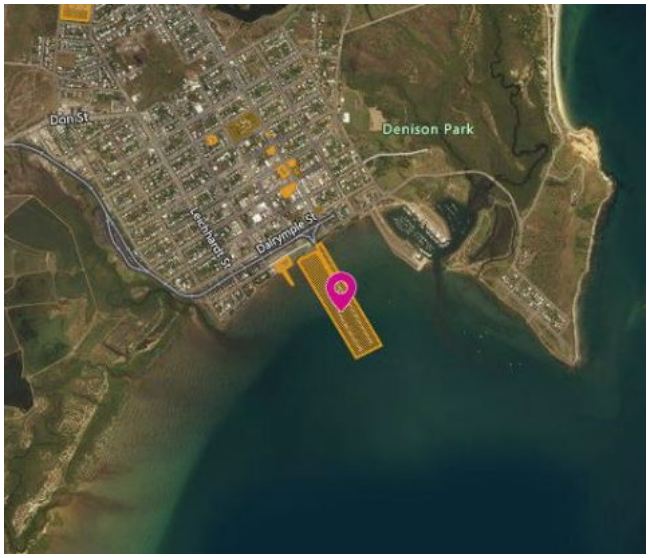
Bowen Jetty aka Port Denison Memorial Jetty	
Address	Quay Street, Bowen
Lot Plan	308SP118066
Coordinates	E: 630607 N: 7786070
Integrity	Poor
Condition	Fair
Statutory Listings	Nil
Non-Statutory Listings	Nil
References	DERM, 2010. Bowen Jetty, cultural heritage management database report.

Street View

Location Map



Physical Description

The Bowen Jetty is located off Santa Barbara Park on the parade of the same name in the North Queensland township of Bowen. It extends approximately 750m into the waters of Port Denison. The main jetty comprises a long narrow stem, approximately 640m long, ending in a concrete head about 78m long and 20m wide.

About 385m from the shore, a secondary pier curves away from the main stem. This ends in a long concrete head lying parallel to the first head and about 80m distant. The second head is about 150m long and 25m wide.

The main stem comprises two parts: a stone causeway and a timber jetty. The stone causeway, topped with a curbed concrete roadway, extends about 270m from the shore. Partially embedded in the southern side of the causeway is a series of concrete headstocks spaced at intervals of approximately 5.5m.

The series of headstocks continues beyond the causeway and forms the support for the timber section of the main stem. The timber section of the main stem runs for a distance of about 390m between the causeway and the concrete head. The beginning of the timber section overlaps with the end of the causeway in order to allow access. The timber jetty comprises a plank deck resting on rounded timber beams which rest on the concrete headstocks.

As far as the junction with the secondary pier, the decking planks are aligned with the axis of the jetty. These planks cover a lower layer of planking that is oriented at right angles to the axis. For the first 20m of the jetty, a pair of railway lines is visible between the upper layer of planks. Beyond this the rails are covered to form two tracks of a roadway that runs to the junction and then curves away to follow the secondary pier.

A timber rail and walkway runs along the southern side of the jetty as far as the junction. Approximately 40m from the junction of the jetty and the head, a series of rounded timber beams curve away from the jetty and end at the head. These appear to be the remnants of an earlier substructure. The jetty head presents as an open flat area devoid of substantial structures. Timber fender piers are attached to the perimeter of the head at regular intervals. It is surrounded by a safety rail formed from steel piping. Concrete curbing also surrounds the open space just inside the safety rail.

Four pairs of railway lines run the length of the head and are set into the concrete. The decking and superstructure of the stem of the secondary pier is constructed of timber and supported on concrete piles and headstocks. The head of the secondary pier is constructed of reinforced concrete. The substructures of both the main jetty and the secondary pier heads are of beam and girder construction in reinforced concrete.

Historical Context

Bowen was the first port established in North Queensland. The settlement was officially proclaimed on 11 April 1861 and named Bowen after Queensland's first Governor, Sir George Ferguson Bowen. The township of Bowen quickly grew to support the northern pastoral industry as a strategically placed supply centre. Bowen soon became a major administrative and commercial centre and was declared a municipality on 17 March 1863. It was eclipsed in importance by Townsville by the 1870s.

