

Reprise Editor's Introduction

Americanist and Planetary Wormholes: The Insect and America in the World

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In New Haven, Connecticut, some wormholes exist.

When viewed from one side, these wormholes are vortices to spacetimes that disrupt the commonsense of a world that sees 1492 as a temporal meridian. From this side of the wormholes, we see visions of Vikings visiting North America in approximately the year 1000 CE.¹ Shortly thereafter, these Vikings returned to Europe and then passed down oral and perhaps sketched descriptions of their American sojourns. These descriptions circulated for four centuries until, in the 1440s, a cartographer used them to produce a map. And this pre-Columbian map, which has been passed down to us today, constitutes the first extant European cartographic representation of what has become the Americas. From this side of the wormholes, Christopher Columbus's storied and terrorizing arrival in the Caribbean is disrupted, and the cosmogony of European interactions with the Americas finds its documentarily verified initiation with the Vikings. From this side of the wormholes, a panoply of terms—*colonial*, *precolonial*, *postcolonial*, and *decolonial*—become muddled to the degree that the priority of Columbus, or *Cristóbal Colón*, is at their root.

Viewed from the other side, however, these wormholes open onto an alternative story—a story that comports with Columbus's expedition as leading to the first European-made maps of the Americas but that disrupts trust in the ethos of renowned educational institutions and scholars.² This second story involves not a 1440s cartographer creating the first extant European visual representation of what would become the Americas—rather, it involves a twentieth-century forger, possibly a German-Austrian Jesuit priest who created a faux-historical map that that would eventually be declared authentic by Yale University and housed in that institution's Beinecke Rare Book and Manuscript Library. From this side of the wormholes, one of the world's most august university archives has made an error of epic proportions, “a textbook example of a public relations nightmare,” and now holds in its collections a world-famous hoax.³

In discussing this contested document, as viewed from different sides of the same wormholes, I am alluding to the saga of the Vinland Map, a map of unknown provenance that was acquired by Yale and published in facsimile form, with scholarly and curatorial commentaries, in a 1965 volume titled *The Vinland Map and the Tartar Relation*, issued by Yale University Press.⁴ Upon the map's publication, Alexander Orr Vietor (Yale University Library's Curator of Maps) declared that the "Vinland Map contains the earliest known and indisputable cartographic representation of any part of the Americas."⁵ At the time, Vietor's assertion of the map's indisputability depended to a large extent on the question of wormholes—or holes bored by book-eating insect larvae. A set of wormholes in the Vinland Map allegedly matched up with those found in other documents of verified historical provenance, so that the matching "worm holes showed that the map" had formerly been part of a bound volume with these other documents.⁶ Speaking of the wormholes, one of the scholars associated with Yale University Press's 1965 publication of the Vinland Map averred that "there could hardly be more striking and unpredictable... proof of the map's genuineness."⁷

Since the 1965 publication of *The Vinland Map and the Tartar Relation*, however, many scholars have argued against the map's authenticity, and as of 2021 Raymond Clemens, curator of early books and manuscripts at the Beinecke, has stated unequivocally that "the Vinland Map is a fake."⁸ While Clemens bases his recent statement on chemical analyses of the map's ink, the historian and novelist Kirsten A. Seaver argued against the map's authenticity over a decade and a half earlier, in her 2004 study *Maps, Myths, and Men: The Story of the Vinland Map*. In this book, Seaver advanced assertions regarding the map's inauthenticity from multiple angles, including the trajectory of wormholes. In a chapter titled "Creating Matter from Wormholes," Seaver recounts her own examination of the map, contradicting the earlier thesis on its wormholes as constituting indisputable proof of authenticity: "My own perusal of the wormhole trajectories has left me with more uncertainties than answers.... Some holes on the map's parchment match up reasonably well with its supposed neighbors, but others are not so easily accounted for."⁹ Seaver was viewing the New Haven wormholes from the other side.

