

SUMMARY OF STATE HERITAGE PLACE

REGISTER ENTRY

Entry in the South Australian Heritage Register in accordance with the *Heritage Places Act 1993*

NAME: Torrens Island Quarantine Station Complex **PLACE NO.:** 26583

ADDRESS: Karna Country
Grand Trunkway, Torrens Island 5015
(CT 6211/942 D90964 A300, CT 6211/943 D90964 A301, CT 6212/771 D90964 Q302, CT 6212/771 D90964 Q306, Hundred of Port Adelaide)

STATEMENT OF HERITAGE SIGNIFICANCE

The Torrens Island Quarantine Station was established in 1855 as the first line of defence against the transmission of infectious diseases into the colony and is associated with human and animal quarantine practices in South Australia during the nineteenth and twentieth centuries. Developed over the course of a century, the Torrens Island Quarantine Station Complex is the only example of its class to exist in South Australia and retains a faithful representation of structures dating from the 1870s until the 1970s. The Station Complex demonstrates the standardisation of quarantine legislation and innovations in medical sciences and disease control at the turn of the twentieth century. Many of the buildings, such as the bathing block and luggage disinfecting block, demonstrate the transition from miasma theory to germ theory of disease transmission. The Torrens Island Quarantine Station Complex provides a unique insight into the experience of thousands of migrants arriving by sea. It was also an essential facility as it supported the colony and later state's primary industries by facilitating the importation of disease-free livestock.

RELEVANT CRITERIA (under section 16 of the Heritage Places Act 1993)

(a) it demonstrates important aspects of the evolution or pattern of the State's history

The Torrens Island Quarantine Station Complex is associated with the establishment of land-based quarantine measures that emerged in the wake of substantially increased migration to South Australia during the 1850s. With greater migration came an increased risk of the introduction and spread of deadly infectious diseases such as smallpox, influenza and cholera. Quarantine became South Australia's first line of defence against their potential transmission.

The quarantine station at Torrens Island was established rapidly out of necessity in 1855 to accommodate passengers of the *Taymouth Castle* who had arrived at Port Adelaide with cases of smallpox and cholera. In its early decades, the quarantine facilities at Torrens Island evolved on an ad hoc basis before the Commonwealth government took over management of the Quarantine Station with the passing of the *Quarantine Act 1908*. Standardised nationwide quarantine legislation, along with innovations and progress in medical sciences, resulted in the implementation of the latest thinking in quarantine practices and the construction of new facilities at Torrens Island Quarantine Station. Many of the buildings and facilities constructed during this time, such as the bathing block and the luggage disinfecting block containing the fumigation chamber and autoclave, demonstrate the practical application of germ theory which had emerged at the end of the nineteenth century.

In continuous operation until 1980 for people and 1995 for animals, the Torrens Island Quarantine Station Complex demonstrates the government's response to managing both human and animal quarantine for over one hundred years. It was here that many thousands of migrants were first introduced to South Australia, and the complex offers a unique insight into their experiences.

(b) it has rare, uncommon or endangered qualities that are of cultural significance

The Torrens Island Quarantine Station Complex was the only purpose-built, land-based quarantine station constructed in South Australia for the isolation and treatment of people and animals arriving by sea. Established in 1855, the station was crucial to the development of the colony and later state, providing protection for its growing population and pastoral industry in both the nineteenth and twentieth centuries.

The Torrens Island Quarantine Station Complex is one of four surviving examples of places purpose-built for treating infectious diseases in South Australia prior to the prevalence of mass immunisation and vaccinations in the 1970s. Facilities built for the isolation and treatment of contagious diseases within the colony were established at the Royal Adelaide Hospital as early as the 1870s, however the Hampstead Centre

(formerly the Metropolitan Infectious Diseases Hospital) (SHP 10824), which opened in 1932 to replace the Infectious Diseases Block at the Royal Adelaide Hospital, is the only remaining example of these operations. The Kalyra Sanatorium (LHP) and Nunyara Sanatorium (SHP 26401), both built in Belair at the turn of the twentieth century, retain architectural elements associated with the 'open-air' treatment method for tuberculosis.

In the 1980s, following the importation of 74 Angora goats at risk of carrying scrapie, a private animal quarantine and breeding facility was opened at Kirra Station, 80km outside of Keith. Majority of the goats and rams were moved to this station from Torrens Island, where they were released scrapie free in 1992.

The closure of the animal quarantine station on Torrens Island in 1995 marked the end of the use of quarantine stations for people and animals in South Australia. As such, Torrens Island demonstrates aspects of South Australia's migration and medical history that are no longer practiced.

(d) it is an outstanding representative of a particular class of place of cultural significance

The Torrens Island Quarantine Station Complex is an outstanding representative of the class of place 'quarantine stations.' Quarantine stations were built specifically to prevent the introduction and spread of communicable diseases by confining and isolating incoming passengers and animals who had either been exposed to or diagnosed with a disease.

Like many quarantine stations around the world, the Torrens Island Quarantine Station was built on an island detached from the mainland, the surrounding water providing a natural barrier to the movement of disease. The expansive layout of the Quarantine Station was designed to ensure the safe movement, interaction and care of patients, contacts, and staff, with accommodation and bathing facilities being separated by class, gender and marital status.

The Torrens Island Quarantine Station contains a highly intact collection of buildings, structures and facilities associated with quarantine practices in South Australia during both the nineteenth and twentieth centuries. Elements of the class demonstrated at Torrens Island include:

- the passenger jetty,
- tramway,
- spatial arrangement of the site,
- attendants' and accommodation cottages,
- sulphur and cyanide stores for fumigation,
- cattle shed,
- horse stable,

- mortuary,
- cemetery,
- the waiting room and office,
- bathing block,
- laundry block,
- autoclave and fumigation chamber,
- boiler house,
- sewer pump house,
- isolation compound.

Consequently, Torrens Island Quarantine Station Complex is an exceptional example of the class demonstrating a high level of integrity that enables the class to be readily understood. It is for these reasons that Torrens Island Quarantine Station Complex is an outstanding representative of the class demonstrating how human and animal quarantine stations operated and developed over the course of over 100 years.

SITE PLAN


Torrens Island Quarantine Station Complex
Grand Trunkway, Torrens Island 5015

PLACE NO.: 26583



Torrens Island Quarantine Station Complex, Grand Trunkway, Torrens Island 5015 (CT 6211/942 D90964 A300, CT 6211/943 D90964 A301, CT 6212/771 D90964 Q302, CT 6212/771 D90964 Q306, Hundred of Port Adelaide)

LEGEND

 Parcel boundaries (Indicates extent of Listing)

N ↑

SITE PLAN DETAIL (COMPOUNDS AND PRECINCTS)


Torrens Island Quarantine Station Complex
Grand Trunkway, Torrens Island 5015

PLACE NO.: 26583



Torrens Island Quarantine Station Complex, Grand Trunkway, Torrens Island 5015 (CT 6211/942 D90964 A300, CT 6211/943 D90964 A301, CT 6212/771 D90964 Q302, CT 6212/771 D90964 Q306, Hundred of Port Adelaide)

LEGEND

 Parcel boundaries (Indicates extent of Listing)

 Outline of Elements of Significance for State Heritage Place

N ↑

SITE PLAN DETAIL (JETTY & FORESHORE)

Torrens Island Quarantine Station Complex


PLACE NO.: 26583

Grand Trunkway, Torrens Island 5015



Torrens Island Quarantine Station Complex, Grand Trunkway, Torrens Island 5015 (CT 6212/771 D90964 Q306, Hundred of Port Adelaide)

LEGEND

 Parcel boundaries (Indicates extent of Listing)

 Outline of Elements of Significance for State Heritage Place

N ↑

Elements of heritage significance include (but are not necessarily limited to):

- | | |
|---|--|
| 1. Passenger jetty (including wrought-iron hand crane, sign and wind shelter) | 6. Seawall |
| 2. Sulphur store | 7. Attendants' cottage north (and surrounding fence) |
| 3. Quarantine office | 8. Attendants' cottage south (and surrounding fence) |
| 4. Flagpole | |
| 5. Cyanide store | |

SITE PLAN DETAIL (COMMONWEALTH PRECINCT)

Torrens Island Quarantine Station Complex

PLACE NO.: 26583


Grand Trunkway, Torrens Island 5015



Torrens Island Quarantine Station Complex, Grand Trunkway, Torrens Island 5015 (CT 6212/771 D90964 Q306, Hundred of Port Adelaide)

LEGEND

N ↑

 Parcel boundaries (Indicates extent of Listing)

 Outline of Elements of Significance for State Heritage Place

Elements of heritage significance include (but are not necessarily limited to):

- | | |
|---|---|
| 1. Waiting room and office | 6. Bulk store |
| 2. Laundry block (including copper boiler, linen sanitiser, calender and drying cabinet) | 7. Refshauge House |
| 3. Bathing block (with bath cubicles, shower partition framing and hot water tanks) | 8. Linen store (with vermin proof chamber) |
| 4. Luggage disinfecting block (with steam autoclave, fumigation chamber, mechanics pit and luggage racks) | 9. Sewer pump house (with lifting gantry) and sewer junction pots |
| 5. Boiler house (including elevated steam pipework connection between buildings and red brick chimney) | 10. Underground tanks |
| | 11. Attendants' house (including boundary fence) |
| | 12. Oil store |
| | 13. Power lines and stobie poles |
| | 14. Tree plantations |

SITE PLAN DETAIL (ACCOMMODATION COMPOUND)

Torrens Island Quarantine Station Complex
Grand Trunkway, Torrens Island 5015


PLACE NO.: 26583



Torrens Island Quarantine Station Complex, Grand Trunkway, Torrens Island 5015 (CT 6212/771 D90964 Q306, Hundred of Port Adelaide)

N ↑

LEGEND

 Parcel boundaries (Indicates extent of Listing)

 Outline of Elements of Significance for State Heritage Place

Elements of heritage significance include (but are not necessarily limited to):