Bowen needed a jetty to function effectively as a port. It was located in a sheltered bay widely recognised as an excellent natural harbour. However, passengers and cargo had to be transferred from vessels to shore by punts and then carted across tidal flats. A long jetty extending past the mud flats and shallow water was needed to overcome this problem.

It was not until 1865 that the Department of Harbours and Rivers commenced construction. The jetty was built using day labour under the management of a resident clerk of works; the civil engineer for the Department of Harbours and Rivers, Joseph Brady, had oversight. It was completed in May 1867. An 'as built' drawing dated 1880 shows a timber jetty that was 2,805 feet six inches (855m) in length. It had a long narrow stem, 14 feet (4.2m) wide, finishing at a small head that was 38 feet six inches (11.7m) long and 25 feet nine inches (7.8m) wide. A small weatherboard storage shed was located at the extreme end. At mid-point was a bathing enclosure and bath house. The jetty accommodated vessels drawing 12 feet (3.7m) at the outer end and seven feet (2m) at an inner berth.

The scale of the jetty and harbour and the depth of the berths, considered adequate for the port at Bowen, reflected the size of the shipping at the time. The loading facilities reflected the way in which cargo was transported in ships. Many commodities that are now transported in bulk were once bagged. Railway tracks (still extant at

Bowen) were provided so that the cargo could be railed out to the jetty head. Cranes or derricks (no longer extant at Bowen) then loaded the cargo into the holds of the ships.

During the late 1860s, Bowen's status as North Queensland's major port was under threat from by the rival port of Townsville. Townsville had better access to the pastoral regions of the interior and by 1870 had become the colony's third most important port behind Brisbane and Rockhampton. Despite this, Bowen was still used as a port. Major repairs and alterations to the jetty took place between the late 1870s and 1884 due to infestations of marine borers soon after construction, and the need to accommodate the ever-increasing size of the ships visiting the port. Major repairs were carried out on the inner section of the stem and the outer 1320 feet (402m) was completely reconstructed. The jetty head was rebuilt and enlarged between c.1880 and 1884. The submerged remains of this part of the jetty head are extant at the end of the main stem of the jetty. The main commodities traded through the port were meat, sugar and coal. By the 1890s an export trade in frozen meat had developed and in 1894, the Bowen Meat Export and Agency Company Limited was formed by local stock owners to process frozen meat. Their meat works at Merinda near Bowen exported frozen meat via Bowen Jetty from 1896. Meat remained a staple of the port until the 1960s. Sugar exports from the port commenced in 1910 after a tramline was constructed from Proserpine Central Mill to Bowen. After 1914, the Inkerman Mill also exported sugar through the port.

Further extensions to the jetty were carried out between 1911 and 1915. The head was lengthened by 227 feet (69m) back along the stem towards the shore, and a railway approach was constructed close alongside the jetty stem. The head extension and the railway piles and headstocks were constructed of concrete, the extension utilising the Monier system of concrete reinforcing. These additions were among the earliest uses of reinforced concrete in marine infrastructure in Queensland. The Monier system, which was patented in France in 1867, utilised steel mesh and bore the closest resemblance to modern methods. This system was introduced to Australia by a Sydney company, Carter Gummow and Co., in 1894. The earliest known reinforced concrete marine structure to be built by the Harbours and Rivers Department was the Auckland Point jetty at Gladstone in 1909, two to three years prior to the Bowen Jetty extensions. The jetty extension was of beam and girder construction and utilised raker piles.