I have recounted a few broad strokes regarding the decades-long saga of the Vinland Map not because I have anything to add to the erstwhile debate or prevailing consensus regarding its status as a forgery. Rather, to me, the Vinland Map advances a highly intriguing case of the insect—or the mark left by the insect—as a way of knowing. So much has depended on the evidence or lack of evidence constituted by the tunnels bored by insect larvae. In the balance, among other things: academic reputations, institutional reputations, institutional funding, private donations, symposia, and decades of scholarly research and careers. But most significantly, in my estimation: competing cosmogonic visions of European contact with lands and peoples who have come to be known as America and Americans. Since 1965, the insects who at some point chewed the Vinland Map's wormholes have been the openers of vortices between competing American cosmogonies. On one side of these vortices, it has been

the 1440s, while on the other side, the 1490s. On one side, the Caribbean. On the other side, Vinland-Newfoundland. These insect-chewed holes, which by centuries-long convention have been called wormholes, have been vortices in American and Americanist spacetimes that resemble the time- and space-jumping vortices that have, since 1957, been described by topologists and theoretical physicists as “wormholes,” with their “wormhole space-time.”¹⁰

In his famed 1958 study *The Poetics of Space*, Gaston Bachelard wrote that “the miniscule, a narrow gate, opens up an entire world.”¹¹ By a similar token, insect larvae are very small, as are the holes they bore through the pages of books, but within the Vinland Map these small holes became vortices of enormous importance to human apprehensions and misapprehensions regarding American and planetary spacetimes. Further, I would suggest, the wormholed Vinland Map is itself a vortex of vortices, an exemplum, opening up onto insects’ wider worlds within human and nonhuman cultures and epistemologies.

In drawing attention to insects in this way, I am following several writers and scholars over the past two decades who have emphasized insects’ significance vis-à-vis human culture and thought. Christopher Hollingsworth, for instance, in his 2001 study *Poetics of the Hive: The Insect Metaphor in Literature* took as “his object of scrutiny ... the insect analogy as it involves and has been shaped by a tradition of verbal picturing” in human literary writing, from Homer to A. S. Byatt.¹² A few years later, in 2005, Eric C. Brown edited a seventeen-chapter collection titled *Insect Poetics*, taking insects, traditionally regarded “as an (almost) impossibly *different* creation” from humans, and seeking “to ‘read’ insects in texts and contexts, as subjects and objects, that demonstrate particular and exclusive discursive practices” that illuminate long-running “anxieties about the relationship between humans and insects.”¹³ Further, Brown’s volume sought to “reintegrate the insect into animal studies more generally,” making amends for a state of things in which “many recent excellent works on animal studies [had] largely omitted insects.”¹⁴ Subsequently, in 2010, the anthropologist Hugh Raffles published *Insectopedia*, with an opening essay titled “In the Beginning ...” wherein he observes,

For as long as we’ve been here, they’ve been here too. Wherever we’ve traveled, they’ve been there too. And still, we don’t know them very well, not even the ones we’re closest to, the ones that eat our food and share our beds. Who are they, these beings so different from us and from each other? What do they do? What worlds do they make? What do we make of them? How do we live with them? How could we live with them differently?

Insects are, according to Raffles, “not just deeply present in the world but deeply there, creating it, too.”¹⁵

On one hand, describing insects with such awe might be taken as a means of rationalizing a preoccupation with something that is putatively unworthy of study—a tradition Brown has traced back two thousand years to Pliny the Elder: the need to justify commentary on “a kind of Other” that many believe is “best left underfoot or in footnotes.”¹⁶ But Raffles’s book and the materiality and doings of insects in the world constitute vivid arguments that insects need no puffery. One must be struck with awe by their world-making and cosmogony-breaking power, as well as by their sheer thereness: A 2022 study has conservatively estimated that ants alone (to the exclusion of all other insects) have a “combined biomass” that exceeds the biomass of all “wild birds and mammals,” with the biomass of ants equaling approximately twenty percent that of humans.¹⁷ What multispecies “arts of attentiveness” might complement a human immersion among insects that has been a *fait accompli* since the beginning of our existence as a species?¹⁸ It has been axiomatic in multispecies studies to understand that “species of all kinds, living and not, are consequent on a subject- and object-shaping dance of encounters”; “the partners do not precede the meeting”; “to be one is always to *become with many*.”¹⁹ How, then, do we think of, think about, and think with the 5.5 million insect species of our human co-becoming?²⁰

