In the Doldrums: Plastic, Haunting and the Sea

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Abstract
The 87,000 metric tons of non-biodegradable plastic bits gathering in the Great Pacific Garbage Patch occupy the very zones known in the Age of Sail as the *doldrums*—the "dead calm," where ships would be stranded for weeks at a time, as famously described in Coleridge's *Rime of the Ancient Mariner*, some of Melville's writings and Lévi-Strauss's *Tristes Tropiques*. To re-read these texts today is to have the haunting experience of seeing petrochemical debris collect silently, as if retroactively, in the very doldrums that fossil-fuel-powered speed was believed to have transcended.

> And Man created the plastic bag and the tin and aluminum can and the cellophane wrapper and the paper plate, and this was good because Man could then take his automobile and buy all his food in one place and He could save that which was good to eat in the refrigerator and throw away that which had no further use. And soon the earth was covered with plastic bags and aluminum cans and paper plates and disposable bottles and there was nowhere to sit down or walk, and Man shook his head and cried: "Look at this Godawful mess."
>
> —Art Buchwald, 1970

> GONZALO: Mark well what I say: imagine the giant chimney of a lamp, travelling as fast as a galloping horse but whose center remains as impassive as the Cyclops' eye. It is precisely this realm of calm that is called the eye of the storm, and we must reach it.
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> —Aimé Césaire, *A Tempest*

Where Coleridge's Ancient Mariner, whose ship had ventured into the Pacific and crossed the Line (the Equator), entered a stretch of becalmed, unearthly waters, a mariner sailing today would find a vast, stilled expanse of buoyant plastic scraps known as the Great Pacific Garbage Patch. The poetic precedence was not lost on the sea captain who

first "discovered" the trash vortex in 1997.[1] Upon entering the "doldrums" of the North Pacific High, Charles Moore found himself remembering the famous lines from *The Rime of the Ancient Mariner*: "Day after day, day after day, / We stuck, nor breath nor motion; / As idle as a painted ship / Upon a painted ocean." He would write later of his discovery in *Plastic Ocean*: "I begin to notice that this smooth 'painted ocean' seems to be—how best to put it?—littered. Here and there, odd bits and flakes speckle the ocean surface. I believe they are mostly made of plastic. It seems odd and improbable" (3).

Moore, who would go on to campaign vigorously to raise awareness of plastic in the world's oceans, does not belabor further the connections between Coleridge's Pacific and his own, but we might. In the *Rime*, a seafarer, dealt a miserable marine plight for shooting "the harmless Albatross," is finally delivered from the curse when he learns to love "God's creatures of the great calm." In Moore's case, a ship captain comes upon the "thin plastic soup" from which many a Laysan albatross now picks the "dumplings" that it will take back to its chick: "By the late 1990s, upwards of one hundred thousand Laysan albatross chicks are dying each year at their main rookery on Midway Island, northwest of Hawaii. Their corpses rot, invariably exposing plastic objects in their abdominal cavities" (4; 123). Whereas the nightmarish congealing of sea in the *Rime* was the work of a Polar spirit pursuing a man and his ship to avenge a thoughtlessly slain albatross, now the ability to destroy *the* Albatross (the species) has taken on the gigantic, unthinking dimensions of an earth system—the unmanned force and scale of which no one spirit could avenge, nor one mind (to use that strange phrase) quite *wrap itself around*.

Plastic in the world's oceans—8 million metric tons adding every year to the 150 million already part of the marine ecosystem—is a *hyperobject*, to use Timothy Morton's term. The magnitude of its distribution in space and time makes it elude human thought and action, which—due perhaps to some ancient sylvan alliance of brain, hand, and eye—do better with simpler, more circumscribed, graspable objects. Because a hyperobject pervades every plane of reality, it is seen only in bits, phasing repeatedly out of view, emerging in its occasional saliences, or after extraordinary labor has been expended on connecting some of the parts. The mind's eye sees it sometimes, fleetingly, in a flash of intolerable lucidity. But we do not quite find—or rather, in our petroleum-based world and lifestyles, are consistently denied—the spaces, forms or rhythms needed to sustain the difficult thinking that would keep such a thing (as carbon emissions, global warming, or plastic pollution) in continuous, honest, "mindful" focus.[2] Perhaps this is why, when reading *The Rime of the Ancient Mariner* today, we feel haunted, or rather, we feel that *it* is haunted, that the

"slimy things [crawling] upon the slimy sea" and the "charmèd waters" it registered two hundred years ago already portended something.

Perhaps this is why reading *any* literature evoking seafaring in the Age of Sail, the swells and squalls, the giant and multifarious creatures of the depths, the perils of weather and fortune, and, especially, the *dead calm* as one crossed certain latitudes, leaves one feeling tense, entranced, as if gazing at pieces of a puzzle. Rereading Coleridge, Melville, Conrad, or going further back still to Magellan, Columbus or Odysseus, we peer back into those places where the experience of unfathomable space and time at sea—that "full awfulness of the sea," that "appalling ocean" (Melville, *Moby-Dick* 299)—carried such terrors that its telling, from the beginning, had called for the rhetorical-navigational cunning of symbols, consecrated themes, narrative *topoï* (details of weather, of the seafaring craft, the perils, the keeping of time and morale, the coordination and altercations on board, encounters with ships, notions of discovery or chase, the sight or memory of land). Is it not these "timeless" conventions or "commonplaces" that seem to fray now, revealing as "ground" beneath them the historical-material—and toxic, degraded—sea? The grave alteration of marine "contents" (and thereby "meanings") today lends these texts an air of knowing, of waiting or of warning. Disquietingly, these texts appear to us as one part of the same hyperobject, straddling space and time, of which the Great Pacific garbage patch is another. Should we be trying to tease these apart or are we condemned to thinking them now fatally together?

