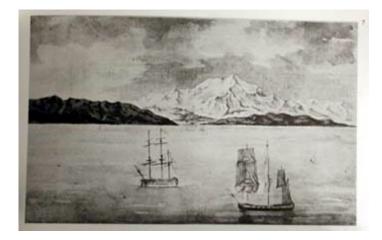
<u>Malaspina off and on the American</u> <u>Northwest Coast</u>



The nature of the things he carried

On June 26, 1791, the Spanish navigator, explorer, and Enlightenment thinker Alejandro Malaspina neared the Alaskan coast and the towering Mount Fairweather came into view. His two corvettes, the *Descubrieta* (Discovery) and *Atrevida* (Daring), tacked offshore as Malaspina "felt at least it would be wise to take a look at the nature of these coasts." The dramatic coast surely stunned Malaspina as well as his officers, crew, naturalists, and artists: a majestic "snow-capped cordillera" rose above "magnificently luxuriant pine trees," numerous "flocks of plovers flew about," and the "beneficial rays of the Sun" spotlighted one of the world's largest ice fields—soon to be named Malaspina Glacier—at the base of Mount St. Elías. While artists sketched and scientists measured, the practical-minded Malaspina must have allowed himself a private and momentary fantasy that somewhere along this mysterious coastline he would find the long-sought entrance to the Northwest Passage.

Leaving Cádiz, Spain, in 1789, Malaspina's five-year plan of exploration mentioned America's Northwest Coast in only the most cursory fashion. The Spanish navy had instructed him to round Cape Horn, inspect the Spanish American colonies, visit Hawai'i en route to the Kamchatka Peninsula of northeastern Russia, sail south to Manila before charting numerous South Sea islands, and then return to Spain via the Cape of Good Hope: a five year voyage that was equal parts imperial inspection, Enlightenment science, and what Malaspina humbly termed "charting the Pacific Ocean." But two years into the voyage during a stopover in Mexico, Malaspina received new orders from Antonio Valdés, Spain's Ministro de Marina, to sail north and search for the Pacific's most imaginary feature, the Northwest Passage. Like other European navigators before and after him, Malaspina was exploring the unknown nature of the Pacific Ocean.

Nature, in all its guises, was central to the expedition's endeavors. Science,

exploration, commerce, health, and navigation all balanced on the fulcrum of natural discoveries and ecological uncertainties. The same may be said for all the late eighteenth- and early- nineteenth-century "voyages of discovery" in the Pacific, from Louis Antione de Bougainville's aboard the *Boudouse* in the 1760s to Charles Darwin's on the *Beagle* in the 1830s. The natures they studied included human biologies (beginning with their own bodies), plant and animal species, and landscapes, with possible discoveries (like a Northwest Passage) governed—as Malaspina wrote in a slightly different context—"by the dictates of imagination rather than reason." To conduct his investigations into these various natures, Malaspina carried different types of baggage: baggage of the material, intellectual, and imaginary varieties.



Fig. 1. Malaspina used the recently invented eudiometer to test the air quality in his ship's cabins in an effort to prevent illness among his crew. From the collections of the Moosnick Medical and Science Museum, Transylvania University, Lexington, Kentucky.

The Material

Vessels on voyages of discovery carried the combined accouterments of modernday department stores, natural history laboratories, and barnyards. The scientific travelers packed instruments and libraries for the long years at sea. Malaspina's onboard surgeons—Francisco Flores Moreno on the *Descubierta* and Pedro María González on the *Atrevida*—brought an assortment of medical supplies, including scalpels for bloodletting, rum and wine for the treatment of most all maladies, and citrus juices. While the British navy increasingly recognized this latter item as important to combat the deadly scurvy on long voyages, Malaspina appeared only dimly aware of its healthful qualities. Nonetheless, Malaspina showed exceptional concern for the health of his crew. Like Captain James Cook before him, Malaspina viewed the ship as a discrete environment with its own collective healthfulness, infections, and dangerous miasmas.

