

Smallpox on the Northwest Coast, 1835-1838*

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Recently anthropologists, geographers and historians seem to have come to recognize that people could die en masse from disease as well as from warfare and famine, with equally far-reaching consequences — from what William H. McNeill has termed “microparasitism” as opposed to “macroparasitism.” Perhaps the most striking example of the former on the Northwest Coast, that ill-defined stretch of Pacific shoreline somewhere between the Alaska Peninsula and New Albion (the “classic” Northwest Coast ran from Prince William Sound to Puget Sound, that is, from Tlingit to Salish territory), was the 1835-1838 outbreak of smallpox, whose course and impact form the subject of this study. Unfortunately, the source material is not abundant. The detailed reports from Alaska of Russian officials and physicians have not survived, and only general and brief references remain. The Hudson’s Bay Company had fewer agents on the B.C. coast to chronicle the epidemic, and their comments are incidental; consequently, there is almost no information on the plight of the Haidas and very little on that of the Tsimshians. Thanks to Russian interest and concern, the Tlingit experience is generally documented. The Tlingits therefore occupy the limelight of this paper, with the other coastal natives in the wings.

Disease was rampant already by the beginning of the nineteenth century on the Northwest Coast, owing to the wide-ranging operations of maritime fur traders and explorers. Syphilis, tuberculosis and perhaps leprosy were common ailments. More spectacular was the malaria epidemic of 1830-1833 on the lower Columbia River. This “intermittent fever,” perhaps aggravated by influenza or typhus, killed from 75 to 90

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percent of the Indians below The Dalles. This demographic disaster greatly eased subsequent Euroamerican settlement of the Willamette Valley.¹ Farther to the north in Russian America, where cold and damp were the norm, other diseases were endemic, including — besides syphilis — catarrh and rheumatism and even scurvy until the end of the Russian-American Company's first twenty-year charter of monopoly in 1818, when food supply was improved. Here anopheline mosquitoes were hampered by the cold and the paucity of standing or stagnant water, but other vectors periodically inflicted misery on the colony, as in 1806, 1808, 1819 and 1824, and the hapless natives, with little or no natural immunity, suffered heavily. For example, in the fall of 1819 up to one-third of Kodiak Island's Eskimos died of an unspecified "pestilence," perhaps influenza (it "began with a fever and a heavy cold, a cough, shortness of breath, choking, and three days later death followed").² Again, in the winter of 1827-1828, 158 inhabitants of Kodiak (including 57 at Three Saints Harbor) succumbed to a contagious disease that affected Eskimos and creoles (the mixed-blood offspring of Russian fathers and native mothers) but not Russians. Possibly whooping cough, it began with coughing and blood spitting, which were followed by chest pains, headache and gripe accompanied by dizziness and delirium.³ In 1848 measles struck Russian America, especially Sitka and Unalaska, where 275 Aleuts perished.⁴ The point is this: recent European advances in sanitation, food preservation, clinical care, and quarantine measures had not been fully implemented on the remote Northwest Coast, and both morbidity and mortality were normally high. In 1827 Chief Factor John McLoughlin of Fort Vancouver (est. 1826), the headquarters of the Hudson's Bay Company's Columbia Department (Oregon Country) and Sitka's rival as the metropolis of the coast, complained that "disease is so

¹ Robert T. Boyd, "Another look at the 'Fever and Ague' of Western Oregon," *Ethnohistory* 22 (1975): 135; K. T. Khlebnikov, *Baranov: Chief Manager of the Russian Colonies in America*, trans. Colin Bearne (Kingston, Ont.: The Limestone Press, 1973), p. 105. Also see Sherburne Cook, "The Epidemic of 1830-33 in California and Oregon," *University of California Publications in American Archaeology and Ethnology* 43 (1955): 303-36; Edward Hodgson, "The Epidemic on the Lower Columbia," *The Pacific Northwesterner* 1 (1957): 1-8; Herbert Taylor and Lester Hoaglin, "The Intermittent Fever Epidemic of the 1830's on the Lower Lower Columbia River," *Ethnohistory* 9 (1962): 160-78.

² Colin Bearne, trans., *The Russian Orthodox Religious Mission in America, 1794-1837* (Kingston, Ont.: The Limestone Press, 1978), pp. 83-84, 94.

³ United States, National Archives, File Microcopies of Records in the National Archives: No. 11, "Record of the Russian-American Company 1802-1867: Correspondence of Governors General" [hereafter USNA], roll 31, pp. 66-66v.

⁴ USNA, roll 55, p. 286v.

frequent at this place” and “people on this coast are so subject to disease.”⁵ Similarly, at Sitka (est. 1799) Captain Edward Belcher of H.M.S. *Sulphur* noted in the summer of 1837 that “the total number [of residents] is about eight hundred, but of these many, if not the greater part, are invalids; but few able-bodied men were visible.”⁶ During the late 1830s at the colonial capital the daily number of sick ranged from twenty-five to forty and more in summer and from forty to eighty and more in autumn, winter and spring.⁷ Probably infant mortality was high and death in childbirth and by accident was undoubtedly common. Work was arduous as well as hazardous, and food was neither abundant nor varied, with heavy drinking and smoking. Life, particularly for the natives, was short and cheap on the coast — what one veteran Hudson’s Bay Company servant labelled “this cursed country.”⁸

The worst demographic setback, at least for the natives of the northern part of the coast, was the smallpox epidemic of 1835-1838. This was neither the first nor the last outbreak of variola or what the Russians called “aeolian pox” because of the popular belief that it was transmitted by the wind (a belief, incidentally, that was actually not far off the mark). In 1768-1769 smallpox from Okhotsk, Siberia’s chief Pacific port, ravaged Kamchatka, killing from 60 to 75 percent of the peninsula’s inhabitants, and it may have swept the Aleutian Islands.⁹ The disease might have been introduced to the Haidas and Nootkas in 1774 by the Spanish crew of the *Santiago* under Captain Juan Pérez, who lost two men to a sickness involving high fever.¹⁰ The British trader Captain Nathaniel Portlock, who plied the coast in 1786 and 1787, reported that the Tlingits of Cross Sound had been struck by smallpox around 1775, and in 1820 the Tlingit chief Saigakakh told a Russian-American Company official that some 50 years earlier, i.e., about 1770, smallpox had

⁵ Manitoba, Provincial Archives, Hudson’s Bay Company Archives [hereafter HBCA], D.4/120, pp. 53v., 57v.

⁶ Richard A. Pierce and John H. Winslow, eds., *H.M.S. Sulphur on the Northwest and California Coasts, 1837 and 1839* (Kingston, Ont.: The Limestone Press, 1979), p. 22.

⁷ USNA, roll 40, pp. 190, 267v., roll 42, p. 306v., roll 43, p. 221.