The present edition of *Reprise* republishes four pieces that invite us to consider insects in relation to these questions of attentiveness, immersion, co-becoming, and cosmogony, both for the world and for the study of the United States and the Americas in the world. First we read a 1910 essay titled “Poe’s *Gold Bug* from the Standpoint of an Entomologist,” originally published by the biology professor Ellison A. Smyth in *The Sewanee Review*.²¹ Second is an excerpt from a 2017 novel titled *The More Known World*, by the US-born Australian author and literary translator Tiffany Tsao.²² Third is a book chapter titled “Insects, War, Plastic Life,” written by the sociologist Renisa Mawani and originally published in the 2015 collection *Plastic Materialities: Politics, Legalities, and Metamorphosis in the Work of Catherine Malabou*.²³ Finally, we read Monique Allewaert’s essay “Insect Poetics: James Grainger, Personification, and Enlightenments Not Taken,” which first appeared in 2017 in the journal *Early American Literature* and won the Richard Beale Davis Prize for best article of the year in that journal.²⁴ Smyth’s essay has entered the public domain, but in republishing work by Tsao, Mawani, and Allewaert, we gratefully acknowledge copyright permission from Tsao, Duke University Press, and The University of North Carolina Press, respectively.²⁵

Ellison A. Smyth (1863–1941) was a student and scholar of ornithology and entomology, advisor to the US Department of Agriculture’s Division of Ornithology and the Smithsonian Institution, adjunct professor of biology at the University of South Carolina, and founder and head of the Biology Department at Virginia Agricultural and Mechanical College (later Virginia Polytechnic Institute, now Virginia Tech).²⁶ He was also the entomological double of Edgar Allan Poe: while Poe spent a year during his 1827–1829 enlistment in the army on South Carolina’s Sullivan’s Island and eventually set his insect-oriented short story “The Gold-Bug” on that island, Smyth had his “home as a youth” in “this ... locality” and had engaged in “insect-collecting experiences” on

the island.²⁷ According to one source, “at a young age, probably in his early teens, Smyth was sailing his boat among the barrier islands ... off the South Carolina coast, where he collected insects At age 15, he composed a very detailed folder illustrating butterflies and moths of the Carolina coast,” and he then “entered Princeton University at age 16.”²⁸ Smyth’s 1910 *Sewanee Review* essay argues that the beetle for which Poe titled his story was a welded-together creation, a conglomerate of four different species of beetles with which Poe would have been familiar on the island. The main template species for Poe’s bug, Smyth claims, was *Callichroma splendidum*, which Smyth first sighted on an island adjacent to Sullivan’s, and which Smyth attracted and captured, after noting its fondness for the sap of live oaks, by “anoint[ing] tree trunks” with “a mixture of stale beer, rum, and brown sugar.”²⁹ Whatever readers may make of Smyth’s youthful and lifelong dedication to capturing, killing, and taxonomizing insects, it is difficult to read of his spirited anointing of tree trunks without admitting that his was a *passionate immersion*. Borrowing this term from Anna Tsing, the multispecies studies scholars Thom van Dooren, Eben Kirksey, and Ursula Münster have discussed passionate immersion as involving “attentive interactions with diverse life-ways. Beyond viewing other creatures as mere symbols, resources, or background for the lives of humans, scholars in multispecies studies have aimed to provide ‘thick’ accounts of the distinctive experiential worlds, modes of being, and biocultural attachments of other species Immersion in the lives of the awkward, the unloved, or even the loathed is very possible.”³⁰ Notably, Smyth saw in Poe a mode of passionate immersion allied with his own, pointing out that “Poe was not ignorant of nature: on the contrary he was more than ordinarily alive to it; for it is known that he was a conchologist and that he wrote the text for an illustrated work on that subject.”³¹ Conchology, or the study of mollusk shells, is not entomology, but Poe was indeed passionately immersed in the study of shells, as he opened his handbook’s introduction with a salvo against writers who “decry [conchology] as frivolous or inessential” and “most unjustly assail ... the science itself.”³² His stance here, of course, resembles the entomologist’s defense of entomology against naysayers who see insects as too small or alien or loathed to merit study—a tradition that has been ongoing since the days of Pliny the Elder.

If in the early twentieth century Smyth was an entomological interloper appearing in a literary journal, the US-born and Australia-based author and translator Tiffany Tsao was, during the early twenty-first century, a literary interloper in a journal of entomology. In fact, whereas Smyth published an entomologist’s perspective on Poe’s “The Gold-Bug” in *The Sewanee Review*, Tsao, while completing a PhD in English at UC-Berkeley, published a literary critic’s take on “The Gold-Bug” in the *American Entomologist*.³³ This was the first of four brief essays hovering around literary-entomological exegesis which Tsao published in the journal. And taken together, Tsao’s four *American Entomologist* essays might be viewed as prefatory to her subsequent insect-heavy speculative fiction trilogy, the Oddfits series, which saw its first and second installments appear in 2016 and 2017, while its third installment is currently with

