Framing Deep Sea Mining in/with Oceania

Abstract

Although deep sea mining (DSM) can be understood in global terms, much of its emergent politics has been centred in an Oceanian context. This is evident for both mineral exploration at the abyssal plain of the Clarion-Clipperton Zone and the debates over deep sea resource extraction in the Exclusive Economic Zones of several Pacific Island Countries. However, despite this empirical focus on the region, there has yet to be a sustained theoretical engagement with DSM as it relates to the specific geographies, histories and cultural perspectives that shape relations with the deep ocean. Against this background, this paper offers a conceptual framework that centres the unique onto-epistemological perspectives of island communities and the negotiations that they perform in the face of the capitalist development and expansion of a DSM 'frontier' in Oceania. It highlights an ever-relevant reckoning with the forces of colonialism and thinks through the commonalities and divergences between diverse cultural and spiritual positions as they come together with the political, technological and economic imperatives of the DSM industry. Is it possible to build solidarities between this philosophical diversity in the region that can recast and shape the debates on DSM, especially at a time before commercial extraction has begun in earnest?

Key Words

Deep sea mining; Oceania; Resistance; Critical Ocean Studies

1. Introduction

Deep sea minerals are formed through the congregation of Earth's two largest volumes: the mantle and the world ocean. Found in a diverse range of deep sea environments, these deposits have become the focus for both state and corporate actors who articulate extractivist driven narratives of resource security or 'blue' economic growth respectively. Yet for all its global framings, the resultant political effects of deep sea mining (DSM) are far from equally distributed, in so far as they are laden with uneven power relations and produce a range of injustices (Childs 2022, Reid 2022). These examples of dispossession can take different forms, from a question of recognition in which Indigenous worldviews on the deep seabed are marginalised (Conde et al. 2022; Leo Tupuana'I and Raymond 2026) to concerns with the distribution of poorly understood environmental impacts (Amon et al. 2022). This diversity in the politics of DSM is implicated by both *physical* geographies (where DSM deposits are found) and *human/more-than human* geographies (how DSM deposits are understood, both in regulatory and onto-epistemological terms). Through 'resource making', so central to the imperatives of capitalism, the oceanic abyss has to 'land' somewhere. In doing so, it intersects with specific cosmologies, spaces and scales globally.

These questions and dynamics are perhaps most productively explored in an Oceanian context[1]. This is for two major reasons. Firstly, many of DSM's emergent exploratory activities have centred

[1] 'Oceania' is used in the title and throughout this paper as distinct from the geographic descriptor 'Pacific'. This aims to signal a conceptual distancing from a 'colonial-imagined Pacific, with its focus on isolation and smallness' and an orientation towards an 'Indigenous-imagined (although not Indigenous-

upon the Pacific Ocean's deep seabed. This is true for both mineral exploration at the vast abyssal plains of the Clarion-Clipperton Zone[2] and for deep sea resource extraction on the seabed located within the Exclusive Economic Zones of several Pacific Island Countries. Indeed, despite a tendency to focus on the seabed under the international high seas, only 48% of the planet's seabed is actually found there, the majority being located in the territorial claims of individual nation states (Jouffray et al. 2020: 46). This has particular relevance for two major international governance regimes – the Biodiversity Beyond National Jurisdiction (BBNJ) Agreement and the International Seabed Authority (ISA)[3] – both of which focus on the *international* water column and seabed rather than the Exclusive Economic Zones (EEZs) of individual nation states. Where more regional based framings are concerned, and despite several other salient examples of emerging debates over DSM in other global contexts – including Norway, Japan, USA and China – it is Oceania that has attracted most empirical attention, from both popular and academic sources. This is prefigured by the region's geophysical realities as many seafloor massive sulphide (SMS) deposits coincide with the volcanism associated with the pacific ring of fire. It is these SMS deposits, rich in gold, copper and zinc, that have been targeted by corporate (and sometimes state-based) DSM interests.

Across the 14 Oceanian countries recognised as independent by the United Nations, there are a broad range of perspectives articulated by state governmental actors. Whilst it is true that most countries in the region have made clear statements against DSM – through combinations of moratoria or precautionary pauses – it remains the case that four countries have signalled their support. Indeed, it is well documented that 'the governments of Nauru, the Cook Islands, Tonga and Kiribati have determined that mining the seabed – either within or beyond their national waters – is in their national interest' (Schoenberger 2025: 23). In the case of both Nauru and Tonga, these governmental sentiments are shaped alongside foreign corporate interests – notably *The Metals Company* which has emerged as the world's most high-profile DSM corporation. Often couched in the language of 'national interest', these pro-mining positions have their echoes in historic efforts by governments of newly independent countries of the region of who 'saw deep sea mineral deposits as a potential lifeline…for establishing more sustainable economic futures' (Schoenberger 2025: 27). Yet, as this article suggests and despite classical geopolitical framings of DSM's politics as being predominantly shaped by state and corporate interests, Oceania is (as has been so memorably argued before) so much more than just a collection of countries (Hau'ofa 1994, Bambridge et al. 2021). Such arguments not only fail to account for critiques of governmental positions from grassroots communities *within* those respective countries but also elide an understanding of Oceanian perspectives as a 'totality of their relationships' (Hau'ofa 1994: 153). Furthermore, if DSM's politics is to be better understood in Oceania, moving beyond the simplistic, yet colonising perspectives of state-based interests alone should be more than an

exclusive) Oceania which looks totally different when one doesn't equate land with presence and water with absence' (Te Punga Somerville 2017: 26).

[2] The Clarion-Clipperton Zone is a 6 million square kilometre area of deep sea space found roughly between Mexico and Hawaii. It is specifically being targeted for its polymetallic nodules which contain minerals considered 'critical' by government actors worldwide, including the United States of America.

[3] Both regulatory instruments have recently sought to integrate place-specific and Indigenous knowledge systems into their governance frameworks. Although these are specifically focused on in later sections of this paper, it follows Champion and Strand (2025) and Reid (2022) by remaining attuned to the politics of knowledge integration and assimilation. Indigenous knowledges are understood here in a plural sense, recognising their diversity of forms (including domains beyond the spiritual and cultural) (see Simpson 2017) whilst articulating counter-narratives against the colonial biases that remain in instruments like the ISA.

academic enterprise. To occlude alternative human and non-human perspectives from the DSM debate 'is not a mere oversight as it is often framed but it is inevitably political in nature' (Han 2024: 193).