⁸ British Columbia, Provincial Archives [hereafter BCPA], letter of John Work to Edward Ermatinger, 15 February 1837.

⁹ James R. Gibson, *Feeding the Russian Fur Trade: Provisionment of the Okhotsk Seaboard and the Kamchatka Peninsula, 1639-1856* (Madison: University of Wisconsin Press, 1969), pp. 40, 196; Khlebnikov, *Baranov*, p. 104.

¹⁰ Donald C. Cutter, ed., *The California Coast: A Bilingual Edition of Documents from the Sutro Collection* (Norman: University of Oklahoma Press, 1969), pp. 207-09, 219, 245.

spread from the Stikine River to Sitka, leaving only one or two members of each family alive.¹¹ Alternatively, the disease may have been introduced in 1779 by the crews of the *Favorita* and *Princesa*. Of the 205 men on the two Spanish ships, two had died by the time they reached Bucareli Bay, and altogether seven died from an unidentified sickness before the return voyage to San Blas.¹² This outbreak spread at least as far south as the Chinooks of the lower Columbia.¹³ During the last half of the 1780s and the first half of the 1790s maritime fur traders remarked on the disfiguring legacy — pitting and blindness — of this “scourge of mankind” among the coastal Indians.¹⁴ The Nootkas told an American skipper that it had been brought by the Spaniards, and one of the chiefs of the Haidas informed a British captain that it had killed two-thirds of their number.¹⁵ The northern Indians called the disease “Tom Dyer” after the sailor who had allegedly infected them.¹⁶

Those natives who caught smallpox in the last half of the 1830s but survived were safe, for as in the cases of measles and mumps a single infection imparts prolonged and even lifelong immunity. Those who accepted vaccination were also secure. However, any who had not been immunized in either of these two ways, as well as children born after the

¹¹ [K. T. Khlebnikov], *Colonial Russian America: Kyrill T. Khlebnikov's Reports, 1817-1832*, trans. Basil Dmytryshyn and E. A. P. Crownhart-Vaughan (Portland: Oregon Historical Society, 1976), p. 29; Captain Nathaniel Portlock, *A Voyage Round the World . . .* (London: John Stockdale and George Goulding, 1789), p. 271.

¹² [Father John Riobo], “An Account of the Voyage Made by the Frigates ‘Princesa’ and ‘Favorita’ in the Year 1779 from San Blas to Northern Alaska,” trans. Walter Thornton, *Catholic Historical Review* 4 (1918-1919): 223, 229. The presence or absence of smallpox could be confirmed by an examination of the manuscript accounts of the 1774 and 1779 voyages. See Warren L. Cook, *Flood Tide of Empire: Spain and the Pacific Northwest, 1543-1819* (New Haven and London: Yale University Press, 1973), pp. 593-95 and Mary Gormly, “Tlingits of Bucareli Bay, Alaska (1774-1792),” *Northwest Anthropological Research Notes* 5 (1971): 172-74, 176-78.

¹³ Ross Cox, *The Columbia River*, ed. Edgar I. Stewart and Jane R. Stewart (Norman: University of Oklahoma Press, 1957), p. 169.

¹⁴ For example: F. W. Howay, ed., *Voyages of the “Columbia” to the Northwest Coast 1787-1790 and 1790-1793* (Boston: Massachusetts Historical Society, 1941), pp. 34, 371; C. F. Newcombe, ed., *Menzies' Journal of Vancouver's Voyage* (Victoria: Archives of British Columbia, 1923), pp. 29, 35; [Peter Puget], “A Log of the Proceedings of His Majesty's Ship Discovery . . .,” microfilmed manuscript, University of British Columbia Library, p. 134.

¹⁵ Howay, *Voyages*, p. 371; Michael Roe, ed., *The Journal and Letters of Captain Charles Bishop . . .* (London: The Hakluyt Society, 1967), p. 83.

¹⁶ Jonathan S. Green, *Journal of a Tour on the North West Coast of America in the Year 1829* (New York: Chas. Fred. Heartman, 1915), p. 39.

epidemic, were exposed to the next outbreak in 1862. Its toll rivalled that of 1835-1838. Coming from California, it killed one-third of the Indians of the crown colony of British Columbia, including two-thirds of the Tsimshians.¹⁷ A "large number" of Tlingits also perished, particularly on the Stikine, where they probably contracted the disease from the 3,000 to 4,000 American gold seekers who rushed to the river in the spring of 1862.¹⁸ The Tlingits soon submitted to vaccination, and smallpox did not spread northward of their territory.¹⁹

And the Northwest Coast Indians were not the only Amerindians to be devastated by smallpox. Twice it swept the northern Great Plains — in 1781-1782 with a fatality rate of up to 60 percent and in 1837-1838 with a fatality rate of up to 75 percent (the Mandan, for instance, were virtually annihilated).²⁰ Thus, the 1835-1838 epidemic on the Northwest Coast was not unique historically or geographically on the continent. Indeed, smallpox, which has nowadays been almost eradicated, was one of the oldest of human diseases, as well as — like bubonic plague, measles and cholera — one of the most spectacularly destructive.

In the New World smallpox's impact was felt principally by the natives, for unlike Europeans and Asians they had no acquired immunity, either active (from prolonged exposure) or passive (from inheritance or vaccination). In the early sixteenth century it was spread by conquistadores from the West Indies to Central and South America, where it helped to kill from one-third to one-half of the Aztecs and Incas (other diseases, warfare, famine and declining fecundity were also instrumental). Cer-

¹⁷ Wilson Duff, *The Indian History of British Columbia*, Anthropology in British Columbia Memoir No. 5 (Victoria: Provincial Museum of British Columbia, 1964), 1: 42-43; Robert Steven Grumet, "Changes in Coast Tsimshian Redistributive Activities in the Fort Simpson Region of British Columbia, 1788-1862," *Ethnohistory* 22 (1975): 311.

¹⁸ USNA, roll 64, pt. 1, pp. 91, 106v.

¹⁹ P. A. Tikhmenev, *A History of the Russian-American Company*, trans. Richard A. Pierce and Alton S. Donnelly (Seattle and London: University of Washington Press, 1978), 1: 371; USNA, roll 64, pt. 1, p. 91v.

