

THOMAS JEFFERSON'S PACIFIC: THE SCIENCE OF DISTANT EMPIRE, 1768–1811

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As traditionally told, the Meriwether Lewis and William Clark expedition across the American West to the Pacific was an adventure into the great unknown and a story of national fulfillment. That version, I will argue, slights the global context and the international significance of their exploration. We need to recover the expedition's context within a prior and expanding series of European probes, both geographic and commercial, into the North Pacific. Far from heading out blind, Lewis and Clark sought a new American route to a Pacific world recently delineated by Spanish, Russian, British, and French maritime explorers. Their discoveries inspired commercial mariners, who developed a profitable and globe-spanning trade in European metal goods, Northwest American sea otter pelts, and Chinese luxury goods during the late 1780s. The profits also attracted a British-Canadian, Alexander Mackenzie, who led an overland party across Canada to the Pacific in 1793—anticipating Lewis and Clark by a decade.¹⁾

The various probes combined science and commerce and inspired a heated competition between rival empires for information about, and access to, the Pacific world. That competition brought the diverse peoples all around the Pacific rim into new relationships over very long distances through the medium of European ships. And the growing integration of the Pacific into a European-managed market economy obliged the native peoples of the Pacific Rim to adapt to unprecedented and traumatic changes in their world.

The Pacific exploration by Europeans troubled the leaders of the new United States. Although their western boundary then lay at the Mississippi, American leaders assumed that their people enjoyed a natural and providential right ultimately to settle and dominate North America to the Pacific. At the end of the eighteenth century, however, as the Pacific became defined on global maps, in published journals, and in the diplomatic discourse of Europeans, Americans could not take for granted their eventual possession of their continent's west coast.²⁾

¹⁾ For work that does acknowledge the international background, see James P. Ronda, *Astoria & Empire* (Lincoln: University of Nebraska Press, 1990), 4–36; James P. Ronda, “Dreams and Discoveries: Exploring the American West, 1760–1815,” *William and Mary Quarterly*, 3rd. Ser., 46 (Jan. 1989): 145–62. In the latter, Ronda notes, “The persistent notion that exploration was an adventure into the unknown cannot be farther from what explorers were really about” (p. 147).

²⁾ See, for example, Thomas Jefferson to Archibald Stuart, Jan. 25, 1786 in Donald Jackson, ed., *Thomas Jefferson & the Stony Mountains: Exploring the West from Monticello* (Norman: University of Oklahoma Press, 1993), 61.

No American saw the Pacific implications more clearly than Thomas Jefferson, who combined a special interest in science with a diplomatic expertise in Europe. As early as 1783 he was casting about for an American to conduct an overland exploration in search of the Pacific—and he explicitly couched that search in dread of a British alternative. Jefferson gave scant thought to the Russians, considered the French as friends, and regarded the Spanish as weak: as easy marks for an inevitable American expansion. But Jefferson obsessively feared the British empire as a formidable, relentless, and insidious foe to the American republic. He worried that the emerging web of Pacific exploration and commerce would enable the British to renew their empire in a new and especially promising quarter, one that would curtail American expansion westward.

Science

Until the mid-eighteenth century, the Pacific Ocean remained the most mysterious part of the temperate earth to Europeans and their American colonists. On the far side of the planet from Europe, the Pacific was especially difficult for Europeans to reach. From the west, the only maritime access came via the distant, stormy, and rocky Strait of Magellan at the southern tip of South America. Although long hoped for, and persistently sought, the fabled Northwest Passage through northern North America remained elusive. The Pacific was also so huge—covering a third of the planet—that European mariners readily got lost for want of accurate techniques for determining longitude. Once they found a secure track across the Pacific, mariners clung to it, which discouraged new discoveries.