In 1919, Collinsville State Mine and Bowen Consolidated Collieries were established in Bowen's hinterland, in the Bowen Basin Coalfield. The coal pier at the jetty was constructed between 1922 and 1926 in anticipation of coal trade through the port. Edward Alexander Cullen, the Chief Engineer in the Department of Harbours and Rivers, signed the design drawings for the coal pier and the earlier reinforced concrete jetty extensions. A rail link between the collieries and Bowen was completed in 1922 and enabled the direct transportation of material from the collieries to the port. The new pier joined the main jetty stem at about midpoint and curved away to the south. New berths were constructed at the end. The reinforced concrete head was built using beam and girder construction with raker piles. The stem had reinforced concrete headstocks with timber decking and superstructure. A 20 ton (20 tonne) electric travelling crane (no longer extant) was installed on the head. Despite the extensive alterations to the jetty, the volume of coal trade never reached expectations and the Port of Bowen was left with a large, long-term debt.

Further changes to the jetty occurred during the 1950s. The stone causeway that forms the inner section of the jetty was constructed in 1957. It replaced the deteriorating maintenance section of timber jetty. A concrete roadway was laid on top of the causeway and a timber handrail was erected along both sides. The railway approach along this section of jetty was retained. In addition, the old jetty head was widened between 1955 and 1958.

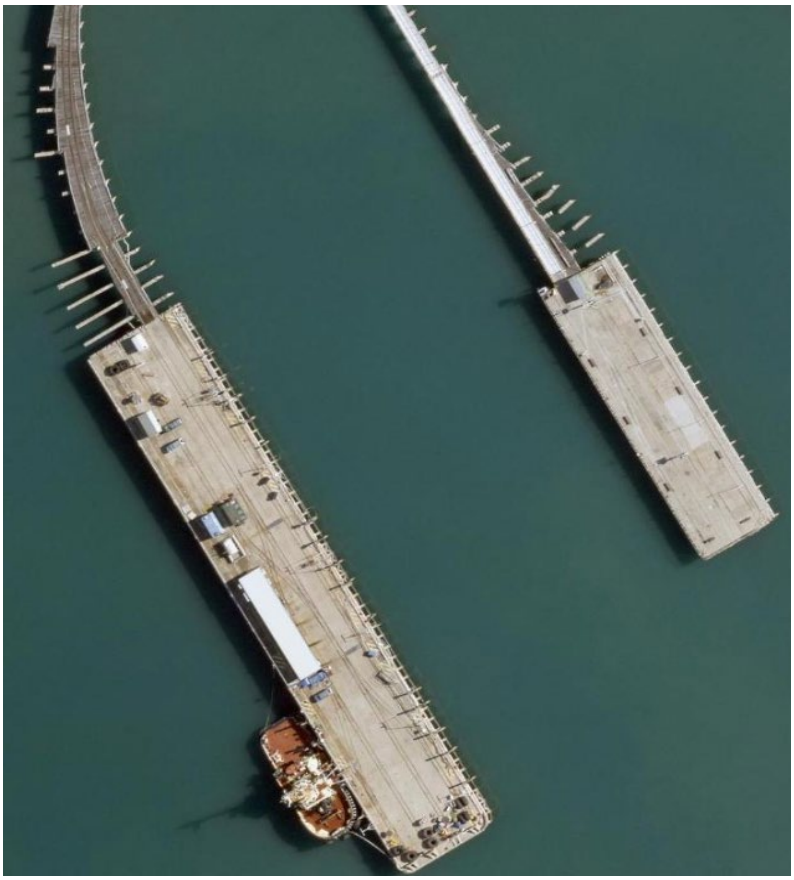
On 1 April 1958, a major cyclone struck Bowen, causing extensive damage to the town and the jetty. The jetty stem from the stone approach seawards for 1066 feet (325m) was destroyed. Approximately 60% of concrete roadway and the old jetty head were damaged. Rather than reconstruct the demolished jetty stem, decking was laid between the rails on the concrete railway approach. This created a new roadway, shared with the railway line. The ports failure to upgrade bulk sugar loading facilities resulted in the loss of the sugar trade from Proserpine and Inkerman in 1958. As a result, 19 staff were retrenched, leaving only four employment men.