Secondly and relatedly, an Oceanian focus on deep sea mining invites an epistemological and ontological recalibration to think about the deep seabed in ways that move beyond its inscription as a 'new resource frontier' or space of extraction. Whilst such a lens recognises the diverse forms of epistemic thought and action that are unique to specific geographies in the region (Le Meur and Toke 2025), it is nonetheless united by key ideas that resist the seabed's reductive dynamics of capitalist territorialisation. Part of this finds expression through decolonial resistance to deep sea mining – as has been seen in many cases across the region, not least the Alliance of Solwara Warriors in Papua New Guinea – where ways of 'knowing' the seabed instead begin with the 'actions, values, stories and relations grounded in kinships, landscapes, seascapes and skyscapes' (Teaiwa 2020: 602). Another aspect of this approach is for Oceanian worldviews to counter and create critical dialogue with the ongoing privileging of northern-centred thought in understanding deep sea space. As has been memorably argued, in order to create a sense of 'saltwater co-belonging and responsibility' for living with oceans in today's political milieu, there must be an attentiveness to a more 'diverse citational politics' that can create 'transoceanic dialogue and solidarities' across the full breadth of 'indigenous, black, brown and Southern' thinking (Lobo and Parsons 2023: 130). Such an orientation can not only reaffirm the 'reverberating echoes of polyphonic oceanic knowledge that is in danger of disappearing' (*ibid.*) but also highlights the difficult but necessary need for northern-based 'critical ocean studies' (Deloughrey 2017; 2019) to avoid unwittingly 'crowding out' space for historically marginalised scholarship from Indigenous and ocean communities[4].

Indeed, so-called critical ocean studies has been hugely productive for 'fathoming the oceanic depths in relationship to submarine immersions, multispecies others, feminist and Indigenous epistemologies, wet ontologies, and the acidification of an Anthropocene ocean' (Deloughrey 2019: 22). Yet, even if it is true to say that these sorts of approaches offer great potential for a sustained theoretical engagement with DSM in Oceania, it doesn't mean that this kind of thinking is not *already there* in the region. Rather the challenge is to consider how rich genealogies of ocean knowledges from Oceania which significantly pre-date current critical 'turns' in marine (social) science can itself assume transformatory power in shaping political responses to deep sea extractivism. Critical ocean studies has been careful to consider many important dimensions that are focused on overturning different forms of injustice in ocean space but it must still remain intimately aware that 'critical' thinking on the ocean has been developed by diverse Indigenous communities for millennia and, is ongoing today. Thus, any necessary attempts to bring together critical ocean studies and Oceanian perspectives in order to apprehend the politics of DSM must proceed with two main cautions. First, that scholarship from within academia must not fail to recognise pre-existing Indigenous ontological positions on the ocean by repackaging its own ideas as 'new' – an example of what has been called 'discovering the already known' (West 2016). To do so would be a form of 'cherry picking parts of Indigenous thought that can reproduce, even 'become complicit in colonial violence' (Todd 2016: 18). Secondly, that Indigenous knowledge on the ocean should not be treated in a 'tokenistic' fashion, where 'knowledge holders…in the Global South [are reduced to] sources of data' (Lobo and Parsons 2023: 129) and whereby efforts towards 'integrating' diverse approaches into DSM policy actively mask and reproduce

[4] This article does not use the term 'Indigenous' as a prescriptive term but rather one that is diverse, 'context-specific [and] with which individuals and communities self-identify' (Mulalap et al. 202: 2020).

hierarchies of power and forms of epistemic injustice (Champion and Strand 2025). Disciplines like anthropology have long highlighted and analysed diverse mining cosmologies as they are constituted around the world in terrestrial spaces (e.g. Dela Cadena 2010, Li 2015, Escobar 2016). DSM research with Oceanian voices must be centred in a 'polyphonic' ethic that 'unsettles…the colonial and capitalist logics' of ocean governance (Lobo and Parsons 2023: 129) and avoids 'talking past each other' (Winter 2021: 71).

Against this background, this paper offers a conceptual framework that centres the multifarious onto-epistemological perspectives of Oceanian communities and the negotiations that they perform in the face of the capitalist development and expansion of a DSM 'frontier' in the Pacific. In the sections that follow, it sets up a triptych on the theme of Oceanian DSM centred on practices of 'representation', 'resistance' and 'responsibility'. Collectively these highlight an ever-relevant reckoning with the forces of colonialism and think through the commonalities and divergences between diverse cultural and spiritual positions as they come together with the political, technological and economic imperatives of the DSM industry. They seek to challenge the toponymic violence wrought by the colonial naming conventions of the region and specific deep sea geographies (Basik 2024) by highlighting local and Indigenous language as tools for articulating resistance. As a framing article, it does not set out to be prescriptive and instead joins in what Lobo and Parsons term a 'chorus of human and more-than-human voices' (Lobo and Parsons 2023: 136). It considers the longstanding viewpoints and practices of Indigenous communities in Oceania as 'grains of sand inside an oyster shell…capable of agitating the academy from within' (Locke et al. 2023: 250). Crucially it asserts the value of building solidarities between this philosophical diversity in the region with critical scholarship that can recast and shape the debates on DSM. Highlighting Oceanian perspectives on DSM serves not as a speculative and homogenising turn away from the 'actually existing politics of nature and culture' (Bessire and Bond 2014: 449) but rather as a reminder that diverse ontological accounts of the deep ocean have a key role for engaging with the actually existing political positions of oceanic extraction (both for, against and ambivalent) in the here and now. This could not be more important at a time before commercial extraction has begun in earnest.

2. Representing deep sea mining in/with Oceania

The absorbative properties of the deep ocean render it physically hostile to light. Darkening from 200 meters deep (the so-called 'twilight zone'), the maritime depths are perpetually blanketed in darkness by a depth of 1km (the beginning of the 'aphotic zone'). This material quality of the ocean makes the question of its representation central to understanding its political relevance. Indeed, for all that deep sea minerals are targeted for extraction by DSM interests, it is their symbolic and representative power that is accelerating their status as emerging political objects. Deep sea mining companies speak not of the present, but of a 'future', part of a geopolitical imagination in which these same metals and minerals are rendered 'necessary' for a green energy transition. As The Metals Company simply puts it on their website: 'the future is metallic' (TMC 2025). Making DSM symbolically visible in this way can be read as an example of what Martin Jay has called a 'scopic regime of modernity' (Jay 1988). In other words, capitalist forces first understand the deep seabed as an 'unseen' geography which is then re-shaped, re-packaged and re-presented as 'transformative', objective and commonsensical. It becomes part of an 'ensemble of practices and discourses that establish truth claims, typicality, and credibility of visual acts and objects and politically correct modes of seeing' (Feldman 1997: 30). Crucially, as a highly mediated space, the capitalist seabed is produced by as a vision where only extraction is possible (Han 2024), leaving little room for alternative social and cultural perspectives.

The more recent advent of deep sea mining activity in Oceania also uses exploratory mapping as a key technology for enabling extraction. Many of the associated exploration licences granted to DSM corporations rely on seabed 'concessions' which grant rights to conduct speculative mineral mapping exercises and generate data upon which narratives of resource potential can be built. These are represented and enacted as fixed, territorialised 'containers' of resources (Bridge 2013) which preclude other ways of knowing and being. Such technologies of control over access are clearly at odds with Hau'ofa's articulation of an Oceanian ontology. Read from this perspective, deep seabed concessions become examples of 'boundaries of the kind erected…by imperial powers' and 'hegemonic views that ultimately aim to confine us again, physically and psychologically' (Hau'ofa 1994: 161). Others have begun to apply this kind of thinking as a potential response to DSM governance in the region, making the link between the geopolitical imagination and governmental policy explicit. For example, the concept of 'Oceanian sovereignty' has been developed to suggest that 'governance or management action should be perceived, conceived and engaged as a common enactment between partners which may overlap with but not be defined by…those agents seeking to enact DSM' (Tilot et al. 2021: 7).