²⁰ Clyde D. Dollar, "The High Plains Smallpox Epidemic of 1837-38," *The Western Historical Quarterly* 8 (1977): 29n; Arthur S. Morton, *A History of the Canadian West to 1870-71*, ed. Lewis G. Thomas (Toronto and Buffalo: University of Toronto Press, 1973), 2nd ed., pp. 329, 332; Arthur J. Ray, *Indians in the Fur Trade: Their Role as Trappers, Hunters, and Middlemen in the Lands Southwest of Hudson Bay, 1660-1870* (Toronto and Buffalo: University of Toronto Press, 1974), p. 188; Arthur J. Ray, "Diffusion of Disease in the Western Interior of Canada, 1830-1850," *The Geographical Review* 66 (1976): 154. Also see Arthur J. Ray, "Smallpox: The Epidemic of 1837-38," *The Beaver* 306 (1975): 8-13. It is unknown whether the Great Plains epidemic of the early 1780s reached the Northwest Coast.

tainly smallpox (followed shortly by measles) facilitated Cortez's conquest of Mexico and Pizarro's seizure of Peru, as well as the conversion of the surviving Indians by Catholic missionaries, who had in heathen eyes been spared by a superior god.²¹

The impact on the Indians of the Northwest Coast in the last half of the 1830s was no less drastic. The Tlingits seem to have been the initial victims, very likely contracting the disease from an American or British trading vessel (their usual customers) somewhere in the "straits," the labyrinth of channels separating the islands of the Alexander Archipelago, in the fall of 1835.²² A Euroamerican was most likely the source of infection, for smallpox was unknown on the coast before contact, and the filtrable variola virus (with an incubation period of up to two weeks) is transmitted by humans only via the respiratory tract (like measles and influenza). Contact with a victim or his personal effects, excretions or corpse or even presence in the same room is sufficient for transmission. Indeed, smallpox is one of the most contagious of all diseases. And by contrast with the Euroamericans, among whom the disease was endemic, the Indians were a virgin population and therefore highly susceptible to it. The length of time since the previous coastal outbreak in 1779 (or even 1795²³) was longer than the average Indian lifespan, so that virtually the entire native population lacked any actively acquired immunity (admittedly, the disease could have existed sub-clinically since the late 1700s).

Smallpox terrified the Indians, partly because they did not understand it. The Tlingits, for instance, believed that it was punishment for their internecine warfare inflicted by an evil spirit in the form of an enormous raven from a distant mountain peak.²⁴ Moreover, the effects of the disease were terrifying. It begins with fever, chills, headache, backache, general muscular soreness, a feeling of weakness, and prostration for three or four days. It is most communicable at this stage, when, incidentally, it is also

²¹ See T. Aidan Cockburn, "Infectious Diseases in Ancient Populations," *Current Anthropology* 12 (1971): 45-62; Geoffrey Marks and William K. Beatty, *Epidemics* (New York: Charles Scribner's Sons, 1976); William H. McNeill, *Plagues and Peoples* (Garden City, N.Y.: Anchor Press/Doubleday, 1976); Howard N. Simpson, "The Impact of Disease on American History," *The New England Journal of Medicine* 250 (1954): 679-87.

²² The disease could not have come across the cordillera from the Great Plains because smallpox did not erupt in Rupert's Land until 1837.

²³ According to Captain Charles Bishop of the *Ruby*, smallpox raged on the Queen Charlotte Islands in 1795 (Roe, *Journal and Letters*, 91).

²⁴ [Khlebnikov], *Russian America*, 29; Tikhmenev, *History*, 1: 83.

least likely to be suspected or recognized (it can easily be mistaken for influenza). Then the body temperature falls and a rash appears and evolves into pustules, which break open and scab over. These lesions or blisters, which form over dead cells (smallpox being a cytotoxic or cell-killing disease), are itchy and painful. In severe forms of smallpox — and because of the high mortality it was probably these forms that struck the coast — blood appears in the pustules and turns blackish, and the skin eruptions are so profuse as to coalesce, forming a continuous layer of purulent blistering, especially on the face. Severe forms are repugnant to both sight and smell. They also cause more deaths than milder forms, being accompanied by delirium or coma and producing complications like kidney failure, pneumonia, blindness and brain damage. In addition, the purulence promotes bacterial infection (staphylococci and streptococci). Mercifully, death usually occurs after one week. For survivors convalescence is long and painful. Their scabs fall off by the end of the third week, leaving unsightly pockmarks (scarring is exacerbated by scratching). Little wonder that smallpox was one of the most dreaded of all diseases, even by inured Euroamericans with some residual immunity (from exposure-survival and inheritance), let alone helpless Amerindians.²⁵

The disease spread rapidly up and down the coast. Like influenza and tuberculosis, smallpox is transmitted directly and quickly from human host to human host with no intermediate vector (unlike bubonic plague, sleeping sickness, malaria, and typhus, which require rat fleas, tsetse flies, anopheline mosquitoes, and body lice, respectively, as carriers). Also, the natives unwittingly hastened its spread by fleeing in terror to the comfort of kinsmen, who promptly likewise fell victim. Perhaps in this way the disease was brought to Sitka at the end of November 1835 by Tlingits from the mainland panhandle; it ended at the colonial capital and among the Tlingits in the spring of 1838.²⁶ During the interval it spread as far south as Principe Channel and as far north as Norton Sound, including the Aleutian Islands, Kodiak Island, the Alexander Archipelago and the Queen Charlotte Islands.²⁷ True to form, the disease was most prevalent from late fall until early spring, when the Indians congregated.

²⁵ See Jacques M. May, ed., *Studies in Disease Ecology* (New York: Hafner Publishing Co., Inc., 1961); Robert Rosenthal, "The History and Nature of Smallpox," *The Journal — Lancet* 79 (1959): 498-505.

²⁶ USNA, roll 38, pp. 73v., 80v., roll 40, pp. 222-222v., 248v., 267.

²⁷ HBCA, B.223/c/1, p. 113v.; Leda Chase Milan, "Ethnohistory of Disease and Medical Care among the Aleuts," *Anthropological Papers of the University of Alaska* 16 (1974): 20.

gated during the winter months. Fortunately — for the Aleuts in particular, as it turned out — a Russian-American Company physician, Doctor Eduard Blashke, accompanied by the feldsher (paramedic) Grobov, arrived at Sitka aboard a company vessel from St. Petersburg just before the outbreak. Even before its commencement Blashke began to vaccinate the settlement's Russians, creoles and so-called "Kodiak Aleuts," most of whom were in fact Kodiak Eskimos.²⁸ For the majority this was re-vaccination, but for those few Tlingits who consented it was their first treatment.²⁹

Despite Blashke's efforts, which won high praise from Governor Ivan Kupreyanov, the epidemic gradually worsened. Vaccination proceeded "slowly," and vaccine was preserved "only with difficulty." Nevertheless, Blashke managed to immunize more than 200 Sitka residents and more than 300 Tlingits. During the winter the daily number of sick at the capital ranged from seventy to eighty. Russians were only mildly affected; they became ill for a short time only, and but one died. Tlingits and Kodiaks suffered severely and creoles to a lesser extent. Up to 400 Tlingits died in one village near Sitka and almost half of the residents of the Tlingit settlement at Sitka itself perished. Not all of the Indians were stricken equally, however. The Stikine Tlingits were but slightly affected, whereas villages in the "straits" like Khutsnov were devastated. In March 1836 the epidemic weakened (as the Indians dispersed to their spring fishing and hunting grounds) and in mid-April it ceased, at least among company employees. There had been 161 deaths at Sitka, mostly in December and January and presumably virtually all natives.³⁰

