



THE UNIVERSITY OF
SYDNEY

December 2020

Longform Series

Sydney Environment Institute

Fouling / Concreting / Artmaking: Three Habits of an Encrusting Ocean

—

Dr Killian Quigley



Cover image via Shutterstock ID 1267024213

Presented at the inaugural Postdoctoral Fellowship Lecture on
December 1 2020

by Dr Killian Quigley

The Sydney Environment Institute introduces its new Postdoctoral Fellowship Lecture, that celebrates the contributions and careers of our Postdoctoral Research Fellows during their time with us. This inaugural lecture recognises the inquisitive and critical research of Killian Quigley, whose fellowship at the Institute will leave a remarkable legacy. Through his scholarship and his colleagueship, Killian has become an internationally- recognised figure in the oceanic humanities, with his research spanning literary history to aesthetic theory and delving deep into the environmental humanities.

The research, events and operations of the Sydney Environment Institute take place at the University of Sydney, on the Gadigal lands of the Eora Nation. We pay our deepest respects to Indigenous elders, caretakers and custodians past, present and emerging, here in Eora and beyond.

"Under the surface of the sea, encrusting marine life- forms take shape among and upon diverse substrates, "artificial" as well as "natural" — shipwrecks clad in sponges, oil platforms adorned with cup corals, aquaculture cages "fouled" by hydrozoans. This essay, which draws primarily on the discourses of Western science, aesthetics, and environmental humanities, asks how these encrusting lives challenge received impressions of place, relation, motility, and even life."

— Killian Quigley

Before jotting another word, I'd like to begin by saying thank you to my colleagues who organized the postdoctoral lecture and have overseen this corresponding publication: Genevieve Wright, Michelle St Anne, Eloise Fetterplace, Liberty Lawson, and others, we all benefit, over and over again, from your imagination and expertise. I also pay my respects to Gadigal and Eora country, peoples, relations, histories, and futures. I write this overjoyed by my time at the Sydney Environment Institute (SEI), and genuinely sad at the prospect of departing—though I hope and believe that if the nature of our relationship is changing, it is not in fact ending. If I were to begin by praising and thanking every person at SEI's core, and in its web, for whom I feel deep gratitude and admiration, these remarks would stretch on over many thousands of words. So instead I'll save my individual devotions, and say just a couple of things about SEI as a collective entity.

Our dalliance dates to 2014, when during and after a research trip to the Great Barrier Reef SEI gave me the chance, and the confidence, to explore how my postgraduate work in literature, aesthetics, and natural history might *matter* for practices of oceanic knowledge and marine conservation. The short essays I produced then, which SEI was so kind as to publish on its fantastic website,

fade utterly into triviality in comparison with the scale and eminence of the other things this place has been accomplishing since its inception.¹ But I found myself remembering those little things as I prepared this paper, because it seems to me that they signified then, and still signify now, one of SEI's fundamental, and truly invaluable, functions in the world, which is to host and amplify experiments in intellectual practice by scholars at every stage of this odd thing we call a career trajectory. My full-time home these past three years and more, SEI has been sustaining and demanding, edifying and deliciously eccentric. It has shaped the vital centre of my thought and practice, and I don't know if I'll feel so proud of, and nourished by, workplace and workmates ever again. In whatever case, for now I feel lucky, and proud of what we've been doing together. And I am grateful for all of it.

Having said all that, it feels fitting that this short article should conjoin the past and the present, the ongoing and the forthcoming. I'll be departing from some research, on cultures of early modern salvage in Western Europe, that I conducted for my book manuscript. And I'll subsequently be turning, gracefully as I'm able, outward, to trace a figure with some matters I've only recently begun to perceive.

My keyword is encrustation, a term that, like any other, means different things in different situations. In the proceeding I use it rather loosely, not because I'm wanting to elude specificity or contingency but because I think it accommodates, admirably and imperfectly, the varied, and frequently somewhat obscure, oceanic phenomena I am attempting to gather under its sign. I want to describe three habits of encrustation in particular. To be perfectly clear: these habits do not come near exhausting encrusted potentialities as I understand them. I have chosen and arranged them, rather, with the very modest aim of saying a few things about what encrustations may be doing in certain circumstances, and about how those things may interrelate in some rich and challenging ways.