an agent.³⁴ Within the series, present-day and this-dimensional Singapore becomes readers' and characters' portal to a nether-dimensional version of the planet Earth called the More Known World. In the More Known World, mosquitoes are a main form of life, having evolved into various forms of mosquito-kind from an "ancestral mosquito form."³⁵ Readers of the series get an early glimpse the More Known World's mosquitoes in the first book, *The Oddfits*, when one of the two main characters, Murgatroyd Floyd, walks into a convenience store and is invited by one of the attendants to go through a portal to visit the More Known World and "feed" the attendant's "pets."³⁶ Murgatroyd goes alone on this errand into the other dimension and once there realizes that the attendant's pets are mosquitoes kept in a glass tank—and that he is supposed to feed them by letting them suck blood from his own arm. Wary, but game, Murgatroyd flips open a circular panel and inserts his arm into the tank. As he watches them, he at first believes "each mosquito ... was completely ignorant of the fact that this arm was attached to a larger sentient being staring at them in wonder from outside their glass enclosure." But the longer he looks at them, "the less they appeared a giant, indistinguishable mass. He could pick out individuals now, the delineations of veins on each wing, the contours of their abdomens swelling slowly with his blood Strangely enough, he felt as if he really was bonding with them. He felt an affection for each of them."³⁷ Here, we move beyond thinking of insects as a homogeneous mass of bugs, and beyond thinking like Smyth of taxonomizing insects according to species. Rather, with Tsao's Murgatroyd, we glimpse individual insects as *individual* insects.

In the second volume of Tsao's trilogy, Murgatroyd and the book's other main character, Ann, are exploring and cataloguing part of the More Known World that was originally settled by a group of Pacific Islanders who centuries ago, during an oceanic expedition, accidentally slipped into this alternate dimension and found themselves on an island within an enormous lake. Chapter 10, republished here, begins with Murgatroyd and Ann on the shores of the lake, which is teeming with enormous mosquitoes, or bovquitoes: "broad backed and burly, with bulging femurs and thick bushy palps. Each one was the size of a soccer ball and had a proboscis as thick as a sewing needle."³⁸ Murgatroyd contemplates the great number of "mosquito-base life forms he ... [has] encounter[ed] in the More Known World," recalling a catalogue of them and finally thinking in awe: "*There is too much.*" At the same time, and amid the same burly mosquitoes, Ann is also struck by "how unfathomable it all was, the height and depth and breadth of the universe and everything in it." She says what Murgatroyd has only thought: "*There is too much.*"³⁹ As they did with Murgatroyd in the first book, the mosquitoes inspire a disruption of species-thinking, a disruption of the cataloging impulse, which, as I have commented elsewhere, resonates with the Saint Lucian poet Derek Walcott's musings on the arrogance of Old World botanists giving names to unknown plants. Perhaps the More Known World is *more known* for being as-yet uncatalogued.⁴⁰ Whatever the case, Murgatroyd and Ann go on to find that the humans in this corner of the More Known World call the mosquitoes *chickens* and indeed eat

them as if they were chickens.⁴¹ Furthermore, if the humans of the enormous lake were to create a map, or a forged map, they would likely draw it on the massive wings of their endemic mosquitoes—the humans here use these wings like paper or vellum.⁴²

What if you woke up one day and were one of the mosquitoes loved individually by Murgatroyd? What if you woke up and were a mosquito being killed by a human so the human could make a notebook or a forged map from your vellum-like wings? What if you were a cockroach who woke up and realized you had metamorphosed into a combatant in the US military, a fighter in the war on terror that has been ongoing since the attacks of September 11, 2001? Renisa Mawani's "Insects, War, Plastic Life" invites us to consider this latter metamorphosis. Mawani's chapter first appeared in the collection *Plastic Materialities*, which, as explained by the volume editors, takes up the French philosopher Catherine Malabou's "signature concept of *plasticity*" and asks contributors to reflect on a question: "What intellectual directions might Malabou's thinking about change, metamorphosis, and destructive plasticity provide in our attempts to disrupt [contemporary neoliberal structures]?"⁴³ In their introduction, the editors describe Malabou's notion of "the plasticity of form"—it has the "character of metamorphosis" and is "repeated throughout [Malabou's] work as the tripartite motif of plasticity": "the giving, receiving and exploding of form." This plasticity of form "is simultaneously resistant to and open to change and capable of annihilating itself."⁴⁴ Referring to specifically to Mawani's chapter, the editors ask: "Does the plasticity of being offer a means to deconstruct the anthropocentrism of our episteme ... ?"⁴⁵