Indeed, Malaspina's surgeons and naturalists applied miasma theory (the belief that unhealthy vapors induced various illnesses) to ship and shore alike. During one stop in the Pacific, the French-born naturalist Louis Neé concluded, "[T]he constant vapours arising from the earth, here rich in minerals and full of moisture, made it much more unhealthy." These vapors, Neé suggested, had contributed to the death of fellow naturalist Arcadio Pineda on the island of Luzon. Malaspina could do little about dangerous miasmas once his crew reached shore, but his two ships offered a more controlled environment, and there he ordered frequent testing of the shipboard air quality through use of a new gadget, the eudiometer.

Invented in the 1770s, the eudiometer purportedly measured the healthfulness (actually the oxygen content) of air. In an age when miasma theory reigned, the air's "salubrity," "goodness," "breathableness," and "dampness" seemed significant indicators to monitor. Malaspina had the ships' air tested on numerous occasions as they approached the Northwest Coast, perhaps because he had never sailed in the North Pacific. On May 31, 1791, Malaspina reported with delight "a salubrity of ninety-five in the atmospheric air, but also that the air taken below showed a quality very close to this . . . Here it was realized that the lack of salubrity noted in previous experiments" with the eudiometer "was caused almost entirely by a large open cask of pickled sauerkraut, somewhat spoilt." Two weeks later, fearing dampness in the ships' air, Malaspina ordered a "cleaning and ventilating below decks, but also by airing all the boatswain's gear, whose storeroom we feared might have become damp." With the below deck ports fully open, Malaspina observed, "we saw the whole crew in such a fine state of health and strength that the eudiometers showed, on the morning of the 15th, no difference at all between the air below decks and that of the atmosphere."

Cleaning and ventilating below decks on long voyages certainly maintained a tidy vessel, even if we now recognize that it had no impact on the most common and dangerous maladies faced by sailors: scurvy, tuberculosis, influenza, and malaria. Seen from our perspective, at least, the eudiometer carried more symbolic resonance than practical purpose. It symbolized Malaspina's (and the Spanish navy's) concern for his crew's health. Like Cook, he assumed personal responsibility for returning home with as few casualties as possible. His frequent use of the eudiometer also signified Malaspina's allegiance to Enlightenment science, in that he collected and compared the eudiometer's data and took action based on this data. Finally, and perhaps most interestingly, the eudiometer revealed the voyage's investigation of nature as a complex and multilayered system—a system that connected the individual's diseased or healthy body to the various environments in which the human organism lived. The ship offered one environment Malaspina could control, while the Northwest shore presented unknown natures that might endanger the health and lives of his men.

The Intellectual

Alejandro Malaspina understood the links between his voyage and Enlightenment thought. In political affairs, he hoped the voyage would encourage reform of Spanish colonial policies, and he would pay dearly for his beliefs with a tenyear prison sentence shortly after his return to Spain. His economic vision may be called neomodern, in that he viewed navigation as essential to the global trade that offered "prosperous benefit" to "society." In science, he sought friendship with the famed British naturalist Sir Joseph Banks and supported the many endeavors of his onboard scientists, proudly noting even the smallest "progress in natural history": the sighting one day of two albatross, a bird already classified by Linnaeus.

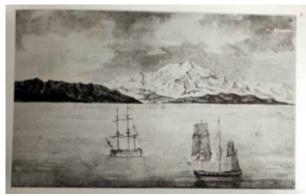


Fig. 2. Malaspina's ships first approached the Northwest at Mount. St. Elias, as shown in this painting, "Corbetas Descubierta y Vista de [San Elias?]." From Thomas Vaughan, Voyages of Enlightenment: Malaspina on the Northwest Coast 1791/1792 (Portland, 1977). Courtesy of the Museo de America de Madrid and of the American Antiquarian Society.

But if the Enlightenment provided the broad intellectual context for his voyage, Malaspina's professional mentor was another navigator, the late Captain James Cook. That Malaspina had never met Cook was irrelevant. Malaspina consulted Cook's journals, ideas, and actions at each stage of the voyage, and nowhere was this truer than along the Northwest Coast.