Industry and state-led geopolitical visions of mineral rich futures like these will come as little surprise to a region whose resources have first been imagined, then exploited under various waves of colonialism. Indeed, such symbolic framings function as examples of 'geopolitical mapping in Oceania' in which cartographic practices of powerful actors 'exert geostrategic and geoeconomic interests' by choosing what to show and what to omit (Kabutaulaka 2021: 42). The colonial mapping of the deep seabed in the image of extractive capital continues countless examples of mining-related impacts in the region. Writing about the phosphate histories of Banaba and Nauru, Teresia Teaiwa riffs on Epeli Hauofa's seminal framing of the Pacific as a 'sea of islands' by describing the two islands as 'a sea of phosphate' (Teaiwa 2015: 376). Here the boundaries between landed and oceanic extraction are dissolved to make way for an approach that allows for both rocks and peoples flow across cultural and political borders (*ibid.*). In another example with a more strictly oceanic focus, the British-led *HMS Challenger* expedition in the 1870s – heralded by many as the staring point for modern day oceanography – used data on newly discovered phosphate on Christmas Island to generate profit for the state (Burstyn 1975). Prefiguring the repeated intersection of ocean science and racialized capital in apprehending extractive politics in the region, it was 'an exemplar of the smooth transitions between exploration, science, and adventure capitalism, all enabled by the secure underwriting of the British Empire' (Chambers 2011: 20).

The politics of representing the deep seabed doesn't just extend to the exploratory and cartographic impulses of DSM prospectors but also to the very naming devices used to assert control over deep sea space. The ways in which its submarine features and its mineral abundance are named from the viewpoints of minority world science can also be understood as instruments of colonial control (Basik 2024). Indeed, the kinds of hydronyms used to describe the world's seas, oceans and their futures all demonstrate 'how the symbolic politics of oceanic place naming determines and affects various political-economic and (geo)political processes in the oceanic voluminous space' (Basik 2024: 2). This precise dynamic was made evident in the corporate naming of the erstwhile DSM project Solwara 1 in Papua New Guinea. Meaning 'ocean' in Tok Pisin (a creole language widely spoken in PNG), it is etymologically constituted by sol ('salt') and wara ('water') but has deeper cultural relevance to Wan Solwara meaning 'one ocean, one people'. As Papua New Guinean artist Lisa Hilli explains, this place-based definition continues the Indigenous theme of relational connection by emphasising 'the fluidity of the ocean' (Hilli 2020). Therefore the fixing and numbering of Solwara 1 as one of over a dozen mining concessions

earmarked for DSM exploration presented a disruptive act of linguistic enclosure, severing the fabric of relational identity with the ocean. As a local fisherman contended, 'I don't understand why they call [this project] Solwara 1. We don't divide the sea up into different numbers. It is all one thing' (cited in Childs 2020: 120).

There are many other examples of decolonial resistance to the colonial construction of 'toponymic frontiers' in the deep ocean, specifically through the reclamation of Indigenous naming conventions (Basik 2024). For instance, the New Zealand Geographic Board Ngā Pou Taunaha o Aotearoa has given increasing attention towards the restoration of Māori rights by understanding oceanic place names as taonga ('treasures') (Lindsay and Kearns 2023). Relatedly, Basik has highlighted how Indigenous Palauan words for different types of fish and animals have been used to name deep sea basins, ridges and seamounts in the region (Basik 2024: 6). These examples, along with (now defunct) Solwara 1 collectively emphasise the power of Oceanian multispecies relationality for fostering a more inclusive and multivocal dialogue for the debating of DSM futures. They caution against the reproduction of colonial terminology for the deep ocean and the region more generally; terms like 'South Pacific', 'Australasia', 'Asia-Pacific' have at different times in the last century suggested that the region be considered only in relation to more powerful actors or, worse, as 'an empty space' (Hau'ofa 2019: 346). More positively, emphasising the relational meaning of the words used to describe DSM can uphold 'intergeneration principles designed to protect multiple relationships' with the ocean (Vaai 2019: 12). Academia, science, let alone corporate and state-based forms of DSM regulation must open up space for previously marginalised and silenced ways of knowing the deep seas in ways that don't simply pay lip service (see Smith 2021). Instead, Oceanian ways of thinking must be allowed space to flourish in its own terms and articulated by its own people (Thaman 2003: 14). Citing her own poem in challenging the minority world to decolonise its knowledge production, Tongan poet Konai Thaman reminds us that:

you say that you think
therefore you are
but thinking belongs
in the depths of the earth
we simply borrow what we need to know (*ibid*.)

Any move towards taking the representative aspects of DSM politics seriously must open up its understanding of mapping deep oceans to include creativity in all its forms. It has been argued that, notwithstanding the emancipatory potential of creative practices, the 'current environmental crisis is one of the imaginations' for those in the minority world (Hawkins 2020: 3). Yet this is hardly the case for countless, diverse communities across Oceania for whom varied forms of storytelling, art and performance have been used to give expression both to oceanic ways of being and as speaking/writing/visualising back to dominant narratives of DSM. Recognising that it is 'impossible' to condense an Oceanian creative response as a homogeneous whole, creative interventions nonetheless can function as 'pathways to Moana [ocean] peoples asserting diverse, multi-layered and complex subjectivities' (Lopesi 2018: 112). One example in this regard is the poem *Praise Song for Oceania* by Craig Santos Perez, a CHamouru writer from Guåhan/Guam. Essentially an ode to the ocean, it simultaneously offers thanks for the ocean's affordances and histories, it's 'capacity to remember your library of drowned stories' whilst asks to 'forgive our invasive drilling and deep sea mining, please forgive our extractions and trespasses' (Santos 2020).

With some notable exceptions (e.g. Archibald et al. 2019), the example above is a rare instance of creative storytelling from Oceania making its way into the academic literature. Yet ever since deep sea mining began targeting Oceanian waters and seabed, a burgeoning creative force has been apparent in responding to the threat of DSM. Moreover, although creative ways for imagining and embodying the ocean have always been there, some of this work is beginning to have international reach. One major exhibition entitled *Re-stor(y)ing Oceania* is curated by Bougainville born Taloi Havini and employs an 'ancestral call-and-response method' to bring together work 'expanding on the current understanding of our oceans' (tba21 2025). Notable commissions include Indigenous Tongan artist Latai Taumoepeau's installation *Deep Communion sung in minor (archipelaGO, THIS IS NOT A DRILL)* which uses an interactive musical and sculptural space to 'engage audiences' in DSM politics (*ibid*.). This piece has, in turn fostered the creation of a project space called *The Body of Wainuiātea* by Wāhine architect Elisapeta Heta which encourages connection and storytelling as a counterpoint to extractivist designs in the deep ocean. Examples like these, along with the forms of storytelling, sculpture and drawing recorded in response to Nautilus Minerals' failed DSM project in PNG (Childs 2020) can be thought about as forms of counter- mapping to oceanic extraction. They act as 'stories of the ocean churn and soak our thinking, so we can begin to dream about how things might be otherwise' (Lobo and Parsons 2023: 136). If they are to be understood as a response to DSM cartographic practices of territorialisation, then it is worth remembering that 'while [counter] mapping is never power-free, it represents an important field for contemporary struggles over representation, rights and resources' (Anthias 2023).