Taking up insect-oriented questions that converge with Tsao's Oddfits series, Mawani focuses on insects' plasticity or ability to mutate and metamorphose (along the lines, perhaps, of the mosquito's extensive evolutionary tree in the More Known World) but also points out that one of the entities that has been most interested in both instrumentalizing this insect plasticity and working with insects as individuals has been the US military. Mawani explains: "Specifically, I conceptualize plasticity as a set of deep entanglements of life-forms and forms of life as evidenced in the growing significance of insects globally. Approaching insects as plastic life, I consider how their ability to mutate and reinvent new forms has been absorbed and integrated into a global biopolitical regime integral to the futurity of human and nonhuman life and death."⁴⁶ Specifically, in part two of her essay, Mawani conceptualizes insects vis-à-vis the US military as "not yet 'companion species' ... but what I call 'companions of war.'" She cites Jeffrey A. Lockwood's *Six-Legged Soldiers: Using Insects as Weapons of War* (2010) and other sources, reporting: "[A]s a result of their plasticity, various types of insects have been harnessed as potential agents of surveillance enlisted to protect Western ways of life ... While the olfactory senses of honeybees are being trained to locate dangerous chemicals, including those found in landmines, snails and cockroaches are becoming 'animal/machine hybrids,' experiments aimed at harnessing their natural sensors and energies in pursuit of microsurveillance."⁴⁷ In view of Mawani's discussion of insect plasticity, the *Plastic Materialities* editors qualify any easy stance regarding Malabou's signature concept: "[Insects] have become a dispositive

incorporated into other discourses and technologies of global security. Plasticity that runs through all forms of life emerges, then, as deeply ambivalent: both liberatory and subjectifying.”⁴⁸ Thus the insect chews a wormhole into Malabou’s plasticity.

For Monique Allewaert, the insect chews a hole in the Enlightenment, and from the Enlightenment through centuries of paper strata to the page of our present day. Author of a handful of significant insect-oriented essays over the past several years, Allewaert is currently completing a book titled *Luminescence: Insect Knowledge, Power, and the Literary, 1700–1814*, which “explores how West Indian plantation colonies’ inadvertent proliferation of insects became central to the cultural productions of enslaved, free black, indigenous, and subaltern white stakeholders.”⁴⁹ She has discussed this project—with its focus on insects’ ubiquity and hence centrality to colonial knowledge production and aesthetics—as tracing “a minoritarian Enlightenment tradition that can be put into productive relation to twenty-first century environmentalism, politics, and aesthetics.”⁵⁰ We glimpse this trans-Enlightenment wormhole in Allewaert’s 2017 award-winning article “Insect Poetics: James Grainger, Personification, and Enlightenments Not Taken,” which discusses the Scottish-born poet and physician James Grainger’s West Indian neogeorgic poem *The Sugar-Cane* (1764), focusing specifically on this poem’s book 2, which Grainger regarded as the poem’s centerpiece and which Allewaert suggests may have had the poet’s special esteem “because of its account of massing tropical insects.”⁵¹ The article argues that “book 2 of *The Sugar-Cane* oscillates between insectophilia and insecticide,” implicating “the poem in two irreconcilable modes of conceiving personification,” namely, *metropolitan personification* and *colonial personification*. In Allewaert’s argument, the tension between these two modes of personification introduces “a split within the metropolitan Enlightenment’s colonial project,” marking up “outré aesthetics” and “other Enlightenment trajectories” that “have not been visible and were, consequently, routes not taken,” and thus routes that “remain in potential.” Of these trans-Enlightenment and transtemporal wormholes, Allewaert suggests: “They might be useful trajectories for theory to travel now as it explores relations to the Enlightenment that reorient us in the present by allowing us to stay within its line as we build alternatives to the subjugations on which the metropolitan Enlightenment depended.”⁵²

