

THE ECSTASY OF ALFRED RUSSEL WALLACE

By Daniel Mason

I wrote a letter to [Darwin] in which I said that I hoped the idea would be as new to him as it was to me, and that it would supply the missing factor to explain the origin of species. I asked him if he thought it sufficiently important to show it to Sir Charles Lyell, who had thought so highly of my former paper.

—A.R.W., *My Life*

He was a man entranced by life's variety. As a child, he had collected—fossil, flower, beetle, stone—and it was as a collector that he would come to understand his purpose. Forced by his father's debts to abandon school in his thirteenth year, he learned from what he could gather: broadsheets and belemnites, discarded primers, Milton and *Tom Jones*. Let the great men of Oxford and Cambridge proceed with their philosophies. No: he was not one for theory. The machinations of a God with the whimsy to make birds of paradise, place hearts on the left and twist seashells to the right—this was beyond his ken. But the search! The search was his calling. Hadn't a phrenologist told him he would always be seeking? Of the twenty-seven brain organs, he had large protuberances in *Ideality* and *Wonder*. When he contemplated nature and

all her permutations, it filled him with an ecstasy that at times felt like lust.

To Samuel Stevens, his agent in London, he sent his collections, destined for cabinets of curiosities and municipal museums, and from Stevens came the means to finance his expeditions. From Wales he left for the River Amazon, where bees entangled themselves in his beard and his legs erupted with bites of the *pium*. In Barra, he hypnotized street urchins. In the slack-water lagoons at São Gabriel, pink dolphins encircled his boat. Ants attacked his bird skins, with a preference for the eyes. Those specimens he wished to keep whole he bottled in cane liquor, and well into his old age, when he thought of life and its vast diversity arrayed, it smelled to him of spirits. By the time he returned to England at the age of twenty-nine, he had endured the death of his brother, eight bouts of malaria, the destruction of his collections in a fire on the Sargasso Sea. To such misfortunes he would add the general indifference of his homeland to his discoveries, his dismissal as a "bug collector" and a "species man." He swore he would never travel again. In March of 1854, he left once more, for the Malay Archipelago, on a steamer of the P & O Line.

If, in his letters to his mother, he wrote joyfully of where he went, his physical travels were but a faint trail

through the vastness of his wonder. Whether he expected great revelations in his early collections, he did not know; the collections seemed an end in themselves, the consequences of which he did not consider until the consequences seized him. When he turned, at last, to theory, one thing was clear: he did not intend to destroy faith; he intended to explain the shaping of a beetle's horns. Should faith fall in the process, he thought (and then thought about it no more), it was a matter for theologians to resolve.

And so he was unprepared for the magnitude of the epiphany, when it came, delivered as if by an angel, on that spectacularly warm, tropical spring morning in 1858. Indeed, they said he had the naiveté of a child: too trusting, too awed by others' greatness to know that he deserved greatness himself. There were hours when he thought: I know nothing. And there were other hours, chiefly at night, waking from dreams he didn't remember, that a different thought came: the idea, that beautiful burning idea, that recasting and refiguring and resculpting of the world, that idea burst forth from me, and me alone.

Later, back among Englishmen, he would say it came to him in a fit of

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fever. This was only part of the truth, but it was the answer he would give them, the only answer that would color that moment of illumination with symptoms they could understand.

For months he had been traveling, like a nomad, through the shattered volcanoes of the Archipelago: Celebes, Sarawak, Kalimantan. Monsoons greeted his arrivals. In Singapore, great cauldrons loomed on the decks of American whalers.

On Borneo, he shot oranges. His boat needed only to touch shore and he would vanish into the jungles with his net in his hand.

