

AD INEXPLORATA  
EIGHTEENTH-CENTURY EUROPEAN LEADERSHIP IN THE PACIFIC NORTHWEST

---

An Essay

Submitted to

The Faculty of the

United States Naval War College

---

In Partial Fulfillment

of the Requirements for the

Graduate Certificate in Maritime History

---

by

Colonel Blair W. Byrem

May 16, 2023

AD INEXPLORATA  
EIGHTEENTH-CENTURY EUROPEAN LEADERSHIP IN THE PACIFIC NORTHWEST

by  
Colonel Blair W. Byrem


APPROVED:  
Evan Wilson, DPhil  
Committee Director

John B. Hattendorf, DLitt  
Committee Member

Leigh Ann Perry, PhD  
Committee Member

Director  
Graduate Certificate in Maritime History

AD 12 02913

## REPORT DOCUMENTATION PAGE

Form Approved  
OMB No. 0704-0188

The public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden, to Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports (0704-0188), 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.

**PLEASE DO NOT RETURN YOUR FORM TO THE ABOVE ADDRESS.**

1. REPORT DATE (DD-MM-YYYY) 05/24/2023			2. REPORT TYPE Certificate Essay		3. DATES COVERED (From - To) August 2022 - May 2023	
4. TITLE AND SUBTITLE Ad Inexplorata: Eighteenth-Century European Leadership in the Pacific Northwest					5a. CONTRACT NUMBER	
					5b. GRANT NUMBER	
					5c. PROGRAM ELEMENT NUMBER	
6. AUTHOR(S) Col Blair Byrem, USAF					5d. PROJECT NUMBER	
					5e. TASK NUMBER	
					5f. WORK UNIT NUMBER	
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) John B. Hattendorf Center for Maritime Historical Research U.S. Naval War College 688 Cushing Rd Newport, RI 02841					8. PERFORMING ORGANIZATION REPORT NUMBER	
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)					10. SPONSOR/MONITOR'S ACRONYM(S)	
					11. SPONSOR/MONITOR'S REPORT NUMBER(S)	
12. DISTRIBUTION/AVAILABILITY STATEMENT Approved for public release; distribution is unlimited.						
13. SUPPLEMENTARY NOTES						
14. ABSTRACT This is a historical maritime leadership paper and analyzes three eighteenth-century case studies (Aleksei Chirikov, Juan Francisco de la Bodega, Peter Puget) to provide seconds-in-command with leadership lessons. It surveys the general context of European exploration in the age of sail before describing each expedition. It then intentionally addresses each captain, using unique leadership paradigms to showcase the diversity of available leadership theories.						
15. SUBJECT TERMS Maritime, Leadership, Chirikov, Bodega, Puget, Eighteenth Century, Russia, Britain, Spain, Pacific Northwest, Exploration, History, America						
16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT	18. NUMBER OF PAGES	19a. NAME OF RESPONSIBLE PERSON	
a. REPORT	b. ABSTRACT	c. THIS PAGE			Evan Wilson	
UNCLASS	UNCLASS	UNCLASS	UU	67	19b. TELEPHONE NUMBER (Include area code) 401-856-5749	

## INSTRUCTIONS FOR COMPLETING SF 298

**1. REPORT DATE.** Full publication date, including day, month, if available. Must cite at least the year and be Year 2000 compliant, e.g. 30-06-1998; xx-06-1998; xx-xx-1998.

**2. REPORT TYPE.** State the type of report, such as final, technical, interim, memorandum, master's thesis, progress, quarterly, research, special, group study, etc.

**3. DATE COVERED.** Indicate the time during which the work was performed and the report was written, e.g., Jun 1997 - Jun 1998; 1-10 Jun 1996; May - Nov 1998; Nov 1998.

**4. TITLE.** Enter title and subtitle with volume number and part number, if applicable. On classified documents, enter the title classification in parentheses.

**5a. CONTRACT NUMBER.** Enter all contract numbers as they appear in the report, e.g. F33315-86-C-5169.

**5b. GRANT NUMBER.** Enter all grant numbers as they appear in the report. e.g. AFOSR-82-1234.

**5c. PROGRAM ELEMENT NUMBER.** Enter all program element numbers as they appear in the report, e.g. 61101A.

**5e. TASK NUMBER.** Enter all task numbers as they appear in the report, e.g. 05; RF0330201; T4112.

**5f. WORK UNIT NUMBER.** Enter all work unit numbers as they appear in the report, e.g. 001; AFAPL30480105.

**6. AUTHOR(S).** Enter name(s) of person(s) responsible for writing the report, performing the research, or credited with the content of the report. The form of entry is the last name, first name, middle initial, and additional qualifiers separated by commas, e.g. Smith, Richard, J, Jr.

**7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES).** Self-explanatory.

**8. PERFORMING ORGANIZATION REPORT NUMBER.** Enter all unique alphanumeric report numbers assigned by the performing organization, e.g. BRL-1234; AFWL-TR-85-4017-Vol-21-PT-2.

**9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES).** Enter the name and address of the organization(s) financially responsible for and monitoring the work.

**10. SPONSOR/MONITOR'S ACRONYM(S).** Enter, if available, e.g. BRL, ARDEC, NADC.

**11. SPONSOR/MONITOR'S REPORT NUMBER(S).** Enter report number as assigned by the sponsoring/monitoring agency, if available, e.g. BRL-TR-829; -215.

**12. DISTRIBUTION/AVAILABILITY STATEMENT.** Use agency-mandated availability statements to indicate the public availability or distribution limitations of the report. If additional limitations/ restrictions or special markings are indicated, follow agency authorization procedures, e.g. RD/FRD, PROPIN, ITAR, etc. Include copyright information.

**13. SUPPLEMENTARY NOTES.** Enter information not included elsewhere such as: prepared in cooperation with; translation of; report supersedes; old edition number, etc.

**14. ABSTRACT.** A brief (approximately 200 words) factual summary of the most significant information.

**15. SUBJECT TERMS.** Key words or phrases identifying major concepts in the report.

**16. SECURITY CLASSIFICATION.** Enter security classification in accordance with security classification regulations, e.g. U, C, S, etc. If this form contains classified information, stamp classification level on the top and bottom of this page.

**17. LIMITATION OF ABSTRACT.** This block must be completed to assign a distribution limitation to the abstract. Enter UU (Unclassified Unlimited) or SAR (Same as Report). An entry in this block is necessary if the abstract is to be limited.

## Preface

History is more than the mere recitation of past events and includes myriad taxonomies such as political, economic, or social history. It is useful as a tool to build wisdom from others' endeavors. This is a historical maritime leadership paper and analyzes eighteenth-century case studies to provide seconds-in-command or detachment commanders with non-combat leadership lessons, because peace, not combat, is the typical condition in which officers lead. It argues that for modern seconds-in-command, reading historical manuscript sources rather than secondary biographical-type works provide ample opportunities to capture enduring leadership traits and behavior. This paper covers a general context before a historical discussion of the specific expeditions, providing readers with a necessary understanding of the environment in which the three captains led. It then intentionally addresses each captain, using unique leadership paradigms to showcase the diversity of available leadership theories.

System 1 or 2 type thinking permeates the studies, though not always explicitly named.<sup>1</sup> Likewise, several characteristics are universal across the case studies, including skill development, conscientiousness, followership, and trust. Leaders require significant training, education, and experience before commanding a complex system such as a ship. Expertise is the prerequisite to establishing credibility with subordinates and superiors. Both cohorts expect a given level of capability expressed by the leader. The leader must also demonstrate conscientiousness, that is, discipline, self-motivation, and a drive to accomplish organizational goals. As captains in their own right, seconds are also subordinate to superior fleet commanders.

---

<sup>1</sup> "System 1 operates automatically and quickly, with little or no effort and no sense of voluntary control. System 2 allocates attention to effortful mental activities that demand it, associated with the subjective experience of agency, choice, and concentration." "The automatic operations of System 1 generate surprisingly complex patterns of ideas, but only the slower System 2 can construct thoughts in an orderly series of steps." Daniel Kahneman. *Thinking, Fast and Slow*. (New York: Farrar, Straus and Giroux, 2011), 20-21.

Therefore, these captains have dual overlapping social identities as part of their own crew and ship and as part of the superior command. Thus, they must exhibit exemplary behavior according to the norms of both superior and subordinate groups in a delicate balancing act, simultaneously demonstrating a sense of duty to both. Failure to do so yields punishment or removal from above or disobedience from below. Trust, after all, is bestowed by people on others; a leader cannot compel a person to confer their trust. Officers must deftly follow superiors to both set an example for subordinates and empower their superiors, thereby eliciting their trust. Superiors reward followership with increased opportunities, decision space, and freedom to command. Followers endow leaders with increasingly broad obedience and effort. Trust from both vertical directions is the best measure of successful leadership, the hallmark of a leader, and the most precious aspect of any relationship between people.

Chirikov, Bodega, and Puget each had their own personality that reflected their unique social contexts of societal, personal, and professional backgrounds, but each demonstrated a balanced focus between mission and people. Relational expectations for the different echelons have evolved over the centuries, yet each captain first sought to satisfy the needs of their superiors and subordinates. Chirikov sought to ensure the Admiralty and Senate's goals were clear and met, and the crew was paid and victualled well from the Kamchatka Peninsula to North American shores. Bodega sought to ensure the expedition claimed vast territory according to the Viceroy's expectations and that the inexperienced crew was ready for the rough north seas. Puget sought to quiet Vancouver's anxiety by applying his unique navigational and ground-combat skillsets and did not exact harsh discipline on his Chatham crew.

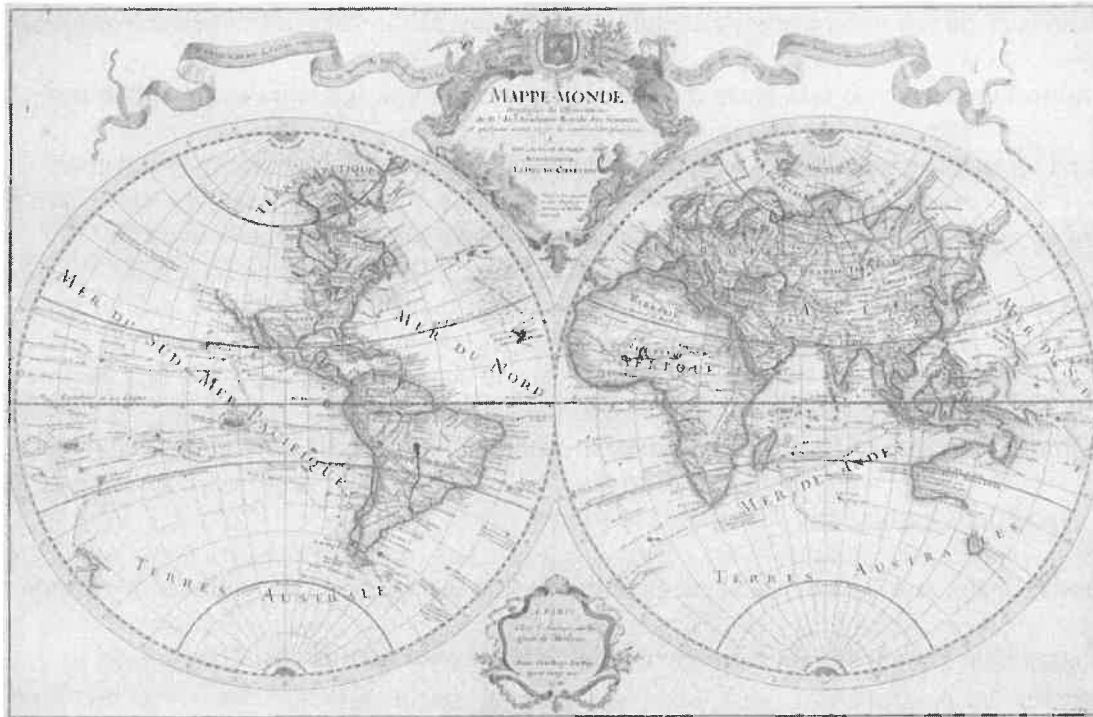
## I. Introduction

Europeans did not mount serious exploratory missions to the American Pacific Northwest until the eighteenth century. It was located at the far reaches of both sea lanes and empires and characterized by an extremely hostile natural environment. The nearly three dozen indigenous peoples had no deep-sea maritime capability which might have allowed earlier contact via voyages that originated from there. The contemporary scientific understanding and technological limitations of the era also made it difficult for Europeans to access the region, much less explore it in depth. Lastly, the lack of local fresh produce to which the Europeans were accustomed made European expeditions particularly susceptible to scurvy.

Russia, Spain, and Britain each sent expeditions into the region in the eighteenth century to gain geographical knowledge for a competitive advantage over their rivals. They sought to map new trade routes and claim resource-rich colonies.<sup>2</sup> The Pacific Northwest truly was *terra incognita* to Europeans. In 1700, the French cartographer Guillaume de l'Isle showed the region as entirely blank on his map of the world.

---

<sup>2</sup> William I. Lang, and James V. Walker, *Explorers of the Maritime Pacific Northwest: Mapping the World through Primary Documents* (Santa Barbara: ABC-CLIO, 2016), xiv.



**Figure 1:** World Map by Guillaume de l'Isle, 1700. (Guillaume de L'isle "Mappa Totius Mundi," published by Tobias Conrad Lotter, 1775 in Augsburg, Germany, available from the Library of Congress online <https://hdl.loc.gov/loc/wdl/wdl.7>)

This paper will examine one expedition each from Russia, Spain, and Britain. It will identify the primary problems that each expedition faced, examine how its leaders responded to those problems, and highlight enduring leadership lessons for modern military officers. Many of the expeditions to the region are well-known and thoroughly studied, and it is common to use the expedition's leader as shorthand when writing about their voyages: Bering (1741-42), Hezeta (1775), and Vancouver (1792-1794). Many of these leaders left legacies in the region in the form of names (Bering Strait, Vancouver Island) that continue to highlight their importance today. Yet their expeditions would not have been successful without able assistance from their seconds-in-command, and in some cases, the seconds actually achieved mission goals that the primary leader did not. For instance, Vitus Bering's second, Aleksei Chirikov, was the first European to

make it to the Pacific Northwest coast of North America, and Juan Francisco de la Bodega y Quadra traveled farther north than his superior, Bruno de Hezeta.<sup>3</sup>

This essay argues that subordinate leaders often played pivotal roles in the Pacific Northwest's exploration, but they were overshadowed by their superiors. My own experience in the U.S. Air Force suggests this is common. The squadron is the Air Force's foundational warfighting unit, led by a Squadron Commander whose second-in-command is typically a Director of Operations. A Director of Operations often plays a more pivotal role in the unit's daily mission execution than the Commander, who is intensely advocating for resources, coordinating training, and administering discipline, as well as myriad other responsibilities. These expeditions depict the same patterns, as this essay will explore. Moreover, examining these seconds provides a fruitful and underexploited leadership case study for today's officers. Unsurprisingly, historians have largely overlooked the expedition's seconds.<sup>4</sup> What work does

---

<sup>3</sup> F.A. Golder, *Bering's Voyages: An Account of the Efforts of the Russians to Determine the Relation of Asia and America, vol 1 & 2. The Log Books and Official Reports of the First and Second Expeditions, 1725-1730 and 1733-1742, Stellar's Journal of the Sea Voyage 1741-1742* (New York: American Geographical Society, 1925); Herbert K. Beals, ed. and trans., "The 1775 Journal of Juan Francisco de la Bodega y Quadra," in *Four Travel Journals: The Americas, Antarctica and Africa, 1775-1874*, edited by Herbert K. Beals et al. (London: Hakluyt Society, 2007), 1-139.

<sup>4</sup> Peter Lauridsen, *Vitus Bering: The Discoverer of Bering Strait* (Cambridge: Cambridge University Press, 2011); Peter Ulf Moller, *Under Vitus Bering's Command* (Denmark: Aarhus University Press, 2002); Cornelia Goodhue, *Journey Into the Fog the Story of Vitus Bering and the Bering Sea* (Garden City: Doubleday, Doran & Company, Inc., 1944); Raymond H. Fisher, *Bering's Voyages: Whither and Why* (Seattle: University of Washington, 1977); H.K. Beals, *For Honor and Country: The Diary of Bruno de Hezeta* (Portland: Western Imprints, 1985); Derek Pethick, *First Approaches to the Northwest Coast* (Vancouver: J.J. Douglas, 1976); Warren L. Cook, *Flood Tide of Empire: Spain and the Pacific Northwest, 1543-1819* (New Haven: Yale University Press, 1973); Santiago Saavedra, *To the Totem Shore: The Spanish Presence on the Northwest Coast* (Madrid: Ediciones El Viso, 1986); David J. Weber, *The Spanish Frontier in North America* (New Haven: Yale University Press, 1992); Bern Anderson, *Surveyor of the Sea: The Life and Voyages of Captain George Vancouver* (Seattle: University of Washington Press, 1960); William I. Lang and James V. Walker, *Explorers of the Maritime Pacific Northwest: Mapping the World through Primary Documents* (Santa Barbara: ABC-CLIO, 2016); Roderick Haig-Brown, *Captain of the Discovery: The Story of Captain George Vancouver* (Toronto: Macmillan, 1959); James K. Barnett, *Captain George Vancouver in Alaska and the Pacific Northwest* (Anchorage: Todd Communications, 2017); Stephen R. Brown, *Madness, Betrayal and the Lash: The Epic Voyage of Captain George Vancouver* (Madeira Park: Douglas & McIntyre, 2010); John M. Naish, *The Interwoven Lives of George Vancouver, Archibald Menzies, Joseph Whidbey and Peter Puget* (Lewiston: The Edwin Mellen Press, 1996); Edmond S. Meany, *Vancouver's Discovery of Puget Sound* (London: Macmillan & Co., Ltd., 1907); Richard Blumenthal, *With Vancouver in Inland Washington* (Jefferson, NC: Macfarland & Co., 2007).

exist tends to adopt a biographical approach rather than leadership analysis.<sup>5</sup> This paper is scoped to fill this historiographical gap by considering the second captain from one expedition for each nation. The primary sources for this analysis are ships' logs, formal post-expedition reports, personal journals, and various other communications between captains and their respective sponsors. No known native archival sources exist because the tribes used an oral history told and retold generationally, with stories, myths and legends often evolving both intentionally and unintentionally. As with all oral histories, details and variances change over time and with each telling, and many important details are lost across generations. In addition, the first contemporary ethnology of the region dates from 1841, nearly fifty years after the arrival of the last of the expeditions under study in this essay.<sup>6</sup>

## II. Imperial Politics

Each of the European states had their own unique regional interests. Domestic or international events influenced the states' interests and often created or amplified challenges for the expeditions. They also influenced the establishment of ports, how they developed, and why they were central for staging these expeditions. The relevant ports for this paper were important geopolitical and geo-economic tools used to claim territory and project maritime power.