The summer offered a respite, although outbreaks of catarrh, perhaps whooping cough, and — among children — quinsy (bacterial tonsillitis) inflated Sitka's sick list to 150 persons daily. Predictably, in late December smallpox flared anew and lasted until mid-May 1837. This time the fatality rate among the Stikine and Sitka Tlingits was 25 percent, and no less at Kaigani, Tongass, Chilkat, Keku and other Indian villages. Again the disease ebbed in the summer and surged in the fall, when it was joined by outbreaks of fever, neural rheumatism and — among children — dropsy, all of which continued during the winter of 1837-1838, when

²⁸ [A. Sturdza], *Pamyatnik trudov pravoslavnykh blagovestnikov russkikh s 1793 do 1853 goda* [*A Memorial of the Works of Russian Orthodox Proselytizers from 1793 to 1853*] (Moscow: Tipografiya V. Gotye, 1857), p. 213.

²⁹ USNA, roll 41, p. 81v.

³⁰ USNA, roll 37, p. 422v., roll 38, pp. 74, 81, 103v-104, roll 40, pp. 265v.-267v., roll 41, pp. 194v.-195.

inflammation of the chest was added. By the spring, when a new bout of catarrh increased the daily number of sick at Sitka to 150 and the daily number of gravely ill to at least 25 (higher than ever before), smallpox was rated "not so dangerous" as formerly.³¹

Through trading, warring, politicking and socializing, smallpox spread "with fearful rapidity" from the Tlingits southward to the Tsimshians and Haidas. It reached the Hudson's Bay Company's Fort Simpson (est. 1831) at the mouth of Portland Inlet at the end of September 1836. By the middle of October the incidence of the disease was "rather alarming." A "great number" of lower Skeena River Tsimshians were dying at the beginning of November, and a month later the lower Nass River Tsimshians were stricken. Fort Simpson's Chief Trader John Work reported that "it spread rapidly and committed dreadful ravages among the Natives during the fall and winter and did not abate till the spring." Smallpox disappeared in August 1837 after having, according to the Nass Tsimshians, "extended as far to the interior as they usually go to trade." Fort McLoughlin (est. 1833) on Milbanke Sound and the Bella Coola Indians were spared. Surprisingly (because vaccine had been made available to its posts in Rupert's Land) no vaccination program was undertaken by the Hudson's Bay Company, undoubtedly because no vaccine was at hand, while it would have taken a year or longer to obtain some from London or Montreal, and by then it would have been too late for most of the Indians. Apparently the disease simply ran out of victims when the chain of human contact, for whatever reason, was broken. The fatality rate among the Tsimshians was nearly one-third, and among the Haidas it may have been even higher.³²

At Sitka the Russian-American Company was taking more pains to stop the epidemic. After all, the Russian presence on the coast was more substantial than that of the British (they had been there longer and in greater force), so their vested interest in the territory and its people was stronger. Moreover, the coastal natives loomed larger in Russia than British trade, which also encompassed the plains and woodland Indians of Rupert's Land and the Oregon Country. Perhaps, too, the Russians simply cared more about the natives (some historians have contended that Russian empire builders were less averse to dark-skinned indigenes

³¹ USNA, roll 39, p. 235v., roll 40, pp. 267v.-268.

³² BCPA, Work to Ermatinger, Feb. 15, 1837; HBCA, B.201/a/3, pp. 75, 76v., 80, 101, B.223/c/1, pp. 113-113v.; E. E. Rich, ed., *The Letters of John McLoughlin, from Fort Vancouver to the Governor and Committee, First Series, 1825-38* (London: Hudson's Bay Record Society, 1941), p. 271.

than were their Western European imperialist counterparts). At any rate, Governor Kupreyanov took steps at the end of the winter of 1835-1836 to prevent the spread of smallpox to other colonial districts. He ordered the commanders of company ships to observe strictly the following regulations: (1) no "questionable" persons, that is, any who may not have been vaccinated, were to embark; (2) all outgoing cargo was to be ventilated "carefully"; (3) upon reaching their destinations all vessels were to wait two days before unloading cargo or disembarking passengers in order to detect whether any crewmen were coming down with smallpox; (4) any crewman who contracted the disease was to be isolated together with his belongings, and nobody was then to be allowed to leave or board the ship; and (5) crewmen were to have the minimum necessary contact with people ashore. In addition, the governor circulated to district doctors and feldshers Blashke's instructions on combatting the disease.³³

These precautions may have been responsible for delaying the spread of smallpox to Kodiak until mid-July 1837 (in the meantime, influenza had struck the island in the fall of 1836, taking up to 30 lives, mostly of elders). In September Doctor Volynsky and Feldsher Kalugin were sent from Sitka to join Feldsher Zykoz in vaccinating and succouring the Kodiaks. While Volynsky remained at the hospital in St. Paul's Harbour, Kalugin spent two months on the Alaska Peninsula (where twenty-seven natives died) and two months in northern Kodiak and Zykov four months in the southern half of the island. In spite of their efforts, which were also directed against another epidemic disease, perhaps whooping cough (marked by headache and coughing), smallpox spread suddenly and swiftly throughout the Kodiak District. It was still raging in the fall. From mid-July to mid-October 265 natives died, and by the end of the year the toll reached 738. The company donated supplies (flour, sugar, tea, linen cloth) to victims. By the spring of 1838 the epidemic had faded, so Volynsky returned to Sitka, leaving Zykov on Kodiak and sending Kalugin to the Kenai Peninsula (where the disease took twenty-four lives that spring) and Hinchinbrook Island.³⁴

Governor Kupreyanov's measures were not successful in preventing the spread of smallpox to the Unalaska District, the source of most of the company's crack Aleut sea otter hunters. In the summer of 1838 Blashke

³³ USNA, roll 38, pp. 15-15v., 199.