He traveled, as he always did, without rest, driven by the constant fear that there were species he would miss, forms and colors he would never know. Wracked by malaria, thin, exhausted, he could barely remain upright for the entirety of his meals, and yet, in the field, he moved with

the same alacrity as he had during his childhood days collecting in Wales: powered not by physical strength but by a momentum of mind, of wonder and joy, movement driven by movement itself, by the sun and heat and cold on his neck, the astonishment of the natural world unfolding. From life at sea, he had acquired the habit of rising early; from the rivers and countless portages, the conviction that one does not own what one cannot carry. In moments of reverie, he imagined his body light of all but the clothes on his back and the exquisite catalogue of his mind. He was thirty-four. To his mother he wrote, *I am running out of time.*

Bug collector, species man. It was fitting perhaps that the first fateful communication from Darwin came as a simple request for specimens of Malay domestic fowl. When that letter arrived, addressed from Down House, he could not believe it was real. Surely, he thought, it was a practical joke, played on him by a friend! It was only two years before the day that would inextricably link his name to Darwin, and yet it was beyond his wildest daydreams to think of the great man as a correspondent. He had been seventeen when he read *The Voyage of the Beagle*, and for his entire life, his impression of Darwin would remain that of a young boy for a hero. He had read all his works on barnacles.

He sent both a domesticated duck and a wild type from which the domesticated breed derived. And in a fit of boldness, he included musings on a question that had begun to occupy him; namely, the appearance of variations among species, about which he had written a single foray into theory, an essay penned on Sarawak, published in the *Annals*, and generally ignored. When at last, in Macassar, after months in the jungle, he received Darwin's reply, he opened it on the docks.

His hand trembled as he read, over and over again:

I can plainly see that we have thought much alike & to a certain extent have come to similar conclusions.

Tears sprang to his eyes. Again he read it, then folded it away and began



to walk back to the shore, stopping ten yards later to check his pocket and assure himself it was there.

I can plainly see that we have thought much alike & to a certain extent have come to similar conclusions. Did he recognize that the letter contained not only praise but a veiled intimidation? *This summer will make the 20th year since I opened my first notebook, on the question how & in what way do species & varieties differ from each other,* Darwin had written. *I am now preparing my work for publication.* If it was a warning, it was not one Wallace would heed. Like a boy infatuated, he felt his love could do no wrong.

And so, in Macassar, inspired, he wrote. On the natural history of the Arus, the Habits and Transformation of a species of *Ornithoptera*. From rotting jackfruits, he scraped beetles. He reviewed his notes on birds of paradise. Near the rugged territory of the Bugis, he watched rivers disappear into the earth. Brown snakes tangled in his net as he ruffled it through the leaves. It was summer. He sweated, bent his spectacles so they wouldn't slip from his nose.

Bug collector, species man. And yet now, something greater had begun to reveal itself to him. If as a boy he had sworn off theory, now, in the patterns of the insects that he pushed pin by pin into his boxes, he saw the effects of a grander principle at work, though what it was he did not know. He felt as he did when, walking through the jungle, he sensed the presence of another creature following in the shadows. A presence that vanished when he looked. At night he began to dream of a great generating machine, an engine, through which old species passed and new ones emerged.

Steadily he was making his way through the Archipelago, each hour ticking toward the night the angel would meet him on Ternate. Timor, Banda, Ambon. The islands among which he found himself in the early months of the year of his discovery were lush and forbidding, wracked by earthquakes, or, as he wrote: *tortured*. By now he was distracted by the immensity of his collections, mocked by their size and his inability

to explain how such diversity had come to be:

Butterflies—620 species.

Moths—2000 species.

Beetles—3700 species.

Bees and Wasps—750 species.

Flies—660 species.

Bugs and Cicadas—500 species.

Locusts—160 species.

Dragonflies—110 species.

On the island of Gilolo, the forests bloomed with scarlet *Ixora*. In an abandoned Portuguese fort, he met a Dutch corporal and quartet of listless Malay soldiers, with crises rattling as they rose from the stones. From a lean-to near the shore, he wandered into grass that waved high above his head. He watched mound-builders bury their eggs on the shore, noted mimicry among orioles and honeysuckers, shot a ground thrush with shoulders of azure. Of the blooms of *Ixora*, he wrote that God must hold a particular affection for the bees. His malaria returned (*this fever*, he wrote, *this ague, familiar friend*). Sick and miserable, he crossed the short channel to the island of Ternate, with its slumbering cone, where he sought to rest. Langsats and mangosteens ringed the town. In the ruins of the palace of the sultan, he waited for his fever to break.