### *Russia*

In the early eighteenth century, Russia's imperial leadership rapidly changed from one monarch to another, causing significant turmoil. Beginning with the death of Peter the Great in

---

<sup>5</sup> Vasili A. Divin, *The Great Russian Navigator A.I. Chirikov* (Fairbanks: University of Alaska Press, 1993); Freeman M. Tovell, *At the Far Reaches of Empire: The Life of Juan Francisco de la Bodega y Quadra* (Vancouver: University of British Columbia Press, 2008); Robert C. Wing, *Peter Puget: Lieutenant on the Vancouver Expedition* (Seattle: Gray Beard Publishing, 1979).

<sup>6</sup> Wayne Suttles, *Handbook of North American Indians, Vol 7: Northwest Coast* (Washington, D.C.: Smithsonian Institute, 1990), 93.

1725 and ending with Elizabeth's reign in 1741, Russia was led by five different rulers.<sup>7</sup> This resulted in inconsistent strategic guidance and interest for the expedition. The geographic separation between the Admiralty College in St. Petersburg and the Administrative Senate in Moscow amplified the lack of persistent national focus.<sup>8</sup> Russia involved itself in European power politics to balance against the Ottoman Empire, with whom they fought in the Russo-Turkish War of 1735-1739. This war, combined with competition from other European rivals, drove colonial aspirations as a means to provide access to commerce and natural resources.

In Russia, the 1733-1742 Bering-Chirikov expedition has several names, but is labeled the Second Kamchatka Expedition in this paper.<sup>9</sup> Peter the Great wanted to map the eastern expanses of his empire and establish useful sea routes.<sup>10</sup> The expedition's purpose evolved from Peter the Great through Empresses Anna and Elizabeth. The Admiralty directed the leaders to verify the region's geography, establish trade routes, subjugate the native peoples to levy taxes, and claim ownership to reap resources.<sup>11</sup>

### *Spain*

The Spanish, a common saying has it, sought God, Gold, and Glory in their empire. While they established themselves as the dominant imperial power in the sixteenth and seventeenth centuries, by the eighteenth century, Spanish imperial activities had to take European great power rivalries into account. Spain was fairly secretive when sending expeditions north out of Mexico to claim new lands. Any indication of a significant shift in balance of power

---

<sup>7</sup> Dmytryshyn Basil, *Imperial Russia: A Source Book, 1700-1917* (Illinois: The Dryden Press, 1974), 480.

<sup>8</sup> Fisher, *Bering's Voyages*, 109.

<sup>9</sup> Fisher, *Bering's Voyages*, 108.

<sup>10</sup> A.A. Pokrovskii, ed. *Ekspeditsiia Beringa: Sbornik Dokumentov*. (Moscow: Glavnoe arkhivnoe upravlenie NKVD SSSR, 1941), 14.

<sup>11</sup> Fisher, *Bering's Voyages*, 108-183.

could warrant British intervention, which would sever any opportunity to identify a new source of treasure for amassing wealth. Spanish officials also had to monitor the activities of other imperial powers, and one major motivation for the Spanish expeditions to the Pacific Northwest was to respond to rumored Russian activity in that region.<sup>12</sup> Additionally, blossoming British trade with China concerned the Spanish about encroachment from the North as well.<sup>13</sup> The Spanish, having a solid foothold in South America and Mexico, continued pursuing empire in a graduated manner along the Pacific coast.

### *Britain*

British interest in the Pacific exploded following Captain James Cook's first voyage (1768–1771). But it was his third voyage, on which he was killed, that brought the British into the Pacific Northwest. While searching for the northwest passage, Cook accidentally identified a source to satisfy the Chinese demands for otter fur. Word of this bonanza spread quickly. The half-decade from 1785 to 1790 saw thirty-three British trading expeditions alone, and it increased further in the next decade.<sup>14</sup>

Underpinning this trading interest was the world's most powerful navy.<sup>15</sup> The Admiralty had three goals for the Vancouver-Puget expedition, and they blended mercantile interests with cartography and great-power politics. The Admiralty's orders were to conduct extensive mapping from "30th degree of north latitude north-westward toward Cook's river," to determine

---

<sup>12</sup> Francisco Antonio Mourelle to Viceroy Conde de Revilla Gigedo, "Viajes a las Costas de California y parte de N. O. de la America en 1774," 15 Feb, 1791. Manuscript original in Musea Naval, Madrid.

<sup>13</sup> Enrique Cardenas de la Pena, *San Blas de Nayarit* (Mexico: Secretaria de Marina, 1968), 19-59.

<sup>14</sup> Barry Gough, *Distant Dominion* (Vancouver: University of British Columbia Press, 1980), 100.

<sup>15</sup> R.V. Jackson, "Government Expenditure and British Economic Growth in the Eighteenth Century," *The Economic History Review* 43, No. 2 (1990): 222; R.V. Jackson, "The Royal Navy's Size Throughout History," *The History and Heritage Accommodation Guide*, Historic UK, [The Royal Navy - Size and Strength Over Time in Visuals \(historic-uk.com\)](http://TheRoyalNavy-SizeandStrengthOverTimeinVisuals(historic-uk.com)).

if there was a northwest passage, and to go to Nootka Sound to receive Spanish restitutions for aggressions against fur trader John Meares, based upon his testimony to the House of Commons.<sup>16</sup> The expedition was to pay particular attention to determining the nature of the Straits of Juan de Fuca, and were to use the Sandwich Islands (Hawaii) as a wintering location. The Admiralty stressed that the expedition was to work with any Spanish captains exploring the coast, as well as to recover any of Meares' former Chinese employees. Lastly, the Admiralty stated that, if there was time, the expedition should identify the southern-most Spanish settlement on the coast of "Chiloe."<sup>17</sup>

The primary problem presented to the British was the same problem that plagues modern military Pacific operations: the tyranny of distance. Wind, current, and geography made the Pacific Northwest the most distant maritime region on the planet for the British. As the reigning maritime empire, one might suppose British overseas naval bases were abundant and provided some modicum of proximity for operations within the Pacific Northwest, but this was not the case. Visually plotting eighteenth-century British, Dutch and Spanish trade routes on a map using historical ships logs further highlights the remoteness of the region.<sup>18</sup> In fact, the nearest potential British ports were in the Philippines, Australia, or around Cape Horn at Port Egmont in the Falklands.<sup>19</sup> The Sandwich Islands were available, albeit hostile, and not fully developed; this is where Captain Cook met his fate. Therefore, victualling and fitting the ship was problematic due to the voyage's multi-year duration. Vancouver's orders prevented him from stopping at

---

<sup>16</sup> George Vancouver, *A Voyage of Discovery to the North Pacific Ocean, and Round the World*, vol 1. (London: G.G. and J. Robinson, 1798), x.

<sup>17</sup> Vancouver, *A Voyage*, xxii.

<sup>18</sup> James Cheshire, "Maps of 18<sup>th</sup>-century Shipping Trade Routes," used by John Burn-Murdoch, "18th Century Shipping Mapped Using 21<sup>st</sup> Century Technology," *The Guardian* last modified 13 April 2012, <https://www.theguardian.com/news/datablog/2012/apr/13/shipping-routes-history-map>.

<sup>19</sup> Brian Lavery, *Nelson's Navy: The Ships, Men and Organisation, 1793-1815* (London: Conway Maritime Press, Ltd., 1989), 33.

temperate Spanish ports unless in dire emergency, and repair and retrofitting had to occur at a hostile or underdeveloped berth.

### III. Environmental Context

The Pacific Ocean covers 62.5 million square miles, with the Pacific Northwest containing arguably the most hostile coastline within that area. The 74,564-mile coastline is latticed with over 3,600 islands and 209 volcanoes.<sup>20</sup> The nature of the coastline varies, but the regions visited by eighteenth-century Europeans were typically heavily timbered, with rocky shorelines, steep embankments or cliffs, fjords, and countless shoals and underwater obstacles or mountains.

The climate and weather match the region's rugged geography. It contains six different Köppen climate types including Subarctic, Subpolar Oceanic, Oceanic, Temperate Oceanic, Temperate Mediterranean and Warm Mediterranean regions.<sup>21</sup> The geographic center of the area visited by the eighteenth-century expeditions today averages 120-150" of annual precipitation, 44" of snow, and up to 340 cloud-covered or foggy days, with some areas experiencing nearly perpetual mist. June typically has the best weather with only 15.2 days of rain, while October is the wettest month with 24.6 days of rain. The average July high temperature is around 61°F, while the summertime wind speed averages 8-9 knots. The safest time for sailing southeast Alaskan waterways is May through July due to the prevalence of gales (34-47 knot winds) outside of those months.

---

<sup>20</sup> John Misachi, "Pacific Ring of Fire," *World Atlas*, last modified 22 March 2021, [Pacific Ring Of Fire - WorldAtlas](#) & Alaska Shore Zone, NOAA Fisheries accessed on 1 January 2023, [Alaska ShoreZone | NOAA Fisheries](#)

<sup>21</sup> [www.weather.gov](http://www.weather.gov)

The oceanography is likewise diverse and extreme. There are several major currents in the region, including the Alaska Stream, the Alaska Coastal Current, the North Pacific Current, and the California Current.<sup>22</sup> The Gulf of Alaska Gyre circulates counterclockwise in the Alaskan pocket. The North Pacific Current comes east across the Pacific from Japan. The California Current heads clockwise running southerly along the Canadian and American west coast. The primary currents affecting the navigation along the coast are the Alaska Current, with an average of 39°F water temperature and a running speed of 1.7 knots, and the California Current which averages 57°F. The most extreme aspect of the oceanography is the tidal range, which averages 12' and reaches up to 35' in the Turnagain Arm south of Anchorage, Alaska.

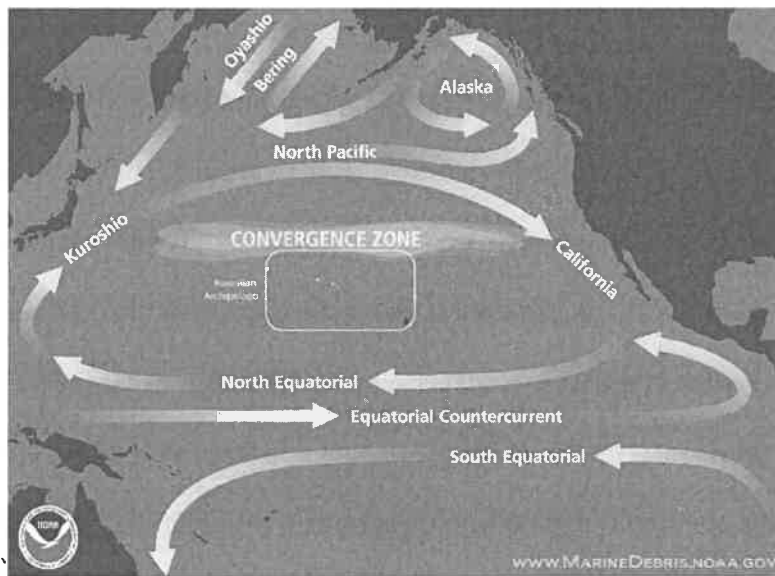


Figure 2: Pacific ocean currents. (NOAA Map of Pacific Currents available from [www.marinedebris.noaa.gov](http://www.marinedebris.noaa.gov))

#### IV. The Native Inhabitants

European interaction with the region's approximately thirty-six tribes originated with the Bering-Chirikov expedition, when Captain Chirikov made contact with either the Tlingit or Eyak

<sup>22</sup> [www.NOAA.gov](http://www.NOAA.gov)

tribes.<sup>23</sup> Upon the conclusion of Cook's third voyage in 1778, the quantity of Europeans visiting the region increased drastically due to the publicized profitability and availability of sea otter fur.<sup>24</sup> Within the next twenty years, there were dozens of expeditions and traders, but more importantly the northern region's first settlements and major trading hubs were built by Grigory Shelikhov in 1784 on Kodiak Island, Esteban Jose Martinez in 1789 at Nootka Sound, and by Aleksandar Baranov of the Russian American Company at Sitka (New Archangel) in 1799. The impact on natives directly correlates to the quantity of contact, but also with the method of interaction (exploration, trade, or settlement).<sup>25</sup>

Early in the relationship, Europeans were at a distinct disadvantage when dealing with the natives. First, the sailors often experienced freshwater shortage paired with the effects of scurvy, as we will see aboard the Bering-Chirikov and Hezeta-Bodega ships. Additionally, the natives also held the upper hand in terms of having pelts that were highly valued by the Europeans, who hoped to recoup the costs of the expeditions. The sparse contact did not give any single tribe a particularly significant advantage early on. Europeans feared the tribes and often did not disembark when trading, so much of the early contact happened from ship to canoe.<sup>26</sup>

The establishment of outposts increased European power in the region. However, the native tribes located near the outposts at natural harbors used their proximity to their advantage. For instance, the Tlingit controlled the river routes into interior Alaska, and as a result controlled the exchange of interior, coastal and European goods. As time progressed, the native chiefs became more selective of which goods they sought, and they exerted this power in negotiations.

---

<sup>23</sup> Golder, *Bering's Voyages*, 296.

<sup>24</sup> Suttles, *Handbook*, 70-180.

<sup>25</sup> Suttles, *Handbook*, 70-180.

<sup>26</sup> Suttles, *Handbook*, 70-180.

Interactions between Europeans and natives were complex, and just like all human interactions, varied in scope and nature. For instance, slavery and captive-taking occurred. Both natives and Europeans exercised the practice, with natives enslaving natives and Europeans alike, and vice versa. The extent to which this was practiced depended upon the individual captain or chief, the tribe, and the time period. Trading encounters could devolve into violence or raids could lead to captives. It is obvious that this behavior was entirely normative for the region during the trading period.<sup>27</sup>

There were eight major epidemic diseases that European contact brought to the natives: smallpox, malaria, measles, influenza, dysentery, whooping cough, typhus and typhoid fever. These outbreaks often aligned with European expeditions or ventures. In addition to these, venereal disease (gonorrhea and syphilis) was incredibly rampant where European outposts were established, whether at Nootka Sound or New Archangel (Sitka).<sup>28</sup>

By far the most impactful and deadly of all diseases was smallpox. The virus ended up affecting all of the tribes from the northern Eyak and Tlingit all the way to the southern Salish. The Tlingit infections almost certainly were brought by direct European contact, while the southern Salish outbreaks may have arisen initially from Spanish contact, as early as the Hezeta-Bodega expedition, or via Plains tribes which contracted it from Americans. Concurrent with these epidemics were other outbreaks such as measles or influenza, but they were significantly eclipsed by both the mortality and morbidity of smallpox. Eight different outbreaks from 1774 to 1874 decreased the population of the natives from approximately 188,334 to less than 35,000, which is an astounding 82% population loss in a single century.<sup>29</sup>

---

<sup>27</sup> Suttles, *Handbook*, 70–180.

<sup>28</sup> Suttles, *Handbook*, 137.

<sup>29</sup> Suttles, *Handbook*, 147.

## V. Contemporary Science and Technology

Sailing ship architecture reached maturity during the eighteenth century. Shipyards varied in size and maturity, but the most established were expansive, employing craftsmen from dozens of trades.<sup>30</sup> Shipyards often contained specialized infrastructure to craft different portions of the ship, including a ropeyard, cordage house, iron loft, tarring house, tar cellars, stables, hemp loft, spinning house, parting loft, weighing house, sheds, offices, galleries, gardens and homes.<sup>31</sup>

The shipyards pertinent to this project were Okhotsk, San Blas, and Woolwich, Rotherhithe and Dover. Okhotsk was Russia's primary Pacific shipyard but was little more than a wilderness outpost; San Blas was Spain's primary Pacific shipyard, but it had berths for just four ships, and was not mature at the time of Bodega's voyage. In contrast, since Dover, Woolwich and Rotherhithe were located at the heart of British naval power around the mouth of the Thames, they were mature and expansive dockyards with extremely skilled craftsmen and specialized infrastructure.

There were two primary raw materials necessary for ship building: timber and hemp. Shipwrights preferred the use of different species of trees for different portions of the ship. For instance, large oak was preferred to make stem and sternposts, while fir could be substituted for oak in a pinch.<sup>32</sup> Elm resisted rot well, so it was often used below the waterline. Meanwhile hemp was processed into sails and ropes due to the strong, straight fibers from the stalk. Mariners did not discard ropes, but rather combined them with goat hair, cow hair, and tar to make oakum which was used for caulking. Turpentine was created from pine species, which then

---

<sup>30</sup> Dodds, *Fighting Ship*, 39.

<sup>31</sup> Dodds, *Fighting Ship*, 33.

<sup>32</sup> Dodds, *Fighting Ship*, 18, 22-24.

was combined with tallow and tar. This concoction was applied to decks, ropes, masts, and other structures to aid in water proofing. Iron nails were not used due to rusting out, so treenails and wedges were used instead. Although many ships had similar length to width ratios of 3.5:1, with a depth of hull about half the width, each of the nations had nuanced designs based upon whether they favored speed or strength.<sup>33</sup> In all three expeditions, significant repairs and maintenance were completed while at the apogees of their routes.