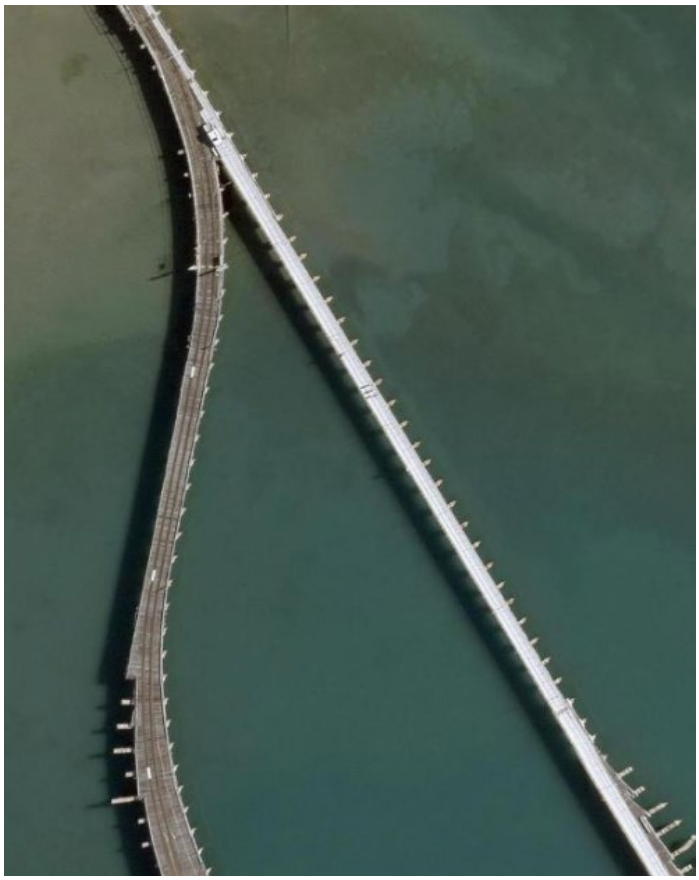
When the meat works switched to road transport in the 1960s, the Bowen Jetty was solely dependent the coal market. Hopes for a major coal contract between Japan and Dacon Collieries at Collinsville saw the port demolish a 20-ton travelling crane to make way for the erection of modern bulk coal loading facilities in 1971. The contract was realized in 1972. The final decline of the jetty began in the 1980s. Retrenchments commenced in 1982 and, in 1984, the establishment of Abbot Point coal loading facility just north of Bowen ended coal exports through Bowen. As a result the Bowen Harbour Board was abolished in 1985. In 1988, the original jetty head was demolished leaving only the concrete section dating from 1911. Most timber components of the jetty have been replaced during major overhauls and routine maintenance conducted throughout the life of the jetty,

particularly between the 1930s and 1950s. The earliest known extant fabric is the reinforced concrete jetty head (1911 - 1926) and the concrete piles and headstocks of the railway approach (1915). However, the size, overall form and location of the jetty reflect the original role and aspirations of a town which, in 1861, looked set to become North Queensland's foremost port.

