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William Howarth

Earth Islands: Darwin and Melville in the Galapagos

A Thinking Path

In the fall of 1842, Charles and Emma Darwin plucked their family from the crowded environs of London and moved sixteen miles southwest to the village of Down, in Kent. "I shall become a Kentish hog," Darwin told his scientific friends, with great satisfaction. The new home was a rambling vicarage, a bit "oldish & ugly," Darwin noted, but it had a large well-treed yard and nearby fields that led to open walks on the Northern Downs. In Kent and Sussex, a down (from Old English *dun*, hill) is a dune composed of chalk, a fine-grained limestone that crushes easily. Once covered with old-growth forest, the Downs were later cleared for farming; Darwin's new landscape was lightly fringed with trees, but as smooth and rolling as any summer sea. An American visitor today might recall the prairies, with greater elevation, or the "palouse" country of buried dunes along the Idaho-Oregon border. At sunrise and sunset the backlit Downs most resemble islands, each mounded slope a gray tumulus in the green English countryside.

On the ground floor of Down House, Darwin set up a large study to hold his papers and collections, then began to write about his globe-circling voyage on the *HMS Beagle* in 1831-36. A man of routine habits and chronic indigestion, he soon established a daily ritual. After breakfast he walked through a back garden and across a pasture, planted in hay or clover. His journey followed a path, known as "the sand walk," that wound up and over the Downs, then descended through thick woods, before returning to Down House along a hedge-lined field. A single 40-minute circuit passed through varying scenes, from open and cultivated to tangled and wild, rising to a prospect of country before descending to the snug confines of garden and desk.

The purpose of this rite was to obtain exercise, to settle his dyspepsia (a problem ever since the *Beagle* voyage), and to ponder the day's writing. Darwin called his route "my thinking path," and it clearly stimulated his mind. Well-versed in the new geology of Cuvier and Lyell, he knew that to build

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the Downs, eons of shellfish must die and heap upon the sea floor, compact into beds of limestone, then lift, drain, and erode into softly rounded hills. Later volcanic processes scattered upon those hills an abundance of flint pieces, gray or black, and from this enduring quartz the early Britons made tools and weapons. Before each walk, Darwin stacked a few flints at the thinking-path entrance. After each circuit he knocked away a flint with his walking stick. Some days became a two- or three-flint walk as he pondered a question, treading the circuit, knocking away stones, until his mind and belly were composed enough to write.

This homely scene of the great naturalist pacing his way over countryside, brooding about eras come and gone, describes a work site as iconic as Freud's parlor couch in Vienna or Marx's table at the British Library. For many of his later readers, Darwin's "thinking path" is a metaphor for his ideas about natural selection and evolution. The path reflects a mind observing and probing the antitheses of nature and culture: going out and coming back, ascending and descending through shade and shadow, and encountering along the way bits of chalk and flint that evoke, then shape, ideas of great magnitude.

Ever since the Stoics marched in solemn discourse, the to-and-fro rhythm of walking, especially from home into field or forest, has served as a paradigm for associational thought: *solvitur ambulando,* as Augustine observed, to solve by walking. Romantic and Victorian authors often explored the meaning of travel, the moving body linked to a reflective mind and soul. From 1840 to 1860 Henry Thoreau also took daily walks in his New England township, reporting in his essay "Walking" that his sojourns resembled the parabolic orbits of comets, "thought to be non-returning curves." Thoreau also noted that both camels and humans ruminate as they walk. In Darwin's case, a daily march for health helped him to examine ideas about change in living forms and how that process first began.

Darwin's path describes how thought attains direction and purpose, passing through iterative cycles to form a connective sequence; and also how places like the Downs may shape a line of thought. The word *path* descends from Germanic *find* and *finthan,* to come upon, discover, so it signifies a course of learning, the line where memory travels—as in brains or computer files. A path links past and future, for it is a way created by ancestors but leading away from here and now. A path models intellectual method, following known tracks yet rambling across lots, and in the end returning home, bearing fresh ideas back to a familiar place. A path provides discipline, framing a task to

complete within bounds of time and space, marked by a stack of stones. These relations between mind and earth are reciprocal, just as landscape is *landschaft*, shaped land that reflects ideas—but also may resist them. Darwin chose Down House because it was quiet, a bargain, and attached to a profitable hay-field, but in time the Downs chose him: his land lay close to the North Downs Way, a foot-trail used in turn by Neolithic hunters, Roman legions, and medieval pilgrims. Chaucer's characters ride through the very landscape that Darwin walked, five centuries later.