In a biosemiotic perspective, as Wendy Wheeler strikingly presented it, it is possible to imagine the life and growth of literary meaning as not unlike the life and growth of complex organisms. Such growth includes what is known in biology—if still obscurely and controversially—as "downward causation," where events occurring on "higher" levels of organization can cause changed behavior on "lower" ones (classic examples here being environmental pressures on a species resulting in changed cellular behavior or gene expression; or the emergence of new neuronal pathways through learning). Readers in the humanities encounter the same apparent paradox in the Freudian notion of *Nachträglichkeit* ("secondary revision"), describing both the deferred ascription of meaning to a traumatic event and the quiet transformation of the present precipitated by the unheeded event. These are counterintuitive processes by which time takes on the character of a Moebius strip. Following this logic, it should be possible to approach a text as itself changed by the world in which it recurs. This change would not be "merely" interpretational but would alter the meanings of the text *all the way down* as "the enfleshed and enminded analogic world of the reader both gives new life to and is

given life by the life of the aesthetic organism" (Wheeler 67-79). We could call this a haunted reading, or, following J. Hillis Miller as he reflects on poetry re-read in the "twilight of the Anthropocene," a *proleptic reading*, that sees "a text as prefiguring a future event that comes to seem what the text predicted, foresaw, or forecast." Miller writes: "This future chiming would also be a sign to sign relation, an anticipatory allegory or, perhaps, a prophecy or, perhaps, a miniature apocalypse in the etymological sense of an enigmatic unveiling of what has not yet happened" (186).

What is at work in our world and in our texts, when, *as we reread them*, plastic silently, as if *retroactively*, collects in the doldrums? It is precisely this realm of calm that we must now reach.

The Doldrums

"For a long time," writes Susan Freinkel, "this area was known only as a windless becalming spot that sailors tried to avoid." Only recently has it "gained prominence as the site of an enormous swirl of plastic trash" (115). The Great Pacific Garbage Patch refers to one—the largest, called the North Pacific gyre—of five major vortices or "gyres" in the world's oceans now collecting plastic trash, "all centered around the thirtieth parallels north and south, regions known as the horse latitudes, supposedly because the windless conditions there so slowed down Spanish sailors that they had to throw their horses overboard to conserve water." Gyres are earth-systems. Large wind movements as well as differences in salinity and temperature lead to rotations, on a colossal scale, of ocean currents, at the heart or "eye" of which can be found the eerily stilled zones memorialized in sea stories: the "silent sea" and "weary time" that entrance the Mariner, "the windless doldrums where Ahab and his crew in *Moby-Dick* had to resort to rowing" (131)[3] or the oppressive calms that stymie the young captain's maiden voyage in Conrad's *The Shadow Line*. Unusually high atmospheric pressure, leading to denser and dryer air, makes these zones akin to "oceanic deserts," writes Moore, pointing out that "In fact, [the North Pacific High] lies between the same latitudes as the Northern Hemisphere's great deserts in the Southwest, Mexico, and Asia—also high-pressure areas. Even fish tend to avoid the sluggish waters of this oceanic zone" (15).

The history of the term "doldrums" attests tellingly to a difficulty in distinguishing a material place from a mental realm—perhaps because the sea is "originarily" allegorical (as Derrida might have put it), prompting Baudelaire to write memorably of the sea as man's deep and dark mirror.[4] A slang word derived from "dull" or "dold" (i.e., stupid, inert), "doldrums" was first used to describe a psychological "condition of dullness or drowsiness" before it (very quickly) came to name, meta-

phorically, the "condition of a ship in which, either from calms, or from baffling winds, she makes no headway" (*OED*). Metonymically, the term soon thereafter came to designate a "region in which ships are specially liable to be becalmed; *spec.* (equatorial doldrums), the region of calms and light baffling winds near the equator, where the trade winds meet and neutralize each other." Here a note in smaller font in the *OED* adds: "Apparently due to a misunderstanding of the phrase 'in the doldrums,' the state being taken as a locality." But given how rapidly the word evolved over a few short decades of the mid-1800s, there might be as much of a case for suspecting a *marinized* return of "doldrums" when it came back to shore in its locative form ("*in the* doldrums"). To be *in the doldrums* would come to mean, through a folded or re-landed metaphor, to stand becalmed in "the Atlantic and Pacific Ocean of one's being alone" (Thoreau 212).

The *OED* registers the first use of the term "doldrums" as a geographical location in American oceanographer Lt. Matthew Fontaine Maury's 1855 textbook, *Physical Geography of the Sea*.[5] The navigator who enters the doldrums, as Maury described it, finds himself oppressed by "a degree of lassitude unconquerable, which not even the sea-bathing […] can dispel" as he discovers "that the elasticity of feeling which he breathed from the trade-wind air has forsaken him." In this uneasy state that mirrors the air's "perpetual state of agitation, upheaval, and depression," the "philosophical mariner," noted Maury, could experience directly what Galileo had called "the weight of the winds" (Maury 285-287). In his *Beagle* diary, Charles Darwin registered just such a thickening of the atmosphere when his ship entered the doldrums. In the entry of February 21, 1832, Darwin noted that "after any bodily or mental exertion a most helpless degree of languor comes over every faculty. During the night, it is like sleeping in a warm bath" (Darwin 39). Countless sea narratives, factual as well as fictional, attest to the way in which this gluey, undifferentiated quality passes from the atmosphere to the human bodies held in its thrall, and which come to lose their consistency. Edgar Allan Poe dramatized this deliquescence in *The Narrative of Arthur Gordon Pym of Nantucket* (1838), where the doldrums precipitate the mental and physical breakdown of the eponymous protagonist and his companions, Dirk Peters and Augustus Barnard, the sole survivors of a series of deadly episodes (mutiny, tempest, cannibalism). Caught in "fearfully calm and hot weather," the three men face "absolute starvation" as the food has become inedible and the drinking water has turned into a "gelatinous mass, nothing but frightful-looking worms mingled with slime" (Poe 145). Pym and Peters witness their friend decompose before their very eyes, becoming a veritable living corpse. When Augustus finally expires, Pym and Peters want to throw his body overboard but it is already "so

far decayed that, as Peters attempted to lift it, an entire leg came off in his grasp" (146). In Poe, the doldrums are the site of a metamorphic process turning water into gelatin, quickening the rotting of foods, and disfiguring the human form into a shapeless, indistinct "mass of putrefaction" (146).

