami. For some of the other Kiruna inhabitants as well, the connection of the city with the land is what gives them a sense of home, around which one builds her/his subjectivity. This concerns a sense of belonging which is rooted discursively and materially in place. Hence, what is of value is not only the Kiruna houses and other buildings, it is also the places where those are, or have been. Rootedness is what turns a house into a home. For example, the church is one of the buildings that will be saved and moved to the ‘new’ Kiruna. Still, its relocation is experienced by one inhabitant as derootedness and a loss of place. As she explains during one of the philosophy café meetings: ‘I was baptised and married here .... For me, it feels like they’re knocking me off my feet. It is not just about moving; it’s not about changing. This is about my life, my memories.’

6 | CONCLUSION

The documentary film Kiruna - A Brand New World allows unpacking the sometimes-subtle presences of discourses within particular signifying practices (e.g. a film), and demonstrates the difference between these discourses and signifying practices. For instance, anthropocentrism, dualism and prometheanism are not addressed
explicitly, in the sense that these signifiers do not feature explicitly in the film. Still, they remain very present. This is where the strength of a discourse-theoretical (and discourse-material) approach lies, as it allows analysts to render these frameworks of intelligibility visible and explicit.

What makes Kiruna - A Brand New World important—as an intervention—is that the documentary film also makes the discursive struggle over (the construction and control of) nature visible. We get to see the workings of the hegemonic clusters of discourse, in a fairly non-judgemental way, as the film, quite elegantly, sketches the articulations of these hegemonic discourses, in particular through the identity of the mine, and its dominant position in the interconnections with the city and the soil. Moreover, the documentary film shows us the mechanisms of hegemonization—centred around the topoi of progress and TINA—demonstrating the presence of active strategic interventions, communicated through the mine assemblage. The documentary film—in alignment with research on this issue, see Nilsson (2017)—also shows that the mine has been successful in generating an alliance with many of Kiruna’s inhabitants in supporting this hegemony.

But the documentary film moves beyond the neutral focus on this hegemonic cluster. First, the documentary film renders a series of gaps in the hegemonic discourses visible, and demonstrates their cost. We see some transgressions of the nature//culture divides through leisure practices and a deconstruction of anthropocentrism by focussing on the inequalities and suppressions in human society, arguing that some actors are more at the centre than others. The film also shows the cost of the hegemonic discourse cluster, by zooming in on the damage done to the soil, on the destruction of the city and the pain that it causes to—at least some of—the inhabitants.

Second, we can find different counterhegemonic discourses articulated in a variety of ways, very much centred around the natu-reculture discourse, as it is voiced by some inhabitants (especially Timo). But it is in particular the agency that is attributed to the soil seen to be engaging in active resistance against its exploitation—forcing a city to move—that provides support for the natureculture discourse. Especially through this acknowledgement of the material agency of the soil, the documentary film intervenes in the discursive-material struggle over nature and provides support for thinking about nature and culture as entangled.

ACKNOWLEDGEMENTS
This research has been supported by Mistra, the Swedish Foundation for Strategic Environmental Research, through the research program Mistra Environmental Communication. The authors thank Greta Stocklassa for making the film available to us.

CONFLICT OF INTEREST
The authors declare that there is no conflict of interest.

AUTHORS’ CONTRIBUTIONS
N.C. has developed the concept of the paper, and developed the theoretical and analytical framework; N.C., V.D. and A.R.P. analysed the film first separately, and then jointly decided on the analysis; The context part was written by A.R.P., and V.D. and A.R.P. wrote the first drafts of the empirical parts, which were then rewritten by N.C.; N.C. also wrote the conclusion. All the authors contributed critically to the drafts and gave final approval for publication.

DATA AVAILABILITY STATEMENT
The manuscript does not include any data.

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REFERENCES
Arias-Maldonado, M. (2015). Environment and society: Sociocultural relations in the anthropocene. Springer.
Bäck, L. (1993). Reindeer management in conflict and co-operation. A geographic land use and simulation study from northernmost Sweden. Nomadic Peoples, 32, 65–80.
Barad, K. (2007). Meeting the universe halfway: Quantum physics and the entanglement of matter and meaning. Duke University Press.
Bennett, J. (2010). Vibrant matter: A political ecology of things. Duke University Press.
Blewitt, J. (2010). Media, ecology and conservation: Using the media to protect the world’s wildlife and ecosystems. Green Books.
Blumer, H. (1969). Symbolic interactionism. Perspective and method. Prentice Hall.
Carpentier, N. (2017). The discursive-material knot: Cyprus in conflict and community media participation. Peter Lang.
Carpentier, N., & De Cleen, B. (2007). Bringing discourse theory into media studies. Journal of Language and Politics, 6(2), 267–295.
Castree, N. (1995). The nature of produced nature: Materiality and knowledge construction in Marxism. Antipode, 27, 12–48.
Cooper, K. E. (2018). Audiences, structures, and strategies: The promise and power of environmental documentaries. Ohio State University. Retrieved from http://rave.ohiolink.edu/etdc/view?acc_num=osu153140198530959
Corbett, J. B. (2006). Communicating nature: How we create and understand environmental messages. Island Press.
Crang, M. (1998). Cultural geography. Routledge.
DeLanda, M. (1996). The geology of morals. A Neo-Materialist Interpretation. Retrieved from http://www.tor.or.at/delanda/geology.htm
DeLanda, M. (2006). A new philosophy of society: Assemblage theory and social complexity. Continuum Press.
DeLanda, M. (2016). Assemblage theory. Edinburgh University Press.
Dingler, J. (2005). The discursive nature of nature: Towards a postmodern concept of nature. Journal of Environmental Policy & Planning, 7(3), 209–225.
Dolphins, R., & van der Tuin, I. (Eds.). (2012). New materialism: Interviews and cartographies. Open Humanities Press.
Dryzek, J. S. (2013). The politics of the earth: Environmental discourses (3rd ed.). Oxford University Press.
Duvall, J. A. (2017). The environmental documentary: Cinema activism in the 21st century. Bloomsbury Academic.
Fischer, F. (2017). Climate crisis and the democratic prospect: Participatory governance in sustainable communities. Oxford University Press.
Foster, J. B., Clark, B., & York, R. (2010). The ecological rift: Capitalism’s war on the earth. Monthly Review Press.
Gee, J. P. (1990). Social linguistics and literacies. Ideology in discourses, critical perspectives on literacy and education. Falmer Press.
Glynos, J., & Howarth, D. (2007). Logics of critical explanation in social and political theory. Routledge.