They are—the habits are—*fouling*, *concreting*, and *artmaking*. Like encrustation, the words I'm applying to these habits are actually situated in time, place, and myriad relations, and by enumerating them, I am not trying to naturalize them, or to propose that by thinking with them, it will be possible to neatly tidy some, let alone all, oceanic encrustations into bounded groups. I do of course hope they're conceptually useful, but as often as not, I am intending to make clear the porosities and passages that operate among them. From among the proceeding fragments, I hope, issue for you some glimpses of, and brushes with, encrusted meaning that far exceed what I alone am able to configure.

I. Salvage and Submerged Value

First of all, a shipwreck, and some diving. In 1588, the Spanish King Philip the Second deployed a fleet of around one hundred and thirty ships to invade Queen Elizabeth the First's England. Hostilities between the monarchies had been developing on various fronts, some of them essentially imperial. For instance, the English explorer, privateer and slave trader Francis Drake had recently been making a name for himself by harassing Spanish ships and strongholds in the Atlantic and the Pacific. Philip's armada would make it more or less intact up the English Channel and through the Strait of Dover before taking a serious battering

from combustible fireships and infelicitous winds. Prevented by the enemy from sailing back down the Channel, the Spaniards made their famously vexatious retreat north, around Scotland and down the west of Ireland. According to the consensus view, nearly half of the Spanish vessels were ultimately lost.² Memories of their route are kept, after a fashion, by the many submerged wrecks, and countless drowned fragments, they left behind.

About a hundred and forty years later, in 1729, a salvage operation got under way off Tobermory, on Scotland's Isle of Mull. An English inventor named Jacob Rowe and his financial backers had struck a deal with the Duke of Argyll to dive on a known armada wreck and to plunder whatever of its former contents he could find and raise. Rowe had, at this stage, a fairly extensive salvage CV: in 1720, he and his "sponsors" scored a major coup when they pulled approximately £17,000 worth of "silver," "cash," "lead, guns and anchors" from the East India Company ship *Vansittart*, which had wrecked the previous year off the Isle of Mayo. Unsurprisingly, this success attracted a significant degree of encouragement and material support from a variety of interested parties, some of whom, like Argyll, legally "owned" prospective salvage sites, and therefore had the power to decide whether and in what manner their supposed submerged possessions might be engaged.³

In this way, Rowe and his collaborators were participating in what some scholars see as the period's general zeal for "wreck-fishing," an enthusiasm inspired by a potent mixture of scientific and technological ambition, "imperial rivalries," and speculative finance.⁴ The controversial notion that salvage might offer a stunning return on investment owed a lot to a colonial Bostonian named William Phips, who had overseen the salvage of something like two hundred and fifty thousand pounds' worth of treasure from a Spanish galleon sunk off Hispaniola, or Quisqueya, in 1641. For the novelist and journalist Daniel Defoe, of *Robinson Crusoe* fame, the fact of Phips's spectacular achievement was something to be lamented, not celebrated, because it only contributed to a burgeoning English enthusiasm for so-called "projects" and "projecting," words that connoted, at best, something we might recognise today as resembling venture capital, and at



"By recognising new cohesions as more than the sum of their parts—as heterogeneous and lively “assemblages,” in Jane Bennett’s sense of that word—as well as materially and temporally dynamic, it may be possible to apprehend submerged stuff as not simply biding time between surface intervals but as expressing protocols of becoming all their own."

— Killian Quigley

worst, something like pyramid schemes. Projects are opportunistic, amoral *fictions*, Defoe argued, that underwater realms are unusually well-suited to hosting—and the fact that Phips did in fact extract a stunning “Cargo of Silver” from his particular pelagic romance was not a reassuring sign that projects were indeed sober undertakings. For Defoe it was, instead, a freakish, not to say monstrous outlier that threatened to exacerbate “the Projecting Humour” and all its hazards.⁵

What this brief excursus into eighteenth-century salvage has been calculated to do is evoke, in a strictly limited way, the old and substantially fraught question of what forms of value the undersea, and the seabed in particular, have been understood to express and contain, actually or only in the minds of opportunistic or deluded persons. This is also a question, put a slightly different way, of what the undersea and the seabed *do to value*, terrestrially conceived and (in these instances) nautically deployed. In my book manuscript, I endeavour to square these questions with the imaginative power of submergence and the submarine for literature and visual art in this and adjacent eras—and to track the cultural significance of what I take to be an important tension, between recognising underwater realms as furnishing exceptional opportunities for a sort of imaginative frontierism and as sullied by connotations of crass adventurism, total unreliability, extreme hazard, and so forth. What this research, along with the researches of some wonderful colleagues around the

world, is showing, I think, is that during the era many call the age of sail, undersea realms were spaces where matters of skill, free and unfree labour, capital, maritime militarism, natural philosophy, technology, empire, and aesthetic imagination came together in ways that multiply, as well as literally expand, the dimensions of our sense of oceanic modernity in the West.⁶ What this conversation has tended not to do, however, is consider how unconventionally charismatic marine lives, and the specific tendencies of marine materiality, impinge on those dimensions.