In this essay I attempt to map some of the reciprocities of mind and place, by examining ways that particular locales stimulate origins and growth, memory and desire, fame and obscurity. As writers learn to navigate those experiences, places often direct their choices and literary productions. In a collection of essays entitled *Topographies,* J. Hillis Miller notes that because *topography* means place-writing, we cannot easily separate land from language. Yet land also exists apart from words, stubbornly silent in its reach and scale. Scientists and writers know that place matters; but humanists rarely look beyond a text. We know that every pair of eyes may see a place *differently*, yet why does that place also stir *similar* responses? Could a *genius loci* reside in places, appearing as we walk its paths, knocking at its stones? To consider that question I want to compare Charles Darwin with Herman Melville, two figures who had little in common except that both once visited the Galapagos Islands, an archipelago 600 miles west of Ecuador.

Going Out

Our knowledge of islands has emerged slowly, across many centuries of exploration and settlement, as people turned from using places to examining and protecting them. Early maps depict all continents as islands, open to entry, and many early navigators sailed from island nations, eager to escape their narrow confines. In *Problematic Shores: The Literature of Islands*, Diana Loxley argues that islands reflect an era of high imperialism, when English became a language of global conquest and authority. While the history of Ireland, the Caribbean, or the Philippines may verify her claim, I would suggest that islands also may embody the opposite of control and command, becoming a realm of uncertainty that evades the most stringent authority. We are still uncertain about which island Columbus first "discovered," and cartographers have not yet charted the exact length of the British coastline. In *The Fractal Geometry of Nature*, Benoit Mandelbrot grapples with that problem

and devises the fractal, a geometric pattern that approximates the shapes and surfaces of nature, especially the shifting lines where land and water meet.

All islands are strange. They appear at odd intervals, bits of solid in a fluid world, seeming to float yet firmly anchored to hidden depths. The Germanic word *island* means "land below" or "a thing on the water," and both signify visual eccentricity. No other landform lends itself so readily to the moldings of metaphor. Literally, islands are the visible peaks of hidden mountains, the backs of sunken chains and ridges, the tips of volcanic cones, still rising and erupting. Figurally, an island is a physical anomaly, marked by its difference from surrounding norms: groves of trees in grasslands, a kitchen counter, a cluster of cells, benign or malign. Geographers define islands as oceanic or continental, depending on proximity to land, and biogeographers theorize that islands generate new species, through physical isolation. Islands provide a haven for lifeforms, but also cut them off from ancestral DNA. The more isolated an island, the more singular or *endemic* its species will become. During the second great age of exploration, 1750 to 1850, naturalists repeatedly found endemic species on remote islands, especially those lying in the south Pacific.

The Galapagos may be the strangest Earth islands, because of their location. They lie directly on the Equator, at 90 degrees west, a nexus of longitude and latitude that makes every day there an equinox, half dark and half light. All year long the Galapagos sun rises at 6:18 am and sets at 6:18 pm. The sea there also moves in constant cycles. At the Galapagos converge two great gyres of warm and cool ocean current, the Humboldt rising from Antarctica, and the South Equatorial passing west. Together they meet a third stream, the Rio Guayas from Ecuador, pouring fresh Andean water into the Pacific salt. The mix of waters creates a vast feeding ground for marine and terrestrial life, while the alternating temperatures build currents and winds that sweep in all directions, north-south, east-west. Navigation is hazardous; boats make little headway, or are swept off course, hence early sailors dubbed the region "Islas Encantadas," Enchanted Islands. The name describes a world of spiraling tides, utterly unique species, and stark land forms.

The Galapagos archipelago is a ragged, 174-mile chain of volcanic cones and lava flows, strewn east to west along the Equator. The 19 islands and 42 islets fill 4,800 square miles, equaling the state of Connecticut—or about one-fifth of the county of Kent. Each island arose from eruption, a process still going on today as magma flows from fractures along tectonic plates. The Galapagos are young, about two to four million years as compared to twenty

million years for the Hawaiian chain. Most of the islands are low-lying, though some ridges rise high enough to make clouds and rain, which sustain grasses, shrubs, and trees in the highland regions. The shorelines are dry and scrubby, often coated with ropy or puddled lava that has cooled into hues of black, gray, or brown. Fresh water is scarce, so the plants and animals have evolved methods of filtering salt out of their daily provisions.

Human occupation of the Galapagos is recent, barely five centuries of contact with Indian, Spanish, and English visitors, who range from early hunters to pirates, whalers, convicts, émigrés, and other castaways. The island names reflect this history, shifting from Spanish to English in the 19th century, then back to Spanish when Ecuador resumed jurisdiction. Today the islands are inhabited by 20,000 residents, many of whom cater to an annual influx of 60,000 First World tourists, refugees from asphalt seeking eco-paradise. The number and variety of endemic species makes the Galapagos famous to a world that is fast losing its biodiversity. Tourists come because the animals appear to be so "tame," meaning they tolerate close approach and shutters snapping. In truth they are ever wild, wisely conserving their energy to deal with true predators or prey.