3. Resisting deep sea mining in/with Oceania

Decolonial approaches to understanding the politics of DSM in Oceania recognise the importance of representation, particularly as they foreground Indigenous stories of Oceanic relationality. This has a profound relevance for thinking through the themes, targets and strategies of resistance. Whilst it is certainly the case that environmental concerns, livelihood and health related impacts all feature as key aspects for resistance to DSM in the region, a more fundamental issue is threatened. Namely, deep sea extraction 'results in not only a disruption of spaces but in a disruption, or in some cases a complete destruction, of relationship' with the seabed and deep sea (Case 2019: 176). As mentioned above, this 'relationship' with the ocean takes many different forms across diverse onto-epistemologies but can stand as a counterpoint to the seabed as frontier. This has been seen in Papua New Guinea where a public figure at the forefront of community resistance to *Solwara 1* centred the concept of graun in their defiance of corporate science. As they stated, 'the ocean is a part of the earth, what we call graun, and we [people] are part of graun' (cited in Childs 2020: 122). The implication is that DSM does not just 'mean social and economic disruption; it rends the very fabric of the world and a vivid, direct, sacred link with the land is irrecoverably lost' (Macgregor 2017). In a different but related context from Hawai'i, it can be thought to cause 'a psychological disruption' where DSM threatens 'the severing of an intimate connection to creation and, consequently, to a way of positioning oneself in the world' (Case 2019: 176). At stake therefore in resistance efforts to DSM are not only moves towards more equitable and just ways of managing and regulating the deep seabed but a careful protection and mending of collective identities.

Opposition to the erosion on ocean-based identities has found longstanding expression in Oceania. Joey Tau, campaigner and chairman of the Pacific Network on Globalisation (PANG) has illustrated 'pacific resistance to blue colonization' through several examples of education, lobbying and activism (Tau 2020). As far back as 2011, a 'collective' was established to 'better

understand implications for Pacific peoples and the ocean of economic exploitation of deep-sea minerals' whilst in 2012 an 8,000 signature petition 'cautioned Pacific Island Forum Leaders over deep sea mining' (*ibid*.). Similarly pressure from the Vanuatu Council of Churches and the Vanutau Kaljoral Senta forced the governmental review of 147 licenses previous issued without free, prior and informed consent' (*ibid*.). Collectively, examples like these feed into a broader coalition of resistance to DSM in the region. This finds perhaps its most coherent expression through the 'Pacific Blue Line', a collection of dozens of community led initiatives and organizations who are united behind the statement that DSM is 'Not Needed, Not Wanted, Not Consented' (Pacific Blue Line 2025). For many, the demands for a ban to the activity are unequivocal; they are, in the words of Fijian scholar Claire Slatter, an 'ethical imperative' (Slatter 2023).

All of these examples highlight, in one way or another, the importance of framing as a key dynamic for conceptualising resistance. This has much in common with some types of social movement theory developed over several decades in sociology. Activist networks at the frontline of resistance to DSM understand the importance of alliance building across multiple scales of struggle and have sought to mobilise different forms of assets in order to foster policy change. This kind of approach, in which social movement actors rationally build up economic, social and cultural 'resources' can be seen as an example of 'resource mobilization theory' (McCarthy and Zald 1977) and has been witnessed in many anti-extractivist struggles worldwide (Arce et al. 2022). For anti-DSM resistance in the region, there are increasing instances of the mobilisation of financial and educational resources as well as the widening of networks. The Deep Sea Mining Campaign is based in Australia but connects with a large coalition of actors including local communities, scientists and activists in the region and has been influential in influencing investors and policy makers alike (DSM Campaign 2025). More specifically the Alliance of Solwara Warriors were directly awarded $30,000 by the US-based 'Environmental Defenders Collaborative' where the funds were used to carry out a program of school and community education and outreach work across Papua New Guinea (Greengrants 2025).

Building on the resource mobilization approach, groups across Oceania have been adept in both shaping and taking advantage of political opportunities at governmental level. This approach, popularised by Doug McAdam and others at the turn of the century highlights the ways in which a political system's structure can enable or constrain collective action to be effective (McAdam et al. 2003). For example, an increase in political pluralism, an open, non-repressive terrain for public protest and differences of opinion amongst ruling elites can all be used to further the aims of resisting communities. This has been witnessed in over 30 countries worldwide, including those in Oceania where moratoria have been introduced (Kasanawaqa, Hatcher and Blesia 2026). Countries such as Palau, Fiji, Papua New Guinea and Tuvalu have called for some version of a precautionary pause and, in doing so, have opened up the possibility of alliance building and an anti-DSM discourse to flourish. Even at the international level, the recent change of leadership at the International Seabed Authority has engendered a sense of possibility towards increased environmental care and stewardship. Brazilian oceanographer Leticia Carvalho's succession of former secretary-general Michael Lodge in January 2025 has been supported by many as marking a shift away from a pro-mining stance towards sustainable marine management (Lipton 2024). This continues ongoing pressure from Oceanian communities engaging critically with DSM's international regulatory order. Notably a 'Pacific Talanoa' was held as part of the COP26 deliberations in which Indigenous leaders from across the region, sought commonalities in resistance strategies to DSM (DSM Campaign 2021).

Political opportunities (or political process as it is sometimes described by social movement theory) like these can be seen as a key dimension for explaining social resistance to DSM projects in Oceania. As has been argued recently, a 'combined lack of acceptance by civil society, the governance system, and the market' for DSM has been effective in 'stopping the trajectory of the DSM industry development in PNG' (Van Putten et al. 2023: 14). Even more contemporarily, the presidents of Mā'ohi Nui–French Polynesia and Palau respectively published a detailed 'message' against DSM as a comment piece in the journal *Nature* (Brotherson and Whipps Jr 2025). On behalf of island leaders, they argue for the invocation of a precautionary approach calling for 'international intervention' through moratoria, legal protection and respect for the 'deep cultural and spiritual connection of Pacific peoples to the ocean' (Brotherson and Whipps Jr 2025: 302). In a separate development, a 2025 Deep Sea Minerals Talanoa saw state-leaders arguing for a 'member-led regional approach to deep-sea minerals' and laying the groundwork for a potential joint 'Pacific seabed stewardship statement (Louey 2025). Taking advantage of governmental critiques of DSM can be seen as a valuable opportunity to sediment a collective position against moves to legitimise the impulses of extractivism.