- | | |
|--------------------------------------|-------------------------------|
| 1. 1878 Prefabricated timber cottage | 6. Accommodation block (west) |
| 2. Chalet | 7. Accommodation block (east) |
| 3. Chalet | 8. Underground tanks |
| 4. Chalet | 9. Water towers |
| 5. Chalet | 10. Fire hose |

Summary of State Heritage Place: 26583

Provisionally entered by the South Australian Heritage Council on 14 March 2024

Confirmed by the South Australian Heritage Council on 5 September 2024

9 of 73

SITE PLAN DETAIL (ISOLATION COMPOUND)

Torrens Island Quarantine Station Complex
Grand Trunkway, Torrens Island 5015


PLACE NO.: 26583



Torrens Island Quarantine Station Complex, Grand Trunkway, Torrens Island 5015 (CT 6211/943 D90964 A301, CT 6212/771 D90964 Q306, Hundred of Port Adelaide)

LEGEND

N ↑

 Parcel boundaries (Indicates extent of Listing)

 Outline of Elements of Significance for State Heritage Place

Elements of heritage significance include (but are not necessarily limited to):

1. Kitchen and change rooms
2. Mortuary
3. Incinerator

SITE PLAN DETAIL (CEMETERY)

Torrens Island Quarantine Station Complex
Grand Trunkway, Torrens Island 5015



PLACE NO.: 26583



Torrens Island Quarantine Station Complex, Grand Trunkway, Torrens Island 5015 (CT 6211/942 D90964 A300, Hundred of Port Adelaide)

N ↑

LEGEND

-  Parcel boundaries (Indicates extent of Listing)
-  Outline of Elements of Significance for State Heritage Place

Elements of heritage significance include (but are not necessarily limited to):

1. Cemetery

SITE PLAN DETAIL (ANIMAL QUARANTINE)

Torrens Island Quarantine Station Complex
Grand Trunkway, Torrens Island 5015



PLACE NO.: 26583



Torrens Island Quarantine Station Complex, Grand Trunkway, Torrens Island 5015 (CT 6212/771 D90964 Q302, Hundred of Port Adelaide)

LEGEND

N ↑

-  Parcel boundaries (Indicates extent of Listing)
-  Outline of Elements of Significance for State Heritage Place

Elements of heritage significance include (but are not necessarily limited to):

1. Cattle shed (with tubular steel pens)
2. Horse stable
3. Storeroom and animal treatment block (with animal enclosure room)

COMMENTARY ON THE LISTING

Description and notes with respect to a place entered in the South Australian Heritage Register in accordance with the *Heritage Places Act 1993*

Physical Description*

The Torrens Island Quarantine Station is a complex of precincts and compounds, namely the Jetty and Foreshore, Commonwealth Precinct, Accommodation Compound, Isolation Compound, Cemetery and Animal Quarantine. The compounds and precincts, and the individual elements of significance contained within each, are discussed in turn.

Jetty and Foreshore

Passenger Jetty (1879)

Other name: Human Quarantine Jetty

Description: Timber jetty with steel stanchions and pipe railing. There is a working platform with a wrought-iron hand crane, wind shelter and sign at the river end of the jetty.

History:

- Built in 1879, the jetty was the only official point of access to the quarantine station until the construction of the causeway connecting the island to the mainland in 1962.
- The original jetty approach was wide enough for a single hand trolley track.
- In 1891, the jetty was extended to include a working platform,
- In 1921-1922 a transverse ramp to allow safe passenger boarding was constructed.
- The same year, a weatherboard fumigation store was built to stock sulphur for the disinfection of ship holds before it burnt down in 1924.
- In 1923, the jetty approach between the shore and the platform was widened reusing original timbers.
- Repairs were carried out in 1959 and 1964, and in 1968, some pylons were encased in concrete and the decking was replaced.

* Much of the information from this section has been extracted from volume two of the *Torrens Island Conservation Management Plan* written by Habitable Places (2014).

Sulphur Store (c.1935)

Other name: Cyanide Store

Description: Gable-roofed, hardwood framed corrugated galvanised steel shed with decorative verges and eaves, and two fixed Syphonator roof vents. Internal sliding door on northern side with remnants of a coved Canite ceiling. Pivot windows at each end (not original fabric).

History:

- Built to government standard for the storage of sulphur and other fumigation chemicals c.1935.
- In the early 1960s it was used as a cyanide store with the roof ventilators being added at this time.
- The doors and western walls were modified when the sea wall was raised in the 1960s, and a ramp was installed.
- During the 1980s, Department of Health records were stored in the building.

Quarantine Office (1966)

Description: Square, concrete masonry building with terracotta tile hipped roof and painted timber window frames.

History:

- Administration building for the quarantine station from 1966.

Cyanide Store (1969)

Other name: Arsenic Store

Description: Square cream brick building with tiled hipped roof and no windows. Single double sliding door entrance to the eastern elevation.

History:

- Built in 1969 to store cyanide for fumigation purposes.

Attendants' Cottage North (1916)

Other name: Staff Residence

Description: Rectangular building clad with horizontal hardwood weatherboards, and a hipped corrugated Zincalume® steel roof. Brickwork chimneys. Design features include trellis work and solid timber verandah posts with skirts, egg moulds and capitals, but no chamfers. Interior walls and ceiling linings were made from asbestos sheet cement.

History:

- Constructed in 1916 for permanent staff accommodation,
- A new back verandah was added c.1923 and the front verandah was enclosed with insect screens in 1926. None of this work remains.

Attendants' Cottage South (1921)

Other name: Staff Residence

Description: Hardwood weatherboard building with low pitched, hipped, corrugated galvanised steel roof. The back verandah has been converted into a concrete-floored sleep-out with insect screens. Brick fireplaces and chimneys in living room, dining room and sitting rooms.

History:

- Designed by the Director General of Works, Percy T. Owen.
- Built in 1921 as additional permanent staff accommodation.
- Another cottage of the same design was built to the north of the boiler house at the same time, but by 1928 stopped appearing in site plans.

Commonwealth Precinct

Waiting Room and Office (1915)

Description: Timber-framed building with vertical corrugated galvanised steel cladding to the walls and roof. Central north door and double hung timber sash windows to the eastern and western elevations. The interior walls of the waiting rooms are a painted flush lining, with asbestos cement lining in the office and toilets.

History:

- Built in 1915 and used by contacts waiting for their clothing to be sterilised before progressing to the bathing block.
- The building was divided into men's and women's waiting rooms, toilets and office, with separate external entrances to each room to prevent direct contact between attendants and contacts.
- A kitchenette was added to the southwestern corner of the 'ladies waiting room' in the 1980s.

Laundry Block

Other name: Allan Green Museum

Description: Rectangular, timber-framed, three-bay sawtooth-roofed building, clad with galvanised iron and an attached commercial steam drying chamber. Steel float finish concrete floors to the interior, with parallel tramway tracks recessed into the floor and grated drainage channels. The southern elevation features a drainage pit at its base. The disinfecting room contains a built-in copper boiler and linen sanitiser, and the laundry room contains a calender (roller press).

History:

- Built in 1915 and used to sterilise and dry the clothing of contacts prior to them disembarking and washing in the bathing block.
- A sterilised change of clothes would be tagged and placed in individual bathing cubicles for each person, their potentially contaminated clothing was then taken away to be washed and sterilised.
- The laundry also washed and sterilised linen for contacts and the isolation hospital.
- Wastewater from the laundry was not treated in the sewerage system but discharged directly into the river.
- A tramway and steam system served the building.
- The wash copper was installed in 1928.
- After the human quarantine station closed in 1980, the block was used to temporarily store the station's historic artefacts and documents (later acquired by the National Museum of Australia and the National Archives of Australia). Some of the partitions and doors from the bathing block were also re-erected in the drying chamber room during this time.

Bathing Block (1916)

Description:

Weatherboard-clad, timber-framed building with gable roof and a coved and graded concrete floor. The building has exposed timber trusses, a matchboard-lined ceiling, skylights and roof ventilators. Toilet facilities are positioned at either end of the rectangular building, flanked on either side by verandas. Galvanised corrugated steel interior walls with shower heads, pipework and taps from original shower and bath cubicles remain in some places. Hot water tank room located at the northwestern end of the building.

History:

- Built in 1916 from a standard plan drawn by the Australian Quarantine Service.
- Used for the personal disinfection of each contact entering quarantine.
- As a Commonwealth building, it was based on the standard design for quarantine stations during this period. It was fitted with baths for the first-class passengers, and showers for the second and steerage classes, however in practice the baths were reserved for women and the showers for men.
- The central large interior space was partitioned into individual cubicles, with separate 'foul' and clean corridors, entrances, and exits to prevent cross contamination.
- Contacts were disinfected using carbolic acid and hot water.

- Each cubicle had an undressing, disinfecting and clean dressing space. Some of the partitions and fixtures were removed sometime later.

Luggage Disinfecting Block (1915)

Other names: Luggage Store, Fire Station

Description: Timber-framed, five-bay sawtooth-roof building clad in corrugated galvanised steel. The second bay contains a steam autoclave and fumigation chamber, and the fifth bay includes a mechanics pit.

History:

- Built in 1915, this block provided for the disinfection of the luggage of contacts entering quarantine.
- It was built to Commonwealth standard and was divided into three separate areas.
- The bay closest to the jetty was connected to the jetty via the tramway and was used for sorting and labelling luggage. The steam autoclave chamber in the next bay was loaded from this side.
- Attendants were required to shower, disinfect and change into sterilised clothes before re-entering the third and fourth bays to unload and store the disinfected luggage.
- An additional bay was added to the eastern end of the building in 1921 for extra storage, and in c.1923 a fumigation chamber was also added to the second bay.
- A mechanics pit was added to the fifth bay for servicing the tram trolleys.
- The eastern bay was later used as a fire station.
- The foul room was later adapted for animal dissections.

Boiler House (1916-1917)

Description: Rectangular cavity brick building with gable cat-slide roof and square red brick chimney 21.5 metres tall. The building houses coal bunkers, a boiler room and a generator room.

History:

- Built 1916-1917, the structure housed a coal fired boiler to supply steam for power generation, hot water, the autoclave, laundry equipment and for drying linen.
- A workshop was added to the buildings' eastern side in 1926.
- The coal fired boiler was replaced with an oil-fired boiler in 1967.
- The boiler and generator have since been removed.