Charles Darwin called at the Galapagos in 1835 and Herman Melville arrived in 1841. Both men were in their twenties, on global voyages with similar agendas. Their principal work was to forage: Darwin remained a month to gather specimens and notes for the *HMS Beagle*, a ship outfitted for research but also secretly inspecting Spanish colonial defenses. Melville went ashore briefly to glean food and fuel for the *Acushnet*, a New Bedford whaler. Many vessels used the Galapagos for provisions as they fished the Offshore Ground, a region where whales gather in the warm months of November to March. Both men endured hot, dry weather, a circumstance that greatly affected what they saw and later recollected. Both then sailed farther southwest, Melville to the Marquesas and Darwin to Tahiti, before heading home.

Living far apart, not meeting nor reading each other, they both spent their lives brooding on those early days of South Seas travel. The Galapagos affected them differently, for in their writings the islands become two disparate places. Of course authors will take individual views; yet in several respects their accounts are also similar. That likeness suggests not "truth" or "reality," which are human perceptions, nor "political struggle," a social construct that varies in time, but physical autonomy, the bridge that connects land to mind. Ultimately minds take from a place only what it gives: Europeans entered the

South Seas for gold; in time the tropics gave back food, medicine, and taxonomy, the systematic naming of nature that led to environmental science. What distinguishes Darwin and Melville most clearly are their ways of naming, which arose from where and how they foraged, often in the same places.

Darwin wrote several immediate reports about his voyage, in letters and notes inscribed on board the *Beagle*. His journey allowed him to escape divinity school, a venue his father chose for him, and at first Darwin could not justify this act of apostasy. "It is utterly useless to say anything about the Scenery," he wrote his elder, "it would be as profitable to explain to a blind man colours, as to [a] person, who has not been out of Europe, the total dissimilarity of a Tropical view." The journey was an ordeal: crammed onto an 80-foot boat, sharing a tiny cabin with two mates, Darwin vomited constantly and lay in a stupor on the cabin table. He endured bad food, several bizarre accidents, yet still felt great curiosity and excitement. His father had branded him "an idle sporting man," because Charley Darwin preferred rat-catching in Shropshire to pursuing theological studies at Cambridge. But the five-year voyage matured him, and his "Tropical view" gave him a new profession. Homeward bound in 1835, he wrote to his sister:

> We have in truth the world before us. Think of the Andes; the luxuriant forest of the Guayquil [sic]; the islands of the South Sea & New South Wales. How many magnificent & characteristic views, how many & curious tribes of men we shall see.—what fine opportunities for geology & for studying the infinite host of living beings: Is this not a prospect to keep up the most flagging spirit?

This letter exuberantly inverts the solemn ending of *Paradise Lost*: "the world was all before them, where to choose/Their place of rest, and Providence their guide:/They hand in hand, with wandering steps and slow / Through Eden took their solitary way." Milton's lines are foreboding, as Adam and Eve pass into a fallen world, armed with equivocal knowledge. But to Darwin, knowledge is joyous: the world lies *before* him, with its mountains and views, its curious tribes of men, and its infinite host of living beings to study. While the First Couple advance fearfully, leaving a lost home, he faces a *prospect*, one that raises his spirits and expectations.

The next few years in England sustained his youthful optimism. Darwin married a cousin, Emma Wedgwood, heir to a pottery fortune in nearby industrial Staffordshire. He swung into five years of rapid literary production,

writing four volumes on the zoology and geology of the *Beagle* voyage, pausing only to move his family from London to Down. The most popular of these books featured his account of the Galapagos, presented in two editions (1839, 1845) and during that interval his ideas on evolution began to form. The labor of writing, research, and revision was like a circuit on his thinking path; through iterations his mind began to change. According to Mark Ridley, Darwin extensively revised the 1845 Galapagos chapter, "which grew by more than half." Species of finches he had collected (and misplaced) he now saw as endemic and radiating, changing beak forms as they adapted to eating seeds, insects, or flowers. That suggested a life force driven not by Divine design but random acts of survival. The religious implications were disturbing: England was in a ferment of evangelical revival, and his beloved Emma was a devout Christian who shrank from controversy. In revisions, he could only hint at the possible meaning of a new land with so many distinct species:

> The archipelago is a little world within itself, or rather a satellite attached to America, whence it has derived a few stray colonists, and has received the general character of its indigenous productions. Considering the small size of the islands, we feel the more astonished at the number of their aboriginal beings, and at their confined range. Seeing every height crowned with its crater, and the boundaries of most of the lava-streams still distinct, we are led to believe that within a period geologically recent the unbroken ocean was here spread out. Hence, both in space and time, we seem to be brought somewhat near to that great fact—that mystery of mysteries—the first appearance of new beings on this earth. (363)

Later he wrote that other islands had other species, all endemic and apparently distributed in geographic patterns. Perhaps they would prove to be only "well-marked races; but this would be of equally great interest to the philosophical naturalist" (382). These questions of species change and distribution would occupy Darwin over the next fourteen years, as he assembled his ideas on the process of natural selection.