Likewise, in Melville, the doldrums are a realm of ominous calm: a "region of everlasting lull," "where existence itself seemed suspended," a place of "blending and brooding of all things" where the water as "glassy element lies tranced" (*Mardi* 668). In a lucid meditation on Melvillian calms, Øyvind Gulliksen notes a correspondence between the experience of the becalmed sailor of *Mardi*—"the stillness of the calm is awful"—and that of Pip in *Moby Dick*: both forced to face their "own finitude in the strange and vast infinity of the sea" where "the awful lonesomeness is intolerable" (Gulliksen 47). To know calms at sea, in Melville, is to experience a "voiceless and shoreless" anonymity (43), "self's encounter with non-self" (Merlin Bowen qtd. in Gulliksen 49). In those places, language breaks down, as does faith in transcendence, whether divine or of the self. Consoled neither by "the traditional American-Christian solid individualism" nor the transcendentalists' conception of the limitless soul and its harmonious correspondence with the universe, "Melville's vision of no-self in the calm," writes Gulliksen, leaves the "I" "'fixed' in a 'foundationless firmament'" (52, quoting Melville). It is not a far stretch to say that in Melville, the very world is darkly anchored—and as if annulled—in these zones where the self is gripped by unease, bordering on cosmic terror—where the earth is experienced as intensely *un*inhabitable: "Though in many of its aspects this visible world seems formed in love, the invisible spheres were formed in fright" (*Moby-Dick* 211).

Had we a more cosmological memory, we might understand the doldrums to be the vestiges of that unformed, indistinct state of liquid matter from which the very world arose. In the pre-Socratic cosmogony of Alcman (of 7th century B.C. Sparta), it was the primordial deity Thetis who brought form, limit, distinction and direction to this undifferentiated element where sky and water lay confounded. Her allies and instruments in this differentiating work were *Tékmor* (principle and end) and *Póros* (path). Present also in the Hesiodic and Orphic cosmogonies, sometimes as a primordial deity himself, *Póros* personified the *way through or out*. Charting out paths in the sky (those of the sun, the moon and the stars—which in turn would orient the regions of the world, and by the observation of which seafarers could in turn navigate), applying equally to the sea routes drawn by winds known to blow in certain directions at certain times and by which a ship could be carried from one shore to the next, *póros* had a semantic field that was celestial and navigational before being intellectual or symbolic (*póros* as expedient, related to *mètis* as cunning). In the Hellenic

cosmogonies, write Marcel Detienne and Jean-Pierre Vernant, creation takes the form not of a birth but of a "mental act, an operation of the intelligence, that of a knowing *daimon* who governs [*kubernaî*, steer] the world by tracing in advance its course, as a pilot would steer a ship through the sea" (145; our translation). But in Detienne's and Vernant's reading of the Greek texts (Hesiod, Homer, Pindar, Eschylus, Herodotus…), it appears that this creation through organization and differentiation was never quite complete, or rather, that every navigation of the high seas again put in motion the original drama of a milieu that was endless and directionless, each voyage "an exploration of an uncharted, virgin space, without the slightest human trace, a *póros* that must be opened and retraced ceaselessly on the liquid expanse as if it had never yet been drawn" (152; our translation). Cursed fates at sea would repeatedly involve the stilling or contradiction of winds, the indistinction of sea and sky, impenetrable darkness with no view of the firmament, storms or infernal phenomena rising from the marine abysses to confound all path and direction. At these points the sea would return to its pre-creation state of áporon and *atékmarton* (without path and without beginning/end). The "doldrums" would mark these places of *aporia* by which the sea remains uncharted and the earth uninhabitable.

Mare totum navigabile

Christopher Columbus himself would be seized with panic when his ships were caught in the doldrums during his third voyage across the Atlantic. "The wind then failed me," he writes in his journal, "and I entered a climate where the intensity of the heat was such, that I thought both ships and men would have been burnt up" (112). For about three weeks, the ships made little to no progress until the winds returned "by the mercy of God" and Columbus was able to reach the islands of Trinidad. During this harrowing interval, extreme heat evaporated drinking water, putrefied the meats, and caused the sailors severe hallucinations.

Recounting this episode in his fictionalized biography of Columbus, Washington Irving imputes the crew's unease to their vestigial attachment to the ancient "theory of the five zones." According to this cosmogony, derived from Parmenides and prevalent in feudal-Christian Europe, the world was divided into five zones: two frigid zones (the polar circles), two temperate zones (the northern and southern hemispheres), and one torrid zone (the equator). Only the temperate regions were believed habitable, but the southern one was "for ever divided from the part of the world already known, by the impassable zone of scorching heat at the equator" (3: 422). One of the central ambitions of Columbus's repeated expeditions, as we know, was to disprove once and for all this old superstition by

crossing the torrid zone. But, in the doldrums, as the "mariners lost all strength and spirits, and sunk under the oppressive heat," it seemed to them "as if the old fable of the torrid zone was about to be realized, and that they were approaching a fiery region where it would be impossible to exist" (1: 359).

While sailing past the same "fateful latitude" toward Brazil more than four centuries later, Claude Lévi-Strauss in turn would remember Columbus. In a chapter of *Tristes Tropiques* titled "Le Pot-au-noir" (the French term for "The Doldrums"), he notes that the "inky skies over the Doldrums and the oppressive atmosphere are more than just an obvious sign of the nearness of the equator." More gravely, he reflects, they "epitomize the moral climate in which two worlds have come face to face. This cheerless sea between them, and the calmness of the weather whose only purpose seems to be to allow evil forces to gather fresh strength ["*où les forces malfaisantes semblent seulement se réparer*"], are the last mystical barrier between two regions so diametrically opposed [by their] conditions that the first people to [witness the encounter] could not believe that they were both equally human" (Lévi-Strauss 89). To convey the full measure of Columbus's undertaking, Lévi-Strauss compares his voyage to a journey to the moon: in landing on American shores, neither was he "discovering a new world," nor "verifying the past of the old" (88). Rather, by his voyage he would devise an entirely new geography. To cross the torrid zones thought to mark the limits of the *oikoumenē*, the habitable earth, was to demonstrate—and bring to prevail—a radically different worldview. Five hundred years after Columbus's voyage, Sylvia Wynter would call this invention of a "new world view" the "event of 1492": it would inaugurate the *globalization* of the world, turned into a homogenized sphere, subject to the single, secularized, hegemonic (imperial, mercantile, techno-industrial) reason of *propter nos*—the earth was created *for us*, i.e., *for Man*. "Man," of course, was European.