During the early sixteenth century, the Spanish mariner Ferdinand Magellan entered and crossed the Pacific via the straight that now bears his name. Following up on Magellan's discoveries, the Spanish founded a colony at Manila in the Philippines and, during the 1560s, initiated a trade across the Pacific to Mexico. Along the trade route, the Spanish discovered a few inhabited islands, principally Guam in the Marianas, where they established a small settlement to resupply their ships with water and provisions. Following the same narrow trade passage in one vessel once a year from the Philippines to Mexico, the Spanish preserved their ignorance of most of the Pacific. During the sixteenth century, the Spanish did probe the California coast north of Mexico, but they decided against colonization. And the northwestern coast of North America to Alaska and the Aleutians remained unknown to the Spanish—or any other Europeans—until the eighteenth century. Nonetheless, the Spanish insisted that they owned the Pacific and threatened to destroy the intruding ships of other European empires.³⁾

During the eighteenth century, the Russian, British, and French governments began systematically and competitively to explore the Pacific Ocean in search of imperial advantage. The decline of Spanish naval power enabled rival vessels more securely to

³⁾ Warren L. Cook, *Flood Tide of Empire: Spain and the Pacific Northwest, 1543–1819* (New Haven: Yale University Press, 1973), 1–20.

venture into the Pacific. New and more precise instruments—especially the chronometer—permitted mariners to ascertain their longitude in distant oceans. Better instruments also led to the development of far more accurate maps and charts, which were critical to navigating the vast reaches of the open Pacific to find and return to far-flung islands.⁴⁾

Spain's rivals invoked service to science as their right to explore the Pacific, in defiance of Spanish protests. With the zeal of converts, the rivals treated Spanish secrecy and protectiveness as intellectual crimes against human progress. Of course, the European rivals celebrated science as a universal ideal in order to pursue their special geopolitical interests to investigate distant places and to trade with exotic peoples. Consequently, the Spanish ambassador was skeptical when a British official defended Pacific exploration on the grounds "that the English Nation is actuated merely by desiring to know as much as possible with regard to the planet which we inhabit."⁵⁾

As never before, the eighteenth-century imperial explorers self-consciously wrote and acted in the name of science. Although commanded by naval officers, and worked by common sailors, the voyages also included cartographers, astronomers, naturalists, and artists to study and depict the waters, skies, soils, plants, animals, weather, and peoples of distant coasts. In 1771, when Captain James Cook returned to England from the South Pacific, his team of naturalists unloaded more than 500 bird skins, another 500 specimens of fish, more than 1,000 new species of plants, 1,300 sketches and paintings—as well as an array of Polynesian clothes, tools, weapons, musical instruments, and vocabularies.⁶⁾

In eighteenth-century Europe, wealth and prowess increasingly accrued to nations that took the lead in discovering and analyzing new information about distant places and peoples. And, because scientific publications circulated throughout the learned circles of the European elite, systematic exploration became a medium for the competitive pursuit of national prestige. Indeed, the collection and publication of geographic information became critical to diplomatic claims to new lands. For example, Captain Cook urged that his Pacific findings be quickly "published by Authority to fix the prior right of discovery beyond dispute." By promptly and officially printing Cook's maps and journals, the British government reaped

⁴⁾ Derek Howse, ed., *Background to Discovery: Pacific Exploration from Dampier to Cook* (Berkeley: University of California Press, 1990); Glyndwr Williams, "The Pacific: Exploration and Exploitation," in *The Oxford History of the British Empire, Volume II: The Eighteenth Century*, ed. P. J. Marshall, 552–75 (New York: Oxford University Press, 1998); David Mackay, *In the Wake of Cook: Exploration, Science, and Empire, 1780–1801* (London: Croom Helm, 1985), 16–17.

⁵⁾ Barry M. Gough, *Distant Dominion: Britain and the Northwest Coast of North America* (Vancouver: University of British Columbia Press, 1980), 51–52, 93.

⁶⁾ Mackay, *In the Wake of Cook*, 5–6; Lucile H. Brockway, *Science and Colonial Expansion: the Role of the British Royal Botanic Gardens* (New York: Academic Press, 1979), 61–76; John Gascoigne, *Science in the Service of Empire: Joseph Banks, the British State, and the Uses of Science in the Age of Revolution* (New York: Cambridge University Press, 1998), 16–33; Richard Drayton, *Nature's Government: Science, Imperial Britain, and the 'Improvement' of the World* (New Haven: Yale University Press, 2000), 41–49, 66–67.

credit for “discovering” much of the Pacific Northwest in 1778, when, in fact, secretive Spanish expeditions had already visited that coast in 1774 and 1775.⁷⁾