II. First Habit: Fouling

To make a start at doing so, we need only return to 1729, and to that shipwreck in Tobermory Bay. Jacob Rowe, the projector I mentioned before, was as I’ve said an experienced salvor, having earlier designed and proven the effectiveness of a novel diving barrel, and having previously led expeditions to the Cape Verde islands, the West Indies, Shetland, and elsewhere. He would eventually write what may be the first practical English-language treatise on diving technology. At Tobermory, however, things did not go quite to plan. Despite the operation’s stretching over the course of years, it failed entirely to fish anything of value from Davy Jones’s locker. The treasure, Rowe complained, appeared to have been either buried in sand and mud or—more frustratingly, perhaps, in that it remained

visible to the underwater hand and eye—amalgamated and held fast by a great deal of “encrustation.”⁷ Late in the first year of the adventure, Rowe reported actually discovering “a great Number of Casks & Chests”—but reported, too, that “they being semented hard together we have Not been Able to take up a Specimen.”⁸

In a way that might have given Defoe some sardonic satisfaction, Rowe and co had gone off to “Angle...for Pieces of Eight”⁹ and come up with nothing, or—bearing the substantial costs of the project in mind—emerged from the underwater a great deal poorer than they’d been beforehand. The story of the armada wreck at Tobermory proved, in this instance, a kind of speculative bubble that the best financing, latest technology, and most apparently sensible plans were unable to keep from bursting. This brings me to the first of our habits, which is fouling. The word as I use it here derives from the labours and knowledges of those scientists, sailors, fish-farmers, engineers, and others who are concerned with the ways more-than-human others interfere with submarine infrastructures and objects. To “foul,” here, means to clog a thing up, or overgrow it, in such a way as to make it unsafe, or to partially or totally arrest its functions.

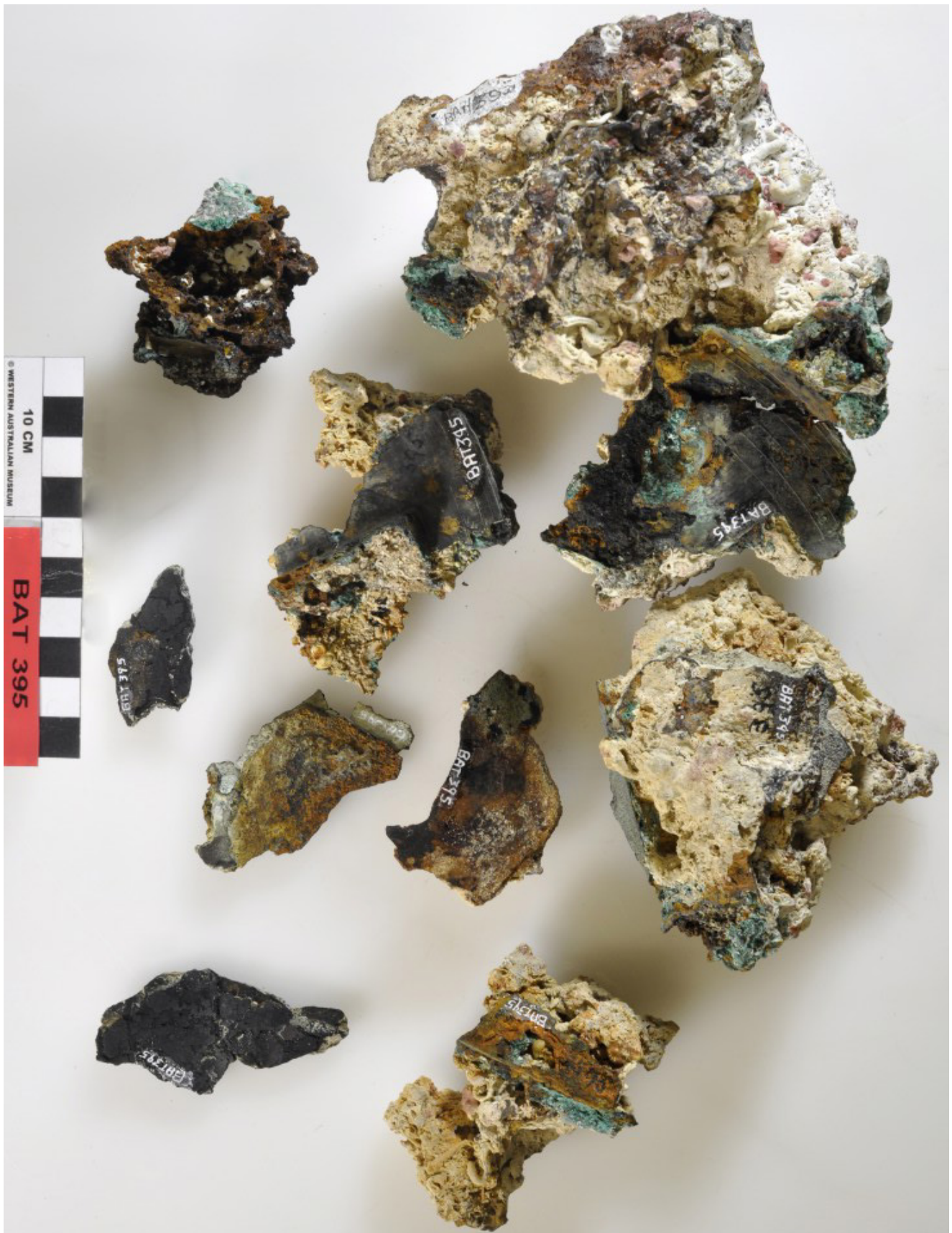
Borrowing this language, we might say that Rowe’s casks and chests in Tobermory Bay were discovered to be unfortunately fouled: on the one hand, the salvage process has become literally encumbered and slowed by the encrusting and cementing. And on another, the circulation of goods had become inconveniently interrupted.