Bulk Store (1922)

Description: Painted galvanised corrugated steel two-bay sawtooth-roof building. Concrete foundation with wide timber entry doors, lined externally with a flat sheet of galvanised steel at the centre of each bay.

History:

- Built in 1922, the bulk store was as an additional storage space.
- Served as the station's post office.

Refshauge House (1916)

Other name: Administrative Block

Description: Arts and Crafts-style building constructed of flush pointed brick (now painted).

History:

- Designed by Commonwealth Public Works Department architect John S. Murdoch (1862-1945) and constructed in 1916.
- Refshauge House was the administration block, consulting room, and dispensary for the quarantine station. Contacts queued here for immunisation.
- The patient's waiting room, office and consulting room/dispensary were accessed from the colonnaded western porch, while the residential accommodation was accessed from the northern veranda.
- It was the residence for the Superintendent.
- The building is named after Sir William Refshauge, Commonwealth Director General of Health in the 1960s.
- During the 1960s, the first floor was subdivided for staff residential use and was later used by the Chief Veterinary Officer.

Linen Store (1916)

Description: Two-roomed building constructed of cavity brickwork with a hipped corrugated galvanised steel roof and gable vents. The windows and doors have fanlights to provide natural lighting. The eastern room contains a vermin proof, metal-lined chamber.

History:

- Constructed in 1916 to provide long-term storage of linen and fabrics.
- After bathing and vaccination, contacts queued for linen outside this building before moving to their accommodation.
- Serviced by the tramway.

Sewer Pump House (1918)

Description: Timber-framed, weatherboard pump house elevated above a concrete sewerage holding tank. A lifting gantry is built into the roof framing.

History:

- The Commonwealth Quarantine Service installed a sewerage system c.1918. Prior to this date, the station was serviced by earth closets.
- The pump house was constructed between the colonial and Commonwealth precincts to facilitate gravity drainage to the treatment and holding tanks.
- It housed an electric pump for lifting the treated sewerage via a cast iron rising main to the settlement treatment tanks on the sand dune at the northern end of the station.
- Wastewater was treated in the brick treatment tank to the east of the building prior to its release into the pumping chamber.

Tanks (1912-1930s)

Description: Brick underground tanks rendered in cement and coved internally. Timber-framed roof with corrugated iron sheeting, ogee gutters and downpipes.

History:

- Seven underground tanks built in stages from 1912-1930s that provided a static water supply to the station.
- Mains water was connected to the quarantine station across the North Arm in 1915.
- The boiler, laundry, bathing block and flush toilets installed by the Commonwealth all utilised copious amounts of water.
- The tanks were filled from adjacent buildings by a system of galvanised flying downpipes.
- The tanks were later connected to provide a static water supply for firefighting purposes. A fire hydrant system was also installed.

Attendants' House (1927)

Other names: New Foreman's Cottage, Staff Residence, Head Keeper's House

Description: Timber framed building clad externally with horizontal hardwood weatherboards. The roof has a hipped form and is clad with corrugated galvanised steel (not original fabric).

History:

- Constructed in 1927 for permanent staff during the Commonwealth period of occupation.
- Possibly replaced the cottage directly north of the boiler house.

- The front verandah was designed as an open structure, but was later closed with flywire, a practical response to the notorious mosquitos of Torrens Island.

Accommodation Compound

Timber Cottage (1878)

Other names: Married Couples' Accommodation, Working Men's Cottage

Description: Prefabricated, four-roomed, gable-roofed timber cottage of panel construction. Four main internal rooms.

History:

- One of thirty and the only surviving cottage purchased from America by the South Australian Government in June 1878, to accommodate married couples during quarantine.
- Likely to be a prefabricated cottage designed and manufactured by William H. Wrigley.
- The cottages were the first buildings erected at the quarantine station.
- Internal access was room by room, meaning there was little privacy for the occupants.
- In the early twentieth century the cottages were also used as a doctor's cottage, nurses' cottage, store, paint locker, and a reading room.
- The number of cottages diminished over time due to termite damage. Records show that 25 remained in 1928, and 14 in 1966.
- Hand basins and wardrobes were installed in all cottages in c.1923.
- During the 1960s four brick blockwork 'chalets' were constructed on the site, replacing the front row of cottages.

Accommodation Chalets (c.1966)

Description: Four brick, blockwork chalets with tile roofs. Each chalet contained two living units, each with a private bathroom.

History:

- Built to replace the deteriorating 1870s timber accommodation cottages in the 1960s, the chalets demonstrate changes in quarantine accommodation standards after the First World War and mark the final phase of Commonwealth building before the station closed.
- The chalets maintain the scale and footprint of the original front row of first-class cottages erected in 1878.
- Illustrates the application of solid construction techniques made possible by road transport following the opening of the causeway in 1966.

- Used for nurses' accommodation during the 1960s and 1970s.
- The Health Department prepared a masterplan for the replacement of the entire accommodation section of the station and the construction of 20 new brick chalets. Only four were built.

Accommodation Blocks (1967)

Description: Two rectangular concrete masonry unit buildings with terracotta-tiled roof and timber-framed windows and doors. The western block is comprised of four living units, while the eastern block is comprised of five.

History:

- Built to replace the deteriorating 1870s timber accommodation cottages in the 1960s, the accommodation blocks demonstrate the provision of contact accommodation in the 1960s, complete with modern amenities such as private bathroom and kitchenette, electricity, hot water, and convection heating.
- The draft proposal reveals a layout of six units each with a private bathroom, and a communal lounge with slow combustion heater on the northern side.
- The Department of Works was unable to obtain finance for the full proposed plan, erecting five units which make up the eastern block.
- Later, the dividing walls between the units of both buildings were removed to create one open space. During the period of animal quarantine, the western block was used as a tea or 'smoko' room for staff, and the eastern block was stripped and used to store provisions.

Isolation Compound

Kitchen and Change Rooms (1925)

Description: Timber-framed building comprising a kitchen and corridor, with vertical asbestos cement sheet cladding and ventilation grille at the top of the walls. Corrugated galvanised steel hip roof over the kitchen, with a low-pitched gable roof over the corridor.

History:

- One of the most important upgrades arising from the Norris Report of 1912.
- The original compound included nurses' quarters and change rooms on the compound boundary linked by a covered walkway to a V-shaped hospital building with two isolation wards.

- The kitchen was constructed as part of the isolation compound boundary fence and was originally linked by an undercover walkway to the nurses' quarters.
- It was designed so that kitchen staff could deliver food to a servery while having no direct contact with nursing staff who had been in contact with infectious disease patients.
- The nurses' quarters burnt down in 1953, however the walkway was saved. The passage was subsequently enclosed to provide a change room for the nurses. The original servery window on the kitchens north side was converted into a doorway with fanlight and the brick chimney was removed.
- The isolation hospital was later destroyed.
- The kitchen was used for animal feed storage in the 1980s.

Mortuary (1912)

Other name: Morgue

Description: Small square, timber-framed building clad in fibro-cement sheets and a galvanised corrugated steel roof. A concrete laying out table connected to a waste drain is positioned in the centre of the building, with windows on three sides providing balanced daylight for autopsies. A ventilation grille and roof vent provide and maintain airflow.

History:

- Constructed in conjunction with the isolation hospital in 1912, it was used to lay out deceased persons immediately after death and, if required, for the medical officer to undertake an autopsy to confirm diagnosis and cause of death.
- The autopsy was carried out by the medical officer immediately after the patient had died, and the burial was conducted the same day.
- According to records, the building was used about a dozen times.
- One of the earliest uses of fibro-cement sheeting in South Australia.
- The original asbestos cement sheets were replaced in 2014.

Incinerator (c.1912)

Description: Red brick incinerator with chimney.

History:

- Constructed in conjunction with the isolation hospital, it was used to burn waste materials.

Cemetery

Cemetery (1880s-)

Description: Located 500m north of the central complex of buildings, the cemetery covers an area approximately 63 x 37 metres and is enclosed by a jarrah fence joined by five strands of plain bull wire. A tubular steel gate on the southern border marks the entrance. Nine graves are marked with numbered metal signs.

History:

- A multidenominational consecration of the cemetery was performed on 12 June 1896 by Bishop Harmer of Adelaide, by which time it is estimated that several persons were already buried.
- Most of the burial records relating to the Torrens Island Quarantine Station between the 1870s and 1930s are either missing or incomplete.
- Four of those buried were local residents who died from the bubonic and pneumonic plague in 1900 at the Adelaide Hospital.
- The cemetery was fenced off in 1901.
- The final burial took place in 1932.
- Numbered metal markers were installed in 1976, and the timber cemetery markers removed and placed in storage.
- The cemetery lies within the Torrens Island Conservation Park.
- Nine graves are known and marked with the metal markers installed in 1976 and roughly outlined with pieces of timber, however, records suggest other graves are likely within the cemetery.

Animal Quarantine

Cattle Shed (1924)

Other name: Cattle Boxes

Description: Simple rectangular building constructed of timber framed, weatherboard clad and a galvanised corrugated steel roof. Four holding boxes with stable half-door access. A pen extends outwards from eastern side, constructed from tubular steel.

History:

- Provided protection for cattle in quarantine.

Horse Stable (1924)

Other name: Horse Boxes

Description: Timber frame, weatherboard clad building with a galvanised corrugated steel roof. Five holding bays with stable half-door access to the east. Louvred vents at the top of the building's

western elevation and at each end. Each compartment has a hay rack in the corner. The northernmost two compartments have standard-sized access doors on their western elevation, whilst the other three have smaller access doors.

History:

- Provided protective shelter for horses confined in quarantine.

Storeroom and Animal Treatment Block

Other name: Veterinary Block, Store and Mans Room, Feed Room and Shed

Description: Timber frame, weatherboard clad building with a galvanised corrugated steel roof. Large, concrete-block animal enclosure area adjoins the southern room to the east as an extension.

