

'Just Graphite'

Corporate Representations of Particular Matter in Santa Cruz, Rio de Janeiro

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Abstract

The unevenly distributed environmental burdens of the Anthropocene become evident in conflicts surrounding the extractive industries. ThyssenKrupp's steel mill (TKCSA) in Rio de Janeiro is an illustrative example. The factory transformed its surrounding landscape and emitted a fine metallic dust over its human and non-human neighbours. This article focuses on some of the less tangible elements of Anthropocene transformations around the mill. I examine ThyssenKrupp's communication strategies to reveal the underlying meanings of corporate rhetorical devices, uncover the violence of public relations language and understand the intensity of feeling that surrounded it. I trace the affective registers that emerged around the steel mill as a result of its polluting activities, its approach to corporate communications, and its 'corporate social responsibility' (CSR) activities. Everyday life involved minimal corporeal expressions of emotion that encapsulated feeling and allowed for perseverance in the face of toxic suffering. The 'Stop TKCSA' campaign involved affective labour; emotions were the agentic contribution campaigners were able to make in the context of unequal power structures. I centre these less visible dynamics of power to examine how emotions can shape experiences of environmental conflict, form coalitional politics, and contribute to the very landscapes of the Anthropocene.

Keywords

Environmental conflict, Patchy Anthropocene, Corporate social responsibility, Emotion.

Introduction

The Anthropocene describes the geologic epoch in which human transformations impact all life on Earth in ways that are unprecedented in their reach, and potentially irreversible (Zalasiewicz et al. 2017; Crutzen 2006). Research into what Tsing has coined the 'patchy Anthropocene' has gone on to draw attention to the unequal relations among humans as they transform more-than-human landscapes with unintended consequences (Gan et al. 2017; Tsing, Mathews, and Bubandt 2019). The 'patchy Anthropocene' is well illustrated by the case of ThyssenKrupp's steel mill in Santa Cruz, on the outskirts of Rio de Janeiro—the *ThyssenKrupp Companhia Siderúrgica do Atlântico* (TKCSA).¹ The factory transformed the landscape, impacting humans and non-humans living around it. The TKCSA's emissions were its primary unexpected consequence, or 'feral effect', for the factory's neighbours (Tsing, Mathews, and Bubandt 2019).

In this patch of the Anthropocene, many of those living in the residential areas adjoining the TKCSA expressed concerns about their exposure to ambient pollution and its potential impact on their health. Some of the factory's neighbours claimed the 'silver rain'—as the particulate matter associated with the TKCSA came to be called—had caused their health problems. They often described suffering allergic reactions, nosebleeds, headaches, joint pain, shortness of breath, sore eyes, rashes, runny noses, and blocked sinuses. Local residents gathering under a 'Stop TKCSA' banner campaigned against the factory since the conflict surrounding it began in 2006. They claimed there had been an increase in the number of people with cancer in the area and that factory neighbours were falling more gravely ill, more frequently, since the TKCSA had been established.

TKCSA's steel mill is located in Santa Cruz, a neighbourhood of the municipality of Rio de Janeiro, often described as a typically 'peripheral' urban space. It is subject to socio-spatial stigmatisation (de Souza 2021) and has been defined as socio-economically 'vulnerable' (Vianna 2020; Malta and da Costa 2021), with some of the lowest indicators for income and life-expectancy of the West Zone of Rio de Janeiro (Observatório Sebrae/RJ 2015). These factors contributed to the power structures facilitating the dominance of corporate perspectives. It is against this background that some of Santa Cruz's residents have spent more than a decade campaigning against the steel factory.

This article, however, does not directly unpick these multiple and messy material impacts of the TKCSA, except insofar as they are entangled with another impact of the steel works. I focus on the TKCSA's public relations language as a mode of

1 The TKCSA operated between 2010 and 2017, when it was sold to Ternium S.A. As of 2023, the steel mill continues to operate as Ternium Brasil.

violence in and of itself, and trace the emotional reverberations provoked by these corporate strategies. Anthropocene emotions have received increasing scholarly attention, but more research is needed to centre these less visible dynamics of power, and their entanglements with other uneven transformations of the Anthropocene (Cunsolo and Ellis 2018; Clissold, McNamara, and Westoby 2022). The emotional burdens of the Anthropocene are unequally borne and people living in contaminated landscapes are doing much of the associated emotional work. Here I explore what emotions *did* around the TKCSA. I investigate the ways in which emotions formed political responsiveness to corporate violence and shaped an affectively saturated landscape.

The tour of the TKCSA

During the time ThyssenKrupp operated the TKCSA in Santa Cruz, they offered tours around its factory grounds. Local residents were encouraged to email to request to attend the company's 'Open Doors Programme', as they called it, in order to 'discover how steel is produced'. The TKCSA stated it undertook this activity to allow the public to get to know 'up close' what it argued was one of the most modern and sustainable steel plants in the world (ThyssenKrupp CSA 2014).