During the 1760s, the British began systematically to explore the Pacific. In 1768 the British Admiralty and the Royal Society entrusted Pacific exploration to Captain James Cook, an especially disciplined navigator and geographer. Cook brought along a few scientists, principally the botanist Joseph Banks. In two long and celebrated voyages, in 1768–1771 and again in 1772–1775, Cook systematically criss-crossed the South Pacific and mapped the coasts of Australia and New Zealand—previously known only vaguely from hasty Dutch encounters a century before. The two voyages established Cook’s reputation as the preeminent explorer of the eighteenth century. More methodical and thorough than any previous explorer, Cook developed maps, charts, and journals of unprecedented precision, thereafter defining the Pacific in print for distant Europeans. He also set the scientific protocols emulated by subsequent explorers seeking equal credit for their empires.⁸⁾

In 1776–1779, for his third and final voyage, Cook probed the North Pacific in search of the fabled Northwest Passage around or through North America. Sailing northeast from Tahiti in January 1778, Cook was pleasantly surprised to stumble upon the Hawaiian islands, a mid-oceanic and subtropical range of volcanic peaks inhabited by Polynesians who had arrived about 900 years before. After two weeks of mostly harmonious exchanges—both diplomatic and commercial—Cook sailed northward in renewed search of North America’s northwest coast, arriving there in the spring of 1778.⁹⁾

In the spring of 1778 Cook spent a month at Nootka, an inlet on the west coast of Vancouver Island, to repair and refit his ships and to obtain fresh water and provisions. The local natives called the place Yuquot and themselves the Moachat, but Cook’s misnomer, “Nootka,” has stuck ever since on both place and people. They had some past experience with European mariners and ships because of brief Spanish visits in 1774 and 1775. Eager to procure metal goods, the Moachat paddled out in many canoes to meet Cook’s two ships and initiate trading.¹⁰⁾

During that spring and summer, the mariners purchased 1,500 sea otter pelts for about six pence apiece in English goods. A year later, en route homeward, they stopped in China, where each pelt sold for goods worth about \$100. Launched as science, Cook’s voyage evolved smoothly into commerce—which demonstrated the close relationship of capitalism and

⁷⁾ Cook, *Flood Tide of Empire*, 79–84, 100; David J. Weber, *The Spanish Frontier in North America* (New Haven: Yale University Press, 1992), 285–86.

⁸⁾ Gough, *Distant Dominion*, 21–24; Mackay, *In the Wake of Cook*, 7–8; Lynne Withey, *Voyages of Discovery: Captain Cook and the Exploration of the Pacific* (New York: William Morrow and Co., 1987), 126–322.

⁹⁾ Gough, *Distant Dominion*, 24–29; Withey, *Voyages of Discovery*, 323–64.

¹⁰⁾ J. C. H. King, “The Nootka of Vancouver Island,” in *Cook’s Voyages and Peoples of the Pacific*, ed. Hugh Cobbe, 89–93, 100–103 (London: British Museum, 1979); Cook, *Flood Tide of Empire*, 87; Gough, *Distant Dominion*, 33–39, 42–43.

science in British thought and practice.¹¹⁾

Upon departing Nootka, Cook and his men spent the summer and fall of 1778 following and charting the coast northeastward to Alaska and the Bering Strait. In November of 1778, the mariners sailed back to Hawaii, for a warm-weather base to rest and resupply through the winter. In February of 1779, however, Cook died in a violent melee provoked by a bungled attempt to arrest some Hawaiians for the theft of some iron tools and a small boat. Cook's successor, Lieutenant Charles Clerke, sailed away in March to complete their coastal survey of Alaska, before proceeding to China with a cargo of sea otter pelts.¹²⁾

Upon returning to London, some of the crewmen published accounts of their voyage in 1781 and 1782, and Cook's official journals appeared in print in 1784. Those publications, especially their reports of the profitable sea otter trade, aroused intense interest by European governments.¹³⁾