Though Allewaert’s 2017 article does not take up insects’ literal creation of wormholes, the archive-eating power of insects is a concern in her larger study, as reflected in a “prolegomenon for the book” that she published in 2021.⁵³ In the prolegomenon, we have references to “roaches nested in books and archives they devoured” and to the “enslaved persons ... tasked with hand-cleaning ... libraries ... and archives of the bugs proliferating in them.”⁵⁴ We hear of a St. Dominguan colonist writing “a 1788 dissertation on the threat insects posed to colonial libraries and archives,” and we are confronted with the prospect that insects “could make the libraries and archives that colonists tried to produce into piles of rot.”⁵⁵ And yet for Allewaert the insect is not a destroyer of knowledge but a maker of outré knowledges,

of insect knowledges, and of human-meeting-insect knowledges. She tells of a moment at the French Archives Nationales in Aix-en-Provence while she was researching the eighteenth-century Haitian Maroon leader François Mackandal, who prophesied he would evade final capture by white colonial authorities by becoming an insect.⁵⁶ While she researched, “a crushed bug ... fell from an archival manuscript,” and for her it was as if a wormhole running from the eighteenth century to the present had opened up: “The presences swarming through the archive reverberate in this fragment that tumbled from it, almost as though Makandal’s insect passage [or metamorphosis] had tunneled through the archive to emerge dried but still real in twenty-first-century France. And yet even if this was a colonial bug from 1758, this insect’s presence was occasioned by and occasioned many absences, not least among them the lives and artistry of the Black men and women whose murder produced this particular archive.”⁵⁷ Whereas Raffles reminds us of the sheer thereness of the insect, Allewaert reminds us of the wormhole as *a hole*, a sheer absence, and a conveyor of an absence—the Black and Indigenous lives that colonialism and its archive have depended upon and sought to erase.

Human–Insect Co-Becoming

Together, Smyth, Tsao, Mawani, and Allewaert bring focus to the insect as the borer of transnational wormholes that are transpatial, transtemporal, and transdisciplinary, facilitating the thinking of America in the world and American Studies in a transnational frame. Smyth’s passionate immersion opens wormholes between literary study and science, as well as literary setting and the geography, including flora and fauna, of the setting’s material American referent. Tsao’s wormholes take us to speculative dimensions and toward speculative thinking on insects in which swarms resolve into individuals, in which humans behold the granularity of coexistence with other beings as individuals beyond and prior to species. Within the context of Mawani’s essay, a plasticity courses through all forms of life, and an insect bores through that plasticity, creating a hole which, when viewed from one side, frames plasticity as liberatory, and which, when viewed from the other side, frames plasticity as subjectifying. Finally, for Allewaert, the insect bores a hole from the Enlightenment to an outré Enlightenment and from there into the twenty-first century. These tunnels course through the world and America in the world.

Clifford Geertz once described his signature notion of *thick description* as “trying to read ... a manuscript—foreign, faded, full of ellipses, incoherencies, suspicious emendations, and tendentious commentaries.”⁵⁸ If so, then the manuscript of culture that we are trying to read is a human-insect creation—perhaps paper, perhaps vellum, perhaps mosquito-wing, perhaps a shuffling of them all. And its foreignness, fadedness, ellipses, incoherencies, emendations, and commentaries are to a large extent constituted and mediated by wormholes of human-insect co-becoming.

Notes

- ¹ For a discussion of archeologically verified pre-Columbian Viking presence in the Americas, see Anne Stine Ingstad, *The Discovery of a Norse Settlement in America: Excavations at L'Anse aux Meadows, Newfoundland, 1961–1968* (Oslo, Norway: Universitetforlaget, 1977).
- ² For a discussion of early printed maps based on geographical information resulting from Columbus's journeys, see Magdalena Peszko, "Columbus—Mapping the World," *Maps and Views Blog*, British Library, 20 May 2020: <https://blogs.bl.uk/magnificentmaps/2020/05/columbus.html>.
- ³ The quote is from William W. Fitzhugh, "A Saga of Wormholes and Anatase," *Science* 307 (4 March 2005): 1413.
- ⁴ For an overview of the importance of wormholes within the discussion, and also regarding the purported forger, see Fitzhugh, "A Saga of Wormholes and Anatase," 1413–14.
- ⁵ R. A. Skelton, Thomas E. Marston, and George D. Painter, *The Vinland Map and Tartar Relation*, foreword by Alexander O. Vietor (New Haven, CT: Yale University Press, 1965), v.
- ⁶ Skelton, Marston, and Painter, *The Vinland Map*, 3.
- ⁷ George D. Painter, quoted in Kirsten A. Seaver, *Maps, Myths, and Men: The Story of the Vinland Map* (Stanford, CA: Stanford University Press, 2005), 140.
- ⁸ Mike Cummings, "Analysis Unlocks Secret of the Vinland Map—It's a Fake," *YaleNews*, 1 September 2021: <https://news.yale.edu/2021/09/01/analysis-unlocks-secret-vinland-map-its-fake#:~:text=The%20analysis%20revealed%20that%20a,Library%2C%20which%20houses%20the%20map>.
- ⁹ Seaver, *Maps, Myths, and Men*, 142.
- ¹⁰ Charles W. Misner and John A. Wheeler, "Classical Physics as Geometry: Gravitation, Electromagnetism, Unquantized Charge, and Mass as Properties of Curved Empty Space," *Annals of Physics* 2 (1957): 573. On the term's historical use regarding books and theoretical physics, see "wormhole," *OED Online* (Oxford University Press, September 2022), <https://www.oed.com/view/Entry/230297?redirectedFrom=wormhole&>
- ¹¹ Gaston Bachelard, *The Poetics of Space*, trans. Maria Jolas, foreword Mark Z. Danielowski, intro. Richard Kearney (New York: Penguin, 2014), 174. Hugh Raffles uses this quotation as the epigraph for his book *Insectopedia* (New York: Pantheon, 2010).