If Herman Melville wrote an immediate account of his visit to the Galapagos, it has not survived. Most observers describe his trip by relying on "The Encantadas," sketches he wrote thirteen years later and from a perspective skewed by time and mood. His youth was troubled and vagrant: as a boy he enjoyed prosperity until it vanished in the panic of 1837, followed soon by his

father, who died of a stroke and left the family destitute. Melville sought a schoolmaster's post, looking in vain as far west as Galena, Illinois, and then went to sea, where he later claimed to find his Harvard and Yale. On the *Acushnet* he followed much of the *Beagle*'s course, sailing from the Azores to South America, down the South Atlantic coast, around Cape of Good Hope and up the Pacific side. As Leon Howard notes, the fishing was good at first but by November of 1841 the *Achushnet* had failed to take a whale for two months. The ship anchored for six days at Chatham's Isle (San Cristobal) and a crew went ashore to hunt tortoises, a source of fresh meat. Those few days may have been Melville's only time spent on Galapagos soil, under circumstances that were less than auspicious.

Five months later he reached the Marquesas, jumped ship to live with natives, then rejoined the frigate *United States* for a homeward cruise in 1843-44. In *Melville in the South Seas*, Charles Anderson notes that the ship library held copies of Darwin's 1839 writings on the Galapagos, "which must have aided Melville in organizing and classifying his own observations." That claim seems dubious in view of the decade that followed. At home Melville rose to early fame with his South Seas romances, *Typee* and *Omoo* (1846-47), books that deploy pagan sensuality to mock Christian piety. On the strength of his success he married Elizabeth Shaw, daughter of a prominent Boston jurist. In the next seven years he wrote five books, each longer, denser, and less appealing to his public: the romancer turned to bitter allegory, his scene shifting from Pacific isles to the streets of New York. His actual home was Arrowhead, a farm in the Berkshires of western Massachusetts, where he happily raised milk and corn, or so he told his publisher: "Do you want to know how I pass my time?–I rise at eight–thereabouts–& go to my barn–say good-morning to the horse, & give him his breakfast.(it goes to my heart to give him a cold one, but it can't be helped) Then, pay a visit to my cow –cut up a pumpkin or two for her, & stand by to see her eat it–for it's a pleasant sight to see a cow move her jaws–she does it so mildly and with such a sanctity."

The public did not receive his books with such equanimity. After the failures of *Moby-Dick* and *Pierre* (1850-52), Melville's stories and essays began to pay anxious scrutiny to the act of writing: "Bartleby the Scrivener" (1853) and "Cock-a-Doodle-Doo" (1854) pit silence against loquacity, struggles invariably leading to death. In December of 1853 he tried to launch a sea novel, taking a $300 advance from Harper's to write on "Tortoises or Tortoise-Hunting." Three days after receiving his check, a fire destroyed Harper's'

printing house in New York and its half-million dollar inventory of unbound books. Gone with the flames were many of his titles, which assured no income from backlist sales or reprints any time soon. This event was more than a fiscal crisis; it also meant that his decline as a popular author had accelerated.

Over the winter, Melville wrote not a novel but "The Encantadas or Enchanted Isles," ten travel sketches for *Putnam's Monthly Magazine* from March to May, 1854. Contrary to Darwin's belief in the islands' natural promise, Melville presents a dark view of cultural sterility:

> Take five-and-twenty heaps of cinders dumped here and there in an outside city lot; imagine some of them magnified into mountains, and the vacant lot the sea; and you will have a fit idea of the general aspect of the Encantadas, or Enchanted Isles. A group rather of extinct volcanoes than of isles; looking much as the world at large might, after a penal conflagration.
>
> It is to be doubted whether any spot of earth can, in desolateness, furnish a parallel to this group. Abandoned cemeteries of long ago, old cities by piecemeal tumbling to their ruin, these are melancholy enough; but, like all else which has but once been associated with humanity, they still awaken in us some thoughts of sympathy, however sad. (230)

This opening panorama depicts a land of exhaustion and empty, burned-out despair. Melville recalls extinct volcanoes, where all creation has ended, in a land that is abandoned, broken and isolated. His rhetoric is powerful yet naïve, for he knew little about geology. Volcanoes are never extinct, only inactive, and those in the Galapagos are young. Many eruptions have occurred in historic times, one as recently as 1998. Melville is not painting landscape but a self-portrait, and imagery is his mirror. The distant archipelago becomes an urban slum, a pile of cinders dumped in a vacant city lot, a penal conflagration and abandoned cemetery. The images reflect his current post in rural exile, writing works for a city that either scorned or burned them. The fire at Harper's had destroyed his unbound and unsold works, creating the literary equivalent of ashes dumped in vacant lots.