Cook's voyages, Donald C. Cutter writes, "were the yardstick against which Malaspina measured his own." And yet there was more: Malaspina sought to achieve an almost psychic relationship with the late British exemplar of Pacific exploration. Less than a week after leaving Mexico for the Northwest Coast, Malaspina studied the methods by which Cook maintained his authority over sailors. Cook could lead his men with discipline and "direct coercion," while Malaspina believed "in dealing with Spanish seamen one has to consider the sensibility, reasoning, and lively passions so different from those of northern seamen."

During the following month at sea Malaspina repeatedly consulted Cook's charts,

hoping to prepare himself for the notoriously treacherous coastline of the Pacific Northwest. Nearing Sitka Sound on June 23 he noted, "[T]he very detailed description of this stretch of coast by Captain Cook was just what we would expect of the accuracy of that illustrious mariner." Thereafter, Malaspina often found it unnecessary to even use Cook's surname in his journal entries: Cook was simply invoked as "the English navigator" or "the English Captain." Cook had become a presence, almost a phantom participant, on Malaspina's voyage. Cook knew something of the nature of the Northwest Coast, and Malaspina studied his mentor's words and charts as if he were deciphering a map of buried treasure.

Cook and Malaspina pursued the same goal in the icy North Pacific—a waterway to the Atlantic Ocean—and they each viewed the purported existence of this natural phenomena with rational skepticism. Cook explored numerous inlets and bays for the illusive passage, all to no avail. But he left behind the smallest shred of possibility that one *could* exist. Malaspina recognized this opening, and he held orders from the Spanish navy to search for it. Yakutat Bay (Port Mulgrave) might offer the prize that Cook had missed. While Malaspina shared all of Cook's doubts, he was willing to explore the bay and share the glory or disenchantment with the English Navigator.

The Imaginary

Once safely anchored in Yakutat Bay, Malaspina's imagination turned to the legendary "Strait of Anian" which supposedly marked the Northwest Passage. This mission originated with a document discovered in Spanish archives two weeks before Malaspina's ships left Spain. The "Relación" of Ferrer Maldonado, penned in 1609, recounted Maldonado's fantastic 1588 journey across the Atlantic Ocean, through the "Strait of Labrador," and into the balmy Strait of Anian. The Strait of Anian, according to Maldonado, was fifteen leagues in length bordered by high rocky cliffs. It terminated in the Pacific Ocean with a bay (surrounded by fruit trees, no less!) capable of holding five hundred vessels. Maldonado must have estimated this berthing capacity, because the only ship he encountered was a large vessel crewed by Hanseatic Lutherans. Malaspina read Maldonado's Relación and it left him, not surprisingly, "immersed in doubts." And yet, there was something oddly compelling about Maldonado's report: a level of almost convincing detail (for instance, Maldonado could only converse with the Hanseatic Lutherans in Latin) that must have forced its way into Malaspina's imagination and certainly sparked the interest of his sponsors, the Spanish navy.

Ferrer Maldonado had kindly offered the precise coordinates for the bay, which roughly matched those of Yakutat Bay. So on the morning of July 2, 1791, Malaspina and a few crewmembers paddled the ships' launches up the channel through numerous ice floes, turned a corner, and encountered the bay's terminus: not a passage to the Atlantic, but a massive wall of "ice covered rock." "The harbor," Malaspina writes, "was given the name of Desengaño (Disenchantment Bay), the outer entrance that of Ferrer, after the ancient mariner, who was the cause of our investigations, and the inner island was named after Haenke, in honour of the botanist who shared with us on this voyage all the dangers and discomforts of sea voyages." In the spirit of the island's namesake Tadeo Haenke, Malaspina did a little botanizing in Disenchantment Bay and "buried a bottle containing a record of our survey . . . and the possession taken in the name of His Majesty." Hopefully, Malaspina understood the irony of taking "possession" of something he had just proven to not exist. Perhaps the act was a gentle barb aimed at those who ordered this mission as well as a playful reminder to hereafter check the flights of his own imagination.