It’s worthwhile, I think, considering Rowe’s “great Number of Casks & Chests,” encrusted and cemented hard together, in relation to another story we tell about the relationship between oceanic motions and capitalist flows, one that’s been told with such acuity by Laleh Khalili and many others. If “maritime transportation” is, in Khalili’s words, “central to the very fabric of global capitalism,” and if the sea, as Christopher Connery contended influentially some time ago, can be perceived as “capital’s myth element,” then the fouling at Tobermory Bay points nonetheless in another, and intriguing, direction.¹⁰ This is the ocean as that which has not only “trapped” tradeable and saleable goods but “curiously

transfixed” them. And it is salvage, and early modern Western techniques of human submergence, as attempts—failed attempts, in this case—at what the historian of science James Delbourgo calls “an extraordinary act of re-circulation”¹¹: an act, that is, of bringing casks and chests out of cementation, of disjoining this undersea union such that another principle of integrity might reclaim the treasure that, for Rowe and his supporters, belongs rightfully to the surface.

By producing an unanticipated cohesion, the Tobermory foul seems to be simultaneously preserving its parts, with what from a certain perspective can even look like a kind of care, and rendering them incoherent as participants in European military, imperial, and quasi-imperial regimes of material circulation. But as well as thinking, in terms that might be broadly familiar to a salvor like Rowe, of what things it is possible to recognise the encrustation as containing, and of what those things might have been, or—after being salvaged—might be, I most want to linger with the encrusting and the cementing themselves, processes which Rowe can only name by means of a passive reference to discrete casks and chests—“they being semented hard together”—that leaves a great, and perhaps incalculable, deal unimagined and unsaid.

By recognising, in other words, new cohesions as more than the sum of their parts—as heterogeneous and lively “assemblages,” in Jane Bennett’s sense of that word¹²—as well as materially and temporally dynamic, it may be possible to apprehend submerged stuff as not simply bidding time between surface intervals but as expressing protocols of becoming all their own. Those protocols are, it bears stressing, oceanic, other-than-human, and multispecies—and their coordination involves strange movements across the animate divide. Being cemented and encrusted, the remains of the armada vessel have undergone a shift from anthropic objects susceptible to retrieval to things changed into occupations and habitations. From some vantages, they have become temporarily lost, and only await the sort of access and technique that would return them to hand, to scrutiny, and to some form of conventional use. From some other points of view, I’m attempting to argue, they



Concretions from the Batavia shipwreck database, held by the [Western Australia Museum](#), Perth. Image © Copyright 2020 The Western Australian Museum.

have acquired new meanings, and even new lives.