Yet, notwithstanding the aforementioned successful examples of claim making and mobilisation against DSM, there remain significant cautions to the aims of collective action being fulfilled. Many financial backers and potential funders use Charles Tilly's 'WUNC' theory by evaluating a four-part criteria in order to measure social movement success. As Tilly explains, social movements offer 'a sustained challenge to power holders in the name of a population living under the jurisdiction of those power holders by means of repeated public displays of that population's **W**orthiness, **U**nity, **N**umbers, and **C**ommitment' (Tilly 1999, emphasis added). Whilst aspects of these criteria are clearly present in anti-DSM mobilisation in Oceania (especially relating to movements' levels of commitment and their ability to generate a 'worthy' narrative), others face challenges. One aspect of this is for the ability of the DSM industry itself to subvert the language of justice-based approaches to the activity. As has been persuasively argued, both corporate actors and lobbyists in the global North are increasingly 'co-opting' the language of social justice 'to the disingenuous use of the term just transitions, including around DSM' (Titifanue 2025: 6; also see Lilford, Skiveren and Hatcher 2026). As one activist summarises, 'we are now struggling to come up with our own language to describe what we're trying to do. My job has now become to challenge just transition if it's coming up as a false solution. Which is a large part of the work I do. Deep seabed mining is a false solution, right? But people don't talk to it in terms of false solutions. They're talking of it in terms of it is needed' (cited in Titifanue 2025: 6).

A further caveat relates to both the historical and contemporary capture of the DSM discourse by mining companies. These corporate asymmetries of power and resources can exceed the financial technical and regulatory power of communities and threaten to reproduce old colonial relationships whereby so-called Pacific Islands are reduced to being 'the first, the harbingers, the pioneers, the miner's canary' (Baldacchino 2006: 6). As Titifanue argues, 'the Pacific region potentially exemplifies the notion of Island laboratories' in which 'to trial technoscience solutions' such as DSM (Titifanue 2025: 4). Because of the uncertainty surrounding deep ocean science (Levin et al. 2020), proponents are able to leverage this ambiguity to assert promises of sustainable development in discursive 'unknowns' which are hard to challenge effectively. There also remain significant outliers at the state level where governments have made either ambiguous or supportive statements regarding DSM. This is most notably the case for Cook Islands whose prime minister Mark Brown has recently claimed that Indigenous-led opposition to DSM is 'ideological, while the Government's position is based on a scientific approach' (Te Ipukarea Society 2025). This sort of language, whilst something of an exception for governmental

perspectives in Oceania, still threatens to reproduce the colonial production of ocean scientific knowledge, one in which 'diverse epistemes are occluded' (Galka 2023: 516). Reckoning with the politics of resistance, notably understanding how locally situated forms of knowledge interact with international regulatory tools will be a key dimension for conceptualising DSM both in the region and worldwide.

4. Responsibility in/with the Deep Ocean

The diverse onto-epistemological positions outlined above have significance not only for understanding how the deep sea is represented and how DSM is resisted, but also for questions of geopolitical responsibility towards the ocean more broadly (Goodyear-Kaʻopua 2018). Firstly, these relate to who bears responsibility for regulating DSM activity in Oceania and who or what bears responsibility for any socio-ecological impacts that it creates? Secondly, and more philosophically, what different types of responsibility are at stake and how do these serve to produce the politics of DSM in Oceania? In this final substantive section, notwithstanding the fact that Oceania is 'highly heterogenous' in its ontological perspectives (Koro et al. 2023), a few brief instances of legal and regulatory responsibility are introduced at different scales. Bringing these together with the diverse kinds of responsibility relates to important questions of selfhood for communities closest to sites of DSM in the region. In a sense then, this section is about conceptualising responsibility both *in* Oceania and *with* Oceania. Critically apprehending DSM's dynamics and practices as they emerge will require attention to both aspects of the term.

Most discussions of responsibility for DSM at an international scale centre on the realpolitik of regulation. State-based actors come together with international legal frameworks to shape the regulatory landscape of the activity in the 'Area' (the seabed beyond national jurisdiction). The chief regulator among these – The International Seabed Authority (ISA) – was established under UN Convention on the Law of the Sea (UNCLOS). However, whilst it has historically been more concerned with the awarding of exploration contracts, it is now more pressingly focused on the development of a mining code to regulate commercial exploitation. This has brought the 'international' seabed directly into the regulatory orbit of nation-states who additionally may sponsor private contractors (such as Nauru or Tonga), or – as in the case of the USA – target it directly and unilaterally (Alger et al.2025). Different frames for the question of 'responsibility' shape the discourse in these policy circles. For Nauru's government (the state sponsor for The Metals Company), the 'responsible' course of action relates to a just transition narrative in which DSM is framed as essential. As its president, David Adeang argued at a 2024 session of the UN General Assembly, 'the greatest risk we face is not the potential environmental impacts of mineral recovery but the risk of inaction[...] as a nation surrounded by the ocean, Nauru has a vested interest in the responsible stewardship of the ocean's marine resources' (quoted in Cagurangan 2024).

Responsibility within UNCLOS, on the other hand is implied through its enshrined principle of the 'common heritage of humankind' (CHP). Yet this has proven a source of criticism both historically and contemporarily with many 'bemoaning the way in which CHP has been instantiated within the deep sea mining regime, where the rush to extract threatens to trump the environmental commitments embedded in the idea of intergenerational stewardship' (Jones er al 2024). It should be noted however that cultural perspectives - in addition to environmental and economic concerns - are increasingly being taken seriously in ISA discussions. UNCLOS makes specific reference to 'laws and practices with respect to cultural exchanges' (UNCLOS 1982) and Oceanian stakeholders have been at the forefront of recent efforts to foreground questions of

cultural heritage in debates around responsibility for the deep seabed. This work has been ongoing for several years now with Lixinski noting how 'Pacific nations such as the Federated States of Micronesia' have led efforts since 2019 to recognise how 'culture gives them a sense of identity and continuity, which creates a stake for them in any activity that would negatively impact that cultural practice' (Lixinski 2024: 81). It has sought to broaden out and forge new conceptual and practical commonalities with diverse geographies globally – the latest session of the ISA held in March 2025 saw the informal group on underwater cultural heritage co-led by Micronesia, Brazil and Greece. Whilst by no means unified – as recent disagreements in the ISA session on the 'inclusion of language of cultural rights' evidence (IISD 2025) – the importance of deliberative dialogue on questions of responsibility remains paramount even if that requires time. As President Surangel Whipps Jr. of Palau articulated during closing remarks of a sideline event of that same ISA session, 'choosing a moratorium or a precautionary pause is not a delay, but a disciplined and respectful approach to governance, allowing space for informed, just, and lasting decisions' (Deep Sea Dialogues 2025).

Conceptualising responsibility for DSM must also recognise that, as an extractive industry, it is simultaneously implicated in the political geographies of both production and consumption. For all the understandable focus on the sites of extraction, the places where DSM 'lands' far exceed the material removal of minerals from the deep seabed. For example, whilst some mineral refinement will either occur through 'on-board' facilities on surface support vessels, it is expected that the majority of processing will take place using pre-existing processing centres. It is highly likely that this will reproduce existing power relations within global geographies of rare earth elements, notably in China which accounts for about 85% of global processing capacity (Liu et al. 2023). Even if minerals are extracted from the Oceanian seabed, any future processing centres of DSM must not become examples of a 'hidden abode' in which the 'wrenching socioecological transformations' (Barca and Bridge 2015: 366) of the mineral supply chain are neglected from political analysis and scrutiny (Huber 2017).