- ¹² Christopher Hollingsworth, *Poetics of the Hive: The Insect Metaphor in Literature* (Iowa City: University of Iowa Press, 2001), 29, xx–xxi.
- ¹³ Eric C. Brown, “Introduction: Reading the Insect,” in *Insect Poetics* (Minneapolis: University of Minnesota Press, 2005), ix, x, ix.
- ¹⁴ Brown, “Introduction,” ix.
- ¹⁵ Raffles, *Insectopedia*, 3.
- ¹⁶ Brown, “Reading the Insect,” ix.
- ¹⁷ Patrick Schultheiss et al., “The Abundance, Biomass, and Distribution of Ants on Earth,” *PNAS* 119, no. 40 (2022): <https://www.pnas.org/doi/10.1073/pnas.2201550119>.
- ¹⁸ On arts of attentiveness and passionate immersion, see Thom Van Dooren, Eben Kirksey, and Ursula Münster, “Multispecies Studies: Cultivating Arts of Attentiveness,” *Environmental Humanities* 8, no. 1 (May 2016): 1–23.
- ¹⁹ Donna Haraway, *When Species Meet* (Minneapolis: University of Minnesota Press, 2008), 4.
- ²⁰ On the estimated number of insect species, see Nigel E. Stork, “How Many Species of Insects and Other Terrestrial Arthropods Are There on Earth?” *Annual Review of Entomology* 63 (2018): 31–45.
- ²¹ Ellison A. Smyth, Jr., “Poe’s Gold Bug from the Standpoint of an Entomologist,” *The Sewanee Review* 18, no. 1 (Jan. 1910): 67–72.
- ²² Tiffany Tsao, *The More Known World* (Seattle, WA: AmazonCrossing, 2017), 122–40.
- ²³ Renisa Mawani, “Insects, War, Plastic Life,” in *Plastic Materialities: Politics, Legality, and Metamorphosis in the Work of Catherine Malabou*, ed. Brenna Bhandar and Jonathan Goldberg-Hiller (Duke University Press, 2015), 159–87.
- ²⁴ Monique Allewaert, “Insect Poetics: James Grainger, Personification, and Enlightenments Not Taken,” *Early American Literature* 52, no. 2 (2017): 299–332. Duncan Faherty, Martha Elena Rojas, and Jordan Alexander Stein, “Richard Beale Davis Prize for 2017: Monique Allewaert and Mary Caton Lingold,” *Early American Literature* 54, no. 1 (2019): 9–11.
- ²⁵ Thanks to Tsao, Mawani, and Allewaert for their support in republishing these pieces. Thanks also to Kerin Ogg, Intellectual Property Coordinator at Duke University Press, for facilitating the republication of Mawani’s chapter. And for facilitating the republication of Allewaert’s essay, thanks go to Marion Rust, editor of *Early American Literature*, and John McLeod, Chief Operating Officer and Director of the Office of Scholarly Publishing Services at the University of North Carolina Press.