³⁴ Tikhmenev, *History*, 1: 199; USNA, roll 39, pp. 235v.-236, 450v., roll 40, pp. 222v., 248v.-250v., roll 41, 186v.

was sent to Unalaska to stem the disease, which had already killed some Aleuts, principally in the western part of the district. He spent four months there, all but one of them in travel by kayak among the two-dozen Aleut villages scattered throughout the Fox Islands. He vaccinated 1,086 of the district's 1,400 inhabitants. Thanks to his diligence, the epidemic remained "mild." There were only 147 deaths, including eighty-three from smallpox and thirteen from other diseases; ninety of the dead had not been vaccinated and five had. Many of those who died did so, in the governor's words, "from their own imprudence" and the use of "inappropriate remedies and care," including overeating of putrid whale meat, overdrinking of strong brandy, excessive steam bathing and overheating of their dwellings. Fortunately for the company's business, not a single Aleut employee at the district capital of Captain's Harbor perished.⁸⁵

Elsewhere in Russian America smallpox seems to have taken a weaker hold. It was reported from the Ross District (Russian California) in 1838 that "many" of the Pomo Indians working at Fort Ross had contracted the disease and "most" of the surrounding Indians bore its marks; the mortality was "not great," however, allegedly because of the fine weather. Vaccine arrived from Sitka in December and 280 locals (139 Indians, 83 creoles, 56 Aleuts, and 2 Californians) were vaccinated, of whom only two died.⁸⁶

The epidemic claimed very few Euroamerican lives but the native toll was high. Smallpox fatality rates vary from less than 1 percent in mild outbreaks to more than 30 percent in severe epidemics. The carnage is directly proportional to the residual immunity of the victims, and the Northwest Coast natives had little. Furthermore, the form of the 1835-1838 disease was severe. Upon contraction the variola virus provokes an immunity reaction within the human body. Being unable to latenize like the chicken pox virus (which may reappear years later in the elderly human host as shingles), variola, when attacked by antibodies, transfers to a new host. Thus, for survival it requires a continuity of victims. That condition was provided especially by the Tlingits, Tsimshians and Haidas, who probably numbered up to 30,000 at the outset of the epidemic, and much less so by the Kodiaks and Aleuts, who totalled fewer than 5,000. Directly and indirectly about one-third of the Indians died of smallpox,

⁸⁵ E. Blashke, "Neskolko zamechany o plavanii v baidarkakh i o Lisyevskikh Aleutakh" ["Some Remarks on Kayaking and the Fox Aleuts"], *Morskoy sbornik* 1 (1848): 116-17, 122-24; USNA, roll 41, pp. 185, 194-95.

⁸⁶ USNA, roll 41, p. 256.

and in some places the fatality rate reached 75 percent and some groups were even exterminated.³⁷ The Tlingits may have been hardest hit. Their population plummeted from 10,000 in 1835 to 6,000 in 1840 — a mortality of 40 percent.³⁸ They never fully recovered from this blow. In 1860, on the eve of another variola outbreak, their number had increased to only 7,700, plus 800 slaves.³⁹

Because they refused vaccination, the Kodiak Eskimos suffered as much as the Indians. Of Kodiak Island's 2,200 natives, 736 died — a mortality of one-third.⁴⁰

By contrast, the Aleuts not only readily accepted vaccination but also actively assisted the vaccination campaign.⁴¹ Nearly all survived. In the Unalaska District at most 157 — and perhaps as few as 80 — of 1,200 Aleuts succumbed for a fatality rate of from 6 to 13 percent.⁴² Apparently the Aleuts of the Atka District were negligibly affected. This hardly amounted to a catastrophe. That had occurred in the last half of the previous century, when the Aleut population was halved from a pre-contact total of from 15,000 to 20,000.⁴³ One official source shows the Aleuts decreasing from 7,000 in 1835 to 4,000 in 1840 and asserts that smallpox reduced their number by nearly one half.⁴⁴ In fact, however, these figures include the "Kodiak Aleuts," that is, Kodiak Eskimos, who constituted most of the decrease. They were found throughout the colony, having largely replaced the dwindling Aleuts as the Russian-American Company's sea otter hunters.

Normally smallpox is a children's disease, since a single attack provides immunity. This was not, of course, the case on the Northwest Coast, where the disease apparently was not endemic. Theoretically, everyone

³⁷ Thomas E. Jessett, ed., *Reports and Letters of Herbert Beaver 1836-1838* (Portland: Champoe Press, 1959), p. 88; Rich, *Letters*, p. 271; USNA, roll 43, pp. 333-333v. Bancroft's figure of from 50 to 60 percent is too high (Hubert Howe Bancroft, *History of Alaska 1730-1885* [Darien, Conn.: Hafner Publishing Co., 1970], p. 560).

³⁸ I. Veniaminov, *Zapiski ob ostravakh Unalashkinskavo otdela* [*Notes on the Islands of the Unalaska District*] (St. Petersburg: Rossiisko-Amerikanskaya kompaniya, 1840), 3: 29.

³⁹ Tikhmenev, *History*, 1: 428.

⁴⁰ [Sturdza], *Pamyatnik*, p. 223; Tikhmenev, *History*, 1: 198.

⁴¹ Veniaminov, *Zapiski*, 2: 321-22.

⁴² [Sturdza], *Pamyatnik*, p. 223; Tikhmenev, *History*, 1: 199.

⁴³ Milan, "Ethnohistory," p. 16.

⁴⁴ *Doklad komiteta ob ustroistve russkikh amerikanskikh kolony* [*Report of the Committee on the Organization of the Russian-American Colony*] (St. Petersburg: Tipografiya Departamenta Vneshney torgovli, 1863-1864), 1: 128-29, 2: 134.

should have been affected more or less equally, but in fact it proved to be an affliction of oldsters rather than of youngsters. At Sitka all ages and both sexes were smitten but the elderly the most and the young the least.⁴⁵ At Fort Simpson the elderly and also the men bore the brunt of the disease; women, children and slaves were least affected. Chief Trader Work reported that among the Nass River Tsimshians "in ten houses there is not a man left alive only some women and children have escaped."⁴⁶ The higher death rate of the aged undoubtedly arose from their infirmity, but by the same token the very young should also have been more vulnerable. It is uncertain, too, why more men than women died; perhaps it had to do with their different roles (e.g., the trading and fighting men had more exogenous contacts). Whatever the reasons, the repercussions were great, as will soon be demonstrated.

The high native mortality was attributable not only to a paucity of residual immunity; native living conditions were scarcely hygienic. Their bodies and clothes were often dirty, their dwellings were crowded, messy and stuffy, their food was sometimes putrid, and their nearby garbage and manure heaps were exposed and untreated. Doctor Volynsky reported that the Kodiak baraboras were "foul," with smallpox victims lying naked on straw and covered with sores, tended by their relatives.⁴⁷ More importantly, the debilitation of the natives from hunger, exposure, heavy smoking and hard drinking may have lowered resistance to disease, particularly among older men (alcoholism and senility are definitely militating factors, and debilitated victims are especially subject to hemorrhagic smallpox, one of the most malignant forms). Earlier outbreaks of other diseases may have weakened the indigenes to the point that smallpox affected them more than it otherwise might have. It is uncertain whether the native "sweating/freezing" mode of treatment (that is, a hot bath followed by a cool dip) was exacerbating. The fact that victims were sometimes "utterly neglected" undoubtedly hindered the spread of the disease, although it struck Euromericans as callous, for it also impeded their recovery.⁴⁸ Certainly nursing care is of the utmost importance in treatment, and that the natives seldom received. In addition, the death toll may have been raised by the fatalistic attitude of the Indians. Once

⁴⁵ Tikhmenev, *History*, 1: 198; USNA, roll 38, p. 103v., roll 40, p. 267.