History:

- Built in the 1920s as a storeroom for animal quarantine.
- Converted to an animal treatment block in the 1960s, at which time the blockwork addition was built. Changes included a treatment room with stainless steel veterinary prep table and sink, and an animal enclosure room.

Elements of Significance:

Elements of heritage significance include (but are not necessarily limited to):

Jetty & Foreshore

- Passenger jetty
 - Wrought-iron hand crane
 - Wind shelter
 - Sign
- Sulphur store
- Quarantine office
- Boundary fence surrounding attendants' cottages
- Sea wall
- Flagpole
- Attendants' cottage north
- Attendants' cottage south
- Cyanide store

Commonwealth Precinct

- Waiting room and office
- Laundry block
 - Copper boiler
 - Linen sanitiser
 - Calender
 - Drying cabinet
- Bathing block
 - Bath cubicles
 - Shower partition framing
 - Hot water tanks
- Luggage disinfecting block
- Bulk store
- Refshauge House
- Linen store
 - Vermin proof chamber
- Sewer pump house
 - Lifting gantry
- Sewer junction pots
- Underground tanks
- Fire hose boxes
- Attendants' house
 - Boundary fence

- Steam autoclave
- Fumigation chamber
- Mechanics pit
- Luggage racks
- Boiler house
- Elevated steam pipework connection between buildings
- Tree plantation to the west of the boiler house and luggage disinfecting block
- Tree plantation in the centre of the commonwealth precinct
- Building signage
- Street signage
- Petrol bowser
- Power lines and stobie poles
- Tramway track
- Red brick chimney
- Road and pathway layouts (surfacing included)

Accommodation Compound

- Prefabricated timber cottage
- Four accommodation chalets
- Accommodation block (west)
- Accommodation block (east)
- Fire hose boxes
- Above ground water tanks

Isolation Compound

- Kitchen and change rooms
- Mortuary
- Incinerator

Cemetery

- Cemetery

Animal Quarantine

- Cattle shed
- Tubular steel pens
- Horse stables
- Storeroom and animal treatment block
 - Animal enclosure room

Torrens Island Quarantine Station Complex

- Interrelationship between individual buildings and compounds
- Buffer zones

Elements not considered to contribute to significance of place include (but are not necessarily limited to):

- Twenty-first century additions such as the Zincolume® roofing,
- Restroom,
- Interpretive panels and posters.

History of the Place[†]

Torrens Island

Located in the estuary of the Port River, Torrens Island sits where the freshwaters of the land meet the salt waters of the sea from Wonggayerlo (the Gulf St Vincent). It is a tear-shaped shoal about 6km from north to south. Its highest land is the sand dunes on the western coast, with most of the land to the east falling in the inter-tidal zone with samphire flats inland and grey mangroves (*Avicennia marina*) growing along the river channels.¹

The Island is part of Kurna Meyunna Yerta, and the Kurna People have lived in the area for thousands of years.² The land around Port Adelaide is known as Yertabulti, the 'land of sleep and death.'³ Prior to European settlement, the Kurna People had a strong spiritual attachment and partnership with the land and the rich and diverse eco-zone which provided them with food, shelter, and areas of spiritual significance. Kurna lived in camps around the Port waterways, with the Wirra Kurna, a northern clan group, occupying land on the eastern bank of the Port River, and the Port River clan group residing on the western bank of the river from West Lakes to the tip of the Lefevre Peninsula, and from Glanville to the sea.⁴ The river provided 'flax, rushes, reed covered dunes, mangrove forests and marshes and swamps, which offered fish, crabs and oysters as food sources.'⁵ Flax was used to make nets to catch fish and hunt game animals such as kangaroo, while reeds were made into mats, baskets, and clothing, with trees and plant life like the gum and honeysuckle providing shelter.

The Port River estuary and environs remain important to Kurna life, with large numbers of culturally significant sites located along the coastal margins.⁶ In 2010, the ancestral remains of nearly 70 Kurna people were reburied on Torrens Island after being removed over 150 years prior.⁷ The Torrens Island Conservation Park is currently co-managed by the Kurna Parks Advisory Committee and the Department for Environment and Water, with traditional knowledge and land management practices informing contemporary approaches to park management.⁸

Following European settlement, Torrens Island's west coast now lies along a busy shipping channel known as Lipson Reach, which connects Port Adelaide to the St Vincent Gulf. Colonel William Light (1786-1839) first came across the entrance to the Port River in September 1836, and from 1837 Port Adelaide has served as South Australia's principal harbour.

The earliest reported settler on Torrens Island was Isaac Yeo, a Devonshire minor who established a dairy farm on the island after arriving in the colony aboard the *Theresa*

[†] The following history and chronology are built upon the histories of the *Torrens Island Conservation Management Plan Volume 1* written by Habitable Places (2014) and McDougall & Vines' *Torrens Island Quarantine Station Conservation Analysis* (1988).

in 1847.⁹ By 1850, Yeo and his family had built a farmhouse and were raising both cows and goats, also earning income from charcoal burning.

Migration, quarantine and maritime disease control in South Australia

The establishment of quarantine facilities near ports arose in the wake of several epidemics. The term quarantine is derived from the Venetian practice of 'quaranta giorni', meaning 40 days, established during the outbreak of plague in Italy during 1347-1352. During quaranta giorni, ships were required to lay at anchor for 40 days before being permitted to land crew, passengers, and cargo ashore.¹⁰ It was during this period that quarantine became a spatial and geographical practice with cities like Venice introducing a maritime 'cordon sanitaire.'¹¹

Over the centuries that followed, quarantine stations, or 'lazarettos,' were increasingly constructed to 'examine, quarantine, isolate, disinfect and treat maritime travellers and immigrants, their ships, crew and cargo' with the aim of preventing the transfer of infectious diseases.¹² The quarantine process involved a period of detaining and separating people who had potentially been exposed to the disease from the general population, and the isolation and confinement of sick individuals to stop the spread of infection to others.

The earliest purpose-designed stations were built in Europe in the seventeenth century and were principally associated with coast and marine trading ports. At these early quarantine stations, people were held in tents, barracks or quarters with goods and cargo being quarantined in warehouses. Ships and vessels were quarantined as they laid anchor off the coast. The quarantine process involved ventilation or airing, fumigation, disinfection, washing, and separation of the ship, cargo, and those aboard for a mandated period of time. Sick patients were accommodated in isolation hospitals which were separated at a distance and fenced from other sections of the station.¹³

Australia's geographic isolation and detachment from other countries provided a natural defence from the introduction of new diseases and it was strongly believed that the country was 'beyond the reach of disease' and was afforded 'ideal circumstances for the application of quarantine.'¹⁴ While this belief may have held true for some diseases Europeans had immunity to, it was a different circumstance for First Nations people. Many ailments considered common to Europeans decimated First Nations populations both at points of contact and in other locations as disease spread along transport routes such as waterways including the Murray River prior to contact and colonisation.¹⁵

Australia adopted a 'first line of defence' approach to disease governance which focused entirely on preventing disease risk from entering the colonies, thus managing

communicable diseases through border-based measures, primarily quarantine and migration policy.¹⁶

At the beginning of the century, British and Australian colonial quarantine was virtually identical.¹⁷ Prior to the federation of the Australian colonies in 1901, each colony or province was responsible for protecting its citizens from infectious diseases and implemented their own quarantine procedures. Early attempts at health governance in the colony of South Australia were informal, comprising of ad hoc quarantine, ventilation, and the protection of water sources for animals.¹⁸

South Australia's population increased fivefold between 1844 and 1855, bolstered by the opening of the Victorian goldfields in the early 1850s. Assisted migrants came predominantly from southern England and Lancashire. According to Wilfred Prest, as many assisted immigrants arrived in South Australia during the 1850s as in the whole of the following 60 years.¹⁹

Quarantine in South Australia initially occurred on-board vessels, usually anchoring off the coast near Semaphore. The *Quarantine Act 1850* required all merchant ships arriving in any port of the province to report instances of illness where the person was 'unable to stand or to work.' In the event of cases of disease, other than cases of common seasickness, a medical practitioner was required to attend and examine the patients and administer suitable treatment. In instances where the ship was found to be 'unwholesome, over-crowded, or unventilated,' the sick could be moved to another vessel and treated there.²⁰

Torrens Island Quarantine Station

According to Julie Collins, quarantine stations from the seventeenth century onwards were often positioned on sites where watercourses such as the sea or rivers provided separation from the mainland population creating a natural barrier to the movement of people, animals and thereby disease.²¹ As a result, quarantine stations were often located on islands or peninsulas.

It was this characteristic that made Torrens Island the ideal location for South Australia's quarantine station. Torrens Island was identified as a potential site for land quarantine as early as November 1849 in response to an overseas outbreak of 'Asiatic cholera':

It has been suggested that ships arriving under suspicious circumstances, or with positive infection on board, should be moored in the anchorage between the outer and inner bar, and that a portion of Torrens Island should be set apart as a quarantine ground, and fitted for the reception of crews and passengers requiring temporary separation and distinct medical treatment.²²

It was further argued that Torrens Island's natural supply of clean water and government ownership also made it a perfect place to establish a quarantine station.

The most usable land was the sand dunes along the western shore of the Island, and it was subdivided into 24 sections and put up for auction in 1854. Sections 869 and 870 were reserved by the government for quarantine purposes.²³

The passengers of the *Taymouth Castle* were the first to be quarantined on Torrens Island, after arriving at Port Adelaide on 25 June 1855 with cases of smallpox on board. As per the *Quarantine Act*, the ship and its passengers were kept in 'perfect isolation' to prevent infection from spreading. A quarantine station was hastily established by order of the Health Officer, Dr. Duncan, to, as one newspaper put it, 'undergo a thorough process of purification before being released from quarantine.'²⁴ On Friday 4 August, a government steam-tug delivered to Torrens Island the following:

Tents, together with a large quantity of cedar boards for flooring, 2,000 palings, cooking apparatus, and three large boilers, the latter for the express purpose of boiling all the emigrants clothes.²⁵

By Sunday morning, the ship's passengers had been discharged into a 42-tent 'encampment.'²⁶ The 'non-smallpox' passengers were accommodated in a 'canvas town,' set up in tents 'four deep from the beach.' Single females were at the eastern side of the site, married people in the centre, and single men at the western end. Security was overseen by the Water Police and 'twelve special constables.'²⁷ By mid-August, Dr. Duncan passed all immigrants as free of contagion.