III. Second Habit: Concreting

One way of thinking about shipwrecks, and about the countless artefactual fragments that constitute their remains, is in terms of ruins, albeit distinctively oceanic ones. Having dived on the *SS Thistlegorm*, a much-explored British Navy ship lying near Ras Muhammad in the Red Sea, Stephanie Merchant wrote recently about the “ambiguous” matter she found there, the culmination of conflictual processes of “erosion, demise, and colonization”: a tank, “resting on its side,” she perceived as so lavishly ornamented by bryozoans that its form is only obscurely recognisable as tank-like; a propeller, “covered with a patchwork of algae and coral,” no longer shows where “its surface” ends and “the sea bed” begins.¹³ The operations of identification, contrast, and perspective—of ground, and of object—that are so fundamental to the proper functioning of some influential sorts of gaze appear to be under a certain strain.

Merchant draws some of her conceptual coordinates from the wonderful work of Caitlin DeSilvey, whose primarily terrestrial scholarship shows how ruins force awkward reckonings with the ways we distinguish “*artefact[s]*”—“*relic[s]*” of human manipulation of the material world—from “*ecofact[s]*”—“*relic[s]*” of other-than-human engagements with matter, climate, weather, and biology.” Ruination, DeSilvey writes, is not simply a question of reduction, “erasure,” or regress toward nothingness, but “a process that can be generative of a different kind of knowledge.” “The disarticulation of the object,” DeSilvey continues, “may lead to the articulation of other histories, and other geographies.”¹⁴

What different kinds of knowledge—what other histories, and other geographies—do underwater encrustations generate? For help approaching this question, I’ve been spending some time recently thinking about the second of our habits, which is concreting. The image you see on the previous page features a collection of concretions held by the Western Australian Museum’s shipwreck collections. They

pertain to the wreck of the *Batavia*, a Dutch East India Company ship that hit a reef off the Houtman Abrolhos Islands, near the coast of Nhanta country, in what is now known in settler-colonial parlance as the Midwest region of Western Australia, in 1629. Concretions are dynamic and frequently ambiguous coalitions of seawater, invertebrate life, and sea-floor sediment that form with drowned artefacts through intra-acting processes of corrosion and encrustation. (In the case of the image you’re seeing, the artefact in question is, or was, an iron bolt.) The word concretion comes from the Latin *concrēscere*, for “to grow together,” and among many other places, it arises frequently in archaeological and museological parlance in relation to more or less ambiguous matter identified at and retrieved from shipwrecks, matter that may or may not legibly declare its identity but that may explicitly or implicitly declare its potential to divulge valuable objects.

An article on maritime conservation from the website of England’s Historic Buildings and Monuments Commission explains that often, “seabed” remains are “found as mysterious and unrecognisable lumps, known as concretion,” “thick” and “formless” with intermingled “corrosion products,” “sediment and shells,” and “different objects in the vicinity.” If x-ray imaging indicates “that the concretion may hold something worth investigating further,” then the conservation practitioner sets about “mechanically cleaning” what it holds, or once held: in iron objects at “an advanced stage” of corrosion, it is possible for “the original object” to “have migrated entirely to its corrosion layers,” leaving the conservator “with a void that retains the shape of the object precisely.”¹⁵ The concretion is scraped away, in other words, either to release the trapped object from the mystery and irrecognition that cloaks it so it can reassert its form, or to expose a shapely nothing below those intervening products, sediments, objects, and shells.

When practitioners set out to remove concreting encrustations from the artefacts they may contain, they appear to confirm a belief that these submarine growths are ornamental, in the somewhat (or severely) pejorative sense that that word has often carried in Western aesthetics. This is an understanding of ornament as that which is, as Vittoria di Palma explains, “applied and

"Drawing and enforcing such a line between ornament and object assumes the intention, and the ability, to confidently assert where interiors and exteriors begin and end, what came first and what came later, and so on. Taking concretions seriously as oceanic entities might—or perhaps must—reject this sort of calculus to linger with a more complex architectonics, wherein any separation, let alone priority, between substrate and encrustation is acknowledged as a kind of opportunistic fiction."