Between 1785 and 1790, British merchants dispatched some twenty-six ships laden with trade goods to Nootka and other raincoast harbors. Proceeding on to China with sea otter pelts, the traders purchased Chinese porcelain, tea, spices, and silks for conveyance and sale in Europe. Once the rare experience of government-sponsored explorers, circumnavigation became a commercial commonplace during the late 1780s. By the end of the decade seven American ships had visited that coast to trade for sea otters. Many more followed during the 1790s as American shippers eclipsed the British, who were hampered by the monopoly to the China trade awarded to the East Indian Company by the British empire.¹⁴⁾

Mackenzie

Cook's third voyage had roughly closed the cartographic gap between Spanish California and Russian Alaska. Cook's thorough exploration virtually killed the myth of an accessible salt-water Northwest Passage through North America. But, at the same time, he suggested a new fantasy: that a capacious inlet—now known as Cook's Inlet—on the coast of Alaska received a large river that flowed westward from the interior.¹⁵⁾

Such a river promised relatively easy access to the Pacific from the center of North America, which especially intrigued British fur traders based in Montreal. After the British

¹¹⁾ King, "The Nootka," 107–8; Cook, *Flood Tide of Empire*, 87–88; Mackay, *In the Wake of Cook*, 59.

¹²⁾ Cobbe, ed.; Robin Fisher and Hugh Johnston, eds., *Captain James Cook and His Times* (Seattle: University of Washington Press, 1979); Alan Frost and Jane Samson, *Pacific Empires: Essays in Honour of Glyndwr Williams* (Vancouver: University of British Columbia Press, 1999); Williams, "The Pacific: Exploration and Exploitation," 552–75; Withey, *Voyages of Discovery*, 370–400.

¹³⁾ Weber, *Spanish Frontier*, 285–89; Cook, *Flood Tide of Empire*, 100–104, 111–19.

¹⁴⁾ Jackson, ed., *Thomas Jefferson & the Stony Mountains*, 48; Cook, *Flood Tide of Empire*, 100–107, 111–14; Gough, *Distant Dominion*, 51–71, 100.

¹⁵⁾ Harold Innis, "Peter Pond and the Influence of Capt. James Cook on Exploration in the Interior of North America," Royal Society of Canada, *Transactions*, 21 (1928), Section II, 139–40; Ronda, *Astoria & Empire*, 5–6.

conquest of French Canada in 1760, British firms took control of the fur trade that extended westward via the Great Lakes into the Manitoba country around Lake Winnipeg. The British traders also assumed the former French beliefs that the Rocky Mountains were low and narrow—scant obstacle to western exploration and commerce—and that Lake Winnipeg lay near a navigable river called “Oregon,” which flowed westward to the Pacific. “Oregon” seemed ever closer as the British traders probed westward in search of new Indian hunters able to supply large quantities of beaver pelts. In 1767–1768 some traders reached and wintered on the Saskatchewan River, which served, a decade later, as the base for Peter Pond to open the fur trade along the beaver-rich Athabaska River and Lake to the north. From Indian informants, Pond learned of the Great Slave Lake, which emptied into an immense river, known to the Indians as the Deh-Cho, that evidently flowed westward toward the Pacific. During a 1785 visit to Montreal, Pond read accounts of Cook’s third voyage and latched onto the explorer’s suggestion that Cook’s Inlet received an immense river: “Cook’s River.” Equating the Deh-Cho with Cook’s River and the fabled “Oregon,” Pond planned to find and descend the river to the Pacific. To systematize his discoveries and speculations and to publicize his future services as trader and explorer, Pond prepared a large and detailed map, linking Canada’s interior with the Pacific coast as delineated by Cook.¹⁶⁾

Facing prosecution for murdering a rival trader, in 1788 Pond fled across the border into the United States, where he languished in poverty and obscurity. Pond’s departure empowered his former protege, a young trader named Alexander Mackenzie who had arrived in the Athabaska Country in 1787. Inheriting Pond’s plan, Mackenzie led a small party of Indians and French Canadians in birch-bark canoes down the Deh-Cho during the summer of 1789. To Mackenzie’s chagrin, the river turned northward, reaching the Arctic Ocean rather than the Pacific. Subsequently known as the Mackenzie River, the waterway did prove commercially valuable as a new source of furs for the Montreal cartel, and the 1,120 mile journey established Mackenzie’s abilities to lead a small party deep into unknown territory possessed by jealous natives.¹⁷⁾

