

ABSTRACT

Donald J. Froning, Jr. THE STEAM SCHOONER *COSMOPOLIS* / HAWAIIAN STEAMER *KAUAI*: THE MĀHUKONA HARBOR STEAMSHIP WRECK. (Under the direction of Dr. Bradley A. Rodgers) Department of History, April 2007.

The purpose of this thesis is twofold. With a narrow focus, the purpose is to document in detail the history of the West Coast steam schooner *Cosmopolis*, which became the Hawaiian steamer *Kauai*, and later sank at Māhukona Harbor on the Kohala Coast of the Island of Hawai'i in 1913. This documentation includes the archaeology of a steamship wreck site at Māhukona Harbor, and the confirmation, based upon archaeology and history, that the wreck site at Māhukona Harbor represents the remains of the steamer *Kauai* and possibly the cargo of its final trip. With a wider focus, the purpose of this thesis is to show that the Hawaiian steamer working in the sugar industry of the late-nineteenth and early-twentieth centuries is the same vessel type as the West Coast steam schooner serving that coast's lumber industry of the same time period. The steamer *Cosmopolis* / *Kauai* demonstrates this link, as it was essentially both a steam schooner and a Hawaiian steamer, with only a deck structure modification to separate them. The detailed historical narrative in the thesis shows that it was a typical lumber hauler that became a typical sugar carrier.

The steamer *Kauai* is significant historically for a number of reasons. Built at San Francisco in 1887 as the steamer *Cosmopolis*, it was among the first of what many believe to be a California invention, the "steam schooner". The steam schooner brings into question how early designs of different vessel types may have influenced the

evolution of others; further study of these technology transfers is needed. Some scholars believe that the "steam schooner" is a unique California design; others maintain that it was came from elsewhere, such as the Great Lakes region. This subject requires further research, and raises many questions concerning technology dispersion in a marine setting.

These schooner-rigged propeller-driven steamships known as steam schooners plied the waters of the West Coast of the United States, Mexico, and Canada well into the twentieth century. They played a key role in the lumber industry on that coast. The *Cosmopolis* was the first steam schooner to carry lumber to San Francisco from Grays Harbor, Washington, on a regular basis.

The *Cosmopolis* was sold to Hawai'i interests in 1895, and the name was changed to *Kauai*. Most steamers working the sugar industry at that time were built in California or elsewhere on the West Coast; *Kauai* was one of very few that had a West Coast career prior to coming to Hawai'i. Most steamers came over almost immediately after they were built. There were a few West Coast-built Hawaiian steamers that were built before the supposed first "steam schooners". These add to the questions noted above regarding design origins and technology transfers.

THE STEAM SCHOONER *COSMOPOLIS* / HAWAIIAN STEAMER *KAUAI*;

THE MĀHUKONA HARBOR STEAMSHIP WRECK

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A NOTE ON HAWAIIAN DIACRITICAL MARKINGS

The Hawaiian language was exclusively an oral language until the arrival of the missionaries in the early nineteenth century. Converted into English characters, written Hawaiian consists of the five standard vowels: A, E, I, O, and U, and the following seven consonants: H, K, L, M, N, P, and W.

In the twentieth century, two symbols were added, to allow for more accurate word pronunciation: the *'okina* and the *kahakō*. These are known as "diacritical markings". The *'okina* is a "glottal stop" that can appear between two vowels or at the beginning of a word that begins with a vowel; it indicates that a distinct break is required, as opposed to a flow between the vowel sounds. It is represented by the following character: ' . The *kahakō* is represented by a flat line over a vowel, which designates that the vowel sound is to be emphasized and drawn out.

In accordance with current protocols, these diacritical markings are used throughout this thesis. Most events reported in this thesis took place before the establishment of the diacritical markings; as a result, certain proper names do not include them. For example, the steamer *Kauai* was named after the island named Kaua'i; the vessel name does not include an *'okina*, but the modern name of the island does. Further, common words in the Hawaiian language are italicized in this thesis, in accordance with standard protocols for foreign word inclusions in an English language text. Proper names, such as names of people and places, are not. Ship names are italicized, in accordance with standard protocol.

A NOTE ON HAWAIIAN PLACE NAMES

The Hawaiian Archipelago stretches well over a thousand miles, from Kure Atoll in the northwest, to the Island of Hawai'i to the southeast. The eight "major" Hawaiian Islands consist of Hawai'i, Maui, O'ahu, Moloka'i, Lāna'i, Kaho'olawe, Kaua'i, and Ni'ihau, and represent the southeastern end of the archipelago. The remainder are small islands and atolls collectively called the "Northwest Hawaiian Islands".

In this thesis, the eight major islands will be called "the Hawaiian Islands", or simply "Hawai'i". The largest island in the Hawaiian Archipelago is called "Hawai'i", from which the entire archipelago has in modern times derived its name. In this thesis, this island will be called "the Island of Hawai'i", "Hawai'i Island", or when appropriate, the more common and colloquial "the Big Island".

INTRODUCTION

In the summer of 1993, a maritime archaeology field school was conducted by the Marine Option Program (MOP) of the University of Hawai'i (UH) at Mānoa, under the direction of Dr. Bradley A. Rodgers of East Carolina University (ECU), Greenville, North Carolina, at a wreck site at Māhukona Harbor, on the north Kohala coast of Hawai'i Island. The site lies approximately 130 meters from the shore at a depth of about 5 to 7 meters, and was believed by many people familiar with the history of the area to be the remains of the Hawaiian steamer *Kauai*, which sank at that harbor on December 24th, 1913. The primary product of this field school was a plan-view (top-down) "site drawing" of the wreck site, which consisted primarily of what appeared to be a two-cylinder compound steam engine that was connected to a propeller shaft and a propeller, what appeared to be a cylindrical scotch-type boiler, and an associated debris field, which contained about 20 examples of what appeared to be narrow-gauge railroad trucks (axle with attached wheels from a railroad car).

Four years later, another maritime archaeology field school was conducted on Hawai'i Island by UH Mānoa MOP, led by Hans K. Van Tilburg, then a UH doctoral candidate. This field school focused on three sites; one of these was the wreck site at Māhukona investigated by Dr. Rodgers in 1993. The main products from this field school were elevation (side-view) drawings of the "engine" and the "boiler", and a site map that showed the location of the wreckage with respect to the shoreline at Māhukona Harbor.

Dr. Rodgers recommended the archaeology of this site and the history of the Hawaiian steamer *Kauai* as a thesis topic to this author in the spring of 1999. Unbeknownst to both Dr. Rodgers and the author, a storm from the previous winter had loosened the "boiler" from its position on the sea bed and rolled it up onto the rocky shore at Māhukona Harbor, where it was broken and spread on the shore and in the shallow water. This event necessitated additional small-scale fieldwork that was conducted by the author from 2003 to 2006. This fieldwork, like all fieldwork on this site to this point, was non-intrusive; there was no excavation involved. Although many have assumed this wreckage represents the remains of the steamer *Kauai*, the author has chosen an objective term, the "Māhukona Harbor Steamship Wreck" (MHSSW), which will be used until any conclusions regarding the ship's identity can be made.

The Hawaiian steamer *Kauai* had an interesting history. This single screw, wooden-hulled vessel was built as the *Cosmopolis* for the lumber firm Higgins & Collins by Boole & Beaton of San Francisco, with George Boole as Master Carpenter.¹ It was 154 feet in length, 32 feet in breadth, and the depth of hold was 10 ½ feet.² Gross tonnage was 339.74, based upon 281.07 tons capacity under the tonnage deck and 58.67 tons capacity of the enclosures on the upper deck.³ Subtracting deductions of 72.51 tons, the net capacity was 267 tons.⁴ The vessel's steam machinery was built by Fulton Iron Works of San Francisco; Hinckley, Spiers, and Hayes, proprietors. Propulsion was

¹ Enrollment No. 64, *Stmr Cosmopolis*, 20 Sept 1887, Record Group 36, Comp. 2140, Shelf G, Record of Bills of Sale for Enrolled Vessels (over 20 tons) 1886-1947, Port of San Francisco, Vol. 36, National Archives Federal Records Center, Pacific Region, San Bruno, CA.

² *Ibid.*

³ *Ibid.*

⁴ *Ibid.*

provided by a two-cylinder compound steam engine, with 16 and 30 inch cylinders, and a 20 inch stroke produced 200 horsepower.⁵ Steam was generated by a steel, coal burning Scotch boiler, 9 ½ feet in diameter and 10 feet long.⁶ The steamer had a small pilot house astern, atop her single deck, and a plumb bow. The cost of the steamer was \$40,000.⁷

The *Cosmopolis* was the pioneer steamer on the lumber run to San Francisco from Grays Harbor, Washington Territory. (Figure 1 on page 4 is a photograph of *Cosmopolis* on the Hoquiam River, which flows into Grays Harbor.) Besides lumber, another staple *Cosmopolis* cargo was grain from Southern California. For at least two seasons, the *Cosmopolis* was leased to a salmon-canning firm in Astoria, Oregon, and was used to transport lumber, supplies, and workers to Alaska in order to build and maintain salmon canneries.

In 1895, the *Cosmopolis* was sold to the Inter-Island Steam Navigation Company of Honolulu, Republic of Hawaii. Most Hawai'i-destined steamers purchased on the West Coast were transported to Hawai'i immediately after they were built. The *Cosmopolis*, with seven years of service on the West Coast, was unique. The steamer was renamed *Kauai*, was outfitted with an enlarged deck structure (see Figure 2, page 4), and was used for many years in the sugar and passenger trade. Bagged raw sugar was carried by steamers like the *Kauai* from various sugar ports throughout the islands to Honolulu,

⁵ *Lloyd's Register*, 1 Jul 1890-30 Jun 1891.

⁶ Certificate of Inspection, Stmr *Cosmopolis*, 7 Feb 1895, San Francisco Customs Office. Bernice Pauahi Bishop Museum Archives, Honolulu. Dillingham Collection, Inter-Island Steam Navigation Co., Ship Files, Box 30, *Kauai* Folder.

⁷ *Daily Alta California* (San Francisco), 18 Sep 1887.

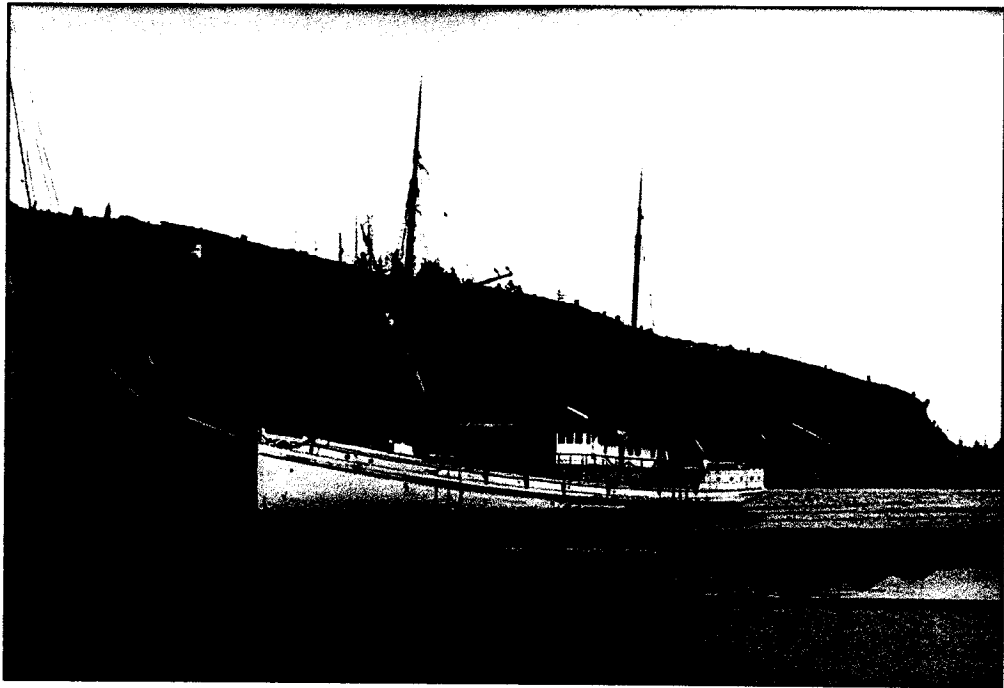


Figure 1. Steamer *Cosmopolis* on the Hoquiam River. (Courtesy of the University of Washington Libraries, Special Collections, negative number UW 23725.)

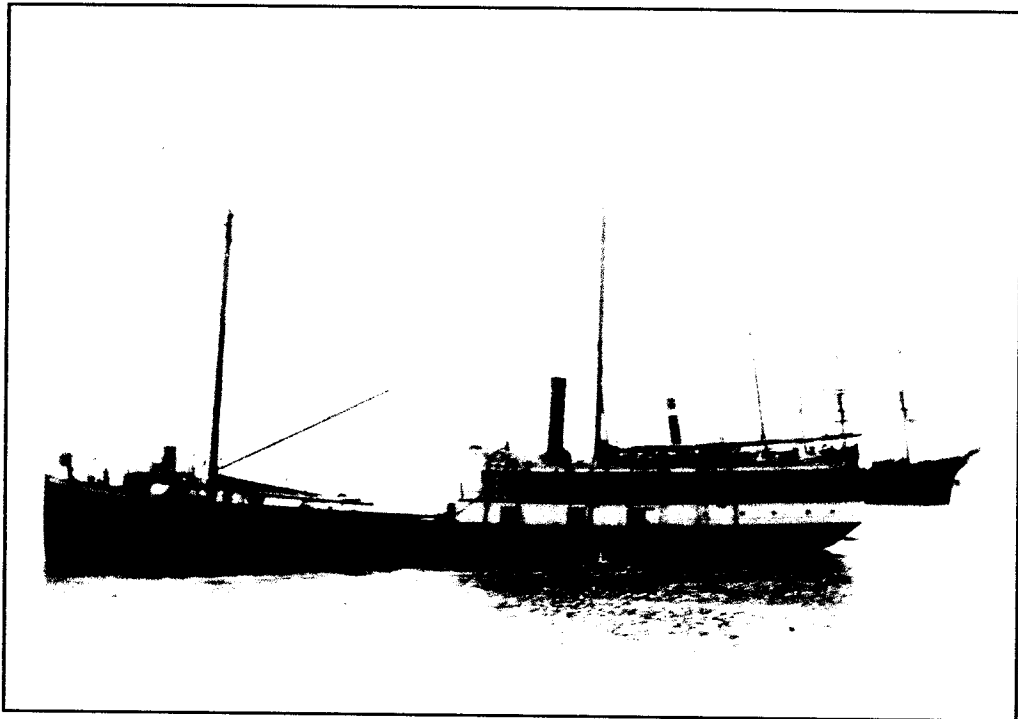


Figure 2. Steamer *Kauai*. (Courtesy of the Hawai'i State Archives.)

where it was transferred to large sailing vessels and delivered to refineries, primarily in California. In the vessel's later years, the steamer *Kauai* was based at Hilo, on Hawai'i Island. On December 24th, 1913, as *Kauai* was unloading sugar mill equipment at Māhukona Harbor, the steamer came loose from its mooring, ran aground, and became a "total loss".⁸

There was no logbook discovered for this vessel, either as the *Cosmopolis* or the *Kauai*. Nevertheless, a large amount of detailed historical information regarding the steamer was obtained from the departure and arrival information contained in the shipping news sections of several West Coast and Hawai'i newspapers. The detail provided in the historical narrative reveals the potential of creating a "newspaper logbook" for a vessel during this time period.

This vessel was one of the first of a new class of steamer, called the "steam schooner". As the name implies, a steam schooner is a schooner-rigged (fore-and-aft sails) vessel with two or more masts that is also outfitted with a steam engine, specifically an engine that drives a propeller. Steamers that fit this basic description existed decades earlier, such as the Pacific Coast Steamship Company's steamer *Salinas*, built in 1861 (see Figure 3 on page 6).⁹ The title "steam schooner", however, was developed in the mid-1880s, and applied to steamers like the *Cosmopolis* that worked in the lumber trade on the West Coast.¹⁰

⁸ *Pacific Commercial Advertiser* (Honolulu), 27 Dec 1913.

⁹ Marcus De Chevreux, *William A. Coulter: A Master's Brush with the Sea* (San Francisco: The Paul and Linda Kahn Foundation, 2006), 19.

¹⁰ *San Francisco Chronicle*, 1 Jan 1888.

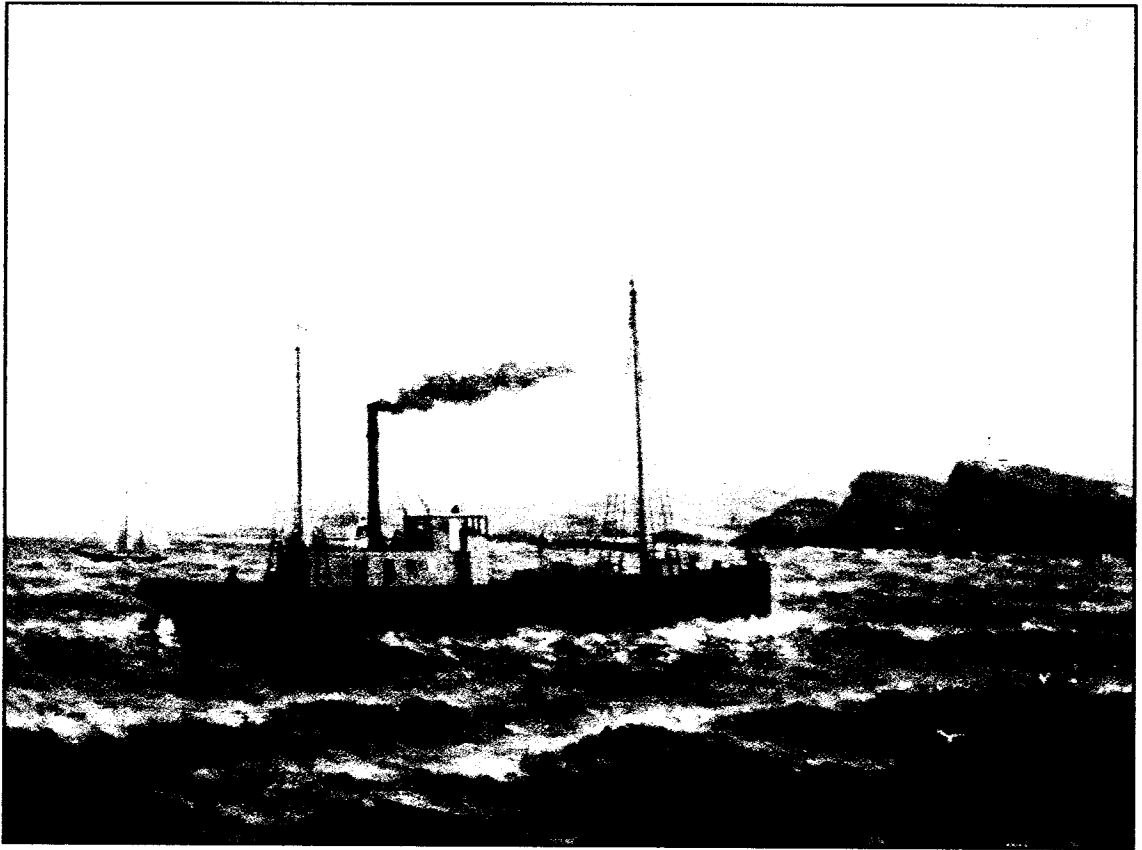


Figure 3. William A. Coulter, *Salinas Crossing Four-Mile Bank*, oil on canvas, ca. 1880. Courtesy of Thomas M. Coulter.

This thesis draws two conclusions. On a narrow scale, it is concluded that the MHSSW represents the remains of the Hawaiian steamer *Kauai*, based upon the archaeological and historical evidence presented. On a broader scale, it is concluded that the “Hawaiian steamer” vessel type, used primarily to haul sugar between the Hawaiian Islands in the late nineteenth and early twentieth centuries, and the “steam schooner” vessel type, used primarily to haul lumber on the West Coast of the United States during the same time period, are one in the same. Although the Hawaiian steamers were not called “steam schooners”, they are of the same vessel type. The

vessel that is the subject of this thesis supports this claim, perhaps better than any other vessel, because, in essence, it was both. Upon its arrival in Hawai'i, the pilot house was expanded into a deck structure that encompassed the entire aft section of the vessel. With this single significant modification, the *Cosmopolis*, a typical lumber industry West Coast "steam schooner", was transformed into the *Kauai*, a typical sugar industry "Hawaiian steamer".

Chapter 1 of this thesis notes the introduction of steamships to the Pacific, and provides more background on the "steam schooner". Chapters 2 through 5 represent a historical narrative of the steamer *Cosmopolis / Kauai*, and show that it was not just a West Coast steamer that came to Hawai'i, but that it was a typical West Coast lumber hauler, that became a typical Hawai'i sugar hauler. Chapters 6 and 7 represent the archeology of the MHSSW, and the interpretations of the archaeology, combined with the history of the steamer *Kauai*.

CHAPTER 1
STEAMERS REACH THE PACIFIC; THE STAGE IS SET
FOR THE "STEAM SCHOONER"

Early steamboats were working the waters of both England and the United States in the first decades of the nineteenth-century. In 1819, the American steamship *Savannah* traveled (mostly under sail) from Savannah, Georgia, to Liverpool, England, thus becoming the first steamer to cross the Atlantic Ocean.¹ It would take another 17 years, however, for the steamship's introduction into the Pacific Ocean. In 1836, the *Beaver*, a 101 foot, 109 ton wooden side-wheel steamer built in England for the Hudson's Bay Company, completed a 163 day journey from England to Oregon.²

In Figure 4 on page 9, a later photo of the *Beaver*, the vessel was rigged fore-and-aft, but it was originally rigged as a brig,³ and carried general cargo, passengers, and mail to trading posts in Oregon and British Columbia. The *Beaver* still worked along the Pacific Coast until her unfortunate wrecking off the Vancouver coast in 1888.⁴

The reason that it took so long for the introduction of steamers to the Pacific Ocean is simple; there was neither a *means* nor a *motive*. The *Beaver* sailed to Oregon from England via Cape Horn, as did all ships entering the Pacific from the Atlantic at that time. This journey would have been too treacherous for the first transatlantic steamers, therefore there was no practical *means*. In the first half of the nineteenth-century,

¹ John H. Morrison, *History of American Steam Navigation* (New York: Stephen Daye Press, 1958), 406.

² Paul Johnston, *Steam and the Sea* (Salem, MA: Peabody Museum of Salem, 1983), 50.

³ Will Lawson, *Pacific Steamers* (Glasgow: Brown, Son & Ferguson, Ltd., 1927), 5.

⁴ *Pacific Commercial Advertiser* (Honolulu), 18 Apr 1903.

relatively few people lived along the Pacific Coast of North America, and the region's maritime trading requirements were easily met by sailing vessels. Therefore, there was no significant *motive* for introducing steamers. Despite the *Beaver's* success, sailing vessels dominated the Pacific Northwest for many more years.

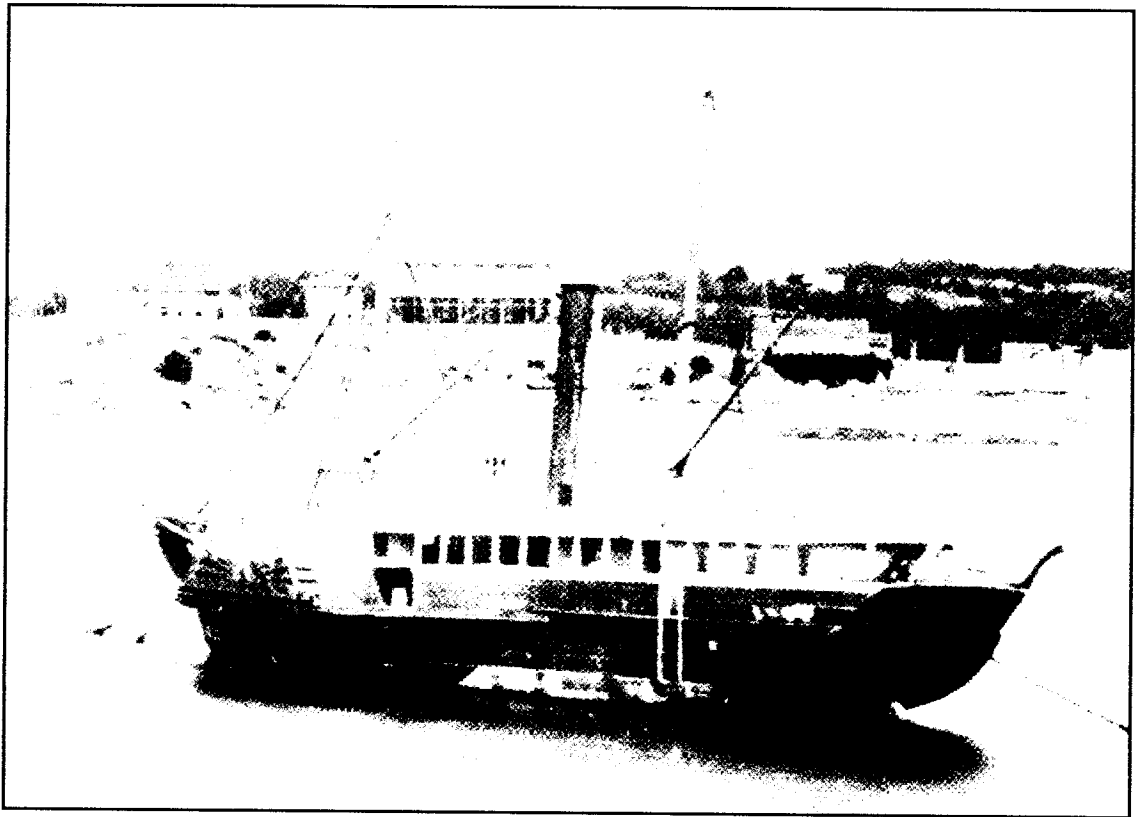


Figure 4. Steamer *Beaver*. (Reprinted from "Thirty Years With Pacific Coast Merchant Marine." *Pacific Marine Review*, April 1935, p. 100.)

The California Gold Rush

On January 24th, 1848, gold was discovered at Sutter's Mill at Coloma, California.⁵ This event changed California's future forever. At that time California was only nine days away from becoming an American territory.⁶ From 1849 on, Americans and foreigners were travelling to California by whatever means possible for their chance to "strike it rich". Although some reached California overland, most came by sea. Some oceangoing travelers reached San Francisco via schooners or other sailing vessels, but many came by steamer. The California Gold Rush did not bring the first steamer to the Pacific Coast of North America, but it firmly established the steamer as an essential component of that region's maritime trade. Furthermore, the Gold Rush facilitated the movement of merchant steamships to other parts of the Pacific, such as Australia and Hawai'i, and beyond, as a result of the surplus of steamers in California in the 1850s.

With the California Gold Rush, there was both a *means* and a *motive* for bringing large numbers of steamships to the Pacific Coast. As luck would have it, the company that dominated the California Gold Rush passenger trade had already planned on sending a steamer to the Pacific Coast. The Pacific Mail Steamship Company was chartered in April 1848 to carry mail from Panama to Oregon.⁷ The company was run by William H. Aspinwall, the man who petitioned the U. S. Congress to grant a subsidy for mail service between New York and Puget Sound.⁸ The company had a monopoly

⁵ Ernest A. Wiltsee, *Gold Rush Steamers of the Pacific* (San Francisco: The Grabhorn Press, 1938), 7.

⁶ J.S. Holliday, *The World Rushed In: The California Gold Rush Experience* (New York: Simon and Schuster, 1981), 25.

⁷ *Daily Alta California* (San Francisco), 1 Jan 1891.

⁸ Lawson, *Pacific Steamers*, 15.

on the trade for fourteen months, and operated three steamships, the *California*, the *Oregon*, and the *Panama*, between Panama City and San Francisco, carrying mail, and prospectors.⁹

The first steamer to enter this trade network was the *California*, a wooden side-wheel steamer built by William H. Webb, of New York. The three-masted vessel had a length of 199 feet, displaced 1,057 tons, and was powered by a side-lever engine with a 1 foot-5 inch diameter cylinder.¹⁰ The *California* left New York in October 1848, and arrived at San Francisco in February 1849, after picking-up passengers in Valparaiso, Chile, and Panama City.¹¹ The *Panama*, also built by William H. Webb, shared very similar characteristics with the *California*, as did the *Oregon*. The *Oregon* was built by Smith and Dimon, also of New York.¹² These two ships soon followed the *California* to San Francisco; the *Oregon* arrived in April 1849, and the *Panama* in June of the same year.¹³

Steamers from other companies, such as the United States Mail Steamship Company, brought passengers from New York to the Atlantic Coast of Panama. Passengers then made an overland trek to Panama City, on the Pacific Coast, where they boarded the designated Pacific Mail steamer. By 1855, this was a relatively smooth and reliable transportation system, with punctual steamship service, combined with a four-hour cross-isthmus train ride on the newly completed Panama Railway.¹⁴ Prior to the railway, the cross-isthmus trip was made by either a canoe, or with luck, a river steamer,

⁹ Johnston, *Steam and the Sea*, 52.

¹⁰ John H. Kemble, *The Panama Route, 1848-1869* (New York: Da Capo Press, 1972), 221.

¹¹ *Ibid.*

¹² *Ibid.*, 239, 242.

¹³ *Ibid.*, 242.

¹⁴ Johnston, *Steam and the Sea*, 52.

west along the Chagres River, and at the halfway point across the isthmus, a switch to ground transportation was required. For the wealthy, this meant a mule ride; for the rest, a walk.¹⁵

These first three Pacific Mail steamers carried passengers back and forth between San Francisco and Panama City during the peak years of the Gold Rush. Other Pacific Mail Steamship Company steamers would follow in the tradition of service between San Francisco and Panama City. In fact, many more steamers worked for Pacific Mail, as the company was in operation until 1925.¹⁶

The Pacific Mail Steamship Company enjoyed a monopoly on the Gold Rush route for over a year, and then remained the route's primary carrier, but there were a few other competing lines in 1850. The main competitors were the Empire City line, and Cornelius Vanderbilt's Peoples Independent Line.¹⁷ The Steamer *Monumental City* served both lines during its career. Built in Baltimore in 1850 by John Robb, the *Monumental City* was a three-masted, bark-rigged steamer with a length of 174 feet, and a displacement of 737 tons.¹⁸ Unlike many steamers on the Gold Rush route, the *Monumental City* was powered by two oscillating steam engines that drove a screw propeller.¹⁹

The screw steamer was originally contracted by Vanderbilt to work the

¹⁵ John H. Kemble, ed., *To California and the South Seas: The Diary of Albert G. Osburn, 1849-1851* (San Marino, CA: The Huntington Library, 1966), 5-11.

¹⁶ Mowbray E. Tate, *Transpacific Steam* (New York: Cornwall Books, 1986), 41.

¹⁷ Daniel J. Warren, "S. S. *Monumental City*: An Historical and Archaeological Survey of the First Transpacific Screw Steamship" (Master's thesis, East Carolina University, 1998), 12.

¹⁸ *Ibid.*, 44, 46.

¹⁹ *Ibid.*, 49.

Nicaragua-San Francisco route, developed by Vanderbilt in order to provide competition for the Panama route.²⁰ After a few runs, the owners decided to try and sell the steamer in early 1853. Unable to find a buyer, they sent the steamer to Australia, in an attempt to capitalize on the new gold rush "down under". The *Monumental City* departed for Australia in February 1853, and arrived in Sydney in April, making it the first screw steamer to cross the Pacific.²¹ Its career in Australia was short-lived; it wrecked upon an island off New South Wales the next month, with a loss of over thirty lives.²²

Early Steamers in Hawai'i

The "pioneer steamer" of the Pacific, the *Beaver*, was also the first steamer to visit the Hawaiian Islands. In February 1836, the *Beaver* made a stop at Honolulu²³ before proceeding on to her new work area, the Pacific Northwest. The *Beaver*, however, was exclusively under sail on its initial voyage, and the stowed paddlewheels were re-assembled following arrival at Vancouver.²⁴ Therefore, many consider the Royal Navy's *Cormorant*, which came to Hawai'i in May 1846, to be the first steamer in the Hawaiian Islands.²⁵ In April 1849, the U.S.S. *Massachusetts* was the first screw steamer to call at Honolulu.²⁶ Interestingly, as was the case on the U.S. West Coast, the first steamers in Hawai'i arrived before the Gold Rush. Similarly, it took the Gold Rush

²⁰ *Ibid.*, 12-13.

²¹ *Ibid.*, 21.

²² *Ibid.*, 27.

²³ *Pacific Commercial Advertiser* (Honolulu), 12 May 1928.

²⁴ Robert W. Parkinson, "Fiftieth Star," *Steamboat Bill*, no. 72 (Winter 1959): 104.

²⁵ *Hawaiian Annual for 1879* (Honolulu: Thos. G. Thrum, 1878), 31-32.

²⁶ *Hawaiian Annual for 1909* (Honolulu: Thos. G. Thrum, 1908), 133.

to establish the merchant steamer in both California and in Hawai'i. In Hawai'i, businessmen were beginning to consider an interisland steam service. A group of investors led by William A. Howard of San Francisco obtained a five-year contract from the Kingdom of Hawaii to begin steam service.²⁷ The first of their steamers to arrive in Hawai'i was the 530 ton, twin-screwed *Constitution*, a Pacific Mail steamer. This vessel arrived from San Francisco in January 1852.²⁸ Although the original intent was to bring a steamer to Hawai'i for interisland navigation, it was rumored that Pacific Mail was simply sending the ship out to get a foothold on possible future mail contracts to the Hawaiian Islands.²⁹ Steaming from Honolulu to Lahaina, Maui, and back, the *Constitution* returned to San Francisco after less than a week in the islands. The reasons given by the company for the early return were the lack of patronage and an inappropriate vessel size (too large). It is questionable how a fair assessment could have been made in such a short time. As a result, Howard's group lost the contract; they failed to produce a steamer for the interisland shipping service.³⁰

The next steamer to arrive in Hawai'i was the *S. B. Wheeler*, renamed the *Akamai*.³¹ This vessel was brought to the islands in November 1853 by a group of San Francisco investors led by Richard H. Bowlin, who received the new contract from the Kingdom after the steamer's initial interisland run.³² The investor's group was called the

²⁷ Ralph S. Kuykendall, *The Hawaiian Kingdom, Vol II, 1854-1874*. (Honolulu: University of Hawai'i Press, 1966), 11-12.

²⁸ *Hawaiian Annual for 1889* (Honolulu: Thos. G. Thrum, 1888), 70.

²⁹ Mifflin Thomas, *Schooner from Windward*, (Honolulu: University of Hawai'i Press, 1983), 36.

³⁰ Kuykendall, *The Hawaiian Kingdom, Vol. II*, 12.

³¹ John Haskell Kemble, "Pioneer Hawaiian Steamers, 1852-1877," Fifty-third Annual Report of the Hawaiian Historical Society for the year 1944, (Honolulu: Hawaiian Historical Society, April 1946), 13.

³² Kemble, "Pioneer Hawaiian Steamers," 12.

Hawaiian Steam Navigation Company.³³

The story of the *S. B. Wheeler*'s construction and subsequent voyage to California for its initial service is a remarkable one. It was originally built as a stern-wheel steamer in 1849 at Eastport, Maine. Nearby, a bark called the *Fanny* was under construction as well. Upon completing the *S. B. Wheeler*, the *Fanny* was sunk, and the *S. B. Wheeler* floated over it. Then, the *Fanny* was raised with the steamer inside. The *Fanny*'s deck and rigging were completed over the *S. B. Wheeler*. The *Fanny* sailed around Cape Horn to San Francisco, where the *S. B. Wheeler* was removed. After its engines were installed (they were originally placed alongside the steamer for the voyage), it began service as a river steamer between San Francisco and Stockton.³⁴

This steamer was 106 feet in length, and displaced 114 tons. Although it was originally equipped as a stern-wheeler, it was converted to a side-wheeler in Hawai'i.³⁵ After the Hawaiian Steam Navigation Company received the contract for steamer service, the *Akamai* was immediately put on the route between Honolulu and Lahaina, the route it continued to work until August 1854. On her last voyage, the overloaded *Akamai* sprang a leak, was forced to return to port and was subsequently declared un-seaworthy.³⁶ After two years out of the water, the *Akamai* was refitted and put back into service in 1856 as a tugboat in Honolulu Harbor.³⁷ Figure 5 on page 16 is a contemporary drawing of the *Akamai*.

³³ *Polynesian* (Honolulu), 10 Dec 1853.

³⁴ Thomas, *Schooner from Windward*, 36.

³⁵ Mifflin Thomas, *Hawaiian Interisland Vessels and Hawaiian Registered Vessels* (Santa Barbara, CA: Seacoast Press, 1982), 2.

³⁶ Kuykendall, *The Hawaiian Kingdom, Vol. II*, 12-13.

³⁷ *Ibid.*, 13.

Hawai'i's next two surplus Gold Rush steamers arrived in October 1854.³⁸ The *Sea Bird*, renamed the *Kamehameha*, was a wooden side-wheel steamer 163 feet in length, and a displacement of 444 tons. It was built by W. H. Brown, of New York.³⁹ The *Kamehameha* was placed on the run from Honolulu to Maui and the Island of Hawai'i.

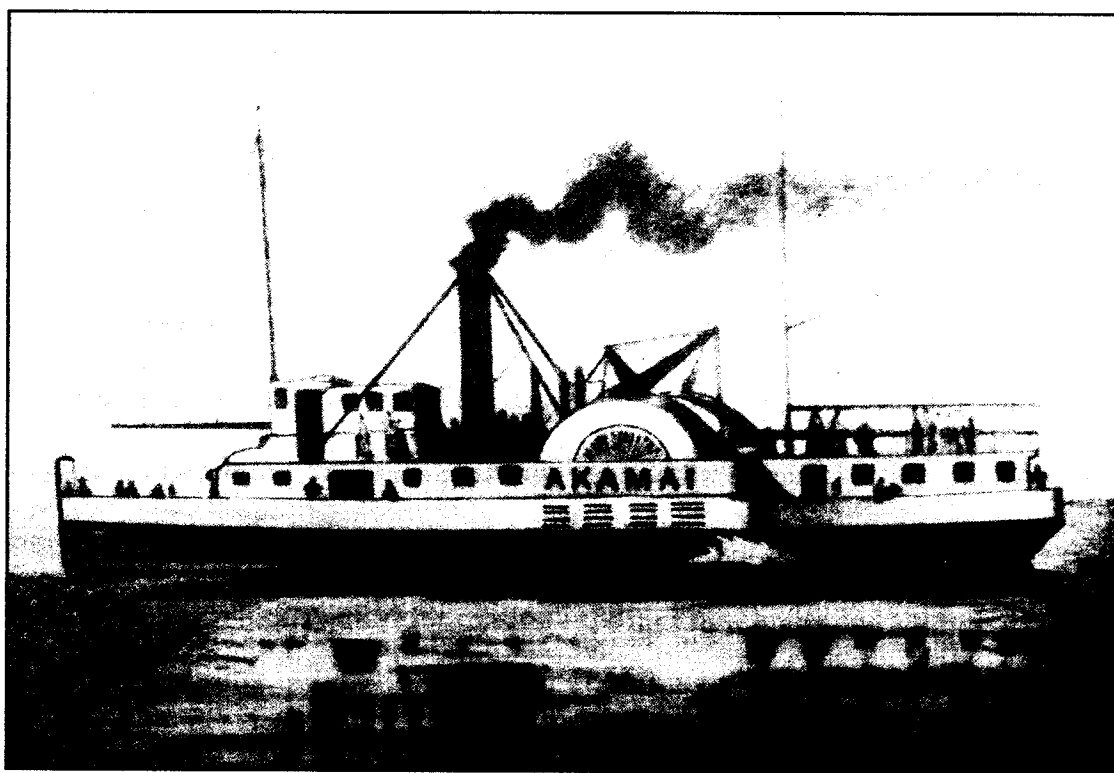


Figure 5. Steamer *Akamai*. (Reprinted from Ralph S. Kuykendall, *The Hawaiian Kingdom, Vol. II: 1854-1874*. Honolulu, 1967, p. 6.)

³⁸ *Hawaiian Annual for 1889*, 72.

³⁹ Thomas, *Hawaiian Interisland Vessels*, 43.

The *Kamehameha*'s furnace could not burn wood,⁴⁰ and with coal being thirty dollars a ton, it was sent back to San Francisco in April 1855.⁴¹ The owners stated that the steamer would return to Hawai'i in the fall of 1855, as the arrival of the whaling fleet would generate enough business to justify the steamer's service. Much to the dismay of those in Hawai'i who enjoyed the interisland steamer service, however, the *Kamehameha* would never return.⁴²

The other ship that arrived in October 1854 was the *West Point*, renamed the *Kalama*. It was built in New York in 1849 by Brown and English. This wooden side-wheeled steamer was 157 feet in length, and displaced only 240 tons; it was much smaller than the *Kamehameha*. Its original service, however, was the same as that of the *Kamehameha*: river service between San Francisco and Sacramento River landings.⁴³

In Hawai'i, the *Kalama* worked the run from Honolulu to the Island of Kaua'i. As with the *Kamehameha*, the passengers truly enjoyed the steamer service, but the service was very expensive to operate.⁴⁴ Hull and boiler problems plagued the smaller steamer, and it was laid up in May 1855 for repairs.⁴⁵ With a new boiler and a repaired hull, the *Kalama* resumed service to Kaua'i in November 1855. The steamer's luck, however, had not changed. In January 1856, a strong wind drove it onto the rocks at Kōloa, Kaua'i.⁴⁶ The steamer was beyond repair.

⁴⁰ Edwin N. McClellan, "The Inter-Island Merchantship Navy," *Paradise of the Pacific* 51, no. 8 (August 1939): 9.

⁴¹ Kuykendall, *The Hawaiian Kingdom, Vol. II*, 13.

⁴² Thomas, *Schooner from Windward*, 38.

⁴³ Thomas, *Hawaiian Interisland Vessels*, 20.