Quarantine Station 1857

Like many other quarantine facilities across the world, the Torrens Island Quarantine Station (the Quarantine Station) developed in a 'piecemeal fashion.' Collins explains that temporary or hastily constructed buildings were frequently erected using lightweight timber structures or even tents when accommodation for large numbers of passengers was required at short notice.²⁸

In May 1856, £1,000 was budgeted for a quarantine station on Torrens Island on the sections purchased in 1854, and by September a call for tenders was advertised in Adelaide newspapers.²⁹ It was planned that the station be erected within 20 feet of the water's edge and consist of a 'weather-boarded building, 101 feet long and 23 feet wide, containing two wards, 40 feet in length, with a spacious kitchen, fitted with all the requisite appurtenances for the domestic comfort of the patients.'³⁰ The wards were provisioned for up to 80 'inmates', and was contracted to Mr. Reynolds of Port Adelaide. A newspaper report from December 1856 further details a washhouse and a detached fumigation room for 'clothes, or other articles from vessels arriving, which, from infection, may require such a process.'³¹ The final cost of the building and works totalled £726.³²

The *South Australian Advertiser* described the new station as follows:

The Quarantine Station is a decent-looking stone building, near to the water's edge, and, so far as situation is concerned, we should say very well adapted for the purpose to which it is applied. This structure has not been built very long, but was greatly needed, and is a vast improvement upon the old system of sheltering under tents the unfortunate creatures there held in captivity. There is no fence nor other enclosure round the Quarantine Station, at which we were somewhat surprised.³³

Passengers aboard the *Clara* were the first to use the quarantine station, arriving with typhoid in January 1859.³⁴ By 1865, the building seems to have fallen into disrepair, likely from disuse, the Commissioner of Public Works announcing to the House of Assembly that the buildings erected in 1856 were now 'tumbling to pieces,' and proposing that a new quarantine station be built near Semaphore Jetty for a cost of £2,000.³⁵ While the Commissioner's recommendation was not pursued, a search began for a new quarantine station site,³⁶ and in August 1866 the Marine Board sold the material debris from the quarantine station to a Mr. Reed.³⁷

Just a few years later, the Island was suggested as a potential location for an animal quarantine station to facilitate the controlled import of overseas animals to Australia. Although an Act passed in 1861-1862 introduced regulations regarding the health of imported animals, no satisfactory animal quarantine had yet been established.³⁸ In December 1869, a shipment of sheep imported from England were declared diseased by the Chief Inspector of Stock, C. J. Valentine. The *South Australian Register* reported:

[The sheep] will not be permitted to land to go up the country so long as the least risk exists of their communicating the disease. We believe it is in contemplation to place Torrens Island in quarantine, and place these sheep there until thoroughly clean. This will be an advantage in the case of any future lots of sheep which may arrive.³⁹

Pastoral farming quickly became a key economic activity in the early years of the colony⁴⁰ and an outbreak of any disease would have severely weakened the economy. It is unknown whether the plans to quarantine the sheep eventuated, but in 1872, the Commissioner of Crown Lands, the Surveyor-General and the Chief Inspector of Sheep visited Torrens Island to find a suitable place for a cattle quarantine station.⁴¹

Quarantine Station 1879

After almost ten years with no land quarantine station and an increasing number of 'emigrant vessels,'⁴² frustration grew at the colony's 'inadequate provision' for carrying out quarantine laws.⁴³ In response, the colonial government investigated alternative sites for land-based quarantine. Locations such as Troubridge Island,

Wedge Island, Wardang Island, Black Point, American River, Kingscote and Waraultie Island in the Spencer Gulf were considered but ultimately rejected. In 1875, the Colonial Secretary recommended the new station be built on Torrens Island, in the area of Isaac Yeo's house and the location of the first tent quarantine station erected in 1855. The Government purchased Sections 860-863 and 880-881 of Yeo's farm in December 1875, after government-owned sections 869 and 870 were identified as 'unsuitable in every way.'⁴⁴

In the meantime, as a temporary measure, the government purchased the hulk *Fitzjames* for £2,800 to use as a quarantine anchor off Semaphore.⁴⁵ The ship was refurbished and refitted, and officially proclaimed a quarantine 'station' in 1877. However, this solution quickly proved expensive and inadequate. In April 1877, the *British Enterprise* arrived at Adelaide with 440 passengers and crew and confirmed cases of smallpox and measles aboard. The *Fitzjames* was already occupied by passengers of the mail steamer *Bangalore*, and thus could not accommodate the new arrivals.⁴⁶ For the first month, the Government decided to keep all passengers onboard, however after 'public remonstrance,' three vessels were brought in to separate the healthy into categories, one for single men, one for single women, and a third for married couples.⁴⁷ The events of the *British Enterprise* further reiterated the need for a permanent quarantine ground, and in a session in 1877, parliament voted on the 'sum of £25,000' for the construction of a new station.⁴⁸

In June 1878, the Government purchased thirty prefabricated American frame houses for the Quarantine Station from Melbourne,⁴⁹ each with 'three and four rooms each.'⁵⁰ According to the block plan of Architect-in-Chief E.J. Woods, these cottages were arranged in a symmetrical manner and used for married couples' accommodation, separated into first class, second class, and steerage. Each cottage had a one-thousand-gallon iron tank.⁵¹

The cottages were built approximately 1,400 feet from the edge of the river on Sections 861 and 862.⁵² By January 1879, the buildings were approaching completion. A reporter for the *Evening Journal* described the new station as a 'little town springing up on the east side of the Port River.' The cottages were reported as being made from wood and supported by jarrah piles sticking out about two feet from the sandy soil:

They are the usual style of wooden houses, known as the American working men's dwellings. They vary but little, though some have lobbies and are thus a trifle more select than others ... with the large dining room – 60 ft. by 26 ft. – kitchen, bathrooms, and other offices in connection with them they ought to be comfortable places of residence for those who may hereafter be required to tenant them, perhaps against their inclination.⁵³

A large, shared dining room serviced the cottages, with a detached kitchen and laundry behind. At the western border of the station, north and south of the cottages,

were two accommodation buildings, one for single men and one for single women, each with two wards, and an attached central dining room and kitchen. To the east, just outside the fence, were two probationary wards, separated again by gender, 22 x 22 feet. Further east was two fenced-off contagious diseases ward compounds with their own kitchen and laundry, and to the north was a six-roomed doctor's residence 300 yards from the single men's quarters. The building work was overseen by Mr. T. Charke and constructed by Messrs. Tenant & Smith's for £9,960.⁵⁴

By May 1879, most of the construction was complete. One newspaper reported on the strong galvanised iron fences 'six feet high,' the morgue, a carpenter's shop, a disinfecting house of 'iron, bricks, slate, and concrete,' and a 25 feet high lookout, all of which was completed by Messrs. Waddington & Wright. The Quarantine Station could accommodate 260 persons easily, and 400 if necessary.⁵⁵

In line with the miasma theory of disease transmission, buffer zones were created between the different compounds, while patients and contacts were also physically separated to reduce exposure to contaminated or 'foul' air. Miasma, from the Greek meaning 'stain' or 'pollution of sin which offended the gods,' was used as a term to describe the foul airs and atmosphere that were thought to cause disease.⁵⁶ Theories about miasma emerged as early as 400BC, when Hippocrates wrote that to stay healthy one needed to stay away from the 'airs, waters and places that contained dangerous vapours or miasmas.'⁵⁷ The belief that miasma caused disease prevailed in Western Europe for over 2,000 years and was not challenged until the advent of modern medicine, germ theory and the growing understanding of pathogens such as viruses and bacteria and the role they played in causing diseases.

The first contacts (people) to occupy the new quarantine station were transferred from the *Fitzjames* on 2 February 1879.⁵⁸ In October that year, tenders were called for the construction of a jetty on the west coast of Torrens Island⁵⁹ with Jones & Mattinson's tender of £338 being accepted in December.⁶⁰

Prior to the establishment of the cattle quarantine station, prohibition on the importation of overseas stock was the only defence against the introduction of viral diseases into the colony. For example, a severe epidemic of foot and mouth disease in Europe, and outbreaks of pleuro-pneumonia, swine fever and small pox in sheep in Turkey led to a prohibition of stock importation from 1872 until 1879.⁶¹

The land at the southern end of Torrens Island was eventually chosen and proclaimed as a cattle quarantine station in 1879, with yards for cattle being constructed in February 1879.⁶² When the prohibition of stock was removed in July 1879, 23 pure Shorthorn cattle, 4 Lincoln sheep and 4 Berkshire pigs were the first to be quarantined at the new station and were held for 90 days.⁶³ By 1909, the animal quarantine station had expanded to include a 'keeper's cottage, a fumigation room, a store, two cattle sheds with yards, a sheep shed and dip, a yard, and two wells.'⁶⁴

Due to an administrative error, the human quarantine station was not officially proclaimed until 15 September 1881.⁶⁵ Little building activity occurred over the next thirty years of operation. The first tramway was installed in 1886 and the telephone was connected in 1898.⁶⁶ The tramway was used to transport luggage and materials from the ships along the jetty, and into the steam sterilizing autoclave in the disinfecting block.

Quarantine facilities were only used when required, and periods of active quarantine at Torrens Island were intermittent. During times of active quarantine, the Station was staffed and provisioned from Port Adelaide,⁶⁷ and during non-active periods, the island was used for social gatherings.

In 1882, an Act was passed that authorised the purchase, 'on behalf of the Crown, of all Lands on Torrens Island, in the Hundred of Port Adelaide, not now belonging to the Crown.'⁶⁸ The Act was carried out by the Commissioner of Crown Lands, and any money required for carrying the Act into effect was paid out of the general revenue of the province.