If 1492 turned the whole of the sea navigable—"*Mare totum navigabile*," as Columbus wrote in his journal—and the whole of the earth habitable, there remained a problem: the Americas were already densely inhabited.[6] Columbus's response, in Wynter's telling, was to "see the New World peoples in the way his earlier learned antagonists had 'seen' the 'uninhabitable' torrid zones and the submerged-under-water Western Hemisphere": as "negatively marked and antonymic," the older notion of a "nonhomogeneous earth" (the theory of the Zones) now transposed onto that of a "*nonhomogeneity of the human species"*(29; 46; 34). Thus, Columbus converted the "now-outmoded spatial schemas that dichotomized the torrid and the temperate" into "a new biocentric logic" (McKittrick 129). The equatorial line, marking the frontier between inhabitable and

uninhabitable, morphed into the "color line," marking the limit between "Man" and those "others [who] were to be transformed into its lack": Native Americans and persons of African descent (37). The enslaved, notes Wynter, came to embody "the *nec plus ultra* sign of rational human being, as the Cape Bojador or Pillars of Hercules that had marked the outermost levels of God's redemptive grace" (34-36). Her language in such places pointedly references nautical history: the Latin phrase *non plus ultra*—"(let there) not (be) more (sailing) beyond"—is believed to have its origins in an inscription engraved on the "Pillars of Hercules," the large rock promontories flanking the entrance to the Strait of Gibraltar (*OED*). While the later form *ne(c) plus ultra* (entering English in the 1600s) came to describe a point of perfection (the furthest one could go…), in Antiquity the phrase served as a warning: the pillars of Hercules marked the limits of the known world.[7]

Lévi-Strauss would, in the chapter on "The Doldrums," sound an elegiacal, self-divided note characteristic of much of his later work, torn between the conviction that Columbus's voyage was "the only total adventure open to man" and sadness for the indigenous peoples of Amazonia, "the survivors of a rearguard who paid so cruelly for the honor of keeping the gates wide open" (93). Forty years later, Wynter's essay (without referring to Lévi-Strauss, yet seeming to pick up exactly from his "Doldrums") is spurred precisely by the intention to get beyond the "Janus-faced" character of 1492—its bifid determination as discovery (from the point of view of its "celebrants") or catastrophe (from the point of view of its "dissidents"). Her strange—technical, incantatory, whirling, otherworldly—retelling is that attempt: to recount 1492 "from the perspective of the species, and with reference to the interests of *its* well-being" (8).

That "third perspective" is the one that leads, towards the end of Wynter's text, to the startling, even Daliesque image of the pillars of Hercules as if standing *within* the very being of the Algerian and Black Caribbean patients of Frantz Fanon led by extreme colonial alienation to a condition of "autophobia": "It would therefore be on the basis of the dependable regularities of his black patients' reflex aversion to the *nec plus ultra* sign of their own physiognomic features that Fanon was to make a parallel 'thrust' to that made by Columbus and Copernicus on the basis of their then-counter poetics of the *propter nos*" (45). Fanon had registered that the *propter nos*—and the very paradigm of Man it implied—was not in the interest of all humans; further, when faced with his patients' aversion for their own physiognomies, internalized as "the outermost limits and *nec plus ultra* sign of barely human being," he refused to locate the aberration's origins within the individual psyche. If one could see that it was produced, rather, by a "system of symbolic representations and their nar-

ratively instituted orders of discourse," it would be possible to "alter them to more directly suit our purposes" (45-47). It is this desubjectivizing and denaturalizing move (autophobia being neither individual-subject-based nor natural) that, in Wynter's striking account, allows Fanon to call for the completion of what remained *in*complete in the first *propter nos*, that is, to lead us "as a species, […] to now govern *consciously*" (our emphasis) by increasing our autonomy not only through knowledge of "our physical and organic levels of reality" (as enabled by Columbus, then Darwin) but also through "knowledge of our specifically human level of reality," i.e., the culture-specific rules and representations governing our behaviors.

So: would the uninhabitable disappear—as a kind of "aberration of cognition" (46)—as we become this more fully conscious species, this increasingly autonomous, knowing *human*? Wynter's essay—more Hegelian and more humanist than we might be inclined to be today—seems to suggest as much. Key to her account is the idea that the proscription of a realm (or a being) involves a detachment or an "unmooring" of its contents or features, its *alienation from reality itself* so that, in that de-realized form, it can better perform the "behavior-inducing function" of a cognitive structure.[8] But by this token precisely, one could say that Wynter's essay reads as a story *about the uninhabitable*, as what moves *with* (and/or *ahead* of) "us" through history, like a kind of negative Spirit, a migrating, mutating, morphing figure, "our" shadow, i.e., the dark obverse of the *propter nos* postulate. Believing or claiming to believe that they were abolishing the uninhabitable as limit and superstition was a postulate of Empire: in fact, Europeans devised ever more powerful and terrible instruments and forms thereof (colonialism, racism, slow violence)—what Malcom Ferdinand has called the "altercide" (a destruction of others and other ways of inhabiting) working at the heart of the "colonial inhabiting" ("*l'habiter colonial*"), extending to modern extractive capitalism and most of our ways of living today (Ferdinand 67-68). Through alienation of peoples and lands, "Man" *as Empire* advanced and implanted itself "ironically" by producing more and more persons for whom the world was uninhabitable.

Today, in the grips of the extreme climate and ecological crisis, it has become increasingly acceptable to suggest that the dispossessed have become figures for "us" all. It is a bitter paradox only if we fail to understand, first, the seriousness of Wynter's lesson—that the uninhabitable is a logic of unmooring (that is, of alienation and abstraction); second, that the effort to "eradicate" it (*totum navigabile*) must be suspect when it coincides with an imperial, techno-military-industrial will to frictionlessness and unlimited growth that, no longer deterred by the uninhabitable, mass-produces, outsources and trades in/through it; third, pace Wynter,

that as a primordial (perceptual-cognitive) figure, the uninhabitable cannot and should not be simply wished "away" as we strive toward a fully "conscious" humanity, because it is "our" long-engraved memory—or long-ingrained premonition—of the way in which the world is *not* created for us.