DSM's geographies of consumption highlight how other forms of responsibility are implicated at a global scale. To a great degree, the kinds of ecological, spiritual and cultural impacts felt by communities in Oceania are enabled and reproduced by the demand for 'critical' minerals in wealthy centres of power in the minority world. These relate to both the discursive 'need' for green energy transition as previously discussed and reflect the ever-increasing demand for minerals synonymous with the push for economic growth. These aspects and their resistance have been well highlighted historically by groups in the region such as Bismack Ramu Group in Papua New Guinea who have campaigned on issues related to both DSM and the dumping of tailings from the terrestrial Ramu Nickel Mine into the marine system. Relatedly, both Māori activists and politicians have pointed to 'the moral responsibility of Te Komiti Whiriwhiri Take Taiao [New Zealand/Aotearoa's Environment Committee] to find in favour of precaution' towards DSM (Hita 2023). More recently still, deep sea minerals have been reframed as 'critical on account of 'national security and defense imperatives in the context of escalating geopolitical tensions driven by Western powers' (Slatter and Penjueli 2025:3). In this symbolism of strongman politics, the securing of 'critical' minerals thus become framed as a 'responsible' course of governmental policy and action.

Though apparently disconnected, these empirical examples of deep sea resource extraction in Oceania have been read by some as part of the same actor-network in which DSM's politics is shaped by a variety of actors in an ever-shifting network of relationships (Filer et al. 2021). Notwithstanding the obscuring of power relations with the DSM industry (i.e. critical concern with

which groups come to dominate DSM's politics and why), this actor-network theory approach does offer needed attention towards a cast of actors that is dynamic and includes the more-than human and materialist alongside more traditional (human) objects of political analysis. It also points towards more relational ontological accounts that have been addressed elsewhere in critical scholarship on DSM. This kind of an approach has clear resonance with an understanding that 'responsibility for the ocean's declining conditions cannot be shifted entirely to [the ISA] or the influence of imaginaries of mastery and extractivism — individual and collective material entanglements also contribute' (Reid 2023: 108). It highlights the need for critical dialogue between the physical affordances of the deep ocean with 'saltwater belongings and responsibilities amid the brutality of racial, colonial, and capitalist logics' of marine extractivisms, as exemplified by DSM (Lobo and Parsons 2023: 136). The deep ocean's understudied yet uncanny material qualities do condition its conceptual apprehension and mobilisation in policy discourse. To this degree, governmental 'blue economy' plans that feature DSM only ever exist as acts of the geopolitical imagination despite their claims to objectively better futures. The challenge will be to ensure that in speaking back to the power dynamics that underlie claims to such objectivity, space is given to a reclaimed version of the imagination that can 'enable us to see things in their proper perspective [...and] to be generous enough to bridge abysses of remoteness' (Arendt 1994: 323).

Such a discursive shift is starting to find welcome expression in formalised networks of government across Oceania. In New Zealand/Aotearoa, Te Pāti Māori co-leader Debbie Ngarewa-Packer has led calls to prevent DSM in national waters. As she has argued in parliament, 'from our iwi's ['community's'] perspective, seabed mining is a violation of our kaitiakitanga ['environmental stewardship'] and as defenders of the ecosystems, we are gravely concerned it will affect everything. This is a part of who we are, where we are, and it must be protected' (Tuckey 2023). Nonetheless, the enduring efforts by Trans-Tasman Resources – the corporation pushing for seabed mining in South Taranaki to fast-track its approval – point to the quickening temporalities of capital. Calls for moratoria on DSM represent efforts to disrupt this example of 'blue acceleration' (Jouffray et al. 2020) and can instead draw upon a decolonising 'ethic of interdependence and shared responsibilities that values cyclical kinship time' common to many in the region (Lobo and Parsons 2003: 135). This can take inspiration from other global instances of formal opposition to DSM globally, for example by the Sámi Council and their recent contribution to the Norwegian moratorium on DSM.

The politics of DSM in Oceania is restless, always at a threshold of becoming and is formed by an ever-shifting array of actors, not to mention epistemically and ontologically diverse perspectives. As has been concluded elsewhere, taking the role of Indigenous onto-epistemologies seriously along with their associated 'politics of recognition' (Le Meur and Toke 2025: 13) will 'likely remain of central importance to the fate of the global DSM frontier' (Lilford and Allen 2023: 296). They should not be situated in contrast to other critical forms of ocean studies, notwithstanding some important differences. Instead, their heterogeneity must be recognised, some of which may find commonalities with critical scholarship written (as this article is) from the minority world but other parts which do not. For some examples of thinking with Oceania, there will be evident synergies with other forms of critical scholarship on the ocean and these can be seen as 'complementary projects with the common goal of rethinking norms in Western thought' (Jue 2020: 18). Yet, for others, this will not be the case as reproduced histories of colonial oppression in Oceania suggest that such 'complementarity' is based on an equality of power relations that simply isn't possible. Whatever the case, it is clear that in order to properly conceptualise DSM *in*

Oceania fundamentally requires a need to think *with* Oceanian thought and practice, in all its rich diversity.

References

Alger, J., Green, J. F., Neville, K. J., Park, S., VanDeveer, S. D., & Webster, D. G. (2025). The false promise of deep-sea mining. *npj Ocean Sustainability*, *4*(1), 21.

Amon, D. J., Gollner, S., Morato, T., Smith, C. R., Chen, C., Christiansen, S., ... & Pickens, C. (2022). Assessment of scientific gaps related to the effective environmental management of deep-seabed mining. *Marine Policy*, *138*.

Anthias, P. (2023). Mapping the subaltern. The Routledge handbook of geospatial technologies and society. London, UK: Routledge, 109-121.

Arce, M., Hendricks, M. S., & Polizzi, M. S. (2022). *The roots of engagement: Understanding opposition and support for resource extraction*. Oxford University Press.

Archibald, J-A, Morgan, J-L, and J. De Santolo (eds.) (2019). Decolonizing Research: Indigenous Storywork as Methodology. London: Zed Books

Arendt, H. (1994). *Essays in understanding, 1930-1954: Formation, exile, and totalitarianism*. Schocken.

Baldacchino, G. (2006). Islands, island studies, island studies journal. *Island Studies Journal*, *1*(1), 3-18.

Bambridge, T., d'Arcy, P., & Mawyer, A. (2021). Oceanian sovereignty: Rethinking conservation in a sea of islands. *Pacific Conservation Biology*, *27*(4), 345-353.

Barca, S., & Bridge, G. (2015). Industrialization and environmental change. In *The Routledge handbook of political ecology* (pp. 366-377). Routledge.

Basik, S. (2024). Naming the abyss: The symbolic politics of the oceanic toponymic frontier. *Area*, *56*(4).

Bessire, L., & Bond, D. (2014). Ontological anthropology and the deferral of critique. *American ethnologist*, *41*(3), 440-456.

Bridge, G. (2013). Territory, now in 3D!. *Political Geography*, (34), 55-57.

Brotherson, M., & Whipps Jr, S. (2025). A message from island leaders: protect the Pacific Ocean from deep-sea mining. *Nature*, *642*(8067), 299-302.