If his fame would become inextricable from Ternate, he knew it was but a coincidence, for it was in São Gabriel on the Rio Negro that he heard the *ribeirinhos* speak of shape-shifters; on Kalimantan, in the mildewed library of the White Rajah that he read Ovid; and on Gilolo, there in the high grass, fever massing as a storm, that he thought of Malthus and of death, and once he thought of death, he could not escape her. He saw the trails limned with the carapaces of beetles, saw the strangling figs, saw rot, fragments of bone, shores of shattered coral, drying wrack, waves curling sea crabs, rolling fish onto the sand. The solution—that it was death that eliminates the weakest, selects varieties, and thus shapes the forms fittest for survival—was so simple and so beautiful that the moment he uncovered it, he could not believe that he, or any man, had ever thought anything else. He had been

moving toward this moment. But it was on Ternate that the answer came, possessed him, sliding into him like the bolt on a gun, and he rose feverish from his bed, carrying the vision before him (and how he could feel it, that beautiful idea in all its completion, that warmth in the recesses of his eyes), carefully, delicately, as if an insect he did not wish to crush, and he sat and he began to write:

The life of wild animals is a struggle for existence . . .

The whole field appeared in a single moment to Apelles, wrote Ficino, in another time and another place, and aroused in him the desire to paint. And so, pen gripped against his tremors, the bug collector worked, wrapped in blankets when struck by chill, then stripped bare against the heat inside him. Epiphany or fever, he later did not know. The night would be a blur, the sweat running in rivulets down his chest, his eyes burning with his own salt, his penis limp and damp on the cold slats of the rattan chair. He was not a religious man; he had heard too many creation myths to privilege only one. And yet he couldn't help think of the moment as anything but a visit by an angel, delivering inspiration from a world beyond his own. He was but a scribe. When he awoke the following morning and found the essay complete, delivered to him by that other, it did not occur to him to send it to anyone but Darwin.

He mailed the essay on March 9, 1858, in a Dutch schooner bound for Java. His letter accompanying it was short, his words deferential. The essay was titled "On the Tendency of Varieties to Depart from the Original Type," and sought to explain the *extraordinary modifications of form, instincts, and habits* of the natural world. With luck the letter would be in Darwin's hands in ten weeks, mid-May. And Darwin would respond directly, as he had up until that day, his reply arriving in Ternate as early as July.

Letter steaming toward London, he felt a great emptiness. He planned to return to the forest, but in the days that followed, he haunted the shore, watched the horizon in expectation, as if somehow the idea could vault seas.

When he could bear the wait no longer, he set sail in the *Hester Helena*, for New Guinea, hoping that the rhythm of collection would calm the running of his mind.

He landed at Dorey, on the northern coast. The island was vast and mist-shrouded. He had wished to escape the unbearable joy of his discovery, fleeing as one might flee a desire from which there is no deliverance. But everywhere he looked he saw the struggle for existence. He could not happen upon an insect without wondering how every trait had saved it from nature's fire. Even the most delightful forms and colors were shaded by the specter of death. *This daily and hourly struggle*, he wrote in his journals. And again: *this incessant warfare*.

In the darkness of the Papuan forest, he found deerflies with horns beneath their eyes. In the jungles he came across poachers of the prince of Tidore. He hunted tree kangaroos and the elusive cuscus. Wrapped in his reverie, he wandered without aim. He knew he was incautious, setting off into unfamiliar forests, unaware of the trail he followed and how he would return. But he heeded neither his good sense nor the imploring of his men. At night they pulled snakes from the rafters. Fever lit through the crew. Dysentery took away his boy Jumaat, whom they draped in white and buried in the sand.