A sailing ship's speed was the result of the relationship between rudder, sails, trim and stability. There are two primary forces acting upon a sailing ship, the wind and the water; when both work in concert with each other maximal speed is achieved.<sup>34</sup> A ship's sailing characteristics are not necessarily absolute. A skilled captain can maximize the full potential of a ship adjusting the different factors according to the current and wind. As important to the performance of the ship is the captain's ability to read the weather and water, as indicators of distant land and pending storms or other important events. Lastly, the skill of the ship's crew determined the amount of potential actually realized for a ship. In short, ships during the eighteenth century required layers of skill from top men to captains, as evident in each expedition.

#### *Russia – Okhotsk*

The Second Kamchatka Expedition originated in Petropavlovsk on the eastern side of Siberia, 4,215 miles from Moscow.<sup>35</sup> Bering founded Petropavlovsk in 1740 to support the expedition and future regional efforts as a follow-on base to Okhotsk, 730 miles to the northwest across the Sea of Okhotsk. Petropavlovsk's population came from western Russia and were

---

<sup>33</sup> Lavery, *Nelson's Navy*, 38.

<sup>34</sup> Sam Willis, *Fighting at Sea in the Eighteenth Century: The Art of Sailing Warfare*. (Woodbridge: The Boydell Press, 2010), 28-30.

<sup>35</sup> Petropavlovsk translates to Peter and Paul.

mostly woodsmen rather than seamen, due to the demands of the remote Siberian wilderness location. These woodsmen brought ship-building tools, craftsmen, and consumables overland across the expansive wilderness to the port. Okhotsk was larger than Petropavlovsk and the primary Russian hub in the region. Its small size is another indicator of the region's remoteness. In the late 1720s, Okhotsk only consisted of eleven Russian households, but following a 1731 decree, it grew to include 300 servitors, fifty Russian peasant families, thirty Tunguses, twenty shipwrights, four carpenters, a wharf, and a shipyard with berths for four to six ships. The remoteness of the two outposts also limited the size and relative maturity of the ship construction infrastructure. The raw materials available to repair the ships were not cultivated and not of the highest quality, nor even of the preferential species. All of this was compounded by the extremely long and harsh winters.

The expedition consisted of two ships, the *St Peter* and the *St Paul*. Both were packet ships constructed at Okhotsk around 1740. The ships were constructed from green timber, typically pine, birch or tamarack, and had high sides, short masts, narrow sails, and long rudders. They averaged a scant two knots due to the blunt design.<sup>36</sup> They each had two masts and were 80' long and 22.5' wide, with a 12' draft and a 9' hold depth. They displaced 200 tons, with a carrying capacity of 100 tons, and they were armed with fourteen cannons. Each had a single deck, two rails, a hold for cargo, living quarters for the crew, officers' cabins, and a galley, and they carried two row boats. Most of the rigging and victuals were brought overland to outfit the ships.<sup>37</sup>

---

<sup>36</sup> James R. Gibson, *Feeding the Russian Fur Trade: Provisionment of the Okhotsk Seaboard and the Kamchatka Peninsula, 1639-1858* (Madison: The University of Wisconsin Press, 1969), 12-13, 30.

<sup>37</sup> Dmitrii M. Lebedev, *Plavanie A.I. Chirikova na Paketbote Sv Pavel k pberzeh'iam Ameriki. S Prilozheniem Sudovogo Zhurnala 1741 g* (Moscow, 1741). [The Voyage of A.I. Chirikov in the Packet Boat St Paul to the Shores of America, with the Ship's Journal] translation retrieved from [www.chirikov.org](http://www.chirikov.org). The cannons' sizes were not mentioned.

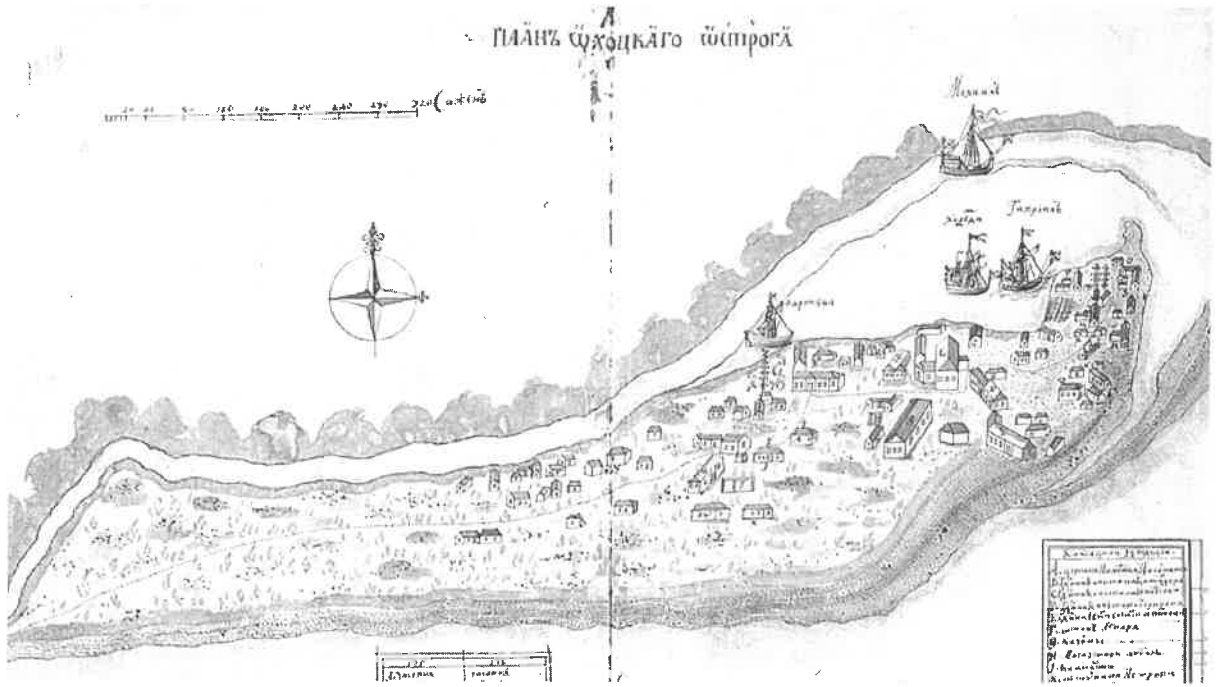
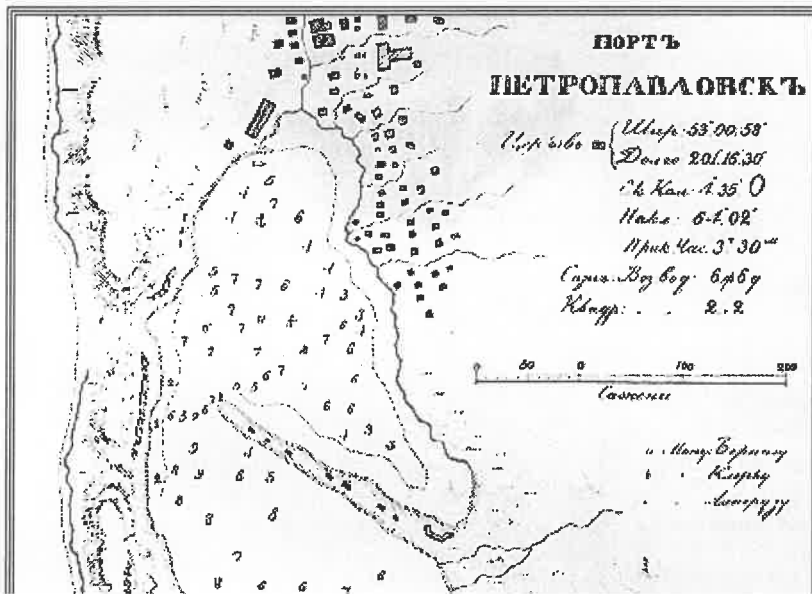


Figure 2: Plan of Okhotsk in 1737. (Source: "Plan of Okhotsk, 1737" Russian State Archive of Ancient Acts in Moscow)



**Figure 3:** Mikhail Tebenkov's Chart of Petropavlovsk Harbor. (Source: "Atlas severozapadnykh beregov Ameriki ot Beringova proliva do mysa Korrientes i ostrovov Aleutskikh s prisovokupleniem niekotorykh miest severovostochnago berega Azii. Sostavil kapitan 1-go ranga Teben'kov" Sanktpeterberg, 1852 available in digital manuscript at Sterling Memorial Library, call number Ega 852Ta, Orbis Record 1523918, Object ID 30940883, <https://collections.library.yale.edu/catalog/30940883>)

### Spain – San Blas

San Blas was a Spanish port established on the Mexican mainland specifically to house a military garrison and to support northern expansion and exploration along the west coast. The Plan of the Port and Naval Department of San Blas, penned by Master Mourelle in 1777, depicts three clusters of two-dozen buildings each at the port, including domiciles and military buildings.<sup>38</sup> Spain's only American Pacific shipyard had just four berths and two permanently assigned packet ships, the *San Carlos* and the *El Principe*, that ran supplies locally along the coast. Its harbor was small yet sheltered. It had access to plenty of cedar, though that was not ideal shipbuilding wood, which undermined the quality and durability of the ships built there.<sup>39</sup>

<sup>38</sup> Deni Trejo Barajas and Marie Christine Duggan, "San Blas and the Californias," *Mains 'l Haul*. (San Diego: San Diego Maritime Museum, 2018).

<sup>39</sup> James Dodds, *Building the Wooden Fighting Ship* (London: Hutchison and Co, 1984), 14.

All ironworks and specialized tools were brought overland via pack train across Mexico.<sup>40</sup> The occupants were characteristically cowboys not blue-water sailors, and the sailors that were present were accustomed to temperate brown water sailing along the Mexican and California coasts. It comes as no surprise San Blas' resources shaped Bodega's crew composition, ship construction, and overall voyage experience.

San Blas stands in stark contrast to Spain's Havana shipyard, which was the most developed naval shipyard away from Europe, capable of constructing ships of the line.<sup>41</sup> Meanwhile, the largest ship constructed at San Blas was the frigate *Santiago* of 1773: a three masted frigate that was 62' long and 13' abeam, displacing 225 tons.<sup>42</sup> The Spanish opted for a frigate, because frigates were the best general use ship. They mixed strength, firepower and speed; they were designed to operate independently, with unarmed lower decks which allowed greater heel in heavy seas, and in ideal conditions they could reach speeds up to 14 knots.<sup>43</sup> Accompanying the *Santiago* was the *Sonora*, a two masted goleta that was 33' long and 8'4" abeam, displacing only 59 tons and drawing 8' of draft.<sup>44</sup> The goleta was a Spanish version of the schooner, an American design prioritizing speed under sail as dispatch or messenger ships.<sup>45</sup>

---

<sup>40</sup> Michael E. Thurman, "The Establishment of the Department of San Blas and Its Initial Naval Fleet: 1767-1770," *Hispanic American Historical Review*, 43 no. 1 (1963): 65-77.

<sup>41</sup> Lavery, *Nelson's Navy*, 284.

<sup>42</sup> Cook, *Flood Tide*, 550.

<sup>43</sup> Lavery, *Nelson's Navy*, 49.

<sup>44</sup> Cook, *Flood Tide*, 550.

<sup>45</sup> Lavery, *Nelson's Navy*, 55.

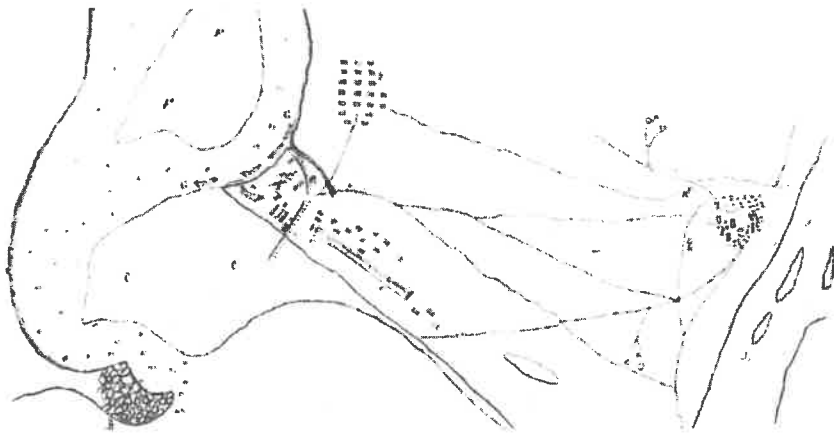


Figure 4: Plan of Port San Blas in 1777. (Source: Francisco Mourelle's 1777 "Plan of the Port and Naval Department of San Blas," Museo Naval Madrid)

#### *Britain – Rotherhithe, Dover and Woolwich*

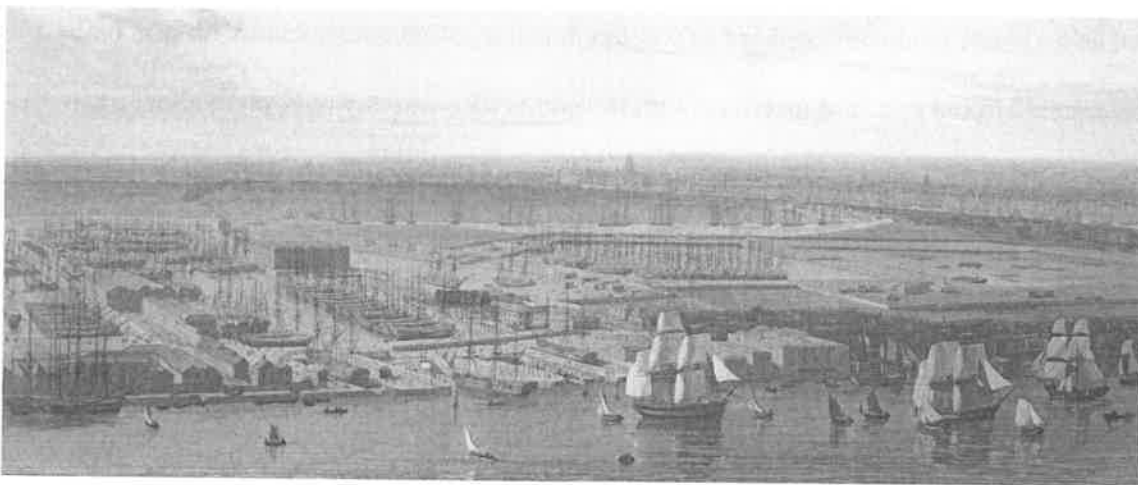
In Britain, shipbuilding was extremely mature at numerous locations, including Rotherhithe, Dover and Woolwich shipyards where the *Chatham* and *Discovery* were constructed and fitted. British forests for ship building were strictly regulated. The British preferred 120-year-old white oak, due to their slow growth and density of growth rings. In winter, when the sap had retreated into the roots, they harvested trees two to three feet in diameter, aged 80 to 150 years. Shipwrights only used sapwood seasoned for three years, with each tree providing approximately fifty cubic feet of suitable wood. Most British ships were constructed of ninety-five percent oak. The typical ship during this period experienced a life span of around twenty years prior to requiring major overhaul due to rack and rot.<sup>46</sup>

The *Chatham* was an armed tender built in 1788 at Dover and outfitted at Woolwich. She was brigantine rigged (meaning two masted with the aft mast as the main mast with a square-

---

<sup>46</sup> Dodds, *Fighting Ship*, 14-16.

rigged topsail and a gaff rigged mainsail), with a copper sheathed hull that was 65' long and 21.5' wide. She displaced 135 tons, carried a crew of forty-five, and was armed with four 3-pounders and six swivel guns.<sup>47</sup> It was reputedly slow whenever it sailed in formation with the *Discovery*, yet when sailing alone and meeting at a destination, it usually arrived before the sister ship. The sluggishness is likely due to removal of eight tons of iron ballast in January 1791, which caused excessive heeling or improper trim due to inadequate counters to the torsional moment about the hull.<sup>48</sup> The *Discovery* was a three masted sloop of war built in 1789 at Rotherhithe, with a copper-fastened, planked over, copper sheathed hull that was 96' long and 27' wide. She had 15' draft, was armed with ten 4-pounders and ten swivel guns and required a crew of one hundred.<sup>49</sup> The use of copper was designed to prevent ship worm, as well as prevent growth of weed on the bottom, thereby increasing speed.<sup>50</sup> Of the three expeditions, the British ships were obviously of the highest quality and most durable construction.



**Figure 5:** Painting showing the complexity and maturity of Rotherhithe Dockyard. (Source: William Daniell, "A View of the Commercial Docks at Rotherhite," 1 June 1813, British Library)

<sup>47</sup> Vancouver, *A Voyage*, vol I., xi.

<sup>48</sup> Naish, *Interwoven Lives*, 80.

<sup>49</sup> Vancouver, *A Voyage*, xi.

<sup>50</sup> Lavery, *Nelson's Navy*, 70.

### *Navigational Methods*

Sailors relied heavily on observations of natural phenomena to navigate. They observed baseline deviations to wind, rain, cloud, current, sea color, sky color, and bird species.<sup>51</sup> For instance, a light turquoise tint on the bottom of clouds may indicate coral shoals, or swallows might indicate nearby land due to their habits of nesting upon cliffs. Sailors familiar with particular seas might even use dead reckoning based upon their intimate knowledge of the currents, winds and tides, and once in sight of shore, they could use terrain familiarity to guide them towards their final destination.

Traversing into the unknown with the intent to create maps, however, required diligent documentation and measurement. The technology that supported this included the quadrant, the sextant, the compass, the chronometer, and the lead line, though only the Vancouver-Puget expedition enjoyed the use of all of them.

The magnetic compass consisted of wooden housing, often constructed with iron nails, a soft iron needle affixed to a card inscribed with the points rose which would pivot about a pin and socket. Different compass makers from different parts of the world designed their compasses to allow for the magnetic variation for their particular region, but their quality and thus accuracy varied greatly.<sup>52</sup>

Bering and Chirikov utilized the Davis Quadrant on their expedition, which was a wooden tool utilized to determine the altitude of a celestial body up to 90°, such as the sun. Its accuracy in determining latitude was dependent upon moderately clear skies. It was most

---

<sup>51</sup> Matthew F. Maury, *Explanations and Sailing Direction to Accompany the Wind and Current Charts*. (Washington: C. Alexander, 1851), 5.