Melville reads the equatorial position of the Galapagos as static, the islands locked in space and time: "to them change never comes, neither the change of seasons nor of sorrows. Cut by the Equator, they know not autumn, and they know not spring; . . . The showers refresh the deserts; but in these isles, rain never falls" (231). Again, his rhetoric is sharply distorted. He may be

recalling the equal days and nights, but the Galapagos also have two distinct seasons, five months wet and seven months dry. Although in 1841 Melville saw only dry days, his 1854 text alludes to several published sources, three of which describe rains. He appears to construct the Equator as an equivocal zone, repeating terms used in *Moby-Dick* to describe a gold doubloon: "On its round border it bore the letters, REPUBLICA DEL ECUADOR: QUITO. So this bright coin came from a country planted in the middle of the world, and beneath the great equator, and named after it; and it had been cast midway up the Andes, in the unwaning clime that knows no autumn." Ironically, that coin also provokes its viewers to reveal their subjectivity.

"The Encantadas" paint the Galapagos as a living Hades, its surface burning with infernal fire and lined with grotesque reptiles: "the chief sound of life here is a hiss" (231). Melville's principal image is of "clinkers" or cinders, the stony burned-out remnant of a post-Edenic earth: "In no world but a fallen one could such lands exists" (232). Perhaps no mind but a despairing one could map so much futility. The mind of a poet, Shelley writes in *A Defense of Poetry* (1840), is "a fading coal which some invisible influence, like an inconstant wind, awakens to transitory brightness." Melville carries that logic to its dead end: the burnt clinker is an image of spent desire, exhausted talent, and spiritual dejection. His landscape is an inscape, capturing in all its geographic particulars the tangled aura of manic-depression. Melville suffered frequent mood disorders, especially in winter months. Although his outward behavior in early 1854 was calm, even genial, his Encantadas swarm with violent self-loathing, barely sublimated. The epigraphs are all from Spenser, brooding on injury and illusory fame. His islands are spell-bound, their crossed currents forever impeding navigation, and all living things on their parched, lava-blackened surface seem "malignly crumbled from ruddiness into ashes," like fruit the fallen angels consume in *Paradise Lost* (X, 560-70).

Before dismissing Melville as mad, we might recall that Darwin also had a mixed vision of the Galapagos. From reading Lyell's *Principles of Geology* (1830-33) and writing his own treatise on *The Structure and Distribution of Coral Reefs* (1842), Darwin learned that surface forms have deep foundations, visible only to a creative eye. He worked out his reefs theory, that they grow upwards from sinking bases, in his imagination, before making any direct observations. Hence he saw the Galapagos as new volcanic lands, still in formation. Where Melville sensed only extinction or stasis, Darwin imagined a place of origins and changes. Yet both writers say that Chatham Island (San Cristobal) is a

Plutonian, Hades-like world: Darwin writes that its black lava beach, buckled and rippled in stony waves, resembles "the cultivated parts of the Infernal regions." His captain thinks the shore "fit for Pandemonium," and both agree that it recalls the smoky English Midlands, like "the Iron Furnace of Wolverhampton or Staffordshire," cities that lay a day's ride from Darwin's boyhood haunts in rural Shropshire; he knew those factory towns from visits to his prosperous relatives, the progressive and energetic Wedgwood clan. While the industrial images are not flattering, they still portray an active, strenuous world of creation and invention, not a place worn out and dead. Although the Galapagos clearly suggest to both writers the iconography of strangeness, Melville appears drawn to Hades, while Darwin envisions a Peaceable Kingdom: "Reviewing the facts here given, one is astonished at the amount of creative force, if such an expression may be used, displayed on these small, barren, and rocky islands; and still more so, at its diverse yet analogous action on points so near each other."

Darwin also agrees with Melville that the animals on the Galapagos are bizarre anomalies. The marine iguana are "disgusting, clumsy Lizards," black as the lava rocks, and best called "imps of darkness." The great land tortoises "appeared most old-fashioned antediluvian animals, or rather inhabitants of some other planet." That reference to ancient flood, contradicting Lyell's geology, conveys Darwin's early uncertainty about the Galapagos. *The Voyage of the Beagle* (1845) was for him a middle passage, recalled ten years after his visit, but fourteen years before he proclaimed its full meaning in *The Origin of Species* (1859). In his earlier account, Darwin depicts a world that is both natural and industrial, with every species scrambling like Robinson Crusoe, using its energy and ingenuity to survive. (Because Alexander Selkirk may have marooned in the Galapagos, Darwin read a copy of Defoe's novel on the journey.) The Crusoe allusion highlights a key element in *The Voyage of the Beagle*, its observational zeal. Darwin actively explores, charting the range of his experiences, from Paradise to Hades. In order to gauge animal reactions, he pulls at iguana tails and rides upon a tortoise back, making daily experiments to see what they yield. In 1845 he had only begun to grasp what the Galapagos could mean: "Reviewing the facts here given, one is astonished at the amount of creative force, if such an expression may be used, displayed on these small, barren, and rocky islands; and still more so, at its diverse yet analogous action on points so near each other." Years spent in daily walking, reading, and writing would teach him more about creation; and what he learned was distressing.