Figure 1. An advert for the TKCSA's 'Open Doors Programme', reading: 'Come visit us and discover how steel is produced'. Source: TKCSA website (<http://www.thyssenkrupp-csa.com.br/programa-portas-abertas/>), around 2015/2016 (site no longer online). Translation by the author.

After spending six months in Santa Cruz, living two streets away from the perimeter fence of the TKCSA, I requested to visit the factory. On the day of my visit I was joined by a group of older women from a local community centre. We were shepherded into a room that reminded me of a school classroom, with rows of seats facing a large table at the front. The walls were adorned with colourful publicity posters, and we faced a whiteboard and flip chart. A small tote bag with pens, notepaper, and promotional leaflets had been left on every chair. The event was staffed by a middle-aged white man with greying hair and a slight paunch, and a younger woman who seemed to be acting as an assistant. They were both wearing smart-casual clothes and what seemed to be a constant smile. Their

poses conveyed a sense of casual authority and certainty as they leaned back against the front table and jotted down notes on the flipchart. They played a short promotional film by way of an introduction. As we watched, we learned—through sweeping aerial camera shots and seamless presentations of the industrial process—about the company's recycling activities and the contribution that the TKCSA's steel made towards 'modern life'. After the film ended, the public relations (PR) official went on to add a short explanation of the recent history of the TKCSA and some general information about the site and its successes. He mentioned, but brushed over, the critical polluting events that occurred in 2010 when substantial showers of metal dust fell on the TKCSA's neighbours, settling in thick layers over the area (Porto et al. 2011; Gaier 2012). These incidences of pollution, he stated, had been due to teething problems at the beginning of the steel mill's time in the area, and that this was to be expected when such a large factory began to operate.

An older woman seated at the front of the group questioned this, seemingly unhappy with his explanation. In an impatient voice she said, 'well, what about this dust? My neighbours are saying that it can cause cancer'. A general murmur of concern rose from the audience at this point. The woman's question was representative of a commonly expressed concern around the steel factory during my fieldwork; many people were worried about the amount, and content, of the dust emitted, and what this dust might be doing to their bodies.

In response to this question, the PR representative maintained a bright expression and a smile—only the slightest flinch of his shoulders illustrated any discomfort. Pushing his hands downwards in a gesture that seemed to be an attempt to quell discontent, he told us he had just been about to get on to that issue. He went on to say, 'You see, this dust is just graphite, and of course, you all know that graphite presents no risk to health. Otherwise, we would have small children falling ill, and getting cancer all over the place.' He smiled at this conclusion and seemed to wait for further questioning on the subject. I felt that he had lost his audience at this point, as many of us seemed slightly confused. He held up his pencil and asked:

What is it that children do with these? Kids put pencils into their mouths, don't they? Haven't you seen children putting the end of pencils in their mouths while they are drawing? Chewing the end of their pencils? If this were dangerous, there would be high rates of cancer amongst small children. But that isn't the case, is it. It's just like that.

He allowed a short pause, too short to permit further questions, before moving swiftly on to talk about the modern-day usage of steel and its importance in a modern economy. I didn't get a chance to talk with the woman who had posed her objection about the company's pollution, or to gauge if her concerns were shared by the other women on the tour. After the presentation we were quickly shuffled

out of the room and onto a bus where the tour leader provided a running commentary about the factory infrastructure, which, we were told, limited the factory's emissions and re-used potential pollutants.

Underlying meanings of corporate communication

Anthropological investigations of 'corporate social responsibility' (CSR) and corporate discursive strategies have shown that corporations make use of figurative speech for rhetorical effect. For example, 'corporate oxymorons', such as 'safe cigarettes' (Benson 2010) or 'sustainable mining' (Kirsch 2010), are deployed to restructure meaning and recast 'harm industries' as innocuous (Benson and Kirsch 2010). In this way corporate discursive strategies emphasise some, and obscure other, information (Foster 2010). Evasion of corporate accountability through CSR has been the subject of much anthropological investigation (Kirsch 2014; Coumans 2017; Rajak 2011). Research in Latin America has shown that corporate discourse, in the context of hierarchical attributions of value to different kinds of knowledges, can stifle debate, evade critique, and maintain the status quo (Li 2015; Babidge 2018). The structures leading to the suppression of local resistance in environmental conflicts in Brazil have also been well documented (Rigotto 2017; Zhouri 2015; Santos, Ferreira, and Penna 2017). In the case of the TKCSA, similar corporate strategies and figurative devices are employed. I build on these observations by locating corporate communicative violence in the intricacies of corporate language itself. By examining corporate communications in detail, I aim to better understand why residents experienced various emotional responses to PR language, as well as what the corporeal responsiveness of emotion *did* for those involved in the campaign against the company.

Over the duration of its operations in Santa Cruz, the TKCSA officially claimed that any dust emitted from the factory was graphite, and that graphite is a non-toxic material (ThyssenKrupp CSA 2012a, 2012b). The way this claim was made to attendees of the TKCSA guided tour employed various figurative devices in an attempt to allay concerns about the contents and impacts of dust produced by the factory. The PR representative's explanation used simile to suggest that inhalation of the dust found around the factory (whose content is contested) was like sucking on a pencil. The claim was also an analogous statement. The argument was that emissions from the TKCSA are to local residents as pencils are to children; or, to put it another way, Emissions : Residents :: Pencils : Children, or A:B::C:D. This argument focuses on the relationships between things (Sapir and Crocker 1977) and its persuasion lies in the lack of negative outcomes for D from its relation to C, which is then transferred on to the relation between A and B.

The PR representative also presented his audience with a synecdoche: the generalised classification of the graphite mineral is replaced with the more particular solid graphite used in pencils (Sapir and Crocker 1977; Friedrich 1991). Graphite exists in different forms, which vary greatly in terms of their properties (Pierson 1993). Graphite is subjected to a variety of processes to transform it into pencil 'leads' (Read 1983; Musgrave Pencil 2019). The representation of the metallic dust emitted from the TKCSA as if it were the graphite in pencils, that undergoes a number of specific processes, is a figurative representation of a whole through a specific part (Sapir and Crocker 1977). It is worth noticing these figurative devices in order to understand the ways in which this corporate communication functions. Uncovering what this discourse *does* highlights its violence, justifies residents' interpretations of corporate messaging, and allows us to understand the intensity of feeling surrounding it.

The argument made by the TKCSA's PR representative used these figurative strategies to 'translate' technical information, to highlight safety, and to omit issues associated with the particulate matter in Santa Cruz. Public relations theory has long been concerned with communicating technical details to allay public fears of the unknown or uncertain (Price 1994; Murphy 2000). This has led to the development of forms of 'technical translation strategies', in order to 'manage meaning, represent the organization, build trust and credibility and manage uncertainty' (Stephens, Malone, and Bailey 2005, 391). One type of 'technical translation strategy' is the use of metaphors or images to elucidate complex or uncertain science. This strategy has been theorised as a means of helping audiences 'rethink' their beliefs in relation to technical issues (Rowan 1999; Stephens, Malone, and Bailey 2005, 398). In this case, the figurative image of a child sucking a pencil carried various associations (Lakoff and Johnson 1980): that particulate matter was harmless and unimportant, and that knowledge about the impacts of the factory emissions was certain.

The corporate explanation examined here over-simplified the issues at stake, omitting and obscuring crucial information. Hidden by these tropes is the possibility that, whether or not the dust emitted from the TKCSA did contain *only* graphite, it has long been known that graphite can impact the body when inhaled or when graphite dust is in contact with the eyes and skin (Center for Disease Control 1978). It can be particularly damaging when breathed in; it can cause coughing, shortness of breath, black sputum, impairment of pulmonary function, fibrosis, and cumulative lung damage (known as pneumoconiosis) (Occupational Safety and Health Administration 2016). Similarly, the corporate argument discussed here omitted considerable evidence documenting the health impacts of particulate matter around steel plants. There has been a wealth of research on the health effects of breathing particulate matter near steel plants, suggesting, for example,

an increase in wheezing episodes and asthma attacks amongst children (Dunea et al. 2016); spirometric abnormalities associated with restrictive respiratory pathologies (Valenti et al. 2016), and increased hospital admissions for pneumonia, pleurisy, bronchitis, and asthma (Pope 1989).

Claims that emissions were 'just graphite' also failed to address matters which have a bearing on the problem of industrial air pollution such as, for example, the size of the particulate matter emitted (Kim, Kabir, and Kabir 2015), or the unequal distribution of adverse health effects of airborne pollution (Makri and Stilianakis 2008; Landrigan et al. 2018). The evidence that more specifically documents the health effects of air pollution surrounding the TKCSA was also ignored by asserting that the dust was graphite: the Oswaldo Cruz Foundation's two reports detailing health impacts amongst Santa Cruz local residents were, of course, unmentioned (Porto et al. 2011; Dias et al. 2014). By presenting the factory emissions in the way it did, the company avoided acknowledging contrasting opinions about what the dust was and debating the concentration of emissions or the effects of living amongst them.

This PR discourse effectively narrowed the scope of the discussion to the particular polluting events that had been officially recognised and for which the company had been fined. The question asked, on the other hand, pertained to whether the dust emitted from the factory could cause negative health impacts (with a focus on potential carcinogenic effects). People living around the factory often referred to a finer dust falling on areas surrounding the TKCSA *since* the occurrence of the specific events of critical pollution to which the representative had referred (Instituto PACS 2016). It seemed apparent that the questioner was not solely asking about any specific critical polluting events—rather she was concerned about understanding the risks associated with all and any dust emitted by the factory. The difference is an important one. While the impacts of long-term exposure to particulate matter are controversial (Badaloni et al. 2017; Guo et al. 2018), noxious health effects may occur as a result of even low concentration exposure over a longer term (Shi et al. 2016). The woman's question reflected uncertainty about the potential for harm caused by factory emissions more generally, as well as a locally held concern that injurious effects of the dust were potentially cumulative. By narrowing the focus of his answer, the TKCSA's representative was able to evade these issues.

Finally, the context of this discussion created a feeling among the audience of being 'educated' about this issue, which reinforced a sense of hierarchy and conveyed authority on the TKCSA officials. It is important to extend any examination of figurative speech beyond language (Kimmel 2004) and understand the ways in which it is integrated into its surroundings. The question-and-answer

session discussed here was held within a pseudo-classroom environment. The forward-facing rows of seats, whiteboard, flip chart pads, and positioning of the desk from which representatives spoke (requiring that attention be paid to the front of the room), were laid out for the attendees to learn about, or be educated about, the steel production process. The immediate environment in which the PR representative conducted his talk, and his discursive techniques, mirrored each other. The rhetorical questioning and hypophora, such as, 'what is it that children do with these? Kids put pencils into their mouths, don't they?', provided a pedagogical tone with the implied hierarchy of a teacher–pupil relationship. The statement that 'of course, you all know' created a sense of normative expectation that no-one should disagree with the explanations offered. Listeners were infantilised in an approach that echoed the historical paternalism of CSR (Žižek 2009; Rajak 2011).

These elements of meaning in corporate communication show us the violence of corporate discourse, in and of itself. Writing on pollution science and plastic pollution in North American settings, Liboiron has pointed out that it is not necessary to prove that sickness results directly from bisphenol A (BPA) poisoning in order to argue that ubiquitous contamination is violence (2021). Or, as Sara Ahmed has put it, 'injustice is irreducible to injury, though it does involve injuries' (2014, 200). Similarly, it isn't necessary to prove that the TKCSA's public relations exercises are the cause of any specific harm in order for it to be worthwhile to note the violence that runs through the figurative discourse analysed here.

Everyday emotional responsiveness to corporate violence

In Santa Cruz, the violence of corporate messaging intermingled with the dust that enveloped the residential areas next to the TKCSA. Together they produced affective dynamics that ran through people's narratives apropos the factory. Scholarly attention towards the emotional elements of the Anthropocene has included work on concepts such as 'solastalgia' (Albrecht 2005), 'affective ecocriticism' (Bladow and Ladino 2018), and 'ecological grief' (Cunsolo and Ellis 2018). Much of this growing body of literature deals with the pain and grief associated with experienced environmental loss and the unease and anxiety related to anticipated ecological changes. Many of the TKCSA's neighbours could be accurately described as suffering this type of pain and distress at the physical degradation of the place where they live, and at the transformations of their home and sense of belonging. However, this alone does not adequately reflect the affective registers that emerged in response to the harms generated by the TKCSA. Some of the company's neighbours experienced flashes of anger,

simmering rage, growing bitterness, a sense of shame, underlying sadness and resignation—emotions that were related to the TKCSA in a variety of ways.

Within this suite of feelings, it is important to identify the range of emotions associated with CSR and corporate communications strategies, in order to fully understand affect in the Anthropocene. Recent studies have traced affective responses to corporate management and state interventions in the wake of industrial disaster in Brazil. Zhou et al. (2017), for example, analysed the production of affect in the aftermath of the 2015 collapse of the Rio Doce dam, not only through the material damages it produced, but also as a consequence of the structures and language of institutional intervention involved. In the case of the TKCSA, understanding feelings associated with corporate communications means directing attention to the fine details of feelings as they arise; what forms do they take, how are they connected to the contexts in which they appear, and what can they *do*?

I use 'affect' and 'emotion' interchangeably here because I believe both terms adequately describe the relational and power-laden processes of affecting and being affected (Ahmed 2014). However, I tend towards using the words 'emotion' and 'feelings' to reflect the everyday language of people living in Santa Cruz. Emotions reflected judgements about the TKCSA, but they were simultaneously visceral corporeal reactions (Schmitz and Ahmed 2014; Rosaldo 1984). Emotions around the factory could be gleaned in their *doing*; through outstretched arms and accusatory fingers pointed in the direction of the steel mill, crumpled brows, sagging shoulders, puckered mouths, and hands slapping laps.

Feelings can be productive (Abu-Lughod and Lutz 1990; Ahmed 2001). In Latin America considerable research has documented the political productivity of emotions in the aftermath of disaster and in contexts of chemical industrial toxicity. Siqueira and V́ictora (2017) identified the micropolitical work of emotion in protest following the 2013 Kiss Nightclub fire in Santa Maria, Brazil, documenting the ways that changing embodied emotional responses shifted meaning, from a focus on sharing the pain of loss, to a demand for indignation. In Puchuncaví, Chile, Tironi (2017, 2018) has suggested an expanded understanding of political action to include affective acts and sustained caring activities. These, he argues, can create material and affective endurance in the face of toxic suffering and make industrial harm knowable. Around the TKCSA, visceral, bodily expressions of feeling were emotional labour on (at least) two fronts. Emotional reactions were, in some situations, an attempt to recognise, and cope with, the idea that things would probably not change for the better; in other contexts, they were accentuations of feeling associated with the campaign against the TKCSA.

In the area surrounding the steel mill, statements and gestures which showed residents' anger, frustration, and resignation at the injustices associated with the TKCSA often interpolated conversations. I had discussions with friends (both those involved in the 'Stop TKCSA' campaign and those who were not) while they were undertaking everyday tasks; in these situations it was not unusual that talk would turn abruptly to the TKCSA and, just as quickly, move on from the factory. While talking over coffee about a granddaughter's pregnancy, for example, a friend put her hand to her eyes and complained that cleaning the dust from her courtyard floor had increased her allergic symptoms that day. While organising an upcoming birthday party, another friend pulled up her trouser leg in discomfort, frowning as she scratched, and showed me a rash that had erupted on her exposed calves the day before. Shaking her head, she claimed this was due to the TKCSA's dust, but immediately waved away my attempt to delve deeper into the issue.

One afternoon, I was sharing a flask of sweet coffee with a friend, Sofia². I sat at a marble table on her terrace as she swept the floor of the space and talked about her son's relationship with a woman of whom she did not approve. The floor was covered with black and white tiles that emulated the famous paved seafront walkways of Copacabana and Ipanema. The wave design on a few of the tiles had been placed in such a way as to break up the pattern and those few upside-down tiles drew my line of vision towards them. Sofia stopped sweeping and said, 'I have to re-do this floor'. I was concerned she had sensed my preoccupation with the interrupted wave patterns, but she continued, 'It's the TKCSA. The white on my tiles has gone grey'. With one hand applying weight on the broom and balancing with one bare foot on top of the other, she brought her other hand up to head height, taught and outstretched in anger. With a sharp exhalation of breath showing her frustration, she said, 'it doesn't matter how much I sweep them and wash them. I can do it twice, three times a day, and they still stay grey'. Looking down at the floor, and then out over the street at the murky silhouette of the factory across the road, she said, 'the dust has permanently changed their colour'. As I tried to probe further, her response was to shake her head from side to side and say with a sigh, 'you can't do anything, you know? They will continue polluting, and that's it.' She appeared to dwell on the impacts of the pollution and her powerlessness to do anything about it, as she closed her eyes for a second, giving a final and almost imperceptible shake of the head, before picking up the threads of our previous discussion about her son's relationship.

These minimal, corporeal expressions of emotion are part of these residents' efforts to carry on living. Somatic manifestations of feeling in Santa Cruz were similar to Thomas Dumm's understanding of 'waiting' (1998). They were part of

2 All names are pseudonyms.

moments of resignation through which life could be renewed; they were positive actions in which quiet despair intensified, and out of which one could return to ordinary life (Dumm 1998). These slight, somatic, affective expressions were political acts that briefly highlighted chemical industrial harm and allowed for perseverance in the face of toxic suffering (Tironi 2018). However, in these cases it was the practiced capacity to express and restrain affective impacts that made a hopeful claim for life to continue. This was what could be done to try to encapsulate affect and prevent it from leaking into, and disrupting, everyday life.

The feeling of political intervention

Affective reactions accompanying the 'Stop TKCSA' campaign centred on many different elements of the factory's presence in Santa Cruz. Issues of complaint connected to the steel mill were principally about the health risks of ambient and aquatic pollution, environmental degradation, and the impact on fishers. These issues were all the subject of emotional reactions from campaigners and the factory's neighbours more generally. This was, I thought, to be expected. However, I had not anticipated the particular intensity of feeling associated with the company's CSR and public relations messaging. I had taken for granted that the company would extol its value to society and make efforts to present itself as a good neighbour. During my time in Santa Cruz, I frequently heard dismay at the company's claims that the dust that had become ubiquitous in the area was 'just graphite'. It was through this repetition of dissatisfaction about the company's communications strategies that I realised that not only were residents exposed to the particulate matter itself, but also to corporate denials regarding the potential harm done by industrial by-products, and to the claim that the company was actually a force for good in the community; a triple exposure.

Emotional responses to the claim that particulate matter was 'just graphite' were often entwined with feelings provoked by the company's broader CSR programme. The tour of ThyssenKrupp's steel mill was just one of many different types of CSR activities in the local area. The company paid for the development of various public institutions in Santa Cruz, and funded community sporting activities and local cookery courses. The CSR arm of the company held 'citizenship' events, offering attendees assistance with administrative services such as social security cards and the registration of birth certificates. These CSR activities were advertised extensively on billboards, and on the signs above businesses and organisations they funded. At bus stops, the imposing rhythms of an advertising voice were projected through overhead loudspeakers, announcing the TKCSA's social projects and events. Fifty thousand copies of the company's monthly magazine, *Alô Comunidade* [Hello Community], were posted through letterboxes in neighbourhoods surrounding the factory, and left in piles, free for the taking, at

state-run health centres, hospitals, schools, and local businesses. The TKCSA's corporate message was that it contributed positively to the community, and this message was ubiquitous in the area.

The campaign against the TKCSA had once involved mass protests but there were fewer active campaigners by the time I arrived in Santa Cruz in 2014. A group of local people continued their campaign supported by the non-governmental organisation (NGO) *Instituto Políticas Alternativas para o Cone Sul (Instituto PACS)*³. In this context, emotion was part of more directly, or obviously, 'political' interventions against the TKCSA. Campaigners, dependent upon relational support and infrastructural conditions for potentially effective protest (Butler 2016), often expressed heightened emotions in campaign events and during conversations with lawyers, politicians, anthropologists, or journalists. In these moments, the issue of the company's CSR programme, and their claim that the particulate matter was 'just graphite', regularly emerged. At a meeting in Santa Cruz, campaigners and their allies sat in a circle together with councillors from the Municipal Chamber of Rio de Janeiro. Residents, scattered around the circle, took turns to explain their experiences of the impacts of the TKCSA. Some focused on the company's initial failure to consult with residents; some emphasised the TKCSA's apparent lack of accountability; many talked mostly about the dust and its impacts on their lives. An older man dressed in a shirt and smart trousers had brought with him a small plastic tub of congealed black sludge. When it was his turn to speak, he stood up and walked around the inside of the circle, thrusting the pot into the faces of attendees who had come from outside Santa Cruz. He explained that this sludge was a mixture of the dust and rainwater that had collected in his front yard. He railed against the management of the factory and local government for allowing such intense levels of pollution. He spoke quickly, in a loud voice, and paced backwards and forwards in an agitated manner. He shook the pot of congealed metal dust, imploring us to look at it. Pointing at those attendees he did not yet know, he insisted they consider if they would like to live with this dust. How would they react to the installation of such a large factory next to their houses? He shouted that the dust wasn't just graphite, and asked what would they do if they had no choice but to inhale this 'unknown substance'? By the end of his contribution, councillors seemed to be slightly unnerved at the extremity of the emotion on display.

In a conversation with my friend Mateo, a fisher and seasoned campaigner against the TKCSA, his strength of feeling was similarly evident, as he explained how the company's PR communications and CSR programme bothered him. Mateo was a slight, energetic man in his early sixties, whose sinewy arms and legs were well

3 See more on the NGO's website: <http://pacs.org.br/>.

browned, giving him the look of someone who had spent a lot of time under the sun. That day he was wearing his usual sleeveless vest, loose knee-length shorts, and flip-flops, and had an air of dejection about him. As we sat near the main entrance to the factory, his hands fiddled on his lap and he struggled to contain a few tears of bursting frustration. A bitter smile on his face, Mateo put his thumbs up while he said, 'and they say they do football, and athletics, as if they are doing us a favour! As if they are working to improve our health!' His voice raised at the end of his sentences with the indignation of it all. He carried on, 'and they say it is "only graphite". You know, it is one thing to pollute this area as much as they do, and it is another to get away with it, and it is worse still that they get away with it while presenting themselves as the "good guys."'

In a film produced about the campaign against ThyssenKrupp (Instituto PACS 2016), one local resident and 'Stop TKCSA' campaigner expressed the frustration and anger she felt at the company's denials. Her voice raised in an upset tone, with accusatorily pointed fingers, she said:

They say it is only graphite, that it doesn't do any harm to our health. But it did damage my health. They really are hypocrites, saying that it is graphite. They should inhale it too, rather than putting on their masks—because the majority of big bosses over there, they put on equipment, they don't have to inhale it like we do, day and night (Instituto PACS 2016).

In the footage, she is shown conducting a table-top experiment to prove her point. With a practiced, steady tone and furrowed brow, she unpacked the company's claim, while nodding in agreement with her own words. She moved a magnet across a plate of the collected dust as she exclaimed:

They are so shameless when they say that this is just graphite, and it doesn't harm health. How is it then that this graphite sticks to the magnet? Have you ever seen graphite stick to a magnet? I never have. And look here, this here is what is going into our lungs. That is why I say this is killing us bit by bit (Instituto PACS 2016).

The emotion evident in her testimony was embodied responsiveness to living with pollution and to what was felt as the 'insult' contained in the claim that the dust was 'just graphite'. Her experiment, and her visible frustration while conducting it, was a claim for recognition and a form of recognition in and of itself (Ahmed 2014). The feelings expressed served as motivational force behind her need to refute the company's argument as she made the demand for others to witness.

Not only did some of the TKCSA's neighbours regularly despair at its corporate rhetoric, they were also routinely cynical about the 'intentions' behind the

company's PR exercises. I went to an outdoor bar, a few streets from where I lived, to interview Francisco, a local organiser and member of a community group that collected and distributed clothes and essential items. While sipping our fizzy drinks we discussed some of the group's achievements and challenges. Throughout our conversation Francisco came across as a relaxed and affable man, invested in making a positive contribution. He became exercised though, as he made the comparison between the work of his community group, and the CSR activities of the TKCSA. He shook his head, gesticulating with his arms, while telling me:

The TKCSA came here, it came to our community and brought with it a series of problems ... and at the same time, it did something. It started with the "social" side, so the people would start to accept it. So, what it did was social work, helping with documentation, it helps with a, b, c, but in truth, it is just whitewashing everything that it throws against us. The pollution, all these bad things. These things are covered up. Where you have a lot of money, things don't appear as they should ... The company does this social work, so that it covers everything up, in a way, and they manage to make it so the people don't take part in the campaign against them.

In all these narratives we see that residents have identified hypocrisy, sugar-coating, a cover-up, and direct contradictions of local people's experiences.

The emotions expressed by campaigners were accentuated through bodily movements, which tended to be bounded in specific contexts that allowed for their expression, and their 'extremity' could at times surprise or unnerve their audiences. These emotions involved judgements about the ways residents were treated by the TKCSA and these were reflected in bodily affective reactions. Activists were aware that emissions weren't 'just graphite', they were conscious of the elements of living with pollution that were left out by the company's PR strategy, and they knew that corporate communications evaded the things that affected them. Campaigners clearly also *felt* the TKCSA's corporate communications as a kind of violence and expressed these feelings somatically. Understanding the underlying meanings of corporate communications can help us to *feel with* the people impacted by them. As my stay was to be short-term, my exposure to the combined impacts of pollution and other forms of corporate violence, such as those found in CSR programmes, was limited. However, as I investigated the details of what the TKCSA was saying, and not saying, and how that was enmeshed with the struggles of living in a contaminated landscape, I felt compelled and able to more profoundly *feel with* campaigners, to share in their feelings of indignation, anger, and frustration.

The bodily responsiveness displayed at meetings and in conversations about the TKCSA was the emotional labour of political agency. Emotions became evident

when they were viable and *potentially* effective. In these contexts, campaigners attempted to associate the factory with negative feeling and to make that feeling stick. A demand was being made with the expression of emotion; to be heard, witnessed, and recognised (Ahmed 2014). I am mindful that these emotional experiences could be unpleasant for those who found themselves telling and re-telling their stories. However, their feelings were the contributions campaigners were able to make in the context of unequal power structures, where greater visibility and weight were attributed to corporate perspectives. Some hope should be located in these emotional efforts; they were the means through which campaigners held on to the campaign against the TKCSA, and attempted to keep it moving, in pursuit of something better.

An affectively saturated landscape

The emotions that I have discussed here could be characterised as distinct episodes, belonging to, and moving outwards from, each individual expressing them. However, I would describe them as elements of attunement to a wider landscape saturated in dust and affect. The capacity for corporeal detection of toxic exposure can occur through sustained attention to barely perceptible changes in bodies and atmosphere (Shapiro 2015). Similarly, emotional labour in Santa Cruz was not only an affective expression but also an iterative somatic attunement to the corporate violence that surrounded residents of Santa Cruz. In residents' triple exposure to industrial pollution, corporate denials, and efforts to extol the company's virtue, the less tangible impacts of the environmental conflict were inextricably entangled with its more demonstrable, material elements. These came together in both bodies and place.

The journey towards the residential areas surrounding the TKCSA was sometimes characterised by the feeling of entering into an all-enveloping dome of hazy air. The particulate matter surrounding the TKCSA was visible, and the air often felt 'thick' with pollution. This could be an all-pervasive feeling; inside and outside, on the skin and in the lungs. At night this 'dome' of particulate matter was occasionally lit up with a bright orange glow that seemed to loom over the factory at its centre (see Figure 2). Similarly, the sounds from the factory and its trainline created an aural background to everyday life. The company's CSR activities and PR messaging were ubiquitous and inescapable in the area. As a neighbour to the steel mill, all the senses were almost continually exposed to the TKCSA. Affective impacts of corporate activities mirrored, and formed part of, this all-enveloping sensory bombardment.



Figure 2. Particulate matter glowing orange in the sky above the TKCSA. Image by the author, 2015.

Affect / emotions are social in the sense that they are co-constituted, dynamically intersubjective and collective (Ngai 2004; Blackman and Venn 2010; Ahmed 2004; Athanasiou, Hantzaroula, and Yannakopoulos 2008). Emotional dynamics can also be spatialised in specific landscapes (Walkerdine 2010; Navaro-Yashin 2009). Here, the idea of 'affective atmospheres' (Anderson 2009) is instructive; atmospheres can contain emotions that emanate from bodies, but also exceed them, to produce a kind of spatial envelopment. Complex assemblages of emotional life, in this view, can circulate in between bodies and across the many elements that make up place (Ibid.). The neighbourhoods surrounding the TKCSA constituted such a site; one where affect was somehow, ambiguously but notably, *more* than specific to particular individuals, and *more* than the transpersonal intensities of collectives. The feelings expressed by the factory's neighbours did not belong to them alone. Emotions arose in a landscape that surrounded those who felt them with a constant immersion in the corporation itself; in its pollution, in its CSR, and in its public relations messaging. When leaving the area, the sensation was often one of a growing lightness; lightness on the skin and in the lungs as well as a 'lightness' of feeling. Around the steel mill, emotions hung

around, settled, or were swept away and replaced, like (and sometimes with) the dust they accompanied.

Conclusion

Recent explorations of the Anthropocene have tended to lean towards the materialities of entanglements. New modes of noticing have unearthed the ecological simplifications of monoculture plantations or industrial campaigns with their concomitant proliferation of virulent pathogens and spreading toxins (Tsing, Mathews, and Bubandt 2019). Scholars of the Anthropocene have identified life-sustaining, multispecies interdependencies, and the ways that these can turn deadly (Swanson et al. 2017). However, these methods of storytelling have also shown us the entanglement of the immaterial; exploring temporalities and their consequences, seeing the ways history becomes tangible in landscapes, understanding how the extinct leave traces in the living, and identifying the hope of politics (Gan et al. 2017). It is in this vein that I have followed, and centred, the immaterialities of spoken violence, emotional attunements, and a landscape of feelings in this patch of the Anthropocene.

On the company tour of the steel mill the argument that emissions were 'just graphite' rested upon the persuasive use of figurative devices. These highlighted certain views of corporate action and omitted and evaded others; they narrowed the scope for debate and reinforced a sense of hierarchy in the relationship between the company and its neighbours. Paying close attention to these underlying meanings uncovers the violence of corporate discourse, in and of itself, and allows us to understand the depth of feeling displayed in response to it.

I have examined two types of emotion work that occurred around the TKCSA. Firstly, I have discussed everyday emotional responsiveness to corporate violence. This took the form of minimal and repeated bodily expressions of feeling, encapsulating emotion in pursuit of continuing everyday life, despite the on-going difficulties of environmental conflict. Secondly, I have argued that emotions at campaign events accentuated the sense of urgency and importance behind campaigners' demands for recognition of what was happening to them. This emotional labour was embodied resistance in a context of unequal power structures. Finally, I have noted that the body and its surroundings were joint sites of affect. This was part of a broader tangle in the story of the TKCSA; one which ensnared bodies, corporate discursive strategies and CSR practices, ubiquitous dust, ill health, everyday emotions, the feelings of protest, and an affectively saturated landscape.

The corporate strategies that play such an integral role in creating the uneven impacts of the Anthropocene require detailed attention. In Brazil, it will become

increasingly important to understand corporate representations of their own actions, as the government has allowed ever greater freedoms to corporations (Mazzetti and Fonseca 2019). Noticing the underlying meanings of corporate messaging strategies is part of staying present with 'Stop TKCSA' campaigners and local residents in their efforts to make the company accountable. Similarly, we must not neglect the affective registers that emerge in response to corporate violence if we are to understand the Anthropocene. Around the TKCSA, emotions shaped experiences of environmental conflict, they formed coalitional politics, and they contributed to the very landscapes in which they emerged.

Authorship statement

The author confirms sole responsibility for this article.

Ethics statement

My PhD project received ethical approval from the UCL Research Ethics Committee (Project ID: 5759/001). I also received ethical approval from the Research Ethics Committee of Rio de Janeiro's Municipal Department of Health (*Comitê de Ética em Pesquisa/SMS-RJ*) for research undertaken within a publicly funded health centre in Santa Cruz.

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