— Killian Quigley

supplementary, rather than integral to the object" it adorns.¹⁶ Of course, drawing and enforcing such a line between ornament and object assumes the intention, and the ability, to confidently assert where interiors and exteriors begin and end, what came first and what came later, and so on. Taking concretions seriously as oceanic entities might—or perhaps must—reject this sort of calculus to linger with a more complex architectonics, wherein any separation, let alone priority, between substrate and encrustation is acknowledged as a kind of opportunistic fiction. Like Merchant's view of that tank, and that propeller, at the *Thistlegorm*, submarine encrustations frequently threaten, like ornaments gone feral, "to take over, and potentially even usurp," anthropic matter itself.¹⁷

In ways that almost go without saying, this sense of concreting seems to have a lot in common with fouling, the other habit I've briefly addressed thus far. When a concretion renders something mysterious and unrecognisable, thick and formless—when it takes over or usurps its primary substrate—it literally encumbers material of anthropic value and slows scientific and archaeological access. What makes a significant difference here, however, are concretions' occasional habits of preserving the things they grow together with. By partly separating their substrates from the seawater that surrounds them, colonial encrusters may actually slow the progress of corrosion, thereby contributing to "*in situ* conservation" of drowned things.¹⁸ Thus the situation of the USS *Monitor*, an ironclad warship that sank off the coast of North Carolina in 1862—and whose foreparts are somewhat protected from degradation by layers of "thick marine calcareous growth".¹⁹

Thus, too, a number of early modern Spanish wrecks being investigated by archaeologists and scientists working off the coast of the Mexican state of Campeche. There, researchers have gone so far as to promote the "induction and stimulation of settlement of encrusting organisms" so as to spur the "preservation" of imperial wreckage.²⁰

Alternating among obfuscation, amalgamation, and preservation, concretions generate matter and meaning in heterogeneous ways—it seems to me that there simply is no way to neatly summarize the consequences of their behaviour. What we can say, though, is that among submerged wrecks, the concreting ocean affirms that what Steve Mentz calls the "historical drama" of shipwreck is fundamentally other-than-human, and indeed other-than-animate.²¹ Drowned matter can appear to become alienated from the course of historical time as encrusters layer synchronic atop diachronic temporalities. Alienated from authorship, too, as the "material presence[s]"²² of an iron bolt or a Spanish ship owe more and more to the actions of their invertebrate and other occupants than they do to their human makers. The meanings and the stories of encrusted wrecks, therefore, do not only lurk underneath their outer layers, within the artefacts it may be possible to discover there. They consist, rather, through more dynamic and indeterminate formal relationships between encrustations and substrates, as well as the incalculably numerous lives, matters, and temporalities those relationships can be said to encompass.

"What different kinds of knowledge—what other histories, and other geographies—do underwater encrustations generate?"

— Killian Quigley



"Sea sculpture", made in Jingdezhen ca. 1725 and salvaged in Vietnam in 1998 from the wreck of a Chinese trade ship. Underglaze of cobalt blue decorated porcelain pieces fused together by fire with encrusted with shell and coral growths. Image © [The Victoria and Albert Museum](#), London.



Concretion of ceramics (circa 1450–90) from Vietnam. Stoneware, stone, antler, shell, corroding iron, and remains of sea creatures. Photo © [Asian Art Museum](#), San Francisco.

IV. Third Habit: Artmaking

The picture on the previous page is of a so-called “Sea sculpture” held in the Victoria & Albert museum, in London. It is a part-porcelain, part-coral, part-shell something brought to land in 1998 from the Ca Mau wreck, the ruins of a ship which is understood to have gone down off south Vietnam in about 1725. The sea sculpture’s official description states that the hybrid “was created through accident and nature” in an act of unification carried out over more than two hundred and fifty years. Its “Material and Techniques,” we read, comprise “Underglaze of cobalt blue decorated porcelain pieces fused together by fire with encrusted...shell and coral growths.” In particular contexts, then, oceanic concreting becomes oceanic artmaking, and growing-together takes on real, if really strange, aesthetic function and aesthetic value.

A very recent exhibition at the Asian Art Museum in San Francisco, called *Lost at Sea*:

Art Recovered from Shipwrecks, makes the subtle but I think meaningful terminological choice to call this sort of thing another name: rather than a sea sculpture, the object pictured above is (its label tells us) a “Concretion of ceramics, approx. 1450-1500. Vietnam. Stone, antler, shell, corroding iron, and remains of sea creatures.” Calling this ambiguous matter, fished from the remains of a fifteenth-century ship that sank off the Hoi An Coast, a concretion and not an artwork, the Asian Art Museum creditably recognises its growing-togetherness, but also figures it as a prelude to some more articulated state of affairs: upon exposure to air, the exhibition literature explains, the concretion has begun slowly coming apart, and in so doing, progressively exposing “unseen objects from the interior”.