Of Mimicry and Plastic

We are getting closer to what has been haunting us about the doldrums, as places of eerie, deathly stillness, seemingly opposed both as zone and as figure to Man's reason, industry and subjecthood yet not altogether "sublated" by the dialectics of Enlightenment, industrial capitalism or the subject. Columbus may have shown that one could cross the torrid zones, but navigators long continued to dread the calms as places of impediment and stagnation, not to say (with Coleridge or Melville) of annihilation of the self. A ship forced to stand still for weeks, transfixed by the "silence of the sea …/As idle as a painted ship/Upon a painted ocean," remained caught in a kind of premodern space-time, an atavistic fear of having "drifted into the outer confines of the creation" (*Mardi* 669). It was only with the advent of fossil fuels (steam and then oil power) that the doldrums' geophysical reality could effectively be overcome. Yet were they? Those "dead calms" thought to be nullified by the "annihilation of space by time" (Marx 538) that was motorized speed now gather billions of bits of plastic flotsam that have nowhere to go: vast garbage patches in different ways foretell, express, precipitate, allegorize, the organic death of the sea and eventually of "us."

Inspired by the otherworldly beauty of Wynter's "third perspective," what happens if we attempt to tell everything in a single strange tale, one that would embrace both 1492 and the Great Pacific garbage patch, that would insist on keeping in focus, at the same time, empire and plastic by way of the doldrums? Holding everything together within a single stretched canvas inevitably creates distortions. But it also makes it possible to discern dimensions so massive or so fantastic that they would otherwise merge with the gaps *between* the stories, and not be seen at all.

It is as *extractive capitalism's weird other* that the doldrums invite us to tell that story through their eerie lens. Recall that for Marx capitalism relied by its very logic on unimpeded movement and thus on a de-realization of space: "while capital must on one side strive to tear down every spatial barrier to intercourse, i.e. to exchange, and conquer the whole earth for its market," he wrote in *Grundrisse*, "it strives on the other side to annihilate this space with time, i.e. to reduce to a minimum the time spent in motion from one place to another" (538). In contrast, the experience of the doldrums is typically described in maritime literature as an experience of

suspension of time and an unnerving rematerialization of space—what one might call, flipping Marx's axiom, an *annihilation of time by space*.

Tellingly, as he retraces Columbus's voyage across the Pacific, Lévi-Strauss repeatedly describes the doldrums as a zone of chiasmic inversion, a fold where "sky and sea have changed places," where "the normal relationship of luminosity between air and water is reversed" (87). When crossed, the doldrums seem to be the site of a warping or mutation *of* time. In bridging a "tremendous time-gap which kept the New World outside the commotions of history during ten or thousand years," Columbus irrevocably altered the "earthly paradise" that he found, causing it to enter (what Lévi-Strauss does not call but we could) global capitalist time. This world "changed in character: from being eternal it has become historic; from being metaphysical it has become social. The earthly paradise [became] a gracious life-style reserved solely for the rich" (88).

Empire, relayed by the technologies of speed and fossil capital, would pave over difference, nature, myth, primordial terrors. The "dialectic of enlightenment" consists in resisting the sirens—which in any case, being in reality manatees, had struck Columbus as "not as beautiful as they appear in pictures" (Lévi-Strauss 92)—and overcoming the doldrums (as obstacles to transoceanic commerce).[9] Thus, even while we have never transported more of the world's commodities by sea than we do today, or had a more extensive network of undersea pipelines and cables, we are long *out of the doldrums*, its singular chronotope lost to us as immediate experience. Instead, today, in that "place," our own viscous trail stares at us in the form of an "eighth continent" of plastic pieces. First a real-world place/phenomenon and a frequent literary referent and theme, then an increasingly *dead* metaphor ("in the doldrums"), doldrums appear over time like a live portal—a notion suggested by Charles Moore when he writes that storm drains (near large polymer processing plants, but by extension in all industrial zones and cities) are "gaping portals to the Pacific" (24). Applying the image to the doldrums themselves makes vivid the way in which these still zones at the center of gyres are places where millions of plastic "runoffs" from the consumer capitalist world "end up"—and *from which*, inversely, future archaeologists could theoretically "piece" their way back to the detail of our lives on land.[10] The endpoint of our waterways (our runaway waste pathways), the doldrums may be thought of, in this respect, as an inverted metonymy for global bourgeois life. And here's the crux: the intimacy or continuum linking these erstwhile zones of uninhabitable/unnavigable sea to the inhabited "city" is unignorably and ignobly *"revealed" by plastic*. Plastic's way of "revealing" here being both a metaphorization—plastic becomes the metaphor extending our species-being across the seas (in Hillis Miller's words: "The global trash

heap is us. We are not separate from it. It is an extension of our bodies and minds" [190])—and a sobering *de*metaphorization, because plastic is resistant, unsublimatable, non-biodegradable materiality *par excellence.*

A live portal, then, also because the warped space-time of the doldrums in the Age of Sail (impeding movement, seeming to stall time, yet accelerating organic decomposition—rotting food, putrefying bodies) remains their chief property when they turn into a figure for thought—these vortices of the ocean are places where history and geography themselves whirl.[11] In them we peer, funnel-like, through to the past (to Ptolemaic cosmogonies) and to the future (the doldrums of Columbus, Melville, Lévi-Strauss retroactively collecting the debris of the Plastic Age). If we imagine the doldrums as points of digestion of the world, then plastics, entering the ocean at the rate of a ton every three seconds, are the bright, colorful, floaty faces of the indigestible, producing its own quiet, deathly temporalities stretching far out in time. The toxicity of plastic, as the chief by-product of oil, unsurprisingly shares what Andreas Malm describes as the peculiar, non-coinciding temporality of the global warming effects of fossil fuels: both "'seriously backloaded' (every moment experiencing a higher temperature posted from the past) and 'substantially deferred' (the cumulative effects of current emissions arriving in the future)" (8). How does one begin to think the ethics of carbon emissions or plastic waste when those producing or emitting today "cannot even potentially encounter [their] victims because they do not yet exist" (8)?

