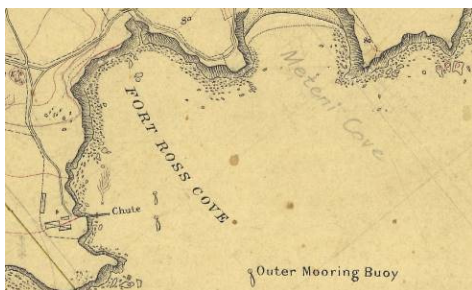


Maritime Heritage



Photo: Fort Ross Conservancy

Fort Ross' lumber chute linked its shore side lumber operations to oceanic transport that carried Redwood Coast products to cities around the world



Map: NOAA's Historical Map and Chart Collection

This 1876 nautical chart produced by the U.S. Coast Survey delineated the lumber loading locations at Fort Ross Cove.



Photo: Fort Ross Conservancy

Lumber chutes also connected isolated communities to waterborne transportation and facilitated the movement of people and supplies.



Photo: Humboldt State University

Loggers used axes and saws to topple redwood trees of enormous size that yielded huge quantities of rot resistant lumber.

Doghole Ports: The Cultural Landscape of the Redwood Coast Lumber Industry

The story of humanity's interaction with the environment during the heyday of the lumber industry in Sonoma and Mendocino County, California can be viewed through the archaeological resources present today. The Redwood Coast landscape is dotted with evidence of the lumber trade's adaptation to the rugged marine environment that allowed the business to flourish and communities to develop from the mid-19th century into the 20th century.

The jagged coast had few roads and no long distance railroads, so the most cost effective way to move the lumber was by sea. Lumbering operations established sawmills along the shoreline at the few places where it was possible for vessels to temporarily anchor.

These "doghole ports," so named because mariners joked that they were barely large enough for a dog to turn around, became centers of economic activity and settlement starting in the 1850s. Enterprising lumbermen rigged a network of chutes and cables extending from the bluffs down into small coves to move lumber to waiting ships. Lumber products exported out through doghole ports included boards, cordwood, posts, railroad ties and tanbark.

A fleet of small, maneuverable schooners and steamers carried the timber to market in San Francisco, where some lumber was then transferred to deep water sailing ships for delivery to the Eastern Seaboard, Australia and Asia. The trade left not only lasting communities that remain today, but the archaeological remains of the infrastructure and in some cases those vessels unlucky enough to be lost on these shores.

Loading Methods

Prior to 1900, trough chutes, also known as slide or apron chutes, were the most common method of loading at doghole ports. Tall wooden A-frames secured to the cliffs, headlands and rocks supported long chutes through which timber products slid down to waiting ships moored near shore. These chutes varied in size and complexity as each was adapted to the doghole port's needs.

During the 1870s, wire chutes came into use. Wire rope stored on a large drum stretched from shore to an anchor point in the water or on shore across a cove. The crew of a vessel taking on cargo moored their vessel by attaching to preset anchors and then picked up the wire and attached it to the vessel's rigging. Bundled lumber was then attached to a pulley and slid down the wire to the waiting ship.

Chutes and Shipwrecks: Preserving Our Maritime Heritage

Doghole ports were once the center of maritime activity along the northern California coast and the evidence of that confluence of land and sea networks can be seen in the archaeological remains of lumber chutes and lost vessels. These sites now lie within several California State Parks and in Greater Farallones National Marine Sanctuary. Archaeologists, historians and resource managers are working together to document and interpret the lumber chutes remains and shipwrecks to better understand our past and connect present day communities to their heritage. Surveys are being combined with archival research to document the larger lumber industry landscape that linked the redwood forests to the world. The economic and social effects of the lumber industry were vast and served as an important source of employment, building materials and stimulated settlement in areas overlooked by other industries.

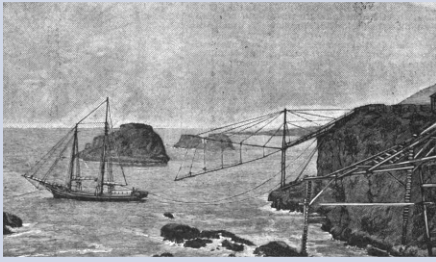


Illustration: *Scientific American Supplement* 24 May 1890

Redwood Coast Doghole Ports:

- Duncan's Point
- Rule's Landing
- Russian Gulch Landing
- Fort Ross
- Timber Cove
- Stillwater Cove
- Salt Point-Gerstle Cove
- Fisk Mill Cove
- Stewart's Point-Fisherman's Bay
- Bihler's Point Landing
- Del Mar Landing
- Gualala-Robinson's Landing
- Bowen's-Bourne's Landing
- Collins Landing
- Havens Anchorage-Fish Rock Landing
- Nip and Tuck
- Hardstrach-Signal Port-Steen's Landing
- Rough and Ready-Iverson Landing-Fergusons Cove
- Saunders Landing
- Point Arena

Hazardous Encounters

The quantity of maritime traffic near doghole ports combined with unpredictable weather and an unforgiving coastline resulted in many shipwrecks. Historical research has uncovered at least 100 shipwrecks located near the doghole ports in Sonoma County alone. A majority of those vessels are associated with the lumber trade and sank while navigating in and out of ports or while waiting to load.

Survey efforts are also documenting shipwrecks along the Sonoma coast that are also an important connection to the region's larger maritime cultural landscape. Doghole port communities had front row seats to many calamities and served as lifesavers and caretakers for many shipwreck survivors.

An integral feature of the region's history is the salvage of shipwrecks by wreckers. An entire industry arose surrounding the salvage of sunken vessels whose hull, machinery and cargo was raised and then sold. Specifically designed vessels with strong hulls, heaving lifting equipment, derricks, grapples and winches saved entire ships or recovered as much material as possible. The wreckers also employed divers and dynamite to break shipwrecks apart. Wrecking vessels also set out anchors and other pieces of the doghole ports underwater infrastructure.

Notable shipwrecks associated with the doghole ports include the steamship *Pomona*, wrecked off Fort Ross in 1908, the bark *Windermere*, lost in 1888 off Windermere Point, and the ship *Joseph S. Spinney*, sunk north of Russian Gulch

Landing in 1892, were heavily salvaged by wreckers. Two wrecking steamers were even lost while salvaging sunken wrecks in the area. The *Acme* wrecked while salvaging the *Windermere*, and the *Whitelaw* crashed into rocks and sank during operations at the *Spinney*.

Lumber Legacy

Lumber chutes continued to operate until 1938. By that time it was uneconomical to ship lumber by water so the industry looked inland and railroads and trucks replaced the chutes and wires. Most doghole port infrastructure was dismantled by the end of World War II with only small remnant left today as reminders of the region's unique history.

Today, the doghole ports no longer see the comings and goings of lumber ships or reverberate with the sound of sawmills, but the area's heritage continues to be present in the archaeological remains that are present above and below water. Connecting local residents and visitors alike to these stories adds another dimension to the coastal beauty and witness the doghole ports still have to offer.

NOAA's Greater Farallones National Marine Sanctuary, in partnership with California State Parks, promotes stewardships of this nation's heritage through ongoing research and interpretive initiatives. The Redwood Coast's lumbering legacy continues to live on in the tribes and coastal communities whose origins, place names and identity are tied closely with the doghole ports and maritime traditions.



Photo: Fort Ross Conservancy

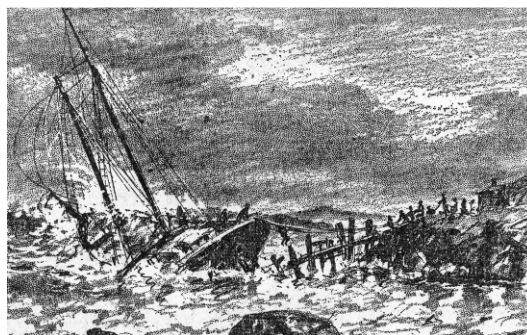


Illustration: *San Francisco Chronicle* 4 January 1901



Photo: James P. Delgado, NOAA/ONMS

Photo (left): Wire chutes, like the system used at Bihler-Black Point Landing, advanced lumber loading methods by decreasing loading time and were easier to operate and maintain. Photo (center): Shipwrecks were a frequent occurrence at doghole ports. On 2 January 1901, the 2-masted lumber schooner *J. Eppinger* sank in Fort Ross cove. The schooner parted its mooring lines during a storm and crashed into the wharf destroying it. Photo (right): At some lumber ports, like Stewarts Point, considerable remains exist of the lumber industry's infrastructure even today.