In his second month, he fell and cut his ankle. The wound ulcerated. For a month he couldn't leave his shelter. In his best moments he watched butterflies settle on the windowsill. He strained his eyes to identify them, but they were too far away to see. He imagined them new species, escaping, perhaps never to be caught again. In his worst moments, he clawed his leg in pain and screamed.

His only consolation was the thought of his letter, which by now had surely reached London, had been offloaded from the steamship and was making its way toward Down House. He could see it, moving steadily through the teeming, fetid streets of that city, through the swarms of men, the droves marching past the postman who carried it, oblivious to the grace his bag contained. He imagined Darwin receiving it, alone. And alone, reading.

Boats passed in the distance: little praus and great Dutch schooners, warships bristling with guns. It was August by the time another ship anchored off Dorey, to return him to Ternate. When he arrived, he would have leapt to shore but for his ankle. Yes, said the harbormaster, looking up behind glasses empty of their lenses, there were packages awaiting him. But nothing from Darwin.

If his ankle still pained him, he no longer wrote of it. He was a man immune to solitude, and yet now he felt alone as he never had before. In his mind, his beautiful idea paced, as a caged tiger paces. To his housekeepers, a pair of Malay sisters, old girls with faces like walnuts, he confessed the agony of waiting, led them through his collections, speaking of Natural Selection in a mixture of Portuguese and Bahasa Malay. They were good Mahometans, he wrote, and when he asked *What made this plume, this armour? What made this lizard's skin?* they answered, *God is great*, to which he could agree, and *God is merciful*, which he would not countenance. Each morning, he rose early and went to the dock, to see if a ship had anchored during the night.

August passed.

These tortured islands. What had happened? By now, the response from Darwin should have arrived. Each day his worry deepened. His work stalled. Absentminded, he cut his palm prying mussels. The wind opened his unlatched shutters and spirited away his butterflies, his *Hestias*, his blues. Twice he upended the preserving arrack, until he was forced to buy from Chinese traders, who whispered how all Englishmen were drunks. There were, of course, reasons for a letter to be lost, countless disasters to befall a ship. But if so, he must act, and quickly. He could not risk waiting, lest the angel visit someone else. How many months had passed? He must write again.

And yet . . . And yet, a faint voice urged restraint. For if the letter *had* arrived? Crouching by the shore, he watched fishermen push kora-kora out to sea. He had heard of no shipwreck, no pirates. And since July, he had received responses to other letters he sent on that very same March day. Perhaps

NO COMMENT

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No Comment is the weblog of Scott Horton, a New York attorney known for his work in emerging markets and international law, especially human rights law and the law of armed conflict.

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the great man was ill or otherwise indisposed. If so, he must wait. He must not seem impatient, lest Darwin think him an overeager colleague and suspend correspondence out of fear of the responsibilities it might entail. With the housekeepers of Ternate, he told himself, the secret was forever safe.

There was another possibility, of course, which he began to fear more with each passing day. It was not that his letter had been lost but that it had been received. And if so, then only an idea so shameful or so beautiful could have driven their correspondence to a halt. By September, he knew something was terribly wrong. He must have written lines of such offense or ignorance as to leave the great man no choice but to sever contact. He had not kept a copy of his letter or the essay. As he tried to recall his words, they seemed to change, metamorphose, until the letter took a form so vile that he wished it lost beneath the seas.

Soon he was certain. Darwin, having read his letter of introduction, and finding it agreeable, had turned to the accompanying essay, surprised perhaps that he had been sent a draft rather than a published piece, and yet graciously granting that his correspondent (and briefly he had to scan the letter to remember the species man's name) was at the ends of the earth and thus without access to the journals of the grand societies. He began to read, only to find the ravings of a man in the fit of a fever. Bombastic, preposterous speculation, its logic victim to its author's ignorance: so incomplete, so rushed, so absurd as to destroy all previous consideration that he had for this younger man who had dared initiate a correspondence when he, Darwin, had written only requesting ducks.

