

Multibeing Ocean

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Preamble 1: Someone's Ocean

Seaside time. *Beloved ocean* lapping toes and lulling daydreams of forever. In last night's stillness, they felt closer, louder, the tide higher, alive. Now here, again, rising and falling on a light swell, stroking forward through the crisp edge of dawn. A briny rhythm and reverie easing away that time a muscular riptide refused to let go, until it did.

Someone's ocean somewhere between halcyon and peril. Friday's sailed-over emerald stage, gloved hand to main sheet. Tribulation faced with hope torn from hunger, still afloat in a rickety shamble of timber. Tired crew's choppy trek home, nets not yet empty.

Someone's ocean under a full moon shimmering with rafts of light. Luminescent medusas in darkfulness below. Great white, glass sponge, humpback songstress, and krill, Gulf Stream, coral reef, and ice. Constituting ocean, transitioning with ocean. Their ocean, they're ocean.

Ancestors' ocean. Someone's kin. Origin, grave, and gift. Stories of becoming and coming together with the seas. Perduring relations of care, despite everything. Hoping the ocean continues giving that others may feed; endlessly exhales that all might breathe.

Rising seas. *Worried ocean*, plump and roiling with fossil-fuelled heat. Tropical, Cat 5 waves hurling rocks at beach-front homes—dull thuds attention-pounding, again. And again, in the daze of next day, finding someone's household wrack wrapped in cushions of kelp.

No reprieve. *Stressed ocean*: too much sonic, plastic, toxic, hot waste; too many killed, bluntly impacted, entangled; too little rest. Too few ocean elders sinking dead for the floor. Uncanny drifts and forced migrations, anoxic zones and strange new relations. Too much cortisol accumulating in ocean tissue—Big Pharma junking seas doesn't help.

Implicated ocean. Wishing extractive corporations were someone else's violent proxy. As if embodiment isn't without implication. Adrift in patterns of desire and ruts of privilege and failing to notice present and past oceans casting forward; indeterminate futures splashing back.

Expropriated ocean. Re-constituted in architectures of more: Big Tech and concrete housing, silica infrastructures, and apparatuses of war. Excavating wider, carving deeper. Protein factory ships slaughter-hunting the flesh of hinterseas.

Recognizing that the Convention on the Law of the Sea is intended to ‘contribute to the realization of a just and equitable international economic order [...]’¹ The lie of externalisation, the front of blue/green capital’s criticality, the con of economic necessity.

Law’s *bland ocean* regime disguising someone else’s economic order. An ocean filleted, patented and licenced. Floor: quarry and contract. Fish: quota and catch. ‘*Conscious* that the problems of ocean space are closely interrelated and need to be considered as a whole.’² Law’s ocean someone’s space, a problem to sustain.

Somone’s ocean winding and wayfinding the earth into being, their currents sending materials river mouth to island edge, gullet, rift and ridge, massaging seagrass meadows, and carrying rafts of floating microalgae, by-the-wind sailors, birthday balloons, and garlands of baubled weed.

‘[T]he General Assembly of the United Nations solemnly declared [...] the area of the seabed and ocean floor and the subsoil thereof, beyond the limits of national jurisdiction, as well as its resources, are the common heritage of mankind, the exploration and exploitation of which shall be carried out for the benefit of mankind as a whole.’³

Uncommon ocean crafted for someone else’s economic order. Proclaimed common heritage of mankind by fiat and force. As if ‘mankind’ weren’t meant to mean corporations. As if ocean isn’t heritage for all-kinds, embodied in lungs and bones and tissue and soils and clouds and imagination and affection. (As if wanting ‘mankind’ corrected is quibbling!)

Ancient ocean refuge stretching sunless across time, their bodies aflicker with warning flashes and trickster glows. Their star-dust speckled plains incised by trenches, and punctuated by seamounts, knolls, and island arcs, and whose whale songs and tectonic grinds bend and channel in ambient correspondence.

Sampled ocean, someone’s dream. A. Data set. B. Yield formula. C. Lab flushing factory nutrient, single-use sensor, and simulated wave. Harnessing the science someone needs for the ocean someone wants—efficient and predictable, imagined to be controllable.

Signed-off ocean. Conditions of being partly a question of legal terms held between square brackets—contesting not how much care is possible, but how much ~~[[serious]~~ harm]. The ontological barbarism of it all, the material drain of it all. In this context, ocean transition is resistance.

Resistant ocean: advocates and protectors, rescuers of pelicans, dolphins, seals, dugongs, whales, sharks, and penguins, kelp forest restorers, clean-up crews, Indigenous stewards, scientists, writers, and artists. Their ocean, they’re ocean, Mr President, Madam Facilitator:

‘Firstly, we would observe that the term “serious harm”, which occurs in what appears to be bracketed text in DR13.3(b), is inconsistent with Article 145 [...]