⁴⁶ John Dunn, *History of the Oregon Territory . . .* (London: Edwards and Hughes, 1846), 2nd ed., p. 284; HBCA, B.201/a/3, pp. 75, 98v.

⁴⁷ USNA, roll 43, p. 332.

⁴⁸ Rich, *Letters*, p. 270.

they caught smallpox they may have believed that their plight was hopeless and stopped eating and drinking, thereby hastening their own demise.

More critical was the resistance of most Tlingits and Kodiaks to vaccination, which, apart from isolation, was the only effective prevention.⁴⁹ In 1808 the Russian-American Company's ship *Neva* docked at Sitka with Doctor Mardgorst and some smallpox vaccine plus instructions to immunize all Russians and as many natives as possible. Mardgorst was also enjoined to teach several company employees how to vaccinate. Again in 1822-1823 some 200 residents of Sitka were immunized with vaccine from Okhotsk; at the beginning of the spring of 1823 a special thanksgiving service was held at the colonial capital to celebrate the event. At the same time Governor Matthew Muravyov ordered the distribution of vaccine to all colonial districts and the vaccination by "competent" employees of all inhabitants, starting with creoles and ending with Aleuts. Another vaccination program was undertaken at Sitka and on Kodiak in 1828-1829, when 298 persons were immunized. Finally, during the 1835-1838 epidemic more than 4,000 inhabitants were vaccinated.⁵⁰

The recipients, however, were almost all Russians, creoles and Aleuts. Most other natives declined, putting more faith in their shamans than in vaccine. The Tlingits and Kodiaks were particularly "stubborn" in their refusal to submit to vaccination (the Tsimshians and Haidas were not even given the option). The Kodiaks used "every possible trick and ruse" to avoid immunization, owing to what Governor Kupreyanov called their "weak Christianity" and "numerous prejudices." "Many" of them simply fled and hid, thereby inadvertently helping to fan the epidemic.⁵¹ The Tlingits were equally adamant, at least at first. By 1837, seeing that

⁴⁹ Inoculation or variolation had been available in Europe since 1721, when it was introduced from Asia, where it had long been a folk practice. It involves the deliberate infection of a wound with morbid matter from the pustules of a person with a mild form of smallpox in order to induce immunity to severe forms. A recipient, however, risked developing a serious case of the disease and becoming a carrier. In 1796 Edward Jenner devised vaccination, whereby a person is injected with the less virulent cowpox virus (*vaccinia*) without becoming either a victim or a carrier of smallpox. Although even vaccination can produce complications, primarily in adults and adolescents (the ulceration of the skin may spread and prove fatal or encephalitis may result and cause paralysis, blindness, or death), it is much safer than inoculation and hence was rapidly and widely adopted. Variolation fell into disrepute and was even declared a felony in Great Britain in 1842.

⁵⁰ Tikhmenev, *History*, 1: 108, 161-62, 199; USNA, roll 28, pp. 302-302v., roll 31, p. 345v.

⁵¹ [Sturdza], *Pamyatnik*, p. 223; Tikhmenev, *History*, 1: 198; USNA, roll 40, pp. 249v.-250, roll 41, p. 10, roll 43, p. 333; Veniaminov, *Zapiski*, 2: 322.

vaccinated company employees had been spared, the Indians relented, and one Russian observer even asserted that they became so eager to be immunized that they went to Sitka "by [the] hundreds and the vaccinators had to be on their guard not to operate on the same person over and over again."⁵² As late as 1845, however, Tlingit mothers were refusing to take their children to Sitka for vaccination and wait there a week to learn whether it had taken (similarly, from 1841 through 1845 Tlingit women, mostly slaves, had to be captured and detained at Sitka for forcible treatment of "lust pestilence" [syphilis]).⁵³ In the first half of the 1840s nearly 1,000 persons, primarily natives, were vaccinated against smallpox in Russian America.⁵⁴ Even if all of them were Tlingits — and they definitely were not — another 5,000 remained unvaccinated (although some of them had been artificially or naturally immunized during the 1835-1838 epidemic as vaccinees or survivors). Furthermore, the vaccinations were valid for not more than 20 years and probably for less. This, plus the failure of the Hudson's Bay Company to mount a vaccination campaign among the coastal natives of British Columbia, exposed the Indians to well-nigh the full force of the 1862 outbreak.

But there were other reasons why so many natives remained unimmunized for so long in Russian Alaska, including too little vaccine, inadequate preservation of vaccine, and too few medical personnel.⁵⁵ No physician was posted to the colony until 1821,⁵⁶ and even then the appointee was based at Sitka and relied upon feldshers in the other districts. These paramedics had little with which to work in terms not only of skills but also of medicaments which, like most colonial supplies, were wanting in both quantity and quality. Smallpox vaccine reached Sitka infrequently from Okhotsk or St. Petersburg. Fortunately, in 1835 the Russian-American Company's Head Office ordered the sending of "fresh and sound" vaccine to the colony, and the first batch arrived in the fall of that year, just as the epidemic began. But by the middle of May 1838, before the disease had disappeared, Sitka ran out of vaccine. Consequently, none could be sent with Doctor Blashke to the Unalaska District,

⁵² Vassili Sokoloff, "The voyage of Alexander Markoff from Okhotsk to California and Mazatlan in 1835," MS P-K 24, Bancroft Library, p. 11.

⁵³ Staff Physician Romanowsky and Dr. Frankenhauser, "Five Years of Medical Observations in the colonies of the Russian-American Company," trans. Levi Browning, *Alaska Medicine* 4 (1962): 35-36, 62-63.

⁵⁴ Romanowsky and Frankenhauser, "Five Years," p. 64; USNA, roll 48, p. 273v.

⁵⁵ Winston L. Sarafian, "Smallpox Strikes the Aleuts," *Alaska Journal* 7 (1977): 47.