Yet the history of plastic has been one of euphoria and atopia, a capitalist dream of weightlessness and matter transcended. Polymer chemistry amounted to nothing less than a revolution in the early years of the twentieth century. 1907 saw the trademarked creation of Bakelite, "the first fully synthetic polymer, made entirely of molecules that couldn't be found in nature" (Wallace 127), the "material of a thousand uses," from doorknobs to steering wheels to such home appliances as toasters, vacuum cleaners, rotary phones; its inventor Leo Baekeland, the "Father of plastics," would be featured on the cover of TIME magazine. The Second World War, calling for a large-scale production of sturdy, yet light and easily transportable materials, meant lucrative government contracts for manufacturing companies and valuable testing ground for new inventions. DuPont, today one of the oldest of the multinational chemical companies, is the inventor of nylon, a material that answered vital war needs (parachutes, flight suits, ropes) to later find new uses in fashion and retail. Dow, now the second largest chemical manufacturer in the world, invented polystyrene, leading to synthetic rubber and to Styrofoam. When the war ended, chemical companies repurposed their inventions for peacetime and the industry vigorously hatched new markets and new consumer

imaginaries for its products. From toys to dashboards, from strollers to computers, plastic became essential to every aspect of urbanized middle-class life. Yet consumer goods today are only the third (if gigantic) market for plastics, the second being building materials (insulation, PVC siding, synthetic carpets…), and the first packaging. "We stopped noticing plastic, and it seemed to disappear even as it proliferated," writes Moore (41).

The shaping effects of the Age of Plastic on human life and the sheer power of the "chemical" lobby to create the conditions for its unobstructed growth cannot be overstated. The lucrative tire industry (the US domestic market alone consumes one billion tires per year) worked "in league with GM and the oil companies [to] derail existing mass transit systems in all but a few American cities," writes Moore (100-101). The manufactured craze around convenience and easy disposability (subliminally recruiting women's lib agendas to its cause) redrew urban landscapes, replacing local grocers, bakers, butchers with "sparkly clean chain supermarkets [that] erupted from the middle of vast parking lots. At the supermarket, milk in cartons, bread in plastic bags, and precut meat on Styrofoam trays cost less and somehow seemed more hygienic" (94-95). The story of plastic is told in vivid world-historical detail by Moore, Hohn, and others. But two of its dimensions, each "too big to see," are worth dwelling on here as we think about the uninhabitable, as the repressed that returns to haunt capitalism precisely through capitalism's most euphoric invention.

The first would be that the power of plastic has everything to do with *unmooring*, to use Wynter's term (46). Plastic as container and packaging, especially, has had consequences comparable to those of mass reproduction in transforming human spaces and experiences: aided by certain other technologies perfected in the postwar era—refrigeration, interstate highways, global shipping (all equally powered by fossil fuels)—it enabled *mass transportability*, effectively annulling the specificity of place and reconfiguring distance exactly as per Marx's analysis: "plastic film was the material that was to envelop the world by providing a cheap, lightweight, impermeable material in which perishables could be economically shipped over long distances and retain their freshness. Plastic packaging helped liberate food and beverages from local production" (Moore 103). The extreme consequences resulting over time and on a global scale from this logic have been in seamless continuity with those of Empire: the destruction of communities and regions as self-sustaining ecologies; their subjection to fluctuating, future-oriented commodities markets; their ghostly separation from themselves, since their sustenance is routed through the globe and their interests through those of capital.

The second dimension of plastic worth underscoring is also, like the first, both material-historical and phantasmatic. It has to do with plastic's

mission, from the beginning, *to imitate and to replace* valuable substances extracted to the point of near-exhaustion in the colonized world. Thus, Parkesine, one of the most important breakthroughs in early polymer manufacture, unveiled at the 1862 London World Exhibition, was inspired by the demand for billiard balls, piano keys, dentures and other personal care products at a time when ivory and horn from Africa and Asia were becoming scarce (Moore 29-31); Bakelite would emerge as a cheaper, synthetic equivalent to the rare shellac, a resin produced by the lac beetle in India and Thailand; synthetic rubber was invented to replace natural latex bled (as Duras metaphorically described it [137]) from rubber trees in such places as French Indochina and Guinea. Nylon and other synthetic fibers came to replace plant fibers sourced, again, from tropical regions.

Writing his *Mythologies* in 1957, at the height of the Western world's hypnosis by plastic, Roland Barthes would wonder at plastic's "infinite transformation," its "quick-change artistry," its ability to "become buckets as well as jewels" (104-105). In an entry titled "Plastic," he would count this "miraculous substance" amongst the bourgeois "mythologies" of his time, seemingly "less a thing than the trace of a movement." The many forms plastic could assume, indeed the many *things* that plastic could *be*, could only provoke the "reverie of man at the sight of the proliferating forms of matter," a wonder utterly pleasurable "since the scope of the transformations gives man the measure of his power, and since the very itinerary of plastic gives him the euphoria of prestigious free-wheeling through Nature" (104-105). Barthes recognized plastic's genius as a new kind of imitation material, "reproducing cheaply the rarest substances, diamonds, silk, feathers, furs, silver," yet insisting on being a common "household material" (105-106). He is perhaps the first to have formulated the profound consequences of such imitative potential[12]:

> the age-old function of nature is modified: it is no longer the Idea, the pure Substance to be regained or imitated: an artificial Matter, more bountiful than all the natural deposits, is about to replace her, and to determine the very invention of forms. A luxurious object is still of this earth, it still recalls, albeit in a precious mode, its mineral or animal origin, the natural theme of which it is but one actualization. Plastic is wholly swallowed up in the fact of being used: ultimately, objects will be invented for the sole pleasure of using them. The hierarchy of substances is abolished: a single one replaces them all: the whole world *can* be plasticized, and even life itself since, we are told, they are beginning to make plastic aortas. (106)

Earlier in the *Mythologies*, in the entry on "Toys," Barthes would wax nostalgic for the "wooden toys from the Vosges," replaced henceforth by objects made of plastic, "a graceless material, the product of chemistry, not of nature," with "an appearance at once gross and hygienic, [that]

destroys all the pleasure, the sweetness, the humanity of touch" (60-61). In substituting itself for natural substances, plastic, more than any other object Barthes considered, would appear to lend material form to the very operation of "myth"—a "second-order" semiotic operation that "*converts culture into nature* and is thus the ideal vehicle for bourgeois ideology" (Leak 59; emphasis ours).