Secondly, we are concerned about the limiting qualifier of “intense” fishing activity in DR13 para 4.b (RN3 iii) and in DR13 Alt paragraph 8 (RN3 iii).’⁴

Resistant ocean: re-populating or not, metabolising toxins, appropriating junk, proliferating algal blooms, storming, dislodging, defying taxonomies, melting, smashing, refusing to return, acidifying, slowing down, heating up, eluding prediction, foregoing oxygen, changing rhythms, reconstituting strangely, insistently, going big, pulling away, refusing control.

Preamble 2: (Dis)jurisdiction

North Pacific Ocean. Legal zone: *High Seas*. A production support vessel holds steady at the surface, five kilometres above an area called the Clarion Clipperton Zone (CCZ). The International Seabed Authority manages this region as an extractive zone. Polymetallic nodules scattered across the CCZ plains provide vital substrate for deep and ancient ecological communities. The nodules’ high mineral content also makes them keenly sought by commercial miners.

Holding steady isn’t easy. Six huge thrusters are needed to maintain position against the ocean’s powerful heaving motion. The vessel provides production support to the seabed mining operations below. Once a carrier for oil, it has since been converted to process 3,000-6,0000 tons of polymetallic nodules daily.

North Pacific Ocean. Legal zone: *International Seabed (Common Heritage of [hu]mankind)*. The Enterprise II,⁵ a remotely controlled, 25 tonne, ultra-deepwater robot on caterpillar tracks, claws across the seabed excavating nodules. It connects to the production support vessel via a riser pipe and dual-purpose power and communication cable. The riser pipe lifts hundreds of tonnes of extracted and ground seabed material [and multibeing communities] every hour. To do so, it has hydraulic pumps fitted every one kilometre along its length. Once aboard the support vessel, nodules are washed and stored in the cargo hull. Remaining sediment [and pulverised marine animals and others] is returned to the water column as ‘wastewater.’

Despite legal obligations to protect the marine environment, everything about this industry is designed to combat the ocean. To operate under kilometres of water, Enterprise II requires a heavily fortified exoskeleton that can withstand 2,700 kg of force per square inch. Tracking back and forth along the seabed demands significant engine power to

overcome the weight and drag of the water column above. Enterprise II must also counter the seabed's tectonic instability, gas releases and subsidence. Within the water column, wave and current forces constantly push at support vessels and threaten to tilt their cargo hulls. Riser pipes and cables continually sway and bob up and down.

Mining companies are undeterred by such challenges—the commercial potential of deep seabed mining is powerfully motivating. Polymetallic nodules offer a high yield of copper, manganese, lithium and other valuable minerals and are in abundance at the CCZ.

Enterprise II is still in a test phase but can already remove 600 tons of nodules per hour. Corporations have also been test-mining for other mineral rich seafloor material such as the massive sulphide deposits found around hydrothermal vents.

In the case of polymetallic nodules, the industry portrays commercial mining as 'harvesting'—likening it to picking fruit from an orchard. In reality, mining activity in the Clarion Clipperton Zone alone will extinguish seafloor habitats across a 500,000 square kilometre area and plume impacts will extend vertically and horizontally for ten to hundreds of kilometres (Amon et al.). Once corporations migrate their machinery to the seabed, their occupation and excavations will continue for twenty to thirty years. Deep ecological communities destroyed or displaced as collateral damage to the regime, will not likely return within human time scales.

During this time, noise and light pollution will be relentless. In the sunless deep, many beings rely on sound and vibrations as primary modes for communicating and sensing environments. Sound allows marine animals to connect with prospective mates. Subtle vibrations in the water enable the detection of prey or an approaching predator. Darkness provides shelter and camouflage. Mining corporations will thwart such vital capacities. Light pollution will eliminate the refuge of darkness. Within the CCZ, approximately 5.5 million square kilometres would be 'ensonified above gentle weather ambient conditions' (Williams et al.). The combined noise from extraction machines, riser pipes, and production support vessels will create a 'cylinder of sound' (Williams et al.) that will shake the water column for decades.

Preamble 3: Dissonance

Kingston, Jamaica, rolling toward the sun. Cyclone Beryl recently stormed the nation—scalping houses, smashing boats, and shredding crops. Now, a different kind and scale of planetary force gathers at the city's foreshore. A super-swarm of delegates, corporate lawyers, and observers have flown in for the 29th Session of the International Seabed Authority (ISA), which is now underway at the Jamaica Convention Centre.

The meeting is to finalise regulations for commercial mining of the international deep seabed area—a legal jurisdiction encompassing over half the Earth’s surface. International law deems this area to be the common heritage of [hu]mankind. Only the ISA’s 168 member states can vote on the international seabed’s protection or destruction. Not all nations agree that mining should proceed. Island nations, in particular, fear their communities will bear the greatest burden of the industry’s ecological and cultural harms. Increasing numbers of activist, scientific, conservation, and cultural organisations agree.