- ²⁶ For Smyth's biography, see "Ellison A. Smith," *Banisteria* 11 (1998): 52–56: http://w.virginianaturalhistorysociety.com/banisteria/pdf-files/ban11/Ban_11_Ellison_Smyth_biography_Mitchell_Kosztarab.pdf.
- ²⁷ Smyth, "Poe's Gold Bug," 67–68.
- ²⁸ "Ellison A. Smyth," 52.
- ²⁹ Smyth, "Poe's Gold Bug," 70.
- ³⁰ Van Dooren, Kirksey, and Münster, "Multispecies Studies," 6.
- ³¹ Smyth, "Poe's Gold Bug," 67.
- ³² Edgar Allan Poe, *The Conchologist's First Book: A System of Testaceous Malacology, Arranged Expressly for the Use of Schools*, 2nd ed. (Philadelphia, PA: Haswell, Barrington, and Haswell, 1840), 6.
- ³³ Tiffany Tsao, "Librarian! There's a Fly in My Book! 'The Inscrutable Insect.'" *American Entomologist* 51, no. 2 (Winter 2005): 198–99. While this essay discusses insects that appear in several pieces of literature, it devotes most of its attention to Poe.
- ³⁴ Tiffany Tsao, "Librarian! There's a Fly in My Book! Alas, Poor Dipteran! I Knew Him Well," *American Entomologist* 52, no. 2 (Winter 2006): 222; Tiffany Tsao, "Librarian! There's a Fly in My Book! 'Sympathy for the Weevil,'" *American Entomologist* 53, no. 2 (Winter 2007): 73; Tiffany Tsao, "Librarian! There's a Fly in My Book! 'Keen Eye for the Insect,'" *American Entomologist* 54, no. 1 (Spring 2008): 14–15. The first in her trilogy is titled *The Oddfits* (Seattle, WA: AmazonCrossing, 2016), the second book is titled *The More Known World*, and the third book is titled *The Disordered Spring*. On the third book, see @tiffanytsao, *Instagram*, 27 June 2022. Insects also play an important role in Tsao's novel *The Majesties* (New York: Atria, 2020).
- ³⁵ Tsao, *The More Known World*, 124.
- ³⁶ Tsao, *The Oddfits*, 202.
- ³⁷ Tsao, *The Oddfits*, 205.
- ³⁸ Tsao, *The More Known World*, 122.
- ³⁹ Tsao, *The More Known World*, 124–25.
- ⁴⁰ Brian Russell Roberts, *Borderwaters: Amid the Archipelagic States of America* (Durham, NC: Duke University Press, 2021), 37.
- ⁴¹ Tsao, *The More Known World*, 133–34.

- 42 In the chapter republished here, we see a “notebook” kept on “an iridescent veined material” that turns out to be mosquito-wing; Tsao, *The More Known World*, 128, 131.
- 43 Brenna Bhandar and Jonathan Goldberg-Hiller, “Introduction: Staging Encounters,” in *Plastic Materialities: Politics, Legality, and Metamorphosis in the Work of Catherine Malabou* (Durham, NC: Duke University Press, 2015), 1, 2.
- 44 Bhandar and Goldberg-Hiller, “Introduction,” 4.
- 45 Bhandar and Goldberg-Hiller, “Introduction,” 2.
- 46 Mawani, “Insects, War, Plastic Life,” 161.
- 47 Mawani, “Insects, War, Plastic Life,” 168.
- 48 Bhandar and Goldberg-Hiller, “Introduction,” 26.
- 49 “Professor Monique Allewaert Awarded Fellowship at the Stanford Humanities Center,” English Department, University of Wisconsin–Madison 6 July 2022: <https://english.wisc.edu/2022/07/06/professor-monique-allewaert-awarded-fellowship-at-the-stanford-humanities-center/>.
- 50 This description of Allewaert’s book is drawn from her page with the Trowbridge Initiative in American Cultures at The University of Illinois at Urbana-Champaign: <https://trowbridge.initiative.illinois.edu/2019/10/01/monique-allewaert/>. In addition to “Insect Poetics,” republished here, see also Monique Allewaert, “Super Fly: François Makandal’s Colonial Semiotics,” *American Literature* 91, no. 3 (Sept. 2019): 459–90; and Monique Allewaert, “Insect Knowledges, Power, and the Literary,” *American Literary History* 33, no. 3 (Fall 2021): 460–480.
- 51 Allewaert, “Insect Poetics,” 299.
- 52 Allewaert, “Insect Poetics,” 302–03.
- 53 Allewaert, “Insect Knowledges,” 461.
- 54 Allewaert, “Insect Knowledges,” 460, 462.
- 55 Allewaert, “Insect Knowledges,” 463, 476.
- 56 For background on Mackandal’s prophecy, see Allewaert, “Super Fly,” 461.
- 57 Allewaert, “Insect Knowledges,” 470.
- 58 Clifford Geertz, *The Interpretation of Cultures* (1973; reprint, New York: Basic Books, 2000), 10.

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