As Maglen notes, opposition to the lengthy and costly imposition of quarantine in Britain intensified throughout the nineteenth century, eventuating in the abolition of human quarantine there in 1896. In contrast, the Australian colonies expanded the breadth and capabilities of their maritime quarantine:

Although other European powers and British colonies progressively adopted systems of medical inspection more in line with British port prophylaxis and away from quarantine, the Australian colonies invested increasing amounts of time and money into more elaborate quarantine stations and regulations.⁶⁹

The Quarantine Act 1908

The *Australian Constitution* came into effect on 1 January 1901, notably including section 51 (ix) which provided the Commonwealth Parliament with the power to make all laws with respect to quarantine. The *Quarantine Act 1908* was legislated under this power, its objective being the 'prevention of the introduction or spread of diseases or pests affecting man, animals, or plants.'⁷⁰ Dr. W. Perring Norris, formerly the Victorian Permanent Head of Public Health, was appointed the first federal Director of Quarantine.

When the Act first came into operation, the Commonwealth agreed to use the already-established quarantine stations in each state, with administration delegated back to the individual states. Upon acquiring the station at Torrens Island, site plans were drawn up for the Commonwealth showing the existing buildings and their uses. These plans illustrate that almost all the buildings from 1879 were still present in 1910, and that most were considered suitable for ongoing use.⁷¹

In June 1912, Dr. Norris visited the Torrens Island Quarantine Station to discuss administrative matters with the local quarantine officer, Dr. Gething. In a report to the Commonwealth Parliament, Dr. Norris determined that the human quarantine needed modernising and that the animal quarantine needed to be relocated from the southern coast of the island to a closer site.⁷² He recommended that Torrens Island be re-developed to provide accommodation for 20 first class passengers, 30 second class, 150 steerage and crew, and 10 hospital and observation places. It was also suggested that the animal quarantine station be moved to a 'piece of land to the south of the present station.' The thirty cottages would remain, as well as the two existing dormitories, one of which would be partitioned to provide first class accommodation. One of the isolation wards was identified for use as temporary attendants' accommodation.⁷³

Along with contact and patient accommodation, the Quarantine Station was also equipped with government standard quarantine facilities such as an administrative block; isolation and observation blocks for ten cases; luggage store; disinfection, bathing and laundry blocks; a cottage and barracks for quarantine attendants; crematorium; and fencing.⁷⁴

The advent of modern thinking about the causes of disease and the growing acceptance of them in the latter decades of the nineteenth century impacted the operation of quarantine stations. In the twentieth century, the focus on detention and airing quarantine measures was replaced with a new emphasis on disinfection and bathing.⁷⁵ The layout of the Torrens Island Quarantine Station and upgrades to the buildings and equipment occurred to facilitate this new understanding about preventing the spread of infectious disease. The modifications to the Quarantine Station took place over 15 years, forming the cohesive group of buildings stretching from the jetty to the administrative block that remain on site today. A mortuary was built and accommodation for attendants was constructed, cottages being erected in place of the barracks.⁷⁶

A new double fenced isolation compound was established to the north of the accommodation cottages in 1915, and included a new hospital, nurses' quarters and a mortuary. The design of the isolation hospital featured four-bed wards instead of one large open ward,⁷⁷ reflecting the acceptance and application of measures based on germ theory that emerged at the end of the nineteenth century.⁷⁸ The two probationary wards from 1879 were relocated to this compound. The nurses' quarters enforced strict entry and exit quarantine procedure with a disrobing room, a bath with lead floor and a change room. The covered way leading to the wards discouraged straying and inadvertent contact.⁷⁹

A fumigation chamber and autoclave were installed in the luggage disinfecting block, further reflecting the application of germ theory. Poisonous gases derived

from cyanide and sulphur were used in the fumigation chamber to kill germs and disinfect belongings and spaces, while the steam autoclave sterilized items using intense heat in a process similar to pasteurisation.⁸⁰

In addition, the Commonwealth also upgraded the hand trolley tramway system to facilitate the movement of goods from the jetty and around the site. The layout of the site indicates that the complex was designed around the use of the tramway rather than roads, which were not constructed until later in the twentieth century.⁸¹

During the early operation of the Quarantine Station by the Commonwealth, a buffer screen was created along the foreshore adjacent to the Port River by densely planting trees.⁸² Mostly Casuarinas, the trees provided protection from the prevailing westerly winds. Further tree planting occurred around the main buildings, particularly to the north. This plantation visually screened the isolation compound from the non-infected accommodation areas.⁸³

According to the *Daily Herald*, funds were authorised in September 1912 for the supply of overhead tanks, windmills, and pumps for water supply and fire hydrants and alterations to the tramway gauge.⁸⁴ The Commonwealth also installed a sewage system with deep drainage replacing the colonial era earth closets.

The animal quarantine station was relocated to the southern section of the quarantine reserve in 1909.⁸⁵ In 1913, an animal jetty (since demolished) was installed just south of the human jetty for the new animal quarantine station.⁸⁶

The First World War

During the First World War, an internment camp was established for Australians of predominantly German heritage approximately 500m south of the jetties. Opening on 9 October 1914, the camp interned all 'enemy subjects' whose conduct was considered 'suspicious or unsatisfactory' and were treated like prisoners of war. The camp was later relocated to the southern end of the Torrens Island where the treatment of those detained deteriorated. By the time the camp closed in August 1915, there were almost 400 internees on Torrens Island, of whom 350 were German subjects.⁸⁷

The Quarantine Station was used as a medical clearing house for returning soldiers from the First World War. In late 1918, an epidemic of Spanish Influenza swept through Europe, and many Australian soldiers contracted the disease. Three days after the armistice was signed on 11 November 1918, the *Boonah* arrived at Port Durban, South Africa carrying almost 1,200 Australian Imperial Force soldiers returning home. The influenza pandemic was present in Durban and was found on board days after departure.⁸⁸ Upon arrival in Fremantle, Western Australia, three hundred cases had been reported. These patients were taken to Woodman Point Quarantine Station just

south of Fremantle, where twenty-seven soldiers, and four nurses who volunteered to care for them, died at the station.

The *Boonah* then made its way east, and between Albany and Adelaide seventeen more cases of influenza were reported. The ship arrived at Torrens Island on 30 December 1918 where 112 passengers were quarantined.⁸⁹ Thereafter, hundreds of other returning South Australian soldiers were quarantined on Torrens Island on their journey home.⁹⁰

Torrens Island Quarantine Station 1920-1959

Additional upgrades were made to the Quarantine Station during the 1920s. Bulk and sulphur stores were constructed, and another fumigation chamber was installed inside the luggage disinfection block. A weatherboard fumigation store for handling sulphur used to disinfect docked ships was built at the jetty head in 1921. Two more attendants' cottages were also built.⁹¹

A separate venereal diseases hospital compound was constructed in 1921, just south of the accommodation precinct. The male ward of the hospital burnt down in 1950 and the remaining buildings were demolished in 1999.

In 1924, several buildings were erected in the animal quarantine precinct. Only the horse stable, cattle boxes, and storeman's shed remain, an attendants' cottage visible on a 1935 plan and other structures having been demolished.⁹²

A new isolation hospital was erected in 1945. Eight years later, the nurses' quarters in the isolation compound burnt down. The covered walkway between the nurses' quarters and the kitchen was saved from the flames, and the walkway was converted into staff changing rooms.

The last major active quarantine event at the Torrens Island Quarantine Station occurred in 1954, when the *Stathaird* carrying British migrants heading for South Australia through the assisted passage migration scheme arrived. Known colloquially and pejoratively as 'ten pound poms,' the passengers were the last large group to be quarantined at Torrens Island. In the 1950s, increasing access to air travel began to challenge sea travel and reduce the demand for maritime quarantine of people.⁹³

1960 – Present

The final phase of building development occurred in the 1960s and 1970s. In 1966, a causeway connecting Garden Island to Torrens Island was built for the planned Torrens Island Power Station. A road to the Quarantine Station was also constructed, effectively ending over 100 years of natural isolation. Formed bitumen roadways followed, providing the ability to bring road making equipment and a considerable increase in vehicles.⁹⁴

A seawall on the western shore of Torrens Island was raised and a new quarantine office and cyanide store were built in the mid to late 1960s. From 1962 onwards, the remaining timber cottages in the accommodation precinct were slowly offered for sale or were demolished and burnt.⁹⁵ To replace the dilapidated cottages, four masonry accommodation 'chalets', each containing two private rooms with en-suite bathroom facilities, were erected directly to the east of Refshauge House. The chalets were built to a similar scale as the timber cottages and positioned in a row using the layout of the original accommodation compound.

According to the Register of Admissions and Discharges book, only six patients came through the Quarantine Station between 1960 and 1970, most suffering from varicella, also known as chickenpox.⁹⁶ These patients were treated in the infectious diseases hospital at the north of the station, making it unlikely that the chalets were ever used for their intended purpose as contact accommodation. Instead, they were used for nurses' accommodation and later as a 'motel' for family and friends visiting staff in the 1980s during the period of animal quarantine.⁹⁷ A further two accommodation blocks, one containing four units, and one containing five, were erected between 1966 and 1967.

It was also around this time that the store room at the animal quarantine station was converted into an animal treatment block.⁹⁸ This included the demolition of the original bathrooms, installation of double doors, covering of windows with cyclone mesh and fly wire, and the addition of a room with four animal enclosures.

By the late 1970s, the threat of infectious diseases of epidemic proportions was thought to be overcome. With mass immunisation and vaccinations, diseases such as smallpox were eradicated. This coincided with an increase in mass air travel, replacing sea travel.⁹⁹ Quarantine stations around Australia began closing for human quarantine purposes, including Torrens Island. In 1980, the Torrens Island Quarantine Station officially closed and all treatment of infectious diseases was moved to the Hampstead Centre (formerly the Metropolitan Infectious Diseases Hospital) (SHP 10824). Torrens Island from this point on was used solely for animal quarantine.

Over time, the activities of the animal quarantine station began to encroach on the human quarantine buildings. For example, the buildings in the commonwealth precinct were used for animal quarantine purposes and Refshauge House was used as a staff residence. The luggage and disinfecting block 'foul room' was adapted for animal dissections.¹⁰⁰ The isolation hospital compound became an animal breeding area.