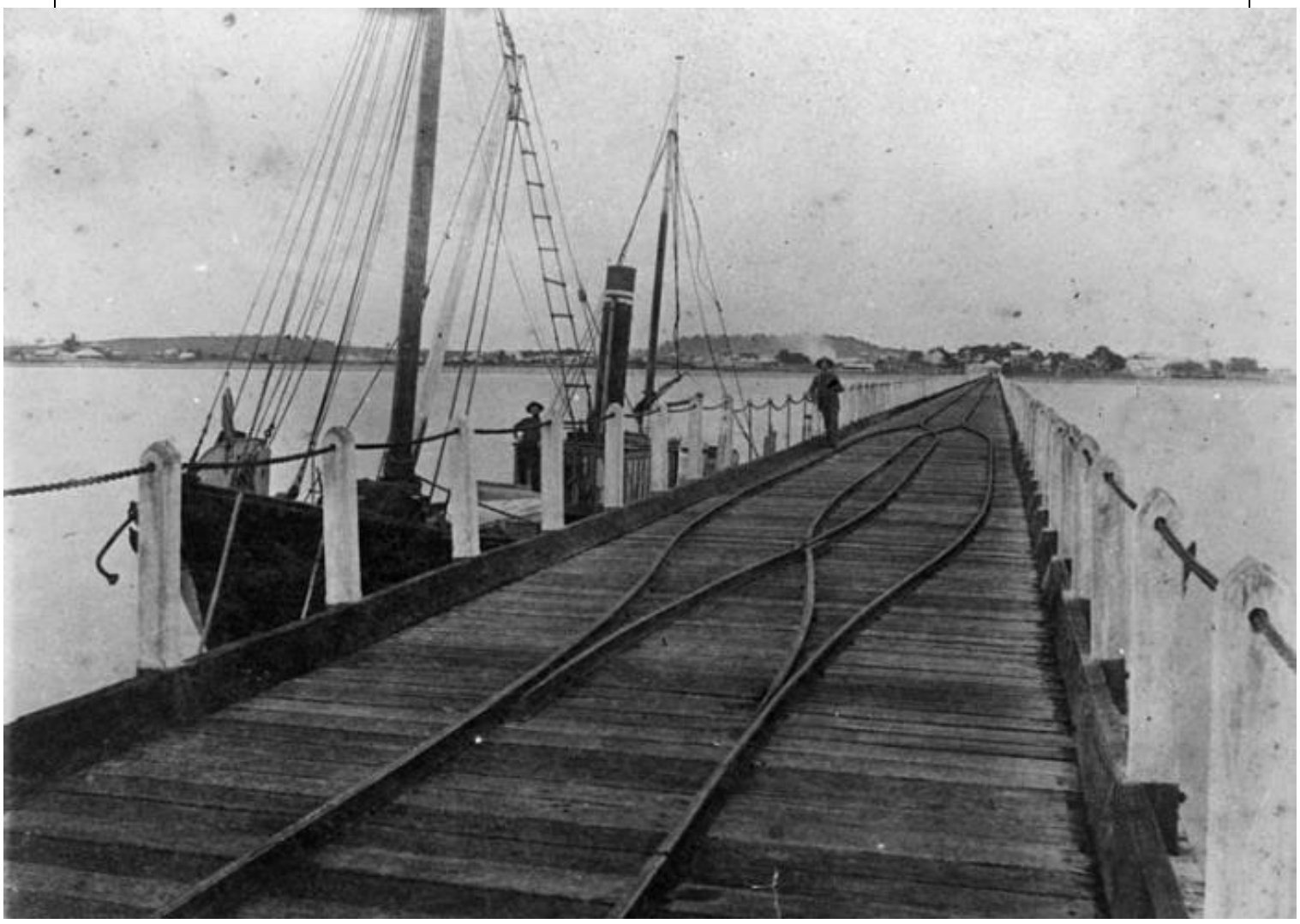
Historical Significance	
Criteria A - *the place is important in demonstrating the evolution or pattern of the region's history*	The Bowen Jetty, originally completed in 1867 (rebuilt and extended between the 1880s and 1950s) provides evidence of the early importance of the port of Bowen in north Queensland. The concrete head (1911-1915) at the end of the main jetty stem demonstrates the changes in port facilities necessitated by the evolution of ship design from the second half of the 19th century and is a rare early example of the use of reinforced concrete in a marine application. The coal pier (completed 1926) is important for its association with the first phase of coal mining in the Bowen Basin, the State's largest and most productive coal field. The pier was built as an export coal terminal for Collinsville State Colliery and Bowen Consolidated Colliery, two of the earliest mines in the Bowen Basin.
Criteria C - *the place has potential to yield information that will contribute to an understanding of the region's history*	The submerged remains of the earlier timber jetty head (c1880 - 1884) are important as remnants of one of North Queensland's oldest commercial port structures and contribute to our understanding of the port's evolution.
Criteria D - *the place is important in demonstrating the principal characteristics of a particular class of cultural places*	The concrete head at the end of the main jetty stem and the coal pier are important in demonstrating the principal characteristics of a marine application of the beam and girder system.