⁵⁶ Tikhmenev, *History*, 1: 161.

so that he had to stop en route at Kodiak to get some. And vaccine for the Atka District and the Kurile Islands had to be requested from Kamchatka. None was forthcoming from the peninsula, however, and immunization could not be carried out on the western and central Aleutians and the Kuriles.⁵⁷

Moreover, the smallpox vaccine was often dormant. In Western Europe it was preserved in a host animal, usually a cow; it is unknown whether this practice was adopted in the colony. The vaccine was likely kept in glass ampules, which were very subject to breakage, of course. Of the vaccine brought by Blashke in the fall of 1835 from the motherland, only one ampule proved potent, and it became inactive by the spring of 1837. After Blashke's arrival, vaccine had to be sent to Kodiak from Sitka five times before it was found to be effective. Luckily, the fifth time occurred just before the outbreak of smallpox on the island in the summer of 1837. In the fall of that year Sitka received some vaccinal lymph, that is, cowpox virus, from Kodiak, but it was suitable for newborn babies only, although Blashke did administer it to some adult Tlingits. After two months there were still only two or three newborn babies at the capital, and winter interrupted the Indian vaccinations. When Blashke recommenced in the spring of 1838, the lymph was no longer potent, although it had been taken from fit children at the proper time and packed carefully.⁵⁸ Similarly, the vaccine brought by Doctor Volynsky from St. Petersburg's foundling hospital in 1836, like that received from Irkutsk via Okhotsk, proved dormant, too, probably because of the long duration of transport. Governor Kupreyanov lamented that "despite all efforts," the maintenance of viable vaccine at Sitka was "utterly hopeless." His successor, Adolph Etholen, found that "most" of the vaccine in the colony was inactive when he took office in 1840. Little wonder, then, that by the time effective vaccination began, some 3,000 natives had already perished. Blashke blamed the delay on the following factors: (1) the long time taken by the delivery of vaccine from European Russia either overland across Siberia or overseas via the Cape or the Horn; (2) the additional time lost whenever vaccine proved dormant and had to be replaced from the motherland (one communication per year); (3) the difficulty of communication within the far-flung colony (likewise once a year); and (4) the resistance of the natives to vaccination, which they

⁵⁷ USNA, roll 37, pp. 422v.-423, roll 41, pp. 11-12, 68, 80v.-81, 196v.-197.

⁵⁸ At first, as Jenner advocated, vaccine was taken only from persons who had contracted cowpox naturally, and it was not until much later (the mid-1800s) that it was propagated in cows or calves.

did not understand. Because of these constraints, it was mostly Russian, creole and native employees of the company at the entrepôt and capital of Sitka and on Kodiak (the second most important colonial district), plus the Aleuts of Unalaska, who were immunized.⁵⁹

The repercussions of the smallpox epidemic were considerable, at least for the natives, specifically the coastal Indians and the Kodiak Eskimos (the Aleuts survived largely unscathed). Euroamericans, represented by the tsar's men and the Bay men, did not suffer personally, thanks to either residual immunity or vaccination. Their business did suffer, but not greatly and only temporarily. The Hudson's Bay Company's coast trade was down in 1836 and especially 1837. From Fort Simpson Chief Trader Work reported in the fall of 1836 that trade was "very dull" because the Indians were "afraid to venture much about on account of the disease now among them," and in the spring of 1837 he wrote that "there is little hope of much being obtained from them in the fur way this season." By the end of spring the post had obtained 500 fewer beaver, marten and land otter pelts than by the same date of the previous year. Even at Fort McLoughlin, which was not reached by smallpox but nevertheless felt its effects, trade was "dull" in the summer of 1837. Fortunately for the British there was less competition than usual that year from American trading vessels. In addition to furs, the Indians brought provisions (potatoes, fish, venison, wildfowl, berries, eggs) to the posts, and the epidemic's "dreadful ravages" reduced this major source of food. The setback was shortlived, however, as Chief Factor James Douglas acknowledged in a report to Governor George Simpson from Fort Vancouver:

In the midst of so much distress & suffering business was almost at a stand, and continued in a very depressed state during the whole winter and spring. The month of June brought with it, a sensible improvement, the Natives having, by that time, recovered from the state of apathy and consternation into which they had been thrown, by the prevailing epidemic, and urged to exertion, by the want of supplies were fast returning to their former habits of industry.⁶⁰

The Russian-American Company's returns were also adversely affected but less so, partly because a smaller proportion of the natives under its jurisdiction died and partly because the company's business was less

⁵⁹ Blashke, "Neskolko zamechany," p. 116; Sarafian, "Smallpox," p. 47; USNA, roll 41, pp. 80v., 81v.-82v., roll 43, p. 334.

⁶⁰ BCPA, Work to Ermatinger, 15 Feb. 1837; HBCA, B.201/a/3, pp. 78, 100, 109, 130, B.223/c/1, p. 113v.; Rich, *Letters*, pp. 244, 270.

dependent upon barter, exploiting the Aleuts and Kodiaks directly as low-paid hunters of fur bearers rather than indirectly as traders of furs. Only in the "straits," where the company did engage in actual trade with the Tlingits, must there have been an appreciable loss of business, as well as on Kodiak, whose Eskimos manned the company's flotillas of two-hatched hunting kayaks. But here, too, the hiatus was brief and minor. In the spring of 1838 Governor Kupreyanov reported with relief to the Head Office that smallpox had ceased on the island, "thanks to God," and that "despite the burden of orphans and widows to feed," the district could again mount sea otter hunting parties — forty kayaks altogether, "nearly the same number as before the outbreak of smallpox" the previous summer. The aggravation of the company's chronic shortage of personnel was negligible; after all, the rapid depletion of sea otters meant that far fewer hunters were needed anyway.⁶¹

Nevertheless, the Kodiaks themselves suffered severely. The disease must have been a horrible shock. Most families lost their main providers, so that the company had to provide relief to the surviving widows, oldsters and children. The demographic decline was such that Governor Etholen in the first half of the 1840s decided to consolidate the district's sixty-five Kodiak settlements into seven, with wooden huts instead of earthen hovels and storehouses, sheds, umiaks, cattle and vegetable seed. That measure, which was designed for economic efficiency, undoubtedly caused further social distress.⁶²

The impact of the epidemic was probably greatest on the Tlingits. Before the outbreak they were unquestionably the most formidable of the Northwest Coast Indian groups, owing to their high degree of solidarity arising from their strong clan system, their large population, their skilful manipulation of Russian, British, and American commercial rivalry, their ready access to firearms from Yankee gunrunners, the inaccessibility of many of their villages far up the mazy "straits," their control of two of the principal trade routes between the coast and the interior (the Chilkat and Stikine river valleys), and their virtual monopolization of several of the most valuable native trade goods (placer copper, ermine skins and superior baskets and robes). This position of wealth and strength was shattered by the epidemic, and the Tlingits' resistance to Euroamerican territorial and particularly cultural encroachment was broken. That resistance was to recrudescence in the 1850s — for

⁶¹ USNA, roll 40, p. 313v., roll 42, p. 100v.

⁶² Tikhmenev, *History*, 1: 200.

reasons yet to be fully explained — only to be dealt another and lasting blow by the epidemic of 1862.