The Torrens Island animal quarantine station was extended in 1979 and new cattle and horse facilities were built by McEntee & Williams Pty Ltd at a cost of almost \$580,000.¹⁰¹ The *Port Lincoln Times* reported on the new facility in June that year:

'The new facility also included a new effluent handling and treatment system which would reduce the risk of any disease spread at the station, and a specially designed evaporative air-cooling system to eliminate summer heat stress problems.'

The expanded station allowed South Australia to begin importing boars from New Zealand, Canada and Ireland,¹⁰² as well as cattle direct from Britain.¹⁰³

In 1984, a consignment of 74 live Angora goats, two Suffolk rams and a Ramboulet ram arrived at Torrens Island. With their arrival came the threat of scrapie, which led to the development of the Scrapie Freedom Assurance Program (SFAP).¹⁰⁴ The program imposed strict importation conditions which included the isolation of imported animals in cattle pens. None of the original imported animals were to be released, and in order to clear quarantine 'each imported animal had to produce 5 progeny, at an age of 5 years without any signs of the disease.'¹⁰⁵

Breeding was essential to the program, and it quickly became evident that Torrens Island lacked the infrastructure to quarantine the animals long-term whilst running a significant breeding program. Of the original 20 syndicates involved in the importation, only four remained at Torrens Island. The rest set up a private quarantine and breeding facility at Kirra Station, 80km north-east of Keith. Although privately owned and operated, this station was under the direct control of government veterinary officers.¹⁰⁶

The animals that remained at Torrens Island were quarantined in one of the 43 paddocks established in and around the human and animal quarantine station buildings. At the peak of the SFAP, Torrens Island had 1,300 goats and sheep under intensive field conditions.¹⁰⁷

Animal quarantine at Torrens Island ceased in 1995. The Australian Inspection and Quarantine Service (AQIS) avian quarantine facility, constructed in 1989, remained in use until around 2012, concluding almost 160 years of quarantine history on the Island.¹⁰⁸

Chronology

Year	Event
------	-------

1836	Colonel William Light sails up the Port River.
1837	25 May: The Port River estuary is proclaimed a legal port by John Hindmarsh. Torrens Island is proclaimed. ¹⁰⁹
1847	Isaac Yeo arrives in the colony aboard the ship <i>Theresa</i> .
1850	Yeo begins squatting on Torrens Island.
1850	The Quarantine Act is assented in March.

- 1854 Sections 869 and 870 in the Hundred of Port Adelaide are reserved for quarantine grounds.**
Yeo purchases sections 860 to 864.
- 1855** 25 June: The ship *Taymouth Castle* arrives at Port Adelaide with cases of smallpox and cholera on board.
Tent quarantine station erected on section 261.
27 December: Port Adelaide is declared a corporate town.
- 1856 Timber quarantine buildings are constructed on Sections 869 and 870 (since demolished).**
- 1872 August: The Commissioner of Crown Lands, the Surveyor-General and the Chief Inspector of Sheep visit various locations on Torrens Island intent on finding a suitable place for a cattle quarantine station.
- 1875 The Government purchase Yeo's second farm on sections 860-863 and 880-881 to build a new quarantine station.**
- 1877 The *British Enterprise* arrives at Adelaide carrying passengers and crew affected by an unnamed infectious disease.
- 1878 Government buys '30 wooden houses' from Melbourne
- 1879 A quarantine station is established on the current site. The following structures are built or erected:**
- Jetty,
 - Dormitories, kitchens and lookout etc.,
 - Prefabricated timber cottages,
 - Cattle yards at southern end of island.
- Charles Chamberlain invents the autoclave.
The *City of London* and *Oaklands* are quarantined with cases of measles.
- 1880 Thomas Eve's tender on £712 is accepted for the painting and whitewashing of the Quarantine Station.
- 1881 Embankments are raised.
- 1882 The colonial government acquires all other private land on the island.**
The *Garonne* is quarantined with cases of smallpox.
- 1885** First sanitary conference in Australia is held in Sydney. The conference highlights the need for a uniform system of quarantine across the continent.
The land on Torrens Island is converted to Crown land.
- 1886 Tramway from jetty constructed.**

- 1887 January: Passenger of the *Preussen*, Thomas Anthony Hunter, is the first patient to be buried at the quarantine cemetery at the northern end of the island.
- 1888 The *Stock Disease Act* is passed regulating quarantine provisions for communicable diseases.
- 1891 The jetty is extended.**
- 1898 A telephone is connected to the Doctor's House (since demolished).
- 1901 109 men of the Imperial Bushmen's Contingent returning from the Boer War aboard the *Britannic* are quarantined.
- 1902 Repairs are made to the main jetty.**
- 1903 Cast-off Police House bought for superintendent's use.
- 1908 The Commonwealth *Quarantine Act* is assented. The Act is administered by the Department of Trade until 1921.
- 1909 The Commonwealth Government takes over the Torrens Island Quarantine Station. An inventory of the buildings is prepared.**
- Animal Quarantine is relocated to its present site from the southern end of the island.**
- 1910 A row of the prefabricated cottages is removed.**
- 1911 The isolation hospital opens.**
- The mortuary is built.**
- 1912 Underground tanks are constructed.**
- 1913 The animal jetty is built south of the human quarantine jetty (since demolished).**
- The laundry block is built.**
- 1914 - The Torrens Island Internment Camp opens on 9 October and closes on 17 August the following year.
- 1915 The first three bays of the luggage disinfecting block are built.**
- Office and waiting room are built.**
- Northern attendants' cottage is built on the site of Yeo's house.**
- Windmill (since demolished) and overhead tanks erected.**
- 1916 Bathing block built.**
- Linen store built.**
- Boiler house and chimney built.**
- Refshauge house (administrative block) built.**
- Single men's and single women's dormitories partitioned into rooms.**

- 1917** **Single men's dormitory is destroyed by fire.**
- 1918** **Sewer pump house built.**
- 1921** **Second attendants' cottage built.**
Venereal diseases hospital established (since demolished).
 The Commonwealth Department of Health is established. Responsibility to administer the *Quarantine Act 1908* is transferred to the Department.
- 1922** **Former married couples dining room becomes recreation room (since demolished).**
Bulk store built.
Two observation cottages (since demolished) are relocated to the new isolation compound.
- 1923** **The jetty is rebuilt, and a ramp and weatherboard fumigation store are added.**
- 1924** **Fumigation store on the jetty is destroyed by fire and rebuilt.**
- 1925** **A kitchen is added to the isolation compound.**
- 1927** **The southern attendants' cottage is constructed.**
The formaldehyde gas fumigation chamber in the disinfecting block is constructed.
- 1928** The Education Department provides a teacher at the station for the 6 children of employees.
Oldest attendants' cottage is demolished.
- 1929** Renewal of sections of tramway.
Sulphur store built at southern jetty abutment.
- 1934** **Jetty fumigation store burns down.**
- 1942** 17 Japanese soldiers are interned at the Quarantine Station.
- 1945** **New isolation hospital built.**
- 1949** The *RMS Mooltan* is quarantined. The passengers are detained for one to three days with chicken pox.
- 1950** **Male venereal diseases ward is destroyed by fire.**
The sea wall is repaired.
- 1951** Passengers of the *Orcades* is quarantined at Torrens Island.
- 1953** **Fire destroys the isolation block nurses accommodation wing. Covered way converted to entrance and change rooms.**

- 1954 The *Strathhaird* is quarantined at Torrens Island with government passengers colloquially known as £10 poms heading for South Australia. This was the last major active quarantine event at the station.
- 1956 The timber cottages are 'modernised.'**
- 1958 Sewerage installation is rehabilitated.**
Tanks and overhead tank stands are either repaired or replaced.
- 1959 Further repairs are made to the jetty.**
- 1960 Serious flooding results in the construction of a new timber sea wall.**
- 1961 Electricity is supplied from the mainland.**
The upper balcony of Refshauge House is enclosed.
Alterations are made to the ground floor of Refshauge House.
A bore pump house is built south of Refshauge House.
- 1962 ETSA is given control of the southern end of Torrens Island and construction of a power station begins.
 The Grand Trunkway Bridge over the North Arm to Garden Island and a causeway between Garden and Torrens Island begin construction.
- 1964 The front row of timber prefabricated cottages are demolished.**
Further repairs to jetty rails and posts.
- 1965 The existing crane on the jetty is replaced with a davit-type crane.**
Southern staff house is re-roofed with corrugated asbestos.
Timber cottage C18 is demolished.
- 1966** Torrens Island Power Station is completed.
 Inventory of buildings is undertaken and records 22 timber cottages remaining.
 A track is constructed from the southern end of the island, replacing the jetty as the primary access to the island.
Administration building constructed at the animal quarantine station.
- c.1966 Brick chalets are built.**
- 1967** A master plan is prepared by the Commonwealth Department of Health.
The recreation hut, also known as the married couples dining room and kitchen, is demolished.
A new quarantine office at the land end of the jetty is built, replacing the original boat shed.
Several timber cottages are demolished.
 The timber and iron roofs of the underground tanks are replaced.

The coal boiler is replaced with an oil-fired steam boiler.

Accommodation blocks are built.

1968 The pylons of the jetty are encased in concrete braces and deck planks replaced.

1969 Masterplan for additional chalets is abandoned.

A new cyanide store is constructed on the foreshore.

Maintenance withdrawn on timber buildings.

The Quarantine Station is retained for the use of smallpox only. Treatment of other diseases moves to the Northfield Infectious Diseases Hospital.

The Alan Green 'Museum' collection in the former Laundry Block is initiated.

1971 Concrete block fence around the chalets is erected.

1972 The northern tip of Torrens Island is declared a conservation park.

1976 The National Trust places the 'old timber buildings' at the Torrens Island Quarantine Station on their Register of Historic Buildings.

Timber grave markers are removed from cemetery and replaced with numbered metal markers.

On 8 July, the Commonwealth Department of Health sends a letter to the Director of the S.A. Division ordering that the quarantine station at Torrens Island is to be closed for human quarantine purposes, with no further human admissions to take place.

Only six timber cottages remain.