⁴⁴ Kemble, "Pioneer Hawaiian Steamers," 14.

⁴⁵ Kuykendall, *The Hawaiian Kingdom, Vol. II*, 13.

⁴⁶ *Hawaiian Annual for 1889*, 73.

On October 30th, 1857, the Hawaiian Supreme Court determined that the Hawaiian Steam Navigation Company had forfeited its charter, because its interisland steamers were no longer in service, and it failed to procure a replacement. Although this did not mark the end of the Hawaiian Steam Navigation Company, it did mark the end of Gold Rush steamers in Hawai'i. The company was reorganized in 1858, and it determined that a ship designed specifically for service between the Hawaiian Islands would be preferable to a surplus ship from California.

The *Kilauea* was built in 1859, at East Boston by Paul Curtis. This wood screw steamer was 131 feet in length, with a gross tonnage of 276. It was powered by two direct acting condensing engines that drove a single propeller shaft. Originally rigged as a brigantine, a fore-and-aft-schooner rig was adopted in Hawai'i.⁴⁷ This was the first truly enduring, if not truly successful, steamer in the islands. The *Kilauea*'s primary duties included interisland passenger runs between Honolulu and ports on Kaua'i and Hawai'i Island.⁴⁸ Although the *Kilauea* changed owners several times and its service was continuous, it served a span of 17 years until it was finally scrapped in Honolulu in 1878.⁴⁹

San Francisco Grows

San Francisco's large natural bay, and its proximity to the gold fields quickly established it as the United States' major port on the West Coast in the mid-nineteenth

⁴⁷ Thomas, *Hawaiian Interisland Vessels*, 25.

⁴⁸ Thomas, *Schooner from Windward*, 44-45.

⁴⁹ *Ibid.*

century. In the latter half of that century, the San Francisco Bay area became a shipbuilding center, with numerous companies building sailing vessels and steamers, and others making steam engines, boilers, and other equipment. Ships were built in other places along the coast, but San Francisco was clearly the maritime hub in terms of shipbuilding and shipping.

Rapid urban growth in San Francisco and Southern California spurred the need for more buildings, both commercial and residential. The lumber needed to support this growth was obtained from dense forest land that stretched from the counties north of San Francisco, through Oregon, Washington Territory, to the Canadian border, and beyond. Northern California was known as the "Redwood Coast", and included lumber ports such as Crescent City, Eureka, Fort Bragg, Mendocino City, Albion, and Greenwood. Ships could load lumber at Crescent City and Humboldt Bay (Eureka) with relative ease, but many other "ports" and landings were not much more than "dog holes", simply indentations in the rocky coastline.⁵⁰ The challenge of loading lumber in these treacherous areas sparked what some consider a California development, the "steam schooner."⁵¹ The first "steam schooners" to work these "dog holes" were regular sailing schooners later equipped with steam engines,⁵² but by the early 1880s, San Francisco and Washington Territory shipbuilders were producing genuine steam schooners, with

⁵⁰ Jack McNairn and Jerry MacMullen, *Ships of the Redwood Coast* (Stanford, CA: Stanford University Press, 1945), 2.

⁵¹ *Ibid.*

⁵² Howard I. Livingston, "The Pacific Coast Steam Schooner," 1969, p.1. Howard I. Livingston Papers, San Francisco Maritime NHP J. Porter Shaw Library Archives.

engines supplied by various San Francisco iron works.⁵³ By the end of that decade, steam schooners were working all along the Pacific Coast.

Interisland Shipping Grows with Hawai'i's Sugar Industry

The production of sugar in the Hawaiian Islands expanded throughout the nineteenth century. Although sugar cane was brought to the islands by the early Polynesian voyagers, large-scale cultivation did not occur until after the arrival of westerners who realized its commercial potential. The first sugar mill was built in 1835, at Kōloa, on the Island of Kaua'i.⁵⁴ Hawaiian sugar production got its first major boost in the early 1860s during the American Civil War. America's sugar plantations were located in the Confederate states, so the Union states turned elsewhere for sugar. Following the war, however, sales of Hawaiian sugar to the United States dropped, as southern plantations once again sent sugar north.⁵⁵

The most significant boost to the Hawaiian sugar industry came in 1876, when King David Kalākaua signed a Treaty of Reciprocity with the United States. With this treaty, most trade goods could be shipped between the United States and the Kingdom of Hawaii duty free.⁵⁶ Economically, this favored the kingdom, as the value of sugar shipped east far exceeded the value of goods shipped from the U.S. to Hawai'i.

⁵³ John Lyman, "Pacific Coast Wooden Steam Schooners, 1884-1924," *The Marine Digest* (17 Apr 1943): 2.

⁵⁴ "Hawaii's sugar industry began in 1811," *Paradise of the Pacific* 60, no. 8 (August 1948): 34.

⁵⁵ William H. Dorrance and Francis S. Morgan, *Sugar Islands: The 165-Year Story of Sugar in Hawai'i* (Honolulu: Mutual Publishing, 2000): 12.

⁵⁶ Ralph S. Kuykendall, *A History of Hawaii* (New York: The MacMillan Co., 1928), 252.

Politically, however, this eventually favored the U.S. by helping establish stronger ties with the kingdom.

In 1877, the year after the Treaty of Reciprocity, the steamer *Likeli* (see Figure 6 below) arrived in the Hawaiian Islands. This vessel was named in honor of Princess Miriam Likeli Cleghorn.⁵⁷ The *Likeli* was a wooden screw steamer built by Dickie Brothers of San Francisco, with a compound engine by Risdon Iron Works, also of San Francisco. Originally purchased by the Hawaiian Government, she was purchased after her first interisland run by Samuel G. Wilder, and was the Wilder's Steamship Company's first steamer.⁵⁸

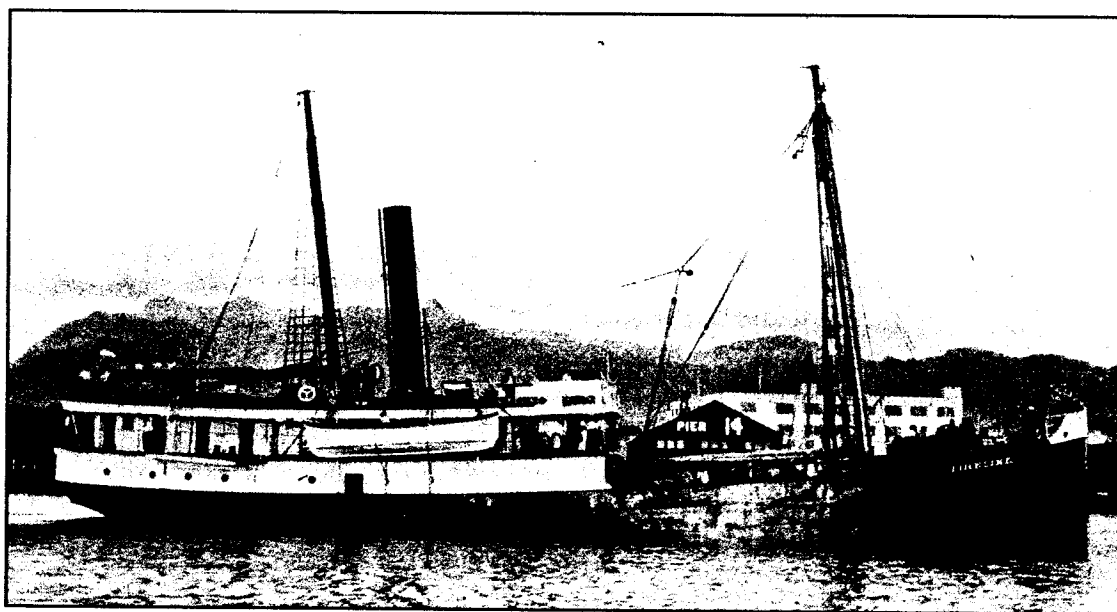


Figure 6. Steamer *Likeli*. (Courtesy of the B. P. Bishop Museum Archives.)

⁵⁷ Kemble, "Pioneer Hawaiian Steamers," 25.

⁵⁸ *Ibid.*

Over the next several years, Wilder acquired several more steamers, including the *Mokolii*, the *Lehua*, the *Kinau*.⁵⁹ Wilder's rival was the Inter-Island Steam Navigation (IISN) Company, formed in 1879 by T. R. Foster.⁶⁰ Early IISN Co. steamers included the *James Makee*, the *C. R. Bishop*, the *Iwalani*, the *W. G. Hall*, the *Waialeale*, the *Pele*, and the *Kaimiloa*.⁶¹ Many steamers from both companies were built in San Francisco, as were most engines. At that time San Francisco was the closest, large-scale supplier of steamers and steam machinery. These West Coast-built "Hawaiian" steamers of the late 1870s and early 1880s were strikingly similar in design and capability to the "steam schooners" the same companies were building for the West Coast lumber trade.

Steamer service proved to fit well into the sugar trade. Steamers brought bagged raw sugar from the various ports and landings throughout the islands back to Honolulu. At Honolulu Harbor, the steamer would either unload the bagged sugar into a warehouse, or "discharge" it directly into a large three or four-masted sailing vessel. (Figure 7 on page 23 shows a Hawaiian steamer in Honolulu Harbor between two Square-Riggers, likely cross-decking sugar or other trade goods and supplies.) The sailing vessel would then take several steamer-loads of sugar to a refinery in the San Francisco area, or in some cases New York.⁶² A variation to this standard model existed in the form of "direct shipments", by which sugar would be consolidated on Kaua'i or Hawai'i Island and sent via sailing vessel directly from there to the U. S. mainland.

⁵⁹ *Hawaiian Annual for 1889*, 78-79.

⁶⁰ Edwin North McClellan, "The Inter-Island Merchantship Navy," *Paradise of the Pacific* 51, no. 8 (August 1939), 11.

⁶¹ *Hawaiian Annual for 1889*, 79-80.

⁶² *Hawaiian Annual for 1897* (Honolulu: Thos. G. Thrum, 1896), 84.

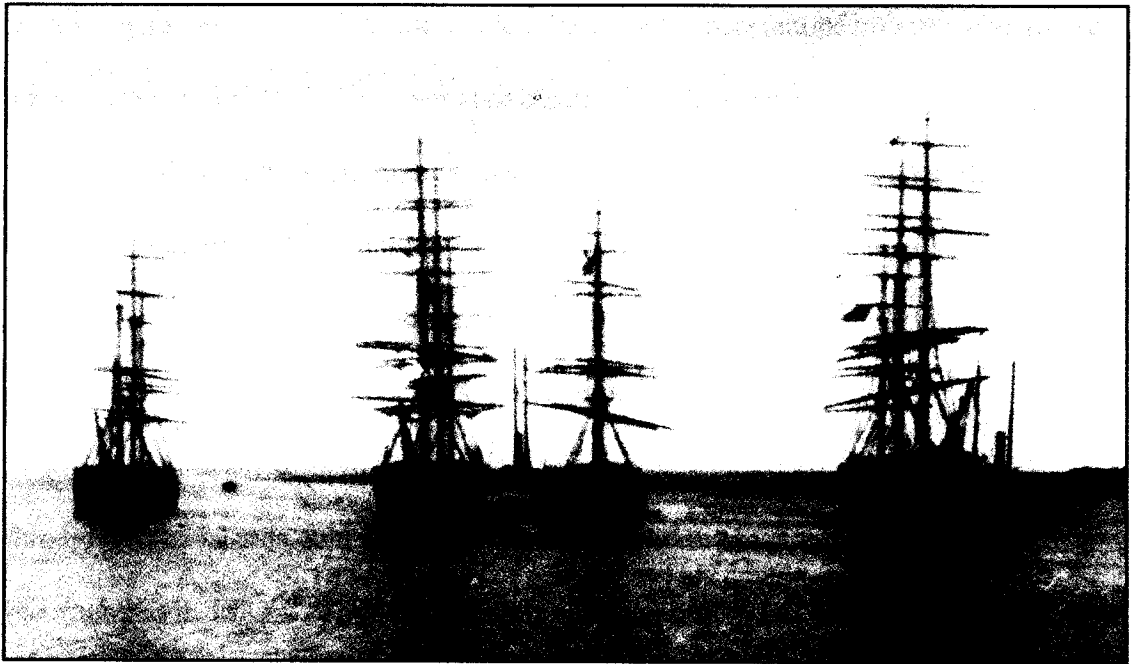


Figure 7. Hawaiian steamer between two Square-Riggers in Honolulu Harbor. (Courtesy of the B. P. Bishop Museum Archives.)

The late nineteenth and early twentieth century Hawaiian sugar trade is an example of how economics determined a shipper's choice between sailing vessels and steamers for a given task. Many landings throughout the islands from which sugar was loaded were seamanship challenges; some were comparable to the "dog holes" along the West Coast which lumber schooners faced. Many sugar landings even involved wire/pulley systems from high cliffs, not unlike those found at lumber landings. The small steamers could maneuver in-and-out of these inlets with better success than the large sailing ships. In addition to sugar and other commodities, interisland steamers also carried passengers. Steamers could run on schedules with a precision unmatched by wind dependent sailing vessels. Better access to sugar landings, and customers' desire for punctuality, meant steamers were the economical choice for interisland trade. On the other hand, shipment

of bulk sugar from Hawai'i to the United States was a continuous process, and accurate arrival times at the destination were not essential. Transpacific shipment of sugar via steamer would require more money spent on coal, as well as space consumed by coal and steam machinery that could have been taken up by more sugar bags. Sail was therefore the economical choice, and commercial sailing vessels were seen in the Hawaiian Islands well into the twentieth century.

In addition to sugar, both Hawai'i steamship companies carried passengers throughout the islands, and shipped a variety of other trade goods. Each of the two firms incorporated in 1883.⁶³ They were clearly in competition, but it was a relatively friendly competition; the various ports were divided up by the two companies by mutual understanding. IISN Co. worked ports on Kaua'i, O'ahu, and ports on the Big Island from the Kona, Ka'u, and Hamakua Districts. Wilder's Steamship Co. served Moloka'i, Lāna'i, most of Maui, as well as Hilo and other ports on the Big Island not served by IISN Co. Both companies served the leeward Maui ports of Lahaina, Ma'alea and Makena.⁶⁴ By the 1880s, the Hawaiian Islands had a full compliment of steamers with reliable, scheduled service for passengers and freight.

The "Steam Schooner"

When was the first steam schooner built? Is it a California invention? If not, where did it come from? Is there evidence of this vessel type anywhere else in the world?

⁶³ Thomas, *Schooner from Windward*, 63.

⁶⁴ *Ibid.*

When was the last "steam schooner" built? Is the "Hawaiian steamer" a "steam schooner"? These are valid questions; some are easily answered, some are answered in this thesis, and some are yet to be answered.

When was the first steam schooner built? Before attempting to answer this question, a distinction must be made between steam schooners that were built as such, and those that were built as sailing schooners, and outfitted with steam engines later in their career. The latter is called a "converted sailing steam schooner".⁶⁵ This term comes from *Ships of the Redwood Coast*, written in 1945 by Jack McNairn and Jerry MacMullen, which is considered by many to be an authoritative source on steam schooners. Steam schooners built from the outset to be outfitted with steam engines were simply called "steam schooners" by McNairn and MacMullen,⁶⁶ and that naming convention will be utilized in this thesis. Regarding the converted sailing steam schooners, primacy is difficult to establish. McNairn and MacMullen state that several "Mendocino Windjammers" have been claimed as the first, including the *Beda*, the *Surprise*, the *Laguna*, and the *Alex Duncan*, and that this first conversion took place around 1880.⁶⁷

It is also unclear when the first true steam schooner was built. McNairn and MacMullen claim the first vessel built as a true "steam schooner" was the *Newsboy*, built in 1888.⁶⁸ This is clearly incorrect. A summary of 1884 West Coast shipbuilding in the January 1st, 1885 *San Francisco Chronicle* lists "steam schooner" as a distinct

⁶⁵ McNairn and MacMullen, *Ships of the Redwood Coast*, 15.

⁶⁶ *Ibid.*, 17.

⁶⁷ *Ibid.*, 14.

⁶⁸ McNairn and MacMullen, *Ships of the Redwood Coast*, 17.

category, in addition to the category of “steamers”.⁶⁹ The three vessels listed in the “steam schooner” category were the *Celia*, *Julia H. Ray*, and *Surprise*.⁷⁰ There were at least seven West Coast steam schooners built prior to 1887,⁷¹ and 15 were built in 1887, including the *Cosmopolis*.⁷²

Was the steam schooner a California Invention? This is not just a question for twenty-first century steamship historians; it was a contemporary question as well. The January 1st, 1891 *San Francisco Chronicle* proclaimed that: “The steam lumber schooner is a distinct California marine type.”⁷³ That same day, the *Daily Alta California* reported: “The steam schooner is not exactly a California invention, but the industry has been developed here in the past three years on an unparalleled scale.”⁷⁴ The latter article offered no answer as to where and when the steam schooner was invented, if not in California. While it remains possible (if not probable) that the steam schooner was indeed a California invention, further research on steamers worldwide will be necessary prior to the establishment of any solid claims.

Are steam schooners found anywhere else in the world? A similar vessel type is found on the Great Lakes: the early versions of the “steam barge”. The most common design for the steam barge, or “lumber hooker” as they were also known,⁷⁵ was from the

⁶⁹ *San Francisco Chronicle*, 1 Jan 1885.

⁷⁰ *Ibid.*

⁷¹ John Lyman, “Pacific Coast Wooden Steam Schooners,” *The Marine Digest* (17 April 1943), 2.

⁷² *San Francisco Chronicle*, 1 Jan 1888.

⁷³ *San Francisco Chronicle*, 1 Jan 1891.

⁷⁴ *Daily Alta California* (San Francisco), 1 Jan 1891.

⁷⁵ C. Patrick Labadie and Charles E. Herdendorf, *Wreck of the Steam Barge Adventure: An Archaeological Investigation in Lake Erie at Kelleys Island, Ohio*, Peachman Lake Erie Shipwreck Research Center Technical Report No. 1 (Vermilion, OH: Great Lakes Historical Society, 2004), 8.

1870s - 1880s and was similar in appearance to a steam schooner, except that there was a pilot house at the forward end of the vessel and only a single, forward mast. The *Lake Michigan*, built in 1872 at St. Catherines, Ontario⁷⁶ (see Figure 8 below) is a good example of this type of “steam barge” or “lumber hooker”.

Earlier versions of the steam barge or lumber hooker date to the 1860s and they resemble West Coast steam schooners.⁷⁷ They had two masts for sailing as well as lading, and no forward pilot house. Written documentation or images of such vessels from this early period were difficult to find. Two later vessels of this “early steam

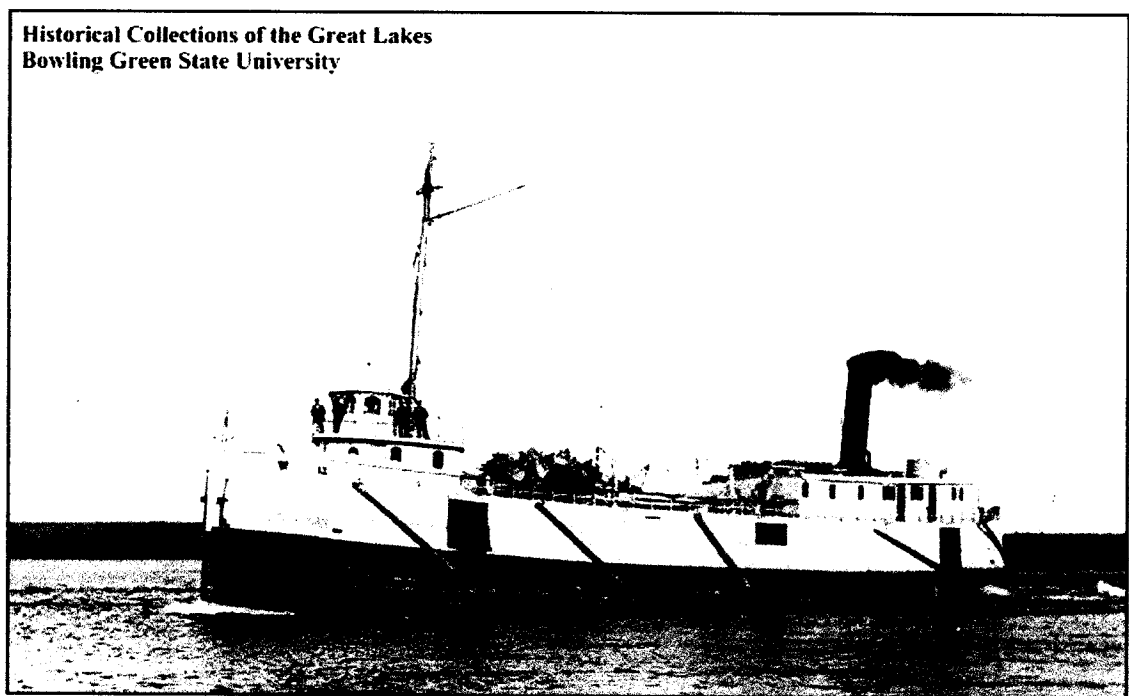


Figure 8. The Steam Barge *Lake Michigan*. (Courtesy of the Historical Collections of the Great Lakes, Bowling Green State University.)

⁷⁶ Historical Collections of the Great Lakes, Great Lakes Vessels Online Index, University Libraries/ Bowling Green State University, Bowling Green, Ohio. <http://digin.bgsu.edu/cgi-win/xvsl.exe>

⁷⁷ Bradley A. Rodgers, Personal Communication, 2005.

barge” design from the mid 1880s reveal the similarities to the steam schooner design: The *Joseph C. Suit* (see Figure 9 below), built in 1884 by James C. Elliott of Saugatuck, Michigan⁷⁸ and the *H. A. Root*, built in 1886 by John. B. Martel, also of Saugatuck.⁷⁹

The resemblance of the *Joseph C. Suit* and the *H. C. Root* to the West Coast steam schooners and Hawaiian steamers, and the lack of abundant evidence of this vessel type elsewhere in the world, raises the question: “Is there a connection between the early steam barges/lumber hookers on the Great Lakes and the steam schooner design found

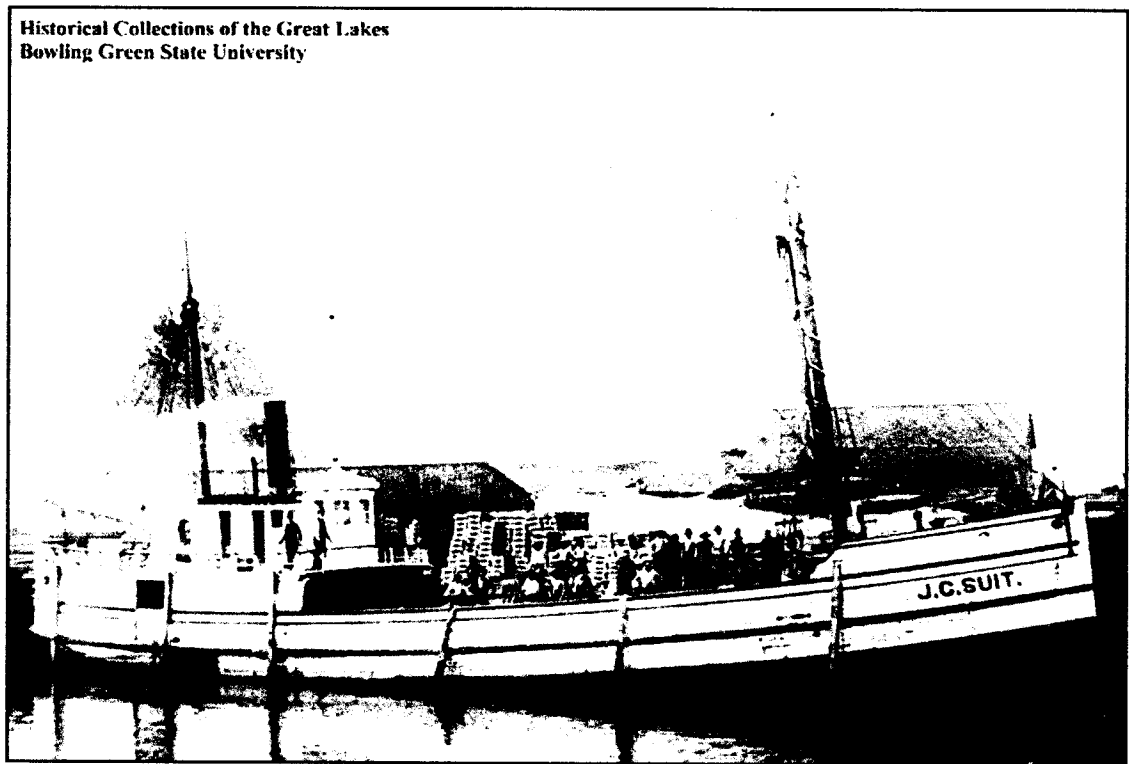


Figure 9. The Steam Barge *Joseph C. Suit*. (Courtesy of the Historical Collections of the Great Lakes, Bowling Green State University.)

⁷⁸ *Ibid.*

⁷⁹ *Ibid.*

on the West Coast and Hawai'i?" It has been suggested that some Great Lakes steam barge builders took their design to the West Coast and that this accounts for the genesis of the steam schooner. Although it is possible, it is difficult to prove without more evidence. Most late nineteenth century West Coast shipbuilders came from the U. S. East Coast, the Canadian Maritime Provinces, the British Isles, and elsewhere in Europe.⁸⁰ Only one was known to have come from the Great Lakes area prior to 1880; Matthew Turner, who specialized in sailing vessels, not steamers.⁸¹ Despite Turner's focus on sailing vessels, he did build two steam schooners.⁸² The *Celia*, noted previously as a steam schooner built in 1884, was built by Turner.⁸³

In a 2004 archaeological report on a Lake Erie steam barge wreck, a description of steam barges includes the following statement: "This type of vessel was adopted in the Pacific Northwest as the lumber industry moved there in the late 1800s, where it was referred to as a 'steam schooner'."⁸⁴ This claim implies a direct connection, but it is problematic in at least three ways. First, as just stated, there is evidence of only one Great Lakes shipbuilder coming to California, and he is only known to have built two steam schooners.

Second, there was no shipbuilding industry centered in "the Pacific Northwest" in the late nineteenth century. The West Coast "center" for this industry was San Francisco. Some of the best steam schooners were from the Hall Brothers of Port Blakely,

⁸⁰ Diane Cooper, "From Small Ways to Big Business: Ship Construction on the United States's Pacific Coast, 1850-1900" (Master's thesis, East Carolina University, 1995), 101.

⁸¹ Diane Cooper, Personal Communication, 2007.

⁸² *Ibid.*

⁸³ *San Francisco Chronicle*, 1 Jan 1885.

⁸⁴ Labadie and Herdendorf, *Wreck of the Steam Barge Adventure*, 8.

Washington. There were other builders of steamers and sailing vessels in Washington and Oregon as well. Most of the steam schooners from these builders, however, were outfitted with engines in San Francisco, and in general, most steam schooners were built entirely in San Francisco or elsewhere in California.

Third, the premise that the lumber industry moved to the Pacific Northwest in the late 1800s holds some truth, but the statement oversimplifies a more complex situation. In the 1880s, the West Coast lumber industry was centered in San Francisco, and most lumber shippers were based in that city. Lumber from coastal Washington, Oregon, and Northern California was harvested to support construction in San Francisco and Southern California, and a few other places such as Hawai'i. When the railroads reached Washington and Oregon in the 1880s, they opened up eastbound land routes for the lumber market, but did not eliminate the coastal lumber shipping market, that still primarily supported coastal cities. The Great Lakes lumber industry did slow down in the 1880s and 1890s due to the depletion of timber resources, and some Great Lakes lumbermen did move west for other timberlands. This western movement began in the early 1880s, with expansion of the railroad system into Washington and Oregon,⁸⁵ and was not necessarily associated with the existing coastal trade. There is a possible connection between the West Coast "steam schooner" and the Great Lakes "early steam barge", but more research needs to be done to confirm this possibility.

When was the last steam schooner built? This is a difficult question to answer, and

⁸⁵ Edwin T. Coman, Jr. and Helen M. Gibbs, *Time, Tide and Timber: A Century of Pope & Talbot* (New York: Greenwood Press, 1968), 265.

can be confused by definitions used here. In the late nineteenth and early twentieth centuries, many steamers kept the two-mast system, but the masts were no longer used for sailing; they were strictly used for cargo loading/unloading. A tell-tale design feature of this use is revealed when the aft mast is ahead of the stack; if there were any intention to sail, it would be impossible, as the aft mast's "boom" would knock into the stack. Would such a vessel still be considered a "steam schooner"? The *Svea* (Figure 10, below) was built in 1906; the position and rigging of the masts indicate that it was

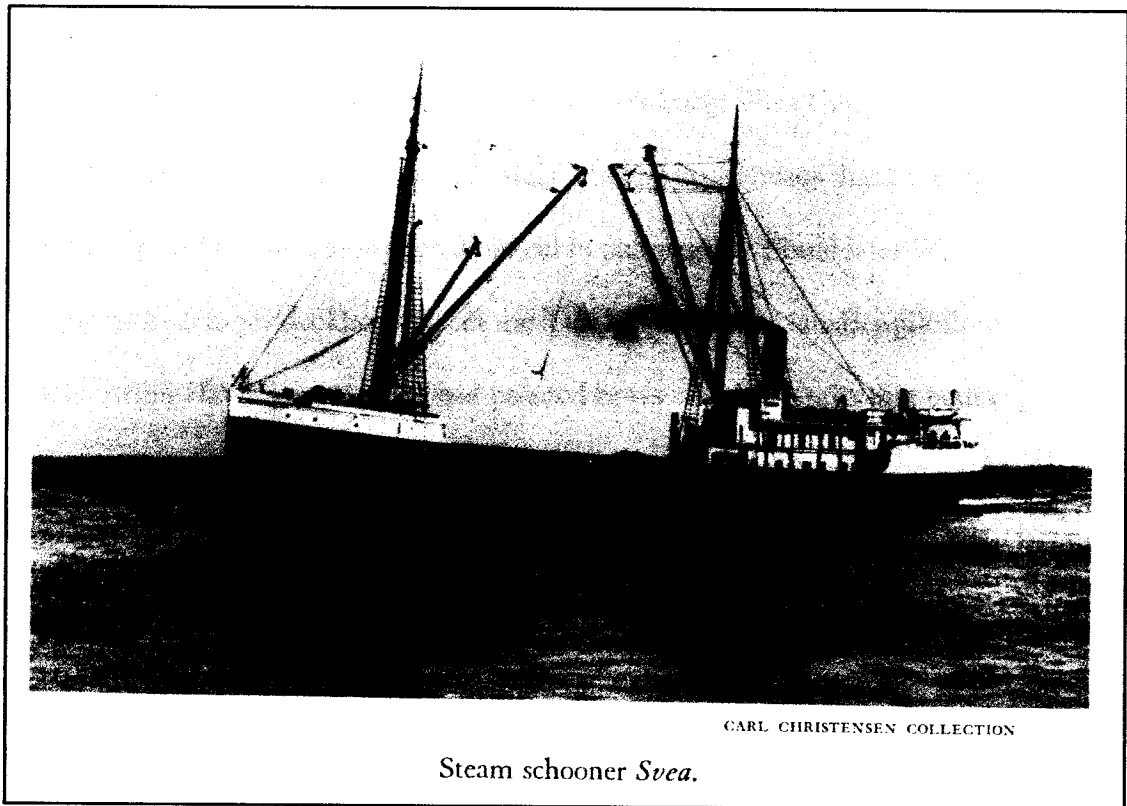


Figure 10. The Steam Schooner *Svea*. (*Ships of the Redwood Coast*, 1945, p. 86.)

not rigged for sail, and yet it is still considered a "steam schooner" by McNairn and MacMullen.⁸⁶ The last two steam schooners listed by McNairn and MacMullen were the *Daisy Gray* and the *Esther Johnson*, both built in 1923, and both still in operation in 1943, when data for *Ships of the Redwood Coast* was compiled.⁸⁷

Is a "Hawaiian steamer" a steam schooner? The Hawaiian steamer *Likeli*, built in 1877 (see Figure 6, page 21), was a pioneer steamer because it was the first of its kind in Hawai'i and because many more similar vessels would serve over the next several decades. Characteristics were similar to a West Coast steam schooner's: schooner-rigged with two masts, steam engine with screw propeller, etc. One key design difference between the Hawaiian steamers and the early West Coast steam schooners was the deck structure. The Hawaiian steamers had deckhouses that encompassed the entire aft section to accommodate more cabin passengers. Some later West Coast steam schooners had larger deckhouses, but most early vessels had smaller pilothouses instead. A few earlier Hawaiian steamers had pointed bows with bowsprits that better accommodated jib sails instead of a plumb (or flush) bow, although some of them were later converted to plumb bows. The West Coast steam schooners consistently had plumb bows. Despite these few subtle differences, the "Hawaiian steamer" and "steam schooner" vessel types are essentially the same. The historical chapters of this thesis will show that the steamer *Cosmopolis / Kauai* is a strong link between the two vessel

⁸⁶ McNairn and MacMullen, *Ships of the Redwood Coast*, 135.

⁸⁷ *Ibid.*, 131-132.

types. This vessel was, in essence, both a West Coast steam schooner and a Hawaiian steamer.

This question, the most significant question for this thesis, must still be answered outright: Is a Hawaiian steamer a steam schooner? Although the two vessel types are essentially the same, the term "steam schooner" was not used in Hawai'i, and it therefore should be reserved for West Coast vessels of this type. The answer, therefore, is a qualified "yes". Hawaiian steamers were not called "steam schooners", but they were of the steam schooner type.

If West Coast steam schooners and Hawaiian steamers are both of the steam schooner type, there is another challenge to identifying the first vessel of this type. By the mid-1880s, the early years of the steam schooner on the West Coast, there were at least nine vessels serving the Hawaiian Islands that, by their design, could be considered to be of the steam schooner type. It is important to note that seven of these were built on the West Coast, either in San Francisco or Port Blakely, Washington. In addition, the engines for all but one were from San Francisco. The *Kilauea Hou* was built in Hawai'i in 1878 with an engine from San Francisco, and the *Kinau* was built in 1883, entirely in Philadelphia. A firm establishment of the date for the first true West Coast steam schooner is necessary to answer this question.

The nineteenth century was a period of vast changes in maritime technology throughout the world. On the West Coast of the United States, San Francisco led the way. By the mid-to-late 1880s, the steam schooner was established in that city as a coastal workhorse of the lumber industry. All steam schooners had some similarities,

yet every one was unique in some way, whether in its appearance, its function, or its story, as told by the captain via its logbook, or in the case of the *Cosmopolis*, by the newspapers.

CHAPTER 2

THE STEAMER *COSMOPOLIS*

In 1887, the San Francisco lumber company Higgins & Collins purchased the *Cosmopolis*, destined to inaugurate the Grays Harbor-to-San Francisco lumber trade.¹ A successful trial trip around San Francisco Bay with guests present was conducted on September 17th, 1887.² At the helm was Captain George Dettmers, who skippered the vessel for the *Cosmopolis*' entire seven year West Coast career, with only a few brief exceptions. He was born in Germany in 1855, and was a sailor in his home country until 1875. He then sailed to San Francisco by way of China, and began his West Coast career.³ After serving on the steamers *Sea Nymph* and *Concordia*, he was mate on the schooner *Western Home* in 1876, and then on the *Kitty Stevens*. He served on the *Pauline* next, and became the captain. Prior to taking charge of *Cosmopolis*, he also captained the schooner *George R. Higgins*, and one of the first steam schooners, the *Celia*.⁴

West Coast Lumber Markets Move North; Enter Grays Harbor

Grays Harbor is a 97 square mile estuary of the Chehalis River (see map, Figure 11,

¹ Weinstein, *Grays Harbor*, 190.

² *Ibid.*

³ E. W. Wright, ed., *Lewis & Dryden's Marine History of the Pacific Northwest* (Seattle: Superior Publishing Co., 1967; reprint, Portland, OR: Lewis & Dryden Printing Co., 1895), 356.

⁴ *Ibid.*

page 37), along the southwestern coast of Washington.⁵ British explorer Robert Gray is credited with the western "discovery" of Grays Harbor in 1792.⁶ Only a few western visitors came in the first half of the nineteenth century, and major settlement began in the 1850s.⁷ By that time, the native Chehalis population was about 500, decimated by disease.⁸ Although it is almost always gloomy and wet, Grays Harbor is an area rich with economic potential; the harbor is teeming with fish, and the area is rich in lumber.⁹ In 1879, the first sawmill on Grays Harbor was put into operation.¹⁰ By the mid 1880s, San Francisco lumber magnates realized Grays Harbor might be a much needed source of additional lumber. The three major towns on Grays Harbor are Hoquiam, Aberdeen, and Cosmopolis.

**For Which She was Named; *Cosmopolis*
on the Grays Harbor Route**

The first commercial departure for the steamer *Cosmopolis* was Sept 22nd, 1887.¹¹ The steamer returned on September 30th from the Noyo River (Ft. Bragg), on Northern California's Mendocino Coast, with 16,000 railroad ties.¹² (Figure 12 on page 38 is a

⁵ Nan Evans and others., *The Search For Predictability: Planning and Conflict Resolution in Grays Harbor, Washington* (Seattle: Washington Sea Grant, Oct 1980), 5.

⁶ Ed Van Syckle, *Brief Historical Sketch of Grays Harbor, Washington* (Hoquiam, WA: Rayonier, Inc., 1942), 3.

⁷ *Ibid*, 10-11.

⁸ *Ibid*, 9.

⁹ Robert A. Weinstein, *Grays Harbor, 1885-1913* (New York: The Viking Press, 1978), 14-15.

¹⁰ *Ibid*, 20.

¹¹ *San Francisco Chronicle*, 23 Sep 1887.

¹² *Daily Alta California* (San Francisco), 1 Oct 1887.

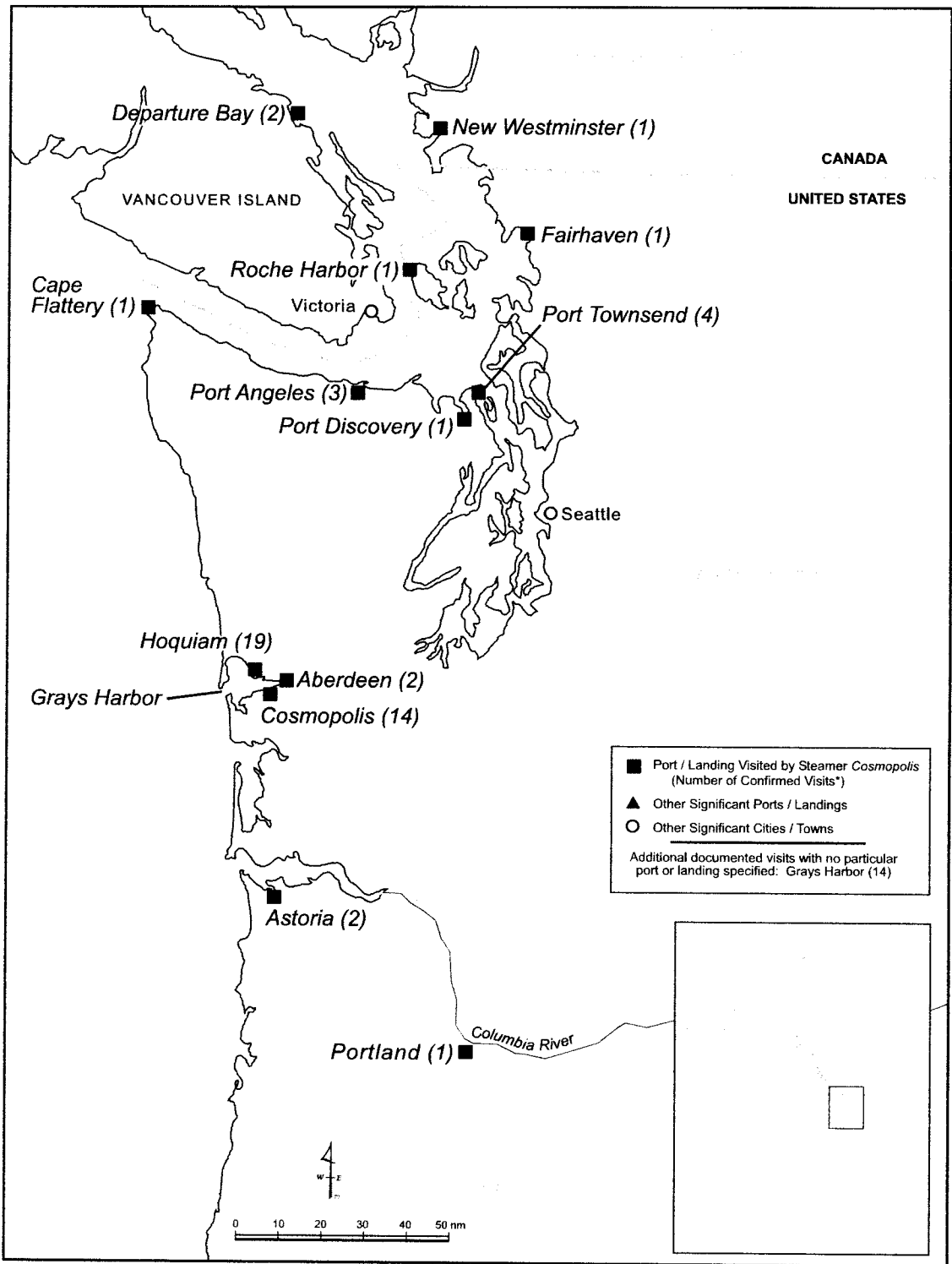


Figure 11. Ports and Landings in Washington, Northern Oregon and British Columbia visited by Steamer *Cosmopolis*. Data derived from the *Daily Alta California* and *San Francisco Chronicle*. Actual number of visits may be higher than what could be verified.