Though support for a moratorium or outright ban on mining grows, a majority of nations still favour the regime’s development. Echoing multinational corporations, they argue that deep seabed mining is critical for ‘green’ technological transition. Last year, their justification was that critical minerals from the seabed were needed for electric cars. Many years prior, the industry argued that wealth from seabed minerals could eradicate global poverty.

‘Can I see your security pass Ma’am, thank you.’

‘China you have the floor [...].’

‘I see India... France [...].’

‘Can we have the microphone please, thank you Ghana [...].’

Inside the conference hall’s vaulted doors, delegates and their support teams advance, seal, and agree every draft regulation, paragraph by paragraph. ‘No’ seems an elusive option where the purpose of regime-drafting is pre-determined. Dissent appears to fold into the smoothed-over creases of agreement making. At the very least, though, dissenting voices achieve small wins by reining in corporate ambitions, securing concessions of lesser harm, and refusing extractivism’s normative violences.

It is easy to lose sense of the ecological, social, and cultural impacts these regulations will have on the ocean. The banality of the text and civility of delegate exchanges bely the exterminatory potential of the regime.

‘Thank you Mr President, the United Kingdom are overall comfortable with including the amendments in Article 98 [...].’

‘Palau [...]. Thank you, Russia please [...].’

‘I see Costa Rica, Australia then Denmark, and Bangladesh [...].’

‘Security pass please, thank you, Ma’am.’

Despite the existing ocean emergency and knowing the destructive nature of this new commercial frontier, machineries of extractive capital and international law-making press forward together like a powerful storm system extending over and under the seas.

An exclusive group of individual politicians, diplomats, lawyers, company executives and others are the unacknowledged co-authors of the regime’s legal frameworks. Collectively they bring its particular version of the ocean into law. It is the legal architecture that they create, which could open the seabed for commercial business, while ensuring the barest minimum of environmental responsibilities.

‘Thank you, Poland. My apologies, Japan. Japan is next, then Nauru [...].’

During the 29th Session, the ocean is physically obstructed from sensibility. Large room dividers block the hall’s lower windows and cane drops screen the top ones. Only through the salt-encrusted windows of the lounge can the bay and hazy marine worlds beyond be seen. Even then, the windows’ thick glazing renders them silent.

Inside the hall, landward delegates have their backs to the bay. Affixed to desks like sessile arthropods, they rise only to relieve their watery bodies. Tensions emerge in the conference hall. Some nations want the regulation process hastened and wish the President’s gavel would fall more frequently.

‘Unless there are no more [...]. Oh, I see Ireland [...]. Thank you, Ireland [...].’

Unable to easily understand one another’s language, let alone the ocean’s, many delegates rely on a translation device placed over one ear—a shell-like form but without the whispering sounds of the sea. Despite being generally shunned by the regime, ocean voices have persisted over the more than 22,000 tidal changes that have risen and fallen since the ISA formed. Some voices find their way through in the words of advocates and others in the pervasive and embodying materialities of the sea.

Kingston, now turning from the sun’s full glare. Ambient chatter from delegates and security guards drift above the heavy drone of portable air-conditioning units stationed throughout the Convention Centre. A light offshore breeze ruffles palms fronds in the central garden.

‘Is there anyone who would like to open the comments? Germany, thank you [...].’

‘If I don’t see any objections I will take it that the council is willing to adopt these reports.’

‘It is so decided’

A hot Saharan wind sweeps in from the east. Briny aromas and marine particles carried ashore press into the conference hall’s heavy atmosphere. Ocean materialities mingle with thickening layers of expiration and perspiration from delegate bodies now slumping into the afternoon. Other delegates become frustrated by the lack of conceptual clarity.

‘Sorry are we talking about Article 63 or 64 here?’

‘Madam Facilitator, we are gathering here to discuss regulations for mining deep sea minerals, but we don’t know yet which minerals we are considering.’

An intense sea squall interrupts power supplies and proceedings; windows shake. With air conditioners down, the stuffy room quickly heats up. Fatigue creeps in, again. Sweat and brackish air mess with purpose. Unchecked, the ocean sinks into skin and lungs, reaching for the slack tide of imaginations not yet turned.

‘It seems there are no further comments on section 98. I thank all those who made comments, which will now be consolidated. Let us move on to 98 bis [...]’

Kingston slowly rolls into the evening. Delegates wander back to their hotels having expended daily energy reserves in regime-drafting. Upholding an extractive imaginary despite one’s professed love for the sea—the cognitive dissonance is draining. Resistance too is exhausting. Sleep is deep.