Queensland Globe Aerial Imagery





https://commons.wikimedia.org/wiki/File:StateLibQld_1_165375_Bowen_Jetty,_ca._1888.jpg



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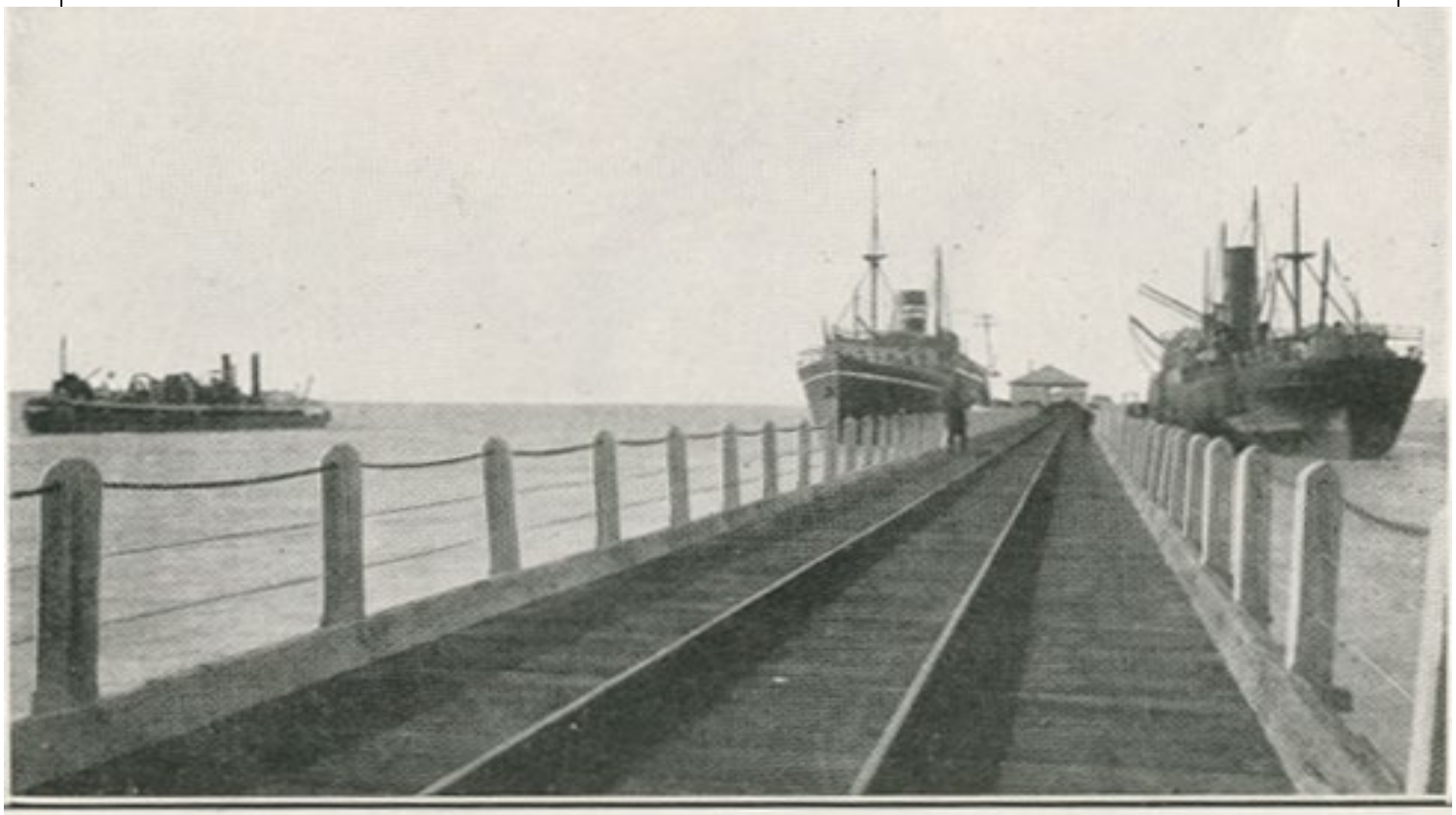