Yes: Darwin had been generous to consider the thoughts of such an ingénue. But there were limits to generosity. Who was this young man again? Must he ask Lyell? Could he remember him, haunting the lecture halls, in the same suit day after day, smelling vaguely of a boardinghouse, never wearing a school tie? One cannot escape one's station. Hadn't Darwin written of a native, from Tierra del Fuego, raised in London, who had abandoned his English

manners and returned to the barbarism of his race? *I could not have believed how wide was the difference between savage and civilized man: it is greater than between a wild and domesticated animal.* This from *The Voyage of the Beagle*, which the bug collector had once loved so. It was, he realized, only a matter of time before Darwin and the Great Men of the academies would see him for what he was: the son of a bankrupt father, scavenger for hire, graceless in the parlor, nothing but a man with a net and the presumption to think he could be one of them.

Bug collector, species man. And yet, beneath these fears, the dim embers of his euphoria persisted, bursting forth at times to flame. Since his night of fever, the implications of his discovery had only grown. No longer was it simply the vastness of life that astounded him. Now he looked upon the world and what he saw was not life but life changing, accumulating flight and speed and color as nature culled the weakest, the slowest, the lesser-taloned: a force that had come rumbling toward this moment and would rumble on, destroying its infinity of forms and bringing forth that many more.

His thumbs turned violet from the skins of mangosteens, and his journals turned violet from his thumbs. He no longer washed. Through the markets of Ternate he wandered, restless, racing each morning to check the mails. Did he wonder what he must look like to other men? A creature possessed, a mind cargoed with a dream so beautiful that it would destroy them all, Genesis and Aristotle and Archbishop Usher. No, he had not erred. He could doubt it no more than he could doubt every single beetle, every bird, that he had collected on his journeys.

This was why Darwin could not respond. They were waiting for this solution, the good men of the Linnaean Society and the Royal Academy, and now this letter had come, postmarked from a village none had ever heard of, in the trembling hand of a young man half their age. *I have brought fire to their halls*, he wrote on pages stiff with arrack spilled, and then obliterated the words. The months that had passed—the excruciating days of heat and waiting, the

expectant staring at the horizon for the mail ship to appear, the dreams, the incessant repeating dreams of opening a letter again and again—this was the time that it was taking to burn, for the fire sent into their halls to burst into a conflagration, which would not stop until worlds were destroyed, not only Scripture and all old concepts of the species but (and this he knew, for he knew the beauty of the search) the entire purpose of Darwin himself.

If so, then he was waiting for the fire to find its tinder, for the Great Men to stand before the majesty of his discovery, to marvel. To marvel, and then, slowly, lifting themselves and staring out across their halls, to gather together and take it for their own. They knew (as did he) that such majesty did not befit a bug collector who had done his learning at the Mechanics Institute. He now understood why earlier Darwin had warned him, and so kindly. It was never his; it was his heresy to have ever thought so.

Then let it burn, he thought, stopping on the coralline shore, his pant legs rolled up, the breakers stirring over his ankles. Let it burn and let the ashes settle. Its time had come. As Copernicus tore us from the universe's core, so let them be the ones to bear man these new tidings. Let them destroy Scripture and let them build from it a new world, this Gospel of deerflies and tree kangaroos. He would go back to the jungle. Let them have their fame; he cared only for wonder, and to wonder he would return.

In September, with still no reply, he left for Gilolo. By then the letter from Down House was already at sea, somewhere in the Indian Ocean, its words complimentary if careful, hinting nothing at the devastation the young collector had caused, the changes he had set in motion. But he could not know this, that autumn, in the forests of Gilolo, where he collected an unusual variety of lory, previously unknown to him, ornamented in red and blue and green, and then, a few days later, a day-flying moth, *Coctyia*, a specimen that was not only very beautiful but extraordinarily rare. ■