In 1792 Mackenzie returned to the Athabaska country to prepare his second expedition, this time involving about nine men, once again a mix of Indians and French Canadians. In the spring and summer of 1793, they ascended the rocky and rapid Peace River, heading westward into the Rocky Mountains, which proved far higher, wider, and more complex than anticipated. Through trial and error and ultimately with the advise of local Indians, Mackenzie found a way through the mountains to the Bella Coola River, which flowed

¹⁶⁾ Innis, “Peter Pond,” 139–40; Ronda, *Astoria & Empire*, 6–13; W. J. Eccles, *Essays on New France* (Toronto: Oxford University Press, 1987), 96–109; Barry Gough, *First Across the Continent: Sir Alexander Mackenzie* (Norman: University of Oklahoma Press, 1997), 62.

¹⁷⁾ Barry Gough, “Peter Pond,” *Dictionary of Canadian Biography*, V (Toronto: University of Toronto Press, 1983):681–83; Gough, *First Across the Continent*, 67–98, 101; W. Kaye Lamp, “Sir Alexander Mackenzie,” *Dictionary of Canadian Biography* V:538.

through dark forests of immense trees toward the Pacific.¹⁸⁾

Mackenzie just missed connecting with a British maritime expedition led by Captain George Vancouver, a protege of Cook, who had come via Hawaii to survey the Northwest coast in June. While trading with the raincoast natives, one of Vancouver's men, Thomas Manby, astutely observed,

As neither Land [n]or Water, stops the car[r]rier of commerce, I dare say, many of our articles have by this time, nearly approached, the opposite side of the Continent, as a continual chain of barter, exists between Tribe and Tribe, through this amazing track of Country, which in time, will no doubt, find their way, to our factories in Canada, or the back settlements of Hudson's bay.

Indians had long traversed the mountains that were so mysterious, complicated, and daunting to Mackenzie. And just as Manby had predicted, Mackenzie began to find European metal goods among the Sekani people of the mountains, which confirmed that they knew the trade route to the Pacific. Mackenzie explained that he then set out to "pursue that chain of connexion by which these people obtain their ironwork." Once Mackenzie reached the Nuxalk people on the Bella Coola River, those trade goods proliferated, confirming his proximity to the ocean. The emerging Pacific world of trade that was Mackenzie's goal also generated the tangible clues that drew his party to its destination. The eastward and overland passage of those clues revealed a long-standing web of intertribal connections otherwise opaque to the explorer.¹⁹⁾

Mackenzie enacted the ceremonies of possession expected by Enlightenment exploration. First, he recorded ethnographic, botanical, faunal, and geologic information that matched what he had read in Cook's journals—to document that his party had reached the same coast. Second, Mackenzie employed his bulky navigational instruments (hauled hundreds of miles over rugged terrain for this special moment) to calculate and record latitude and longitude. Without such measurements for publication at home, Mackenzie's travel and trouble would be for nought. Third, with a paint made of vermilion and grease he inscribed a large rock: "Alexander Mackenzie, from Canada, by land, the twenty-second of July, one thousand seven hundred and ninety-three."²⁰⁾

Finally, in trade with the Bella Coola people, Mackenzie collected sea otter pelts: the consummate trophy that he had reached the Northwest Coast. Both coming and going, the

¹⁸⁾ Gough, *First Across the Continent*, 105–23.

¹⁹⁾ Thomas Manby quoted in Elizabeth A. Fenn, *Pox Americana: The Great Smallpox Epidemic of 1775–82* (New York: Hill & Wang, 2001), 251; Mackenzie quoted in Gough, *First Across the Continent*, 128.