Beyond the bay, seas redacted and silenced at the ISA stir through the night, as they have done all day. Local flows drift into the warm Caribbean Current, joining others travelling north from the Atlantic. Manta rays glide the water column and somewhere there’s a hammerhead shark dodging ghost nets and trawlers. Across the Caribbean, migrating fin whales, cruise ships and oil tankers criss-cross the seas. Bioluminescent squid dart and flash in a pelagic soup of phytoplankton and microplastics that pulses with nektons, zooplankton, and larval everything.

Preamble 4: Multibeing

Prototype mining machines descend to the seabed credentialled with state-of-the-art nozzles, pumps, diffusers, hydraulics, monitoring tools, riser mechanisms, and robotics. The latest production processes are a wizardry of buoyancy, collection, riser and on-board processing systems. Each prototype maps a lineage from less productive mechanical

forebearers. New models promise investors faster and greater returns. If commercial mining commences, the arrival of this advanced mining machinery into the deep ocean would be a catastrophic ecological event.

The concept of multibeing emerged in response to ongoing extractive violences against the ocean. Specifically, multibeing responds to the radical detachment of extractive imaginaries from the worlds in which they are implicated. The concept extends beyond matters of abundance and multiplicity to examine the radical *how* of embodied being. This focus also distinguishes it from the related concept ‘multispecies’ which harbours narrower biological species investments. Multibeing encompasses material, social, cultural, and temporal conditions of coming into being, and the worlds that their relationships engender or foreclose. The constitutive nature of these intra-acting (Barad) conditions has implications for diverse stages and genres of being and spectrums of becoming.

Polymetallic nodules, for example, come into being through intra-actions that occur over vast temporal scales. They grow only a few millimetres every million years by assimilating minerals and other materials from the water column and surrounding sediment. As a nodule forms, a succession of marine organisms either attach to it, or dwell nearby: micro sponges, glass sponges, octopus and their creches, worms, and others. They also continually stir the surrounding soft sediment, which likely ensures the nodules remain at the surface. Mineral, organic and chemical kinships hold these communities together.

When a nodule is extracted, crushed, and processed by a mining machine, so too is a multibeing community of relations. ‘Wastewater’ released into the water column from the production support vessel contains the community’s wasted remains. To better describe the extractive harm, a more accurate term would be ‘kin-wastewater’ (Reid). From a multibeing perspective, a mineral or polymetallic nodule is ‘more-than-mineral’ or ‘bio-ore’, which acknowledges how they embody and are embodied within multibeing worlds. Reimagining minerals in this way, reveals how mineral and flesh intimacies complicate perceived boundaries delineating minerality with that of biological being (Reid). Bio-ore kinships remind us that the manganese, copper, and other minerals that constitute batteries, household wiring, and computers, all come with multibeing worlds.

A multibeing analytical approach investigates how, for example, human activities, imaginaries, political motivations, legal texts, and events also function as conditions of being. It brings attention to the specific ways that certain relationships or elements create harm or change trajectories of becoming. For instance, an ISA regulation for seabed mining contributes to deep ocean realms as a condition of being, not just a piece of detached text. Where the ISA represents mining as ‘activity at the seabed’ with little or no acknowledgement of the multibeing realms and relationships that it changes, this legal fiction erases the ocean’s milieu of being. It is as if mining happens in a void with no

impacts. Metaphysical detachments, such as this, prevent a full reckoning of extractive harms and the ethical responsibilities and responses they demand.

Multibeing analysis does not necessarily seek out the benefits of particular relationships but rather explores the potential worlds manifested by their constellations. However, examining the worlds that these relationships make possible often reveals specific exposure(s) to and experiences of vulnerability and the ethical responses these demand. Insights generated offer critical perspectives for understanding how we are differently implicated with extractive practices and for theorising transformative directions for justice and governance frameworks.

NOTES

1. United Nations Convention on the Law of the Sea, Dec. 10, 1982, 1833 U.N.T.S. 397, preamble para 5.
2. Note 1, preamble para 3.
3. Declaration of Principles Governing the Seabed and the Ocean Floor, and the Subsoil Thereof, beyond the Limits of National Jurisdiction, GA Res. 2749 (XXV), para. 1 (17 December 1970).
4. ITEM 10: Draft Regulation 13 “Assessment of applications”, Deep Sea Conservation Coalition, 25 March 2024. Document submitted as comment to *Draft regulations on exploitation of Mineral resources in the Area*, Consolidated text (ISBA/29/C/CRP.1), 29th Session of the International Seabed Authority.
5. The Enterprise is fictional but modelled on current deep seabed mining systems and machine prototypes. The name references ‘The Enterprise’, which is an organ of the International Seabed Authority (ISA). In the near future, The Enterprise of the ISA is expected to mine the deep seabed alongside state and private corporations. See also: <https://isa.org.jm/organs/theenterprise>.

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