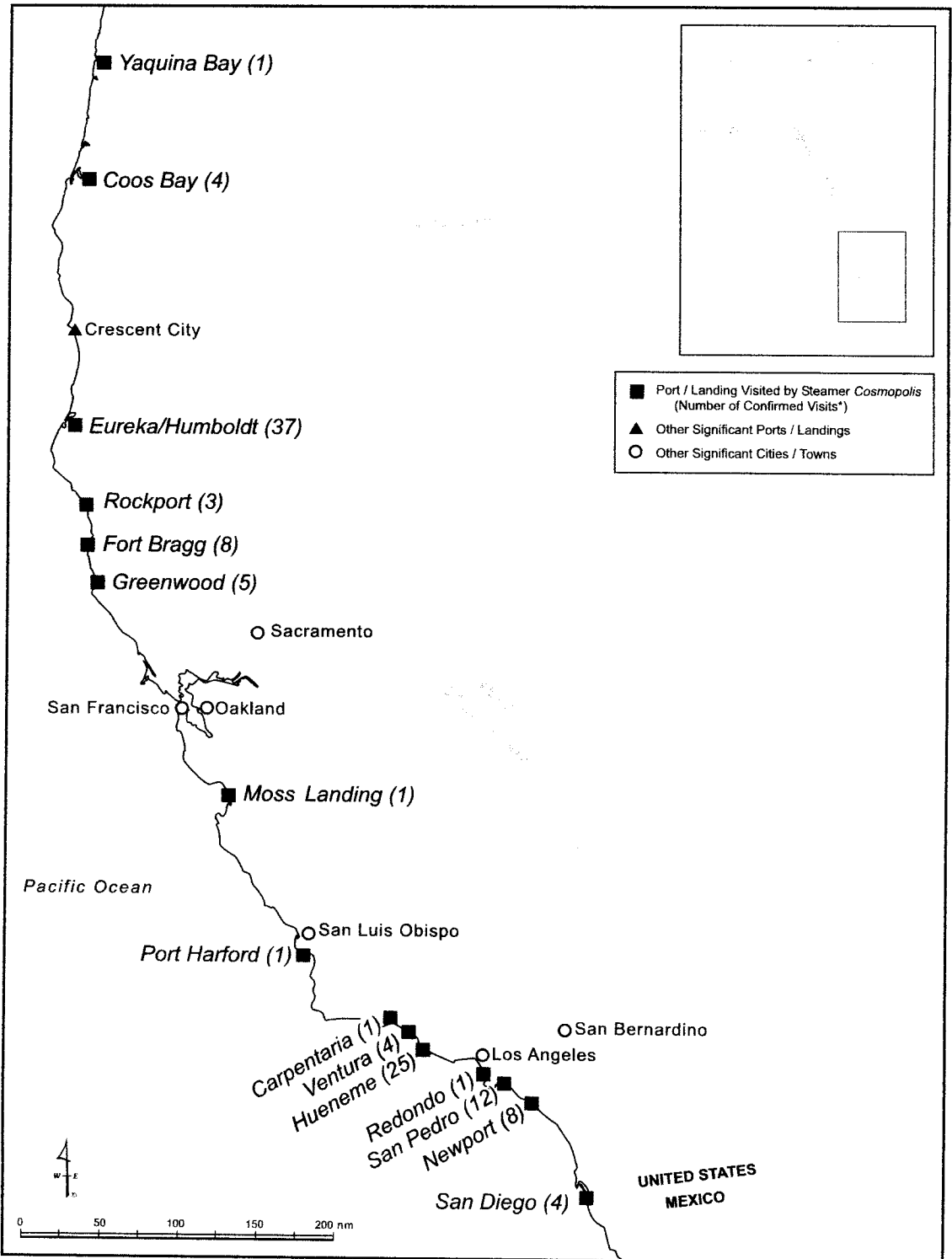


Figure 12. Ports and Landings in California and Southern Oregon visited by Steamer *Cosmopolis*. Data derived from the *Daily Alta California* and *San Francisco Chronicle*. Actual number of visits may be higher than what could be verified.

map that depicts the ports and landings in California and southern Oregon visited by *Cosmopolis*, with the number of verifiable visits to each.) On November 1st, 1887, the *Cosmopolis* initiated its signature route, the lumber run to Grays Harbor, Washington Territory.¹³ (Figure 11 on page 37 is a map that depicts the ports and landings in Washington, northern Oregon, and British Columbia visited by *Cosmopolis*, with the number of verifiable visits to each.)

The *Cosmopolis* was not the first commercial vessel to load lumber at Grays Harbor; for the past year, sailing vessels had been bringing Grays Harbor lumber to Southern California ports such as San Diego and San Pedro. There was at least one steam schooner that brought lumber south from Grays Harbor before the *Cosmopolis*. The Steamer *Greenwood* carried lumber back to San Francisco on September 27th, 1887.¹⁴ The *Cosmopolis* was, however, the first vessel to establish a regular, two-way pattern between San Francisco and Grays Harbor. Figure 13 on page 40 is another view of *Cosmopolis* on the Hoquiam River, which flows into Grays Harbor.

Other steam schooners would soon follow *Cosmopolis*' lead. The *Point Loma* was the second steam schooner to become firmly established on the Grays Harbor route; it arrived in San Francisco with its first load of Grays Harbor lumber on April 26th, 1889.¹⁵ There are contemporary¹⁶ and twentieth century¹⁷ accounts that claim *Point Loma* as the pioneer steam schooner on this route, but San Francisco newspaper accounts clearly

¹³ *Daily Alta California* (San Francisco), 2 Nov 1887.

¹⁴ *Daily Alta California* (San Francisco), 28 Sep 1887.

¹⁵ *Daily Alta California* (San Francisco), 27 Apr 1888.

¹⁶ Wright, *Lewis & Dryden's Marine History of the Pacific Northwest*, 356.

¹⁷ Van Syckle, *Brief Historical Sketch of Grays Harbor, Washington*, 22.



Figure 13. Second view of Steamer *Cosmopolis* on the Hoquiam River. (Courtesy of the University of Washington Libraries, Special Collections, negative number UW 23726.)

indicate that *Cosmopolis* was first, by almost a year-and-a-half.

Between November 1887 and July 1888, *Cosmopolis* made over 10 runs to Grays Harbor. Most of these trips involved three legs: the *Cosmopolis* departed San Francisco to Grays Harbor, where lumber was loaded and then delivered to the Southern California port of San Pedro, where ballast was loaded and brought back up to San Francisco. On one occasion, “produce” was loaded at San Pedro instead of ballast.¹⁸ Based upon detailed descriptions of later cargoes, this “produce” likely consisted of grains such as barley or wheat, and possibly other agricultural products. In the near future, this

¹⁸ *Daily Alta California* (San Francisco), 24 May 1888.

“produce” from Southern California would become standard for trips back to San Francisco.

Tapping the relatively new lumber source at Grays Harbor and shipping the harvested lumber to Southern California was no coincidence. An 1888 *Daily Alta California* article summarizing the lumber trade for the previous year stated that: “The ‘boom’ in building all over the State, and particularly in Southern California, was the principal cause of the great demand for lumber of all grades.”¹⁹

In early August 1888, on a return from Grays Harbor, the *Cosmopolis* stopped along the Mendocino Coast at Greenwood to load additional lumber. According to *the Daily Alta California* of August 10, 1888, Captain Dettmers “had his legs crushed and was otherwise injured a few days ago. He is lying in a precarious condition at his home in this city [San Francisco]. The vessel was being loaded with lumber at Greenwood, Mendocino County, and as [Captain Dettmers] was walking up an incline he was run over by a descending car.”²⁰ For the next two months, the *Cosmopolis* made only three runs, all with a replacement skipper, Captain Gattner, and all to Greenwood. It is not known whether the replacement captain was not savvy enough for the Grays Harbor run, or if Greenwood was the choice for some other reason. On two of these runs, *Cosmopolis* took lumber to Hueneme in Southern California, and returned to San Francisco with grain. Perhaps the newspaper reporter embellished the story of the “leg

¹⁹ *Daily Alta California* (San Francisco), 1 Jan 1888.

²⁰ *Daily Alta California* (San Francisco), 10 Aug 1888.

crushing" injury a bit, or maybe Captain Dettmers was just a hard, resilient man; he was back on duty for a run to Greenwood on October 18th, 1888!

North; For Alaska, and Salmon

There was no movement of the *Cosmopolis* reported between Dec 7th, 1888, and February 17th, 1889. The steamer was in dry dock for a portion of this time, and a larger propeller was installed.²¹ Perhaps the next run serves as a good explanation for the extensive dry dock period; the *Daily Alta California* of February 18th, 1889, reported:

Twenty-two new salmon packing companies have been formed, and all are making for Alaska. Owing to the scarcity of fish in the Columbia River [separating Oregon and Washington] eight companies in that locality have struck camp and are seeking locations on the Alaska coast. So many canneries have been established on the Columbia River that the old fish have been killed off, and until the young fish are old enough and begin to return to the river the fishing there will be very poor. In Alaska the reverse is the case. The rivers swarm with salmon, and comparatively little fishing has been done.

All the new companies now preparing for the season's fishing are preserving the closest secrecy regarding the particular spot in Alaska where they propose to locate.

The steam schooner *Cosmopolis* sailed yesterday, and was the first vessel of the fleet to get away. She has been fitted out by Wetherbee Bros., and Captain S. B. Shaw is in command. She has on board all the necessary lumber for a cannery, and a full compliment of Chinese to work it.

The *Coryphene*, which is being fitted out by George Hume, the *Cassie Hayward*, lying at Union Street wharf, and the *Oriolo*, lying at Mission 2, will all leave in a few days. The fishing steamer *Bertha* left the Iron Works dry-dock yesterday, and, with the addition of other vessels fitting out at Oakland, the number of vessels leaving within the week for the northern fishing grounds will be quite large.²²

²¹ *Daily Alta California* (San Francisco), 7 Feb 1889.

²² *Daily Alta California* (San Francisco), 18 Feb 1889.

The *Cosmopolis* transported the cannery essentials to the Copper River's mouth (see Figure 14 on page 44) on the central coast of Alaska, approximately 180 miles east of Anchorage. It returned to San Francisco in late March 1889 with 300 skins, as well as a load of lumber from Grays Harbor.²³ While the article above suggested that *Cosmopolis* was under the command of a Captain S. B. Shaw, all other documentation indicates that Captain Dettmers was actually in command.²⁴

The *Cosmopolis* made only this single trip to Alaska in the winter of 1889. In the spring and summer of 1889 the *Cosmopolis* made a variety of runs including a few to Grays Harbor, a few to Coos Bay, Oregon, and two to both Rockport and Eureka, both in Northern California. Few of these trips involved a return via Southern California ports. From October 1889 through early April 1890, the *Cosmopolis* steamed exclusively to Grays Harbor. The steamer made nine runs; all included a return to San Francisco with lumber from the Grays Harbor Commercial Company in Cosmopolis. None included a stop at a Southern California port. The January 1st 1890 *Daily Alta California*'s summary of the lumber trade for the previous year offered an explanation for the lack of Southern California trips: "The south coast trade amounted to almost nothing, as that section has not yet recovered from the flattening out of the [construction] boom. The dealers in Southern California have had all they could do to work off the large stocks which they accumulated two years ago."²⁵

²³ *Daily Alta California* (San Francisco), 29 Mar 1889.

²⁴ *Ibid.*

²⁵ *Daily Alta California* (San Francisco), 1 Jan 1890.

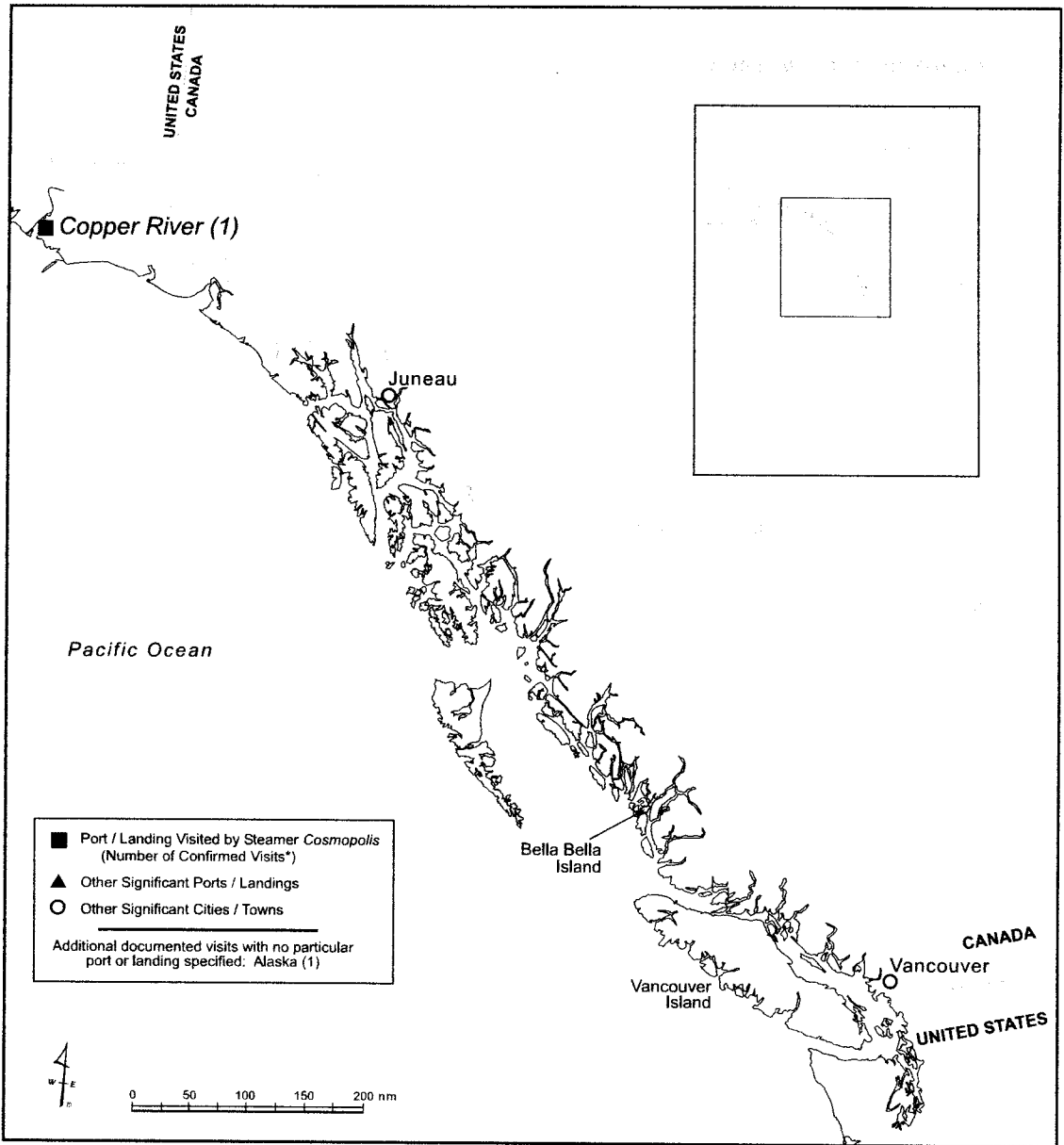


Figure 14. Ports and Landings in Alaska visited by Steamer *Cosmopolis*. Data derived from the *Daily Alta California* and *San Francisco Chronicle*. Actual number of visits may be higher than what could be verified.

On April 16th, 1890, the *Cosmopolis* arrived in Astoria, Oregon,²⁶ where it was chartered by a Mr. A. B. Ford to work as a supply tender for his Alaska canneries for that season.²⁷ Three days later,²⁸ it departed on her first trip to Alaska, and returned on May 13th.²⁹ On May 18th, during the second Alaska trip, Captain Dettmers reported that "the whistling buoy off Flattery Rocks, Umatilla reef [Cape Flattery, northwest tip of Washington; see Figure 11 on page 37] is not sounding its whistle, and looks to be in a sinking condition as I passed close to it at 9 A M to-day."³⁰ This was actually the best news that would come from, or about, the *Cosmopolis* for the next few weeks. The May 27th *Daily Alta California*, in the "Shipping Intelligence" section reported under "Disasters":

Port Townsend, May 26- Capt. Wallace of the stmr City of Topeka has just arrived from Alaska and reports that the stmr *Cosmopolis*, with freight for Alaska ports, went ashore on Bella Bella Island on May 24, 125 miles north of Vancouver Island. The vessel is laying in a bad place and may prove to be a total loss. Relief will probably be sent from here.³¹

As is too often the case, bad news receives more attention than good news. The *San Francisco Chronicle* reported the latest on the *Cosmopolis* "disaster" for the next several days. There was some speculation, however, as to what actually happened at Bella Bella Island, British Columbia (see Figure 14, page 44). The May 29th *Chronicle* reported:

The owners of the vessel are as much in the dark concerning her as ever, but they still maintain that she has not been wrecked. As if to confirm their confidence, a CHRONICLE reporter was told yesterday by a captain

²⁶ *Daily Oregonian* (Portland), 17 Apr 1890.

²⁷ *San Francisco Chronicle*, 28 May 1890.

²⁸ *Daily Oregonian* (Portland), 26 Apr 1890.

²⁹ *Daily Oregonian* (Portland), 17 May 1890.

³⁰ *Daily Alta California* (San Francisco), 23 May 1890.

³¹ *Daily Alta California* (San Francisco), 27 May 1890.

who has just returned from the north that he saw the *Cosmopolis* go ashore, and that, after jettisoning some forty tons of her cargo, she came off the beach. The stories are so conflicting, however, that it is hard to know just what damages the steamer has sustained. Accurate information is expected daily.³²

Fortunately for all, it was a simple grounding and not a career-ending catastrophe; the *Cosmopolis* arrived back in San Francisco on June 17th, 1890 "from Nanaimo [on Departure Bay, Vancouver Island, British Columbia] without a leak, perfectly taut and with a large cargo..."³³

On July 2nd, *Cosmopolis* arrived in Astoria again,³⁴ and was based out of Astoria for the rest of the year; it finally returned to San Francisco on New Year's Eve.³⁵ There was a least one run to Puget Sound during this period. The steamer departed for Port Townsend on July 15th, "carrying eighty head of cattle, furniture, paints and oils, doors, windows and household goods."³⁶ On July 21st, it arrived back in Astoria from Roche Harbor, on San Juan Island (east of Vancouver Island) with "100 barrels of lime and a quantity of tin."³⁷ *Cosmopolis* was away from Astoria between September 12th and December 12th; it is likely that another Alaska trip was made.

Triangular Trade in California

In the first half of 1891, the *Cosmopolis* made a few runs to Grays Harbor, as well as other Washington lumber ports such as Port Angeles, Port Discovery, and Port

³² *San Francisco Chronicle*, 29 May 1890.

³³ *San Francisco Chronicle*, 18 Jun 1890.

³⁴ *Daily Oregonian* (Portland), 3 Jul 1890.

³⁵ *Daily Oregonian* (Portland), 31 Dec 1890.

³⁶ *Astorian* (Oregon), 16 Jul 1890.

³⁷ *Astorian* (Oregon), 22 Jul 1890.

Townsend. The day after departing Grays Harbor with 325,000 feet of lumber on January 14th, 1891, the *Aberdeen Herald*, one of the local Grays Harbor newspapers, reported that “[Ca]pt. Dettmers and the steamer Cos-[mo]polis are old timers on the Harbor, ...the captain was warmly received by many friends.”³⁸ From June 1st, 1891, to May 16th, 1893, however, there was a geographical shift for *Cosmopolis*. During that period, most trips involved loading lumber at Eureka/Humboldt Bay, California, delivering it to a Southern California port, and reloading with “produce” for delivery to San Francisco. During this period, “produce” shipped on the *Cosmopolis* was predominantly barley, corn, and beans, and on at least one occasion, wheat.³⁹ Figure 15 on page 48 is a photograph of *Cosmopolis* at Fields Landing on Humboldt Bay, showing a deck load of cut lumber.

The *Cosmopolis* made 32 trips as part of this California triangular trade. Most voyages came back from Hueneme, but other Southern California ports visited included San Diego, Port Harford, Newport, Carpentaria, and Ventura. There were only three derivations during this period; one trip to Coos Bay, Oregon and back,⁴⁰ one to Eureka and back with no stop to the south,⁴¹ and on one occasion, directly south to San Pedro, and back from Hueneme, also in Southern California.⁴² One return run from San Diego was somewhat unique; the *San Francisco Chronicle* of July 30th, 1891 reported that “The Mexican steamer Manuel Dublan arrived yesterday in tow of the *Cosmopolis* and

³⁸ *Aberdeen (Washington) Herald*, 14 Jan 1891.

³⁹ *San Francisco Chronicle*, 10 Oct 1892.

⁴⁰ *San Francisco Chronicle*, 8 Aug 1892.

⁴¹ *San Francisco Chronicle*, 13 Apr 1893.

⁴² *San Francisco Chronicle*, 24 Apr 1893.

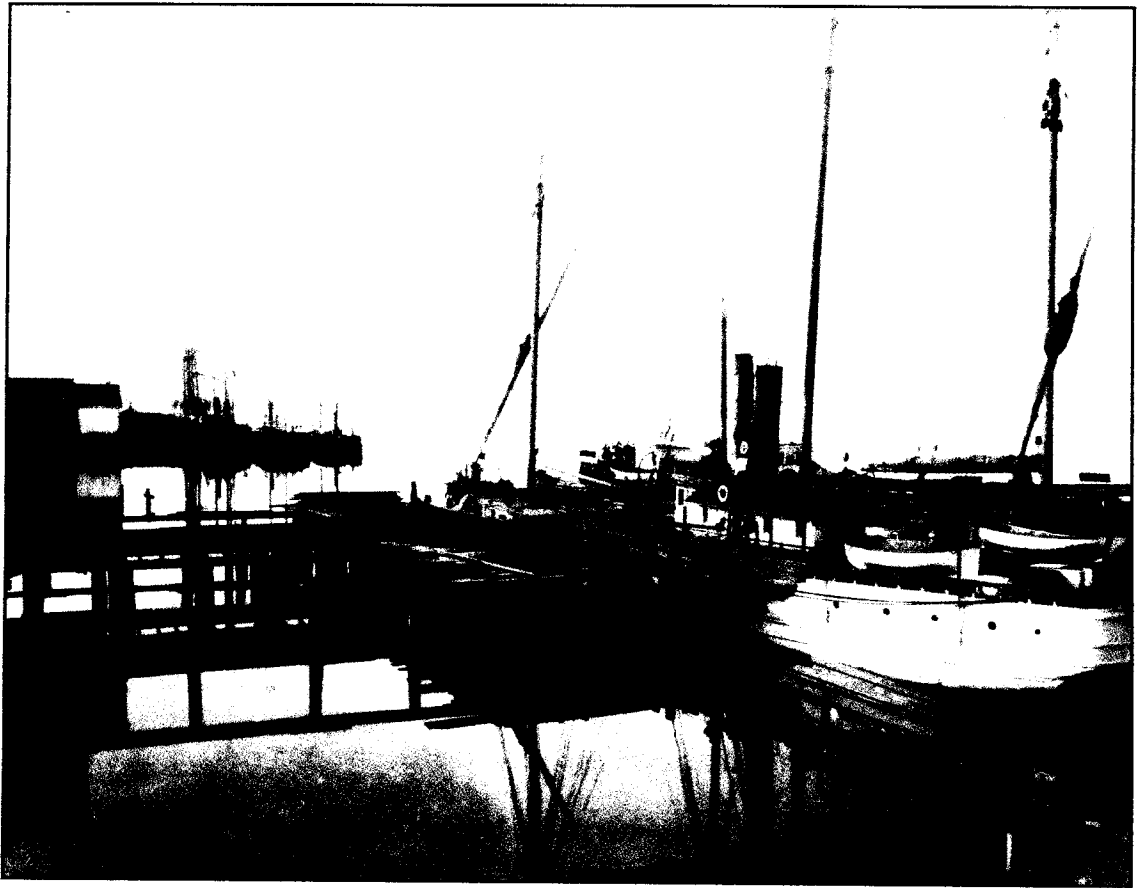


Figure 15. Steamer *Cosmopolis* at Fields Landing on Humboldt Bay, Eureka, California. (Courtesy of the San Francisco Maritime National Historical Park, J. Porter Shaw Photographic Collection.)

docked at Little Main street pier to undergo extensive repairs.”⁴³ Two months later, the *Cosmopolis* was involved in an unfortunate accident. “The steamer *Cosmopolis* arrived [in San Francisco] yesterday [October 12th, 1891] from Hueneme with grain. Captain Dettmers reports that on his last trip from this city Second Mate Knudson was washed overboard by a heavy sea while crossing the Humboldt bay bar on September 30th.”⁴⁴

⁴³ *San Francisco Chronicle*, 30 Jul 1891.

⁴⁴ *San Francisco Chronicle*, 13 Oct 1893.

The many grain runs from Southern California ports to San Francisco are indicative of an expanding international agricultural market. The *San Francisco Chronicle* of August 7th, 1893 reported that "Wheat and barley are arriving freely on all of the coast steamers, and the capacity of the seawall sheds is being taxed to hold the grain until it is loaded on the deep-water ships that will take the cereals to Europe."⁴⁵

**One Last Salmon Canning Season,
or Perhaps Drydock?**

Following the relatively consistent period of California triangular trade that ended in May 1893, the next two months were less predictable. They included two runs to Grays Harbor. The steamer came directly back to San Francisco with lumber on one run, and stopped at Moss Landing on Monterey Bay on the second.⁴⁶ Following the two runs to Grays Harbor were two runs to Eureka, both with returns via Southern California.⁴⁷

Following arrival in San Francisco from Hueneme in late July 1893, there is no record of any *Cosmopolis* activity in the *San Francisco Chronicle* (or the *Daily Astorian*) until mid-January 1894. This five-and-a-half month time span is the largest "mystery period" in the vessel's newspaper chronology. It is possible that the steamer was once again contracted and based out of Astoria, Oregon, for another Alaska salmon canning season. Based upon previous seasons, it is likely that this would have been documented by the newspapers. It is also possible that the steamer continued to make routine runs that for

⁴⁵ *San Francisco Chronicle*, 7 Aug 1893.

⁴⁶ *San Francisco Chronicle*, 2 Jun 1893.

⁴⁷ *San Francisco Chronicle*, 30 Jul 1893.

some reason were not documented. Again, this is highly unlikely based upon consistent reporting before and after this period. The most likely explanation is that the *Cosmopolis* was in dry dock. Although an extensive dry dock period of several months should have been noted in the newspapers, it is the most likely explanation for this absence from documentation.

Back to Grays Harbor, and Her

Last Days in California

After a variety of destinations and cargoes, the Grays Harbor run was the standard in 1894. From January 15th to December 25th, the *Cosmopolis* made 21 runs to Grays Harbor. None involved trips to Southern California; all lumber went directly to San Francisco. One trip had a stop at Yaquina Bay, Oregon, on the return,⁴⁸ and at the end of this period the steamer stopped at New Westminster, British Columbia, and Cape Flattery, Washington, before coming home.⁴⁹ With every other 1894 trip, the *Cosmopolis* came straight back to San Francisco with lumber from the S. E. Slade Lumber Co. of Hoquiam, known as the Wood, Slade & Thayer Lumber Co. starting in August 1894.⁵⁰ During this year, the *Cosmopolis* developed a solid reputation not only with the lumber company, but with the residents of Hoquiam and Aberdeen as well. The *Hoquiam Washingtonian* of June 7th, 1894, reported of the *Cosmopolis*: "This steamer,

⁴⁸ *San Francisco Chronicle*, 14 Jun 1894.

⁴⁹ *San Francisco Chronicle*, 26 Dec 1894.

⁵⁰ *Hoquiam Washingtonian*, 9 Aug 1894.

with Capt. Dittmers [sic], is fast gaining favor with our people, as she makes her trips regular and makes this headquarters."⁵¹

There is no clear explanation why there were so few Grays Harbor trips between 1891 and 1894, why the pre-1891 runs were primarily to Cosmopolis, and the 1894 runs predominantly to Hoquiam. Likewise, it is not clear why the *Cosmopolis* never returned to any port in Grays Harbor after 1894. It is possible that a new railroad line is the answer. The westward expansion of the Northern Pacific Railway was essentially complete in 1887 when it reached Seattle.⁵² In 1892, that railroad arrived at Cosmopolis, connecting Grays Harbor with the deep-water port of Tacoma.⁵³ Deep water ports can accommodate larger vessels with a greater lumber capacity than smaller coastal steam schooners. The railway, with access to a deep-water port and an eastbound link to non-coastal U. S. markets, provides a possible explanation for a reduced need for Cosmopolis runs after 1891. Due largely to the physical efforts of Aberdeen lumbermen, the Northern Pacific Railroad reached Aberdeen in 1895. These efforts, along with the fact that Aberdeen and Hoquiam were connected by road,⁵⁴ might account for the end of the Hoquiam/Aberdeen runs by the *Cosmopolis*, which may in turn have led to the vessel's eventual sale in 1895.

The first few months of 1895 involved the final "new trend" for the *Cosmopolis*. After round-trips to Port Harford and Grays Harbor, the steamer made five trips to Fort

⁵¹ *Hoquiam Washingtonian*, 7 Jun 1894.

⁵² Robert Edgar Reigel, *The Story of the Western Railroads, From 1852 through the Reign of the Giants* (New York: The Macmillan Co., 1926), 206.

⁵³ Weinstein, *Grays Harbor, 1885-1913*, 21.

⁵⁴ *Ibid.*, 24.

Bragg, California, with returns to San Francisco via Newport. Unlike with previous runs, the *Cosmopolis* did not return to San Francisco with grain, but with ballast on three, and railroad ties (presumably from Fort Bragg) on two.

The *Cosmopolis* was inspected by direction of the Board of Supervising Inspectors, U. S. Treasury Department, on February 7th, 1895.⁵⁵ The Certificate of Inspection was signed by E. S. Talbot, Inspector of Hulls, and W. A. Phillips, Inspector of Boilers.⁵⁶ The certificate provides insight into the vessel's state and configuration. Pertinent data not previously noted in other sources is as follows:⁵⁷ The steamer had eight staterooms and 20 berths, and could carry 20 first-class passengers and ten deck or steerage passengers. The crew consisted of one master/pilot, two mates, two engineers, and ten crewmembers. The maximum pressure for the still original 1887 boiler was 110 pounds per square inch (psi), its ductility was 56%, it had two furnaces, each 39" in diameter and ½" thick. The boiler had 148 tubes (3" by 5' each), and it was double-riveted with punched holes. In terms of safety equipment, the steamer had three water-tight bulkheads, two life boats (one metal and one wood), one life raft, 45 life jackets, and two life buoys. Fire fighting equipment consisted of 200 feet of 1 ½" fire hose with two hand fire-pumps, 24 fire buckets, two water barrels, two water tanks, and six axes.

⁵⁵ Certificate of Inspection, Steamer *Cosmopolis*, February 7, 1895, Bernice Pauahi Bishop Museum Archives, Honolulu, Dillingham Collection, Inter-Island Steam Navigation Co., Ship Files, Box 30, *Kauai* Folder.

⁵⁶ *Ibid.*

⁵⁷ *Ibid.*

The *Cosmopolis*' seven years of service in the West Coast lumber industry was typical for an early steam schooner; it was primarily a lumber carrier, but also carried grains and other staple "produce", as well as passengers. Nevertheless, it was also unique: it was the pioneer steamer on the Grays Harbor lumber route, and also made some interesting runs in the early days of the Alaska salmon canning industry. Table 1 on page 54 outlines the overall departure and arrival history of the *Cosmopolis* from 1887 to 1895.

On April 16th, 1895, the *Cosmopolis* steamed to Fort Bragg for its last run as a West Coast lumber steamer; when the steamer returned in ballast from Redondo on April 26th, it was the property of Captain W. B. Godfrey of Honolulu,⁵⁸ the President of the Inter-Island Steam Navigation Company.⁵⁹ The *Cosmopolis* was soon to make the longest trip in the vessel's history, followed by a change of primary market, and a change of name.

⁵⁸ Bill of Sale, Steamer *Cosmopolis*, April 22, 1895, Bernice Pauahi Bishop Museum Archives, Honolulu, Dillingham Collection, Inter-Island Steam Navigation Co., Ship Files, Box 30, *Kauai* Folder.

⁵⁹ Thomas, *Schooner from Windward*, 77.

TABLE 1

SAN FRANCISCO DEPARTURES / ARRIVALS FOR STEAMER *COSMOPOLIS*,
BY YEAR FROM 1887 TO 1895

YEAR	DEPS FROM SF	PORTS / LANDINGS VISITED							ARRIVALS WITH PASSENGERS / CARGO CONFIRMED		
		GRAYS HARBOR	N. WA	N. CA	S. CA	OR	AK	BC	PSGR	LUMBER	PRODUCE
1887	5	3	-	1	2	-	-	-	-	2	-
1888	13	8	-	5	11	-	-	-	-	3	3
1889	15	8	-	4	3	3	1	-	4	12	2
1890	7	5	2	-	-	2	1	1	5	4	-
1891	16	2	3	10	10	-	-	-	3	3	8
1892	17	-	-	16	15	2	-	-	-	2	13
1893	11	2	-	8	10	-	-	-	-	2	6
1894	22	21	-	-	1	1	-	1	4	17	-
1895	7	1	-	6	6	-	-	-	-	3	-

Source: Daily Alta California and San Francisco Chronicle. Actual number of visits to each location may be higher than what could be confirmed. "Ports and landings visited" are grouped by: Grays Harbor, Northern Washington, Northern California, Southern California, Oregon, Alaska, and British Columbia.

CHAPTER 3
THE STEAMER *KAUAI*; THE HONOLULU YEARS
UNDER THE HAWAIIAN FLAG

The first half of the 1890s was filled with many changes for Hawai'i. David Kalākaua, king since 1876, died in 1891, leaving his sister, Lili'uokalani, as his successor.¹ In January 1893, a group of revolutionaries consisting mainly of American missionary descendents and other Westerners, overthrew the queen and the monarchy. Their objective was for the United States to annex the Hawaiian Islands. To the dismay of these "Annexationists", the newly elected U. S. president, Grover Cleveland, chose not to pursue annexation after his investigation revealed the overthrow was clearly a conspiracy between the revolutionaries and the U. S. Minister to Hawaii,² and not the end result of a mandate from the Hawaiian people. President Cleveland demanded the revolutionaries reinstate the queen, but they refused. The United States was not ready to go so far as to remove the revolutionaries by force, and thus, for a time, the future of Hawai'i was in limbo. A "Provisional Government" was initially formed, and on July 4th, 1894, the Republic of Hawaii was established.³ Sanford Dole, leader of the Provisional Government, assumed the office of president.⁴

Despite the political changes, the sugar industry was still going strong. The sugar

¹ Kuykendall, *A History of Hawaii*, 275.

² *Ibid.*, 280.

³ Lucien Young, *The Real Hawaii: Its History and Present Condition* (New York: Doubleday, Page & Co., 1902), 274.

⁴ *Ibid.*

companies continued to grow, following the "reciprocity boom" that began in 1876. A temporary setback occurred in 1890, when the McKinley Tariff Bill gave bonuses to U. S. sugar producers⁵ and removed the tariff on sugar imports. This gave all sugar producing nations the same "tariff-free" status as the Kingdom of Hawaii.⁶ The 1894 Wilson-Gorman Tariff restored foreign tariffs and ended the bonuses for U. S. producers.⁷ The result was a second Hawai'i sugar boom. With the sugar boom also came success for inter-island shipping. Wilder's Steamship Co. and the IISN Co. both thrived, and they added newer and sturdier vessels, added routes, and increased efficiency.

Sugar was shipped from throughout the Hawaiian Islands to Honolulu by steamer. The Kaua'i, Maui, and Hawai'i Island ports were the busiest. The "Kauai Route" included stops at any of over a dozen Kaua'i ports and landings, from Waimea in the west, to Nawiliwili in the southeast, all the way up the eastern shore, and around to Wainiha and Hanalei on the north shore. The Kauai Route belonged to IISN Co., and in the mid-1890s, the company had several steamers continuously making runs from Honolulu to these ports, often carrying passengers in addition to sugar. These steamers included the *James Makee*, *Iwilani*, *Mikahala*, *Ke Au Hou*, and the *Pele*.

On March 24th, 1895, the *Pele* was steaming at night between the ports of Kōloa and 'Ele'ele on Kaua'i's southern shore. Due to heavy rain squalls and limited visibility, the

⁵ Jacob Adler, *Claus Spreckels: The Sugar King in Hawaii* (Honolulu: University of Hawai'i Press, 1966), 11.

⁶ Gregory Lawrence Garland, "Southern Congressional Opposition to Hawaiian Reciprocity and Annexation, 1876-1898" (Master's thesis, University of North Carolina at Chapel Hill, 1983).

⁷ Adler, *Claus Spreckels*, 253.

skipper, Captain McAllister, was trying come closer to shore, when the *Pele* struck a large rock about a mile offshore. The crew got the four passengers and some equipment safely ashore via lifeboats, but the vessel was a total loss.⁸

Mr. John Ena, Vice President for IISN Co., called a special Board of Directors meeting on April 3rd, 1895, to coordinate purchasing a replacement for the *Pele*.

After discussion the Steamer "Cosmopolis" was spoken of as being the proper boat to purchase for the company. Motion was made and carried that the President be authorized to proceed to San Francisco...to purchase a steamer for the company.⁹

Captain William B. Godfrey, President of IISN Co. (see Figure 16, page 58), proceeded to San Francisco and purchased the steamer *Cosmopolis* over the period of April 22nd to 24th, 1895. A three-eighths share of the *Cosmopolis* was owned by W. H. Perry of Los Angeles, and it was sold to Captain Godfrey on April 22nd, 1895.¹⁰ The remaining five-eighths was owned by George H. Collins (5/32), Elisha Higgins (4/32), C. A. Klose (2/32), Emma A. Miller (2/32), Emma H. Miller (1/32), George Boole (2/32), all from Oakland, along with George E. Plummer of Alameda (2/32) and B. H. Madison of San Francisco (2/32). Their collective portion was sold to Captain Godfrey on April 24th, 1895.¹¹

⁸ *Pacific Commercial Advertiser* (Honolulu), 28 Mar 1895.

⁹ Board of Directors (BOD) Minutes #1, 1883-1903, p. 73, 3 Apr 1895, Bernice Pauahi Bishop Museum Archives, Honolulu, Dillingham Collection, Inter-Island Steam Navigation Co.

¹⁰ Bill of Sale, 3/8 of Steamer *Cosmopolis*, April 22, 1895. Bernice Pauahi Bishop Museum Archives, Honolulu, Dillingham Collection, Inter-Island Steam Navigation Co., Ship Files, Box 30, *Kauai* Folder.

¹¹ Bill of Sale, 5/8 of Steamer *Cosmopolis*, April 24, 1895. Bernice Pauahi Bishop Museum Archives, Honolulu, Dillingham Collection, Inter-Island Steam Navigation Co., Ship Files, Box 30, *Kauai* Folder.

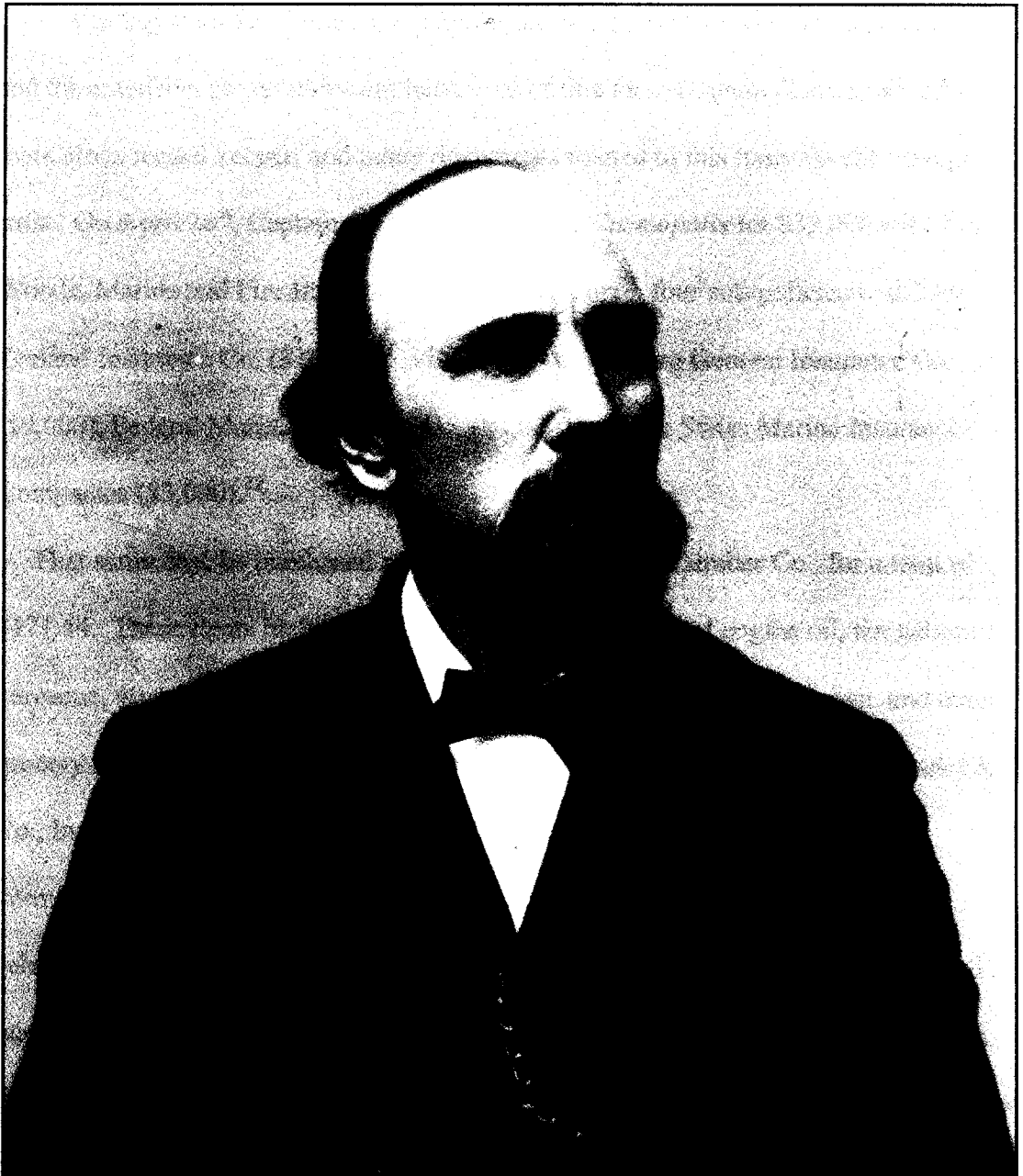


Figure 16. Captain W. B. Godfrey of the Inter-Island Steam Navigation Company.
(Courtesy of the Hawai'i State Archives.)