Melville was also reviewing facts but through a darker lens, where he saw mostly loss and waste. In 1854 it had been five years since his last success, *White-Jacket*, and eight years since his early best-sellers. Since then he had written more experimental books, each earning less praise or sales. Readers were mystified, uncertain if the works were fact or fiction, rational or insane. Critics widely assumed that "behind every book there is a man, or rather, that there is a man in every book." So wrote Fitz Green-Halleck in *Putnam's Monthly Magazine* (1857), declaring Melville to be a genius yet too often unintelligible. Poe, Hawthorne, and Whitman often heard this response. If writings reflect their creator, then strange books must lack *character*, a state of virtue and worthiness. Of course readers took a similar view of the Earth, that its magnificent, intricate text must measure the character of a divine Author.

Melville harbored an opposite view, that truth is covert and caught in glimpses, when least expected or desired. His skeptical mind and symbolic imagination, nurtured on Renaissance poetry and drama, greatly appealed to later readers of Joyce and Faulkner; hence the Melville revival of the 1920s. That sensibility accounts for his description of the Galapagos tortoise, which has two sides, black on top and bright on bottom: we may hide one side yet both still exist. (Neither Melville nor Darwin knew that the tortoise has a torturous annual cycle, trudging down to the coast to breed, then up to the highlands to feed. Each twenty-mile journey is a four-month pilgrimage.) Melville argued that the visible world is only a surface, like the sea; one must dive to see its shapes and shadows, to learn if a larger design shapes them. Darwin agreed with that method; he examined surface forms to infer their hidden causes, as in his study of coral reefs, yet he reached different conclusions because his views were scientific while Melville's were religious.

That difference is apparent in "Sketch Third" of "The Encandatas," which describes an ocean pinnacle called Rock Redondo (Roca Redonda). Unaware that the rock is the tip of a submerged volcano, Melville calls it a detached campanile, the bell-tower of a ruined church. But he also notes a biological pattern: the rock swarms with birds that roost in layers "serially disposed in order of their magnitude" (242), gannets, haglets, jays, sea-hens, gulls, ranked like angels or senators, and above them fly the storm petrels, harbingers of impending change. The term *magnitude* (from *magnus*, great) draws on two signifiers, sense of place and angle of vision. Melville often depicts a vertical cosmology: heaven is above, the earth below, and his upward-gazing charac-

ters view the superior place with resentment. Although Darwin often notes in *The Voyage of the Beagle* that birds roost or nest to sustain feeding habits, Melville sees this spatial order as a malevolent hierarchy. In his islands, birds dive upon fish or infant turtles, sea lions battle for mates, species constantly prey on others or compete against their own. Darwin eventually calls such behavior natural selection, but in *Moby-Dick* Melville sees it as "horrible vultureism of the earth," a destructive voracity that holds all creatures in thrall, even the mighty whale.

Sketch Four, "A Pisgah View from the Rock," attains a higher point of view, as Melville describes climbing to the top of Rock Redondo. That feat must be fictive, for the 200-foot pinnacle is a sheer drop on all sides: "How we get there, we alone know. If we sought to tell others, what the wiser were they?"(244). The climb has its mock-epic dimensions, referring to Moses' ascent of Mount Pisgah, where he saw an unattainable Promised Land, and also to Satan's rebellious struggle upward to gain lost heights: "Much, thus, one fancies, looks the universe from Milton's celestial battlements." At the summit he looks west across the Pacific, its waves rolling toward Australia; and then to "the Burnt District" of the Galapagos. This allusion recalls western New York, a region scorched by Protestant revivalism in the nineteenth century. In differing ways, Melville and Darwin both opposed that evangelical movement, which focused on literal readings of Scripture.

Both young men faced disapproving fathers, and both rebelled by running away to sea. There they found second lives, gaining new visions to replace paternal values. Darwin's calling lay in rocks, plants and animals; a new way to see Creation. Melville discovered the indigenous people of the Pacific. In 1842 he deserted the *Acushnet* in the Marquesas to live with the Typee, a native tribe alleged to be "savage cannibals" by local Calvinist missionaries. The Typee proved to be gentle and peaceable, and these dark-skinned natives made Melville newly aware of the white repression he had escaped. His first romance, *Typee*, attacked Western cultural prejudice and offered a model of empathic observation that influenced modern anthropologists.

Typee was a best-seller for its *National Geographic* elements of tropical isles, fair skies, and nude brown girls. The text mixes lusty, sensual elements with sly digs at conventional piety. The Typee are polytheists, seeing many gods in every tree, rock, and cloud. Any object—a feather on the trail, a bone at the beach—is a sign for shamans to read. No event is meaningless, for humans reenact the rites that sustain the world. Missing from their beliefs are good and

evil, God and Satan, man and animals; the binary categories of Western monotheism, which hold that one Creator has shaped All. The Typee are holistic, linking separate elements into connective patterns. Darwin develops a similar cosmology in the Pacific, not from its people, who in his view are "man in his lowest and most savage state," but from the mountains, plains, and islands: ". . . who would not look at these last boundaries to man's knowledge with deep but ill-defined sensations?" What he and Melville separately sensed is how alien their island views would seem at home.