²⁰⁾ Gough, *First Across the Continent*, 143–56, Mackenzie quoted on p. 156. For the European imperial tradition of ceremonies of possession, see Patricia Seed, *Ceremonies of Possession in Europe's Conquest of the New World, 1492–1640* (New York: Cambridge University Press, 1995).

goods of the Pacific trade proved essential to Mackenzie's success. Where European trade goods had led Mackenzie over an Indian trail, an Indian trade good became critical to proving his Pacific arrival to a European audience. Indeed, the sea otter pelt had become the symbol as well as the substance of the profitable trade that drew Europeans (and Americans) into the North Pacific world with its emerging ties to the Chinese market.²¹⁾

Ultimately, none of these ceremonies would matter unless Mackenzie safely returned to Montreal and London with his precious journal and sea otter pelts to demonstrate his accomplishment. On August 24, 1793 Mackenzie reached his Peace River base east of the Rockies, completing a circuit of 108 days (75 out and 33 back) and 2,400 miles (about 1,200 each way). Not until the summer of 1794 could he attain Montreal, where he shrewdly plied British officials with tales of adventure, reports of science, and gifts of sea otter pelts. In return, Mackenzie reaped their enthusiastic letters to the home government, endorsing his accomplishment and praising his vision of a global trade through Canada.²²⁾

In late 1801 in London, Mackenzie achieved his first goal by publishing his journals with a prestigious firm and with the assistance of a consummate editor. Mackenzie benefitted from the patronage of especially Sir Joseph Banks, an accomplished naturalist; a veteran of Cook's first voyage; the king's preeminent scientific advisor; and the prime conduit for scientific information and patronage in the empire. Banks and Prince Edward arranged for the publication of Mackenzie's journals and for his knighthood by the king in early 1802. That winter Sir Alexander Mackenzie basked in the praise and attention of London's high society.²³⁾

Mackenzie tried to convert his new intellectual and social cachet into imperial authorization and funds for his commercial scheme. By establishing fortified trading posts, he argued, the British could command the native peoples and sea otters of the Pacific Northwest. According to Mackenzie, the stakes were global:

By opening this intercourse between the Atlantic and Pacific Oceans and forming regular establishments through the interior, at both extremes, as well as along the coasts and islands, the entire command of the fur trade of North America might be obtained. . . . To this might be added the fishing in both seas and the markets of the four quarters of the globe.

In particular, Mackenzie urged the construction of armed posts at Nootka Sound and at the mouth of the Columbia River, the largest and only navigable river in the Pacific Northwest. Otherwise, he warned, the Americans would occupy both.²⁴⁾

Unfortunately for Mackenzie, imperial officials were polite but noncommittal. The

²¹⁾ Gough, *First Across the Continent*, 152.

²²⁾ *Ibid.*, 160–81.

²³⁾ *Ibid.*, 170–80

²⁴⁾ *Ibid.*, 180–86, Mackenzie quoted on p. 205.

British government was exhausted of funds by a long war with France. And Britain's rulers were loath to cross the powerful interests—the Hudson's Bay Company and the East India Company—which felt threatened by Mackenzie's proposed end-run around their profitable monopoly rights.²⁵⁾

The president

In 1802 Mackenzie's most avid—but horrified—American reader was the new president, Thomas Jefferson. Ever fearful of British intentions, the president naturally concluded that British officials would, of course, embrace Mackenzie's scheme to occupy the raincoast just to spite the United States. In fact, British officials paid far less attention to the United States than Jefferson believed. Preoccupied with more pressing matters in Europe and India, British ministers wasted relatively little time or energy on the pesky but irrelevant Americans. Moreover, the clashing economic interests within the empire deprived its policies of the coherence, determination, and malignancy that Jefferson imagined.²⁶⁾

Jefferson eagerly procured Mackenzie's book, which worked on both Jefferson's British fears and his transcontinental hopes. On the one hand, Jefferson felt alarmed by Mackenzie's call for the British occupation in armed force of the Pacific Northwest. On the other hand, Jefferson saw opportunity in Mackenzie's conjecture that the passage through the Rocky Mountains would be lower and easier further south, in the American latitudes. The President hoped that an American overland expedition could reach the Pacific via the Columbia River, which had eluded Mackenzie and which was the most promising conduit for American influence and trade over land.²⁷⁾

In addition to helping to catalyze the Lewis and Clark expedition, Mackenzie's book served that venture as an essential source of geographic information and exploration know-how. Jefferson gave a copy to Meriwether Lewis, who carried it across the continent. Because Mackenzie had learned and applied the scientific forms of exploration, his journal was an invaluable guide to Lewis and Clark.²⁸⁾

The expedition also carried a composite map made in Philadelphia but based on the British maps of 1802 (Aaron Arrowsmith) and 1803 (Nicholas King), which recorded the information garnered by Cook, Vancouver, Pond, and Mackenzie. Thanks to the maps and

²⁵⁾ Gough, *First Across the Continent*, 4–5, 170–85.