Burstyn, H. L. (1975). Science pays off: Sir John Murray and the Christmas Island phosphate industry, 1886-1914. *Social Studies of Science*, *5*(1), 5-34.

Cagurangan, M.V. (2024). Nauru defends deep-sea mining plans: 'The greatest risk is failing to seize the opportunity'. Pacific Island Times, Sept 30th. Accessed online at https://www.pacificislandtimes.com/post/nauru-defends-deep-sea-mining-plans-the-greatest-risk-is-failing-to-seize-the-opportunity

Case, E. (2019). I ka Piko, To the Summit: Resistance from the Mountain to the Sea. *The Journal of Pacific History*, *54*(2), 166-181.

Champion, G., & Strand, M. (2025). “Other (ed)” ocean knowledges: unlearning integration in ocean governance for recognitional justice. *Ocean and Society*, *2*.

Childs, J. (2020). Performing ‘blue degrowth’: Critiquing seabed mining in Papua New Guinea through creative practice. *Sustainability science*, *15*(1), 117-129.

Childs, J. (2022). Geographies of deep sea mining: A critical review. *The Extractive Industries and Society*, *9*.

Chambers, P. (2011). Society has been defended: following the shifting shape of state through Australia's Christmas Island. *International Political Sociology*, *5*(1), 18-34.

Conde, M., Mondré, A., Peters, K., & Steinberg, P. (2022). Mining questions of ‘what’and ‘who’: deepening discussions of the seabed for future policy and governance. *Maritime studies*, *21*(3), 327-338.

De la Cadena, M. (2010). Indigenous cosmopolitics in the Andes: Conceptual reflections beyond “politics”. *Cultural anthropology*, *25*(2), 334-370.

Deep Sea Dialogues (2025). ‘Deep Sea Dialogues’. Briefing Paper from 30th Session of ISA. Accessed online at https://isa.org.jm/briefing_papers/deep-sea-dialogues-recap/report-deep-sea-dialogues/.

DeLoughrey, E. (2017). Submarine futures of the Anthropocene. *Comparative Literature*, *69*(1), 32-44.

DeLoughrey, E. (2019). Toward a critical ocean studies for the Anthropocene. *English language notes*, *57*(1), 21-36.

DSM Campaign (2021). ‘Pacific Talanoa: Deep Sea Mining in No Answer to the Climate Crisis’. Accessed online at https://www.youtube.com/watch?v=OftX8Vd_JfQ.

DSM Campaign (2025). ‘About Us’. Accessed online at https://dsm-campaign.org/about-us/

Escobar, A. (2019). Thinking-feeling with the Earth: Territorial Struggles and the Ontological Dimension of the Epistemologies of the South. In *Knowledges born in the struggle* (pp. 41-57). Routledge.

Feldman A. (1997). Violence and vision: The prosthetics and aesthetics of terror. Public Culture 10(1): 24–60

Filer, C., Gabriel, J., & Allen, M. G. (2021). Discombobulated actor-networks in a maritime resource frontier. *Pacific Affairs*, *94*(1), 97-122.

Galka, J. (2023). Oceans of ooze: Deep-sea sedimentary data, mineral resource frontiers, and imperial continuities in ocean history. *Historical Studies in the Natural Sciences*, *53*(5), 481-517.

Goodyear-Ka‘ọpua, N. (2018). Indigenous oceanic futures: Challenging settler colonialisms and militarization. In L.T. Smith, E. Tuck, K.W. Yang (Eds.), *Indigenous and decolonizing studies in education*, Routledge, pp. 82-102

Greengrants (2025) Environmental Defenders Collaborative. Accessed online at https://www.greengrants.org/edc/

Han, L. Y. (2024). *Deepwater Alchemy: Extractive Mediation and the Taming of the Seafloor*. U of Minnesota Press.

Hau'ofa, E. (1994) 'Our sea of islands', *The Contemporary Pacific* vol. 6, no.1 pp. 148- 161

Hawkins, H. (2020). Underground imaginations, environmental crisis and subterranean cultural geographies. *cultural geographies*, *27*(1), 3-22.

Hilli, L. (2020). Dissolving the Pacific. Available online at https://lisahilli.com/2020/01/04/dissolving-the-pacific/#:~:text=Solwara%20is%20the%20Melanesian%20word,Big%20Island'%20in%20the%20Pacific.

Hita, J. (2023). 'Submission: Inquiry into Seabed Mining in New Zealand', accessed online at https://www.greenpeace.org/aotearoa/story/submission-inquiry-into-seabed-mining-in-new-zealand/

Huber, M. T. (2017). Hidden abodes: Industrializing political ecology. *Annals of the American Association of Geographers*, *107*(1), 151-166.

IISD (2025). 'Highlights and Images for 17th July 2025', Report on 30th Session of ISA. Accessed online at https://enb.iisd.org/international-seabed-authority-isa-council-30-2-17jul2025

Jay, M. (1988). Scopic Regimes of Modernity. *Vision and Visuality: Discussions in Contemporary Culture. Ser*, *2*.

Jones, E., van Eijk, C., & Heathcote, G. (2024). The common heritage of kin-kind. In *International law and posthuman theory* (pp. 105-135). Routledge.

Jouffray, J. B., Blasiak, R., Norström, A. V., Österblom, H., & Nyström, M. (2020). The blue acceleration: the trajectory of human expansion into the ocean. *One earth*, *2*(1), 43-54.

Jue, M. (2020). *Wild blue media: Thinking through seawater*. Duke University Press.

Kabutaulaka, T. (2021) 'Mapping the Blue Pacific in a Changing Regional Order'. In The China Alternative: Changing Regional Order in the Pacific Islands, edited by Graeme Smith and Terence Wesley-Smith, 41–69. Canberra, Australia: Australian National University Press.

Kasanawaqa, V., P. Hatcher & J. Blesia (2026). Civil society mobilisation and the politics of deep-sea mining in the Pacific: A case study of the campaign for a moratorium. *The Extractive Industries and Society*, 27, 101923.

Koro, M., McNeill, H., Ivarature, H., & Wallis, J. (2023). Tā, Vā, and Lā: Re-imagining the geopolitics of the Pacific Islands. *Political Geography*, *105*, 102931.

Le Meur, P. Y., & Muni Toke, V. (2025). Competing knowledges and sovereignties in the French Pacific oceanscapes. *Ocean and Society*, *2*.

Leo Tupuana'I, L., & Raymond, S.E. (2026). Financialization, indigenous resistance and the case of deep-sea mining in American Samoa. *The Extractive Industries and Society*, 27 (in press).

Levin, L. A., Amon, D. J., & Lily, H. (2020). Challenges to the sustainability of deep-seabed mining. *Nature Sustainability*, *3*(10), 784-794.

Li, F. (2015). *Unearthing conflict: corporate mining, activism, and expertise in Peru*. Duke University Press.

Lilford, O., & Allen, M. G. (2023). The historical assembly of Oceania's deep-sea mining frontier. In *Routledge Handbook of Global Land and Resource Grabbing* (pp. 282-299). Routledge.

Lilford, O., N. Skiveren, & P. Hatcher (2026). The future of mining or mining the future? Mapping corporate deep sea mining discourses. *The Extractive Industries and Society*, 27, 101901.