Barthes's single-minded attention to ideology and semiosis, like that of several theorists in those years of an accelerated growth in middle-class consumption in France, meant a relative insensibility to already ravaged human worlds and fragilized material ecologies. Wood indeed had become rare; the real sadness, however, should have been not over toys but over forests. As for plastic, if it was an ersatz material ostensibly replacing a diverse range of precious colonial extractions, its production hardly meant that wood, rubber, or ivory were no longer being extracted in the (post) colony, but rather that, as commodity capitalism extended its markets ever further, the substances of the known world were no longer enough to feed it. The real harm of plastic cannot yet be "seen" in texts of the 1950s. Barthes registers plastic's affront as being essentially aesthetic ("graceless," sensually and referentially impoverished). Yet in rereading him today, does his text not seem suffused with foreknowledge? Within the *Mythologies*, it becomes difficult not to see "plastic" as endowed with an irony powerful enough to mimic and then "hijack" the entire system—because effectively *inverting* the culture >> nature "conversion" usually operated by a "myth": in plastic something originally *natural* (hydrocarbon or "fossil" fuels, i.e., organic matter composting over millennia) is molecularly converted into something irreversibly synthetic ("Man"-made) whose mass production and mass disposal would amount to an ecocidal catastrophe.

Because it does not biodegrade or "go away" within actionable time ("on a finite planet, 'away' is itself an ideological rather than geographical concept," writes Wallace [135]), plastic "expresses" the untranscendable materiality of fossil capitalism more than any other product or by-product. One estimate suggests that "the total amount [of plastics] ever produced is now greater than the weight of all land and marine animals combined"; in the single recent year 2015, the production and disposal of plastics caused more greenhouse gas emissions than "all the world's airplanes combined" (Tabuchi). Scientists have found evidence that plastic microfibers are being ingested not only by pelagic birds and large/surface marine life but also deep-sea creatures, included corals, squat lobsters and sea cucumbers, indicating that plastic is infiltrating the food chain down to the deepest points of the ocean (Taylor et al.). Humans, it is believed, are eating "some 2,000 tiny microplastic pieces each week, which, taken together, have roughly the same weight as a credit card" (Lerner). "Syn-

thetic chemicals have become part of the hormonal conversation of what it means to be human, rewriting the metabolic processes of our bodies," writes Dickinson ("Energy Humanities" 17-18). He cites the authors of *Slow Death by Rubber Duck:* "The damaging effects of hormone-disrupting chemicals on fertility, the brain and behavior quite possibly make them a more imminent threat to humankind than climate change" (Smith and Lourie qtd. in Dickinson 18).

All is Mind

Is it any wonder that when we return now to texts preceding the plasticization of the world, they appear viscous and knowing? This hallucinatory experience is what Miller describes in his "proleptic" reading of Wallace Stevens's 1942 poem "The Man on the Dump" for what it might foretell of today's crises ("We are collectively living on a planet that is becoming one gigantic garbage dump" [187]). Such an "anachronistic reading" would work in an unnerving, bi-directional way, he suggests, whereby the "allegorical interpretation" offered is "not [only] of Stevens's poem, but *of all those present-day images of global climate change as interpreted prophetically by Stevens's poem*" (192-193; our emphasis). We find here again the portal-like properties of the doldrum, funneling, looping, collapsing space and time, past and future, world and knowledge, reader and read.[13] Similarly, in her 2009 collection *Styrofoam*, poet Evelyn Reilly declares herself "haunted by D.H. Lawrence's 'The Ship of Death,' Coleridge's 'the Rhyme of the Ancient Mariner,' and … *Moby-Dick*" (68). But in her text it is the seafaring narratives that end up retroactively haunted by plastic. As foam becomes Styrofoam (the synthetic counterpart of styrax, a gum resin from a Mediterranean tree), *Moby-Dick*'s "eternal frosted desolateness" (Melville 210) degenerates into an "[un]*eternal* [de]*frosted desolateness*" (Reilly 64). The bracketed prefixes affix themselves to Melville's words like small molecules to larger ones, as in the process of polymerization. Today, the frozen landscapes Melville thought out of human reach and immune to change are melting, but Reilly perversely imagines them quietly replaced by everlasting plastic debris, "the opposite of snow / but of like white" (61).

Nature is plasticized, and the first to be fooled is nature itself: "Plastics mimic all the way down," observes Wallace, "their endocrine-disrupting qualities coming precisely from their ability to take on the shape of hormones, misrecognized, in turn, by our own bodies. Plastic bags mimic jellyfish in the oceans, the favorite meal of leatherback turtles, or krill, crabs, or squid, which albatrosses feed to their chicks" (152). Since Jakob von Uexküll's descriptions of animal worlds, we have known that nature operates through semiotic processes. We call this biosemiosis to-

day: the notion that everywhere, organic (down to cellular) life creates, translates, interprets and responds to signs, that this, indeed, is the basis of living systems. It is because nature is so *meaningful* that it is susceptible to deception and destruction. Using Uexküll's quaint terms from almost a hundred years ago, we could imagine that the albatross easily "mistakes" colorful plastic for squid or small fish, because plastic's "shiny" appearance (a "perception mark," he would have called it) attracts its attention. It swoops down and swallows it (this action being the "effect mark"). At contact, Uexküll makes clear, the perception mark, whose purpose was only to activate the pathway for the effect, is abolished by the effect mark (77). Thus, there are no "second thoughts" about whether the prey was in fact fish or foul. "[B]enthic creatures can no longer depend on their own sensory organs to detect danger," as Stacy Alaimo puts it: "Their ways of knowing and being have been rendered inadequate by the xenobiotic substances that surround them" (194).

No one who has seen Chris Jordan's *Midway* series can forget it: fossilizing albatrosses, their insides packed with colored plastic objects that ultimately made them starve and die. What more do we need to understand that plastic's "mythology" (Barthes) works far beyond the human mind, or, should we say, reminds us that *all is mind*? It is through biomimicry that plastic plays its lethal signifying part. The prey goes for the lure, which then destroys it "from the inside" or through a slow agony from which there can be no escaping, and no learning. Predators have, of course, always known how to play within their preys' *umwelten*. But what we have here is a gigantic hunt without a hunter, for which "ghost nets" (those discarded nylon fishing nets, lost by trawlers, in which marine bodies get entangled, as they move through the open seas) are the perfect metaphor (Moore 253). Hence, beside a photograph of seabirds searching for food on a landfill, Evelyn Reilly amends Coleridge's famous verse: "for all averred, *we* had killed the bird [enter albatross / stand-in of choice]" (11, our emphasis). This collective subject is no less ghostly than Coleridge's ancient mariner, whose penance for thoughtlessly shooting an albatross is not death but eternal "life-in-death." Hence in *The Polymers* Adam Dickinson hails his reader "from inside the albatross / with a windproof lighter / and Japanese police tape" (7).