1978 McEntee & Williams Pty Ltd, Edwardstown wins tender to erect new cattle and horse facilities at the animal quarantine station.

1979 The human quarantine station at Torrens Island ceases operation.

The World Health Organisation declares the eradication of smallpox.

New cattle and horse facilities are built at the animal quarantine station (since demolished).

1980s The isolation hospital is destroyed.

A trotting track is installed south of the commonwealth precinct.

1980 The human quarantine station at Torrens Island officially closes due to the decline in maritime transport, eradication of smallpox and earlier relocation of quarantine of infectious diseases to Northfield Infectious Diseases Hospital.

All but one of the remaining prefabricated timber cottages are sold off and/or dismantled.

Naturally occurring smallpox is eradicated worldwide.

- 1984 The policy and administration of animal and plant quarantine aspects of the Quarantine Act were transferred from the Department of Health to the Department of Primary Industries.
- 1985 December: Documentary material from the Torrens Island Quarantine Station is moved to National Archives Australia.
- 1987 Artefacts from the Alan Green Museum are transferred to the National Museum of Australia, Canberra.
- 1988 A conservation management plan is prepared by McDougall and Vines for Australian Construction Services.
- 1989 An avian quarantine facility is constructed.
- 1993 The Torrens Island Quarantine Station is listed as a State Heritage Place.**
- 1995 Animal quarantine officially closes.**
The operational service delivery for plant, animal and human quarantine in South Australia is transferred to the Australian Quarantine and Inspection Service (AQIS).
- 1996 A conservation management plan is prepared by Works Australia.
- 1997 An environmental site assessment is undertaken by DASCEM. Some remediation works are undertaken.
- 1999** The land adjacent to the mortuary is leased to the Australian Communications Authority.
The buildings of the venereal diseases hospital are demolished to make room for the Quarantine Power Station.
A gas pipeline is installed behind the seawall.
Remediation of friable asbestos from autoclave and steam pipework.
- 2001 The quarantine station site is transferred from the Commonwealth to the Government of South Australia.
- 2005 The Adelaide Dolphin Sanctuary, which includes Torrens Island, is proclaimed.
The conservation park is extended southwards.
- 2009 The Quarantine Power Station is expanded.
- 2011 The Police and Australian Army use Torrens Island for training exercises.
South Australian Maritime Museum tours commence.
A heritage asset survey is prepared for DPTI Building Management.
- 2012 The AQIS avian quarantine facility closes.
- 2014 A conservation management plan is prepared by Habitable Places.
- 2015 The *Quarantine Act 1908* is superseded by the *Biosecurity Act 2015*.

References

Books and Book Chapters

- Collins, Julie. *The Architecture and Landscape Health: A Historical Perspective on Therapeutic Places 1790-1940*. London: Routledge, 2020.
- Lewis, Milton. *The People's Health*, vol. 1. London: Praeger, 2003.
- Lockwood, Christine. 'Early Encounters on the Adelaide Plains and Encounter Bay.' In Peggy Brock and Tom Gara eds., *Colonialism and its Aftermath: a history of Aboriginal Australia*. South Australia: Wakefield Press, 2017.
- MacGillivray, Leith. 'Pastoralism.' In Wilfred Prest ed., *The Wakefield Companion to South Australian History*. South Australia: Wakefield Press, 2001, p.402-404.
- Richards, Eric. 'Migration.' In Wilfred Prest ed., *The Wakefield Companion to South Australian History*. South Australia: Wakefield Press, 2001, p.352-355.
- Stapleton, Doug L. 'The imports.' *Mohair: Farming the Diamond Fibre*, 2017.

Reports and Theses

- Austral Archaeology. 'Torrens Island Energy Park, Non-Indigenous Historical and Cultural Heritage Study.' Report prepared for Coffey Natural Systems on behalf of AGL Energy Limited, December 2009.
- Habitable Places. 'Torrens Island Quarantine Station CMP Volume 1.' Department of Planning, Transport and Infrastructure, 2014.
- Habitable Places. 'Torrens Island Quarantine Station CMP Volume 2.' Department of Planning, Transport and Infrastructure, 2015.
- Dusting, Rob. 'Torrens Island Quarantine Station Conservation Management Plan.' Report prepared for Australian Estate Management by Works Australia, June 1996.
- Kluge, Emma. 'What were people's experiences on Torrens Island Quarantine Station.' South Australian Maritime Museum Research Paper, undated.
- McDougall, Katrina and Elizabeth Vines. 'Torrens Island Conservation Analysis.' Report prepared for Australian Construction Services by McDougall & Vines, April 1988.
- Norris, W. P. 'Report on quarantine in other countries and on the quarantine requirements in Australia.' Commonwealth Department of Customs. Melbourne: Government Printer, 1912.
- Wood, Vivienne. 'Kaurna cultural heritage survey, July 2007.' City of Port Adelaide Enfield, 2007.

Articles and Papers

- Brown, Rebecca. 'Quarantine Island: Australia's Health Policy and Its Construction of International Law.' *The Australian Year Book of International Law*, vol. 41 (2023), p.299-343.
- Bunn, Christopher. 'The history of quarantine on Torrens Island, South Australia, 1850s to the present.' Paper presented at the Annual Conference of the Australian Veterinary Association in Adelaide, 23 May 2016, p.4-15.
- Curtis, Valerie A. 'Dirt, disgust and disease: a natural history of hygiene.' *J Epidemiol Community Health* (2007), p.660-664.
- Maglen, Krista. 'A World Apart: Geography, Australian Quarantine, and the Mother Country.' *Journal of the History of Medicine and Allied Sciences*, vol. 60, no. 2 (April 2005), p.196-217.
- Maxwell, J.A. 'A history of livestock quarantine in Australia.' *Animal Husbandry, Dairy and Veterinary Science*, vol. 2, no. 2 (2018), p.1-4.
- Moloney, Kim and Susan Moloney. 'Australian Quarantine Policy: From Centralization to Coordination with Mid-Pandemic COVID-19 Shifts.' *Public Administration Review*, vol. 80, no. 4 (2020), p.671-682.

Newspapers

- Laura Poole, *ABC Rural*, '160 years of quarantine on Torrens Island to end,' 21 May 2012.
- ABC News, 'Burials mark 'closure for the Kaurna nation',' 13 December 2010.
- Adelaide Observer*, 'Establishments Detailed,' 10 May 1856.
- Adelaide Observer*, 'Second Adelaide Steeplechase,' 25 October 1856.
- Adelaide Times*, 'Domestic News,' 7 August 1855.
- Adelaide Times*, 'Advertising,' 6 September 1856.
- Adelaide Times*, 'Local Intelligence,' 15 December 1856.
- Border Watch*, 'Our Adelaide Letter,' 11 April 1877
- Border Watch*, 'Animal Quarantine Station,' 21 April 1925.
- Environment SA News*, 'New parks co-management agreement paves way for stronger First Nations agreement,' Department for Environment and Water, 15 August 2022.
- Evening Journal*, 'Quarantine,' 23 August 1873.
- Evening Journal*, 'Latest News,' 15 April 1876.
- Evening Journal*, 'Latest News,' 15 June 1878.
- Evening Journal*, 'A Visit to the Quarantine Station,' 24 January 1879.
- South Australian Chronicle and Weekly Mail*, 'An Infected Ship,' 7 April 1877.
- South Australian Gazette and Colonial Register*, 'Proclamation,' 3 June 1837.

South Australian Register. 'Obituary,' 4 August 1891.s
South Australian Register, 'Cholera Ships,' 21 November 1849.
South Australian Register, 10 November 1854.
South Australian Register, 'Internal Communication,' 4 August 1855.
South Australian Register, 'Law and Criminal Courts,' 6 August 1855.
South Australian Register, 'Chamber of Commerce,' 7 August 1855.
South Australian Register, 'Shipping Intelligence,' 22 January 1859.
South Australian Register, 'House of Assembly,' 12 July 1865.
South Australian Register, 'The English National Debt,' 27 July 1866.
South Australian Register, 'Marine Board,' 30 August 1866.
South Australian Register, 'The Town Council and Tee Overdraft,' 16 December 1869.
South Australian Register, 'The Month's News,' 17 May 1877.
South Australian Register, 'Enlargement of the Adelaide Gaol,' 17 May 1879.
The Advertiser, 'The Boonah,' 3 January 1919.
The Advertiser, 'Landing of Troops,' 26 April 1919.
The Advertiser, 'More Quarantine Accommodation,' 13 May 1921.
The Argus, 'Pneumonic Influenza,' 13 December 1918.
The Areas' Express, 'Telegraphic News,' 15 June 1878.
The Express and Telegraph, 'Government Gazette,' 23 December 1879.
The Register, 'Torrens Island and Quarantine,' 7 June 1913.
The Register, 'Animal Quarantine,' 6 February 1913.
The South Australian Advertiser, 'The Meeting of the Homeward Mill,' 19 February 1859.
The South Australian Advertiser, 3 September 1879.
The South Australian Advertiser, 'Advertising,' 25 October 1879.
Yorke's Peninsula Advertiser and Miners' News, 'Quarantine Station,' 6 February 1874.

Archival Collections

National Archives Australia, Torrens Island Quarantine Station Collection.
 State Records of South Australia.

Websites

Britannica, 'Germ Theory,' <https://www.britannica.com/science/germ-theory>.
 City of Port Adelaide Enfield. *Aboriginal People and Culture Handbook*.
https://www.cityofpae.sa.gov.au/_data/assets/pdf_file/0030/836805/AboriginalPeople-and-Culture-Handbook.pdf.

Department of Primary Industries and Regions, 'Quarantine,' History of Agriculture in SA, https://pir.sa.gov.au/aghistory/department_of_agriculture_programs/pest_and_disease_programs/quarantine.

Mandy Paul, 'Torrens Island Internment Camp,' SA History Hub, History Trust of South Australia, <https://sahistoryhub.history.sa.gov.au/places/torrens-island-internment-camp>.

National Parks and Wildlife Service South Australia, 'Torrens Island Conservation Park,' <https://www.parks.sa.gov.au/parks/torrens-island-conservation-park>.

Oxford Reference, 'