

NEW CALEDONIA

12. Making the case for a political ecology investigation into Goro nickel mine

Abstract: New Caledonia's Goro nickel mine, owned by Brazilian mining giant Vale, is unique in the world. The US \$6 billion smelter, set over a vast biodiversity hotspot, is using high-pressure acid leaching treatment technology that has never been tested on such a scale. Over the past 10 years it has been the source of a series of environmental accidents, and the object of many conflicts, including intra-community conflicts (Horowitz, 2009, 2010). With multiple actors, complicated motives and set within a political and economic context of decolonisation and development, Vale New Caledonia's mining project at Goro in the south of the main island of Grand Terre deserves to be the focus of a multi-dimensional and nuanced journalism investigation. This article argues that to do so requires combining journalism as a research practice with a political ecology framework. This combination should ensure that the journalist has an in-depth understanding of the structures and processes of the field (Nash, 2014), enabling her to interrogate, map the visible as well as the invisible, and avoid the superficial.

Keywords: decolonisation, development, environmental journalism, environmental risk, Indigenous rights, journalism as research, New Caledonia, nickel, political ecology, pollution

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MINING in New Caledonia is nothing new. For the past 150 years the exploitation of nickel has played a significant economic and political role in the small French Pacific Collectivity, as shown in the New Zealand documentary *Cap Bocage* (Marbrook, 2014). The territory of 250,000 inhabitants, with a vote on independence due before 2018, owns 25 percent of the world's nickel resources. However, until recently, New Caledonia only had one nickel treatment plant, 56 percent owned by the French group Eramet. In the last couple of years the situation has changed dramatically, with two new smelters starting production, one in the north of New Caledonia, the other in the south, at Goro.

Brazilian mining giant Vale is testing on its Goro site an unconventional nickel treatment method called high-pressure acid leaching, or hydrometallurgy technology. If it succeeds at full capacity, it should allow the difficult extraction of low-grade nickel ore in the face of dwindling global stocks of high-grade ore. Yet acid leaching has proved difficult to master elsewhere, including in Australia, and it has never been trialed on such a scale. The treatment plant has been classified SEVOSO II, the highest level of industrial risk by European Union standards. The project includes a new coal power station and industrial port as well as limestone and sulfuric acid factories.

Production ramp-up started in 2012, but, since construction begun 10 years before then, the treatment plant has been plagued with a series of environmental accidents, and, at times, violent environmental protests against the mine, combined with intra-community conflicts (Horowitz, 2009, 2010).

In 2012, the author published a short investigation into the Goro nickel mine in the *Pacific Journalism Review*, entitled 'Sulphate Sunrise' (Gooch, 2012, p. 158). This article makes the case for the need for further research into the multiple dimensions of the Vale New Caledonia mine, this time using political ecology as a conceptual framework, combined with journalism as a research practice, in order to do justice to the complexity and rich nuances of the issues surrounding the project.

The reasoning behind this approach is that journalism may, in many instances, such as general news reporting, be defined as a non-reflexive craft, just like history or the law can be at times too (Bacon, 2006, p. 149; Nash, 2014, p. 78); yet, in other forms, particularly in investigative and/or long form (Bacon, 2006, p. 151), journalism can constitute an academic research practice that contributes new, original knowledge, with its own rigorous research methods and processes (Tuchman, 1978; Nash, 2014).

In order to achieve this journalism, as a research practice, requires an interdisciplinary framework that will provide it with an in-depth grasp of 'the processes and structures of the field' it is investigating (Nash, 2014, p. 83).

Given the complex socio-cultural-economic-political context within which the Vale New Caledonia mining project is embedded, this article explores how political ecology is, in this case, the most appropriate framework applicable as it 'allows us to examine the diversity of alternative ways of conceptualising and constructing nature-society relationships' (Horowitz, 2003, p.16). The focus of political ecology includes the 'political and economic contexts of community-ecosystem relationships' (Horowitz, 2008, p.260) and thus provides 'valuable insights into the interactions, at multiple scales, among various factors behind environmental issues' (Ibid.).

With its emphasis on a contextual approach, the author will demonstrate how political ecology can offer journalists a powerful toolbox to dig deeper and produce more nuanced and complex journalism.

Case study: Sulphate Sunrise – a complicated story

In 2002, Canadian mining company INCO began the controversial construction of its high-pressure acid leaching smelter near the vast reserve of low-grade laterite ore at Goro. In 2006, Brazilian mining giant Vale took over Inco, and was in 2013 voted worst company in the world for contributing to build a hydroelectric power plant in the Amazon and for a host of alleged labour rights abuses in dozens of countries (Rapoza, 2012).

Vale New Caledonia is now worth US\$6 billion, and Vale plans on eventually producing about 60,000 tonnes of refined nickel a year and 4000 tonnes of cobalt at its Goro smelter, to be, for the most part, shipped to China (personal communication with Vale, 2012).

Vale owns 74 percent of the mine and its smelter, New Caledonia's three local governments own 5 percent, and the remainder is controlled by the Japanese consortium, Sumimoto Mitsui SUMIC (personal communication, Vale, 2012).

However, more than 4000 fish, many listed as endangered by the IUCN, have died in a series of acid spills from the plant into a nearby river, the latest being in May 2014 (RFO, 2014). The river flows into the bumper zone of New Caledonia's UNESCO World Heritage-listed lagoon. An independent inquiry led by *Lloyd's Register* into the first major accident, which occurred in April 2009, noted the presence of faulty joints, inadequate safety designs and procedures, and professional negligence (Gooch, 2012, p. 161).

In September 2009, workers from the trade union Force Ouvrière presented the government with a list of grievances that highlighted mismanagement and amateurism at the mine (Gooch, 2012, p. 169). Other incidents since then include chemical burns to workers and in 2013, a passenger ferry narrowly avoided a 15 metre broken piece of the potentially toxic tailings' pipe that was drifting in the lagoon (INERIS, 2014).

The mine has also been at times the focus of violent Indigenous land rights protests. Many of those protesting also worked for Vale New Caledonia, and wished to continue to do so (Horowitz, 2010; Gooch, 2012).

In April 2006, at the height of the protests, prominent indigenous environmental group Rhéébù Nùù blockaded the mine for more than a month, sparking violent confrontations with French troops. In September 2008, many were then surprised when Vale convinced the blockade leaders to sign a Sustainable Development Pact. Raphael Mapou was one of the leaders of Rhéébù Nùù at the time, and a veteran of local politics. After signing the Sustainable Development Pact, he was tasked with the presidency of l'Oeil, a new environmental monitoring body for the south of New Caledonia, set up partly by Vale New Caledonia. Mapou said:

I know that for many people, it felt as if we were simply giving up, especially for young Kanaks in their twenties, for whom this fight was the equivalent of the one we fought in the 1980s against France.

But I warned them: if you want to keep on fighting to win, people will have to die.

And we fought in the 1980s for independence, but here we are nearly 30 years later and we are still in the process of decolonisation towards independence—if we ever get there. (Gooch, 2012, p. 167)

In May 2014, the second large acid spill became the sixth accident since 2009 and led to another round of furious protests by workers at the mine and local residents. However, World Wildlife Fund (WWF) warns that these more spectacular accidents are actually merely the ‘trees that hide the forest’ (WWF, 2013). WWF accuses Vale of endangering the ‘exceptional biodiversity of the Great South and its populations’ by less visible means. These include the destruction of forests thanks to sulfuric acid emissions as well as pollution of subterranean waters from the waste storage area.

Set within a complex political and economic context of decolonisation, Vale New Caledonia’s mining ambitions have therefore raised important issues of trust, legitimacy, transparency and corporate violence for the country. While providing employment, education and community development support, Vale New Caledonia has also been the object of multiple conflicts, involving complicated motives and a clash of different perspectives on the environment.

As such it has shown how, contrary to Western expectations, (Filer & Macintyre, 2006; Macintyre & Foale, 2004; West, 2006) not all Indigenous peoples are eco-warriors and Indigenous views on development and conservation are as diverse as they are complex.

Political ecology as a conceptual framework

Scholars in political ecology are drawn from a variety of academic disciplines, including geography, anthropology, development studies, political science, sociology, forestry, and environmental history. All are united by a ‘contextual approach to viewing ecological problems compared to more traditional, “apolitical” ways’:

The difference between a *political* and *apolitical* ecology is the difference between identifying broader systems rather than blaming proximate and local forces; between viewing ecological systems as power-laden rather than politically inert; and between taking an explicitly normative approach rather than one that claims the objectivity of disinterest. (Robbins, 2012, p. 13; original emphasis)

Critical cultural geographer Leah Horowitz suggests ‘political ecology appeared in the 1970s when researchers began to challenge structuralist and functionalist notions of societies as closed, isolated and unchanging, and instead to examine them as parts of wider socio-economic and political systems’ (Horowitz, 2013, p.15), ‘as integrated into, and transformed by, a global economy’ (Peet & Watts, 1996, p. 5, cited by Horowitz, 2003, p. 15).

Furthermore, according to geographer Piers Blaikie, ‘environmental issues do not only become so (if at all) because of ontologically real changes in nature, but because

they are constructed by social processes, successfully represented and launched' (Blaikie, 1999, p. 133).

Thus, in their 2003 review of the anthropology of mining, anthropologists Chris Ballard and Glenn Banks note how anthropology research had, in parallel with an expansion of mining in greenfield areas, also expanded in the two decades since the 1980s from 'an earlier focus on mining labour and the threat posed by transnational mining capital to the sovereignty of newly independent nation-states' to 'a much broader frame for inquiry that addresses the exceptional complexity of the relationships that coalesce around mining projects' (Ballard & Banks, 2003, p. 287).

Ballard and Banks also observe how that same period coincided with a growing recognition of the rights of indigenous communities and 'the increasing prominence of indigenous movements and non-government organisations dedicated to Indigenous rights' (p. 288).

Consequently, as a panoply of new actors has emerged on the front of the scene, 'so too is there an increasing awareness of the internal complexity of what had previously been considered the monolithic entities of community, state, and corporation' (p. 289). Yet, despite these questions and potential new areas of research, Ballard and Banks argue 'the anthropology of mining remains largely under-researched and under-theorized' (p.287). Instead, their research indicates that 'studies of mining have been persistently parochial and regional in their scope' (Ibid.).

Matthew Allen's (2012) political ecology research into resource capitalism and violent conflict in post-colonial Melanesia echoes these findings, as he highlights how 'in sharp contrast to the resource determinism, state-centrism and ahistoricism of much of the "resource conflict" literature, attention to governmentality and scale highlights the highly contextual and contingent nature of resource-related violence in Melanesia' (Allen, 2012, p. 159).

Likewise, Macintyre and Foale (2004) explore the political meanings embedded in local demands for compensation for environmental damage and highlight the disparities between local conceptions of the 'environment' and the global, Western ideas that inform environmentalist criticisms of mining. They dispute the "'romantic primitivism" of some environmentalist discourses' and contest 'the view that there is a natural conservationist ethic in Melanesia' (Macintyre & Foale, 2004, p.231).

Macintyre and Foale argue 'the image of the "noble primitive ecologist" that some environmentalists appeal to, would in most circumstances be rejected by Melanesians as racist and paternalistic, but is embraced as a strategy in conflicts with mining companies and when making legal claims for compensation' (p.231).

Using a political-ecology approach, Horowitz (2008) also explores the motivations of local people in initiating co-managed conservation projects on customary lands in New Caledonia. She found that 'local people viewed "conservation" largely as a means of reinforcing their cultural identity through preservation of their cultural heritage,

grounded in the landscape, and strengthening their customary authority structure by reinstating people's traditional guardianship roles. However, at the same time, they hoped to promote economic development by encouraging tourism at the protected areas, with financial and technical support from the provincial government.' (Horowitz, 2008, p. 259; original emphasis).

Complex motives such as these are, according to Paul Robbins (2012, p.95), an example of 'apparent mismatches between practice and expectation and between "common sense" and complex reality', which is often at the heart of political ecological texts. These contradictions 'propel political ecology narratives to unravel knots and explain the unexplainable' (Ibid.).

Hence, while conflicts in Papua New Guinea may indeed be driven by disputes over resources, according to Banks 'they are better understood as conflicts around identity rather than resources' (Banks, 2008, p.23). 'In other words, resource conflicts are not conflicts over elements of the external environment, but are deeply embedded in the social workings of these different societies' (Ibid.).

Banks argues that 'the very different conceptualisation of natural resources in most Melanesian societies—as elements of the social as much as any external environmental sphere—means that resources become a conduit for local social and political agendas and tensions to be expressed' (Ibid.).

Political ecology is often pitted against the 'resource curse' school of thought, or the neo-Malthusian theory. According to resource curse theory, there is a direct correlation between the exploitation of a country's resources, and a lack of development, increased internal tensions, human rights abuses, and conflict at the national level (Ballard & Banks, 2003, p. 295).

The neo-Malthusian theory is closely linked as its argument rests on the notion of resource scarcity and environmental security. Anthropologists Nancy Peluso and Michael Watts (2001, p. 5), however, dismiss such 'automatic, simplistic linkages' between environmental scarcity and conflicts. Instead, they see 'violence as a site-specific phenomenon rooted in local histories and social relations yet connected to larger processes of material transformation and power relations' (Ibid.).

As an example, geographer Matthias Kowasch and political scientist Andreas Holtz (2014, p. 10) found that 'the resource curse and human conflict are broadly linked, but resource conflicts are generally more complex and there is no direct correlation between the two in either New Caledonia or Papua New Guinea'. They argue that 'all conflicts have their own history, and resource exploitation and uneven distribution of benefits are only "amplifying" factors' (Ibid.).

Setting the journalism research agenda

Journalism's academic pedigree has been the object of controversial debates since it first appeared in universities about 100 years ago (Lamble, 2004, p.85). For many, it has

been seen merely as a ‘hybrid, interdisciplinary mix of the humanities and the social sciences’ (Reece, 1999, cited by Lamble). Lamble argues that the image of journalism as ‘partly professional in outlook and partly academic’ (p.85) has ‘fuelled a perception that journalism lacks a formal academic methodology and, in that sense, it is seen as something of a bastard orphan discipline’ (p. 85).

Yet, contrary to widespread perception, it can be demonstrated that journalism, particularly long-form and investigative journalism, is a research practice in its own right, with its own strict methodology and procedures that enable it to contribute new scholarly knowledge (Adam, 1993; Bacon, 2006; Nash, 2013; Nolan & Lester, 2011; Robie, 2014a, 2015; Tuchman, 1978). Journalist and academic Wendy Bacon, for instance argues that ‘nimble, diverse and lateral methodologies of journalism produce fresh insights and verifiable “truth claims” which social scientists are likely to miss’. (Bacon, 2013, p. 23).

However, like other academic fields such as history or law, journalism itself is rarely its own subject of research, outside of media studies. Journalism as a research practice is interdisciplinary and ‘requires a conceptual framework specific to the field of empirical focus, and that can only be supplied from the relevant field and associated discipline(s)’ (Nash, 2014, p. 83).

That does not however imply that ‘journalism becomes a subset of the relevant discipline, nor a mere exercise in popular communication on behalf of elements in that discipline’ (Nash, 2013, p. 130). If journalists do not have an in-depth understanding of the field they are reporting on, their work risks falling into the realm of the superficial, whereby the ‘why’ and the ‘how’ are ‘frequently left unanswered’ (Carey, 1996, cited by Nash, 2014, p. 83). Carey argued that in such instances, the ‘why’ is often reduced to ‘personalised motives of the protagonists’. This is a frequent occurrence in the Pacific, and in particular in terms of coverage of Pacific issues in the Australian media. What coverage there is tends to appear when there is a perceived crisis including the occupational political coup or dramatic natural disaster (Mason 2001, p. 57; Perrottet & Robie, 2011). When there is news coverage of the Pacific, ‘it is usually a mere chicken scratch across the surface of the issues’ argues Pacific media expert Lisa Williams-Lahari (personal communication, 2009).

There are many reasons for this, including journalists’ lack of experience of time, costs and editorial policy (Nash & Bacon, 2002; Gooch, 2012; Robie, 2014b). However, when it comes to reporting on complex issues such as environmental conflicts, journalism’s failure to report beyond the superficial can often be attributed to what journalist and academic Chris Nash argues is ‘a lack of acknowledgement or understanding of the deeper structures and processes of a field and their relevance to the events or activities in the story’ (Nash, 2014, p. 83). This is an argument echoed by journalist and media professor David Robie, who suggests environmental journalism in the Pacific, confronted with the threat of climate change, would benefit from a form of ‘deliberative journalism’ (Robie, 2014b, p. 73). A deliberative approach to journalism implies filing reports

that are ‘incisive, comprehensive and balanced so that the public can frame issues and understand the background and context of these issues’ (Ibid.)

As argued by anthropologist Alex Golub (2007), there is already in anthropology a ‘well-worn path of examining the “impact” of “global forces” on “local” people’ (Golub, 2007, p. 627). Instead, an approach is needed that will enable the author to examine the Vale New Caledonia project within its specific historical, social and economic context, and will take into account the complex perspectives of the multitude of stakeholders involved.

Political ecology, through its interest in the themes of ecology, environmental knowledge and power (Robbins, 2012, p.86), is concerned with ‘establishing a chain of explanations’ that traces ‘the contextual forces that constrain and direct more immediate outcomes’ (p.88). Thus, political ecology provides journalism with an extra set of tools to achieve the common goal of challenging ‘long-held assumptions’ by tracking ‘the historical process, legal and institutional infrastructures, and socially implicated assumptions and discourses’ (Ibid).

In addition, journalism as a research practice can extend the concept of political ecology by grounding it with theories originating in sociology and geography, such as those of geographer David Harvey, sociologist Pierre Bourdieu and philosopher Henri Lefebvre.

Indeed, finding answers within a political ecology framework will mean ‘shifting a single-minded focus on the destruction or degradation of nature to a serious consideration of the way the environment is produced, by people and non-humans together’ (Robbins, 2012, p. 120). Robbins argues ‘it is not discreet objects or events that make up socio-environments but relations and processes’ (p. 94). Political ecology, he adds, rarely focuses ‘on how individual things and variables cause outcomes or explain other things in a straightforward way, but instead how things and relations change by becoming entangled with one another’ (Ibid).

Bourdieu, for instance, sees ‘society as differentiated into a number of semi-autonomous fields (e.g., fields of politics, economics, religion, cultural production, etc.) governed by their own “rules of the game”’ (Benson, 1999, p. 464).

Each field reproduces what is a larger societal division between the dominant economic and political power on the one hand, and dominated cultural power on the other, as each field is driven by the opposition between the ‘heteronomous’ forces, which are external to the field, and ‘autonomous’ forces, representing the specific capital unique to that field (Ibid.).

‘To think in terms of fields is to think *relationally*,’ argues Bourdieu, rather than structurally (Bourdieu & Wacquant, 1992, p. 96; original emphasis). ‘In analytical terms, a field may be defined as a network, or configuration, of objective relations between positions’ (p. 97).

Participants, like players, be they individuals or organisations, take positions in a field. ‘At each moment, it is the state of the relations of force between players that defines the structure of the field’ (Bourdieu & Wacquant, 1992, p. 99). If compared to a game,

the moves a player makes will be dependent on the type and number of tokens she has in front of her, that is 'on the volume and structure of her capital' (Ibid.), which is in reality the education, resources and skill a player brings into the field.

To carry a study of a field requires three steps (Bourdieu & Wacquant, 1992, p. 104). 'First, one must analyse the position of the field vis-à-vis the field of power' (p. 104); 'second, one must map out the objective structure of the relations between the positions occupied by the agents or institutions who compete for the legitimate form of authority of which this field is the site' (p. 105); and third, 'one must analyse the habitus of agents'; that is, the manifestation of their capital 'acquired by internalising a determinate type of social and economic condition' (p. 105).

However, Bourdieu's fields are only a spatial metaphor, and therefore they need theorisation as material entities for journalists to be able to then conduct an empirical observation of those fields. Harvey's theory of the three dimensions of space provides journalists with the tools needed to understanding how the fields work in practice, beyond the spatial metaphors, while Lefebvre, who defines space as a social product with his own tripartite division, theorises spatial practices in a way that helps us to understand how fields interact and reproduce themselves through the production of space, linking back to political ecology.

Lefebvre defined space as a social product, albeit a concrete one, which is constantly being produced dialectically through the interaction, or intersection of a triad of the perceived, the conceived and the lived (1991, p. 38), or material space, representations of space and representational spaces (p. 46). Every society, or more accurately every mode of production produces its own space (p. 31). Social space incorporates social actions (p. 33) and the creation of space is a 'process' (p. 34). As such, Lefebvre argues that social space works 'as a tool for the analysis of society' (p. 34).

Lefebvre's concept of space and spatial practice can help explain the contradictions that are also at the heart of political ecology, such as that of Indigenous protesters working at the Vale New Caledonia mine. His triad provides an insight into how the protesters conceptualised this contradiction, and how they experienced it and lived it everyday.

Harvey also engaged Lefebvre in his own multi-dimensional categorisation of spatio-temporality. For Harvey, space is characterised by three frames of reference: the absolute, relative and relational (Harvey, 2006, p. 125). Absolute space is fixed and we record or plan events within its frame. We can use it 'to pigeonhole or individuate phenomena' (p. 121). In this case, the physical setting for the mine constitutes our absolute space, and so do the government offices in Noumea, or Vale's headquarters in Brazil, as well as the nearby villages.

Relative space comprises space in relation to time. According to Nash, it is 'space that is subject to the impact of movement, whether it be of objects or energy flows.' (Nash, 2014, p. 89).

Relational space, the third dimension, is the space of 'internalisation of forces and

powers and of social relations' (Harvey, 2006, p. 121). The relational view of space holds there is no such thing as space outside of the processes that define it (Harvey, 2004, p. 4).

Although it is tempting to establish a hierarchical order between the three spatio-temporal frameworks, argues it is 'far more interesting in principle to keep the three concepts in dialectical tension with each other and to think of the interplay among them'. As such, in relative terms, the appeal of New York's Ground Zero to capital developers will be in dollar signs, 'according to a logic of exchange relations' (Harvey, 2006, p.136), whereas from a relational perspective, the victims' families will view Ground Zero in terms of memory and history (Ibid).

If Harvey's concept is applied to New Caledonia's Vale nickel processing plant, it can be recognised as a physical and legal entity that situates it in absolute space. The plant's position in relative space can also be determined given its location with respect to nearby villages, to the lagoon and surrounding bush land, and the flows of people, electricity, water, chemicals, market demands and money that sustain it as a place of production. Finally, Vale New Caledonia can be understood in terms of its relationality to development, to politics of decolonisation, to economic independence, climatic change, the sense of what is or is not a biodiversity hotspot, to safety values, and its significance as a place of personal and collective memories, cultural values, sentimental attachments, and the like. What happens to the refinery over time can only be fully understood, as Harvey may argue (2004, p.6), 'by working through effects constituted through the three forms of spatio-temporality simultaneously'.

So where to begin? In light of what has just been outlined, the first question asked by a journalist may be: 'What are the fields at play within the different spaces?.' There will obviously be a political field, environment field, media field, government field and cultural field, but what are the other ones, what are their structures, who are their participants and how do they all interact?

The mine will have different meanings, according to different actors, grouped in separate fields with their own cultural capitals and habitus, be they environmentalists, Indigenous land rights protesters, corporate managers, or women from nearby villages presented with the opportunity of independent, skilled work at the mine.

A journalist investigating the multiple dimensions of the Vale New Caledonia mine project will therefore need to identify what variables to focus on and what scales (Robbins, 2012). She must for instance delineate the panoply of stakeholders involved, their power relationships, and how they have engaged with each other, be it the trade unions, the Kanak villagers or the French government; analyse the accidents; investigate complaints of amateurism and negligence, and responses to those. Beyond that it will also be necessary to examine relevant local and international regulatory frameworks. This analysis will inform decisions such as whom to interview, for instance, and provide the author with a deeper understanding of stakeholders' motivations and their type of engagement in society, thus how different environmental problems surrounding the mine have been created.

Conclusion

In conclusion, applying a political ecology framework to the Vale New Caledonia nickel project should provide an example of how journalism as a research practice combined with a conceptual framework within a specific scholarly field can contribute to producing in-depth, nuanced and complex journalism of a high standard of academic practice.

In light of the complexity of the issues surrounding the Vale New Caledonia treatment plant, from divergent perspectives on the environment to issues of negligence, trust, legitimacy, decolonisation and development, the analysis of this empirical focus requires a specific framework that can cater for the needs of a journalist by providing the relevant dissecting tools.

Political ecology, as a framework that deviates from well-trodden paths of simple cause and effect of environmental problems, and that, to the contrary, favours complex, contextual explanations beyond 'black and white' frames, offers journalism a range of rich, new perspectives on the structures and processes at play within the field of environmental conflict.

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