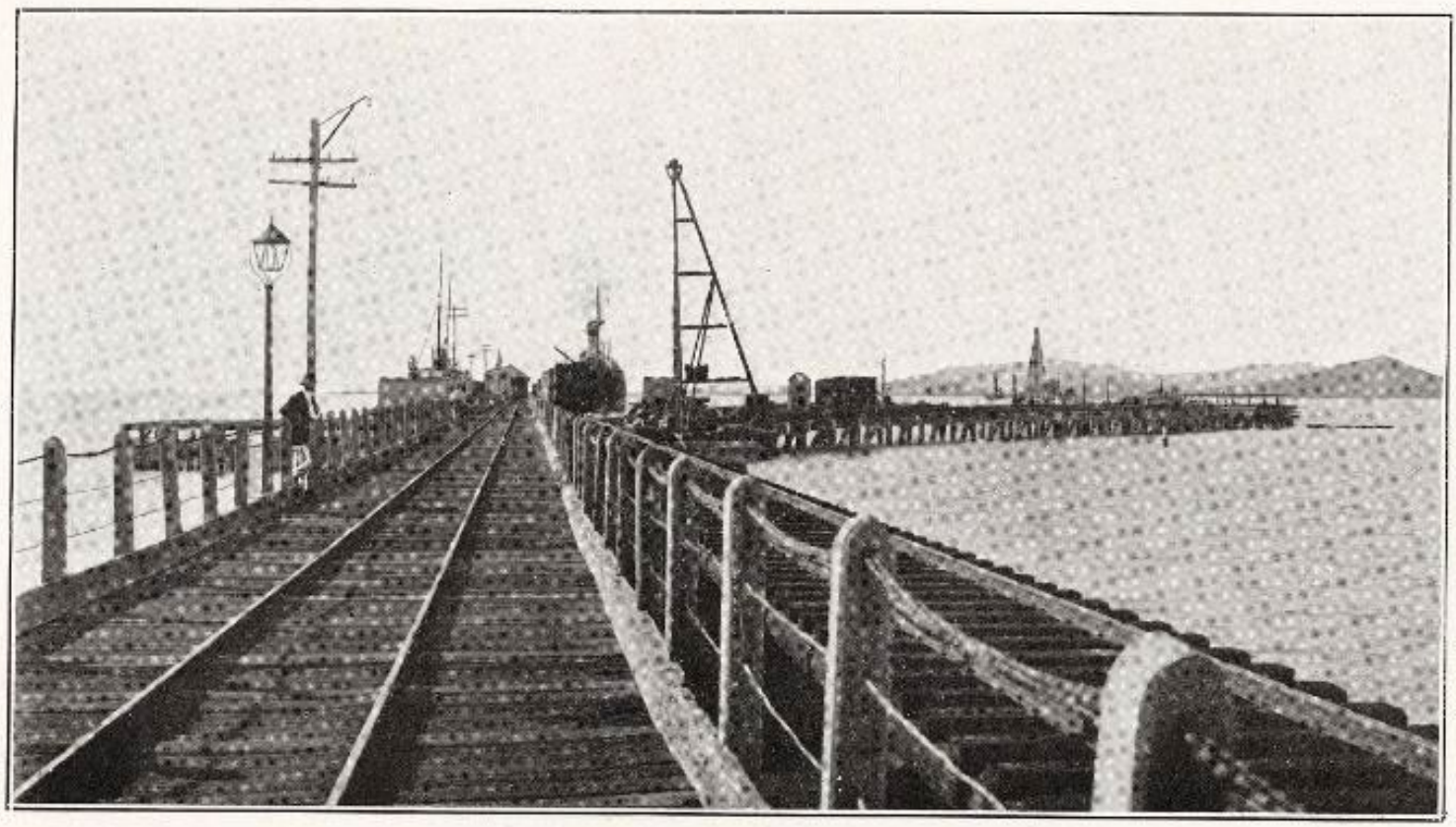


Bowen Jetty, North Queensland.

https://queenslandplaces.com.au/exhibit/book/flb007



BOWEN JETTY AND COAL WHARVES, NORTH QUEENSLAND.