Malaspina returned to the very real sciences of botany, ethnology, geography, and cartography in the weeks that followed. The expedition completed its survey of Yakutat Bay, ran north and surveyed portions of Prince William Sound, and then turned southeast for the Spanish fort at Nootka Sound. The following summer, during the long days and nights of sailing across the Pacific, he wrote a dissertation on Ferrer Maldonado's claims for the Northwest Passage. Malaspina detailed Maldonado's many inconsistencies and expressed his own doubts that such a passage existed. But echoing Cook's conclusions, he thought such explorations should continue for the reason that "the object of navigation is trade" and the shortest route between the Atlantic and Pacific oceans would cut through the Americas. That shortcut should be discovered if it existed.

While Malaspina carried Maldonado's map of an imaginary landscape for the Pacific Northwest, he also carried a very real imagination for exploration that united his efforts with those of Cook, Sir Francis Drake, John Ledyard, and many other explorers. Though he failed to discover a Northwest Passage—one would not appear until global warming sufficiently melted the Arctic icepack in the late twentieth century—Malaspina's imagination nonetheless comforted itself with countless smaller discoveries in natural history and related sciences. He watched with sheer excitement as the Northwest coastline unfolded before his ships, and he expressed an equal thrill when his naturalists discovered unanticipated similarities between species that lived on opposite ends of the Pacific Ocean. "A great harmony," he wrote, "in the products of nature is revealed at every stop when they are examined and compared over the entire globe." Similarity and natural *variation*, Charles Darwin would add decades later, but similarity was remarkable enough for Malaspina.

Malaspina's ships left the Northwest Coast in September 1791 and sailed south for Mexico, briefly stopping over at Monterey, Alta California. From Mexico the two ships turned west and crossed the Pacific, with numerous sailors on board bedridden by malaria. Fearing for his sailors' health, Malaspina frequently used the eudiometer to test the air below deck, and he also repeatedly consulted his Cook volumes during the following two seasons of Pacific navigation. But more than anything else, it was Malaspina's imagination that maintained a connection with the Pacific Northwest Coast. In an ocean filled with stunning coastlines and landforms, the Pacific Northwest's nature was hard to rival in terms of majestic beauty, a sense of discovery, and terrifying danger. He reflected on that dangerous beauty during the next three years at sea, and his imagination must have taken him to that coastline repeatedly during his subsequent nine years of near solitary confinement in the La Coruña prison. After all, Malaspina's voyage reflected his (as well as many other Spaniards') imagination for an enlightened empire—one guided by new political reforms, economic progress, and scientific rationalism. He imagined the discoveries and knowledge brought home on the *Descubierta* and *Atrevida* would contribute in some measure toward these goals. In the end, Malaspina paid dearly for his active imagination.

Further Reading:

On Malaspina's 1789-94 expedition, see *The Malaspina Expedition*, *1789-1794: Journals of the Voyage by Alejandro Malaspina*, edited by Andrew David, Felipe Fernandez-Armesto, Carlos Novi, and Glyndwr Williams, 2 vols. (London, 2001-03); Iris H. Wilson Engstrand, "Of Fish and Men: Spanish Marine Science During the Late Eighteenth Century," *Pacific Historical Review* 69 (February 2000): 3-30; Engstrand, "The Eighteenth Century Enlightenment Comes to Spanish California," *Southern California Quarterly* 80 (Spring 1998): 3-30; David J. Weber, "The Spanish Moment in the Pacific Northwest," in Paul W. Hirt, ed., *Terra Pacifica: People and Place in the Northwest States and Western Canada* (Pullman, Wash., 1998); Donald C. Cutter, *Malaspina and Galiano: Spanish Voyages to the Northwest Coast, 1791 & 1792* (Vancouver, 1991); and John Kendrick, *Alejandro Malaspina, Portrait of a Visionary* (Montreal, 1999).

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