(The effect of the 1835-1838 visitation on the Tlingits was assessed by Father Ivan Veniaminov, the most capable Orthodox missionary in Russian America. He was at Sitka when smallpox struck the Sitkan Tlingits in the middle of January 1836 and raged for two months.⁶³ The effects were threefold. Firstly, mainly older Indians succumbed, that is, mainly those Indians who were more traditional, more conservative, more superstitious and more hostile to the Russians. They were also the ones who had power and influence over the younger Indians. This older generation, which carried on and passed on Tlingit culture, was lost.⁶⁴

Secondly, the disease broke the Tlingits' faith in their shamans, who, in spite of their guardian spirits, perished together with those who sought their help. When smallpox struck, the Indians, hoping to find deliverance in their medicine men, raised the alarm and began zealously to "shamanize" (conjure) every day, but in vain. The shaman's most trusted remedies, e.g., applications of snow and ice to cure fever, did not work, and the Indians died by the dozens and hundreds. The dismayed shamans ardently wished the same misfortune on the Russians and implored their spirits to divert the evil contagion from themselves to the tsar's men (to this end, it was rumoured, smallpox scabs were put on the fresh provisions — mountain goat meat, halibut, wildfowl — that the Tlingits sold at Sitka), but again to no avail.⁶⁵

Thirdly, the Tlingits became convinced of the benefit of vaccination and the superior knowledge of the Russians. While the Indians refused immunization and died agonizingly and multitudinously, no Russians (save one) perished, although they lived alongside the natives and had contact with them. In trying to explain this "striking contrast" some Tlingits (the smartest and the friendliest, according to Veniaminov) concluded that the company's men knew "more and better" than they did. So by 1837 Tlingit men and women were coming to Sitka to ask Doctor Blashke to vaccinate themselves and their children, and by the end of that year more than 250 had been immunized. They survived, of course,

⁶³ It was perhaps fortunate for Veniaminov that his visit to the Tlingits, which he had intended to make earlier, was delayed until after the outbreak of smallpox; otherwise he might have been blamed for the disease and Russian-Tlingit relations, which were often strained anyway, would have worsened. As it was, some "malicious" shamans accused the Russians of loosing the disease upon the Indians ([Sturdza], *Pamyatnik*, pp. 215-16, 219-20).

⁶⁴ [Sturdza], *Pamyatnik*, pp. 215, 219; Veniaminov, *Zapiski*, 3: 130.

⁶⁵ [Sturdza], *Pamyatnik*, pp. 215-16; Veniaminov, *Zapiski*, 3: 128n., 129.

and served to persuade recalcitrant Indians from near and far to come to Sitka to receive the same protection.⁶⁶

To the devout Veniaminov the epidemic was an act of divine providence, for it marked a turning point in Tlingit history, a point when “the sway of rank ignorance and savagery ended and the dawn of enlightenment and humanity broke.” Certainly the outbreak staggered the Indians and, disregarding the ethnocentric and sanctimonious tone of Veniaminov’s evangelical skill, spelled the weakening of shamanism and the strengthening of Christianity among the Tlingits. Before 1830 the Russians had managed to convert no more than 20 Tlingit souls; in 1839 alone the same number were baptized. Another 102 (including two shamans) were christened by Easter of 1843, and yet another 200 by the middle of 1845. To accommodate the growing number of converts a Tlingit church was launched in 1846 at Sitka and consecrated in 1849.⁶⁷

As they became less shamanistic and less numerous, the Tlingits became less antipathetic to the Russians and more tractable. The bilateral banning of the liquor traffic by the Russian-American and Hudson’s Bay Companies in 1841 (if only for a few years) and Governor Etholen’s inauguration in the same year of an annual spring fair at Sitka for the Indians probably further mollified the Tlingits. So, too, did the withdrawal of American shipmasters — their longtime allies against the Russians — from the coast trade by 1841. The Tlingits were additionally pacified by the Russian-American Company’s introduction at this time of steam vessels in the “straits,” for with them, in the Indian’s own words, “notwithstanding wind or current they [the Russians] will find in any cranny the person who would do them harm.” The Tlingits even began to supply Sitka with firewood and from 1842 to take jobs there as stevedores and sailors. Veniaminov regarded the Tlingits as the most capable of the colony’s natives (they were “energetic and industrious” and learned to speak Russian “very quickly,” for example), and their semi-skilled labour helped to offset the company’s chronic shortage of colonial manpower.⁶⁸

⁶⁶ [Sturdza], *Pamyatnik*, pp. 215-16; Veniaminov, *Zapiski*, 3: 128-29.

⁶⁷ [Sturdza], *Pamyatnik*, pp. 213-14, 251, 259, 280; Tikhmenev, *History*, 1: 199-200, 429-30; Veniaminov, *Zapiski*, 3: 129, 136.

⁶⁸ *Otchyot Rossiiski-Amerikanskoy Kompanii Glavnava Praveleniya za odin god...* [*Report of the Head Office of the Russian-American Company for One Year...*] (St. Petersburg: divers, 1843-1865), 1843, p. 40; Wilston Lee Sarafian, “Russian-American Company Employee Policies and Practices, 1799-1867” (PhD dissertation, University of California at Los Angeles, 1970), pp. 209-10; [Sturdza], *Pamyatnik*, p. 213; USNA, roll 51, pp. 317, 318v.; Veniaminov, *Zapiski* 3: 112-13.

In a recent award-winning study of Euroamerican-Indian relations in British Columbia in the late eighteenth and nineteenth centuries Robin Fisher has contended that in general the maritime fur trade of the Northwest Coast did not disrupt the Indian way of life (the so-called "enrichment thesis") and that in particular the impact of disease has been exaggerated.⁶⁹ My own findings dispute this conclusion.⁷⁰ It was not a case of one or the other; rather, the coast trade was both enriching *and* impoverishing. The introduction of gunpowder, alcohol, tobacco and disease unquestionably impaired the health of the Indians and reduced their numbers, probably by as much as one-half by the end of the trade, and Euroamerican avidity in the scramble for lucrative sea otters skins did much to poison Indian-White relations. That legacy continues to mar life on the Northwest Coast — and indeed anywhere else in the Pacific basin where Euroamerican or Euroasian businessmen, missionaries and administrators imposed themselves upon indigenous societies — and as one of the heirs I feel poorer rather than richer for it.

The smallpox toll among the Tlingits, Tsimshians and Haidas may also have led to more potlatching — mortuary potlatches for the dead and rivalry and installation potlatches for the positions of rank vacated by the dead (see Duff, *Indian History*, pp. 57-59; Grumet, "Changes," pp. 305-06).

⁶⁹ Robin Fisher, *Contact and Conflict: Indian-European Relations in British Columbia, 1774-1890* (Vancouver: University of British Columbia Press, 1977), pp. xiv-xv, 20-23, 45.

⁷⁰ See James R. Gibson, "The Maritime Fur Trade of the Pacific Coast," forthcoming in vol. 4 of the revised edition of *The Handbook of North American Indians* (Washington, D.C.: Smithsonian Institution, in press).