²⁶⁾ Peter S. Onuf, *Jefferson's Empire: The Language of American Nationhood* (Charlottesville: University Press of Virginia, 2000), 100; Robert W. Tucker and David C. Hendrickson, *Empire of Liberty: The Statecraft of Thomas Jefferson* (New York: Oxford University Press, 1990), 42–43, 62.

²⁷⁾ Gary E. Moulton, ed., *The Journals of the Lewis & Clark Expedition* (Lincoln: University of Nebraska Press, 1986), II, 1–3; Jackson, ed., *Thomas Jefferson & the Stony Mountains*, 92–95, 197; Ronda, "Exploring the American West," 149–50.

²⁸⁾ David McKeehan to Meriwether Lewis, April 7, 1807, in Donald Jackson, ed., *Letters of the Lewis and Clark Expedition, with Related Documents, 1783–1854*, 2 vols. (Urbana: University of Illinois Press, 2nd ed., 1978), II:401–2.

the journals, Lewis and Clark had a surprisingly clear picture of their Pacific destination. Their challenge was to get there, which would fill in the geographic gap in Euro-American knowledge, south of Mackenzie's crossing and between the Mandan Indian villages of the upper Missouri (which had been frequented by French and British traders since the late 1730s) on the east and the Pacific coast to the west.²⁹⁾

The procedures followed, and the discoveries made, by prior Pacific explorations shaped the famous instructions that Jefferson bestowed upon Captain Meriwether Lewis in June of 1803. To meet scientific standards, the American explorers were to make frequent and precise celestial measurements "to fix the latitude and longitude of the places" they reached. In a journal kept in multiple copies they were to record detailed observations of the flora, fauna, soil, and climate. And Jefferson ordered them to collect detailed ethnographic data that would later assist American officials, traders, and missionaries in the assimilation and subordination of native peoples. Bent on immediately wresting the sea otter trade away from British mariners, Jefferson directed Lewis to investigate whether it could be "conducted through the Missouri & U. S. more beneficially than by the circumnavigation now practised." And Jefferson recognized that mercantile shipping to the Pacific Northwest had become so routine that his explorers could anticipate returning by sea—if the overland return seemed too dangerous. The President instructed Lewis to seek out "the sea-vessels of any nation" to take a passage "by sea, by the way either of cape Horn, or the cape of good Hope." In sum, British books and maps had generated a familiarity with the Pacific world that inspired and informed Jefferson's plans for the Lewis and Clark expedition.³⁰⁾

The scientific forms followed, and scientific information sought, by Lewis and Clark have long seemed to represent the unique initiative and scientific genius of Thomas Jefferson. By instead recovering the expedition's predecessors, we can see their development of the protocols and goals of exploration that Jefferson mastered and taught to Lewis. Putting the Lewis and Clark expedition in a more global and historical context, however, shifts rather than diminishes its importance. If less than an unprecedented push into the unknown, the expedition was also obliged to overcome the liabilities of a late start in the geopolitics of science. If endowed with the insights of predecessors, Lewis and Clark also faced the challenges of claiming an American place in a highly contested corner of the globe. By making the most of what had already been learned, the Lewis and Clark expedition helped to secure a Pacific footing against formidable competitors endowed with precedence.

²⁹⁾ Jackson, ed., *Thomas Jefferson & the Stony Mountains*, 129–34; Eccles, *Essays on New France*, 98–109.

³⁰⁾ Jefferson to Lewis, June 20, 1803, in Jackson, ed., *Letters of the Lewis and Clark Expedition*, I, 61–66 (quotations, p. 65). For the scientific preparations for the expedition, see also, William H. Goetzmann, *Exploration and Empire: The Explorer and the Scientist in the Winning of the American West* (New York: Alfred A. Knopf, 1966), 3–7.