I’m going to finish with this question of sea sculptures, or whatever we want to call them—what *do* we want to call them?—and of artmaking, because I think it returns us to a couple of the concerns we observed in the murky—and surely incredibly cold—waters of Tobermory Bay. Jacob Rowe and

his collaborators were frustrated because those Spanish casks and chests would not come “out of concretion,”²³ out of the ocean, and into the current of other kinds of flow. It is therefore tempting, and surely a little bit appropriate, to recall the Tobermory foul with a kind of affection and admiration. But as the afterlives of the sea sculptures from the Ca Mau wreck, including the one from the Victoria & Albert Museum I showed just now, suggest, the protocols of capitalism, commoditisation, and what we might call a kind of neo-imperialism are not unwilling to accommodate growings-together.

There exists another, even more charismatic picture of the Victoria & Albert sea sculpture, from the Sotheby's Amsterdam catalogue which first advertised the Ca Mau wreck's concretions and other ceramics. It is a picture of the sea sculpture traveling the latter stages of its path from seawater through the global trade in art objects to edification, of a sort, in a museum. The Sotheby's text also calls the thing a “Sea Sculpture,” which in this account is said to consist “of a blue and white spittoon with a stack of teabowls and the upper-part of a blue and white vase, with large shell encrustations.” (Museum and catalogue descriptions of concretions represent, I've come to believe, an exquisite corpus of found poems. I could read these lists forever.) The sea sculpture's opening price is forecast at between 500 and 700 euros.²⁴

Safe on dry land, the auction house casts for pieces of eight by the light of a certain aesthetics of the exotic and the strange. A contingent form of encrusted oceanic value has been made, here, and other forms are being obscured. Not so much the product of an art, this encrusted something would be better reckoned, I would argue, as a coalescence interrupted in its habit of becoming. This article has been inspired in great part by a sense that we who are working in ocean studies have parts to play in learning, acknowledging, naming, and imagining encrusted meanings in ways that may better serve these forms, matters, lives, and elements. Fouling, concreting, and artmaking—and so on, and so on: through, under, and along the surfaces of an encrusting ocean, ruins are being reconfigured, and new worlds are taking shape.

References

- 1 See Killian Quigley, “Report from Underwater Worlds,” in four instalments: “Bringing the Reef into view,” “Saltwater Sublimity,” “Oceanic Thought,” and “Seeking Buoyancy,” Sydney Environment Institute, 2015.
- 2 See “Spanish Armada,” in *The Oxford Companion to Ships and the Sea*, edited by I. C. B. Dear and Peter Kemp, 2nd edition (Oxford: Oxford University Press, 2006), <https://www.oxfordreference.com/view/10.1093/acref/9780199205684.001.0001/acref-9780199205684-e-2281?rskey=kNH5eO&result=1>.
- 3 Michael Fardell and Nigel Phillips, introduction to Jacob Rowe, *A Demonstration of the Diving Engine; Its Inventions and Various Uses*, (London: The Historical Diving Society in association with the National Maritime Museum, Greenwich, 2000), 7–12.
- 4 See Philippa Hellawell, “Diving engines, submarine knowledge and the ‘wealth fetch’d out the sea,’” *Renaissance Studies* 34, no. 1 (2020): 78 and James Delbourgo, “Divers Things: Collecting the World Under Water,” *History of Science* 49, no. 163 (2011): 147.
- 5 Daniel Defoe, *An Essay upon Projects* (London: R. R. for Tho. Cockerill, 1697), 18–24.
- 6 By “researches” I am referring to the works of scholars like Hellawell, Delbourgo, Kevin Dawson, Molly Warsh, Rebekka von Mallinckrodt, and Joseph Hall, among numerous others.
- 7 Fardell and Phillips, introduction, 12.
- 8 Jacob Rowe, quoted in Fardell and Phillips, introduction, 12.
- 9 Defoe, *An Essay upon Projects*, 16.
- 10 See Laleh Khalili, *Sinews of War and Trade: Shipping and Capitalism in the Arabian Peninsula* (London and New York: Verso, 2020), 15. Proquest Ebook Central, <https://ebookcentral-proquest-com.ezproxy2.library.usyd.edu.au/lib/usyd/reader.action?docID=6176372> and Christopher L. Connery, “The Oceanic Feeling and the Regional Imaginary,” in *Global/Local: Cultural Production and the Transnational Imaginary*, edited by Rob Wilson and Wimal Dissanayake (Durham and London: Duke University Press, 1996), 289.
- 11 Delbourgo, “Divers Things,” 164.
- 12 See Jane Bennett, *Vibrant Matter: A Political Ecology of Things* (Durham and London: Duke University Press, 2010), 24.
- 13 Stephanie Merchant, “Deep Ethnography: Witnessing the Ghosts of SS Thistlegorm,” in *Water Worlds: Human Geographies of the Ocean*, edited by Jon Anderson and Kimberley Peters (Farnham and Burlington: Ashgate, 2014), 126.
- 14 Caitlin DeSilvey, “Observed Decay: Telling Stories with Mutable Things,” *Journal of Material Culture* 11, no. 3 (2006): 323–4.
- 15 Elisabeth Kuiper, “On the cleaning of metal finds from the London and the Rooswijk,” *Wreck of the Week, Historic England*, March 12, 2018, <https://thewreckoftheweek.wordpress.com/2018/03/12/on-the-cleaning-of-metal-finds-from-the-london-and-the-rooswijk/>.
- 16 Vittoria di Palma, “A Natural History of Ornament,” in *Histories of Ornament: From Global to Local*, edited by Gülrü Necipoğlu and Alina Payne (Princeton: Princeton University Press, 2016), 22.
- 17 Di Palma, “A Natural History of Ornament,” 27.
- 18 Pedro H. López Garrido et al., “Fouling communities and degradation of archeological metals in the coastal sea of the Southwestern Gulf of Mexico,” *Biofouling* 31, no. 5 (2015): 414.
- 19 Monitor National Marine Sanctuary Condition Report 2008 (Silver Spring: Office of National Marine Sanctuaries, 2008), 13.
- 20 Garrido et al., “Fouling communities,” 415.
- 21 See Steve Mentz, *Shipwreck Modernity: Ecologies of Globalization, 1550–1719* (Minneapolis and London: University of Minnesota Press, 2015), 2.
- 22 DeSilvey, “Observed Decay,” 328.
- 23 NC Archaeology @Home: *Underwater Archaeology and Conservation* (North Carolina Office of State Archaeology, 2020), 9.
- 24 “A Sea Sculpture, circa 1725,” in *Made in Imperial China: 76,000 Pieces of Chinese Export Porcelain from the Ca Mau Shipwreck, circa 1725* (Amsterdam: Sotheby's, 2007), n.p.