Melville glimpsed in Polynesia a way to read the world and also to write its stories. His literary method sharply contrasted with Darwin's daily meditative walks; instead, Melville shut himself away in closed rooms, obsessively working long hours without food or rest until others feared for his health and sanity. Often his prose took on incantatory, heaving pulses, beating time like waves against the shore, or raging and hammering against the very ideas he propounded. The method was paradoxical and self-destructive, and it explains Hawthorne's famous portrait of Melville's state of mind in 1856, after their walk along an English seashore, where water met sand:

> It is strange how he persists—and has persisted ever since I knew him, and probably long before—in wandering to-and-fro over these deserts, as dismal and monotonous as the sand hills amid which we were sitting. He can neither believe, nor be comfortable in his unbelief; and he is too honest and courageous not to try to do one or the other. If he were a religious man, he would be one of the most truly religious and reverential; he has a very high and noble nature, and better worth immortality than most of us.

A Stack of Stones

Hawthorne was half-right, for Melville's problems came from taking religion so seriously. The early nineteenth century was a time of rising prosperity, increasing knowledge, and religious zealotry. Both England and America enforced severe laws governing blasphemy, especially challenges to the nature of Creation. The faithful assumed that species were unchanging, and that any new forms came from a Creator, not from the competitive strife that Darwin and Melville saw in the Galapagos. The belief in divine creation also sanctioned a hierarchy of natural forms, from lowly to human beings, who stood high because they were the image of their Creator. This neatly self-

congratulatory system had begun to run afoul of South Seas discoveries. The earth was clearly far more ancient than Bible stories decreed, and evidence of progressive change, or "transmutation" of species, was apparent in fossils. Rather than risk censure from religious authorities, both men turned to private forms of writing: Darwin in a set of notebooks he kept from everyone, including Emma; Melville in his closeted prose, an allusive rhetoric that constantly hints at buried messages, ciphers of a code read only by intuition. He may also have hidden his bisexual longings, a legacy of the maritime years. The sense that surface and depth connected came to Darwin through geology and biology, forms of earthly inscription he would eventually read, in all their myriad detail, as "one long argument." Darwin and Melville thus shared a common hermeneutics, but they sharply differed on the issue of content.

Both rejected the Calvinist vision of human depravity and predestined history. In *Moby-Dick*, Captain Ahab concludes that the best way to explain good and evil is that God is both forces. Melville often imputed such heresies to people of color, who gave him a means of addressing racism. His dark characters (Queequeg, Pip, and the slaves in "Benito Cereno") are only apparent inferiors, who exact from their masters the retribution of death and destruction. In his stories of the 1850s, Melville frequently narrates through white figures of authority (the Wall street lawyer, Captain Delano, Captain Vere) who are prosaic, controlling and too rational for the pied nature of the world. They tell stories of self-defeat, another aspect of the frustrated pessimism Melville had begun to associate with literary endeavor. Darwin was more conflicted about race, abhorring slavery yet insisting that skin colors defined human sub-species, an idea now disproved by blood and genetic analysis.

Darwin spent the 1840s and 1850s living in studious comfort, supported by a generous family allowance. For field work he had the Kentish countryside, where he often spoke to farmers about their ways of planting fields and breeding stock. Artificial selection, the choosing of sires and dams for propagation, is the heart of husbandry, and Darwin began to see that natural selection works through similar choices, influenced by strength and numbers. Gradually, his *Beagle* notes on "transmutation" began to acquire direction and purpose. Like his daily walks, Nature is in a constant state of becoming. It develops along many paths, like a branching tree or a reef of coral. The engine of change is selection, and the motive for selection is competition. The Galapagos clarified this process, for their isolation promoted extremely rapid change in species variation and distribution. These steps took him several years, assisted by

reading Lyell, Lamarck, and Malthus; in 1844 Darwin wrote an essay on natural selection, but caution and fear of controversy held him back from publication. Instead he wrote long books on reefs and barnacles (1851-54), then in 1858 he learned that Alfred Russell Wallace, a gypsy naturalist in Malaysia, had arrived at a theory of development through natural selection. To avoid a fight over priority, they published joint papers in 1858; one year later, *The Origin of Species* appeared. Darwin's years of development were over, and writing had helped him elicit from a mass of particulars some large, encompassing principles. According to John Tallmadge, this journey was equally scientific and artistic: "Darwin arrives at the theory by synthesizing many disparate observations into a pattern of meaning."