<sup>52</sup> J.B.Hewson, *A History of the Practice of Navigation*. (Glasgow: Brown, Son & Ferguson, Ltd., 1951) 52-54.

difficult to get accurate measurements at equatorial latitudes due to the speed of the solar track. Meanwhile, Bodega and Puget both utilized the sextant which was smaller, constructed of metal, and an improvement over the quadrant. It operated on the same principle of finding celestial altitude in comparison to the horizon, but went to 120°, and was capable of greater accuracy because it allowed reading an angle to the nearest 10" of arc versus the quadrant's 30" of arc.<sup>53</sup>

The previous two tools aided in the determination of latitude, but the determination of longitude was more problematic. Pinpointing longitude required trigonometry, lunar tables, and other difficult means. Captain Cook used lunar tables on his first voyage, but the chronometer was the best answer to this problem and was often used in conjunction with lunar tables. The shipboard environment was incredibly hostile to chronometers, due to temperature changes, high humidity, and constant and violent ship movement. The Bering-Chirikov expedition did not have a chronometer. Bodega, although trained on its use at San Blas, likewise did not have one.<sup>54</sup> However, both Vancouver and Puget had good quality chronometers aboard their ships, reflecting a century's worth of scientific study and government investment in these instruments. Specifically, K3 made by Mr. Kendall was aboard the *Discovery* and no.82 made by Mr. Arnold was aboard the *Chatham*.<sup>55</sup>

The lead line is the oldest of the instruments presented here. It is a line with a weight of lead on the end, used to measure the ocean's depth and measured in intervals known as deeps or marks, which are 6' or one fathom apart.<sup>56</sup> This tool was extremely important as mariners broached strange shores to determine not only the depth of the ocean but also the consistency of

---

<sup>53</sup> Hewson, *Navigation*, 78, 83.

<sup>54</sup> Lang, *Explorers*, 58.

<sup>55</sup> W. Kaye Lamb, ed. *A Voyage of Discovery to the North Pacific Ocean and Round the World, 1791-1795, vol I.* (London: The Hakluyt Society, 1984), 309.

<sup>56</sup> Hewson, *Navigation*, 216.

the bottom, which indicated the proximity of land. In deep water, the ship often had to be stopped prior to sounding the depth, otherwise the lead would trail up due to forward propulsion. This tool aided in describing the oceanography of particular harbors for suitability based upon the ships' drafts.

### *Maritime Medicine*

There were many diseases that plagued sailors in the eighteenth century, but scurvy had the most impact on expeditions in the Pacific Northwest. Unlike other diseases which could confer immunity to survivors, scurvy was caused by a vitamin C deficiency, often beginning around the tenth to fourteenth day and with varying degrees of severity. Doctors did not fully understand the cause of scurvy was not getting 60mg of daily vitamin C, and often only knew that fresh produce yielded healthier sailors.<sup>57</sup> To quote one doctor of the day, “[O]ne reason for the frequency of scurvy ... was no doubt the often carrying up of the bedding of the ship’s company to quarters.”<sup>58</sup> Other doctors, including the British surgeon Dr. James Lind, proposed some useful remedies including prophylactic antiscorbutics, but it was not until the 1790s that British ships were regularly issued lemon juice.<sup>59</sup> Dr. Alexander Armstrong’s firsthand accounts describe scurvy in nauseating detail: it is sufficient to say that it is debilitating and can cause an agonizing death.<sup>60</sup>

Scurvy plagued both the Bering-Chirikov voyage and the Hezeta-Bodega voyage, while the Vancouver-Puget expedition did not experience a single casualty to scurvy, reportedly due to

---

<sup>57</sup> 60 mg is the USDA daily recommendation.

<sup>58</sup> Christopher Lloyd, ed., *The Health of Seamen: Selections from the Works of Dr. James Lind, Sir Gilbert Blane and Dr. James Trotter* (London: Spottiswoode, Ballantyne and Co. Ltd., 1965), 13.

<sup>59</sup> Lloyd, *Health of Seamen*, 2, 20-22

<sup>60</sup> Alexander Armstrong, *Observations on Naval Hygiene and Scurvy, More Particularly As the Latter Appeared During a Polar Voyage* (London: John Churchill, 1858).

their experience sailing with Captain Cook.<sup>61</sup> They victualled sauerkraut (21mg of vitamin C per cup), brewed spruce beer (100mg per cup) and lemon rob (480mg per cup fresh, 120mg per cup after thirty days).<sup>62</sup> There was vitamin C available in the Pacific Northwest in the form of spruce tea and rose hips. In 1795, the British Navy mandated 0.75 ounces lemon juice per day per sailor, nearly eliminating scurvy, but switched to lime juice during the war with Spain, where they secured most of their lemons.<sup>63</sup>

## VI. Aleksei Chirikov

Captain Aleksei Chirikov was born in Russia in 1703, the son of a Kiev provincial commandant and descendant of a Cossack chief. In 1715, he enrolled in the School of Mathematics and Navigation, which Peter I had founded to produce professionally trained officers for both the army and navy.<sup>64</sup> Chirikov was one of three hundred students studying mathematics, astronomy, and navigation. In 1716, based upon superior performance, Chirikov and nineteen other students transferred to the Naval Academy at St. Petersburg, where he studied advanced math, Mercator navigation, spherical navigation, geodesy, artillery, fortification, drawing, maritime architecture, marine steering, rigging, swordsmanship, musketry, civil architecture, law, and foreign languages. He also learned shipbuilding from Dutch shipwrights that the tsar had brought to Russia. The curriculum was French-styled or shore-based versus the sea-based British method.<sup>65</sup> The daily regimen included four hours of classroom lessons,

---

<sup>61</sup> James Cook, *The Voyages of Captain James Cook Round the World*, vol III (London: Sherwood, Neely & Jones, 1813), 90.

<sup>62</sup> Jason Mayberry, "Scurvy and Vitamin C," Paper for Harvard Law School, 2004. [A Timeline of Scurvy \(harvard.edu\)](https://www.harvard.edu)

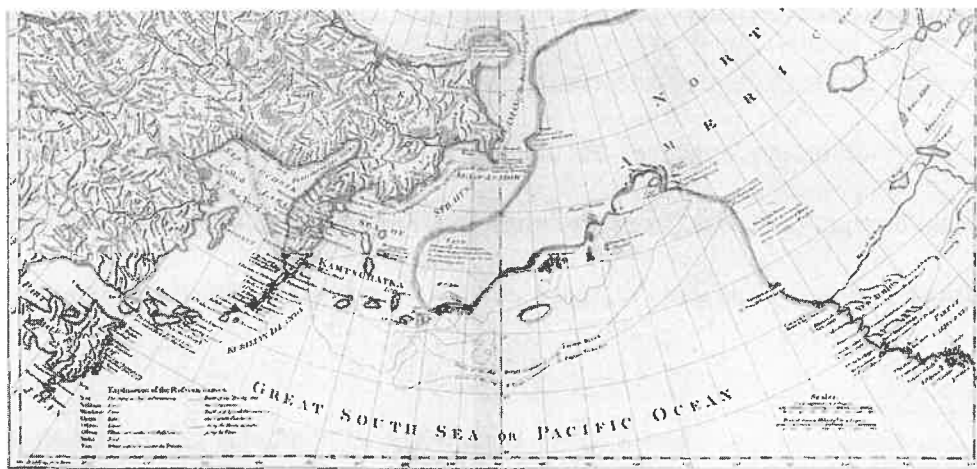
<sup>63</sup> Philip K. Allan, "Finding the Cure for Scurvy," *Naval History Magazine* 35 no. 1, (2021).

<sup>64</sup> Divin, *The Great Russian*, 27.

<sup>65</sup> Evan Wilson, AnnaSara Hammar, and Jakob Seerup, eds. *Eighteenth-Century Naval Officers: A Transnational Perspective* (Basingstoke: Palgrave Macmillan, 2019), 13-39.

followed by four hours of hands-on practical operations to learn artillery, sailing, navigation, and shooting. He graduated in 1721 as a sublieutenant with an assignment to the Baltic. After a year, due to exemplary performance, he was selected to teach at the Academy. On 29 December 1724, the Admiralty promoted Chirikov to lieutenant and assigned him to the First Kamchatka Expedition, and upon his return, he was promoted to captain lieutenant, with a subsequent promotion to captain, 3<sup>rd</sup> rank in 1732.<sup>66</sup> He was then assigned to prepare for the second expedition and did so until departure in 1741. Following the expedition, Captain Chirikov was assigned to the Moskva Branch of Admiralty and eventually died of scurvy in 1748.

Prior to departure on 4 June 1741, Bering and Chirikov had established several standard operating procedures, including signaling using both cannon and flag, as well as what to do in the event of separation.<sup>67</sup> If separated, the two vessels would return as close as possible to the point last seen, search for seventy-two hours and then proceed on the planned heading until land was struck. At that point, they would make way to the proper latitude, then lay up for a day and night. If the other vessel wasn't sighted, then they were to proceed with the expedition.



**Figure 6:** Map showing Bering and Chirikov's routes. Thomas Jefferys, *The American Atlas: Or, A Geographical Description Of The Whole Continent Of America* (London, R. Sayer and J. Bennett, 1776).

<sup>66</sup> Divin, *The Great Russian*, 37.

<sup>67</sup> Golder, *Bering's Voyages*, 42-47.

On 4 June 1741 the Second Kamchatka Expedition departed Petropavlovsk at Avacha Bay on the Kamchatka Peninsula bound for *terra incognita*. Captain Commander Bering led the expedition aboard the *St Peter*, and Captain Chirikov seconded aboard the *St Paul*. On 13 June, the captains confirmed Juan de Gama Land as noted on the Delisle map did not exist at 46°N.<sup>68</sup> The ships became separated on 20 September 1741, after which they spent several days seeking to reunite before proceeding on their missions separately. Chirikov sighted Cape Addington and Coronation Island on 15 July 1741, and Bering sighted Mount St Elias on 16 July. The *St Peter* and *St Paul* made landfall at several locations including Kayak Island, the Shumagin Islands, St Lawrence Island, Attu Island, and other Aleutian islands.

Bering's ship, the *St Peter*, became stranded at Bering Island on 6 November 1741 due to the ravages of scurvy. Only eight of the crew were able to "look after themselves" and forty-nine were listed as severely ill. The supplies had dwindled to include merely six barrels of fresh water, a little meat, butter, and flour. The survivors ended up scavenging the *St Peter* for materials and constructed the hooker *St Peter*, which they used to sail on 10 August, arriving at Petropavlovsk on 26 August 1742. Altogether, Lieutenant Sven Waxel reported losing thirty-one men. Chirikov led a more successful voyage, returning with fifty-four scurvy-inflicted men, losing twenty-two men to accidents or scurvy.

The most significant event to occur on Chirikov's voyage, and the one that caused his eventual return to Petropavlovsk, was the loss of the *St Paul's* two rowboats and fourteen of its crew. Losing the two rowboats prevented replenishment of freshwater, and combined with scurvy, forced the *St Paul* return to Petropavlovsk, leaving Alaska on 26 July and reaching port

---

<sup>68</sup> Golder, *Bering's Voyages*, 58.

on 8 October 1742. Ultimately, the mortality rate for the expedition was thirty-five percent, but it was the largest and most successful Russian expedition of its time.<sup>69</sup>

The Second Kamchatka Expedition included several situations that provide useful lessons for modern military leaders, including the original conflicting guidance given by the Admiralty and Senate, the separation of the expedition's ships, and the loss of fourteen men ashore.

Initially, the expedition was given conflicting guidance by the Moscow-based Senate and the St. Petersburg-based Admiralty College.<sup>70</sup> On 2 May 1731, the Senate sent a Ukaz stating that Russian vessels would not visit any American or Asiatic places of European sovereignty and would avoid exposing the existence and weakness of the Kamchatka port. The Admiralty added that the expedition was to sail to 67°N. Subsequently, on 28 December 1732, the Senate published Article 6 which directed the expedition to sail to the Chukotsk Peninsula (64°N), seek islands opposite the peninsula, search for America, then proceed to Mexico.

Chirikov immediately recognized that sailing towards Mexico at 25°N placed them on a southern, not northeastern heading. It was a Spanish possession, and going there would directly violate the 2 May orders. Chirikov feared that Spain would confiscate the ships, including their logs. Should this occur, the expedition's secret origins would be disclosed. Second, using his geographic experience from the first expedition, he identified that any islands at 67°N would be too cold and frozen for mineral exploration, and likely uninhabited. Lastly, he knew that the circuitous route from the northern latitudes to Mexico and back could not occur in a single season. He identified the inconsistencies to the Admiralty with justification, and recommended sailing between 50°N and 65°N, eliminating Mexico, because America was likely not far from Asia. The Admiralty met on 16 February; the minutes indicate acceptance of his

---

<sup>69</sup> Golder, *Bering's Voyages*, 276-348.

<sup>70</sup> Golder, *Berings Voyages*, 29; Divin, *The Great Russian*, 59-89; Fisher, *Bering's Voyages*, 121-151.

recommendations, but they left the route up to “the professor from the Academy of Sciences” Louis de L’Ise de la Croyere, Bering and his officers. The Admiralty sent this to the Senate, who approved and published a subsequent Ukaz.

Chirikov could have allowed the expedition to proceed under conflicting guidance, and pursued the routes thought best by the Captain Commander. Should that have happened, the expedition might have turned out differently. Perhaps upon making landfall both vessels might have taken a southerly heading and made way towards Mexico, and at some point, have been a catalyst for potential conflict between Spain and Russia. Spain was incredibly protective of their colonial possessions, were French allies, and Franco-Russian relations were souring.

The scenario illustrates several key aspects of competency-based leadership.<sup>71</sup> First, military leaders must have substantial theoretical education, practical training and operational experience in order to bolster their decision-making capacity. Chirikov possessed a profound depth of navigational knowledge due to his ten years in academics as a student and professor and eight years afloat or exploring the Siberian wilderness. He recognized the inconsistencies were likely to undercut the potential success and value of the expedition. Therefore, he boldly presented the factual errors between the differing guidance and provided a fact-based recommendation.

Chirikov demonstrated excellent assertive followership. Effective leadership requires the leader to also be an effective follower, because everyone works for a superior. As Air Force Chief of Staff General C.Q. Brown stated in a lecture to the United States Naval War College, he continually seeks to understand the command intent from two echelons up, in this case the President of the United States. Chirikov was assigned to Bering, but he clearly thought critically

---

<sup>71</sup> Robert Hogen and Robert Kaiser, “What We Know About Leadership,” *Review of General Psychology* 9, no. 2 (2005): 169-180.

about the orders they were given from two echelons up, in this case the Senate via the Admiralty. Air Force Major General Michael Rothstein calls this vertical empathy and highlights the necessity of pairing this with a good readback to ensure alignment with nested priorities and to embolden subordinate decision calculus.<sup>72</sup>

The second issue useful to analyze Chirikov's leadership was when the *St Paul* and *St Peter* became separated. On 21 June 1741 at 0100L after seventeen days at sea, the two vessels lost track of each other amidst clear skies and gale force winds.<sup>73</sup> The two vessels could not return to the point last seen due to wind and current, so they both adhered to the agreed-upon operating procedures. When they failed to meet, both continued with the mission. Upon sighting land near Prince of Wales Island, Chirikov proceeded northward, seeking a suitable harbor.

This example is a good representation of anticipatory leadership, where the leader has gamed certain scenarios or problems that may arise and has sought to mitigate the negative impacts.<sup>74</sup> Chirikov noted in his journal that they had deliberately developed standard operating procedures not only for communicating between the ships, but for rejoining should they separate. While the methods for inter-ship communication were not entirely unique to their expedition, their lost ship procedures were fairly innovative. They acknowledged the possibility and probability of losing sight of each other, and therefore conducted a "tabletop exercise" where they discussed and codified procedures to find each other.

---

<sup>72</sup> Michael D. Rothstein, "Great Leaders Follow First: Nine Rules for Dynamic Followership," *Air & Space Power Journal* 33, 12 (2019): 7-14.

<sup>73</sup> Golder, *Bering's Voyages*, 65, 271, 287, 313.

<sup>74</sup> Robert C. Chandler, "Anticipatory Foresight and Adaptive Decision-Making as a Crucial Characteristic for Business Continuity, Crisis and Emergency Leadership," *Journal of Business Continuity & Emergency Planning* 15, no. 3 (2022): 255-69.

Anticipating problems, developing potential solutions, and conducting a game to evaluate the solution's suitability are hallmarks of anticipatory leadership.<sup>75</sup> Chirikov's journal does not contain any indication of surprise relating to the separation of the *St Paul* and *St Peter*. This supports the notion that the separation was anticipated. The immediate execution of the procedures to return as close as possible to the estimated point last seen and conduct the requisite search indicate the solution was not only palatable, but also well understood. The decision to proceed to the unknown immediately upon conclusion of the search period also indicates the scenario was gamed ahead of time. No time was lost discussing the potential of turning back, or which heading to take.

Another scenario useful for developing leadership lessons occurred on 18 July 1741. Chirikov gave written orders to Fleet Master Dementiev to take a party of ten armed men ashore to determine the suitability of an area as a berth, and to bring back fresh water. The shore party was outfitted with a compass, small lead, two empty water casks, a grapnel and a cable. Later in the day the wind and waves grew increasingly hostile and prevented the *St Paul* from remaining at anchorage. Chirikov took meticulous notes to isolate the location. On 23 July, enveloped in fog, the *St Paul* fired two shots to contact the shore party. After several hours the fog lifted, and the crew noticed a smoldering fire on the shore. Having seen no sign of native inhabitants, they assumed it was their men and fired seven more shots. The fire blazed, but no boat made way towards their position. As night fell, they hung a lantern on the ensign staff, but by daylight the fire on shore was no longer visible.