Lindsay, N., & Kearns, R. (2023). The New Zealand geographic board and the contested nature of place names in New Zealand. In *Place naming, identities and geography: Critical perspectives in a globalizing and standardizing world* (pp. 241-257). Cham: Springer International Publishing.

Lipton, E. (2024). Fight Over Seabed Agency Turns Nasty. New York Times, July 4th.

Liu, S. L., Fan, H. R., Liu, X., Meng, J., Butcher, A. R., Yann, L., ... & Li, X. C. (2023). Global rare earth elements projects: New developments and supply chains. *Ore Geology Reviews*, *157*, 105428.

Lixinski L. (2024). Integrating Culture, Heritage, and Identity in Deep Seabed Mining Regulation. *AJIL Unbound*, 118:78-82.

Locke, M. L., Trudgett, M., & Page, S. (2023). Indigenous early career researchers: Creating pearls in the academy. *The Australian Educational Researcher*, *50*(2), 237-253.

Lobo, M., & Parsons, M. (2023). Decolonizing ocean spaces: Saltwater co-belonging and responsibilities. *Progress in Environmental Geography*, *2*(1-2), 128-140.

Lopesi, L. (2018). Beyond Essentialism: Contemporary Moana Art from Aotearoa New Zealand. *Afterall: A Journal of Art, Context and Enquiry*, *46*(1), 106-115.

Louey, P. (2025). 'United we stand, divided we fall The case for a Pacific Seabed Stewardship Statement', Pacific Security College Working Paper Series. Accessed online at https://pacificsecurity.net/wp-content/uploads/2025/12/United-we-stand-divided-we-fall-PSC-Policy-Paper.pdf

MacGregor, N. (2017). Living with the gods: the other side of the leaf. Radio 4. https://www.bbc.co.uk/programmes/b09fy6fz

McAdam, D., Tarrow, S., & Tilly, C. (2003). Dynamics of contention. *Social Movement Studies*, *2*(1), 99-102.

McCarthy, J. D., & Zald, M. N. (1977). Resource mobilization and social movements: A partial theory. *American journal of sociology*, *82*(6), 1212-1241.

Mulalap, C. Y., Frere, T., Huffer, E., Hviding, E., Paul, K., Smith, A., & Vierros, M. K. (2020). Traditional knowledge and the BBNJ instrument. *Marine policy*, *122*.

Pacific Blue Line (2025). Accessed online at https://www.pacificblueline.org/pacific-blue-line-statement

Reid, S. (2022). Imagining justice with the abyssal ocean. In *Laws of the Sea* (pp. 68-91). Routledge.

Reid, S. (2023). Ocean justice: reckoning with material vulnerability. *Cultural Politics*, *19*(1), 107-127.

Santos, C. (2020). Praise song for Oceania, Scottish Geographical Journal, 136:1-4, 101-104

Schoenberger, S. (2025). 'Deep Sea Mineral Prospection and Postcolonial Resource Sovereignty in Oceania' in Ahmed, N. et al (eds.) *Thinking the world from the deep ocean: Seabed mining across resource, regulatory and ethical frontiers,* Comparative Law Journal of the Pacific XXVIII, pp. 23-57

Simpson, L. B. (2017). *As we have always done: Indigenous freedom through radical resistance*. U of Minnesota Press.

Slatter, C. (2023). Prohibiting Deep Seabed Mining in the Pacific Ocean: An Ethical Imperative. *Development*, *66*(1), 58-64.

Slatter, C. and M. Penjueli (2025). ' Peace under-sea seige: how 'defense critical minerals could pull the trigger to mine the ocean floor', DAWN/PANG Policy Brief. Accessed online at https://www.dawnfeminist.org/library/peace-under-sea-siege-how-defense-critical-minerals-could-pull-the-trigger-to-mine-the-ocean-floor

Smith, L. T. (2021). *Decolonizing methodologies: Research and Indigenous peoples*. Bloomsbury Publishing.

Tau, J. (2020). A Pacific Resistance to Blue Colonization. Accessed online at https://www.karibu.no/newsletter/2020/02/a-pacific-resistance-to-blue-colonization/

Thyssen-Bornemisza Art Contemporary (TBA21) (2025). Re-Stor(y)ing Oceania Exhibition at Ocean Space – Venice. Accessed online at https://tba21.org/restoryingoceania

Te Ipukarea Society (2025). 'Te Ipukarea Society: The 'real science' around deep seabed mining!' Cook Islands News, 31st May. Accessed online at https://www.cookislandsnews.com/internal/opinion/editorials/te-ipukarea-society-the-real-science-around-deep-seabed-mining/

Te Punga Somerville, A. (2017). Where oceans come from. *Comparative Literature*, *69*(1), 25-31.

Teaiwa, K. (2015). Ruining Pacific islands: Australia's phosphate imperialism. *Australian Historical Studies*, *46*(3), 374-391.

Teaiwa, K. (2020). On decoloniality: a view from Oceania. *Postcolonial Studies*, *23*(4), 601-603.

Thaman, K. H. (2003). Decolonizing Pacific studies: Indigenous perspectives, knowledge, and wisdom in higher education. *The Contemporary Pacific*, 1-17.

Titifanue, J. (2025). Justice washing extractivism: Pacific Island activist perspectives on just transitions and deep-sea mining. *Global Environmental Change*, *94*, 103053.

The Metals Company (2025). Corporate Website. Accessed online at https://metals.co/

Tilot, V. C., Guilloux, B., Willaert, K., Mulalap, C. Y., Bambridge, T., D'Arcy, P., ... & Dahl, A. (2021). The concept of oceanian sovereignty in the context of deep sea mining in the Pacific region. *Frontiers in Marine Science*, *8*.

Todd, Z. (2016). An indigenous feminist's take on the ontological turn: 'Ontology'is just another word for colonialism. *Journal of historical sociology*, *29*(1), 4-22.

Tuckey, K. (2025). ‘Bid to ban deep sea mining defeated: 'Our community don't want it. The public doesn't want it’', RNZ, 10th May. Accessed online at https://www.rnz.co.nz/news/political/489658/bid-to-ban-deep-sea-mining-defeated-our-community-don-t-want-it-the-public-doesn-t-want-it

United Nations Convention on the Law of the Sea, Arts. 149, 303, 1833 UNTS 397, 21 ILM 1261 (1982).

Vaai, U. L. (2019). *"We are therefore we live": pacific eco-relational spirituality and changing the climate change story”*. Policy Brief No. 56. Toda Peace Institute.

Van Putten, E. I., Aswani, S., Boonstra, W. J., De la Cruz-Modino, R., Das, J., Glaser, M., ... & Vave, R. (2023). History matters: societal acceptance of deep-sea mining and incipient conflicts in Papua New Guinea. *Maritime Studies*, *22*(3): 1-17.

West, P. (2016). *Dispossession and the environment: Rhetoric and inequality in Papua New Guinea*. Columbia University Press.

Winter, C. (2021). *Subjects of Intergenerational Justice: Indigenous Philosophy, the Environment and Relationships*. London: Routledge