The pattern of Melville's literary fortunes was steady devolution: *Typee* sold 10,000 copies, *Moby-Dick* only 3,000, and *Pierre* but 1,800. Increasingly he sensed his isolation and impotence, the burned-out clinkers of imaginative collapse. When he wrote "The Encantadas," his melancholy turned to bitter castigation. He used a pseudonym, "Salvator R. Tarnmoor," or Savior of the Mountain Pool—possibly a jibe at *Walden*, published that spring, for "Sketch Nine" mocks Thoreau in the figure of Oblerus, a hermit who raises a "degenerate patch of pumpkins" and turns his back to all visitors (275). All Melville recalled from his visit to the Galapagos was a blasted and burnt landscape, home to ravenous beasts and human castaways, like the Chola Indian woman in "Sketch 8," who sees her husband and brother drown. Their death scene is a dreamlike mirage, framed with branches, created by an invisible "scene painter," who may be Fate, God, or the Author. "Death in a silent picture; a dream of the eye; such vanishing shapes as the mirage shows" (264). Years go by, but Hunilla loses track of time because the days are identical, and then Silence enters the tale. Some drastic later events—perhaps rape or murder—befall the widow, and Melville will not dishonor her by speculating or fabricating: "Those two unnamed events which befell Hunilla on this isle, let them abide between her and her God. In nature, as in law, it may be libelous to speak some truths" (267). These passages suggest that creation is the work of an indifferent God, silent in the face of human dreams and words. In his writings beyond 1854, Melville rarely expressed trust in readers, nor hope for understanding. *The Piazza Tales* (1855) collected "The Encantadas" and other stories of passive, enigmatic figures such as Bartleby, whose life of copying legal documents dwindles into sterile silence, ending at a dead letter office. *The Confidence-Man* (1857) portrays an American Ship of Fools, sailing down

the Mississippi with a pilot of many guises, who cons passengers out of their beliefs and worldly goods. And then three decades passed, 1860-90, when Melville moved to New York, became a customs inspector, and wrote long poems, mostly unpublished or unread.

During those years, Darwin enjoyed a remarkable flowering in his career. In 1859 he published *The Origin of Species*, announcing that life changes through heredity, variation, and natural selection, all prompted by competitive struggle. Despite a furious reception, he tested and expanded his theory in book after book, gradually earning praise and acceptance. He expanded his main thesis to examine animal and plant breeding, sexual selection, emotions in humans and animals, and also how plants reproduce, climb upward to heat and light, consume insects, decay and form new plants. His vision of strife steadily enlarged to comprehend the full cycle of birth, growth, feeding, death, and rebirth. His life was a constant exploration, turning toward light, and eventually much of the world (even Kansas) agreed with him. Melville retreated into silence, writing much but publishing little. His grave at Woodlawn Cemetery in the Bronx bears his name, inscribed over a blank scroll. Darwin lies at Westminster Abbey, in the North Choir aisle near Isaac Newton. By that act of Parliament, evolution became as canonical as gravity.

These two quite different careers trace back to the Galapagos, and to the writings that began there. One author moved toward increasing knowledge, articulation, and confidence; while the other met failure, exhaustion, and silence. We all know that lives and minds evolve. Some hit early peaks, then go into steep decline; others bloom late, ever on a steady rise. A few make sharp turns, veering left to right, enduring long silences, with rare bursts of eloquence and achievement. Like Darwin, we need a theory to explain this process of transmutation. Place is a factor; so is curiosity and the form of knowledge it serves. Religious minds, like Melville's, trace the edges of a prior outline; Darwin's scientific methods made him gather evidence. The Galapagos were a prospect for Darwin, a retrospect for Melville, hence he found stasis where Darwin saw change. Both were trying to imagine origins, both asking what shall we do with old stories. Darwin seized science and moved toward it. Melville rebelled against Scripture, yet never escaped it. He was stuck in an old narrative, the creationist story of Genesis and man's first disobedience. Darwin cheerfully attended church and never tried to tear it down. His preface to *The Origin of Species* states a simple creed: "I see no good reasons why the views given in this volume should shock the religious feel-

ings of anyone." Darwin actively explored, pursuing new ideas; Melville bitterly justified and defended old beliefs. Melville sought popular fame, which eluded him; Darwin bided his time, waiting until the world was prepared. He also had his defenders (even Wallace, the ultimate good sport), while Melville had mostly critics who attacked and mocked. Melville flailed at religion; Darwin ducked and bobbed.

Yet Melville saw more to sex and race, and he better understood people and politics. If not the larger thinker, he was the subtler artist. In a letter from 1877, he told a friend: "Life is so short, and so ridiculous and irrational (from a certain point of view) that one knows not what to make of it, unless—well, finish the sentence for yourself." Eventually his readers did finish that sentence. Fortune deserted him, and he lived so long as to be forgotten; yet today his fame is substantial and well-founded. Some American students still read *Moby-Dick*, if not *The Origin of Species*. In an age of material plenty and ceaseless electronic connection, the island lessons of silence, spareness and struggle remain fully as uncongenial—and necessary—as they must have seemed to Melville in his lonely customs post at the south tip of Manhattan Island, or to Darwin striding the Downs under the sea wind, swinging at a stack of stones, and missing, and swinging again.

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