
Book Review

Lisa Yin Han, *Deepwater Alchemy: Extractive Mediation and the Taming of the Seafloor* (Minneapolis: University of Minnesota Press, 2024), 264 pp., \$27.00 (pbk), ISBN: 9781517915940.

Our relationship to the sea is one of wonder, enchantment, fear, and opportunity. Full of possibilities, the ocean has been and continues to be the ultimate frontier. This attraction to the sea is most evident when it comes to advancing technology as highlighted in Lisa Yin Han's book *Deepwater Alchemy: Extractive Mediation and the Taming of the Seafloor*. By tracing this magnetism between our imaginaries and physical infrastructures, Han uncovers the extractive resources and social-ecological narratives we harvest from these remote watery places. An investigation of underwater extractive industries within these narratives, reveals the affective implications of technological interventions, particularly when it comes to their impact on experiences and worldviews. With a keen eye on representation of the seafloor and its inhabitants, Han pairs 'hard' and 'soft' infrastructures with media technologies to explore the impact of the ocean on humans and the impact of humans on the ocean (p. 15). Han calls her focus extractive mediation, 'a condition wherein processes of mediation participate in nonreciprocal acts of removal, accumulation, and domination' (p. 15). This lack of reciprocity perpetuates dominant perspectives while revealing injustices and violence that arise with cutting edge technologies and exploration methods.

By prioritizing both the visible and invisible while considering under-represented voices in underwater, ocean-based work (especially when it comes to people and perspectives of cetaceans and vent organisms), Han makes space for the unknown and keeps environmental justice at the forefront of her book. She challenges anthropocentric understandings in the race toward so-called sustainable solutions that are intended to power our future. Case studies from interviews, site visits, archival history and discourse analysis help to build her argument that extractive mediations have a deeply contradictory nature—'implying both destruction and sustenance, life and death' (p. 24). Venturing beyond 'heroes and villains', Han paints a holistic understanding of underwater extraction, which proves critical to and intertwined with present-day conversations and actions surrounding climate change (p. 24). From shipwrecks to ocean 'fitbits', Han expands the boundaries of our understandings of the deep ocean and uncovers humanities-based ways of examining these esoteric spaces in light of technological advancement and climate change.

Shipwreck explorations and geopolitical claims, offshore oil drilling and sound, and deep-sea mining and plumes are the central focuses of the first three chapters. By aligning deep-water activities with overlooked repercussions, Han shows readers that

exploration of the ocean is not solely logistically complicated, but such actions carry heavy consequences of colonialism and violence. For example, in Chapter One, Han explores Chinese and American shipwrecks and the implications associated with such sites within the lens of geopolitical claims and power. The watery locations piece together narratives that reinforce dominance and rule. Power dynamics continue throughout the book as she explores petroleum seismology and the impact of sounds on whales in Chapter Two. For anyone interested in offshore drilling processes, this chapter is a must read, as it explores the impacts of seismic airgun testing, the first step in the exploration of resources. Chapter Three looks at deep-sea mining and the plumes associated with this form of extraction. Han combines science with social interactions to highlight the violence that arises with such actions, and in turn, takes the opportunity to touch on the social responsibility and extreme precaution associated with plumes (p. 109). Recognizing the broader impacts of shipwrecks, oil drilling, and mining, Han uses tools like 'responsible inheritance' (p. 53) and 'resilience rhetoric' (p. 115) to tell a more complete story without glorifying technologies that could make human life more comfortable.

The final two chapters explore the web of networks expanding throughout the oceans. Chapter Four focuses on telemetry, exploring efforts to use whales with remote tracking devices as part of the media infrastructure. Drawing from medical practice, these devices venture beyond empathy toward mutual benefit. However, they ultimately connect back to the exploitative nature from which such technologies arise (p. 126). Whales move from complex creatures with their own network of social relations to 'data machines' caught in the militarization of ocean technology (p. 141). Data continues to play an important role in the final chapter, as the author explores how humans use technology to anthropomorphize the ocean through connectivity and ocean 'fitbits' meant to gauge the health of the sea. This reinforces the 'anthropocentric image of a fragile yet fertile being' (p. 174). 'Infotainment' also enters the conversation as Han asks readers to consider how much science and entertainment overlap and the intentions behind our explorations.

What readers may appreciate most about Lisa Yin Han's book is her broader contributions to the blue humanities, critical ocean studies, and the hydro-humanities (p. 10). The narrative element and her quest to uncover and understand such distant spaces makes room for discussions about frontierism and underlying violence whether through plumes or sound. Her book asks difficult questions about growing technologies, painting them not as saviors or demons, but as part of an ongoing conversation of human-nature engagement, interactions, and entanglements.

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