By 2050, notes David Wallace-Wells, "there will be more plastic in the ocean than fish" (114-115). One way to write after Wynter would be to say that the uninhabitable extends on, through oil and gas pipelines, polymer processing, commodity futures, petrochemical industry lobbying, "consumer behavior research," so many colossal (autoimmune, autophobic) infrastructures by which, like a mass hypnosis, a lifestyle continues to be sold in exchange for slow devastation.[14] Viscous, mutant

petro-matter floods the ocean, back-fills our texts. Plastic is but one part of our "tale of many hyperobjects" today, yet a particularly perverse and poignant one, given its magical ability to "mold itself into the shape of our dreams and desires" (Wallace 130), only to revert, once the dreamer wakes, to another undigestible piece of trash in the doldrums.

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Notes

1. It is worth noting that "Moore didn't discover this 'plastic-plankton soup,'" Donovan Hohn clarifies, "since before Jules Verne invented Captain Nemo, oceanographers have known that convergence zones collect debris, and since the 1960s they've been worried about the persistence of 'pelagic plastic,' which they've found in all the oceans of the world, including the Arctic. What Moore did discover were greater quantities of pelagic plastic than anyone suspected were out there" (45).
2. Amitav Ghosh ties the "unthinkability" of climate change and other large-scale events to the twin emergence of capitalism and petroleum, whose viscous materiality eludes the grasp of the arts (73). "We have entered," Ghosh observes, "the age of hyperobjects, which are defined in part by their stickiness, their ever-firmer adherence to our lives" (62). For Morton, viscosity is indeed hyperobjects' primary "quality" (Morton 27-37).
3. We could not in fact locate in *Moby-Dick* the episode that Freinkel is referring to here, but as we acknowledge above, a text may be "changed by the world in which it recurs."
4. *Vous êtes tous les deux ténébreux et discrets: / Homme, nul n'a sondé le fond de tes abîmes; /* Ô mer, nul ne connaît tes richesses intimes, / *Tant vous êtes jaloux de garder vos secrets!* In Roy Campbell's translation: "The two of you are shadowy, deep, and wide. / Man! None has ever plummeted your floor — / Sea! None has ever known what wealth you store — / Both are so jealous of the things you hide!"
5. The French dictionary *Littré* also traces the first recorded use of the French equivalent, "Pot-au-Noir," back to the middle of the nineteenth century. It is no accident if these two terms roughly share the same birthdate, as they bear witness to the emergence of modern marine meteorology, which played a key role in the expansion of global maritime circulation for capitalist gain. Melville saw well how this new science contributed to the standardization of oceanic spaces, citing Maury's description of his charts that divide "the ocean into districts of five degrees of latitude by five degrees of longitude" (*Moby-Dick* 216).
6. The Americas had a population of at least 60 million in 1492, according to the much-cited recent study by Koch, Brierley, Maslin and Lewis.
7. As for Cape Bojador, till it was successfully passed by a Portuguese navigator in 1434 (Wynter gives the date 1441), it marked another "point of no return," on the treacherous reef-lined coast by which Western Africa extended into the Atlantic Ocean.
8. "[W]here the 'stereotyped images' of feudal-Christian geography had served to induce in the subjects of the order an aversion to voyaging into the negatively marked and antonymic regions of the earth, with the reality of these regions therefore having to be 'detached from their moorings in reality' in order to serve the behavior-orienting function imposed upon them, the equally negatively marked physiognomic features had also to be detached from their 'moorings in reality' for the same end: to induce their bearers, like all the other subjects of the order to be aversive to their own physiognomy as the negatively marked conceptual Other boundary to our present bourgeois conception of 'normal' human being" (Wynter 46).

9. Remembering the episode of Columbus's sighting of mermaids, Lévi-Strauss ventures that these chimerical beings would "not have looked out of place" in the doldrums (91-92). On the transcending of myth and nature (including the song of the sirens) by (bourgeois) reason and technology, see Adorno and Horkheimer, *Dialectic of Enlightenment*, pp. 1-62.
10. Moore points out that ultimately "[t]he scraps, the countless broken-down bits, will never yield their beginnings. Now I know the plastic soup I saw on my first gyre crossing was inevitable. Since ancient times, humanity has tenaciously believed that the earth's oceans and waterways were there to make our waste disappear. We believed the ocean's capacity was limitless. Civilization's discharges have always been intimately connected with water. The word sewer finds its roots in the Anglo-Norman *sewere* ('water-course') and the Old French *sewiere* ('overflow channel for a fishpond')" (58-59).
11. In the doldrums, *Mardi*'s narrator begins to lose faith in the science of geography: "To his alarmed fancy, parallels and meridians become emphatically what they are merely designated as being: imaginary lines drawn round the earth's surface. The log assures him that he is in such a place; but the log is a liar; for no place, nor any thing possessed of a local angularity, is to be lighted upon in the watery waste" (669).
12. More recently, Catherine Malabou has also pointed to this radical property of "plasticity": "For is not plastic the substitutable material par excellence? Can it not take the place of every thing, can it not deconstruct every idea of authenticity, is it not always engaged in the process of its own disappearance?" (74).
13. Ruth Ozeki dramatizes this ghostly temporality in her 2013 novel, *A Tale for the Time Being*, in which a novelist named Ruth finds a diary (hidden within the covers of Proust's *À la recherche du temps perdu*, inside a Hello Kitty lunchbox wrapped in a barnacled plastic freezer bag) washed up on the shore of her small British Columbia island among other ocean debris. Over the course of the narration, the content of the diary unaccountably expands as Ruth reads it.
14. Even as nations and citizens worry about the climate crisis and the "plastic scourge," the chemical and oil giants (what Malm has called *White Skin, Black Fuel*) are quietly counting on the continued expansion of markets—most vitally in the Global South. The petrochemical sector has plans to double its production of virgin plastic resin by 2040, capitalizing on a new technology allowing more optimized use of crude oil, in turn making each barrel more profitable (because yielding more plastic; see Correia). Africa, favored as both a growing market for new products and an ideal dumping ground for end-of-life-cycle plastics, is on the forefront today of a war, with a spate of national bans on single-use plastics and a historic agreement launched from Nairobi, in 2022, to pass a worldwide plastics treaty. Might these be a setback to the fossil empire, on par with indigenous protests throughout the Americas to the construction of oil and gas pipelines through rich ecosystems and sacred native lands?

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