On 24 July, Chirikov convened the higher and lower officers, and all agreed in writing to send out their remaining rowboat to determine the problem with the rowboat and recover the

---

<sup>75</sup> Anika Savage and Michael Sales, "The Anticipatory Leader: Futurist, Strategist and Integrator," *Strategy & Leadership* 36, no. 6 (2008): 28-35.

shore party.<sup>76</sup> Boatswain Sidor Savelev led the second party consisting of sailor Sidor Fadiev, carpenter Nariazhev Polkovnikov and caulker Gorin. The current was strong enough the *St Paul* at full sail nearly could not overcome it. Chirikov ordered the boatswain to drop the repair crew ashore and return with Fleet Master Dementiev and as many the shore party as possible. They saw the boat nearly reach shore, but then lost sight of it. The next day they fired a shot to summon the shore parties. The *St Paul* thought they saw a man fire a gun, but heard no report, and also observed a fire. The *St Paul* hung out lanterns on the ensign and gaff, and the fire on shore appeared and disappeared at intervals. The *St Paul* again fired shots several times across several hours, but the boats never returned.

On 25 July, two native canoes approached the *St Paul* shouted “Agai, Agai” while beckoning to shore. Chirikov had the crew waive white handkerchiefs as an invitation, but the natives returned to shore. The wind prevented the *St Paul* from following the canoes, and they had no other row boat. They sailed closer towards shore, saw a fire and the two canoes, but the canoes did not approach the ship. Chirikov opined the natives must have attacked and captured the two parties, because the weather had been fair, and they did not venture towards the ship. Chirikov reluctantly left and proceed on with the expedition. On 26 July, he assembled his officers, and taking into account the fourteen casualties, the loss of both of the ship’s boats, and their dwindling water supplies, they agreed to return to Petropovlavsk.<sup>77</sup>

This scenario is the single most disputed and researched aspect of the *St Paul*’s voyage, with differing theories on the location and fate of the crew. Although many contend it was the Lisianski Strait, Allan Engstrom provided the most substantial justification for the location occurring at the village of Apolosovo on Yakobi Island. The landmarks and coordinates perfectly

---

<sup>76</sup> Golder, *Bering’s Voyages*, 316, 323.

<sup>77</sup> Golder, *Bering’s Voyages*, 325.

match those given by Chirikov, and there is a petroglyph of a two-masted ship with a significant bowsprit on the shore.<sup>78</sup>

Compounding this, he noted that Nathaniel Portlock's 1789 memoirs support this location. They document a story Portlock was told by a Tlingit Chief in the vicinity of the Lisianski Strait in 1787. The chief, wearing a European coat from a nation he couldn't distinguish, told of a two masted boat to the northwest that lost a small row boat some years before. The men in the boat all drowned while fishing, which is the worst death in the Tlingit culture. Both the nature of the demise and the singular significance of the first European contact would logically cause the oral history to persist generationally. Following this sound argument, the most likely cause of their demise was the current, combined with tidal surge, gale force winds, and surface waves that capsized the boats.

Although Chirikov thought it had been native aggression, a Kaisun Haida story told in 1905 shows the natives were also afraid of the Europeans. The natives thought it was one of their malevolent deities with little ravens flying about it and therefore sent an old man at the end of his life to investigate. The ravens, they found out, were topmen in the rigging, but the strange looking men still frightened the Haida.<sup>79</sup>

During this saga, Chirikov twice demonstrated a democratic or participatory leadership method, where he sought candid input from his officers. The first was the decision to leave fourteen of their men and both ship's boats ashore and proceed with the expedition, while the second was to leave American shores and return to Avancha Bay. Without a doubt, leaving behind the crew was an emotionally difficult decision, not to mention the impact it had on

---

<sup>78</sup> Allan Engstrom, *Yakobi Island: The Lost Village of Apolosovo and the Fate of the Chirikov Expedition* (Juneau: Allan Engstrom, 2006), 21.

<sup>79</sup> Erna Gunther, *Indian Life on the Northwest Coast of North America as Seen by the Early Explorers and Fur Traders during the Last Decades of the Eighteenth Century* (Chicago: University of Chicago Press, 1972), 121.

operating the ship. Chirikov is noted as distinctly caring for and taking great efforts to provide provisions for his people throughout his career. Furthermore, the decision to end the expedition early was also likely emotional. During both of these events, Chirikov convened his remaining officers, Lieutenants Ivan Chikhachev and Michael Plautin and his navigator Ivan Elagin.<sup>80</sup>

Research on Antarctic naval teams indicates that amongst a small, isolated organization exposed to climactic extremes, democratic or participatory leadership is incredibly successful, especially when the legitimate leader tempers the democratic nature of the relationship with an appropriate amount of distance.<sup>81</sup> The manuscript sources only indicate the democratic leadership style was deliberately used in these two instances. Therefore, Chirikov kept an appropriate level of distance between his crew and officers. When faced with inordinately contentious decisions, Chirikov leveraged participatory leadership to engage the key stakeholders—his officers—and garner their input. Ultimately, both decisions were his, but he garnered consensus as evident with their signed decision to return.<sup>82</sup> In a military or naval setting, though not always expected, when particularly contentious decisions are necessary, providing an opportunity to be part of the decision will garner greater buy-in.<sup>83</sup> Including other key stakeholders helps alleviate potential biases, errors in judgement, and taps into the diversified strength of each individual.

Overall, Chirikov proved to be a skilled navigator and a deft leader. He demonstrated the vital role subject matter expertise plays in advising superiors. It provided the knowledge base for identification of, and recommended solutions for, flawed guidance from the Admiralty and

---

<sup>80</sup> Golder, *Bering's Voyages*, 324-26; Divin, *The Great Russian Navigator*, 27-52, 95-123.

<sup>81</sup> Paul D. Nelson, "Small Isolated Groups," Report No. 2-13, US Navy Neuropsychiatric Research Unit (Virginia: Armed Services Technical Information Agency, 1962).

<sup>82</sup> Golder, *Bering's Voyages*, 324.

<sup>83</sup> Daniel Goleman, "Leadership that Gets Results," *Harvard Business Review* (2019): 1-15.

Senate. He displayed remarkable strategic forecasting when he and Bering anticipated separation. Their development and gaming of the solution mitigated risk to the expedition. Lastly, he presented two great examples of democratic leadership where he engaged key stakeholders in contentious decisions when he left his crew ashore and terminated the expedition early. These leadership examples are enduring.

## **VI. Don Juan Francisco de la Bodega y Quadra**

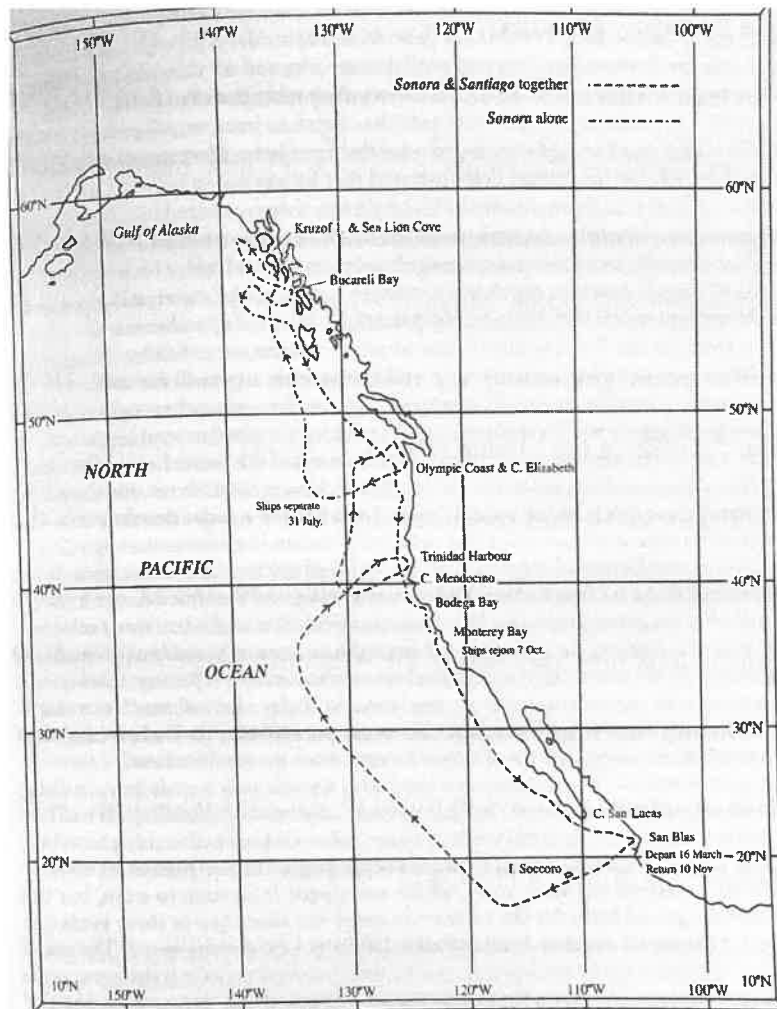
Juan Francisco de la Bodega's ancestors were landowning noblemen from the Basque country of Spain.<sup>84</sup> His father, sent by his grandparents to Lima as a youth, married a Peruvian aristocratic creola. Bodega began his formal education at the University of San Marcos in Lima studying an Enlightenment-influenced curriculum. He then enrolled in the Academia de Guardias Marinas in Cadiz, Spain, for three years, graduating as a midshipman aged eighteen. He was assigned to the 74-gun warship *Terrible* in the Mediterranean, followed by a second Mediterranean tour aboard the *Princesa*. He was promoted to Junior Ensign during his third tour aboard the *Garzota* and was transferred to a smaller vessel, the *Ibizenco*. Ensign Bodega's next assignment aboard the *Septentrion* took him back across the Atlantic to Argentina, then around Cape Horn to Chile and Peru. During his return voyage he was promoted to Senior Ensign.

Upon his return to Spain, he requested leave to travel to Veracruz on family matters. His request was denied, but instead he was offered a posting at San Blas. He jumped at the opportunity and earned his promotion to Junior Lieutenant during the Atlantic crossing to Veracruz. Upon arrival at Veracruz, he traveled overland to Mexico City, then San Blas. After the expedition—about which more momentarily—he was promoted to Senior Lieutenant and recommended for the Knight of the Order of Santiago. In 1777, the Viceroy of New Spain sent

---

<sup>84</sup> Beals, *Four Travel Journals*, 78-110.

him to Lima where he purchased the *Favorita* and rechristened it *Nuestra Senora de los Remedios*. The following year in 1778, he sailed her to Alaska and was subsequently promoted to the rank of Commander and assigned as commandant of San Blas due to his excellent reputation and performance.



**Figure 7:** Voyage of 1775 from San Blas to Krusof Island, Alaska. (Source: Herbert K. Beals, ed. "The 1775 Journal of Juan Francisco de la Bodega y Quadra," in *Four Travel Journals: The Americas, Antarctica and Africa, 1775-1874* (London: Hakluyt Society, 2007).

The 1775 expedition that is the focus of this study was an attempt by the Viceroy of New Spain to complete Juan Perez's failed 1774 expedition. Although Perez did sail to Nootka Sound,

he did not conduct formal acts claiming land for Spain and evict any settlements along the way. He appointed Don Bruno de Hezeta as the expedition's commander aboard the *Santiago* and gave him orders to explore up to 60°N, mapping shorelines, inlets and port, and taking possession of "those lands."<sup>85</sup> Two packet ships were sent to San Diego and Monterey with provisions as floating caches in support of the expedition. Hezeta was given specific orders to find the entrance to San Francisco Bay, which was geographically difficult to identify. Initially, Bodega was not assigned to the expedition. However, once he learned of the *Sonora*'s addition to the expedition, and after he appraised the small size of the ship as well as the composition of the crew, he requested assignment to the ship. The ship's captain, Don Juan de Ayala, was equal in rank, which Bodega acknowledged. Ayala's Spanish background trumped Bodega's mixed heritage, which is why it was not surprising that Bodega was assigned under a Spaniard of equal rank. Bodega reasoned that he had substantial experience at sea, which would be useful to contend with the extreme weather and ocean conditions.

On 16 March 1775, the expedition departed San Blas and sailed throughout the night. Almost immediately, the *Sonora*'s crew realized they could not keep pace with the *Santiago*. Bodega initially blamed strong currents because the *Sonora* had a reputation as an "exceedingly swift sailor."<sup>86</sup> On 19 March, a scant three days into the expedition, the packet boat *San Carlos*' captain, Senior Lieutenant Miguel Manrique, had a mental breakdown and was transferred ashore. Commander Hezeta transferred the *Sonora*'s captain to the *San Carlos*, and Bodega assumed the *Sonora*'s captaincy.

The expedition's progress was slow, due to the poor construction and condition of the *Sonora*, which could barely keep pace with the *Santiago*. She made only two knots under full

---

<sup>85</sup> Beals, *Four Travel Journals*, 85.

<sup>86</sup> Beals, *Four Travel Journals*, 86.

sail. Bodega began testing different configurations of ballasting and drafts, but only succeeded in achieving three knots. Hezeta and Bodega both realized the ineffective speed was hindering the expedition and opted to rig the *Santiago* to tow the *Sonora* while setting sail to minimize the drag of the towed vessel. The captains relied on this tactic repeatedly through the middle of June. Bodega acknowledged the increased proximity between the ships required constant vigilance, and on more than one occasion, they collided. Bodega was understandably anxious that his ship was the cause of the expedition's slow progress and occasional collisions. Nevertheless, he concluded that the increased speed was worth the amplified risks.<sup>87</sup>

Bodega's crew consisted mostly of landsmen (many were cowboys by trade), and he knew he needed to test not only the ship but also the crew's capabilities. Therefore, when *Sonora* was not under tow, he ordered full sails set, which caused the schooner to heel, frightening the crew. Many feigned illness to seek transfer to the frigate *Santiago*. Bodega understood why they felt this way. He noted that the sailors were constantly soaked on the decks in even moderate seas. To make satisfactory progress on the expedition, Bodega insisted the *Sonora* remain fully rigged, while the *Santiago* would reef its sails to alleviate stress upon the hull and masts. The *Sonora* seemed to be constantly on the verge of sinking, leading the watch officer to reef the sails, which caused Bodega to issue a standing order that he alone could authorize reefing the sails. Additionally, Bodega and the *Sonora*'s master, a man named Mourelle, each stood equal watches to provide adequate leadership, and reminded the crew that both of them likewise valued their lives. Bodega knew that if the crew failed to grow accustomed to full sail at their southerly latitude with temperate conditions, then when they arrived in the north, the extreme sea states

---

<sup>87</sup> Beals, *Four Travel Journals*, 89.

and winds would overwhelm them. Bodega sought to not only appeal to their logic, but also their vanity, reminding them of the glory they would obtain if the expedition succeeded.<sup>88</sup>

On 21 May, Hezeta convened a meeting to determine if the expedition should make berth at Monterey at 36°N due to the heavy winds and sea. Bodega argued this was too cautious and there was no justification for it. He recommend attending to the sick 450 nautical miles further north, at 43°N (in the area of Coos Bay) since it provided a preferrable anchorage due to the ample fresh water. Hezeta agreed, although in the event, the ships replenished water on multiple occasions prior to that latitude. During an inspection of the *Sonora*'s foretopmast and bowsprit during one of these resupply stops, further damage to the structural integrity of the ship was also noted, with the hull's "futtock timbers split... completely useless and incapable of holding a nail."<sup>89</sup> Despite the ship's poor condition, Bodega, Mourelle and the remaining crew all agreed they could mitigate the risks and push the schooner's limits, thereby continuing the expedition. On multiple occasions, Hezeta and the *Santiago*'s lieutenants attempted to convince Bodega and Mourelle to terminate the expedition and return home. Each time, both *Sonora* officers convinced Hezeta to continue exploring further north. Arguably, without Bodega and Mourelle, the expedition might have enjoyed only a portion of the success that it did.

Throughout June, Bodega worked to repair and improve the *Sonora* so she would not need to be towed by the *Santiago*. The expedition had several positive interactions with the Yurok tribes in present-day northern California, but that pattern did not continue as they made their way north. On 13 July, while anchored at the mouth of the Quinault River in present-day Washington State, the expedition had its first violent encounter. While waiting for the tide, Bodega sent six men ashore to refill water and wood stores, as well as to cut a masthead cap.

---

<sup>88</sup> Beals, *Four Travel Journals*, 91.

<sup>89</sup> Beals, *Four Travel Journals*, 92-93

Boatswain Pedro Santana, a sailor noted for his bravery, was assigned to lead the shore party, who were each armed with a saber, musket and pistol—there had been several so-far peaceful interactions with natives that day, but Bodega was wary of possible ambushes. The heavy seas and tide disorganized the crew's landing, at which point 300 natives ambushed them, killing all but two. These two swam to sea. Aboard the *Sonora*, Bodega watched in horror and fired upon the natives, with little effect. He set sail to rendezvous with the *Santiago*, while nine canoes came abreast for an assault. The crew at this point consisted of twenty men, seven ashore, five down with scurvy, one at the helm, one sounding, one on lookout, one making cartridges, one ferrying cartridges, and three shooters. The shooters were Bodega, Mourelle and a servant. When nine natives attempted to board the schooner, Bodega discharged two swivel guns and three muskets, killing six.<sup>90</sup>

Once linked up with Hezeta, Bodega and Mourelle passionately argued for command of thirty men to exact retribution on the natives and attempt to save the two crew who swam to sea, but Hezeta was convinced by his junior ensign, coastal pilot, and second master not to allow Bodega to go back. The conversation then turned to whether the expedition should continue. The second master adamantly argued for termination, while Bodega, Mourelle and the coastal pilot argued for continuation. They reasoned the winds and seas would be similar to those already experienced, and although the *Sonora* heeled with seas overtaking the bows and rails, the weather deck successfully prevented water intrusion. They contended these experiences were normal for such an expedition, and that the effort was for glory and King. Again, Hezeta decided to continue.<sup>91</sup>

---

<sup>90</sup> Beals, *Four Travel Journals*, 107.

<sup>91</sup> Beals, *Four Travel Journals*, 108.

The ships sailed towards 49°N latitude in increasingly difficult conditions. Scurvy became increasingly prevalent, and dwindling water and food supplies caused Bodega to restrict rations. Bodega and Mourelle applied the same restrictions to themselves as an example for the crew. The *Santiago* suffered similarly, and on 11 August, after four months at sea, Hezeta decided to part with the *Sonora* and return to San Blas.<sup>92</sup>

Now sailing solo, the *Sonora* reached Guadalupe Harbor<sup>93</sup> on Kruzof Island in the Sitka Sound on 18 August, where two native canoes laden with four men and four women made signs for the crew to come ashore. Bodega declined and sought another harbor, which they found at Sealion Cove on the northwestern side of Kurzof Island. There was a single native dwelling ashore that housed nearly twenty natives, who remained within their dwelling. Bodega set anchor and led a shore party of fourteen well-armed men to gather water, firewood and another top mast. The natives approached the crew with a white flag seeking recompense for the water. The Europeans offered beads, but the dissatisfied natives left and returned with stone tipped spears. Bodega demonstrated restraint and confronted the natives without firing upon them; the natives retreated.<sup>94</sup>

The *Sonora* continued for another couple of weeks, but scurvy continued to attrit the crew. By 30 August, seven additional men were brought down by scurvy, leaving only two men on each watch with one manning the helm.<sup>95</sup> Bodega assessed the remaining men were showing symptoms and therefore he decided to terminate the expedition and return to San Blas. On their return, they were hit with a major storm that damaged the ship and flooded the vessel with so

---

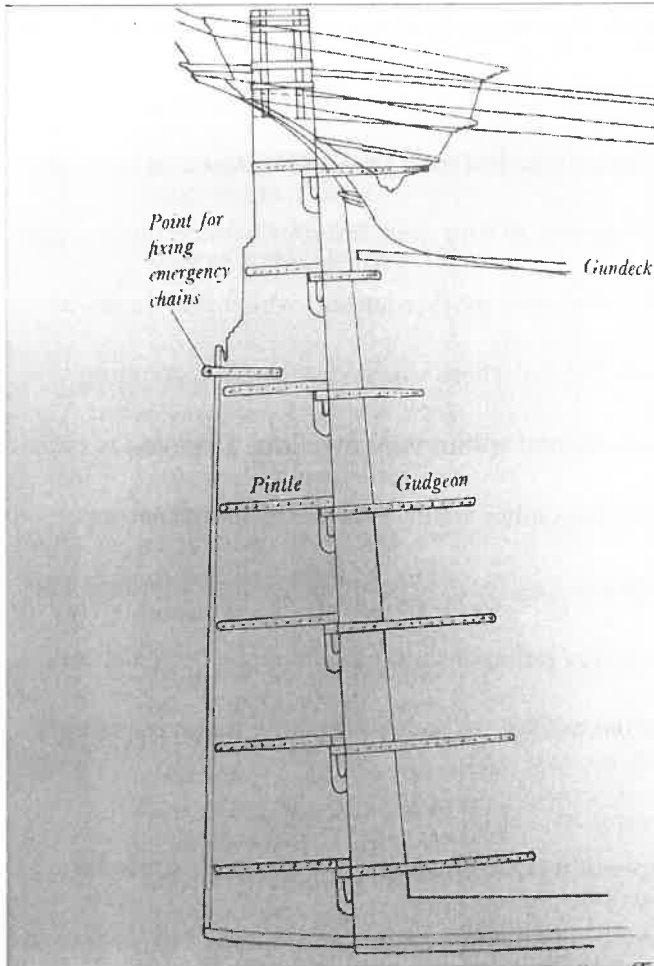
<sup>92</sup> Beals, *Four Travel Journals*, 110.

<sup>93</sup> Guadalupe Harbor was also known as Del Susto by Bodega, Norfolk by James Cook, and Tchinkitane Bay by Charles Pierre Claret de Fleurieu.

<sup>94</sup> Beals, *Four Travel Journals*, 112.

<sup>95</sup> Beals, *Four Travel Journals*, 120.

much seawater that the bilge pumps were almost overwhelmed. The crew was fearful of sinking, but Bodega and Mourelle encouraged them, and they repaired the bilge pumps and split rudder gudgeon with by placing a spike into an eye.<sup>96</sup>



**Figure 8.** Depiction of Rudder Gudgeon. Bodega’s journal did not specify the type of spike, nor its origin. It was likely a marlinspike or iron spike often found aboard eighteenth century sailing ships. Rudder gudgeons are attached to a transom and rudder, and are essentially brackets that are either “female” with a hole, or “male” with a pintle. The gudgeon had two bands on either side of a U, with the eye or pintle at the bottom of the U. If the band split on a female gudgeon, it was likely replaced with the eye and affixed with an iron spike to the rudder in the manner of a nail. If the eye of the female gudgeon split, the eye acted as the “female” end and the marlin spike as the pintle on the transom side to account for the increased diameter of the rudder gudgeon’s eye. The blueprints or drawings of the *Sonora* and *Santiago* currently do not exist, and so this supposition is based upon common design elements of the time. (Source: Brian Lavery, *Nelson’s Navy: The Ships, Men and Organisation, 1793-1815* (London: Conway Maritime Press, Ltd., 1989), 37.)

By 22 September, Bodega and Mourelle both began to display the effects of scurvy, and so they diverted towards Monterrey. When the crew realized both the captain and master were afflicted, they “imagined themselves lost.”<sup>97</sup> The *Sonora* made landfall on 3 October at Tomales Bay near San Francisco, and Bodega put the sick men ashore and traded with Coast Miwok

<sup>96</sup> Beals, *Four Travel Journals*, 121.

<sup>97</sup> Beals, *Four Travel Journals*, 122.

natives. By 8 October they reached Monterey, and after several weeks of recovery, departed for San Blas on 1 November, returning without further incident.

There are three episodes where Bodega's behavior provided solid leadership examples for military leaders: the manner in which he dealt with a substandard ship and poorly experienced crew, his response to repeated pressure from Hezeta to return to San Blas, and his acceptance of Hezeta's refusal to let him avenge his ambushed crew.

Almost immediately upon assumption of his captaincy, Bodega's intuition indicated the condition of his ship and the capability of his crew were suspect. Intuition—specifically intuitive judgment—as it relates to leadership, means making holistic, coherent associations of information from disparate sources and using it to solve a problem. There are several factors that influence the effectiveness of intuitive judgement. Previous explicit and implicit learning must be based upon relevant stimuli and practice, paired with repetitive and accurate feedback, as shown in Figure 9 below.<sup>98</sup> Captain Bodega repeatedly demonstrated successful intuitive judgement throughout the expedition in relation to his ship's condition. Based upon a decade at sea, Bodega surely recognized the potential inadequacies of both the ship and the crew's training or experience. He leveraged his experience to adjust the *Sonora*'s ballasts and rigging for optimal speed. His experimentation increased speed from two to three knots, or fifty percent. However, he recognized that unless he significantly modified the architecture of the ship, he would never keep pace with the *Santiago*. Therefore, while making northern progress, he rebuilt the topmasts and modified the rigging to improve the actual capabilities of his ship. Eventually, the improvements he made to the ship allowed it to keep pace with *Santiago*. This mitigated collision risks to both ships, allowed a lower level of mutual stress due to heightened vigilance,

---

<sup>98</sup> Erik Dane and Michael G. Pratt, "Exploring Intuition and Its Role in Managerial Decision Making," *Academy of Management Review* 32 (2007): 33-54.

and prevented constraints on the voyage's range. Effective military leaders continually assess and adapt to resource or equipment constraints. Bodega first actualized the capabilities of the ship he had, then, based upon his changes, he added capacity creating a new potential for the *Sonora*. He realized this potential by continually fortifying the structural integrity of his ship.

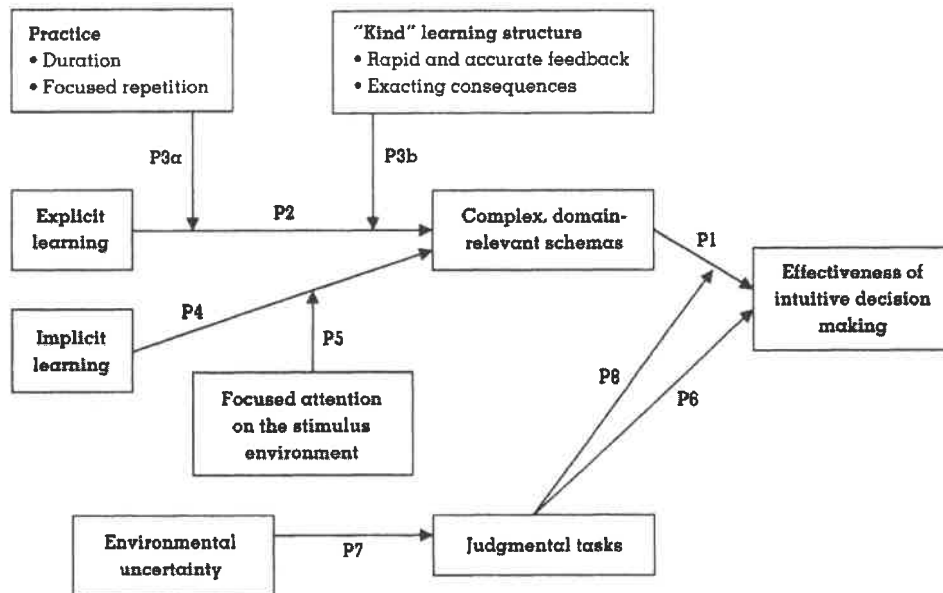


Figure 9: Factors influencing the effectiveness of decision making. (Erik Dane and Michael G. Pratt, "Exploring Intuition and Its Role in Managerial Decision Making," *Academy of Management Review* 32, (2007): 33-54.)

According to numerous organizational leadership theories, Bodega did what wise leaders ought to do and assessed his unit to establish a performance baseline. His intuitive judgement also applied to his crew when he created this initial "frame" for them. A frame is "a mental model—a set of ideas and assumptions—that you carry in your head to understand and negotiate a particular 'territory'."<sup>99</sup> When he insisted upon setting full sail, despite the crew's fear of the *Sonora*'s heeling, he established a level of baseline performance. He intuitively judged this

<sup>99</sup> Lee G. Bolman, and Terrence E. Deal, *Reframing Organizations: Artistry, Choice and Leadership* (San Francisco: Jossey-Bass, 2008), 11.

baseline was unsatisfactory for the projected demands of the northern latitudes. Thus, he leveraged a form of stress inoculation to prepare them for expeditionary rigors. According to a Rand study for training Air Force special operators, stress inoculation is effective, and builds “resistance to stress” through “training and exposure to stressful stimuli.”<sup>100</sup>

Despite numerous sailors seeking transfer to the frigate *Santiago*, feigning illness, and deeming assignment to the *Sonora* as the worst punishment, Bodega pushed the crew to sail hard. Through direct orders, and positioning either Mourelle or himself at the watch, he ensured the crew grew accustomed to sailing under full canvas at full heel. Eventually, the journals ceased discussion of frightened crew except for two instances, when both Mourelle and he were afflicted with scurvy, and during the 6 September storm that nearly sank the *Sonora*. This is indicative of the effectiveness of normalizing the crew to their environment aboard the ship, and aligns with the Rand study which states “preexposure to the stress reduces the novelty of [the] stressful tasks and increases the likelihood of a positive expectation, a greater sense of predictability and control, and a consequent reduction in both physiological and emotional reactivity.”<sup>101</sup> Rand reviewed thirty-seven studies that used control groups, and found this method effectively reduced both performance and generalized anxiety, since the stress stimuli and tasks exactly replicated the *Sonora*’s future scenarios.

Captain Bodega provided a third leadership example when he persevered despite repeated and emphatic pressure from Hezeta and the *Santiago*’s officers to return early to San Blas. Perseverance has several salient definitions. Positive psychology defines it as a “voluntary

---

<sup>100</sup> Sean Robson and Thomas Manacapilli, “Enhancing Performance Under Stress: Stress Inoculation Training for Battlefield Airmen,” RAND Corporation, 2014, [https://www.rand.org/pubs/research\\_reports/RR750.html](https://www.rand.org/pubs/research_reports/RR750.html).

<sup>101</sup> Robson and Manacapilli, “Enhancing Performance,” 8.

continuation of a goal-directed action in spite of obstacles [or] difficulties.”<sup>102</sup> In social psychology, perseverance is defined as “pursuit of a challenging goal in spite of failures [and] adversity.”<sup>103</sup> Bodega documented several occasions where Hezeta convened a conference amongst both ships’ officers to discuss whether the *Sonora* should return to San Blas. Each time, both Mourelle and he insisted they continue with the expedition. Undoubtedly, the pressure must have been immense to turn back. The fearful ship’s crew, the ship’s poor condition, a superior officer’s pressure, and peers’ pressure all were exerting influence upon Bodega. However, despite constant adversity, he persevered. The reader invariably asks why? Reading the accounts of both Mourelle and Bodega, it is implied that Bodega possessed an above average leadership trait of conscientiousness. Other sources confirm this, including Nootka Chief Maquinna and the Vancouver expedition officers and botanist.<sup>104</sup> The Naval War College’s curriculum for Leadership in the Profession of Arms defines conscientiousness as an individual’s self-discipline, ability to control impulses, self-motivation and the drive to accomplish goals.<sup>105</sup> According to a sampling of six studies, including several on military leadership, conscientiousness is empirically the greatest predictor of leadership effectiveness.<sup>106</sup> The leadership traits of perseverance and conscientiousness are clearly complimentary.

Modern officers unexpectedly placed into a leadership position must swiftly assess the condition of their equipment and the capability of their personnel. Once this baseline is achieved,

---

<sup>102</sup> Kimberly K. Merriman and J. Marques, ed. “Leadership and Perseverance,” *Leadership Today*. (Switzerland: Springer International Publishing, 2017), 335-350.

<sup>103</sup> Merriman, “Leadership and Perseverance,” 338.

<sup>104</sup> Lamb, *A Voyage of Discovery*, 672; Freeman Tovell, “Chief Maquinna and Bodega y Quadra,” *British Columbia Historical News* 34, no. 4 (2001): 8-14; Archibald Menzies, *Menzies Journal of Vancouver’s Voyage, April to October 1792*. (1923), 110, 111, 113, 118; Vancouver, *A Voyage*, 1:384, 385, 393-410, 2:54, 61, 64, 66, 3:168, 173.

<sup>105</sup> Thomas International Ltd, “Strategies for Developing HPTI Personality Traits” Handout, issued with senior officer’s personality traits assessment while enrolled in the Leadership and Profession of Arms course at the Naval War College in 2022-2023.

<sup>106</sup> Judith L. Johnson and William R. Hill, “Personality Traits and Military Leadership,” *Individual Differences Research* 7, no. 1 (2009): 1-13.

they must realize the inherent potential of both. Should that performance level not satisfy mission requirements, they must adapt to improve the potential of both people and equipment in order to create a new performance capacity. Additionally, perseverance is well served by a high level of conscientiousness. Empirical evidence indicates the latter is the primary trait indicative of potential for successful leadership, but leaders must persevere despite both internal and external negative pressures.

## VII. Peter Puget

Peter Puget was born into the mercantile class in 1765 on Winchester Street, London and was a descendant of Huguenot immigrants.<sup>107</sup> His father was a banker who died when he was two. In 1778, Puget joined the navy aboard the *Dunkirk*, where the ship's master taught him mathematics and the use of navigational instruments. Two years later, he was rated midshipman and transferred to the *Syren*, captained by Edward Dodd. Aboard this ship, he sailed the Channel and North Sea. He subsequently followed Dodd to the *Lowestoft*, a 64-gun ship that sailed to Antigua.

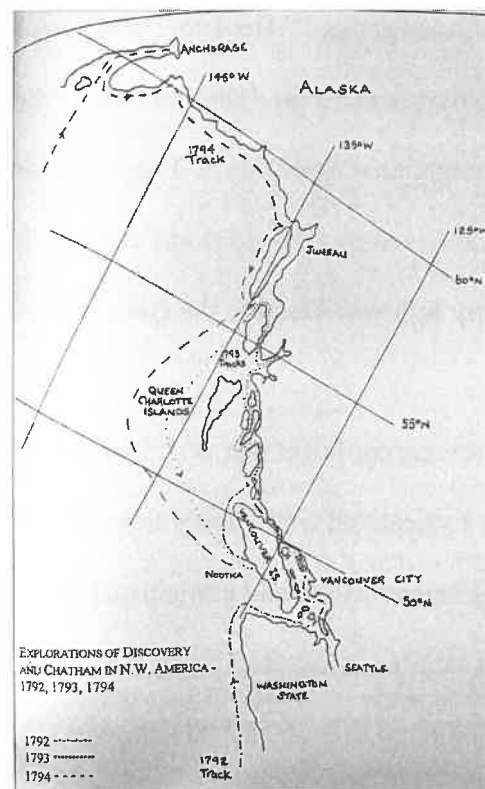
In 1782, at the age of seventeen, Puget was sent ashore at St Kitts to reinforce the garrison. When British forces surrendered while under siege at Brimstone Hill on Mount Misery, Puget escaped to join Admiral Samuel Hood and participated in the successful counterattack. Puget saw subsequent combat ashore against the French at Fort Berrington, St Lucia. Following his Caribbean tour, he was transferred to the *Thetis* at Gibraltar.

The next year, Puget was again sent to the Caribbean aboard the *Europa*. For the next three years, Puget served alongside George Vancouver and Joseph Whidbey. He again sought

---

<sup>107</sup> Naish, *Interwoven Lives*, 70-74.

assignment to the *Lowestoft* under Dodd, but after a scant two months, it was decommissioned amid the peacetime drawdown. Instead, he signed on with the East Indiaman *Prince*, sailing to the far east and returning aboard a different merchant ship. In 1790, Puget, having passed the lieutenants' exam, was commissioned as a lieutenant on *Discovery*, at that time a receiving ship under Vancouver's command. In this role, Puget had to interact with both volunteer and pressed recruits, learning the difficulties of communication and social discourse amongst uninitiated sailors. *Discovery* departed for the Pacific Northwest early the next year and returned in 1795. Puget went on to be wounded as Flag Captain of the *Foudroyant* in the Napoleonic Wars, and he was eventually promoted to Rear Admiral of the Blue.<sup>108</sup> He died in 1822.



**Figure 10:** The Vancouver expedition showing exploration along the American west coast by year. (Source: John M. Naish, *The Interwoven Lives of George Vancouver, Archibald Menzies, Joseph Whidbey and Peter Puget* (Lewiston: The Edwin Mellen Press, 1996, 185)).

<sup>108</sup> Blumenthal, *With Vancouver*, (Jefferson, NC: Macfarland & Co., 2007), 11.

Vancouver's orders were to sail to the Sandwich Islands (Hawaii) and survey them for the winter, and then to survey the American coast.<sup>109</sup> The expedition ended up being more complicated than originally planned. In April 1792, Vancouver was ordered to meet with a Spanish officer at Nootka Sound to assume possession of infrastructure that the Spanish had previously confiscated from British fur trader John Meares. Vancouver was also directed to explore between 30°N and 60°N to find a transcontinental waterway, navigable by deep-sea sized ship; he was told to avoid lesser waterways. Following this, he was to survey South America along "Chiloe." His instructions mandated cooperation with any surveying Spanish explorers and peaceful interactions with both Europeans and natives alike. The Admiralty indicated he could expect follow on orders at Nootka or while wintering in the Sandwich Islands. These subsequent orders relieved Vancouver of the necessity of exploring "Chiloe" and indicated he was to remain north of 30°N, unless necessitated for safety purposes.

*Discovery* carried a crew of 145 officers, sailors, and civilian experts, many of whom previously served together.<sup>110</sup> First Lieutenant Zachary Mudge was a *Europa* shipmate of Puget's from a distinguished Plymouth family and connected to the Pitt family. Puget was Second Lieutenant. Third Lieutenant Joseph Baker and Master Joseph Whidbey were both former *Europa* shipmates. Master's Mate Thomas Manby was from Norfolk gentry and connected to Lord Townshend of the Admiralty. The expedition's botanist (and later surgeon) Alfred Menzies was sponsored by Sir Joseph Banks. Finally, the experienced William Broughton commanded a crew of forty-five aboard the *Chatham*, with Lieutenant James Hanson, and Master James Johnstone. The young Baron Thomas Pitt II was also assigned as an able seaman;

---

<sup>109</sup> Vancouver, *A Voyage*, vol I, xvii-xxix.

<sup>110</sup> Vancouver, *A Voyage*, 1:xii-xiii; Naish, *Interwoven Lives*, 80-93.

he went on to receive three floggings for raucous behavior, an indignity for which he sought revenge once he became Lord Camelford.

The expedition departed Britain at midnight on 1 April 1791. Vancouver opted to sail around the Cape of Good Hope instead of Cape Horn, due to the season and winds. They made way to the Sandwich Islands by way of Tenerife, Santa Cruz (due west of Morocco), the Cape, Australia, New Zealand, and Tahiti, arriving at Oahu in March and eventually the American coast in April 1792. Starting in San Francisco, the expedition sailed north into what is now Puget Sound and the Straits of Georgia and Johnstone between Vancouver Island and British Columbia. They navigated around the north end of Vancouver Island to Nootka Sound on the island's western shore, then to Northern California at San Francisco and Monterrey. During this leg, the *Chatham* was sent to investigate the treacherous Columbia River, before they both wintered in Hawaii. In 1793, the expedition began by mapping along the Queen Charlotte Sound and Prince of Wales Islands, returning again to Hawaii. Finally, in 1794, the expedition began in the Cook Inlet of Alaska and proceeded south along the ABC Islands to Nootka before returning to Britain. The return route took them south to the Galapagos Islands, along the coast of Chile, around the Horn to the Cape Verde Islands, and finally the Thames in October 1795. The many surviving journals from the expedition are extremely detailed, but this research will only focus on certain key incidents.<sup>111</sup>

This expedition is unique in this project not only due to its duration, but also because it had two different "seconds." Broughton commanded the *Chatham* for the voyage to the Pacific Northwest and during the first year's exploration, but Puget assumed command in late 1792. Vancouver was supposed to receive lands Spain confiscated from British citizens at Nootka, but

---

<sup>111</sup> Menzies, *Menzies' Journal*; Naish, *The Interwoven Lives*; Vancouver, *A Voyage* vols I-VI; Wing, *Peter Puget*.

a stalemate ensued. Bodega was the Spanish officer in charge of Nootka during this time. He heard new testimony from eyewitnesses falsifying John Meares' testimony about his (Britain's) rights to Nootka. Vancouver likewise heard this testimony and sought guidance from the Admiralty about how to proceed. Therefore, he sent *Discovery's* First Lieutenant with a letter updating the Admiralty and seeking guidance aboard a ship to Britain via China. Puget was promoted to First Lieutenant. When the expedition joined the support ship *Daedalus*, whose commander was murdered in Hawaii, Vancouver assigned *Chatham's* First Lieutenant James Hanson as replacement. Puget was then assigned as First Lieutenant of *Chatham*. A short while later in California, Vancouver sent Broughton overland to board a Spanish ship bound for England, with a similar letter to Mudge's in his hands. Puget was then promoted to command *Chatham*.<sup>112</sup>

Archibald Menzies' role is notable because there was no equivalent on the Spanish or Russian expeditions. He was assigned as a botanist to the expedition by a wealthy and connected sponsor. Menzies reported to this sponsor, and not to Vancouver. A similar situation had occurred during Cook's expedition, but Cook successfully countered the botanist and his whims, which Vancouver witnessed as one of Cook's officers.<sup>113</sup> Vancouver was frustrated that he was unable to do the same and the quarterdeck was encumbered with a greenhouse and gardening equipment, creating a top-heavy ship. Nevertheless, Vancouver learned to value Menzies, and he later recruited him as his ship's surgeon, a move that significantly bolstered the expeditions' health. This tension is important, because Menzies sent numerous letters complaining about Vancouver to Banks. One included his opinion that *Chatham's* Master James Johnstone was

---

<sup>112</sup> Vancouver, *A Voyage of Discovery*, vols I & II; vol III, 54-55, 169.

<sup>113</sup> The botanist on Cook's voyage was Sir Joseph Banks. Banks' personal experience likely affected Menzies' relationship with Vancouver's expedition.

passed over twice in preference of Puget, though Johnstone was a better choice in his opinion and more experienced with the *Chatham* and crew. This sentiment did not hinder Puget and Menzies' relationship enough to warrant notation in any of the journals.<sup>114</sup>

The various journals repeatedly note *Chatham*'s sluggishness and poor handling. This was likely due to the removal of eight tons of iron ballast while at the British docks in January 1791.<sup>115</sup> The crew initially ballasted with the expedition's shot, then installed plank ballast at later times. This eventually overcame much of the sluggishness. Despite this, during their voyage to the Pacific, Vancouver determined rendezvous points in case the ships became separated along the way.<sup>116</sup> Surprisingly, when the two ships became separated, the *Chatham* often arrived on location prior to the *Discovery*. The reason for this is the crew's hard sailing, often bearing extended shifts and sailing under greater sail than *Discovery*.<sup>117</sup>

As discussed earlier, Vancouver took extensive steps to ensure good health of his crews. He victualled with sauerkraut, spruce beer, and lemon rob, and he replenished with fresh produce whenever possible, thereby preventing major outbreaks of scurvy in comparison to the other expeditions. He also smudged, vinegar washed, and ventilated daily below decks combating common shipboard maladies.<sup>118</sup> Likewise, he maintained strict discipline and was ever vigilant to avoid mutiny akin to that experienced by William Bligh and the *Bounty* in Tahiti. Anytime the

---

<sup>114</sup> Archibald Menzies. "Letter to Sir Joseph Banks written while in Monterrey Bay, California," New South Wales: Manuscript original in New South Wales State Library, 14 January 1793. Series 61.16 No. 0001. [Letter received by Banks from Archibald Menzies, 14 January 1793 \(Series 61.16\) - No. 0001 | Transcription Tool \(nsw.gov.au\)](#)

<sup>115</sup> W. Kaye Lamb, *The Voyage of George Vancouver 1791-1794*. 4 Volumes, pp1752, Hakluyt Society, London: 1984. Footnote p310.

<sup>116</sup> Vancouver, *A Voyage*, vol I, 21.

<sup>117</sup> Naish, *The Interwoven Lives*, 98; Vancouver, *A Voyage*, vol I, 79, 82-96.

<sup>118</sup> Smudging is cleansing using smoke in primitive settings. Smoke drives out insects, arachnids, rodents, and supposedly evil spirits.

crew had significant dealings with the islander natives, Vancouver assigned Puget ashore handling trade operations, probably because of his shore-based combat experience.<sup>119</sup>

Typically, interactions with natives were peaceful, though not always. On 12 August 1793, musket volleys were fired to disperse an attack, while on 11 May 1792, *Daedalus*'s captain and astronomer were killed in Waimea. The afternoon of 21 May 1792, while Whidbey and Puget were surveying Puget Sound in the cutter and yawl, they stopped for lunch atop a sixteen-foot cliff along the shore.<sup>120</sup> Puget had Menzies along and brought four armed men ashore. Six canoes with twenty native men beached near their boat. Puget had previously traded with three of the natives, who wanted copper or firearms. Puget noted the natives engaged in a discussion among themselves, the result of which was that they armed themselves with bows and came ashore. One of the natives ascended the cliff with an arrow nocked ready to lead the assault on the small British party. Puget confronted the man and backed him down. The natives discussed further, then engaged in trading their bows with the British for various goods. Puget remarked that he didn't cut the natives down because they likely didn't understand how much an advantage the British held in firepower and position. Throughout his journal, Puget describes natives or their dwellings and culture with a fairness not common to Europeans of the era.<sup>121</sup>

The region's complexity resulted in several instances where the larger ships ran aground. The *Chatham* ran aground on 1 June 1792 near Whidbey Island during a moment of inattentiveness by the leadsman, who was flogged for it. She also ran aground on the Peacock Spit in the dangerous mouth of the Columbia River, but Broughton managed to dislodge the ship. Later, in the Queen Charlotte Strait, both *Chatham* and *Discovery* ran aground on shoals due to a

---

<sup>119</sup> Naish, *The Interwoven Lives*, 71, 103-108; Vancouver, *A Voyage*, 102, 171.

<sup>120</sup> Anderson Bern, "The Vancouver Expedition: Peter Puget's Journal of the Exploration of Puget Sound May 7-June 11, 1792," *The Pacific Northwest Quarterly* 30, no. 2 (April 1939): 199-201.

<sup>121</sup> Blumenthal, *With Vancouver*, 33-36.

combination of tide and current, as well as underwater topography. In each incident, deft leadership freed the ships sustaining only minor damage.

Puget demonstrated several important leadership traits during the expedition. The first personal trait was social credibility. Social credibility is related to someone's status within a group. It is the extent to which they are perceived as both competent and trustworthy in their interactions with others. Prior to the expedition, Puget had established social credibility with Vancouver when both men were lower in rank. He repeatedly demonstrated aptitude and maturity, which over time combined to create significant trust with Vancouver. Trust development is history-dependent, and based upon positive shared interactions of dependability and transparency.<sup>122</sup> Despite his modest background compared with more genteel backgrounds of his peers, Puget's social credibility with Vancouver yielded trust in his advice, placed him ashore overseeing trade with natives, and put him in key positions charting complex waterways. It also catapulted him to *Chatham's* captaincy. This is significant, because research indicates that rank or titles do influence perceptions of credibility.<sup>123</sup>

Puget demonstrated that these unconscious perceptions can be overcome through diligent work, and a great example for those officers who fear social status or other pedigree may erode their professional growth potential. Puget remained a midshipman for twelve years (about twice as long as usual) before finally commissioning at age twenty-four.<sup>124</sup> Officers must patiently excel in their roles, without bitterness nor selfishness. Reading the various journals, it is obvious that Puget had not a single indicator of narcissistic tendencies—lack of empathy, grandiosity,

---

<sup>122</sup> Richard M. Kramer, "Trust and Distrust in the Leadership Process: A Review and Assessment of Theory and Evidence," *The SAGE Handbook of Leadership*, edited by Alan Bryman, David Collinson, Keith Grint, Brad Jackson and Mary Uhl-Bien (London: Sage Publications, Inc., 2017), 136-150.

<sup>123</sup> Gerald Gabris, and Douglas Ihrke, "No End to Hierarchy," *Administration & Society* 39 no. 1 (2007): 107-123.

<sup>124</sup> Evan Wilson, *A Social History of British Naval Officers, 1775-1815* (Woodbridge: Boydell Press, 2017), 17-43.

arrogance, or exploitation.<sup>125</sup> In establishing social credibility it is vital to remain humble, that is to “modestly estimate one’s own importance.”<sup>126</sup> The two traits are mutually complimentary, and although not listed as one of the ten Air Force leadership traits assessed on the Airman Comprehensive Assessment, it most appropriately falls under Emotional Intelligence, which includes self-awareness. The need for trustworthy humble and credible officers has persisted across the centuries.

Puget’s case study provides an opportunity to apply social identity and relational constructionism because of the intertwined lives of many of the crew’s officers. The extensive history Puget had with Vancouver helped to create a shared social identity based upon self-categorization theory, which states that people manifest themselves into groups and begin considering themselves as “we” and tend to “stick together.”<sup>127</sup> Meanwhile, relational constructivism focuses more on the actual iterative process of relations between these identities, and the subsequent impact of these relations on further constructing identities and the ordering of power.<sup>128</sup> Both theories complement each other, and seek to describe how cohorts of people relate to their social context and develop expectations for behavior of members, non-members, followers and leaders. Psychodynamic role orientations are important in this relationship; followers play an important role in endorsing leaders with their actions—legitimate authority or rank aside—or in their “state of being” followers. Under this paradigm followers are viewed as

---

<sup>125</sup> Mitra Paroma, *Narcissistic Personality Disorder* (Florida: StatPearls Publishing, 2023).

<sup>126</sup> Alex Rathmun, “Humble Leaders,” *Marine Corps Gazette* 96 no. 2 (2012): 25-27.

<sup>127</sup> Marenne Mei Jansen and Roos Delahaij, “Leadership Acceptance Through the Lens of Social Identity Theory,” *Armed Forces & Society* 46, no. 4. (2020): 657-677.

<sup>128</sup> Dian Marie Hosking, “Moving Relationality: Meditations on a Relational Approach to Leadership,” in *The SAGE Handbook of Leadership* edited by Alan Bryman, David Collinson, Keith Grint, Brad Jackson and Mary Uhl-Bien (London: SAGE Publications Inc., 2017), 464.

collaborators, participants or members, and leaders are expected to exhibit extraordinary in-group normative behavior, hereafter referred to as prototypical.<sup>129</sup>

Vancouver expected Puget to deliver on behalf of the officer in-group and to demonstrate prototypical behavior.<sup>130</sup> Puget's employment as a trusted surveyor, and accelerated promotions while on the expedition, indicate Vancouver approved of his prototypical behavior. Yet leadership is dynamic and requires both followers' and superiors' acceptance. We can therefore infer that Puget's stellar behavior was a reciprocal endorsement of Vancouver. Without this mutual acceptance, harsh reprisal is necessary to keep order and discipline. Vancouver had a noted preference for corporal punishment, even for his midshipmen, aboard the *Discovery*. However, there is not a single recorded instance of Puget flogging his *Chatham* crew and no significant disciplinary infractions when he was its captain nor when he was overseeing operations ashore. Even Broughton had recorded several floggings as the *Chatham*'s captain. Puget's lack of corporal punishment indicates he understood his crew, and in turn the crew endorsed his leadership. Military officers must simultaneously establish themselves as part of their unit's shared social identity as well as part of their superior's shared social identity. They must demonstrate prototypical behavior as both follower and leader to the benefit of both in-groups, thereby bridging the divide between "us" and "them."

The final and arguably most important instance useful for studying leadership is when Puget restrained himself from firing upon the natives while dining. Although the natives were intent upon assaulting the British shore party, he held fire. British naval officers were

---

<sup>129</sup> Michelle C. Bligh, "Followership and Follower-Centered Approaches," *The SAGE Handbook of Leadership* edited by Alan Bryman, David Collinson, Keith Grint, Brad Jackson and Mary Uhl-Bien (London: SAGE Publications Inc., 2017), 429-430; Marenne Mei Jansen and Roos Delahajj, "Leadership Acceptance Through the Lens of Social Identity Theory: A Case Study of Military," 657-676.

<sup>130</sup> Jansen, "Leadership Acceptance," 661.

deliberately raised with a preference for aggressive action to close with and destroy the enemy. Additionally, contemporary European society classified natives as “them” and labeled them as “savages,” which dehumanized them as sub-humans that enabled moral disengagement and mass atrocities.<sup>131</sup> Yet Puget clearly did not follow suit, often demonstrating genuine curiosity and fairness when assessing natives’ character or culture. He deliberately considered their actions, leveraging System-2, or effortful reasoning, when thinking about them.<sup>132</sup> This helped Puget not fall victim to confirmation bias, which could have resulted in a massacre of an entire village’s adult male population. In addition, his crew might have suffered casualties that could have jeopardized his mission. Puget’s willingness to acknowledge their mutual cultural ignorance is exemplary cognitive dexterity for modern military leaders. The expeditionary nature of current operations places young officers in engagements with not only adversaries, but potentially also with armed third parties. These officers must refrain from labeling or dehumanizing non-allies in order to accurately assess the myriad scenarios that may arise. If self-aware leaders refrain from negatively categorizing out-groups, then their decision calculus will have a higher potential for yielding optimal results.

## VIII. Conclusion

Maritime history is rich with lessons for modern military leaders that endure through the centuries. Despite differing physical domains or technologies, officers from various services should study maritime history. This project highlighted several leadership lessons by reading and analyzing manuscript materials from one each Russian, British and Spanish expeditions. The

---

<sup>131</sup> Johanna Ray Volhardt and Maggie Campbell Obaid, “The Social Psychology of Genocide and Mass Atrocities,” *The Social Psychology of Good and Evil*, edited by Arthur G. Miller (New York: The Guilford Press, 2016), 169.