Preparing For the Voyage To Hawai'i

The trip from San Francisco to Honolulu was no routine trip for a small steamer and the extensive preparations are indicative of this fact. Captain Godfrey was a meticulous record keeper, and many documents related to this trans-Pacific voyage exist. On April 26th, Captain Godfrey insured the *Cosmopolis* for \$32,000 with J. L. Woods, Marine and Fire Insurance Broker, based upon four sub-policies with New Zealand Insurance Co. (\$16,000), Wihelma of Magdeburg General Insurance Co. (\$9,000), Federal Marine Insurance Co. (\$4,000), and the Swiss Marine Insurance Companies (\$3,000).¹²

That same day, he purchased many items from Union Lumber Co., for a total of \$171.44. These items included 13 tons of coal, 40 gallons of engine oil, ten gallons of kerosene, 40 pounds of white lead, seven gallons of tar, 11 pounds of soap, and many grocery items.¹³ Additional groceries were purchased on April 29th from S. Foster & Co., Importing and Jobbing Grocers.¹⁴ These included sugar, split peas, barley, vermicelli, currants, peaches, sage, jelly, milk, oysters, tomatoes, capers, mustard, salmon, pickles, chocolate, salt, pepper, butter, cheese, bacon, potatoes ("spuds"), flour, buckwheat, raisins, rice, string beans, asparagus, corned beef, sardines, lobster, eggs, lard, onions, coffee, rhubarb, cinnamon, vanilla, and several more items, purchased for a grand total of \$96.61.

¹² J. L. Woods Insurance Policy for *Cosmopolis*, 26 Apr 1895, Bishop Museum Archives, *Kauai* Folder.

¹³ Receipt from Union Lumber Co., Bishop Museum Archives, *Kauai* Folder.

¹⁴ Receipt from S. Foster & Co., Bishop Museum Archives, *Kauai* Folder.

On April 30th, many more items were purchased. Two, 23-foot "sugar boats" were purchased for \$200 each from Geo. W. Kneass.¹⁵ Captain Godfrey purchased 86 tons and 80 pounds of Nanaimo coal, for a total of \$507.61, from John Rosenfeld's Sons, Wholesale Coal Dealers.¹⁶ He also bought 1080 feet of 2" by 12" pine from Preston and McKinnon, Dealers in Lumber, for a total of \$11.30.¹⁷ A set of 11 drop-forged wrenches, and a hack saw with a dozen 9" blades was purchased for \$7.30 from Dunham, Carrigan & Hayden Co.¹⁸ From Lewis, Anderson & Co., Ship Chandlery and Naval Stores, he purchased five seventeen-foot oars, two saws, five pounds of nails, and block and tackle gear that included 270 pounds of 3 ½" manila line.¹⁹ Sails were purchased from Brann & Prior, Sail Makers for \$73.53.²⁰ Hardware items were purchased from Dunham, Carrigan & Hayden Co., including wire, pliers, a ball peen hammer, washer cutters, emery cloth, calipers, files, hand lamps, chisels, punches, washers, bolts, etc., for \$32.64.²¹ On April 30, \$2.48 was paid to the Contra Costa Laundry Co. for washing.²²

May 1st, Captain Godfrey purchased an extra propeller for \$180.00 from Golden

¹⁵ Receipt from Geo. W. Kneass, Boat Builder, 30 Apr 1895, Bishop Museum Archives, *Kauai* Folder.

¹⁶ Receipt from John Rosenfeld's Sons, Wholesale Coal Dealers, 30 Apr 1895, Bishop Museum Archives, *Kauai* Folder.

¹⁷ Receipt from Preston and McKinnon, Dealers in Lumber, 30 Apr 1895, Bishop Museum Archives, *Kauai* Folder.

¹⁸ Receipt from Dunham, Carrigan & Hayden Co., 30 Apr 1895, Bishop Museum Archives, *Kauai* Folder.

¹⁹ Receipt from Lewis & Anderson Co., Ship Chandlery and Naval Stores. Bernice Pauahi Bishop Museum Archives, Honolulu, Dillingham Collection, Inter-Island Steam Navigation Co., Ship Files, Box 30, *Kauai* Folder.

²⁰ Receipt from Brann & Prior, Sail Makers, 30 Apr 1895, Bishop Museum Archives, *Kauai* Folder.

²¹ Receipt from Dunham, Carrigan & Hayden Co., 30 Apr 1895, Bishop Museum Archives, *Kauai* Folder.

²² Receipt from Contra Costa Laundry Co., 30 Apr 1895, Bishop Museum Archives, *Kauai* Folder.

State and Miners' Iron Works.²³ That day, 3000 gallons of fresh water were delivered on board by Goodall, Perkins & Co.²⁴ Many kitchen and houseware items were purchased from Olsen, Ruth & Cook, Ship Tinsmiths, Plumbers and Metal Workers, including water glasses, a milk pitcher, a sugar bowl, dinner and dessert plates, knives, forks, spoons, dishpans, scrub brushes, towels, toilet paper, an emery stove, and more.²⁵ Captain Godfrey paid the Magnolia Café for 89 meals for his crew at 20 cents each.²⁶ He also intended to purchase from Dillon & Co. a new chronometer built by John Brunton of London for \$150.00, but the order was cancelled.²⁷

Many repair items were purchased on May 2nd from Fulton Engineering and Ship Building Works (formerly Fulton Iron Works), to include a new smoke stack drain, deck plugs, brass pieces, etc.²⁸ Labor for machine and pattern shops was also paid, as was 60 hours of onboard boilermaker time (45 cents/hour), 44 hours for a boiler helper (32 ½ cents/hour), and 32 hours for a boiler "boy" (20 cents/hour).²⁹ Fulton also provided 28 hours of ships carpenter time, at 50 cents per hour.³⁰

The final grocery items were also purchased on May 2nd, from Roberts & Tuft, Dealers in all Kinds of Fresh and Salt Meats. These included milk, bread, carrots, cauliflower, asparagus, celery, lettuce, radishes, onions, parsley, yellow turnips, beef,

²³ Receipt from Golden State and Miners' Iron Works, 1 May 1895, Bishop Museum Archives, *Kauai* Folder.

²⁴ Receipt from Goodall, Perkins & Co., 1 May 1895, Bishop Museum Archives, *Kauai* Folder.

²⁵ Receipt from Olsen, Ruth & Cook, Bishop Museum Archives, *Kauai* Folder.

²⁶ Receipt from Magnolia Café, 1 May 1895, Bishop Museum Archives, *Kauai* Folder.

²⁷ Cancelled receipt from Dillon & Co., 1 May 1895, Bishop Museum Archives, *Kauai* Folder.

²⁸ Receipt from Fulton Engineering and Shipbuilding Works, 2 May 1895, Bishop Museum Archives, *Kauai* Folder.

²⁹ *Ibid.*

³⁰ Receipt from Fulton Engineering and Shipbuilding Works, 10 May 1895, Bishop Museum Archives, *Kauai* Folder.

pork, and mutton veal, for a total of \$36.93.³¹ All in all, prior to departing San Francisco, Captain Godfrey spent a combined total of \$1,885.89 for the trip, according to the accountants at Welch Co.³²

Prior to departing San Francisco, Captain Godfrey and the other ten crewmen signed a "Hawaiian Shipping Articles" document in the presence of the Hawaiian Consul-General, acknowledging that they would faithfully perform their duties, and that at the end of the trip they would be paid the recorded amounts. The crewmembers and their projected wages for the trip were as follows: Fred Mosher, 1st mate, \$43.00; John S. Greene, 2nd mate, \$29.75; Charles J. Wall, Chief Engineer, \$175.00 (full month); William Haynes, Cook, \$29.75; William Collins, Steward, \$29.75; Seamen James S. Simpson, Fred Narfstrom, Michael Lyons and Carl Prinz, \$15.00 each; and J. Santiago, billet unspecified, \$5.00.³³

The Voyage, and Arrival at her New Home

The *Cosmopolis* departed San Francisco for Honolulu on May 2nd, 1895,³⁴ and arrived in Honolulu 11 days later on May 13th. (See map, Figure 17, page 64.) The *Hawaiian Star*, an evening paper, was the first to report the arrival:

The new Hawaiian steamer *Cosmopolis* arrived this afternoon, 11 days from San Francisco. Captain W. B. Godfrey came down on her. She brought a small cargo valued at \$4,577. Her shipments consist chiefly of grain, hay, feed, 50 bbls flour, 54 bbls. Salmon, 38 packages hardwood,

³¹ Receipt from Roberts & Tuft, 2 May 1895, Bishop Museum Archives, *Kauai* Folder.

³² "Disbursements at San Francisco, Steamer Sch *Cosmopolis* & Owners," Welch Co., 10 May 1895, Bishop Museum Archives, *Kauai* Folder.

³³ Hawaiian Shipping Articles, Steamer *Cosmopolis*, San Francisco to Honolulu, May 1895, Bishop Museum Archives, *Kauai* Folder.

³⁴ *San Francisco Chronicle*, 2 May 1895.

provisions, rope, canvas, etc., etc. She also brought a fine pony which Captain Godfrey purchased in California.

The *Cosmopolis* presented a fine appearance as she steamed into port. She is painted white, and flew a large Hawaiian flag aft. She is quite wide and is somewhat longer than the *Waialeale*. Her general makeup is quite neat and she is reported to be a smooth sailor. She will go on the marine railway to be cleaned in a few days.

Heavy winds were encountered the first three days out after which fine weather was experienced. The *Cosmopolis* is at the Oceanic Dock.³⁵

The next morning, the *Pacific Commercial Advertiser* reported:

The steamer *Cosmopolis*, Captain Godfrey, arrived yesterday, eleven days from San Francisco. The long trip is due to light winds. She brought a cargo consisting of hay and grain for the California Feed Company. She was moored at the Oceanic dock and visited by a great many people during the afternoon.

The steamer is built on the same lines as the *Hawaii*, and has an abundance of deck room for carrying cattle and lumber. It is estimated that about 5000 bags of sugar can be placed in her hold. She has four large staterooms, besides suitable quarters for her officers. She is eight years old and cost the Inter Island people about \$35,000 to land her here; a new vessel of her dimensions would cost about \$48,000.

Captain Campbell stated yesterday that she would be placed on the *Kauai* route at once and no alterations would be made until the sugar season was about over. It has not yet been decided what her new name was to be, but it will either be *Makaweli* or *Kauai*, probably the latter. The vessel sports two new flags- an Hawaiian and the company's flag. They were sent to San Francisco by Captain Campbell. C. J. Wall came down as chief engineer. Her first officer is Captain F. Mosher, formerly master of the ship *B. P. Chaney*.

The *Cosmopolis* brought a fine, gentle family horse for Captain Godfrey; also extra propeller and smokestack for her use. The vessel is consigned to *Brewer & Co.*³⁶

³⁵ *Hawaiian Star* (Honolulu), 13 May 1895.

³⁶ *Pacific Commercial Advertiser* (Honolulu), 14 May 1895.

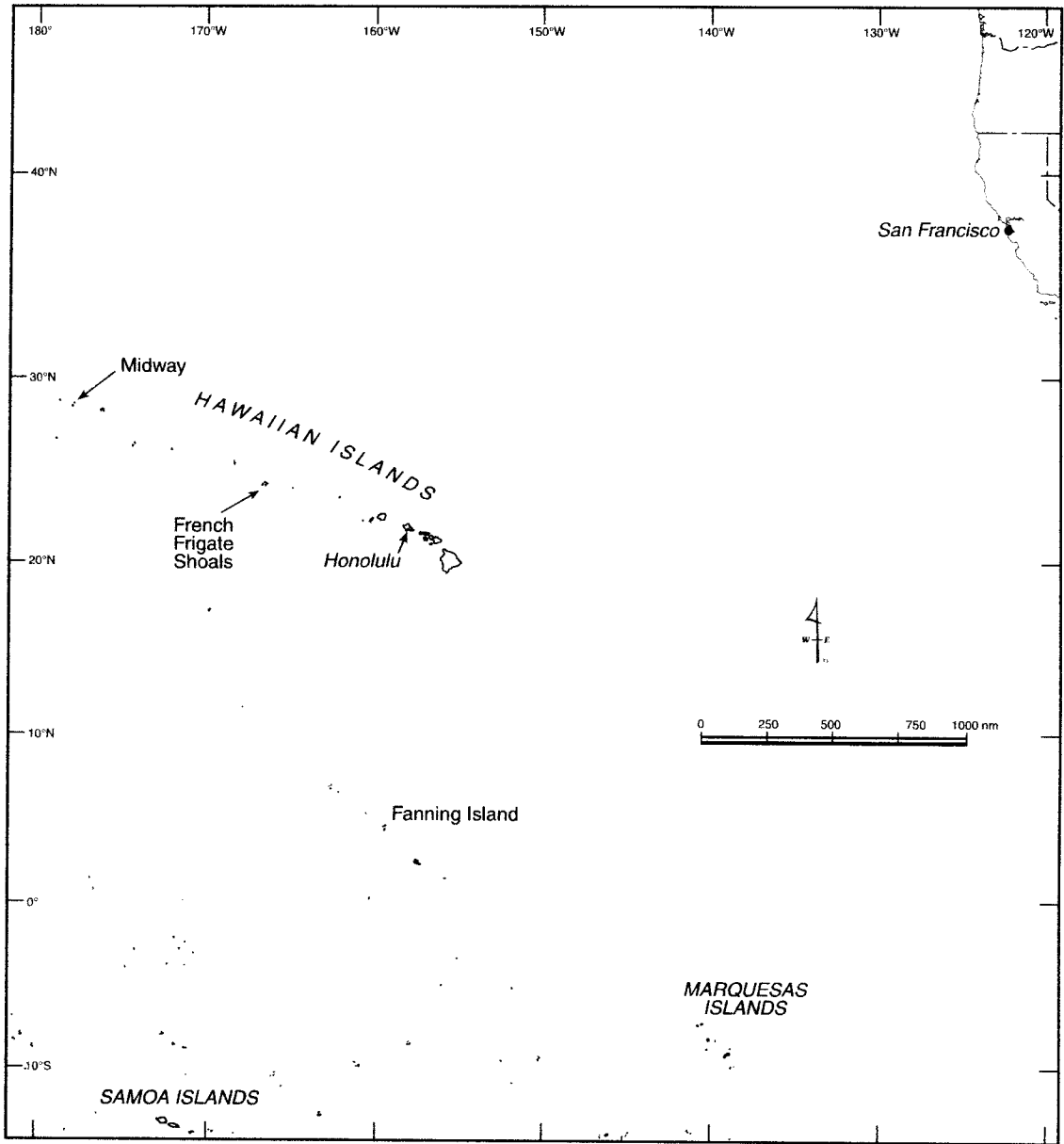


Figure 17. The Eastern Pacific Ocean, highlighting San Francisco, Honolulu, French Frigate Shoals, and Fanning Island.

Although the *Cosmopolis* was not a new vessel, its arrival to the Hawaiian steamship trade was welcomed, as the vessel was larger, and had a greater sugar storage capacity, than most of the other interisland steamers at that time (see Table 2, below, and Table 3, page 66).

TABLE 2

STEAMSHIP ROSTER, INTER-ISLAND STEAM NAVIGATION COMPANY, 1895

STEAMER	YEAR BUILT	BUILDER	LENGTH	TONS (GT/NT)	ENGINE BUILDER	CYLINDERS (LP/HP)
<i>JAMES MAKEE</i>	1879	HALL BROS. PORT BLAKELY, WA	110'	301 / 133	FULTON IRON WORKS SAN FRANCISCO, CA	20" / 11"
<i>IWALANI</i>	1881	DICKIE BROS. SF, CA	146'	588 / 240	RISDON IRON WORKS SF, CA	34" / 18"
<i>W. G. HALL</i>	1884	HALL BROS.	158'	505 / 380	FULTON IRON WORKS	40" / 20"
<i>WAIALEALE</i>	1886	HALL BROS.	129'	255 / 175	FULTON IRON WORKS	22" / 12"
<i>MIKAHALA</i>	1886	HALL BROS.	151'	444 / 354	W. DEACON SF, CA	38" / 19"
<i>PELE</i>	1884 (1888)	CHARLES G. WHITE SF, CA	101'	165 / 143	FULTON IRON WORKS	16" / 8 ½"
<i>KAIMILOA</i>	1872 (1888)	UNION COOP. SOC. CLYDE, SCOTLAND	127'	291 / 170	HEPPE & CO. SOUTH SHIELDS, ENGLAND	30" / 24"
<i>KAALA</i>	1887 (1889)	DICKIE BROS.	100'	120 / 91	UNION IRON WORKS SAN FRANCISCO, CA	24" / 12"
<i>KE AU HOU</i>	1894	HALL BROS.	130'	211 / 193	FULTON IRON WORKS	24" / 12"
<i>KAUAI</i>	1887 (1895)	BOOLE & BEATON SF, CA	154'	340 / 268	FULTON IRON WORKS	30" / 16"

Source: Mifflin Thomas, *Hawaiian Interisland Vessels and Hawaiian Registered Vessels* (Santa Barbara, CA: Seacoast Press), 1982. (Dates in parentheses indicate the year the steamer was acquired by the company.)

TABLE 3

STEAMSHIP ROSTER, WILDER'S STEAMSHIP COMPANY, 1895

STEAMER	YEAR BUILT	BUILDER	LENGTH	TONS (GT/NT)	ENGINE BUILDER	CYLINDERS (LP/HP)
<i>LIKELIKE</i>	1877	DICKIE BROS.	168'	674 / 597	RISDON IRON WORKS	40" / 21"
<i>MOKOLII</i>	1878	DICKIE BROS.	84'	97 / 49	RISDON IRON WORKS	16" / 9"
<i>LEHUA</i>	1879	DICKIE BROS.	116'	218 / 130	RISDON IRON WORKS	20" / 12"
<i>KINAU</i>	1883	W. CRAMP & SONS PHIL, PA	195'	975 / 669	W. CRAMP & SONS	44" / 24"
<i>KILAUEA HOU</i>	1878 (1885)	TIBBETS & SORENSON HONOLULU	119'	271 / 154	RISDON IRON WORKS	20" / 12"
<i>HAWAII</i>	1888	BOOLE & BEATON	139'	302 / 227	FULTON IRON WORKS	28" / 14"
<i>CLAUDINE</i>	1890	NAPIER, SHANKS & BELL GLASCOW, SCOTLAND	178' (STEEL)	846 / 615	DUNSMUIR & JACKSON GOVAN, SCOTLAND	48" / 29" / 18" (TRIPLE EXPANSION)

Source: Mifflin Thomas, *Hawaiian Interisland Vessels and Hawaiian Registered Vessels* (Santa Barbara, CA: Seacoast Press), 1982. (Dates in parentheses indicate the year the steamer was acquired by the company.)

For Which She was Re-Named; The *Kauai*

on the Kauai Route

The *Cosmopolis*' first run in Hawai'i was on May 16th, 1895, to Hanamā'ulu, on the eastern shore of Kaua'i, near the major town of Līhu'e.³⁷ (See map, Figure 18 on page 67, for all of the steamers recorded trips to Kaua'i and Ni'ihau.) The Hanamā'ulu landing was owned by the Lihue Plantation Company.³⁸ Captain Campbell, the wharf superintendent for IISN Co., skippered the vessel on this initial run, and the cargo was a load of lumber.³⁹ From that day forward, the steamer would bear the name *Kauai*.⁴⁰

³⁷ *Pacific Commercial Advertiser* (Honolulu), 17 May 1895.

³⁸ Thomas A. Cajski, "Ports of Hawaii" (Master's thesis, University of Hawai'i at Mānoa, 1964), 40.

³⁹ *Hawaiian Star* (Honolulu), 16 May 1895.

⁴⁰ *Ibid.*

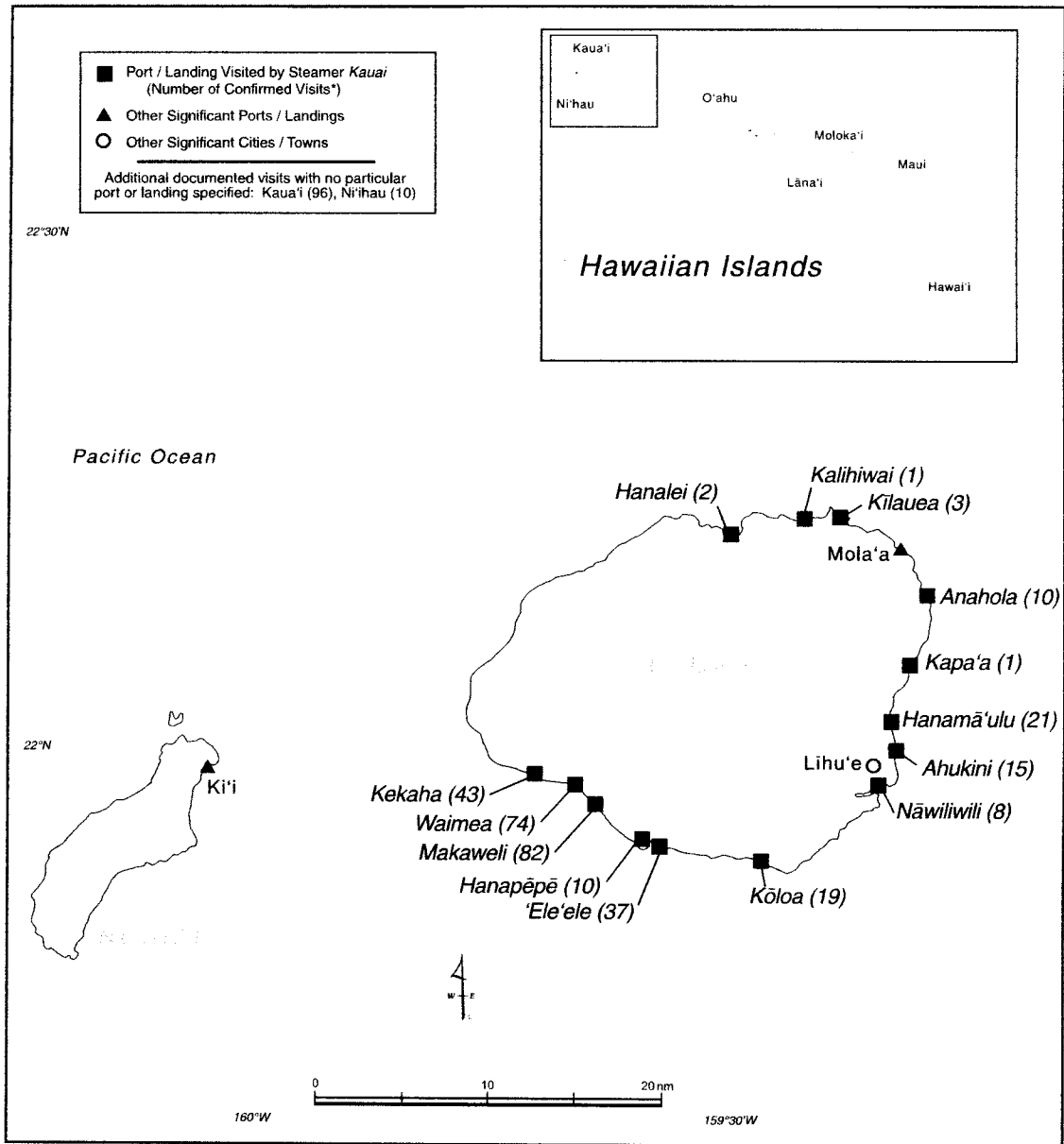


Figure 18. Ports and Landings on Kaua'i and Ni'ihau visited by Steamer *Kauai*. Data derived from the *Pacific Commercial Advertiser*, *Hawaiian Gazette*, and *Hawaiian Star*. Actual number of visits may be higher than what could be verified.

The *Kauai* returned to Honolulu on May 23rd with 3,488 bags of sugar, under the command of Captain Smythe.⁴¹ Prior to his service on the *Kauai*, Captain Smythe was captain of the IISN Co. steamer *Waialeale*, which served Maui and Hawai'i Island.⁴² Just two days after returning, the *Kauai* made a second trip, and returned from Hanamā'ulu on May 31st 1895 with 2,000 bags of sugar.⁴³

A decision was made to modify the steamer's deck.⁴⁴ The small aft deckhouse, with only four staterooms, (see Figure 1, page 4) was expanded to encompass the entire aft section. This design followed that of the steamer *Ke Au Hou*.⁴⁵ This new deck structure could accommodate up to 28 cabin passengers.⁴⁶ By July 12th, the railings of the upper deck were installed and the new funnel was in place.⁴⁷ The *Cosmopolis* had been painted all-white, but as the *Kauai*, only the aft deckhouse remained white; the hull was painted black. This paint scheme, along with the new deckhouse design, made *Kauai* resemble most other inter-island steamers in Hawai'i. (See Figure 2 on page 4.)

By July 24th, the following completion of the modifications, the steamer was on Honolulu Harbor's marine railway (see Figure 19 on page 69) for a hull cleaning.⁴⁸ The *Kauai* was back on the Kauai Route on August 5th, 1895. The steamer took a load of coal to Makaweli, a landing on southwestern Kaua'i. Two more runs to Makaweli were made in August 1895, but two peculiar events were associated with the vessel's

⁴¹ *Pacific Commercial Advertiser* (Honolulu), 24 May 1895.

⁴² *Hawaiian Star* (Honolulu), 23 Jan 1895.

⁴³ *Pacific Commercial Advertiser* (Honolulu), 1 Jun 1895.

⁴⁴ *Ibid.*

⁴⁵ *Hawaiian Star* (Honolulu), 31 May 1895.

⁴⁶ Thomas, *Hawaiian Interisland Vessels*, 23.

⁴⁷ *Hawaiian Star* (Honolulu), 12 Jul 1895.

⁴⁸ *Pacific Commercial Advertiser* (Honolulu), 24 Jul 1895.

return to Honolulu on August 28th. First, according to that evening's *Hawaiian Star*, "A slight mishap happened to the *Kauai* this morning. In docking she fouled her mainmast with the top-sail yards of the ship *John McLeod*. The topmast of the *Kauai* was sprung."⁴⁹ Second, for five days, Honolulu was undergoing a cholera scare. Although the Board of Health declared that it was not an actual epidemic, it ordered that parts of the city, particularly Chinatown, near Honolulu Harbor, be thoroughly cleaned.⁵⁰ As a result, all Hawaiian steamers were quarantined and anchored outside the harbor.⁵¹ By September 12th, the *Kauai* was out of quarantine⁵² and was underway for Makaweli again on September 22nd.⁵³



Figure 19. Marine Railway at Honolulu Harbor. Unidentified vessel on railway is possibly the Steamer *Kauai*. (Courtesy of the Hawai'i State Archives.)

⁴⁹ *Hawaiian Star* (Honolulu), 28 Aug 1895.

⁵⁰ *Hawaiian Star* (Honolulu), 27 Aug 1895.

⁵¹ *Hawaiian Star* (Honolulu), 4 Sep 1895.

⁵² *Pacific Commercial Advertiser* (Honolulu), 12 Sep 1895.

⁵³ *Pacific Commercial Advertiser* (Honolulu), 23 Sep 1895.

Two more runs to Kaua'i were made under Captain Smythe's command, the last terminated in Honolulu on October 17th, 1895.⁵⁴ In addition to sugar, passengers were often transported. Typically, there were only a few cabin passengers and perhaps a few deck passengers as well, but on Captain Smythe's last run, there were 15 cabin passengers and fifteen deck passengers, in addition to 3,651 bags of sugar.⁵⁵

Personnel changes took place at Inter-Island that month. Captain Brown, formerly the captain of the small O'ahu steamer *Kaala*, became *Kauai*'s new captain.⁵⁶ First Officer Thompson of the *Kaala* became captain of that vessel, replacing Captain Brown.⁵⁷ Finally, Captain Smythe became captain of the *Iwalani*, a move that was considered a promotion.⁵⁸

Captain Brown was captain of the *Kauai* through February 1896. The only major modification to the *Kauai* during Captain Brown's command was the replacement of the masts, which occurred in November 1895.⁵⁹ The steamer made 12 trips to Kaua'i during this period. A typical run to Kaua'i was about a three or four day round trip, with two or three days between runs. Most runs were to Makaweli, but some went to nearby Waimea, and a few went to both. The sugar producers at the southwest end of Kaua'i were the Waimea Sugar Mill Company, the Kekaha Mill Company, and Gay & Robinson;⁶⁰ the latter is still producing sugar. On return legs to Honolulu, the *Kauai*

⁵⁴ *Pacific Commercial Advertiser* (Honolulu), 18 Oct 1895.

⁵⁵ *Ibid.*

⁵⁶ *Pacific Commercial Advertiser* (Honolulu), 17 Oct 1895.

⁵⁷ *Ibid.*

⁵⁸ *Hawaiian Star* (Honolulu), 17 Oct 1895.

⁵⁹ *Pacific Commercial Advertiser* (Honolulu), 21 Nov 1895.

⁶⁰ Dorrance and Morgan, *Sugar Islands*, 25.

usually carried between 2,000 and 7,000 bags of sugar; the two standard size sugar bags were 100 lbs. and 125 lbs.⁶¹

The majority of trade goods shipped to the Hawaiian Islands from the United States came to Honolulu, so outbound cargoes to the neighbor islands consisted of these imports, such as coal, lumber, and general freight. These were the common items carried from Honolulu to Kaua'i. The boilers for the steam machinery in the sugar mills were powered by burning *bagasse*, the crushed remains of the sugar cane after the juice has been pressed out. Coal was still an essential commodity, however, because some pieces of auxiliary equipment, and more significantly, the sugar cane locomotives, were coal burners. Lumber from the West Coast was often needed to support ongoing construction. General freight items were critical to business owners as well as individual residents, and represented a connection to the outside world.

Captain William C. Bruhn Takes

Command of the *Kauai*

By February 1896, the *Kauai* had been in the Hawaiian Islands for less than one year, but there had already been two primary captains for the routine trips to Kaua'i. Early in that month, command was transferred again, this time to William C. Bruhn.⁶² With the exception of several brief periods when substitute captains were in charge, Captain

⁶¹ Dorrance and Morgan, *Sugar Islands*, 157.

⁶² *Hawaiian Star* (Honolulu), 5 Feb 1896.

Bruhn commanded the *Kauai* for 11 years, longer than any other captain. Figure 20 below is a photograph of Captain Bruhn and his wife.



Figure 20. Captain and Mrs. Wm. Bruhn. (Courtesy of the Hawai'i State Archives.)

Over the first several months under Captain Bruhn, the *Kauai*'s mission was relatively the same; back-to-back runs to Kaua'i ports, primarily Makaweli and Waimea. In addition to general merchandise and other common items, Kaua'i bound cargoes included 800 bags of fertilizer on one occasion,⁶³ and on another, in late May 1896, plantation equipment for Kōloa.⁶⁴ The Kōloa landing is on the southeast coast of Kaua'i

⁶³ *Pacific Commercial Advertiser* (Honolulu), 1 Apr 1896.

⁶⁴ *Pacific Commercial Advertiser* (Honolulu), 26 May 1896.

and it served Hawai'i's pioneer sugar plantation at Kōloa, which in 1896 was called the Koloa Sugar Company.⁶⁵ The first newsworthy injury associated with the *Kauai* occurred during the landing of the Kōloa equipment:

While the steamer *Kauai* was at Koloa Tuesday a native sailor had his leg broken and was brought down on the James Makee yesterday. The machinery taken up for the plantation was being landed and a scow was being put over when the sailor got caught in one of the lines. He was lifted up in the air and then dropped on the deck with the above result. The man was taken to the hospital.⁶⁶

Besides sugar, other Honolulu-bound cargoes during this period included rice,⁶⁷ hides,⁶⁸ and perhaps the most unusual, a complete circus that had performed on Kaua'i.⁶⁹ It is not known just how large the circus was, but the *Kauai* still carried 7,269 bags of sugar in addition.⁷⁰ Other Kaua'i ports visited during this period included Nāwiliwili, which is south of Līhu'e on the eastern shore, and Kīlauea, Kalihiwai and Hanalei, on Kaua'i's north shore. Sugar producers on Kaua'i's north shore included the Kilauea Sugar Company, the Hanalei Sugar Mill Company, and the Princeville Plantation Company.⁷¹

In early June 1896, the *Kauai* was back on the marine railway for additional repairs:

The steamer *Kauai* will take a three week's vacation here in Honolulu, part of which time will be spent on the marine railway. New boiler tubes are to be put in, and the *Kauai* is to receive a complete overhauling. Captain Bruhn says he does not object in the least.⁷²

⁶⁵ Dorrance and Morgan, *Sugar Islands*, 26.

⁶⁶ *Pacific Commercial Advertiser* (Honolulu), 28 May 1896.

⁶⁷ *Pacific Commercial Advertiser* (Honolulu), 6 Feb 1896.

⁶⁸ *Pacific Commercial Advertiser* (Honolulu), 12 Apr 1896.

⁶⁹ *Pacific Commercial Advertiser* (Honolulu), 11 Feb 1896.

⁷⁰ *Ibid.*

⁷¹ Dorrance and Morgan, *Sugar Islands*, 25.

⁷² *Pacific Commercial Advertiser* (Honolulu), 2 Jun 1896.

In keeping with the three week estimate, the *Kauai* was repaired and on its way to Nāwiliwili and Hanamā‘ulu by June 24th, laden with machinery and general merchandise.⁷³ Another Kaua‘i run was made during the first week of July, this time to the north shore landings of Kīlauea, Kalihiwai, and Hanalei.⁷⁴ This first trip to northern Kaua‘i was significant because the *Kauai* had its largest group of cabin passengers ever recorded. Although typical runs consisted of between two and five cabin passengers, a few trips carried up to eight or ten, on this voyage the steamer carried at least twenty-three.⁷⁵

Maui and Hawai‘i Island Ports Added

On July 7th, 1896, the steamer *Kauai* embarked on its first trip south from Honolulu, to landings at Honu‘apo and Punalu‘u on Hawai‘i Island’s Ka‘ū District, on the southeastern shore. (See map, Figure 21 on page 75, for all the steamer’s recorded visits to Hawaii Island.) The *Kauai* returned to Honolulu four days later with 5,782 bags of sugar, and another “Big Island” commodity, 100 head of cattle.⁷⁶ After another trip to Kaua‘i in mid-July, the steamer made its second trip to Ka‘u, returning on July 27th, once again with both sugar and cattle.⁷⁷ Ka‘ū was not the main sugar producing region of Hawai‘i Island, but the descendent companies went on to produce sugar until the end of the twentieth century.⁷⁸ There were two Ka‘ū companies producing at sugar this

⁷³ *Pacific Commercial Advertiser* (Honolulu), 25 Jun 1896.

⁷⁴ *Pacific Commercial Advertiser* (Honolulu), 2 Jul 1896.

⁷⁵ *Ibid.*

⁷⁶ *Pacific Commercial Advertiser* (Honolulu), 18 Jul 1896.

⁷⁷ *Pacific Commercial Advertiser* (Honolulu), 28 Jul 1896.

⁷⁸ Dorrance and Morgan, *Sugar Islands*, 108.

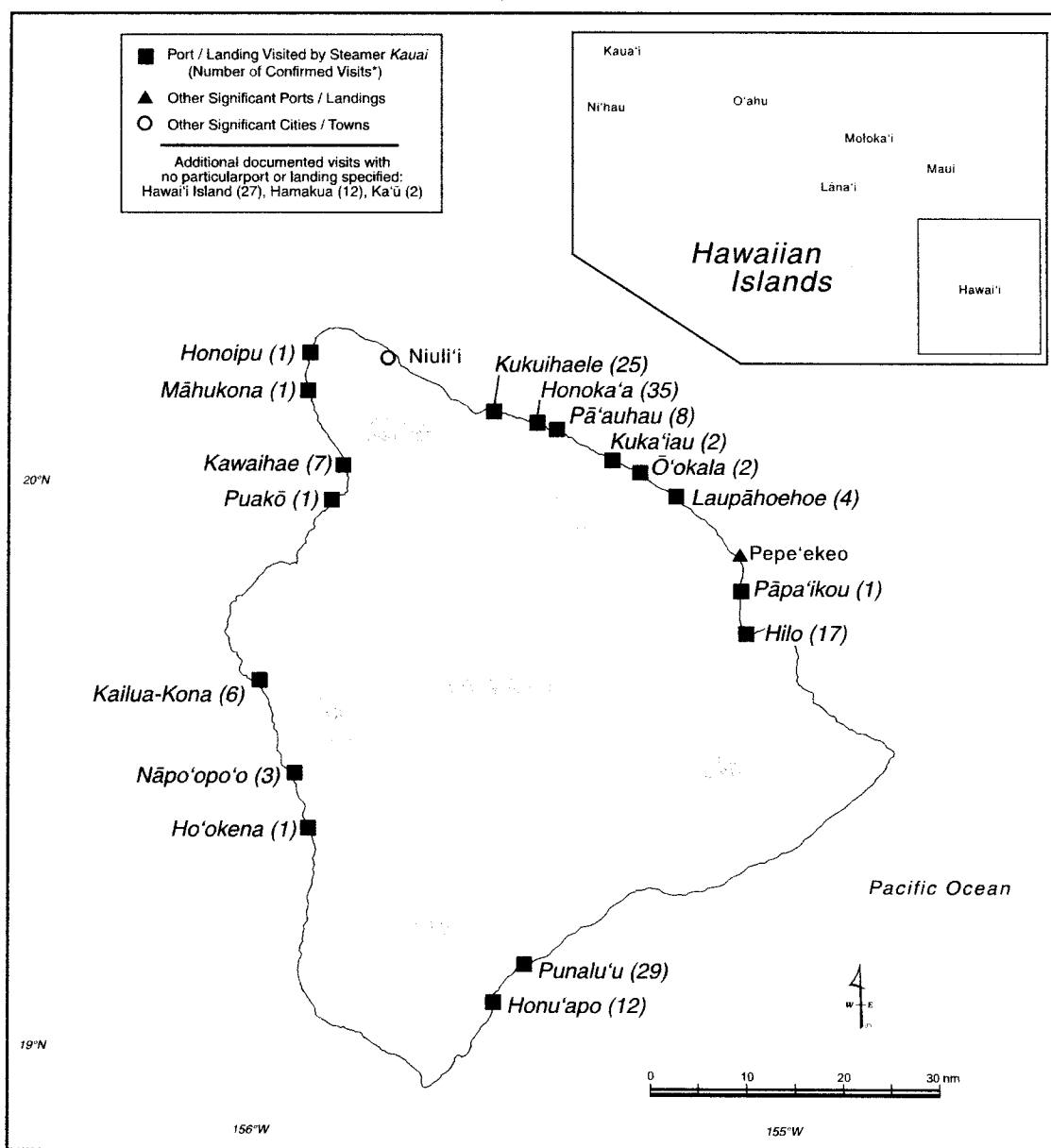


Figure 21. Ports and Landings on Hawai'i Island visited by Steamer *Kauai*. Data derived from the *Pacific Commercial Advertiser*, *Hawaiian Gazette*, *Hawaiian Star*, *Hawaii Herald*, *Hilo Tribune*, and IISN Co. Invoices. Actual number of visits may be higher than what could be verified.

time: Hutchinson Sugar Company and the Hawaiian Agricultural Company, and both shipped sugar on the *Kauai*.⁷⁹

Early in August 1896, again after a trip to Kaua'i, the steamer *Kauai* visited two more new areas. Two trips took the vessel to both Lahaina, on the island of Maui (see map, Figure 22 on page 77, for all recorded visits to Maui, Moloka'i, and Lāna'i), and to landings in the Hāmākua District on Hawai'i Island's northeast coast. Captain Smythe skippered the *Kauai* on both runs, but Captain Bruhn commanded the next trip to Kaua'i.⁸⁰

Lahaina is perhaps best known historically as a major American whaling center. In the mid-1840s, over 200 whalers called at Lahaina each year.⁸¹ With the waning of the whaling industry came the sugar industry, and the Pioneer Mill Company was a strong player from its establishment in 1863 until its 1999 closing.⁸² Maui is still home to the larger of the two remaining sugar producers in Hawai'i, the Hawaiian Commercial & Sugar Company, and the central Maui valley is still richly green with sugarcane.

The Hāmākua Coast of Hawai'i Island, north of Hilo, was one of the most important sugar producing areas from the late nineteenth century through the last decade of the twentieth century. The sugar companies of Hāmākua during that time period were Honokaa Sugar Co., Pacific Sugar Mill, Paauhau Plantation Co., Hamakua Mill Co., Kukaiu Plantation Co., Ookala Plantation, and Laupahoe Sugar Co.⁸³

⁷⁹ IISN Co. Journal, 1896-1897, B. P. Bishop Museum Archives, Honolulu, Dillingham Collection.

⁸⁰ *Pacific Commercial Advertiser* (Honolulu), 19 Aug 1896.

⁸¹ Kuykendall, *The Hawaiian Kingdom, Vol. II*, 307.

⁸² Dorrance and Morgan, *Sugar Islands*, 63-64.

⁸³ *Ibid.*, 82-83.

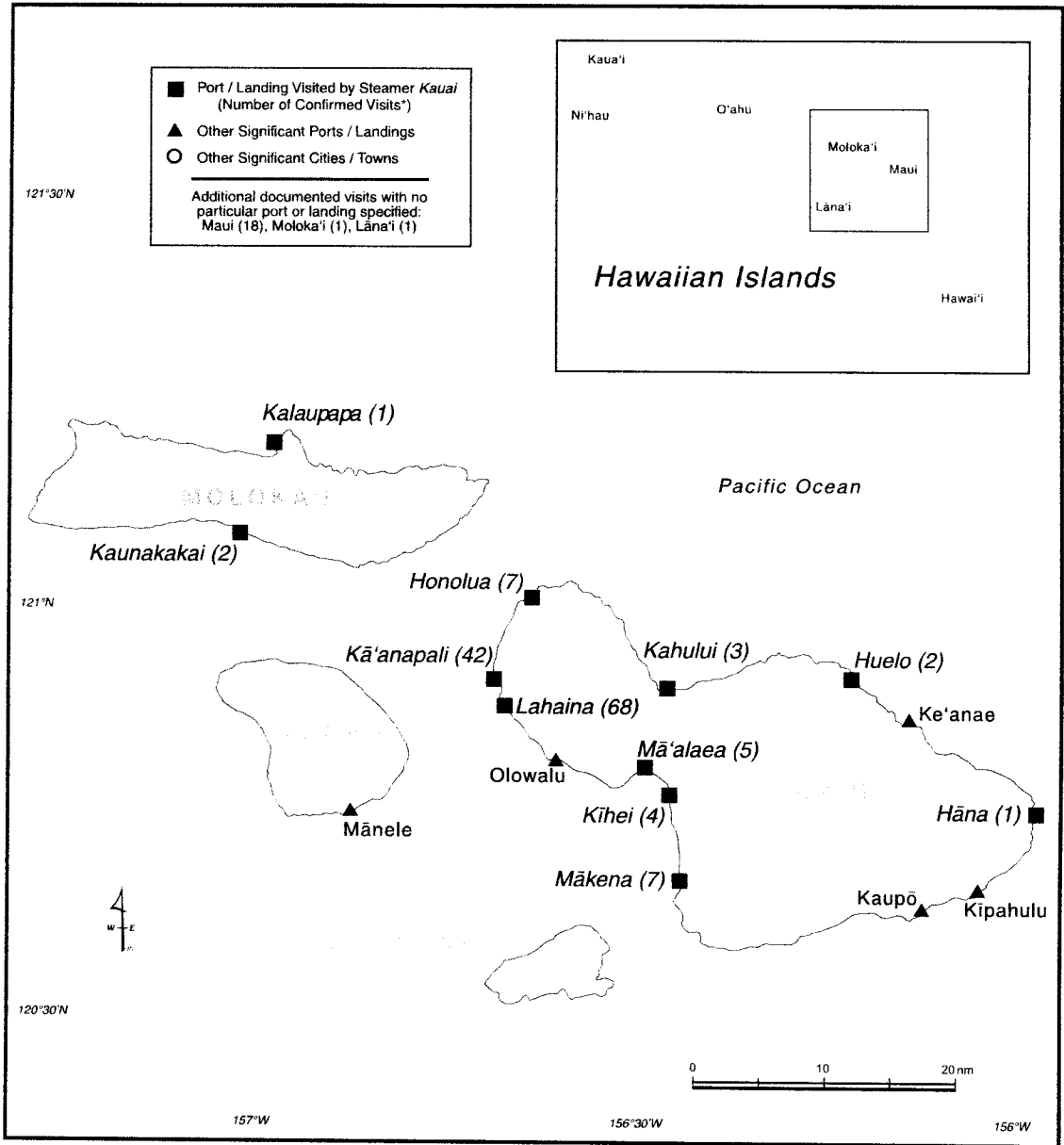


Figure 22. Ports and Landings on Maui, Moloka'i, and Lāna'i visited by Steamer *Kauai*. Data derived from the *Pacific Commercial Advertiser*, *Hawaiian Gazette*, *Hawaiian Star*, and IISN Co. Invoices. Actual number of visits may be higher than what could be verified.

In addition to the small number of cabin passengers typically carried on the *Kauai*, there were usually more deck passengers. Manifests numbering teens and twenties were common, but on the trip back from Kaua'i on August 22nd, 1896, there were 74 deck passengers, the largest number recorded, in addition to 19 cabin passengers, 1,868 bags of sugar, 57 bags of rice, eight packages of hides, and 150 head of cattle.⁸⁴ Over the next few months, two more trips to Ka'u and one more trip to Lahaina were made in-and-amongst the many trips to Kaua'i, but it would be almost two years before these areas were again called upon by the *Kauai*.

Steady on the Kauai Route

The period from late October 1896 to early June 1898 was the most consistent period for the *Kauai*. There were no runs to Maui or Hawai'i Island; the Kauai Route was the only route. Captain Bruhn was in command on every run. Loads of coal, often over 200 tons, were common outbound cargoes, as were occasional loads of fertilizer, lumber, and steam machinery for the Kaua'i plantations. Return trips, as usual, centered around large quantities of sugar; the largest of this period was the largest ever recorded for the *Kauai*: 8,120 bags on February 11th, 1898.⁸⁵ Bags of taro (a Hawaiian staple food) and rice were also carried on occasion. Passengers were common, but more common for inbound runs to Honolulu.

The *Kauai* went to southwestern Kaua'i landings on most runs, either Makaweli,

⁸⁴ *Pacific Commercial Advertiser* (Honolulu), 23 Aug 1896.

⁸⁵ *Pacific Commercial Advertiser* (Honolulu), 12 Feb 1898.

Waimea, or both. An interesting extra stop was made on the run that departed Honolulu on October 26th, 1896; the steamer traveled west from Kaua'i for approximately twenty miles to the small island of Ni'ihau.⁸⁶ There, the steamer loaded 150 sheep and 40 head of cattle for Honolulu.⁸⁷ Other noteworthy four-legged cargoes from Kaua'i during this period came in the form of horses on two occasions, and on one trip, a mule.⁸⁸

Significant repairs were made to the *Kauai* during this period. In late February 1897, the steamer was up on the marine railway in Honolulu for a few days receiving a bottom cleaning.⁸⁹ The next month, the vessel was outfitted with electric lights, as most of the inter-island steamers had been by that time.⁹⁰ In mid-July 1897, the steamer was laid up for repairs for about a month. During that time, Captain Bruhn went to 'Ele'ele, Kaua'i, on the *Mikahala* along with a group of Hawaiian workers to recover two sugar mill rollers that were dropped in the water while unloading.⁹¹ By mid-August, the repairs were complete, but it was determined that *Kauai* would not go out again; this was a slow period, due to the end of the sugar season.⁹² On December 9th, 1897, the steamer was back on the Kauai Route again.

Despite the seemingly routine interisland steaming operations of the steamer *Kauai* since its arrival in the Hawaiian Islands in 1895, these were turbulent political times. The *Kauai* was witness neither to the overthrow of the Hawaiian monarchy in 1893, nor

⁸⁶ *Pacific Commercial Advertiser* (Honolulu), 27 Oct 1896.

⁸⁷ *Pacific Commercial Advertiser* (Honolulu), 30 Oct 1896.

⁸⁸ *Pacific Commercial Advertiser* (Honolulu), 16 Jan 1897.

⁸⁹ *Pacific Commercial Advertiser* (Honolulu), 25 Feb 1897.

⁹⁰ *Pacific Commercial Advertiser* (Honolulu), 23 Mar 1897.

⁹¹ *Pacific Commercial Advertiser* (Honolulu), 17 Jul 1897.

⁹² *Pacific Commercial Advertiser* (Honolulu), 16 Aug 1897.

to the establishment of the Republic of Hawaii in 1894. The steamer was witness, however, to the next major political transition: annexation of the Hawaiian Islands by the United States. Perhaps more relevant to the *Kauai*, the steamer was witness to the implications of annexation in terms of the establishment and enforcement of U. S. maritime regulations in Hawai'i. These events would unfold over the next few years.

CHAPTER 4
THE STEAMER *KAUAI*; THE HONOLULU YEARS
UNDER THE AMERICAN FLAG

In 1898, with the more receptive William McKinley administration of in place, the Hawaiian Islands were annexed by a joint resolution in the U. S. Congress.¹ With a war between the U. S. and Spain that included operations in the Philippines, it was argued that annexation was necessary from a military standpoint; others claim that the overall political and economic situation in the Pacific was the true reason.² Annexation was supported by many Westerners in the islands, but it was protested by well over twenty thousand Native Hawaiians,³ representing at least half of the Native Hawaiian population.

Annexation clearly had effects on the sugar industry. Annexation made the issue of future renewal of reciprocity treaties moot. Annexation also had an effect on the interisland shipping industry, in the form of compliance with U. S. shipping and labor regulations, but it would be a few years before these regulations would take practical effect.

¹ Kuykendall, *A History of Hawaii*, 287.

² Thomas J. Osborne, "Empire Can Wait:" *American Opposition to Hawaiian Annexation, 1893-1898* (Kent, OH: Kent State University Press, 1981), 125-127.

³ Tom Coffman, *Nation Within: The Story of America's Annexation of the Nation of Hawaii* (Kāne'ohe, HI: EPICenter, 1998), 281.

Maui Trips Move to the Forefront

From the beginning of June 1898 through the end of the 1899 sugar season, there was a shift in the *Kauai*'s primary trade route, as runs to Maui became the primary routes. There were still several trips to Kaua'i, and a few to Hawai'i Island, but most runs were to Lahaina and Kā'anapali, both of which served the Pioneer Mill Company. (Figure 23 below is a photograph of the steamer *Kauai* loading at Kā'anapali.)

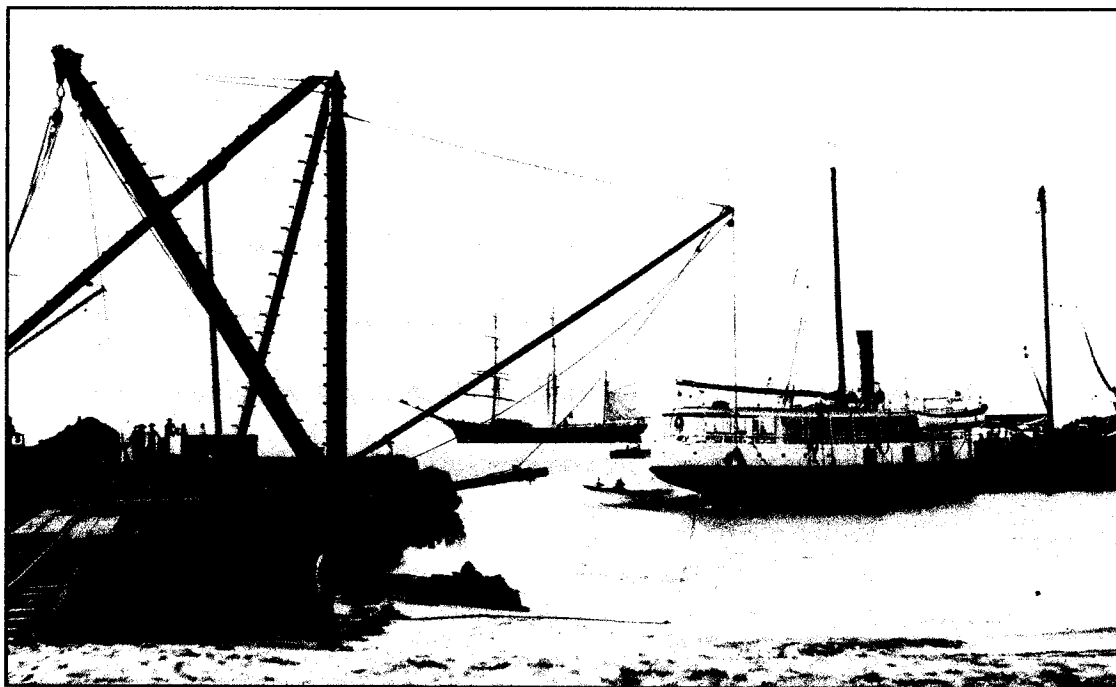


Figure 23. Steamer *Kauai* loading at Kā'anapali, Maui. (Courtesy of the B. P. Bishop Museum Archives.)

During this period, there were over 35 trips to Lahaina, and 17 of these also included stops at Kā'anapali. By way of comparison, there were only about 16 trips to Kaua'i, mostly to Makaweli, Waimea, and Hanamā'ulu. There were seven trips that called at

Hawai'i Island ports; four to the west coast Kona District landings of Kailua and Nāpo'opo'o, two to the Ka'u District landing of Honu'apo, and one to Honoka'a and Kukuihaele on the Hāmākua coast.⁴

Passenger manifests and cargo lists were fairly consistent during this period; there were few, if any, passengers on most trips, and loads of over 7,000 sugar bags were common. The runs from the Kona District of Hawai'i Island provided the only noteworthy atypical cargoes for this period; on two trips the *Kauai* returned to Honolulu with 75 head of cattle and several hundred bags of coffee.⁵

A brief period of inactivity and repairs at the end of the sugar season was becoming standard; *Kauai* was in Honolulu from Nov 3rd to December 14th, 1898, and from October 14th to December 8th, 1899. The steamer was put up on the marine railway both years.⁶ In 1899, the boiler was removed and repaired prior to going on the railway.⁷ That fall, Captain Bruhn skippered the steamer *Kilohana* on Maui runs a few times while his ship was under repair.⁸ He captained the *Kauai* for every run of the June 1898 to October 1899 period.

At the IISN Co. Board of Directors meeting on November 7th, 1899, Captain William B. Godfrey resigned the presidency due to ill health.⁹ The news hit the papers the next day. The *Hawaiian Gazette* reported "Captain Wm. B. Godfrey, who has become a

⁴ *Pacific Commercial Advertiser* (Honolulu), 7 Jun 1898.

⁵ *Pacific Commercial Advertiser* (Honolulu), 11 Feb 1899.

⁶ *Pacific Commercial Advertiser* (Honolulu), 10 Dec 1898, and *Hawaiian Gazette* (Honolulu), 27 Oct 1899.

⁷ *Hawaiian Gazette* (Honolulu), 27 Oct 1899.

⁸ *Ibid.*

⁹ IISN Co. Board of Directors (BOD) Meeting Minutes, 7 Nov 1899, B. P. Bishop Museum Archives, Honolulu, Dillingham Collection, IISN Co. BOD Meeting Minutes No. 1, 19 February 1883-21 Apr 1903.

wealthy man, has been at the head of the Inter-Island company for many years, and his administration of affairs has been marked by evidences of corporate growth and success....Captain Godfrey is a mariner of the first rank and a businessman of fine abilities. Personally he is well liked by the public at large and held in the highest esteem by employees."¹⁰ He was replaced by the company's vice president, John Ena.¹¹ Mr. Ena was of Hawaiian-Chinese ancestry and one of the few non-westerners to achieve such a position in a western-based Hawai'i business during that era.¹²

A Kaua'i Season and a Mixed Season

The *Kauai* was back on duty in early December 1899, and worked continuously through mid-December 1900. A few runs to Maui were made in January and February of 1900, but for the most part this was once again a Kaua'i season. There were 27 runs to Kaua'i; many to the Makaweli, Waimea, and Hanamā'ulu landings that typically dominated the *Kauai*'s schedules. At this time, however, many trips called at other Kaua'i ports and landings such as 'Ele'ele, and Hanapēpē on the south-central shore of the island. Three Kaua'i runs also included calls at the island of Ni'ihau; 250 head of sheep were delivered to Honolulu on one of these.¹³

The steamer *Kauai* made a trip to the landing at Punalu'u, in the Ka'u District of Hawai'i Island, on July 30th, 1900.¹⁴ In mid-December 1900, on the final run of the

¹⁰ *Hawaiian Gazette* (Honolulu), 7 Nov 1899.

¹¹ *Ibid.*

¹² Thomas, *Schooner from Windward*, 96.

¹³ *Hawaiian Gazette* (Honolulu), 30 Oct 1900.

¹⁴ *Hawaiian Gazette* (Honolulu), 31 Jul 1900.

season, *Kauai* went to Lahaina and the Hāmākua landings at Honoka‘a and Kukuihaele.¹⁵ The *Kauai*’s next season began in the middle of January 1901. There were several consecutive runs to Kaua‘i at the beginning of the season, but the rest of the season was as varied as any period to this point, with Kaua‘i runs intermixed with trips to Maui, Ka‘u, and more often than before, Hāmākua landings.

The reduction in the number of trips on the Kauai Route in 1901 was possibly due to an increase in “direct shipments” to California from Kaua‘i Island ports. John Ena, in the company’s Annual Report for 1901, said this with regard to direct shipments:

During the past year the McBryde Sugar Company have commenced to ship a portion of their sugar direct from the port of Eleele, Island of Kauai, and the Hawaiian Sugar Company and Makee Sugar Company are also attempting the direct shipment of portions of their sugars from Makaweli and Anahola. It has been reported that this is being done on account of advanced freight rates, and while it means that our Company will probably lose the carrying of sugar and a portion of the general merchandise freight for the plantations mentioned above, the Company, by laying up some of its steamers and running a less number of boats to do the work, can probably do as well without this work.¹⁶

Captain Gregory of the *Iwalani* commanded the *Kauai* back from Kaua‘i once in January 1900.¹⁷ Captain Pederson of the *Mikahala* skippered her once in March 1901.¹⁸ Captain Thompson of the *W. G. Hall* was in charge on one run the next month.¹⁹ Apart from these exceptions, Captain Bruhn skippered the *Kauai* on all trips for both seasons.

¹⁵ *Hawaiian Star* (Honolulu), 18 Dec 1900.

¹⁶ *Annual Report of the Inter-Island Steam Navigation Co., Ltd., for the Year Ending December 31, 1901* (Honolulu: Grieve Pub. Co., Ltd., 1902), 3-4.

¹⁷ *Hawaiian Gazette* (Honolulu), 30 Jan 1900.

¹⁸ *Hawaiian Gazette* (Honolulu), 5 Mar 1901.

¹⁹ *Hawaiian Gazette* (Honolulu), 12 Apr 1901.

New Rules Arrive from the United States

Although the United States annexed the Hawaiian Islands in 1898, Hawai'i did not become a territory until 1900, and it was not until 1901 that the inspection of Hawaiian vessels came under the jurisdiction of the United States Inspectors of Hulls and Boilers.²⁰ Almost every vessel in the IISN Co. line (and the Wilder's Steamship Co. line as well) required a few thousand dollars worth of repairs in 1901 to bring them to U. S. Steamboat Inspection standards. These upgrades included the installation of three water-tight cross bulkheads on each vessel, the installation of an auxiliary "donkey" boiler, and the outfitting of each steamer with additional safety equipment such as life rafts, life preservers, life buoys, buckets, axes, fog horns, danger lanterns, and extra side lights.²¹ The repairs for the *Kauai* cost \$2,561.44; this was about average for the entire line.²² Interestingly, the Certificate of Inspection for the *Cosmopolis* from February 1895 stated that she was already equipped with three watertight bulkheads and an auxiliary boiler, as well as many of the other required items.²³ It is possible that some items required repair or replacement, thus accounting for the repair expenses.

Major Repairs, and the Big Trip that Was Not

The 1901 season ended for the steamer *Kauai* in late August.²⁴ This was an early end

²⁰ Allen W.T. Bottomley, C.A. and John Ena, *Report of Expert Accountant In Re Affairs Of Inter-Island Steam Navigation Co. Ltd., and the President's Statement In Explanation Thereof* (Honolulu: Hawaiian Star Print, 1902), 1.

²¹ *Ibid.*

²² *Ibid.*, 7.

²³ Certificate of Inspection, Steamer *Cosmopolis*, February 7, 1895, Bishop Museum Archives, *Kauai* Folder.

²⁴ *Hawaiian Gazette* (Honolulu), 23 Aug 1901.

to the season; the steamer was due not only for the required U. S. upgrades, but also for some major repairs. At a special IISN Co. Board of Directors meeting on Oct 21st, held specifically to discuss the required repairs for the *Kauai*, President John Ena stated that it would be a good time to conduct extensive repairs, as the Makaweli Plantation on Kaua'i could get by without the services of the *Kauai*.²⁵ He estimated that these repairs would cost between \$7,000.00 and \$10,000.00, based upon the steamer's condition.²⁶ Repairs began on November 9th, 1901, and went through mid-February 1902. The extent of the repairs is evident in a letter from James L. McLean, IISN Co. vice president, to E. R. Stackable, Honolulu's collector of customs, dated February 18th, 1902. Mr. McLean stated that the following repairs were made to the steamer *Kauai*:

Old stem removed and replaced with new one.
 New apron and new breast-hooks put in.
 45 new timbers put in on port side.
 37 new stanchions put in on port side.
 52 new timbers put in on starboard side.
 41 new stanchions put in on starboard side.
 14 new planks put in on starboard side.
 Vessels hull throughout fastened with Locust Treenails and Galvanized Iron Bolts. Put in three water-tight bulkheads and four new water closets, also one 3/4" limber chain in forward compartment sounding tube in forward hold, and one 4" x 9" fire-pump on forward deck. Strengthened and refastened deck houses, and overhauled and repaired everything defective.²⁷

Mr. McLean further stated that these repairs "practically rebuilt the steamer 'Kauai'"

²⁵ IISN Co. Board of Directors (BOD) Meeting Minutes, 21 Oct 1901, B. P. Bishop Museum Archives, Honolulu, Dillingham Collection, IISN Co. BOD Meeting Minutes No. 1, 19 February 1883-21 Apr 1903.

²⁶ *Ibid.*

²⁷ James L. McLean letter to E.R. Stackable, 18 Feb 1902, National Archives Federal Records Center, Pacific Region, San Bruno, CA, Record Group 36, Comp. 1262, Shelf B, Copies of Certificates of Enrollment 1900-1906, Honolulu, Box 2.

and requested that this be noted on the steamer's certificate of enrollment.²⁸

Also in early 1902, the IISN Co. hired Bishop & Co. to have an "expert accountant" conduct an assessment of the business. This assessment was conducted by Allen W. T. Bottomley and thus is historically called the "Bottomley Report". There were many specific recommendations for improvement, and one noteworthy cited the expensive repairs on the steamer *Kauai*. IISN Co. steamers required standard repairs in addition to the upgrades required by the U. S. laws, the latter of which Mr. Bottomley considered as separate from the standard annual repairs. Several IISN Co. vessels required less than \$1,000.00 in standard repairs in the previous year, but the *Kauai*'s extensive repairs totaled \$9,932.00! The next most costly repairs were for the steamer *W. G. Hall*, which required a total of \$5,510.00 in repairs.²⁹ Mr. Bottomley stated: "As seen from the above \$9,932 was spent in refitting the "Kauai" and providing more passenger accommodation on that steamer, and it is open to question whether, when there was a steamer like the "Hanalei" laid up for several months for want of work, it was worth while fitting out another steamer not one of the regular liners."³⁰ John Ena, IISN Co. president, was compelled to write a statement, essentially a defense, with regard to Bottomley's overall report, and he had specific comments on the repairs to the *Kauai*:

It was necessary for the Company to put all its steamers in good condition, for if the direct shipment proved a failure, the Company would then be in a position to do the work. As it turned out, direct shipment is proving successful and in consequence the Company may have one of its steamers laid up all the year round, and, I may remark, if we do have to lay up one steamer, it is the first time in the history of the Company since its incorporation that it ever had a spare steamer to fall back upon in case of

²⁸ *Ibid.*

²⁹ Bottomley and Ena, *Report of Expert Accountant*, 7.

³⁰ *Ibid.*, 7-8.

accident. In the past if any accident happened, the other steamers were taxed to their utmost capacity, and as a result a good deal of unnecessary wear and tear was caused to the boats.³¹

Despite the critique, this extensive overhaul of the *Kauai* could not have come at a better time, as an opportunity for some relatively long trips was about to be presented to the IISN Co. The Pacific Construction Company, from San Francisco, was looking for a steamship to make three or four trips hauling cargo to Fanning Island in the July-September 1902 time period.³²

Fanning Island is located approximately 1200 miles south of Honolulu and was to be a waypoint of the Pacific British telegraph cable, planned to span the entire Pacific Ocean. Fanning was to be the eastern end of the "leg" that ended in the west at Suva, Fiji.³³ The leg from Victoria, British Columbia, to Fanning Island, was already complete, and this final Fanning-Fiji leg was scheduled to be complete in the fall of 1902.³⁴ The Pacific British telegraph cable would be advantageous not only to the British territories, but to Hawaii as well: "As the Oceanic steamers are to stop at Fanning Island on the way up to Honolulu from Australia, Honolulu will occasionally get news only four days old."³⁵ The British government contracted the Pacific Construction Company of San Francisco to erect a cable landing station on Fanning Island.³⁶ About

³¹ *Ibid.*, 23.

³² Pacific Construction Co. Letter to W. G. Irwin & Co., 29 May 1902, B. P. Bishop Museum Archives, Honolulu, Dillingham Collection, IISN Co., Ship Files, Box 30, *Kauai* Folder.

³³ *Hawaiian Gazette* (Honolulu), 14 Oct 1902.

³⁴ *Ibid.*

³⁵ *Ibid.*

³⁶ Pacific Construction Co. Assets and Liabilities Statement, 7 Jun 1902, B. P. Bishop Museum Archives, Honolulu, Dillingham Collection, IISN Co., Ship Files, Box 30, *Kauai* Folder.

30 personnel from Pacific Construction, as well as most equipment, were to go to Fanning via sailing vessel, but the company determined that additional cargo would also be sent. They decided to ship it to Honolulu, then bring it to Fanning by steamer. This would allow a more accurate arrival date prediction, and potential supplemental shipments could get to Fanning faster.³⁷ The company estimated that the cargo for the first shipment was between 200 and 300 tons.³⁸ The IISN Co. accepted the proposal to send a steamer and determined that the *Kauai* would be most suitable for the job; she could carry about 250 tons of cargo and would be available in August at a rate of \$200.00 per day.³⁹

Soon thereafter, however, Pacific Construction decided that they no longer needed a steamer for runs to Fanning in the late summer and fall of 1902, but instead would need a steamer to retrieve their 30-man crew and 50 tons of tools around January 1903, upon completion of the construction project.⁴⁰ The IISN Co. determined that a steamer large as the *Kauai* would not be required, and decided to send a smaller steamer like the *Noeau* or *Niihau*.⁴¹ The Pacific Construction Co. must have changed their plan yet again, as both the *Noeau* and the *Niihau* were working their standard inter-island routes from late 1902 through the first half of 1903. For the residents of Hawai'i, the incidental benefit of receiving British news via steamship from Fanning Island was eclipsed only a

³⁷ Pacific Construction Co. Letter to N. E. Gedge, 27 Mar 1902, B. P. Bishop Museum Archives, Honolulu, Dillingham Collection, IISN Co., Ship Files, Box 30, *Kauai* Folder.

³⁸ *Ibid.*

³⁹ IISN Letter to Pacific Construction Co., 8 Apr 1902, B. P. Bishop Museum Archives, Honolulu, Dillingham Collection, IISN Co., Ship Files, Box 30, *Kauai* Folder.

⁴⁰ Pacific Construction Co. Letter to IISN, 29 May 1902, B. P. Bishop Museum Archives, Honolulu, Dillingham Collection, IISN Co., Ship Files, Box 30, *Kauai* Folder.

⁴¹ Extracts from Letters of Gutte & Frank, Under date of 2 Jul 1902, B. P. Bishop Museum Archives, Honolulu, Dillingham Collection, IISN Co., Ship Files, Box 30, *Kauai* Folder.

few months later. In early January 1903, the installation of a telegraph cable between San Francisco and Honolulu was complete, and the event was marked with much celebration.⁴²

Prince Kūhiō's Trip to Kalaupapa

While senior officials at IISN Co. were contemplating the potential Fanning Island mission for the *Kauai*, Captain Bruhn was busy working the newly repaired steamer on the familiar routes to Kaua'i, Maui, and Hawai'i Island. The 1902 season was dominated by Kaua'i runs, with a few additional legs to Ni'ihau. There were also trips to Kā'anapali and Lahaina on Maui, and Punalu'u on Hawai'i Island. A few runs included cattle from Kaua'i; although this industry was centered around Hawai'i Island, there were ranches on Kaua'i and Ni'ihau as well. The extensive repairs made on the *Kauai* must have been satisfactory; there was very little down-time at the end of the 1902 season. Captain Thompson substituted for Captain Bruhn on two trips in the spring of 1902.⁴³

Perhaps the most interesting and unique trip of the 1902 season was to the remote Kalaupapa Peninsula on the north shore of Moloka'i, the site of the "Leper Settlement". Most Hansen's Disease (leprosy) patients living in the islands in the mid-nineteenth through mid-twentieth centuries were sent there to live in isolation. On November 2nd, 1902, Prince Jonah Kūhiō Kalaniana'ole visited the settlement for

⁴² *Hawaiian Gazette* (Honolulu), 2 Jan 1903.

⁴³ *Hawaiian Gazette* (Honolulu), 4 Apr 1902, and 13 May 1902.

several hours as part of his campaign for U.S. Senate.⁴⁴ He made a few other stops on Moloka'i on this trip and it seems that Prince Kūhiō essentially chartered *Kauai* for a short election campaign trip. The election was only a few days after this trip, and he won his senate seat by a wide margin.⁴⁵

The Search for the French Bark *Connetable de Richemont* at French Frigate Shoals

1903 was very much like the previous season; Kaua'i was the predominant route, but there were also several runs to Maui and to Hawai'i Island. Like the previous year, most Hawai'i Island runs went to Punalu'u in Ka'u, but there was a trip to Nāpo'opo'o and Kailua on the Kona side,⁴⁶ and two to landings on the Hāmākua coast.⁴⁷

This season also featured one very unique trip. In October 1903, after a run to Kaua'i, the steamer continued on a northwest track for another 500 miles to French Frigate Shoals, an atoll in the Northwestern Hawaiian Island chain, in hopes of salvaging a lost vessel.⁴⁸

The French bark *Connetable de Richemont*, low on provisions and seeking assistance, approached what the crew thought to be another vessel. They soon realized that it was actually a rock, but it was too late; they ran aground at French Frigate Shoals.⁴⁹ The crew made it off the wreck and into three lifeboats. Each lifeboat took a different course

⁴⁴ *Hawaiian Gazette* (Honolulu), 4 Nov 1902.

⁴⁵ *Hawaiian Gazette* (Honolulu), 7 Nov 1902.

⁴⁶ *Hawaiian Gazette* (Honolulu), 27 Feb 1903.

⁴⁷ *Hawaiian Gazette* (Honolulu), 6 Mar 1903, 10 Mar 1903.

⁴⁸ *Hawaiian Star* (Honolulu), 23 Oct 1903.

⁴⁹ *Hawaiian Star* (Honolulu), 21 Oct 1903.

and luckily, over the course of the next two weeks, all three were recovered safely.⁵⁰

The last boat was recovered by the IISN Co. steamer *Mikahala* under the charge of Captain Gregory.⁵¹ The steamer *Kauai* was sent to attempt salvage of the *Connetable de Richemont*. The *Hawaiian Star* of October 23rd, 1903 reported:

The Inter-Island Steam Navigation Company stole quite a clever march on The Wilder S. S. Company and the tug Fearless last night. One of the vessels Of the Inter-Island was secretly dispatched in quest of the abandoned French bark Connetable de Richemont at French Frigate Shoals. The vessel has such a start over possible competitors that no effort will probably be made by any other interests to try and compete for the French Bark.

The Steamer Kauai was the vessel dispatched. She was sent out very quietly. The vessel was scheduled to depart for Anahola at 5 p.m. yesterday. In reality she was equipped to proceed to French Frigate Shoals and try to save the French bark. Captain Haglund, the port captain of the Inter-Island Company, went in charge of the expedition.⁵²

One week later, Captain Haglund returned to Kaua'i after spending only 30 minutes at the wreck site with the unfortunate news that the French bark could not be salvaged. The vessel was almost completely submerged; she was "stern down and resting with her port bow on the edge of the reef."⁵³ The *Kauai* returned to Honolulu on October 31st with "...a little model of the wrecked boat, the lightening rod of the mainmast and several other articles of minor value. The rod is on exhibition at the Inter-Island Company's office on Queen street near Fort."⁵⁴

After arriving in Honolulu from Ahukini Landing, Kaua'i, on Christmas Day 1903,

⁵⁰ *Hawaiian Star* (Honolulu), 24 and 26 Oct 1903.

⁵¹ *Hawaiian Star* (Honolulu), 26 Oct 1903.

⁵² *Hawaiian Star* (Honolulu), 23 Oct 1903.

⁵³ *Hawaiian Star* (Honolulu), 30 Oct 1903.

⁵⁴ *Hawaiian Star* (Honolulu), 31 Oct 1903.

the *Kauai* had a three-week break.⁵⁵ For 1903, with the exception of the *Connetable de Richemont* incident, there was only one other instance when Captain Bruhn was not in command of the steamer *Kauai*; Captain Joyce took charge for one run from the Hāmākua Coast landing of Kukuihaele in March 1903.⁵⁶

Maui Route Expanded, and Hāmākua

Landings Frequented

In 1904, the *Kauai* continued working Kaua‘i, Maui, and Hawai‘i Island, but there was an increase in the proportion of runs to the Maui and Hawai‘i Island ports. In addition to the main two Maui stops at Lahaina and Kā‘anapali, the *Kauai* also often stopped at Honolua Landing on the northeast tip, as well as Kihei, Mā‘alea and Makena in south central Maui. There were many trips to Hawai‘i Island, but unlike in previous years when the majority of runs went to Ka‘u and Kona ports, almost all 1904 trips went to Hāmākua landings, such as Honoka‘a and Kukuihaele.

There was no true “end” to the 1904 season for the *Kauai*; the steamer was only idle for about a week before Christmas. Captain Pedersen, of the *Noeau* at that time, took Captain Bruhn’s place for every run from early-December 1904 through mid-January 1905. This was the longest reprieve of Captain Bruhn’s duties in the history of his tenure as captain of the steamer *Kauai*.

In 1905, Kaua‘i runs dominated the *Kauai*’s schedule in January and February, April

⁵⁵ *Hawaiian Gazette* (Honolulu), 29 Dec 1903.

⁵⁶ *Hawaiian Gazette* (Honolulu), 10 Mar 1903.

through June, and in September. The other months included a mixture of Kaua'i, Maui, and Hawai'i Island ports, in similar fashion to the previous years. Captain Pedersen substituted for Captain Bruhn on two occasions,⁵⁷ as did Captain Piltz on one combined Kaua'i and Hāmākua run in November.⁵⁸ Cargoes were fairly standard, consisting of sugar and cattle. On one occasion in August 1905, the *Kauai* returned from Kaua'i and Hawai'i Island with 781 bags of coffee, 917 bags of sugar, 7 passengers, and 77 head of cattle, the biggest cattle shipment reported in the vessel's history.⁵⁹ An interesting trend occurred in September 1905; on three separate runs to Kaua'i, at least one of which also included a stop at Ni'ihau,⁶⁰ the *Kauai* returned to Honolulu with 250 sheep, and between 87 and 113 passengers.

Consolidation of Wilder's Steamship Company and the Inter-Island Steam Navigation Company

The two major Hawai'i steamship companies operated successfully for many years and had co-existed in relative harmony. On July 1st, 1905, the two organizations merged, but kept the IISN Co. name. The idea of a merger had existed for a few years; in the 1901 IISN Co. Annual Report, John Ena reported: "At a meeting of the Board of Directors held on August 20th, 1901, a Committee was appointed to confer with a Committee of the Wilder's Steamship Company, to consider the proposed consolidation of the two Companies. The Committees went into the matter very thoroughly, but no

⁵⁷ *Hawaiian Gazette* (Honolulu), 8 and 22 Sep 1905.

⁵⁸ *Hawaiian Gazette* (Honolulu), 1 Dec 1905.

⁵⁹ *Hawaiian Gazette* (Honolulu), 22 Aug 1905.

⁶⁰ *Hawaiian Gazette* (Honolulu), 8 Sep 1905.

agreement could be reached as a basis for consolidation, and the matter was dropped.”⁶¹

It is not known what exactly made the difference four years later; possibilities include a lack of interest on the part of Wilder family members to continue the business, increased encroachment by IISN Co. on what was considered to be Wilder’s “territory” under the new, more aggressive IISN Co. President James A. Kennedy, and the possibility of U. S. mainland shipping companies attempting to establish themselves in Hawai‘i.⁶²

Despite significance of the merger, it received little press attention. The “Marine” column on page 10 of the July 1st, 1895 *Pacific Commercial Advertiser* included only two pragmatic, relatively emotionless paragraphs on the event, that began: “With the dawn of today the old familiar Wilder Steamship Company’s flag will be struck from the masts of its vessels and that of the Inter-Island Steam Navigation Co. will be raised instead. The Wilder funnels will also be repainted to conform with the I.-I. style.”⁶³ The *Hawaiian Star* of the same day had even less to say. In its “News in a Nutshell” column on page 8, a collection of one-line facts and hidden advertisements, nestled between “Cool and refreshing is Pacheco’s Dandruff Killer” and “The band will play as usual this afternoon at the baseball game” is the simple proclamation that “There is no longer a Wilder’s Steamship Company fleet.”⁶⁴ Table 4 on page 97 is the roster of IISN Co. steamers after the 1905 merger.

⁶¹ *Annual Report of the Inter-Island Steam Navigation Co., Ltd., for the Year Ending December 31, 1901* (Honolulu: Grieve Pub. Co., Ltd., 1902), 4.

⁶² Thomas, *Schooner from Windward*, 104-107.

⁶³ *Pacific Commercial Advertiser* (Honolulu), 1 Jul 1895.

⁶⁴ *Hawaiian Star* (Honolulu), 1 Jul 1905.

TABLE 4

STEAMSHIP ROSTER, INTER-ISLAND STEAM NAVIGATION COMPANY, 1905

STEAMER	YEAR BUILT	BUILDER	LENGTH	TONS (GT/NT)	ENGINE BUILDER	CYLINDERS (LP/HP)
JAMES MAKEE	1879	HALL BROS. PORT BLAKELY, WA	110'	301 / 133	FULTON IRON WORKS SAN FRANCISCO, CA	20" / 11"
IWALANI	1881	DICKIE BROS. SF, CA	146'	588 / 240	RISDON IRON WORKS SF, CA	34" / 18"
W. G. HALL	1884	HALL BROS.	158'	505 / 380	FULTON IRON WORKS	40" / 20"
WAIALEALE	1886	HALL BROS.	129'	255 / 175	FULTON IRON WORKS	22" / 12"
MIKAHALA	1886	HALL BROS.	151'	444 / 354	W. DEACON SF, CA	38" / 19"
KE AU HOU	1894	HALL BROS.	130'	211 / 193	FULTON IRON WORKS	24" / 12"
KAUAI	1887 (1895)	BOOLE & BEATON SF, CA	154'	340 / 268	FULTON IRON WORKS	30" / 16"
MAUNA LOA	1896	HALL BROS.	176'	851 / 536	FULTON IRON WORKS	43" / 26" / 15" (TRIPLE EXPANSION)
NO E AU	1896 (1897)	HALL BROS.	120'	294 / 221	FULTON IRON WORKS	24" / 12"
NIIHAU	1897	HANS BENDIXON FAIRHAVEN, CA	148'	342 / 201	FULTON IRON WORKS	24" / 12"
HANAIEI	1901	HAY & WRIGHT ALAMEDA, CA	174'	660 / 502	FULTON IRON WORKS	34" / 15"
KINAU*	1883	W. CRAMP & SONS PHIL, PA	195'	975 / 669	W. CRAMP & SONS	44" / 24"
CLAUDINE*	1890	NAPIER, SHANKS & BELL GLASGOW, SCOTLAND	178' (STEEL)	846 / 615	DUNSMUIR & JACKSON GOVAN, SCOTLAND	48" / 29" / 18" (TRIPLE EXPANSION)
HELENE*	1897	UNION IRON WORKS SF, CA	170' (STEEL)	619 / 393	UNION IRON WORKS	32" / 19" / 12" (TRIPLE EXPANSION)
MAUI*	1898	UNION IRON WORKS SF, CA	171' (STEEL)	620 / 393	UNION IRON WORKS	32" / 19" / 12" (TRIPLE EXPANSION)
KAIULANI*	1899	HAY & WRIGHT ALAMEDA, CA	140'	384 / 243	UNION IRON WORKS	28" / 13"
LIKELIKE* (2nd)	1904	UNION IRON WORKS SF, CA	136'	347 / 214	UNION IRON WORKS	28" / 13"

Source: Mifflin Thomas, *Hawaiian Interisland Vessels and Hawaiian Registered Vessels* (Santa Barbara, CA: Seacoast Press), 1982. (Dates in parentheses indicate the year the steamer was acquired by the company.) *Indicates former Wilder's steamers that came to IISN Co. after 1905 consolidation.

The *Ka Moi* Incident

The steamer *Kauai* departed Honolulu for Hawai'i Island ports on January 25th, 1906. That same week, at Kohalalele on the eastern shore of the island, the small schooner *Ka Moi* was loading sugar about 150 feet from the rocks when a swell pushed the vessel very close to the shore. The captain ordered the crew to abandon ship and move to a nearby schooner, leaving only the first mate on board. The captain feared that the *Ka Moi* would be crushed on the rocks, but the anchor held. "The Steamer *Kauai* came past and signals were hoisted to her, for assistance. She went in and after several attempts [sic], towed the schooner to sea."⁶⁵ The *Ka Moi* arrived at Honolulu on February 1st with 1140 bags of sugar for the barkentine *S. G. Wilder*.⁶⁶

The IISN Co. Board of Directors meeting minutes from February 7th, 1906, stand as a reminder that in those days, attempts to assist vessels in distress were not always entirely altruistic:

The Vice-President stated that the object of the meeting was to get the Directors' opinion in regard to a claim for salvage that we had against the "Ka Moi" one of the schooners owned by Allen & Robinson. Mr. McLean gave a synopsis of what was done by our SS. "Kauai" in saving the vessel from going ashore.

Mr. Lewis was called to the meeting to lay before the Directors our rights in the case according to law. After a general discussion, Mr. Cooke made the following motion: "That our Attorney put in a claim for 50% of the value of the Schooner, cargo, and freight money, and failing the collection of this, then to libel the Schooner, and proceed to collect the same." Seconded by Mr. Dreier and carried.⁶⁷

⁶⁵ *Hawaiian Star* (Honolulu), 1 Feb 1906.

⁶⁶ *Pacific Commercial Advertiser* (Honolulu), 2 Feb 1906.

⁶⁷ Board of Directors (BOD) Minutes #3, 1905-1907, 7 Feb 1906, Bernice Pauahi Bishop Museum Archives, Honolulu, Dillingham Collection, Inter-Island Steam Navigation Co.

In March, Mr. Lewis, the attorney, reported that \$2,000 would be the most to be expected from the decision of the court.⁶⁸ In April, a settlement of \$1,200 was received, and the board voted to distribute \$250 to be divided among the officers and crew of the steamer *Kauai*.⁶⁹

The 1905-1906 time-frame was a period of transition for the steamer *Kauai*. For over ten years the veteran West Coast steam schooner had plied the Hawaiian waters, hauling sugar back to Honolulu from as far as Ni'ihau to the northwest, and the Puna Coast of Hawai'i Island to the southeast. Although an official date could not be pinpointed, the steamer *Kauai* was transferred to Hilo sometime in 1906. The steamer was entering the last phase of its career.

⁶⁸ *Ibid.*, 28 Mar 1906.

⁶⁹ *Ibid.*, 24 Apr 1906.

CHAPTER 5
THE HILO YEARS, AND THE WRECKING
AT MĀHUKONA HARBOR

In February 1906, the steamer *Kauai* departed Honolulu and “returned” from Hawai‘i Island ports three months later.¹ After the return, the steamer would make a few runs, followed by another long period away from Honolulu. It is possible that this represents the early stages of IISN Co.’s transfer of the *Kauai* from Honolulu to Hilo.

Hilo; Hawai‘i’s Second Sugar Port

Hilo is the largest town on the Island of Hawai‘i, and in the latter part of the nineteenth century, it became Hawai‘i’s second busiest port, second only to Honolulu. In the mid-nineteenth century, Lahaina, Maui, was the second most important port, due to the strength of the whaling industry. Whalers also operated out of Hilo, and Hilo became the third most significant port. As sugar became the leading industry, Hilo eclipsed Lahaina in terms of maritime significance.

As the sugar industry continued to develop, direct shipments on sailing vessels from Hilo to California increased. By the first decade of the twentieth century, Hilo also had direct steamship service with San Francisco via the Matson Navigation Company and with New York via the American-Hawaiian Steamship Company.² With more large

¹ *Hawaiian Gazette* (Honolulu), 14 May 1906.

² *Hawaiian Annual for 1909* (Honolulu: Thos. G. Thrum, 1910), 130.

steamships and sailing vessels communicating directly with the U.S. mainland and foreign ports, and with a look to a future that included a canal through Panama, the U.S. government determined that improvements were needed at Hilo Harbor. These improvements included the construction of a breakwater, in order to “transform the open roadstead into a spacious safe harbor.”³ Construction of the breakwater began in 1909,⁴ and after several phases of extensions, was completed in 1930 with a total length of 10,070 feet.⁵ With Hilo Bay firmly established as a port for direct shipments to California, it was necessary for IISN Co. to station additional steamers at Hilo, and sometime in 1906, the *Kauai* joined the *Kaiulani* as a Hilo Harbor-based steamer.

A Hilo Harbor Steamer

From 1906 to 1913, the *Kauai* was based out of Hilo Harbor. It is clear that her tasks consisted primarily of transporting cargo to various Hawai‘i Island ports, particularly on the Hāmākua Coast, and bringing sugar to Hilo for shipment to California. (Figure 24 on page 102 is a photograph of *Kauai* loading sugar at the Hāmākua Coast’s Hakalau Landing.) Unfortunately, detailed information about every trip is not available. The Hilo newspapers contained shipping information, but it was not as detailed as with the Honolulu papers. Throughout the Hilo years, the *Kauai* made a few runs between Big

³ James T. Stacker, “Hilo’s Development and Outlook,” *Hawaiian Annual for 1912* (Honolulu: Thos. G. Thrum, 1913), 90.

⁴ *Hawaiian Annual for 1909*, 131.

⁵ Marion Kelly, Barry Nakamura, and Dorothy B. Barrere, *Hilo Bay: A Chronological History; Land and Water Use in the Hilo Bay Area, Island of Hawai‘i* (Honolulu: B. P. Bishop Museum, Dept. of Anthropology, 1981), 192-193.

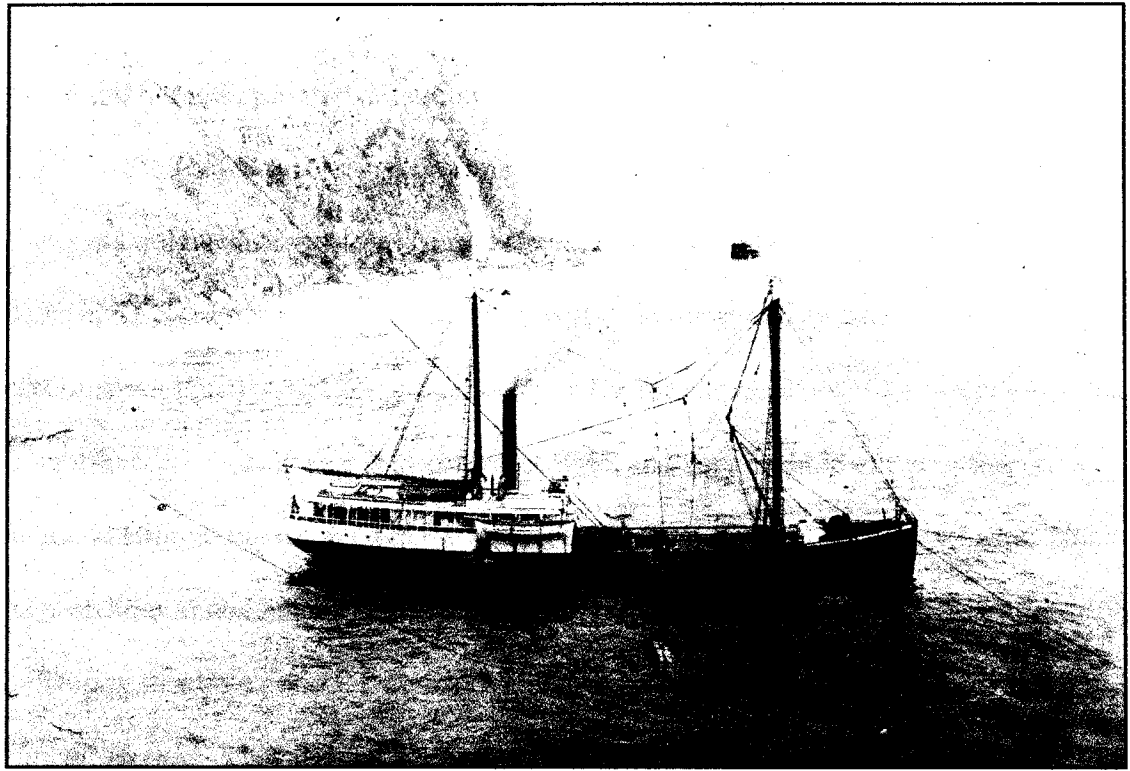


Figure 24. Steamer *Kauai* at Hakalau Landing, Hāmākua Coast, Hawai'i Island, 1905. (Courtesy of the Hawai'i State Archives.)

Island ports and Honolulu that were reported in the Honolulu papers. On a few occasions, a trip to another island, such as Kaua'i or Maui, was made from Honolulu prior to a return to Hilo. Despite the limited newspaper information for this period, shipping records from some Hawaii Island sugar companies fill some information gaps. From the limited amount of historical resources available for the *Kauai*'s Hilo years (1906-1913), the following facts could be assembled. From the Honolulu papers, there is documentation of at least eight runs to Kaua'i ports, three to Maui, and one to Moloka'i. There were at least 33 arrivals into Honolulu from Hawai'i Island; these included runs from Honoka'a, Kukuihaele, Kawaihae, Pā'auhau, Pāpa'ikou, and

Ō'okala, in addition to Hilo. Apart from basic arrival and departure information, the *Kauai* did not receive much attention in the Honolulu papers. One exception is an article in the *Hawaiian Gazette* on June 23rd, 1908, regarding Matson Navigation Company's new passenger and freight steamer *Lurline*. Several paragraphs were dedicated to describing this new steamer with its luxuries and modern freight capabilities. In a description of the *Lurline*'s loading capabilities, it was stated that "The freight-handling machinery is of the latest style, and very capable of doing fine work. When in Hilo taking sugar from the Kauai, the *Lurline* handled with her winches 2000 bags an hour at one hatch."⁶

During this time period, Hilo had two major newspapers: the *Hilo Tribune* and the *Hawaii Herald*. They did not have consistent daily reports of the arrivals and departures of every vessel, and the smaller local steamers such as *Kauai* and *Kaiulani* were less likely to receive attention than the larger, more prominent interisland steamers on regular schedules. Nevertheless, there were a few entries for the *Kauai*, and some provide insight regarding the type of work that the steamer was performing.

On February 14th, 1907, the *Hawaii Herald* reported "The bark Amy Turner showed up ... and was towed in by the Kauai."⁷ Per the *Hilo Tribune* of March 10th, 1908: "The Claudine came in at the usual hour on Sunday morning bringing a Coast mail which was supplimented [sic] later in the day by a mail brought by the Kauai."⁸ On September 3rd of that year, the *Hawaii Herald* reported: "The Helene was waiting to do business on the

⁶ *Hawaiian Gazette* (Honolulu), 23 Jun 1908.

⁷ *Hawaii Herald* (Hilo), 14 Feb 1907.

⁸ *Hilo Tribune*, 10 Mar 1908.

Hamakua Coast, the Kauai was wanted at Pepeekeo, and the Kaiulani at Honomu.”⁹

The November 11th, 1909 paper said: “The steamer Kauai loaded freight on Saturday and Monday morning from Laupahoe and Paauhau, sailing on Tuesday with 30,000 feet of lumber for Paauhau and 10,000 feet for Laupahoe besides 30 tons miscellaneous stuff.”¹⁰

There were several notations of the steamer *Kauai* in the *Hawaii Herald* in 1910. Per the January 6th paper: “The steamer Kauai has been loading firewood for Hoogs and Gilbert of Honolulu....The following vessels were in port on New Year's day: Steamers Mauna Kea, Maui, Kauai, Iwalani, Kaiulani, and bark St. Katherine.”¹¹ The January 20th paper reported: “The Maui, Helene, Kauai and Kaiulani put into port here during the storm, the Kaiulani blowing down and cleaning her boilers....The Kauai came alongside the wharf on Tuesday [18 Jan], loading 1800 bags of cement for Pepeekeo.”¹² On February 3rd it was reported that “The steamer Kauai has loaded 2,000 six foot 5 by 7 ties, and 250 pieces of lumber for Hutchinson plantation.”¹³ Per the February 10th paper: “The Kauai took freight, this week, for Pepeekeo and Hakalau plantations, and the Kaiulani loaded for Paauhau.”¹⁴

The *Kauai* was mentioned in the *Hawaii Herald* of November 17th, 1910, and this would be the last time the steamer was mentioned in a Hilo newspaper until it sank in 1913. This entry gives an insight into the type of work *Kauai* was “at the ready” to do,

⁹ *Hawaii Herald* (Hilo), 3 Sep 1908.

¹⁰ *Hawaii Herald* (Hilo), 9 Nov 1909.

¹¹ *Hawaii Herald* (Hilo), 6 Jan 1910.

¹² *Hawaii Herald* (Hilo), 20 Jan 1910.

¹³ *Hawaii Herald* (Hilo), 3 Feb 1910.

¹⁴ *Hawaii Herald* (Hilo), 10 Feb 1910.

whether it came to fruition or not:

“The Spokane, loaded with lumber for Hackfeld and Company, arrived in port last Thursday night. As she was coming in the wind was light and variable and she ran on the Waiakea side of the channel not far from the whistling buoy. She was seen from town and signaled for help. The Inter-Island steamer *Kauai*, which was in port, went out immediately, but before she had arrived the Spokane, which had but little headway when she touched bottom, had floated off. She was uninjured.”¹⁵

The Hawaii Sugar Planters' Association (HSPA) Archives, now housed at Hamilton Library at the University of Hawai'i at Mānoa, contain records from many island sugar companies. The holdings from several of the Hawai'i Island companies contain shipping records referring to steamships. The *Kauai* is mentioned occasionally; the information is not extensive, but provides “snapshots” that add to the body of history available on the *Kauai*.

The records for the Honokaa Sugar Company included invoices from the IISN Co. From these, it can be gleaned that the *Kauai* made several trips in 1906 and 1907 from Hilo to the Hāmākua ports of Honoka'a and Pa'auhau, delivering cargoes that included such diverse items as barrel staves, tarpaulins, dishpans, plows, pipes, hay, and lumber.¹⁶ Records from the Kaiwilahilahi Mill, also on the Hāmākua Coast, contain at least three notations of the steamer *Kauai* loading over 3,000 bags of sugar.¹⁷ The dates of these loadings do not correspond with trips to Honolulu per the newspapers, therefore it is assumed that this sugar was transported to Hilo.

¹⁵ *Hawaii Herald* (Hilo), 17 Nov 1910.

¹⁶ Honokaa Sugar Company, 43/4, Invoices 1906-1907, Hawaii Sugar Planters' Association Archives, University of Hawai'i at Mānoa, Hamakua Sugar Company Records.

¹⁷ Kaiwilahilahi Mill, Boiling House and Sugar Room Record, Hawaii Sugar Planters' Association Archives, University of Hawai'i at Mānoa, Laupahoehoe Sugar Company, Sugar Record 1901-1907.

The 1911-1913 Freight Book from the Pacific Sugar Mill, part of the Honokaa Sugar Company, contains several notations for the *Kauai*. The book includes notations of lumber and other merchandise coming in, and at least one with sugar going out.¹⁸ Perhaps the most unique record comes from the Hawaiian Agricultural Company; a November 1907 IISN Co. invoice states that the *Kauai* returned to Hilo from Kauanakakai, on the island of Moloka'i, with 15 mules.¹⁹

New Home, New Captain

Intermixed with movements to-and-from Hawai'i Island as captain of the *Kauai*, Captain Bruhn began skippering the *Maui* on a few runs, the first of which departed Honolulu on September 11th, 1906.²⁰ After over a decade and several hundred trips as commander, Captain Bruhn made his last run on *Kauai* in September 1907.²¹ Although he made over a dozen runs onboard the *Maui* in the latter half of 1907, other captains were making trips on the vessel that year. By January 1908, however, Captain Bruhn was clearly the new captain of the *Maui*.²²

In early 1907, a new man began skippering the *Kauai*, Captain Sachs. After Captain Bruhn's last run on the *Kauai* that September, Captain Sachs was firmly established as the captain of the vessel.²³ Historical records do not suggest that there was much pomp

¹⁸ Honokaa Sugar Company, Pacific Sugar Mill Freight Book, 1911-1913, Hawaii Sugar Planters' Association Archives, University of Hawai'i at Mānoa, Hamakua Sugar Company Records, v. 122.

¹⁹ Kau Sugar Company, IISN Co. Invoices to the Hawaiian Agricultural Co., Hawaii Sugar Planters' Association Archives, University of Hawai'i at Mānoa.

²⁰ *Hawaiian Gazette* (Honolulu), 14 Sep 1906.

²¹ *Hawaiian Gazette* (Honolulu), 17 Sep 1907.

²² *Hawaiian Gazette* (Honolulu), 18 Jan 1908.

²³ *Hawaiian Gazette* (Honolulu), 3 Nov 1907.

or circumstance involved with the transfer of the *Kauai* to Hilo; there is no documentation in the Honolulu or Hilo newspapers, or in the minutes of the IISN Co.'s Board of Directors' meetings. It is possible that making Sachs the captain was associated with the transfer of the *Kauai* to Hilo.

The Future of the Steamer *Kauai*

In 1912, the leadership at IISN Co. had apparently determined that the steamer *Kauai* had reached the end of its service as a freight-carrying vessel. By that time, the IISN Co. had developed a coal business, selling coal to other companies whose ships stopped in Honolulu as they crossed the Pacific, particularly the Pacific Mail Steamship Company.²⁴ The company needed a new "coal barge" with proper coal handling machinery that could assist in the loading of bunker coal into the large Trans-Pacific steamers. At the Board of Directors meeting on May 7th, 1912, it was decided that the *Kauai* would be converted into a coal barge, at a cost of approximately \$25,000.²⁵

Apparently, this decision was reversed, as the *Kauai* continued to serve as a freighter. Furthermore, the company eventually decided to build a new coal barge. At the IISN Co. Board of Directors meeting on August 21st of the following year, it was stated that "the lumber and material had been ordered for the new coal barge of a capacity of 600 tons which is to be equipped with conveyor machinery with a discharge of about 100

²⁴ Board of Directors (BOD) Minutes #4, 1907-1917, p. 183, 7 May 1912, Bernice Pauahi Bishop Museum Archives, Honolulu, Dillingham Collection, Inter-Island Steam Navigation Co.

²⁵ *Ibid.*

tons per hour.”²⁶ Figure 25 below depicts an IISN Co. “coal barge” in 1916; by the description from the Board of Directors meeting, this could be the vessel described.

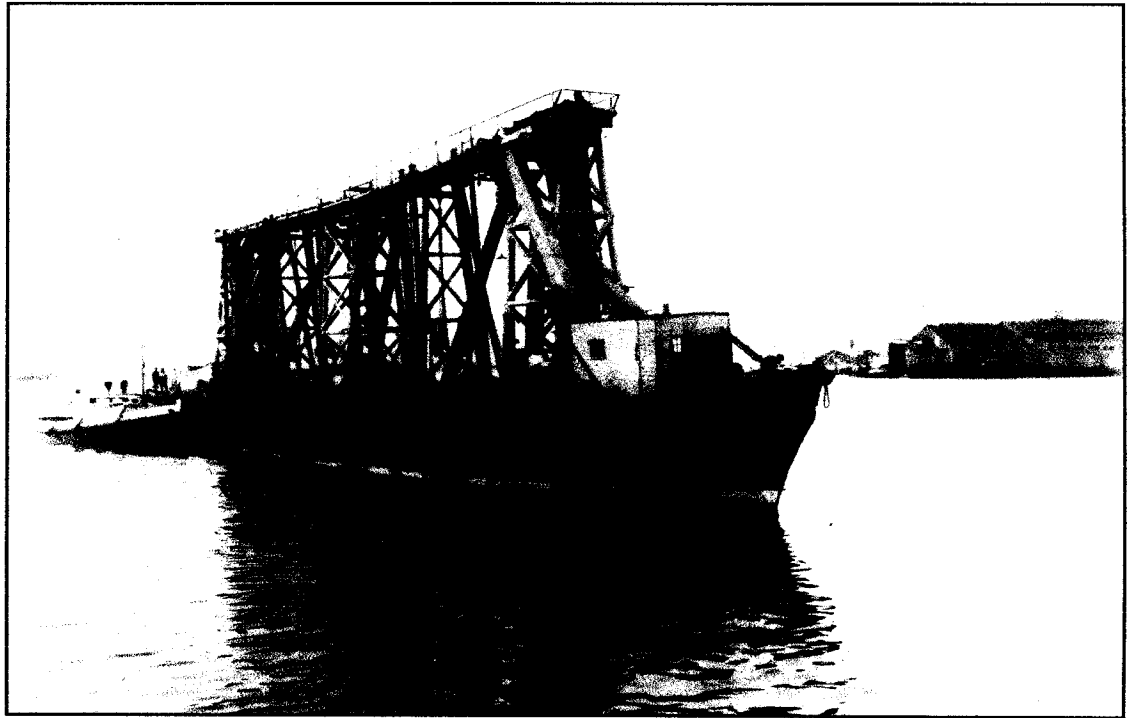


Figure 25. Inter-Island Steam Navigation Company Coal Barge in Honolulu Harbor, 1916. (Courtesy of the B. P. Bishop Museum Archives; photo credited to L. E. Edgeworth.)

It is clear in late 1913 that the IISN Co. no longer needed the steamer *Kauai* as part of its fleet. (See Table 5 on page 109, IISN Co.’s 1913 steamship roster.) In September 1913, a special meeting of the IISN Co. Board of Directors was convened; the principal reason for the meeting was to discuss the possible sale of the steamer *Kauai*. The Hawaiian Dredging Company was interested in purchasing a vessel to be used as a

²⁶ *Ibid.*, p. 293, 21 Aug 1913.

TABLE 5

STEAMSHIP ROSTER, INTER-ISLAND STEAMSHIP COMPANY, 1913

STEAMER	YEAR BUILT	BUILDER	LENGTH	TONS (GT/NT)	ENGINE BUILDER	CYLINDERS (LP/HP)
<i>IWALANI</i>	1881	DICKIE BROS. SAN FRANCISCO, CA	146'	588 / 240	RISDON IRON WORKS SF, CA	34" / 18"
<i>MIKAHALA</i>	1886	HALL BROS. PORT BLAKELY, WA	151'	444 / 354	W. DEACON SF, CA	38" / 19"
<i>KE AU HOU</i>	1894	HALL BROS.	130'	211 / 193	FULTON IRON WORKS SF, CA	24" / 12"
<i>KAUAI</i>	1887 (1895)	BOOLE & BEATON SF, CA	154'	340 / 268	FULTON IRON WORKS	30" / 16"
<i>MAUNA LOA</i>	1896	HALL BROS.	176'	851 / 536	FULTON IRON WORKS	43" / 26" / 15" (TRIPLE EXPANSION)
<i>NO E AU</i>	1896 (1897)	HALL BROS.	120'	294 / 221	FULTON IRON WORKS	24" / 12'
<i>NIHAU</i>	1899	HANS BENDIXON FAIRHAVEN, CA	148'	342 / 201	FULTON IRON WORKS	24" / 12"
<i>KINAU</i>	1883	W. CRAMP & SONS PHIL, PA	195'	975 / 669	W. CRAMP & SONS	44" / 24"
<i>CLAUDINE</i>	1890	NAPIER, SHANKS & BELL GLASGOW, SCOTLAND	178' (STEEL)	846 / 615	DUNSMUIR & JACKSON GOVAN, SCOTLAND	48" / 29" / 18" (TRIPLE EXPANSION)
<i>HELENE</i>	1897	UNION IRON WORKS SF, CA	170' (STEEL)	619 / 393	UNION IRON WORKS	32" / 19" / 12" (TRIPLE EXPANSION)
<i>MAUI</i>	1898	UNION IRON WORKS SF, CA	171' (STEEL)	620 / 393	UNION IRON WORKS	32" / 19" / 12" (TRIPLE EXPANSION)
<i>KAIULANI</i>	1899	HAY & WRIGHT ALAMEDA, CA	140'	384 / 243	UNION IRON WORKS	28" / 13"
<i>LIKELIKE</i> (2nd)	1904	UNION IRON WORKS SF, CA	136'	347 / 214	UNION IRON WORKS	28" / 13"
<i>MAUNA KEA</i>	1908	UNION IRON WORKS	239' (STEEL)	1566 / 940	UNION IRON WORKS	62" / 37" / 24" (TRIPLE EXPANSION)
<i>WAILELE</i>	1904 (1910)	HANS BENDIXON	163'	515 / 337		32" / 18" / 11" (TRIPLE EXPANSION)
<i>KILAUEA</i> (2nd)	1911	UNION IRON WORKS	240' (STEEL)	1388 / 806	UNION IRON WORKS	48" (x 2) / 41" / 25" (TRIPLE EXPANSION)

Source: Mifflin Thomas, *Hawaiian Interisland Vessels and Hawaiian Registered Vessels* (Santa Barbara, CA: Seacoast Press), 1982. (Dates in parentheses indicate the year the steamer was acquired by the company.)

freighter. It was suggested that *Kauai* could be made available for the sum of \$22,500.00, but only if Hawaiian Dredging agreed not to use the vessel as a freighter,²⁷ presumably fearing competition.

A decision was deferred based upon the absence of the IISN Co. president, James A. Kennedy, who was still in Hilo on business. Four days later, on September 15th, Mr. Kennedy was present at another special Board of Directors meeting, and it was his opinion that "although the steamer "Kauai" was in poor condition, he did not think it advisable to dispose of her unless the purchasers were willing to bind themselves not to operate her in the freighting business between the islands."²⁸ Therefore, it was determined that the *Kauai* would be sold only if Hawaiian Dredging agreed to "...bind themselves to convert her into a dredger within a period of six months from date of purchase, or agree not to operate her as a freighter or passenger steamer within the Territory of Hawaii during a period of five (5) years."²⁹

Apparently, the Hawaiian Dredging Company decided not to purchase the *Kauai* because the steamer continued to operate for IISN Co. for the next few months. On October 31st, 1913, on the last documented movement to-or-from Honolulu, *Kauai* arrived from Maui "with barge Bennington in tow."³⁰ Finally, in late December 1913, along the Kohala Coast of Hawai'i Island, the steamer *Kauai* was underway for the last time. The mission was to transport sugar mill equipment from Puakō to Māhukona and then to return to Hilo.

²⁷ *Ibid.*, p. 296, 11 Sep 1913.

²⁸ *Ibid.*, p. 298, 15 Sep 1913.

²⁹ *Ibid.*

³⁰ *Hawaiian Gazette* (Honolulu), 4 Nov 1913.

Māhukona, Hawai'i's Third Sugar Port

Māhukona is a small harbor in North Kohala on Hawai'i Island, less than ten miles from the northern tip of the island. As it was not much more than a tiny inlet, ships loading at Māhukona had to anchor offshore (see Figure 26, page 112) and be unloaded and loaded by small lighter (see Figure 27, page 113). Furthermore, rough weather and seas could make for a harrowing loading experience.

Despite these limitations and challenges, Māhukona would become, by the end of the nineteenth century, the third most significant sugar port in the Hawaiian Islands, based primarily on direct shipments to California via large sailing vessels, enabled by a railroad. Not merely a boat harbor, Māhukona was also the terminus of the Hawaiian Railway, a three-foot narrow gauge line³¹ that by 1883 wrapped around the northern tip of the island for twenty miles to Niuli'i (see Figure 21, page 175).³² The railroad was initiated by Samuel G. Wilder³³ to connect the North Kohala sugar mills, so that bagged sugar could be collected and shipped to the U. S. mainland from Māhukona. The Hawi Mill had its own landing at Honoipu and did not use the railroad,³⁴ but the railroad supported the Kohala Sugar Company, the Halawa Mill and Plantation, the Union Mill and Plantation Company, and the Niulii Mill and Plantation Company at the railroad's eastern end.³⁵ In addition to the large sailing vessels that carried sugar that was brought

³¹ Sophia V. Schweitzer with Michael S. Gomes, *Kohala 'Āina: A History of North Kohala* (Honolulu: Mutual Publishing, 2003), 158.

³² *Ibid.*, 161.

³³ *Ibid.*

³⁴ Gerald M. Best, *Railroads of Hawaii: Narrow and Standard Gauge Common Carriers* (San Marino, CA: Golden West Books, 1978), 36.

³⁵ Dorrance and Morgan, *Sugar Islands*, 82.

to Māhukona by rail, island steamers would also call at Māhukona to load cattle or other commodities (sometimes sugar), as well as passengers. Figure 28 on page 113 shows the landing at Māhukona Harbor, ca. 1906-1910, with passengers awaiting the arrival of an island steamer.

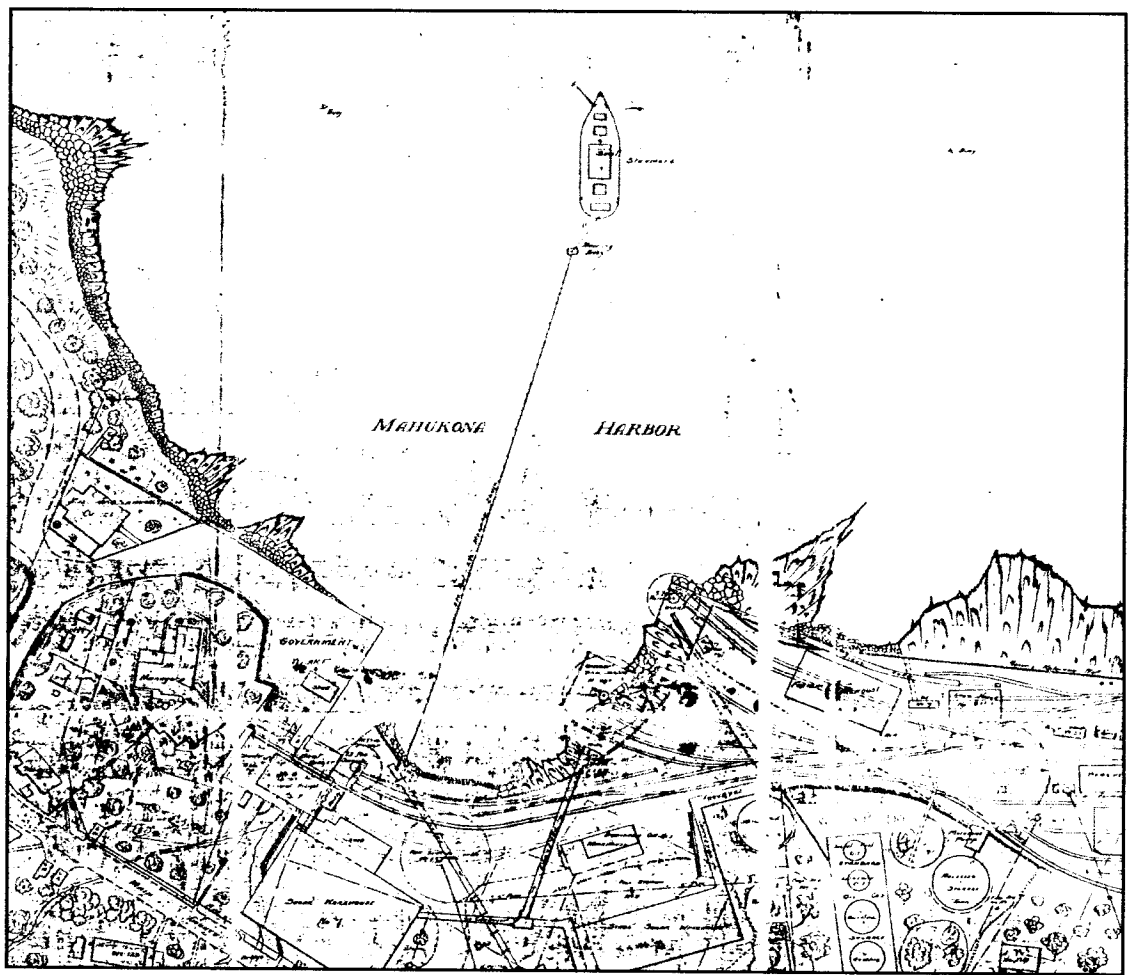


Figure 26. Excerpt from "Map of Mahukona for the Mahukona Terminals, North Kohala, Hawaii, 1938." (Courtesy of B. P. Bishop Museum Archives.)

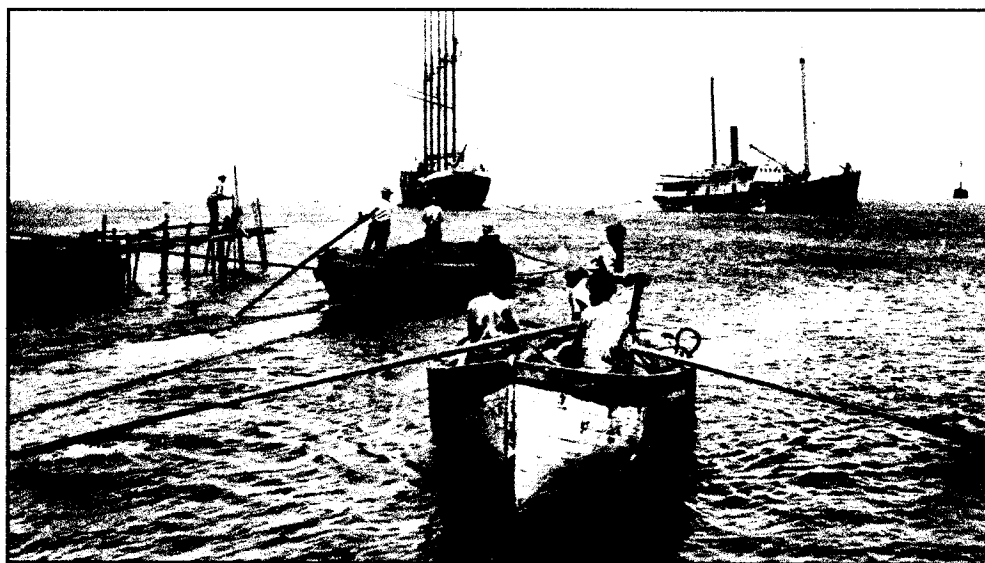


Figure 27. Shipping of Bagged Sugar at Māhukona Harbor, ca. 1914. (Courtesy of the B. P. Bishop Museum Archives.)



Figure 28. Landing at Māhukona Harbor, ca. 1906-1910. (Courtesy of the B. P. Bishop Museum Archives.)

Puako Plantation, and the *Kauai*'s Last Run

The only commercial sugar operation in Kohala south of Māhukona was at Puakō, located over 10 miles beyond the Hawaii Railroad. The Puako Plantation was started in 1903 by the Hind family,³⁶ who also owned the Hawi Mill in North Kohala. Puako Plantation's mill was connected with a two-foot gauge rail line to a wharf landing about one mile to the south at Waimā Point.³⁷ Due to problems with wind, salt air, and irrigation, the plantation was unsuccessful, and it closed in 1913.³⁸ The Hilo-based steamer *Kauai*, under Captain Mayne for the past year,³⁹ was hired to move the sugar mill equipment to Māhukona, so that it could be taken via rail to the Niulii Plantation.⁴⁰

Wrecked at Māhukona

On Wednesday, December 24th, 1913, around noon, the steamer *Kauai* set anchor at Māhukona Harbor to discharge her cargo.⁴¹ An hour later, Captain Mayne went ashore to supervise the offloading of a boiler. About five minutes later, a strong south swell came in, swung the *Kauai* around, and grounded its stern on the reef.⁴² The captain went back on board and attempted to free the vessel, but his efforts were futile in the heavy surf. Fortunately, there were no passengers on board and the crew was able to get ashore unharmed.⁴³ The next afternoon, it was concluded that the *Kauai* could not be

³⁶ *Ibid.*, 90.

³⁷ Puakō Historical Society, *Puakō: An Affectionate History* (Vancouver, BC: Creative Connections Publishing, 2000), 60.

³⁸ *Ibid.*, 66.

³⁹ *Hawaii Herald* (Hilo), 27 Dec 1913.

⁴⁰ Thomas, *Schooner from Windward*, 139.

⁴¹ *Hawaii Herald* (Hilo), 27 Dec 1913.

⁴² *Ibid.*

⁴³ *Ibid.*

saved.⁴⁴ Figure 29 below is a photograph of the wrecked steamer, taken from the vicinity of the landing at Māhukona Harbor. Figure 30 on page 116 is a photograph of the wreck taken on the ocean side, with the harbor in the background. Figure 31 on page 116 is a close-up view of the upper deck.

The steamer *Maui* was sent to help, and “several attempts were made to tow the Kauai into deeper water. The strain placed on the lines proved too great and after several cables parted, salvage [recovery] operations were abandoned.”⁴⁵ “An indication of how little hope the company has in saving the vessel was evidenced last night [Thursday, December 25th] when the steamer Kaiulani was dispatched...to Mahukona with tackle to dismantle the Kauai [see Figure 32 on page 117], rather than to pull it off the rocks.”⁴⁶

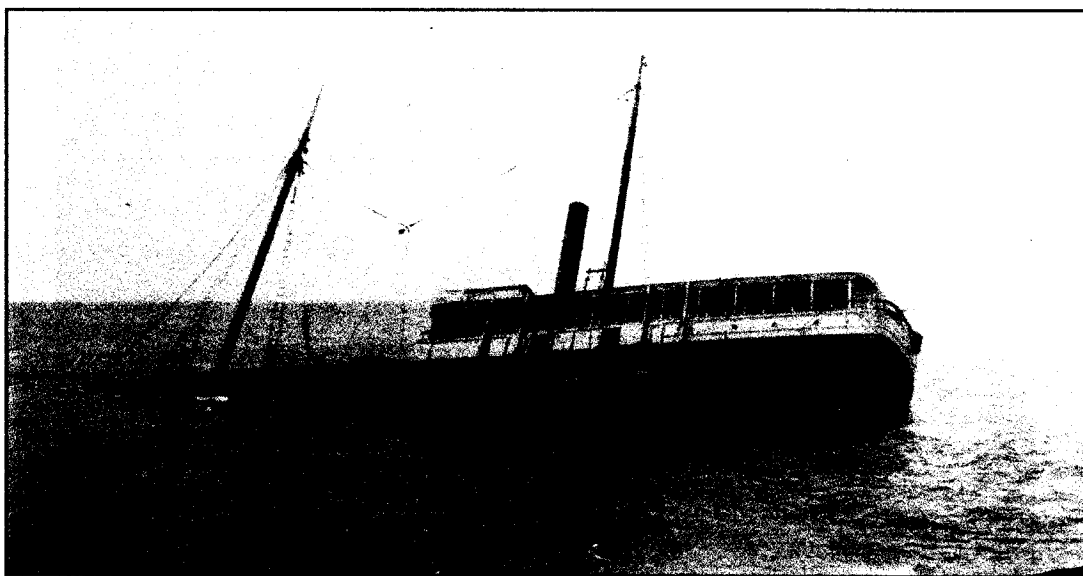


Figure 29. Wreck of Steamer *Kauai* at Māhukona Harbor; View from Harbor. (Courtesy of the B. P. Bishop Museum Archives.)

⁴⁴ *Ibid.*

⁴⁵ *Honolulu Star-Bulletin*, 26 Dec 1913.

⁴⁶ *Hawaiian Gazette* (Honolulu), 26 Dec 1913.

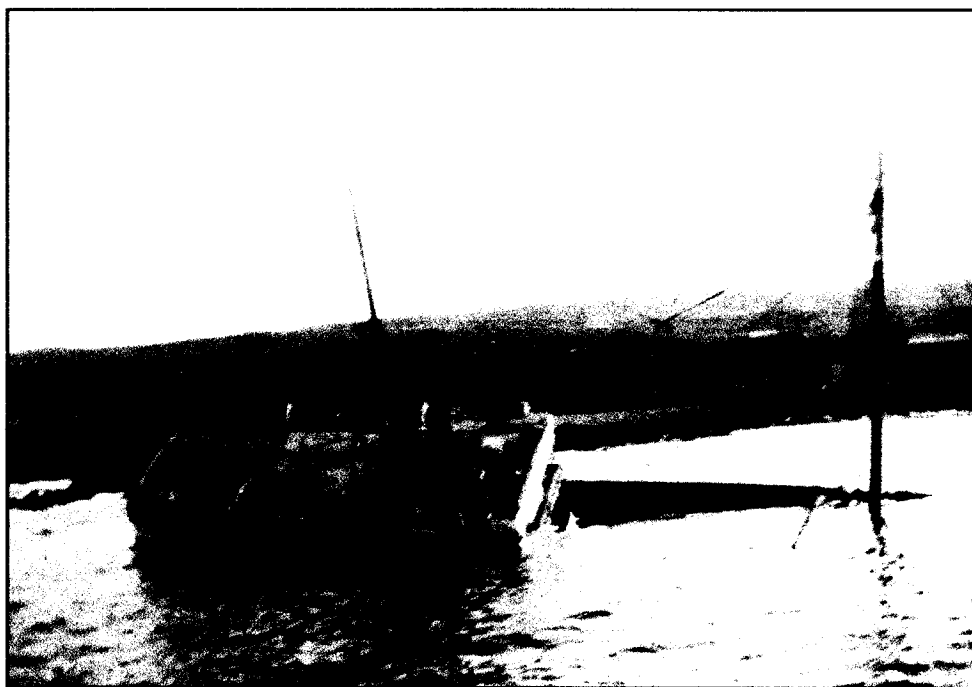


Figure 30. Wreck of Steamer *Kauai* at Māhukona Harbor; with Harbor in Background.
(Courtesy of the Hawai'i State Archives.)



Figure 31. Wreck of Steamer *Kauai* at Māhukona Harbor; Close-up view of deck.
(Courtesy of the B. P. Bishop Museum Archives.)

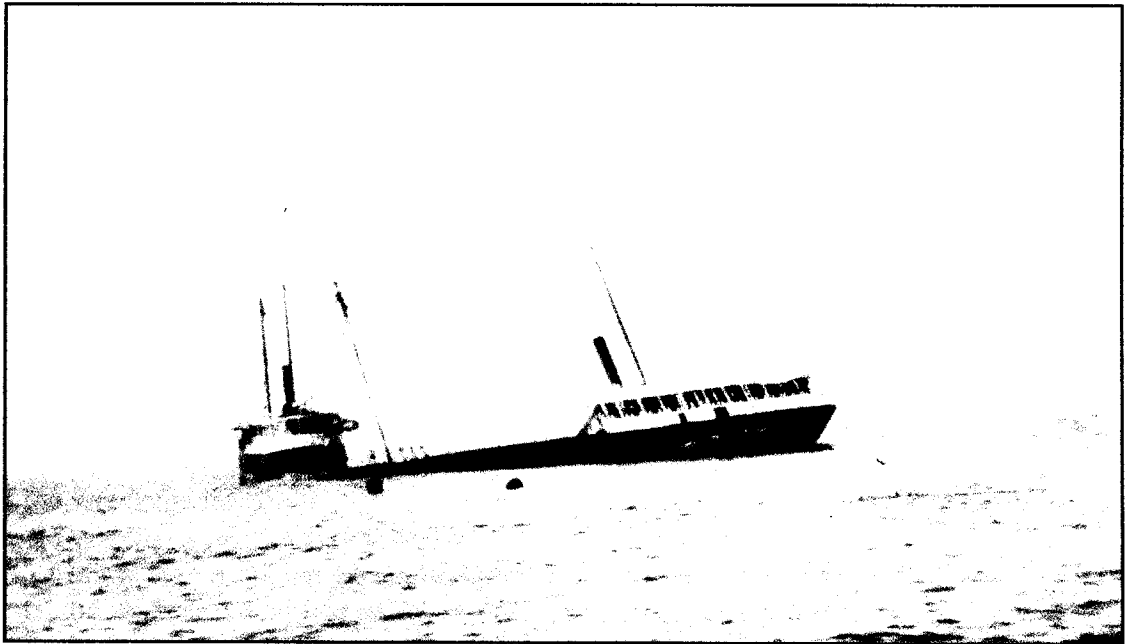


Figure 32. Wreck of Steamer *Kauai* at Māhukona Harbor; Receiving Assistance from Steamer *Kaiulani*. (Courtesy of the Hawai'i State Archives.)

The *Pacific Commercial Advertiser* of January 1st, 1914, reported that:

Further news was received in Honolulu yesterday that all efforts to save anything from the wrecked steamer *Kauai* of the Inter-Island Steam Navigation Company's fleet had been abandoned. Even the machinery will be left to the sport of the pounding surf. It was stated at the company's offices that if the vessel is floated, it will doubtless sink of its own weight.⁴⁷

The steamer *Kauai* was not insured, and its value was estimated at \$60,000.⁴⁸ The IISN Co. was not overly concerned about the loss. A Board of Directors meeting was held December 30th, where James Kennedy reported to "the Directors that enough had been recovered from the wreck to offset the book value of the steamer."⁴⁹ *The Pacific*

⁴⁷ *Pacific Commercial Advertiser* (Honolulu), 1 Jan 1914.

⁴⁸ *Hilo (Hawaii) Tribune*, 30 Dec 1913.

⁴⁹ Board of Directors (BOD) Minutes #4, 1907-1917, p. 301, 30 Dec 1913, Bernice Pauahi Bishop Museum Archives, Honolulu, Dillingham Collection, Inter-Island Steam Navigation Co.

Commercial Advertiser reported:

The loss of the *Kauai* was taken by the owners as one of the minor incidents of the seafaring business and the absence of the little boat, with a career of many years of usefulness and profit for the owners is little noticed, for there are many better vessels in the company's line to completely overshadow the *Kauai*. One of these will be placed in the service.⁵⁰

The *Kohala Midget* was even less sympathetic in its discussions of the veteran steamer in a January 7th, 1914 article, but it does give an updated report on the condition of the wreckage itself:

Many sightseers have been making the trip to Mahukona to see the Inter-island steamer *Kauai* fast on the rocks in the harbor. Early last week she broke in two and the bow sunk....The way she rolled up and dissolved like a tissue paper shell, under the comparatively mild action of the sea since she struck, indicates that she was about as seaworthy as a paper napkin, and endangered the lives of all on board, every trip she made.⁵¹

Two photos (Figure 33, page 119, and Figure 34, page 120) from an album in the Bishop Museum Archives dated "January 1914" show some sort of wreckage in the shallow waters, and washing ashore at Māhukona Harbor. While it cannot be proven that what is depicted are portions of the hull of the *Kauai*, it is highly likely, as there were no other reports of wreckage washing ashore at Māhukona that month.

The steamer *Kauai* served the IISN Co. and the people of the Hawaiian Islands for over 18 years. Table 6 on page 121 summarizes the departure and arrival information for the *Kauai* obtained from Honolulu and Hilo newspapers from 1895 to 1913. This data, which the narrative of chapters 3 through 5 reflects, shows that the *Kauai* was a

⁵⁰ *Pacific Commercial Advertiser* (Honolulu), 1 Jan 1914.

⁵¹ *Midget* (Kohala, Hawai'i), 7 Jan 1914.

typical Hawaiian steamer working in the sugar industry. Chapter 2 showed that the steamer *Cosmopolis* was a typical West Coast steam schooner working in the lumber industry. In chapter 1, it was concluded that the Hawaiian steamer was of the same vessel type as the West Coast steam schooner. The historical chapters that have followed are the basis for this claim, as they show that this single vessel was both a steam schooner and a Hawaiian steamer.

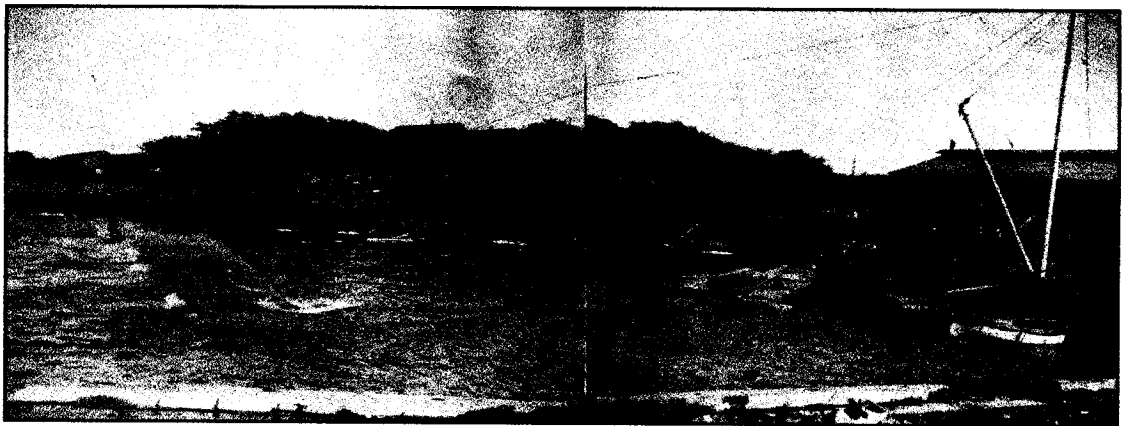


Figure 33. Unidentified wreckage washing ashore at Māhukona Harbor, January 1914. (Courtesy of the B. P. Bishop Museum Archives.)

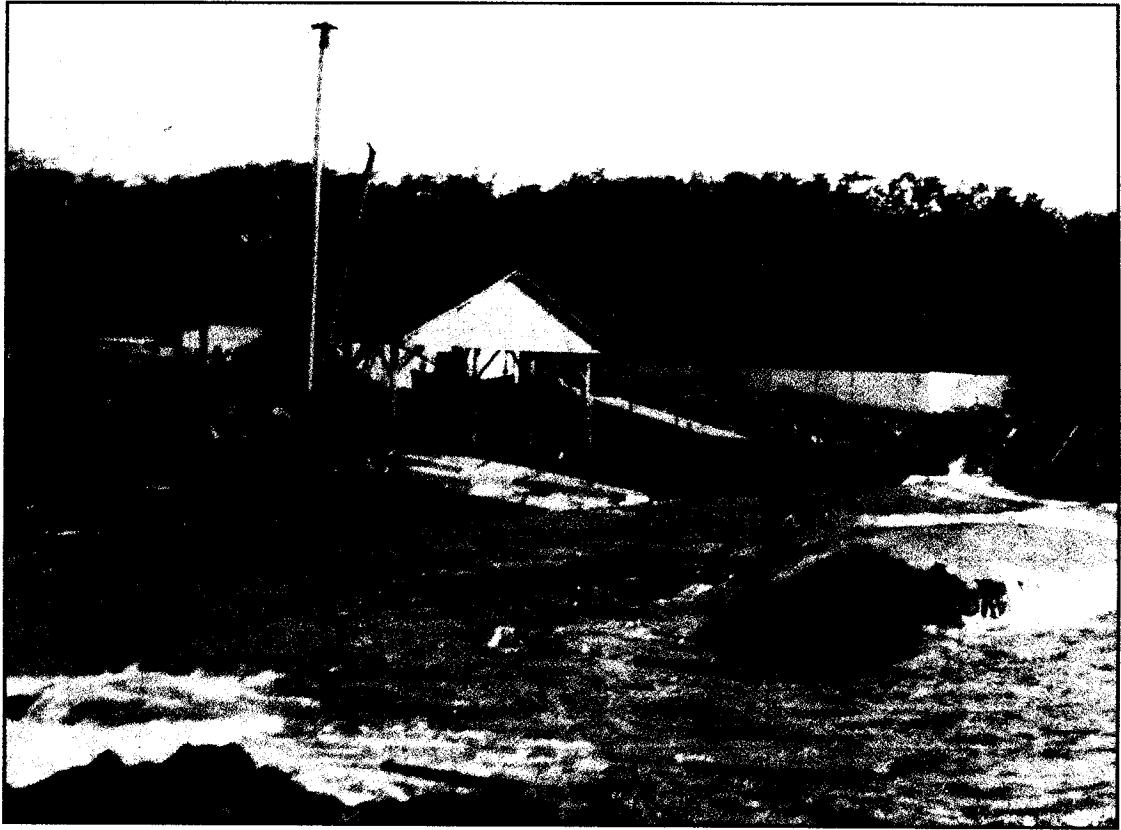


Figure 34. Another view of unidentified wreckage washing ashore at Māhukona Harbor, January 1914. (Courtesy of the B. P. Bishop Museum Archives.)

TABLE 6

HONOLULU DEPARTURES / ARRIVALS FOR STEAMER *KAUAI*,
BY YEAR FROM 1895 TO 1913

YEAR	DEPS FROM HON	PORTS / LANDINGS VISITED					ARRIVALS WITH PASSENGERS / CARGO CONFIRMED			
		KAUA'I	HAWAI'I ISLAND	MAUI	MOLOKA'I	NI'HAU	PSGR	SUGAR	CATTLE	RICE
1895	17	17	-	-	-	-	8	5	-	1
1896	49	43	6	2	-	1	29	35	5	6
1897	26	26	-	-	-	-	16	24	1	6
1898	45	29	5	17	-	-	19	17	1	1
1899	39	14	2	24	-	-	8	24	1	-
1900	31	27	1	6	-	3	12	9	-	1
1901	21	12	10	4	-	-	-	2	-	-
1902	36	22	12	3	1	3	9	13	6	-
1903	45	34	12	3	-	3	15	17	5	6
1904	42	9	26	23	1	-	11	8	1	-
1905	47	33	16	4	-	-	14	10	4	-
1906	17	4	12	-	1	-	1	4	4	-
1907	9	2	8	-	-	-	2	-	-	-
1908	5	-	5	-	-	-	-	-	-	-
1909	5	1	5	-	-	-	-	-	-	-
1910	3	1	1	1	-	-	-	-	-	-
1911	1	1	-	-	-	-	-	-	-	-
1912	2	1	2	1	-	-	-	-	-	-
1913	3	1	2	1	-	-	-	-	-	-

Source: *Pacific Commercial Advertiser*, *Hawaiian Gazette*, *Hawaiian Star*, *Hawaii Herald*, and *Hilo Tribune*. Actual number of visits to each location may be higher than what could be confirmed. (Note: After 1905/1906 time-frame, Steamer *Kauai* was moved from Honolulu to Hilo, but the data in this table reflects only Honolulu departures and arrivals.)

CHAPTER 6

**THE MĀHUKONA HARBOR STEAMSHIP WRECK; SITE HISTORY
AND ARCHAEOLOGICAL FIELDWORK**

The steamer *Kauai* sank at Māhukona Harbor in 1913. Presently, coral-concreted objects that appear to be the remains of a steamship can be found in Māhukona Harbor, and many have claimed that these objects are the remains of the steamer *Kauai*. How do they know this? A quick analysis of the evidence suggests that it is a reasonable guess, but more than a reasonable guess is required in order to draw a conclusion. This chapter includes a history of the Māhukona Harbor Steamship Wreck, documentation of other vessels known to have wrecked at Māhukona, and documentation of fieldwork conducted at and in Māhukona Harbor. The next chapter includes analysis of all available information on the wreck site to determine if any conclusion(s) may be reached.

Known Shipwrecks at Māhukona Harbor

Prior to analyzing the Māhukona Harbor Steamship Wreck, a brief history of the known shipwrecks in the Māhukona Harbor area is in order. Aside from the wrecking of the steamer *Kauai*, there are two other vessels known to have wrecked at Māhukona Harbor.

The *Jenny Pitts* was a bark-rigged sailing vessel working out of San Francisco; she

was built in 1852 at Rockland, Maine, and was 139' in length and 26' in beam.¹ The *Pacific Commercial Advertiser* of December 17th, 1881 reported under "Marine Notes" that:

The bark Jenny Pitts, one of the many lumber vessels running between these Islands and Puget Sound, was wrecked at Mahukona, Hawaii, on the 27th Nov. Her cargo of lumber was saved though in damp condition. The captain and crew reached shore in safety and after journeying hither, left on the 9th [of December] inst in the Discovery for San Francisco.²

In the "Kohala Correspondence" section of the same paper, it was reported that:

Our auctioneer (Mr. Hayselden), by order of H. Hackfeld & Co., sold yesterday, 9th Dec., the hull, spars, anchors, chains & etc., of the wrecked barque Jenny Pitts, at Mahukona, the whole realizing \$428- was knocked-down to S. G. Wilder & Co. The wrecked vessel seems to be lying very comfortably in about 1 ½ fathoms of water alongside of the shore rocks.³

The *Ella* was a barkentine-rigged sailing vessel working out of San Francisco built in 1874 at Freeport, Washington Territory; the barkentine was 138' in length and 27' in width.⁴ *The Pacific Commercial Advertiser* of March 20th, 1890, in the "Kohala Notes" section, contained the following under the title of "The Wrecked Barkentine Ella":

By the Kinau the news of the wreck of the barkentine Ella at Mahukona, brought by the steamer W. G. Hall, was confirmed. Capt. Hanson and the crew of the wrecked vessel came to Honolulu on the Kinau. On March 7th, when it was blowing hard, Capt. Hanson was compelled to abandon the vessel, which was lying at anchor right off Mahukona. Early next morning, the barkentine was driven high and dry on the rocks nearly opposite the store. Her masts were broken, and she was nearly full of water. There were 1,400 bags of sugar in the hold, and 1,100 were a total loss. The vessel was not insured. The wreck was sold on the 13th and realized something over six hundred dollars. The vessel itself brought \$130, Mr. C. L. Wight being the

¹ *Record of American and Foreign Shipping* (New York: American Shipmasters Assn, 1878), 543.

² *Pacific Commercial Advertiser* (Honolulu), 17 Dec 1881.

³ *Ibid.*

⁴ *Record of American and Foreign Shipping* (New York: American Shipmasters Assn, 1886), 346.

purchaser.⁵

The author has made an assumption that the bark *Jenny Pitts*, the barkentine *Ella*, and the steamer *Kauai* are the only three vessels to have wrecked at Māhukona Harbor when the harbor was a key sugar shipping port from the early 1880s to the late 1930s. This assumption is based on the author's belief that if a vessel were wrecked at that location during this period, it would have been documented in a Honolulu newspaper. There are remote areas in Hawai'i, even at the present time, where vessels might wreck without documentation, but during the highpoint of Māhukona's use as a sugar and passenger port, it would have been highly unlikely that a wrecked vessel would have eluded the press. The bark *Jenny Pitts*, the barkentine *Ella*, and the steamer *Kauai* are the only three vessels documented in a Honolulu newspaper to have wrecked at Māhukona Harbor.

What is the "Māhukona Harbor Steamship Wreck?"

First, it should be established that "Māhukona Harbor Steamship Wreck" (MHSSW) is not a commonly used term to describe the supposed wreckage at Māhukona Harbor; it was selected by the author as an objective term. One could argue from a theoretical perspective that calling it a "steamship wreck" is already too assumptive, but a brief study of the site's artifacts suggest that this assumption is reasonable. A definition of the MHSSW, or a detailed description of what the author considers the MHSSW to include is as follows:

⁵ *Pacific Commercial Advertiser* (Honolulu), 20 Mar 1890.

- 1) The remains of what appears to be a two-cylinder compound steam engine, with attached propeller shaft and propeller, on the seabed at Māhukona Harbor, at a depth of approximately 3 to 5 meters, at a distance of approximately 100 meters from shore.
- 2) The apparent artifacts in the same general location as #1 above, with the exception of a long chain consisting of links 8" (~20 cm) by 14" (~35 cm), which runs from the shore out into the harbor. (This chain is assumed to be part of the offshore anchoring system used at the harbor by many vessels.) The predominant artifact type is what appears to be a "railroad truck," the term for a railroad car's axle with a wheel attached at each end. There are also two cylindrical objects that could be the remains of auxiliary ("donkey") boilers. One is located approximately 4 m west of the engine, and is approximately 2.5 m long and 1.2 m in diameter. The other is approximately 30 m southwest of the boiler, and is approximately 3 m long and 0.8 m in diameter.
- 3) The remains of what appear to be a scotch boiler for a steam engine, which were relatively intact in association with #1 above prior to 1999, and are presently broken and dis-associated, in the surf zone and shore at Māhukona Harbor.

From this point forward, the artifacts that appear to be the remains of a two-cylinder compound steam engine, a propeller shaft, a propeller, a scotch boiler, and railroad trucks will assumed to be what they appear to be. Despite corrosion, these artifacts are still distinguishable. Applying archaeology to prove the each artifact's identity would be possible, but beyond the scope of this project.

History of the Māhukona Harbor Steamship Wreck

Māhukona Harbor closed commercial operations in 1955 and has since been a popular recreational boat harbor and swimming area.⁶ Swimmers and snorkelers have known about the wreckage for many years, but few may know what it represents.

Richard W. Rogers, a captain with Hawaiian Airlines and a licensed boat captain, has

⁶ Schwietzer with Gomes, *Kohala 'Āina*, 154.

over the past few decades become an expert on Hawaiian Islands shipwreck history. In the early 1980s, "Captain Rick" spoke with a man familiar with the site. According to Rogers, the man said that there had been additional artifacts such as portholes, bottles, bricks, and "railroad wheels" and that he had removed some of these artifacts and sold them.⁷

An interesting set of correspondence exists from the 1972-1974 timeframe with regard to a proposed project by E. Dow Davidson, Jr. of Hilo for an "underwater trail" at Māhukona.⁸ Davidson, then a freshman at the University of Hawai'i (UH) at Hilo, proposed this project as part of that institution's Marine Option Program (MOP). In a letter dated August 18th, 1972, from Davidson to Dave Woolsey of the law firm Eckeo, Dean, Austin & Williams, Mr. Davidson outlined details of his proposed project, including possible installation of underwater markers, etc.⁹ This letter includes references to coordination undertaken by Davidson with the Kohala Corporation for possible financial assistance, and also shows a great deal of historical research regarding the shipwreck's identity. The coordination and research outlined in the letter suggest skills and knowledge beyond the average college freshman. Unfortunately, Davidson confidently concludes that the wreckage is that of the *Jenny Pitts*, which as noted above, sank at Māhukona in 1881. This is simply not possible, as will be shown later in this text.

⁷ Richard W. Rogers, *Shipwrecks of Hawai'i: A Maritime History of the Big Island* (Hale'iwa, HI: Piliialoha Publishing, 1999), 53.

⁸ Dow Davidson letter to Pete Hendricks, 11 Dec 1991, Assemblage of correspondence regarding the wreck at Māhukona Harbor, 1972-1974. Personal papers of Pete Hendricks.

⁹ *Ibid.*

This correspondence also includes three letters to Davidson from Gary Cummins, Historian for the Hawai'i Department of Land and Natural Resources (DLNR).¹⁰ In a letter from March 1972, Cummins encouraged Davidson, stating that he was impressed with what Davidson was trying to accomplish. He also stated, however, that Davidson's plan for the underwater park was a bit advanced for that time. In a letter dated January 28th, 1974, Cummins wrote to Davidson that he hoped to work with him to map the wreck site. He also stated that he was hoping to get the site added to the Hawai'i Register of Historic Places. Unfortunately, however, Cummins assumed that Davidson's identification of the wreck was correct; he stated "...I'd like to use the Jenny Pitts as a test area for developing our techniques."¹¹

The plan to establish an underwater park did not come to fruition, and the site was never added to the Hawai'i Register of Historic Places. Nearly two decades later, on December 11th, 1991, Davidson, then a quality assurance and sample control consultant in Hilo, wrote to Mr. Pete Hendricks of Hawai'i DLNR. His letter included copies of the correspondence noted above; he passed it along to Hendricks after learning of his interest in maritime archaeology.¹²

On October 30th, 1992, Hendricks corresponded with Mr. Steve Russell of the UH Mānoa MOP after learning that MOP was interested in conducting a Maritime Archaeology Survey Techniques (MAST) Course on Hawai'i Island. Hendricks suggested a few wreck sites, but gave the highest recommendation for the MHSSW

¹⁰ *Ibid.*

¹¹ *Ibid.*

¹² *Ibid.*

based upon its overall accessibility and the generally mild weather and sea conditions in the summer months.

U. H. Mānoa's Maritime Archaeology Survey

Techniques (MAST) Course 1993

In the summer of 1993, UH Mānoa MOP did conduct a MAST course (more commonly called a "field school") on the MHSSWS. This course was conducted in conjunction with ECU. Dr. Brad Rodgers of ECU's Program in Maritime History and Nautical Archaeology (now known as the "Program in Maritime Studies" or PMS) was the principle investigator. Steve Russell of the UH Mānoa MOP assisted with administrative and logistical matters. There were 15 students, and 3 assistants.¹³ Most students were Hawai'i residents, some of whom were attending UH.

The students were divided into three teams of five divers each. The dive teams conducted baseline trilateration and measured drawings in order to map the site, and also took underwater photographs. The next year, a team from the 1993 field school completed the Māhukona site's primary graphic product: a plan view "site drawing" of the wreckage. The final product was inked onto a large mylar sheet (see Figure 35 on page 129 for a scaled-down copy).

The most distinct artifacts in the site drawing are the remains of a two-cylinder compound steam engine, attached propeller and propeller shaft, a scotch boiler,

¹³ Bradley Rodgers, Field Notes, Maritime Archaeology Survey Techniques (MAST) Field School, conducted by the University of Hawai'i at Mānoa Marine Option Program and East Carolina University in at Mahukona Harbor, 1993, 1.

several railroad trucks, and the remains of at least one “donkey” boiler. Figure 36 below is a photograph of the scotch boiler taken during the 1993 field school; Figure 37 on page 131 is photograph of the engine.

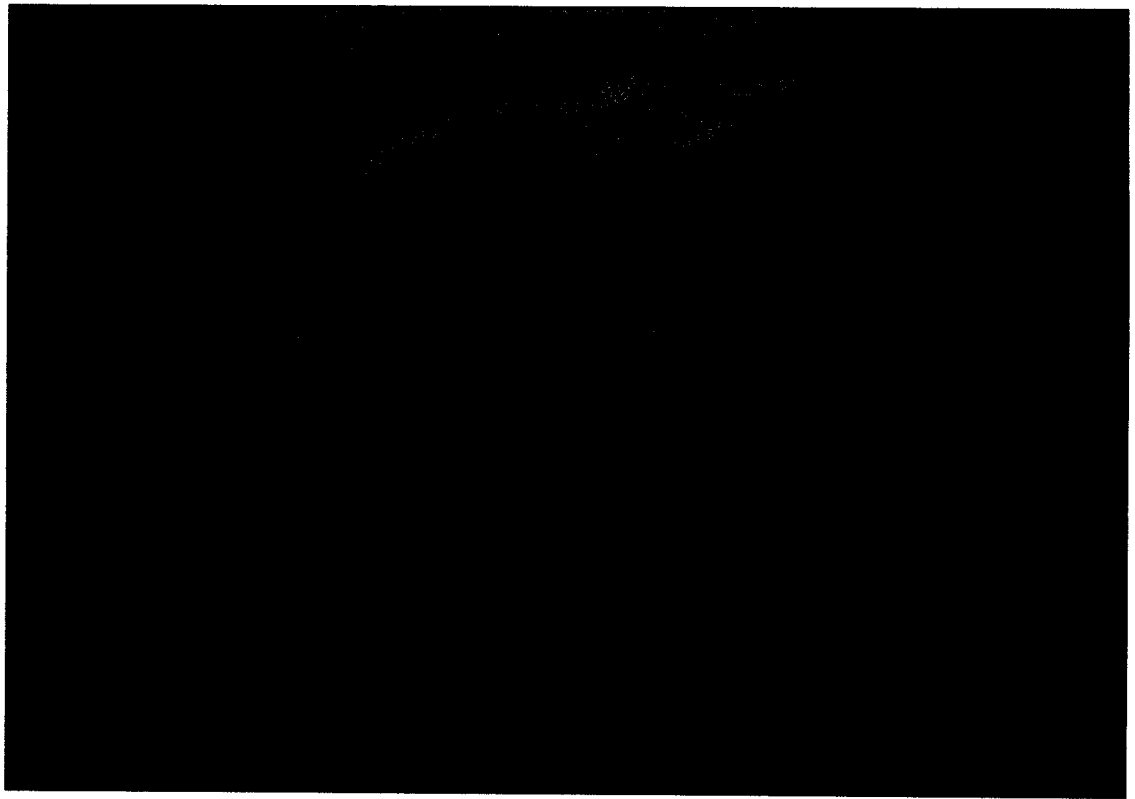


Figure 36. Boiler of the Māhukona Harbor Steamship Wreck, from MAST 1993.
(Photo courtesy of the Marine Option Program, U. H. Mānoa.)

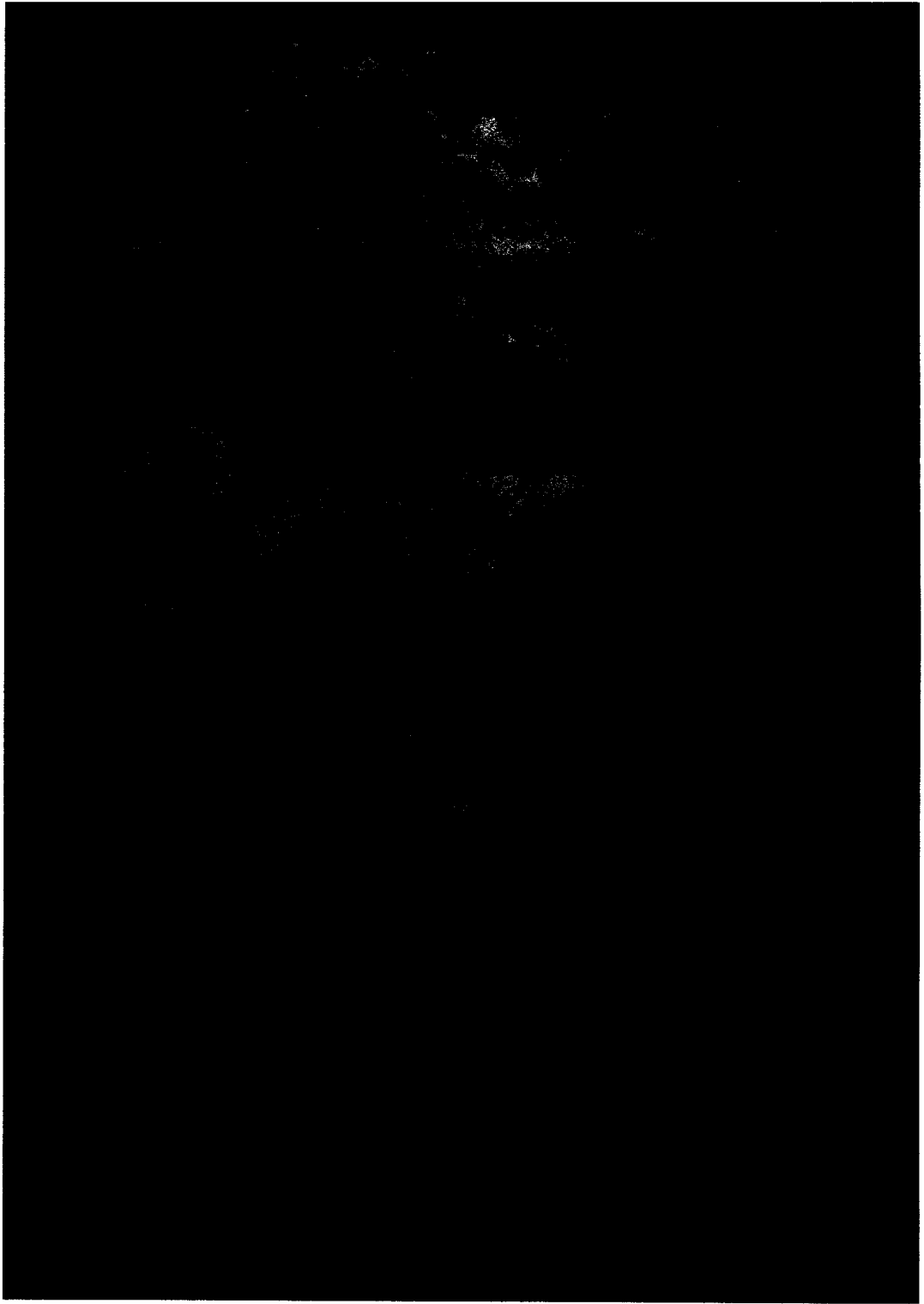


Figure 37. Engine of the Māhukona Harbor Steamship Wreck, from MAST 1993.
(Photo courtesy of the Marine Option Program, U. H. Mānoa.)

UH Hilo's Marine Biology Survey 1996

In the summer of 1996, the MHSSW was the subject of a different kind of investigation. A survey of coral and algae on the wreckage, as well as the distribution of crustacean, invertebrate, and fish species frequenting the wreckage, was conducted as part of a marine biology survey. The objective was to determine if this biomass was enhanced due to the "artificial reef" created by the wreckage in comparison to the surrounding area.¹⁴ It was concluded that the wreck enhanced the abundance of certain fish and algae species, but the coral was not enhanced.¹⁵

UH Mānoa's Maritime Archaeology Techniques Course (MATC) 1997

In the summer of 1997, UH Mānoa MOP returned to Hawai'i Island for a maritime archaeology field school, at that time known as MATC. The 1997 MATC focused on three separate projects conducted at separate sites: additional survey of the MHSSW (called the S. S. *Kauai*), a terrestrial and underwater survey of what is believed to be the wreckage of a World War II era converted sampan at Kona Coast State Park, and a remote sensing survey (via towed proton magnetometer) of Kealahou Bay on the southern Kona Coast.

The instructor and principal investigator was Hans Van Tilburg. Steve Russell of UH Mānoa MOP again served as the coordinator for administration and logistics. The

¹⁴ Michelle K. Calhoun and Anthony Pico, *The Kaua'i, A Financial Loss- An Ecological Gain: Biological Survey and Mapping of the Shipwreck Kaua'i, Mahukona, Hawaii*, Proceedings of the First Annual Undergraduate Research Program, Summer 1996 (Hilo: University of Hawai'i at Hilo Marine Option Program, 1996), 1.

¹⁵ *Ibid.*, 8.

author served as dive supervisor. Three dive teams consisted of a crew chief and three or four student divers each.

The first of two major products from this first phase of the field school were elevation (side view) drawings of the engine and boiler of the MHSSW. Figure 38 on page 134 is the engine drawing, and Figure 39 on page 135, the boiler. Measured drawings were conducted for all four sides of these two major artifacts to produce the drawings.

The second major project was a site map (Figure 40, page 136), showing where the engine and boiler were located with respect to the shoreline at Māhukona Harbor. The shoreline was produced using a theodolite transit with an electronic distance measuring (EDM) device. The engine and boiler locations were determined by setting buoys directly over them, and "shooting" those points from two known shore locations. The 1997 MATC work also included additional photography at the MHSSW site. Figure 41 on page 137 is a photograph of the propeller.

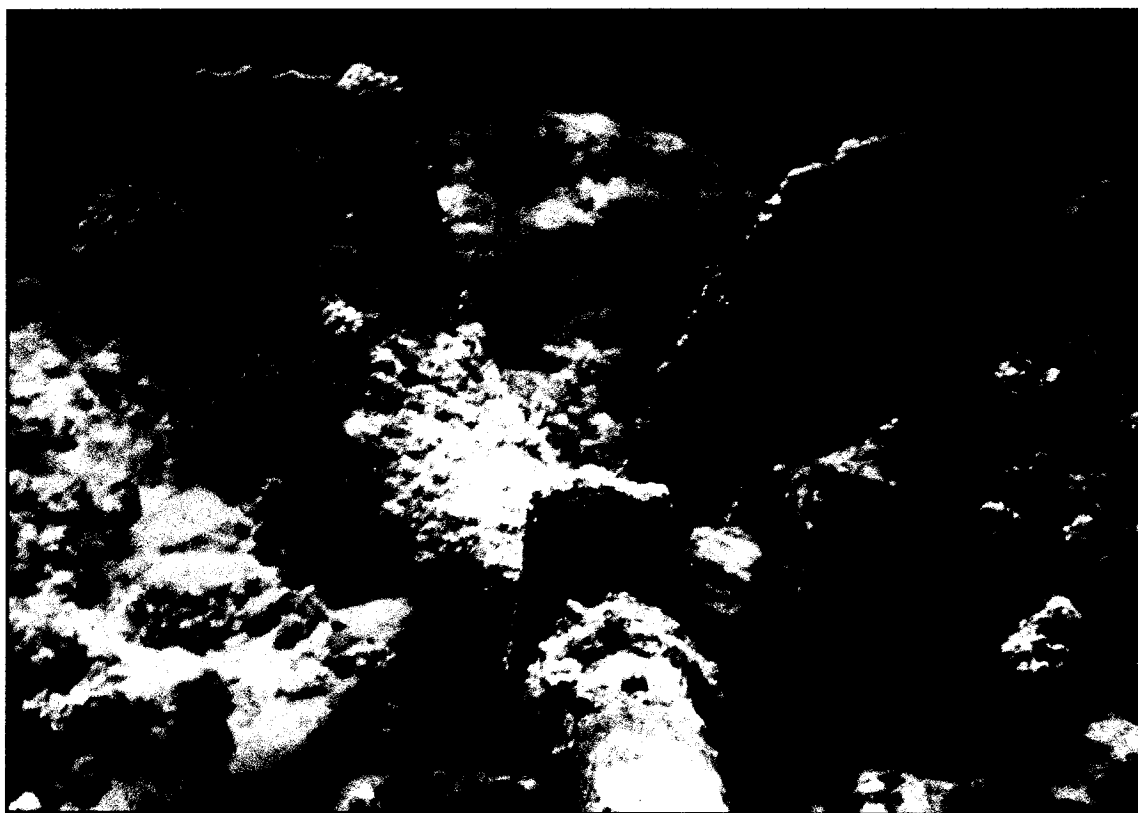


Figure 41. Propeller of the Māhukona Harbor Steamship Wreck, from MATC 1997. (Photo courtesy of the Marine Option Program, U. H. Mānoa.)

Winter Storm of 1999

At the conclusion of MATC 1997, archaeological documentation of the MHSSW consisted of a plan view drawing of the two primary artifacts at the site (the engine and boiler) and the other small artifacts nearby, elevation drawings of the two primary artifacts, and site map that shows the location of the primary artifacts with respect to the shoreline. As a Phase I non-intrusive survey, documentation of the wreck site was essentially complete.

Unfortunately, a storm in the Winter of 1999 produced surge so strong that it loosened the boiler from the seabed, and rolled it up onto the rocky shore at Māhukona Harbor, moving it a distance of over 130 meters. Early photo documentation of the wreckage was conducted by Dr. Van Tilburg; his 1999 photos of the onshore boiler wreckage include Figures 42 and 43 on page 139. Pete Hendricks took photos of the boiler wreckage in 2002; they are represented by Figures 44 and 45 on page 140.

It should be stated at this point that the author assumes that what appears to be the broken pieces of a boiler that were seen on the shore and in the shallow water after the 1999 storm are in fact the remains of the boiler from the MHSSW. It could be argued from a theoretical perspective that this “archaeology within archaeology” must be proven archeologically, but the details of the broken pieces, and the absence of the boiler from the main site compel the author to make this assumption.



Figure 42. Onshore boiler wreckage of the Māhukona Harbor Steamship Wreck, 1999. (Photo courtesy of Hans Van Tilburg.)

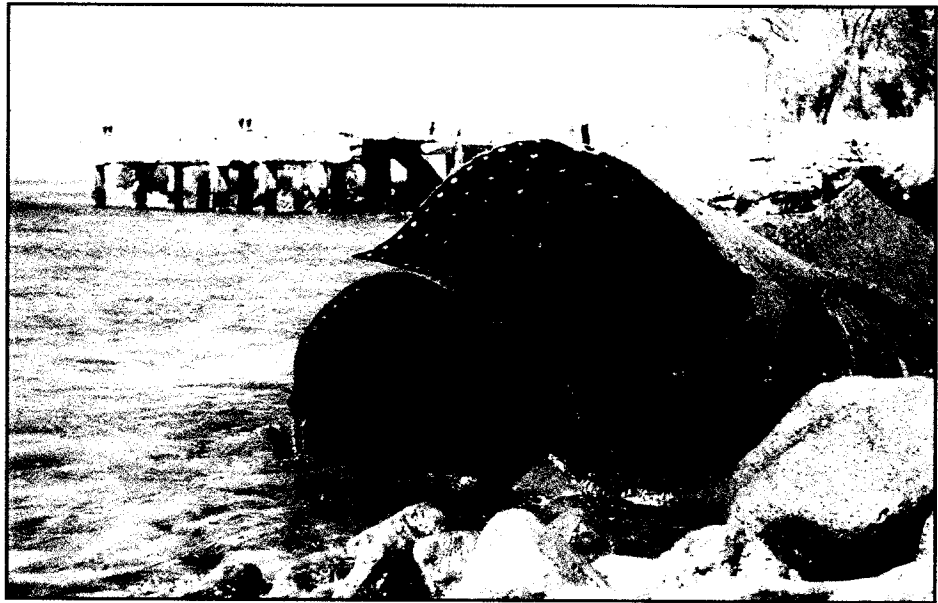


Figure 43. Second view of boiler wreckage of the Māhukona Harbor Steamship Wreck, 1999. (Photo courtesy of Hans Van Tilburg.)



Figure 44. Onshore boiler wreckage of the Māhukona Harbor Steamship Wreck, 2002. (Photo courtesy of Pete Hendricks.)

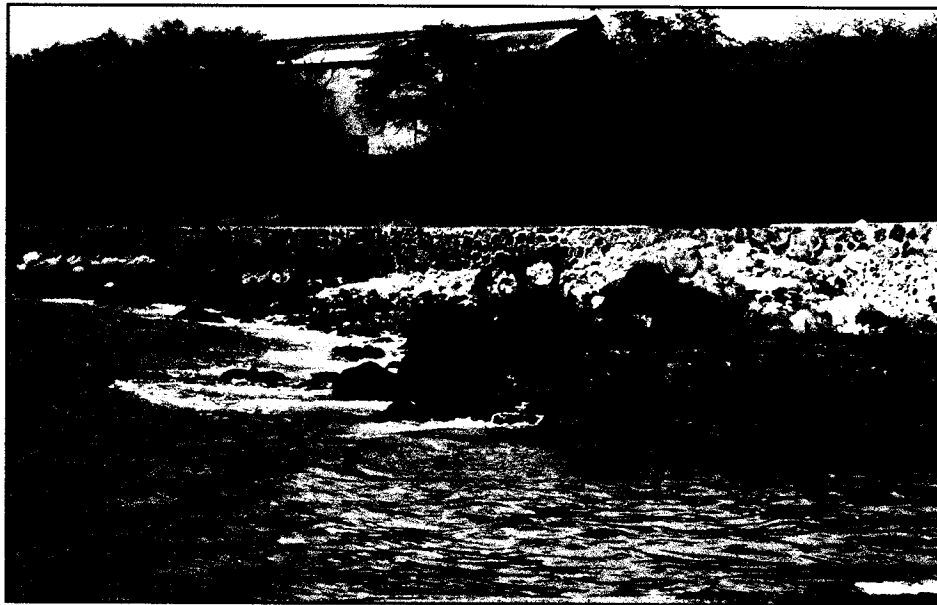


Figure 45. Second view of boiler wreckage of the Māhukona Harbor Steamship Wreck, 2002. (Photo courtesy of Pete Hendricks.)

Additional Site Documentation, 2003 - 2006

Additional documentation of the MHSSW was required, based upon changes to the site brought by a 1999 storm. On November 13th, 2003, the author conducted a brief snorkel site reconnaissance, to assess of what else should be done to further document the MHSSW. Reconnaissance was conducted at the engine site and the site representing the wreckage of the boiler in the shallow water and on shore. At the engine site, the author observed long term coral concretions connecting the engine to the seabed. It appeared that these were unbroken, suggesting that, although the 1999 storm was strong enough to displace the cylindrical boiler, it did not move the engine. It was determined that a new plan view drawing of the engine would not be necessary, and that the most appropriate follow-on work for the engine site would consist of additional photography and a general assessment of the removal/displacement of the railroad trucks in the vicinity of the engine.

The broken remains of the boiler were seen on the shore, and in the shallow surf zone portion of Māhukona Harbor. Figures 46 and 47 on page 142 reveal the ongoing movement and breakdown of the remains. It was determined that measured drawings of the pieces should be taken, both on the shore and in the water, and that a plan view drawing of the wreckage scatter should be conducted.



Figure 46. Onshore boiler wreckage of the Māhukona Harbor Steamship Wreck, 2003.



Figure 47. Second view of boiler wreckage of the Māhukona Harbor Steamship Wreck, 2003.

After obtaining permission to conduct a non-intrusive survey of the site from the State of Hawai'i's Historic Preservation Division, the author conducted additional work on the site on October 14th, 2005, with one assistant. The team conducted one SCUBA dive on the engine area. Digital photos were taken, key measurements of artifacts were taken, and an assessment of the railroad trucks was conducted. Figure 48 and Figure 49 on page 144 show the condition of the engine, propeller shaft, and propeller at that time.

The site drawing from 1993 shows approximately 30 railroad trucks, but the team found only 11. The wheel-to-wheel span of one truck was measured; it was 63.5 cm (25 inches). Approximately half were in the same locations shown on the 1993 site drawing.

There were also a few seen in locations not represented on the 1993 site drawing. It is difficult to determine the exact displacement of individual railroad trucks, but a general assessment should suffice: a few have not moved since 1993, a few have moved since 1993, and almost 2/3 have been removed from the site completely since 1993. examples of railroad trucks at the site are seen in Figure 50 and Figure 51 on page 145.



Figure 48. Engine of the Māhukona Harbor Steamship Wreck, 2005.

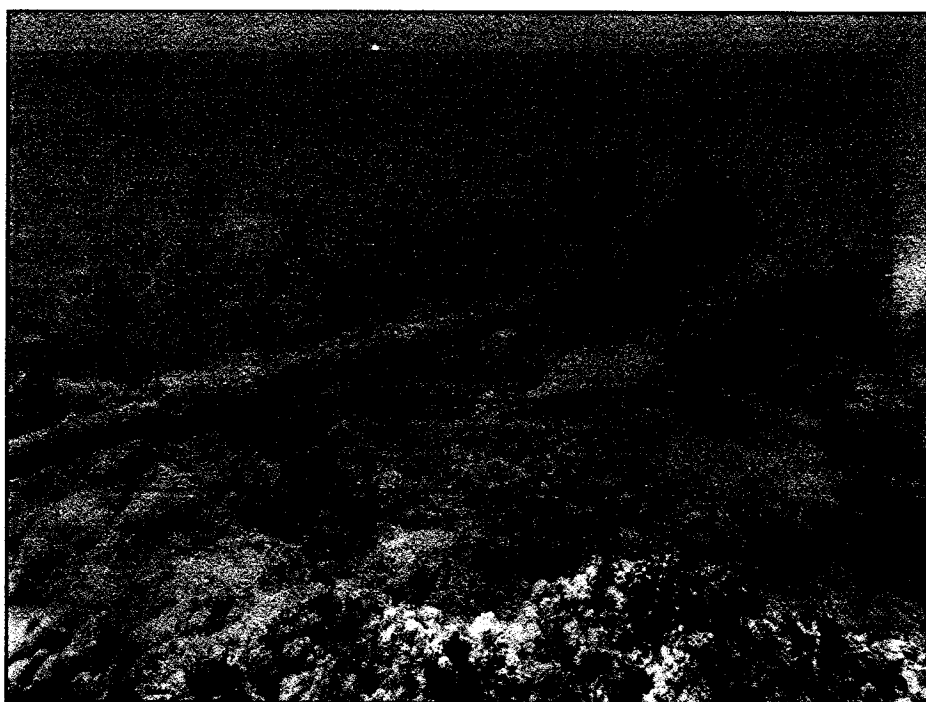


Figure 49. Propeller shaft and propeller of the Māhukona Harbor Steamship Wreck, 2005.



Figure 50. Plan view of one railroad truck at the Māhukona Harbor Steamship Wreck, next to the harbor's anchor chain, 2005.

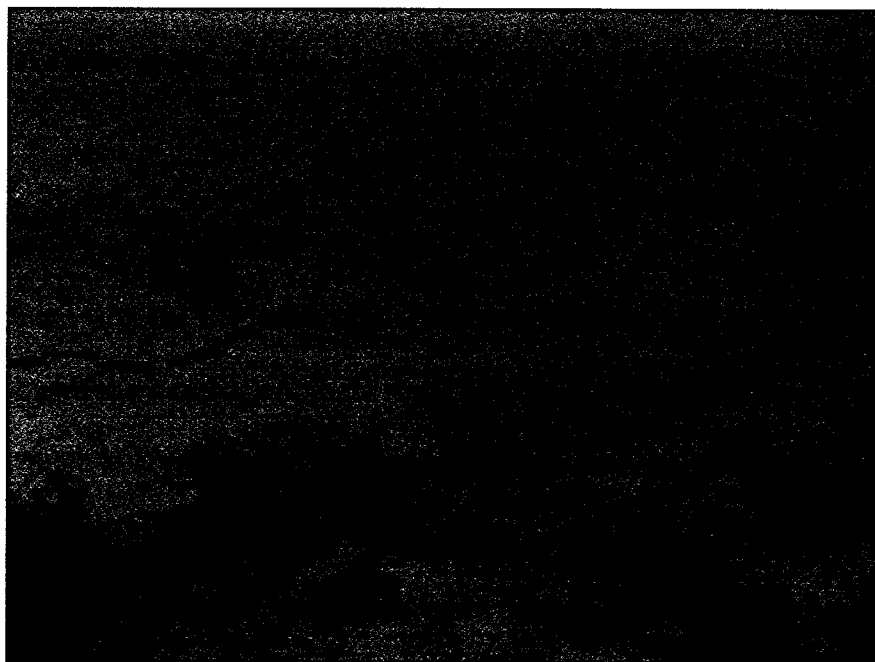


Figure 51. Angled view of a railroad truck from the Māhukona Harbor Steamship Wreck, with harbor's anchor chain in foreground, 2005.

The team took photos and measurements of the wreckage on shore (see Figures 52 and 53 on page 147). In October 2005, two large pieces and a few smaller pieces remained. One large piece appeared to be the remains of one of the two boiler furnace tubes, and the other appeared to be a portion of the boiler's outer shell.

The continuous breakdown of the onshore wreckage can be seen by comparing the 1999, 2002, 2003, and 2005 photos. It is difficult to determine exactly what caused the breakdown. It could be an increase in corrosion rate due to exposure to air instead of (or in addition to) salt water. It could also be the impact of wind and surf, or accidental or intentional damage by humans. It is likely a combination of all these factors.

Several various-sized pieces of the boiler's outer shell and inner components were found in the shallow water (see Figures 54 and 55, page 148). The pieces were scattered over an area approximately 25 meters wide, and 25 meters from the shore to the furthest object. There were approximately 12 pieces ranging in size from ½ meter to 2 meters in length.

The objective for was to conduct measured drawings of the individual pieces, then trilaterate them with respect to the larger pieces of wreckage to compile a detailed plan view drawing of the wreckage both on shore and in water. Surf conditions made this task too difficult to accomplish. Measured drawings of several in-water pieces were created, but the surf made trilateration with an acceptable degree of accuracy virtually impossible. The wreckage location is therefore documented on a composite site map (Figure 56, page 149). This map was produced by super-imposing the boiler wreckage location onto the 1997 site map.

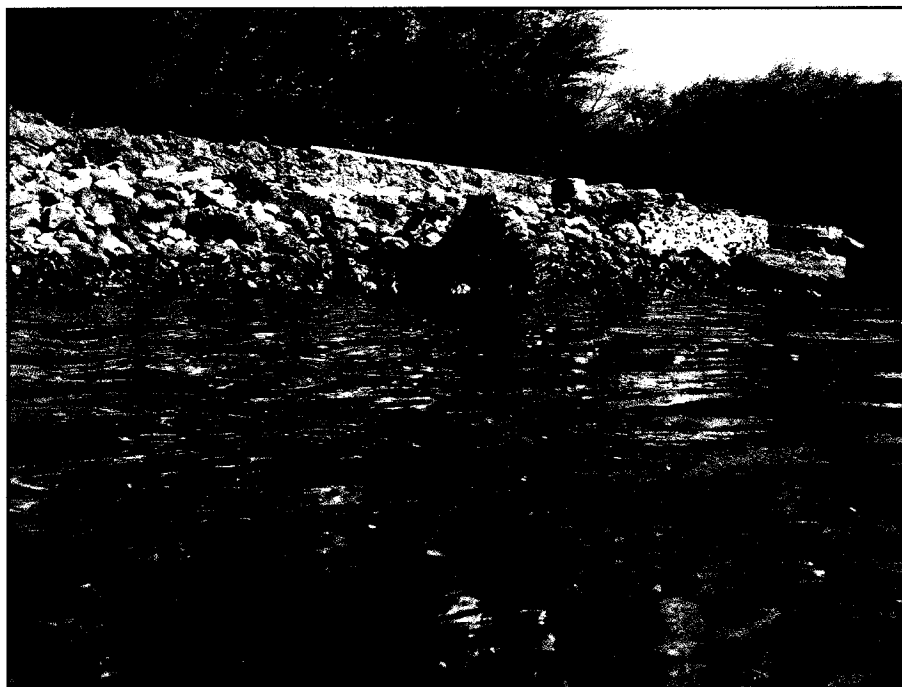


Figure 52. Onshore boiler wreckage of the Māhukona Harbor Steamship Wreck, 2005.

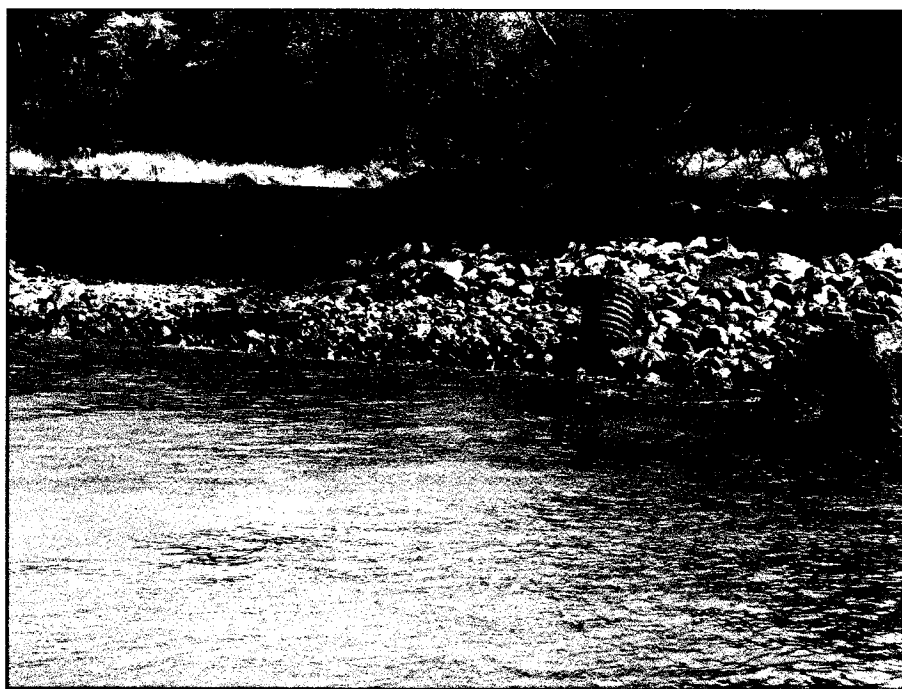


Figure 53. Second view of boiler wreckage of the Māhukona Harbor Steamship Wreck, 2005.

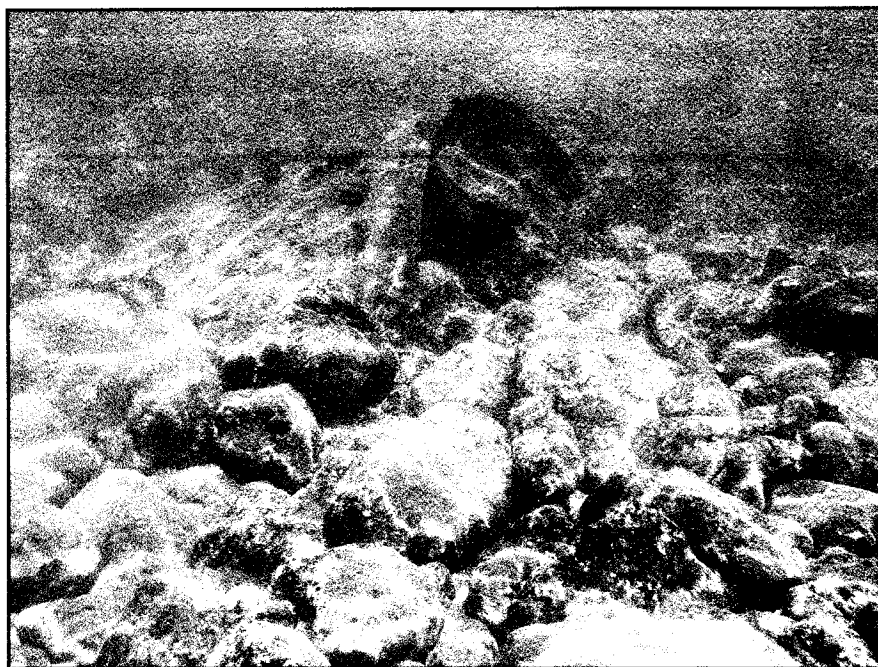


Figure 54. In-water view of boiler wreckage of the Māhukona Harbor Steamship Wreck, 2005.



Figure 55. Second in-water view of boiler wreckage of the Māhukona Harbor Steamship Wreck, 2005.

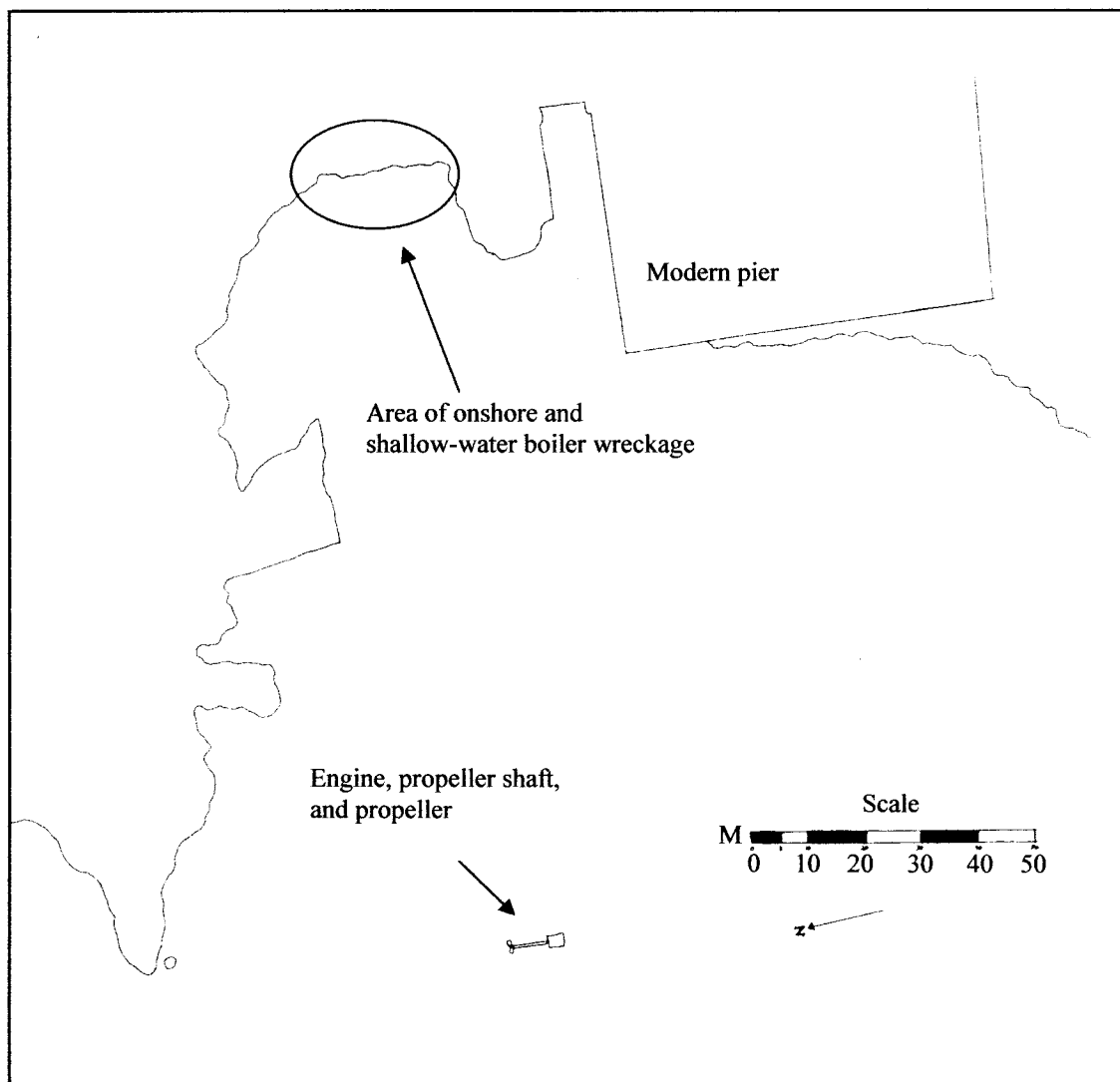


Figure 56. Site Map of Māhukona Harbor, highlighting the general location of the onshore and shallow-water boiler remains of the Māhukona Harbor Steamship Wreck as of October 2005. (New data superimposed by the author onto the 1997 site map from the U. H. Mānoa Marine Option Program.)

The author visited the site in February 2006 to obtain additional measurements and take additional photos. The onshore boiler pieces appeared to be in the same general location as in October 2005 (see Figures 57 and 58 on page 151, and Figures 59 and 60 on page 152). A brief visual in-water inspection on snorkel, however, revealed that several broken boiler pieces in shallow water had moved, or were missing.

In the end, the 1999 winter storm presented two pieces of significant information for archaeologists. First, although it destroyed the relatively intact boiler, it revealed the inner portions of the boiler for measurement and examination. Second, it revealed the dynamic nature of the site environment and served as a reminder that a wreck site is not static, but fluid and evolving.

The volume of artifacts at the MHSSW was somewhat limited. Nevertheless, the archaeological data collected at the MHSSW from 1993 to 2006, combined with the application of Multiple Working Hypotheses, provided the author with valuable information about the MHSSW. The interpretation of this information, combined with the historical data available for the Hawaiian steamer *Kauai*, enabled the author to draw the conclusions outlined in the next, and final, chapter of this thesis.

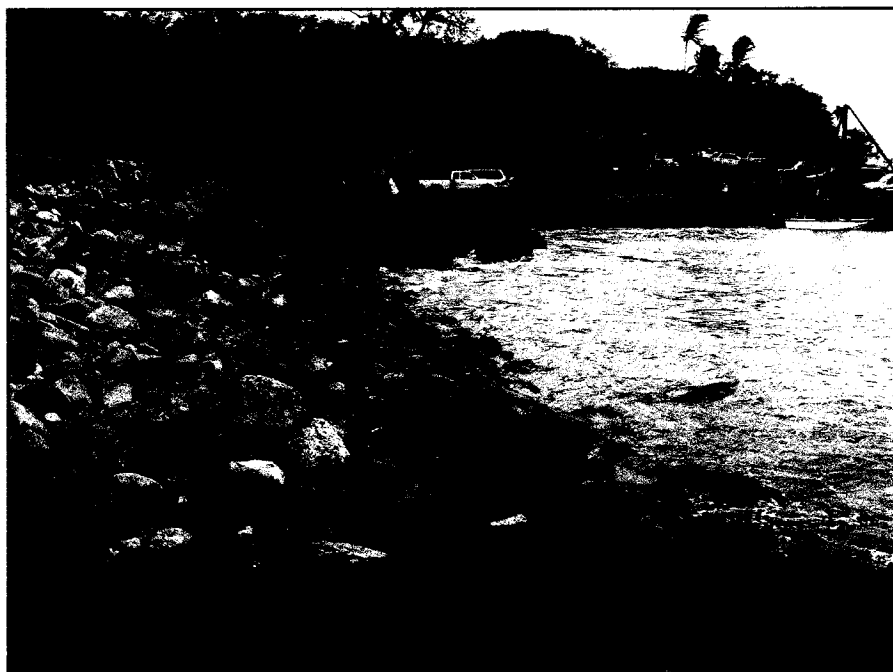


Figure 57. Onshore boiler wreckage of the Māhukona Harbor Steamship Wreck, 2006.



Figure 58. Second onshore view of boiler wreckage of the Māhukona Harbor Steamship Wreck, 2006.



Figure 59. Close-up view of boiler wreckage of the Māhukona Harbor Steamship Wreck, 2006.

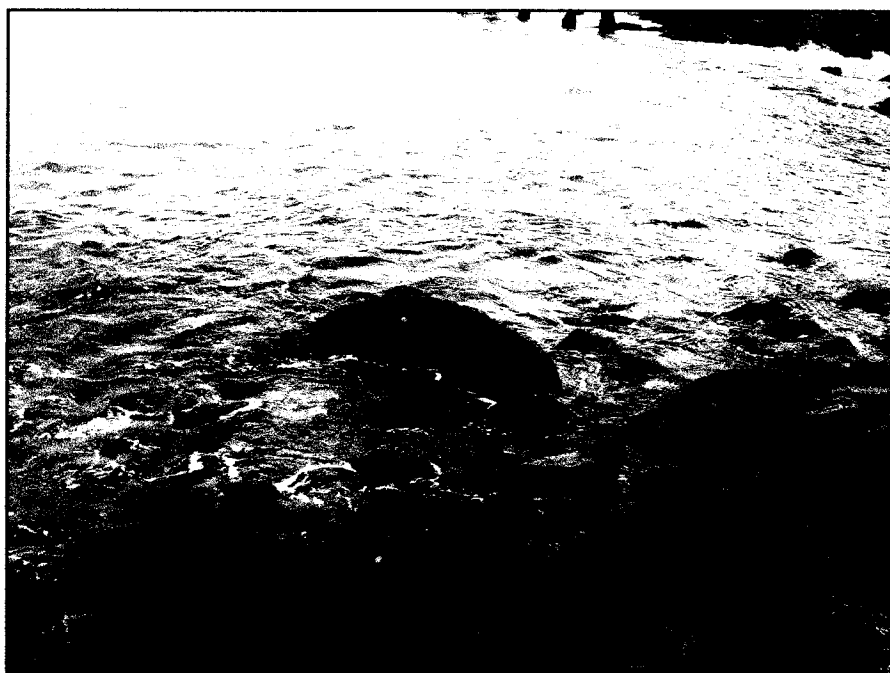


Figure 60. Second close-up view of boiler wreckage of the Māhukona Harbor Steamship Wreck, 2006.

CHAPTER 7
THE MĀHUKONA HARBOR STEAMSHIP WRECK;
INTERPRETATIONS AND CONCLUSIONS

Under ideal conditions, underwater sites are discovered and subsequently investigated by archaeologists who have no pre-conceived notions of what the site represents. An archaeologist who elects to investigate such a site may choose to include the application of "multiple working hypotheses" as part of the research design. The concept of multiple working hypotheses was presented in 1890 by T. C. Chamberlin,¹ and has subsequently been applied in many disciplines, including archaeology. Chamberlin suggests that rather than accept a preconceived notion, or accept a controlling single hypothesis, a researcher should utilize multiple working hypotheses "to bring up into view every rational explanation of new phenomena" that is possible.² Application of this concept to submerged shipwreck sites entails the establishment of several hypotheses, and the systematic testing of these hypotheses, in order to determine if any conclusions can be made with regard to this vessel from this anthropological perspective. These conclusions could include the identification of the type of vessel, and/or a conclusion about something else related to the vessel, such as its cargo. It is not likely that a conclusion as to the actual identity of the vessel would be drawn without the addition of historical evidence.

¹ T. C. Chamberlin, "The Method of Multiple Working Hypotheses," *Science* 148 (1965), 754-759, reprinted in Lawrence E. Babits and Hans Van Tilburg, *Maritime Archaeology: A Reader of Substantive and Theoretical Contributions* (New York: Plenum Press, 1998), 145.

² *Ibid.*, 148.

**Application of Multiple Working Hypotheses
to the Māhukona Harbor Steamship Wreck**

Lawrence E. Babits' 1982 Interim Report of "The Berth 52 Vessel"³ stands as a model for the application of multiple working hypotheses to submerged wreck sites. His model was modified and utilized by the author to apply multiple working hypotheses to the MHSSW to establish as much as possible about the site from an anthropological perspective. The multiple working hypotheses applied to the MHSSW are outlined in Table 7 below, through page 160:

TABLE 7

**MULTIPLE WORKING HYPOTHESES APPLIED TO THE MĀHUKONA
HARBOR STEAMSHIP WRECK (MHSSW)**

HYP. #	HYPOTHESIS	HYPOTHESIS CONFIRMATION	AUTHOR'S EXPLANATION
H0	The wreck does not exist. This is called the "null hypothesis," and is presented so that every possible explanation is included. In order for this hypothesis to be supported, it must be shown that the remains at the MHSSW are not the remains of a vessel.	<i>Rejected</i>	<i>The engine, propeller shaft and propeller are clearly part of a marine propulsion system. While it is possible that such items could have been carried by another vessel as cargo, the fact that they are attached together (configured for operation) deems this un-plausible.</i>

³ L. E. Babits, *The Berth 52 Vessel (09CH691): The Interim Report (1982)*, Ms. on file (Savanna, GA: Georgia Historical Society, 1982), reprinted in Lawrence E. Babits and Hans Van Tilburg, *Maritime Archaeology: A Reader of Substantive and Theoretical Contributions* (New York: Plenum Press, 1998), 190.

HYP. #	HYPOTHESIS	HYPOTHESIS CONFIRMATION	AUTHOR'S EXPLANATION
H1	The wreck is a cargo vessel. In order for this hypothesis to be supported, the vessel must have some <i>structural</i> evidence of cargo-carrying capacity, and/or there must be some evidence that some of the <i>artifacts</i> associated with the site represent cargo.	<i>Neither rejected nor supported</i>	<i>Although there are no visible remains of the hull to support or reject structural evidence, the railroad trucks could serve as artifactual evidence. While a de-railed narrow-gauge train could conceivably fall into the water, the MHSSW is too far from the shore for this to be the archeological record of such an event. Based upon the strong probability that the railroad trucks are from the same time period as the steam machinery of the MHSSW, it is not likely that the railroad trucks were part of a cargo of a different vessel. Nevertheless, this possibility cannot be ruled out.</i>
H2	The wreck is a military vessel. As with Hypothesis 1, evidence could be structural or artifactual. Structural evidence could be anything suggesting the support of weaponry, such as reinforced planking, gunports, etc. Artifactual evidence could include actual guns or other weapons, or other military items.	<i>Neither rejected nor supported</i>	<i>No structural or artifactual evidence of a military nature was recorded, but it cannot be ruled out.</i>
H3	The wreck is a civil, non-cargo vessel. This hypothesis would be based primarily on <i>negative</i> evidence, and could therefore be problematic. It would be supported by the <i>absence</i> of military or cargo related evidence, although the lack of this evidence does not necessarily prove that it could not have been present.	<i>Neither rejected nor supported</i>	<i>As noted in Hypothesis 1, it cannot be confirmed, or ruled out, that the railroad trucks were cargo of the MHSSW.</i>

HYP. #	HYPOTHESIS	HYPOTHESIS CONFIRMATION	AUTHOR'S EXPLANATION
H4	The wreck dates to a particular time period. This is essentially a series of subhypotheses, consolidated for simplicity. These have been constructed specifically for a wreck in the Hawaiian Islands.		
H4a	The wreck dates to pre-Western contact (generally accepted as pre-1778).	<i>Rejected</i>	<i>Two-cylinder compound steam engines did not exist during this period.</i>
H4b	The wreck dates to the late 18 th or early 19 th century.	<i>Rejected</i>	<i>Two-cylinder compound steam engines did not exist during this period.</i>
H4c	The wreck dates to the mid-19 th century.	<i>Rejected</i>	<i>Two-cylinder compound steam engines and scotch boilers were introduced in the late 19th century.</i>
H4d	The wreck dates to the late 19 th or early 20 th century.	<i>Supported</i>	<i>A two-cylinder compound steam engine powered by steam generated by a scotch boiler was a standard propulsion configuration during this period.</i>
H4e	The wreck dates to the World War II era.	<i>Rejected</i>	<i>Two-cylinder compound steam engines were no longer in use in Hawai'i during this period.</i>
H4f	The wreck dates to the late 20 th or early 21 st century.	<i>Rejected</i>	<i>Two-cylinder compound steam engines were no longer in use in Hawai'i during this period.</i>
H5	The wreck is a certain type of vessel. Again, this is subdivided for simplicity. These subhypotheses were also designed for use in the Hawaiian Islands.		
H5a	The vessel was a Polynesian <i>wa'a</i> (canoe).	<i>Rejected</i>	<i>Wa'a were not propelled by steam engines.</i>

HYP. #	HYPOTHESIS	HYPOTHESIS CONFIRMATION	AUTHOR'S EXPLANATION
H5b	The vessel was a sailing vessel of Western design.	<i>Neither rejected nor supported</i>	<i>The presence of a steam engine does not deny the possibility of a sailing configuration, but there is no evidence of masts, spars, booms, sails, or anything else that can confirm a sailing configuration.</i>
H5c	The vessel was a paddle-wheel steamboat.	<i>Rejected</i>	<i>The presence of a propeller denies this possibility.</i>
H5d	The vessel was a propeller-driven steamboat.	<i>Supported and confirmed</i>	<i>Two-cylinder compound steam engine with propeller, propeller shaft, and scotch boiler confirm this hypothesis.</i>
H5e	The vessel was gasoline or diesel powered boat.	<i>Rejected</i>	<i>The scotch boiler confirms that the vessel was powered by steam.</i>
H5f	The vessel was a naval ship.	<i>Neither rejected nor supported</i>	<i>There is no evidence to support that the MHSSW was a naval vessel, but neither the propulsion system nor the possible existence of cargo deny this possibility.</i>
H5g	The vessel was a fishing boat.	<i>Rejected</i>	<i>A fishing boat in Hawai'i during this period would not have a propulsion system as large as that of the MHSSW.</i>
H5h	The vessel was a barge.	<i>Rejected</i>	<i>The existence of a propulsion system denies this as a possibility.</i>

HYP. #	HYPOTHESIS	HYPOTHESIS CONFIRMATION	AUTHOR'S EXPLANATION
H5i	The vessel was a tugboat.	<i>Rejected</i>	<i>Although some tugboats were powered by two-cylinder compound steam engines, the length of the propeller shaft at the MHSSW would be too long for a tugboat.</i>
H5j	The vessel was a recreational boat.	<i>Rejected</i>	<i>A recreational boat in Hawai'i during this period would not have a propulsion system as large as that of the MHSSW.</i>
H6	The vessel had a propulsion system. This hypothesis is subdivided into different categories of propulsion systems.		
H6a	The vessel was propelled by <i>hoe</i> (paddles).	<i>Rejected</i>	<i>The presence of a steam engine denies this possibility.</i>
H6b	The vessel was propelled by sail.	<i>Neither rejected nor supported</i>	<i>See H5b above.</i>
H6c	The vessel was propelled by towing.	<i>Rejected</i>	<i>There is evidence of a configured propulsion system.</i>
H6d	The vessel was propelled by inboard steam power (propeller).	<i>Supported and confirmed</i>	<i>See H5d above.</i>
H6e	The vessel was propelled by outboard steam power (paddle wheel[s]).	<i>Rejected</i>	<i>See H5c above.</i>
H6f	The vessel was propelled by inboard gasoline or diesel power.	<i>Rejected</i>	<i>See H5e above.</i>
H6g	The vessel was propelled by outboard gasoline or diesel power.	<i>Rejected</i>	<i>See H5e above.</i>

HYP. #	HYPOTHESIS	HYPOTHESIS CONFIRMATION	AUTHOR'S EXPLANATION
H7	The site was created by placing the vessel in its present location. As with hypotheses 4 through 6, subhypotheses are appropriate.		
H7a	The vessel was accidentally wrecked while in use.	<i>Supported and confirmed</i>	<i>A steamship would not have been intentionally abandoned at the mouth of a major commercial harbor, therefore it must have been an accident. The presence of cargo shows that it was in use at the time.</i>
H7b	The vessel was abandoned after stripping it of material.	<i>Rejected</i>	<i>The presence of the propulsion system and some cargo show that the vessel was not completely stripped. Furthermore, an abandoned vessel would likely be beached, and not left adrift to sink at a commercial harbor.</i>
H7c	The vessel saw multiple uses prior to abandonment.	<i>Neither rejected nor supported</i>	<i>The current condition of the artifacts that remain in the archaeological record denies the possibility of an assessment of the degree of usage.</i>
H7d	The vessel was burned.	<i>Neither rejected nor supported</i>	<i>There is no evidence of burned ship timbers, but because there is not even evidence of unburned timbers, the possibility cannot be ruled out.</i>
H7e	The vessel was deliberately sunk and/or driven aground.	<i>Rejected</i>	<i>The existence of a non-salvaged propulsion system and some cargo show that the MHSSW was not deliberately sunk. Its distance of over 100 m from the shore show that it was not deliberately run aground.</i>

HYP. #	HYPOTHESIS	HYPOTHESIS CONFIRMATION	AUTHOR'S EXPLANATION
H8	The vessel's hull was made from a particular material. This hypothesis is subdivided into subhypotheses based upon different types of hull materials.		
H8a	The vessel's hull was made of wood.	<i>Neither rejected nor supported</i>	<i>There were no hull timbers or wood of any kind found at the MHSSW, but the absence of metal (iron or steel) hull pieces indicates that the possibility cannot be ruled out.</i>
H8b	The vessel's hull was made of metal.	<i>Neither rejected nor supported</i>	<i>There were no iron or steel hull pieces found at the MHSSW, but the absence of wooden hull timbers indicates that the possibility cannot be ruled out.</i>

Source: Multiple Working Hypotheses format from L. E. Babits, *The Berth 52 Vessel (09CH691): The Interim Report (1982)*, Ms. on file (Savanna, GA: Georgia Historical Society, 1982), reprinted in Lawrence E. Babits and Hans Van Tilburg, *Maritime Archaeology: A Reader of Substantive and Theoretical Contributions* (New York: Plenum Press, 1998), 187-202.

In the end, these multiple working hypotheses can be combined to formulate the conclusion that the MHSSW represents a steam-powered, propeller-driven vessel of the late 19th /early 20th century, that sank by accident. The possibilities of cargo-carrying, sail power in addition to steam, military applications, single/multiple use, burning in association with its sinking, or of having a wooden, iron, or steel hull cannot be ruled out.

Does the MHSSW Represent the Remains of the Hawaiian Steamer *Kauai*?

The conclusions drawn above represent the extent to which the scientific system of multiple working hypotheses can go in this case, from a strictly anthropological

perspective. Can anything else be proven? Can the individual craft be identified?

Perhaps, but only with the aid of arguably subjective historical resources.

In his 1890 treatise on multiple working hypotheses, T. C. Chamberlin warns that: "A premature explanation passes into a tentative theory, then into an adopted theory, and then into a ruling theory."⁴ The ruling theory surrounding the MHSSW has been that it is the wreck of the Hawaiian steamer *Kauai*. It is the "best guess", and with the exception of a few people in the 1970s, most people familiar with the vessel and the site seem to agree that it is the *Kauai*. Rather than simply accept this ruling theory, the author applied the archaeological results along with the available historical data to determine if the MHSSW is possibly the remnants of the *Kauai*, and if so, determine if it could be concluded. The most relevant historical aids in this case are through written and photographic history. The author's interpretations below are in *italics*.

What is known about the steamer *Kauai* in terms of archaeological relevance?

The steamer Kauai was a wooden-hulled, two-masted, schooner-rigged, cargo and passenger-carrying steamship, with a propeller driven by a two-cylinder compound steam engine, with steam produced by a coal-burning scotch boiler, that was built in 1887 and sank by accident at Māhukona Harbor on the Island of Hawai'i in 1913.

What can be confirmed about the MHSSW based upon the application of multiple working hypotheses?

As stated in the previous section, the MHSSW represents a steam-powered, propeller-driven vessel of the late 19th /early 20th century, that sank by accident.

Based upon the above, is it possible that the MHSSW could be the remains of the steamer *Kauai*?

Yes. All conclusions made thus far with respect to the MHSSW are compatible with what is known about the steamer Kauai.

⁴ T. C. Chamberlin, "The Method of Multiple Working Hypotheses," 147.

With it still possible that the MHSSW represents the remains of the steamer *Kauai*, some direct, specific statements may be tested to provide further confirmation, or denial.

These are outlined in Table 8 below through the following page:

TABLE 8

ANALYSIS OF THE POSSIBILITY THAT THE MĀHUKONA HARBOR
STEAMSHIP WRECK (MHSSW) IS THE REMAINS
OF THE STEAMER *KAUAI*

IF THE MHSSW IS THE REMAINS OF THE STEAMER <i>KAUAI</i> , THEN...	AUTHOR'S POSITION
...it would be at Māhukona Harbor.	<i>Confirmed; the MHSSW is at Māhukona Harbor.</i>
... there would be some evidence of a wooden hull, and/or no evidence of a non-wooden hull.	<i>Confirmed; there is no evidence of a wooden hull or a non-wooden hull at the MHSSW site.</i>
<p>...there should be no evidence of an installed propulsion system other than a two-cylinder compound steam engine. Furthermore, if there is evidence of a two-cylinder compound steam engine, then the existing engine structure should accommodate cylinders whose dimensions would be approximately 16 inches (~40 cm) in diameter for the high pressure cylinder, and 30 inches (~76 cm) for the low pressure cylinder.</p> <p>(This assumes that the engine of the steamer <i>Kauai</i> was never replaced. There are several newspaper and other archival entries denoting repairs of the steamer <i>Kauai</i>. None of these entries involve the replacement of the engine or the main boiler; it is unlikely that such a significant change would have gone unreported.)</p>	<p><i>Confirmed; there is a two cylinder compound steam engine at the MHSSW site, and there is no evidence of any other propulsion system. The encrusted outer rings of both cylinder covers are approximately 82 cm in diameter, which would accommodate cylinders of approximately 40 cm and 76 cm in diameter.</i></p> <p><i>(It would be impossible to measure the actual cylinders without disassembling the engine. Even if disassembled, corrosion and metal breakdown could still make a measurement impossible.)</i></p>

IF THE MHSSW IS THE REMAINS OF THE STEAMER <i>KAUAI</i> , THEN...	AUTHOR'S POSITION
<p>... there should be no evidence of more than one main boiler. Furthermore, if there is evidence of one and only one main boiler, it should be a cylindrical scotch-type boiler, approximately 10 feet in diameter. Other characteristics of the boiler should be consistent with details listed in the Certificate of Inspection for the steamer <i>Kauai</i> (<i>Cosmopolis</i>) from 1895.</p> <p>(This assumes that the boiler of the steamer <i>Kauai</i> was never replaced; see section on engines above for the rationale of this assumption.)</p>	<p><i>Confirmed; at the MHSSW site there is evidence of only one main boiler. It is a scotch-type boiler, approximately 10 feet in diameter.</i></p> <p><i>The MHSSW's boiler includes two furnace tubes, each ~99 cm in diameter. The 1895 Cert. of Inspection notes two furnace tubes, each 39 inches (~99 cm) in diameter.</i></p>
<p>...there should be no evidence of a cargo load that could not have included a significant load of sugar mill equipment.</p>	<p><i>Confirmed; the visible cargo remaining at the MHSSW primarily consists of several railroad trucks, which could have been part of an assortment of steam mill equipment, since several mills, including the Puako Mill, had trains as part of their transportation system. This small quantity of railroad trucks definitely does not preclude the possibility of more steam equipment as part of a steamer's standard cargo load. (As stated previously, it is possible, but not likely, that the railroad trucks are not part of the MHSSW.)</i></p>

Based upon these loaded questions about the nature of the MHSSW with respect to what is known about the steamer *Kauai*, the only additional conclusion that can be drawn is that it is still *possible* that the MHSSW *could be* the remains of the steamer *Kauai* and its cargo. At this point, there is perhaps only one other relevant question remaining:

Could the MHSSW be the remains of any steam-powered, propeller-driven vessel of the late 19th /early 20th century, that sank by accident, at Māhukona Harbor, other than the steamer *Kauai*?

The answer, in short, is no. As stated in Chapter 6 of this thesis, there are only two other vessels that were known to have wrecked at Māhukona Harbor: the bark Jenny Pitts, built in 1852 and sunk in 1881, and the barkentine Ella, built in 1874 and sunk in 1890. Neither of these vessels are steamships; the MHSSW cannot be the remains of either of these vessels.

The above statement does come with one *caveat*: because the remains of these two sailing vessels are not known to have been recorded archaeologically, it cannot be proven that there is no possibility that the wreckage of either or both of these vessels has been intermixed with the wreckage of the steamer *Kauai*. Therefore, it is possible that a portion of the MHSSW contains wreckage from one or both of these sailing vessels.

Archaeological and Historical Conclusions, and Recommendations

Taking into account all of the information presented thus far the author presents the following. As previously stated, multiple working hypotheses allow us to conclude that the MHSSW represents a steam-powered, propeller-driven vessel of the late 19th /early 20th century, that sank by accident.

With the advantage of written and photographic history, the author has concluded that the Māhukona Harbor Steamship Wreck does in fact represent the remains of the Hawaiian steamer *Kauai*.

This thesis has demonstrated that the West Coast steam schooner *Cosmopolis* / Hawaiian steamer *Kauai* is a significant historical vessel, because it was one of the first “steam schooners” built on the West Coast, and also serves as perhaps the best example of a “bridge” between the West Coast steam schooner and the Hawaiian steamer. Based upon these historical facts with regard to the steamer *Kauai*, and because it has now

been established that the steamship wreckage at Māhukona represents the remains of the steamer *Kauai*, the author considered the possibility of recommending the site for listing on the National Register of Historic Places. The National Park Service has established the following criteria for evaluating a property in terms of significance and in consideration for adding the property to the National Register:⁵

The quality of significance in American history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and:

- A. That are associated with events that have made a significant contribution to the broad patterns of our history; or
- B. That are associated with the lives of persons significant in our past; or
- C. That embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
- D. That have yielded or may be likely to yield, information important in prehistory or history.

The steamer *Kauai* did “embody the distinctive characteristics of a type, period, or method of construction” as required by Criteria C above. Unfortunately, with no hull remnants and only some corroded pieces of steam machinery remaining in the archaeological record, little remains in terms of “distinctive characteristics”.

Nevertheless, it is one of the few remaining examples of a West Coast steam schooner or a Hawaiian steamer that has been discovered, documented archaeologically, *and*

⁵ “Listing a Property: Some Frequently Asked Questions.” National Register of Historic Places website, www.cr.nps.gov/nr/listing.htm, 2.

a way that would have made proud the many fine men who served on her on the West Coast and in the Hawaiian Islands.

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