Killian Quigley

2017 Postdoctoral Fellow

Department of English

Killian Quigley's research spans literary history, aesthetic theory, the history of science, colonial and postcolonial studies, historical geography, and the environmental humanities. He is at work on two major research projects. The first, *Submerged Pastoral*, asks how the pastoral—as a genre, a trope, and a structure of feeling—has been activated in and upon oceanic contexts, and how this strange and poorly-understood transference has been consequential for marine cultures. See a recent article, 'The Pastoral Submarine,' for more. Killian's other key project, *Waves and Places*, compares diverse historical and contemporary accounts of sea-level rise to discover how the status of marine location is articulated, unsettled, and reimaged in the course of inundation.

Through his scholarship and his colleagueship, Killian has become an internationally-recognised figure in the oceanic humanities. He is the co-editor, with Margaret Cohen, of *The Aesthetics of the Undersea*, and author of articles and book chapters on the visual culture of plastic pollution in the Pacific, transatlantic eco-political imaginaries, and medical discourses of maritime travel. He is an associate with Oceanic Humanities for the Global South, and a former researcher in residence with Works on Water.

Killian received his Ph.D. from Vanderbilt University's Department of English. At Vanderbilt and at the Université Sorbonne Nouvelle, in Paris, he taught across a range of subjects, including maritime and marine literatures, ecocriticism, the poetry of the British Isles, Southern US American fiction, and more besides. At the University of Sydney, he has been a contributor to the Open Learning Environment course *Global Ethics: The Great Barrier Reef*, an academic adviser to the Master of Sustainability capstone research project, and a case study leader for the Faculty of Arts and Social Science's flagship Interdisciplinary Impact unit. He welcomes communication from colleagues and students at all levels.

Killian Quigley is a Research Affiliate of the Sydney Environment Institute. He is the Research Lead on Unsettling Ecological Poetics and Ocean Ontologies.

"One of Killian's key accomplishments has been his role in confirming the place of the Sydney Environment Institute on the broader planetary map of environmental humanities research, and in particular around ocean studies and the 'blue humanities'.

He has done this in large part through his work co-convening and co-organising a large suite of ambitious interdisciplinary projects and programs – across campus, across Australia, and across the globe."

— David Schlosberg and Iain
McCalman, SEI Co-Founders