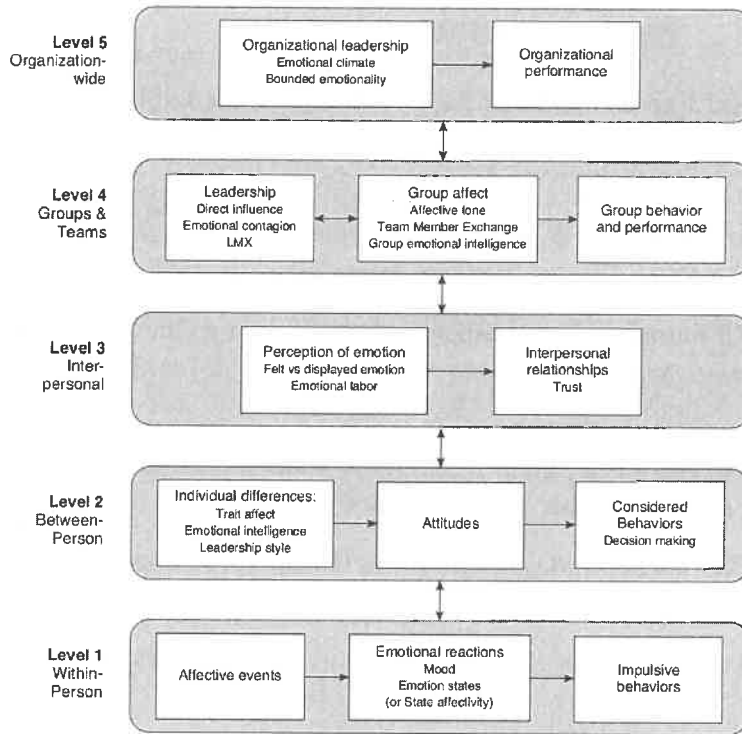
<sup>132</sup> A. Shleifer, “Psychologists at the Gate: A Review of Daniel Kahneman's ‘Thinking, Fast and Slow’,” *A Source: Journal of Economic Literature* 50, no. 4, (2013): 1080-1091.

second in command from these expeditions demonstrated the leadership demands of eighteenth-century leaders and followers are no different than modern demands. Their leadership ensured their expedition's success: Chirikov explored further west along the Alaskan coast, Bodega explored further north along the Californian coast, and Puget accurately surveyed vast inlets and captained the Chatham. Thus, as we enter a period of great power competition, mid-level military leaders filling second-in-command billets ought to specifically study the eighteenth century due to the strategic competition present amongst Europeans. Their counterparts during this time period dealt with many similar issues, such as conflicting guidance from superior echelons, equipment constraints, experience deficits, or cross-cultural conflict.

To further develop this project, analysis of the senior officers can provide lessons for senior leaders. Additionally, analysis of the various Admiralty institutions can provide executive leaders with lessons on enterprise-level leadership. Aside from considering the differing echelons, a thorough analysis of leadership and emotion across Neal M. Ashkanasy's five-levels (below) on Vancouver would prove hugely fruitful.<sup>133</sup> This is possible due to the variety of first-hand accounts available, Vancouver's in-depth personal journaling, and the complexity of his command itself.

---

<sup>133</sup> Neal M. Ashkanasy and Ronald H. Humphrey, "A Multi-level View of Leadership and Emotion: Leading with Emotional Labor," *The SAGE Handbook of Leadership*, edited by Alan Bryman, David Collinson, Keith Grint, Brad Jackson and Mary Uhl-Bien (London: SAGE Publications Inc., 2017), 365-379.



**Figure 11:** 5-levels of emotion and leadership analysis model. (Source: Neal M. Ashkanasy and Ronald H. Humphrey, "A Multi-level View of Leadership and Emotion: Leading with Emotional Labor," *The SAGE Handbook of Leadership*, edited by Alan Bryman, David Collinson, Keith Grint, Brad Jackson and Mary Uhl-Bien (London: SAGE Publications Inc., 2017), 365-379).

## PRIMARY SOURCES

- Anderson, Bern. "The Vancouver Expedition: Peter Puget's Journal of the Exploration of Puget Sound May 7 – June 11, 1792," *The Pacific Northwest Quarterly* 30, no. 2 (April 1939), 177-217.
- Armstrong, Alexander. *Observations on Naval Hygiene and Scurvy, More Particularly as the Latter Appeared During a Polar Voyage*. London: John Churchill, 1858.
- Beals, Herbert K., ed. "The 1775 Journal of Juan Francisco de la Bodega y Quadra." In *Four Travel Journals: The Americas, Antarctica and Africa, 1775-1874*. London: Hakluyt Society, 1925.
- Blumenthal, Richard W. *With Vancouver in Inland Washington Waters: Journals of 12 Crewmen, April – June 1792*. Jefferson: McFarland & Co., 2007.
- Cook, James. *The Voyages of Captain James Cook Round the World*, vol 3. London: Sherwood, Neely & Jones, 1858.
- Divin, Vasili A. *The Great Russian Navigator A.I. Chirikov*. Fairbanks: University of Alaska Press, 1993.
- Golder, F.A. *Bering's Voyages: An Account of the Efforts of the Russians to Determine the Relation of Asia and America*, 2 vols. New York: American Geographical Society, 1925.
- Lamb, W. Kaye, ed. *A Voyage of Discovery to the North Pacific Ocean and Round the World, 1791-1795*, 4 vols. London: The Hakluyt Society, 1984.
- Lebedev, Dmitrii M. "Plavanie A.I. Chirikova na Paketbote Sv Pavel k pberzeh'iam Ameriki S Prolozhenieim Sudovogo Zhurnala 1741," 1951. *chirikov.org*. Accessed January 1, 2023. [www.chirikov.org](http://www.chirikov.org).
- Lloyd, Christopher. *The Health of Seamen: Selections from the Works of Dr. James Lind, Sir Gilbert Blane and Dr. James Trotter*. London: Spottiswoode, Ballantyne and Co., Ltd., 1965.
- Maury, Matthew F. *Explanations and Sailing Direction to Accompany the Wind and Current Charts*. Washington, D.C.: C. Alexander, 1851.
- Meany, Edmond S. *Vancouver's Discovery of Puget Sound*. London: Macmillan & Co., Ltd., 1907.
- Menzies, Archibald. *Menzies' Journal of Vancouver's Voyage, April to October, 1792*. Edited by Charles F. Newcombe and John Forsyth. Victoria: W.H. Cullin, 1923.
- Menzies, Archibald. "Letter to Sir Joseph Banks written while in Monterrey Bay, California," New South Wales: Manuscript original in New South Wales State Library, 14 January 1793. Series 61.16 No. 0001. <https://transcripts.sl.nsw.gov.au/page/letter-received-banks-archibald-menzies-14-january1793-series-6116-no-0001>

- Mourelle, Francisco Antonio. "Letter to Viceroy Conde de Revilla Gigedo--Viajes a las Costas de California y parte de N. O. de la America en 1774." Madrid: Manuscript original in Musea Naval, February 15, 1971.
- Olson, Wallace M. *The Alaska Travel Journal of Archibald Menzies, 1793-1794*. Fairbanks: University of Alaska Press, 1993.
- Pokrovskii, A.A. *Ekspeditsiia Beringa: Sbornik Dokumentov*. Moscow: Glavnoe arkhivnoe upravlenie NKVD SSSR, 1941.
- Puget, Peter. "Journal Kept by Lt. Peter Puget on Vancouver's Expedition, 30 March to 21 May 1793. Manuscript original in Royal Greenwich Observatory Archives, National Maritime Museum Manuscripts. FIS/1. <https://cudl.lib.cam.ac.uk/view/MS-FIS-00001/1> or <https://www.rmg.co.uk/collections/objects/rmgc-object-500305>.
- Vancouver, George. *A Voyage of Discovery to the North Pacific Ocean and Round the World*. 6 vols. London: G.G. and J. Robinson, 1798.
- Walker, William I. Lang and James V. *Explorers of the Maritime Pacific Northwest: Mapping the World through Primary Documents*. Santa Barbara: ABC-CLIO, 2016.

## SECONDARY SOURCES

- A.A. Pokrovskii, ed. *Ekspeditsiia Beringa: Sbornik Dokumentov*. Moscow: Glavnoe Arkhivnoe Upravlenie NKVD SSSR, 1941.
- Allan, Philip K. "Finding the Cure for Scurvy." *Naval History Magazine* 35 no. 1 (February 2021). <https://www.usni.org/magazines/naval-history-magazine/2021/february/finding-cure-scurvy>
- Basil, Dmytryshyn. *Imperial Russia: A Source Book, 1700-1917*. Chicago: The Dryden Press, 1974.
- Bligh, Michelle C. "Followership and Follower-Centered Approaches." In *The SAGE Handbook of Leadership*, edited by David Collinson, Keith Grint, Brad Jackson and Mary Uhl-Bien Alan Bryman, 429-430. London: SAGE Publications, Inc., 2017.
- Chapman, Charles E. "The Alta California Supply Ships, 1773-1776," *The Southwestern Historical Quarterly* 19, no. 2, (October 1915): 185-194.
- Chandler, Robert C. "Anticipatory Foresight and Adaptive Decision-Making as a Crucial Characteristic for Business Continuity, Crisis and Emergency Leadership", *Journal of Business Continuity & Emergency Planning* (January 2022): 255-269.
- Cheshire, James. "Maps of 18th Century Shipping Trade Routes." Used by John Burn Murdoch in "18th Century Shipping Mapped Using 21st Century Technology," *The Guardian* (April 2012). <https://www.theguardian.com/news/datablog/2012/apr/13/shipping-routes-history-map>.

- Cook, Warren L. *Flood Tide of Empire: Spain and the Pacific Northwest, 1543-1819*. New Haven: Yale University Press, 1973.
- Deal, Lee G. Bolman and Terrence E. *Reframing Organizations: Artistry, Choice and Leadership*. San Francisco: Jossey-Bass, 2008.
- Delahajj, Marenne Mei Jansen and Roos. "Leadership Acceptance Through the Lens of Social Identity Theory: A Case Study of Military Leadership in Afghanistan." *Armed Forces & Society* (2020): 660-676.
- Dodds, James. *Building the Wooden Fighting Ship*. London: Hutchison and Co, 1984.
- Duggan, Deni Trejo Barajas and Marie Christine. "San Blas and the Californias: Hispanic Trade in the Northern Pacific Rim in a Time of Great Change (1767-1820)." *Maritime Camino Real, Maritime Muesum of San Diego* (2018): 28-47.
- Engstrom, Allan. *Yakobi Island: The Lost Village of Apolosovo and the Fate of the Chirikov Expedition*. Juneau: Allan Engstrom, 2006.
- Erik Dane, and Michael G. Pratt. "Exploring Intuition and Its Role in Managerial Decision Making." *Academy of Management Review* (2007): 33-54.
- Fisher, Raymond H. *Bering's Voyages: Whither and Why*. Seattle: University of Washington, 1977.
- Gibson, James R. *Feeding the Russian Fur Trade: Provisionment of the Okhotsk Seaboard and the Kamchatka Peninsula, 1639-1858*. London: The University of Wisconsin Press, 1969.
- Goleman, Daniel. 2019. "Leadership that Gets Results." *Harvard Business Review* (1925): 1-15.
- Gough, Barry. *Distant Dominion*. Vancouver: University of British Columbia Press, 1980.
- Gunther, Erna. *Indian Life on the Northwest Coast of North America as Seen by the Early Explorers and Fur Traders during the Last Decades of the Eighteenth Century*. Chicago: University of Chicago Press, 1972.
- Hewson, J.B. *A History of the Practice of Navigation*. Glasgow: Brown, Son & Ferguson, Ltd., 1951.
- Hill, Judith L. Johnson and William R. "Personality Traits and Military Leadership." *Individual Differences Research* (2009): 1-13.
- Historic UK. "The Royal Navy's Size Throughout History." Accessed May 8, 2023. <https://www.historic-uk.com/Blog/British-Navy-Size-Over-Time/>
- Hosking, Dian Marie. "Moving Relationality: Mediations on a Relational Approach to Leadership," *The SAGE Handbook of Leadership*, edited by David Collinson, Keith Grint, Brad Jackson and Mary Uhl-Bien Alan Bryman, 455-467. London: SAGE Publications, Inc., 2017.

- Humphrey, Neal M. Ashakanasy and Ronald H. "A Multi-level View of Leadership and Emotion: Leading with Emotional Labor." *The SAGE Handbook*, 365-379. London: SAGE Publications, Inc., 2017.
- Igler, David. "Captive-Taking and Conventions of Encounters on the Northwest Coast, 1789-1810," *Southern California Quarterly* 91, no. 1 (Spring 2009): 3-25.
- Ihrke, Gerald Gabris and Douglas. "No End to Hierarchy." *Administration & Society* (2007): 107-123.
- Jackson, R.V. "Government Expenditure and British Economic Growth in the Eighteenth Century." *The Economic History Review* 43, no. 2, (May 1990): 222.
- Kahneman, Daniel. *Thinking, Fast and Slow*. New York: Farrar, Straus and Giroux, 2011.
- Kaiser, Robert Hogen and Robert. "What We Know About Leadership." *Review of General Psychology* 9 no.2 (2005): 169-180.
- Kramer, Roderick M. "Trust and Distrust in the Leadership Process: A Review and Assessment of Theory and Evidence." In *The SAGE Handbook of Leadership*, 137-150. London: SAGE Publications Inc., 2017.
- Lavery, Brian. *Nelson's Navy: The Ships, Men and Organisation, 1793-1815*. Annapolis: The Naval Institute Press, 1989.
- Manacapilli, Sean Robson and Thomas. "Enhancing Performance Under Stress: Stress Inoculation Training for Battlefield Airmen." *Rand Corporation*, 2014.  
[https://www.rand.org/pubs/research\\_reports/RR750.html](https://www.rand.org/pubs/research_reports/RR750.html).
- Marques, Kimberly K. Merriman and J. "Leadership and Perseverance." *Leadership Today* (2017): 335-350.
- Mayburry, Jason. "Scurvy and Vitamin C." Unpublished paper. Harvard Law School, 2004.  
<http://nrs.harvard.edu/urn-3:HUL.InstRepos:8852139>.
- Misachi, John. "Pacific Ring of Fire." *World Atlas*. March 22. Pacific Ring Of Fire - WorldAtlas, 2021.
- Naish, John M. *The Interwoven Lives of George Vancouver, Archibald Menzies, Joseph Whidbey and Peter Puget*. Lewiston: The Edwin Mellen Press, 1996.
- Nelson, Paul D. *Small Isolated Groups*. Report No. 2-13. US Navy Neuropsychiatric Research Unit, Virginia: Armed Services Technical Information Agency, 1962.
- NOAA. [www.noaa.gov](http://www.noaa.gov).
- NOAA. "Alaska Shore Zone." *NOAA Fisheries*. Accessed January 1, 2023.  
<https://www.fisheries.noaa.gov/alaska/habitat-conservation/alaska-shorezone>

- Obaid, Johann Ray Volhardt and Maggie Campbell. 2016. "The Social Psychology of Genocide and Mass Atrocities." In *The Social Psychology of Good and Evil*, 159-184. New York: The Guilford Press.
- Paroma, Mitra. *Narcissistic Personalithy Disorder*. Florida: StatPearls Publishing, 2023.
- Pena, Enrique Cardenas de la. *San Blas de Nayarit*. Mexico City: Secretaria de Marina, 1968.
- Rathmun, Alex. "Humble Leaders." *Marine Corps Gazette* 96, no. 2 (Feb, 2012): 25-27.
- Rigby, Nigel, Pieter van der Merwe and Glyn Williams. *Pioneers of the Pacific: Voyages of Exploration, 1787-1810*. Fairbanks: University of Alaska Press, 2005.
- Rothstein, Michael D. "Great Leaders Follow First: Nine Rules for Dynamic Followership." *Air & Space Power Journal* 33, no. 2 (Summer 2019): 4-14.
- Sales, Anika Savage and Michael. "The Anticipatory Leader: Futurist, Strategist and Integrator." *Strategy & Leadership* 36, no. 6 (2008): 28-35.
- Sanchez, Antonio. "Spanish Explorations: Juan Perez Expedition of 1774--First European Discovery and Exploration of Washington State Coast and Nueva Galicia (The Pacific Northwest)." *Historlink.org* Last modified April 7, 2004. <https://www.historylink.org/File/5677>.
- Shleifer, A. "Psychologists at the Gate: A Review of Daniel Kahneman's "Thinking, Fast and Slow"." *A Source: Journal of Economic Lliterature* (2013): 1080-1091.
- Suttles, Wayne. *Handbook of North American Indians, Vol 7: Northwest Coast*. Washington, D.C.: Smithsonian Institute, 1990.
- Thurman, Michael E. "The Establishment of the Department of San Blas and Its Initial Naval Fleet: 1767-1770." *Hispanic American Historical Review* 43, no. 1 (1963): 65-77.
- Tovell, Freeman. "Chief Maquinna and Bodega y Quadra." *British Columbia Historical News* 34, no. 4 (Fall 2001): 8-14.
- Tovell, Freeman M. *At the Far Reaches of Empire: The Life of Juan Francisco de la Bodega y Quadra*. Vancouver: University of British Columbia Press, 2008.
- Weather. [www.weather.gov](http://www.weather.gov).
- Willis, Sam. *Fighting at Sea in the Eighteenth Century: The Art of Sailing Warfare*. Woodbridge: The Boydell Press, 2010.
- Wilson, Evan. *A Social History of British Naval Officers, 1775-1815*. Woodbridge: Boydell Press, 2017.
- Wilson, Evan with AnnaSara Hamar and Jakob Seerup. *Eighteenth-Century Naval Officers: A Transnational Perspective*. Switzerland: Palgrave Macmillan, 2019.

Wing, Robert C. *Peter Puget: Lieutenant on the Vancouver Expedition*. Seattle: Gray Beard Publishing, 1979.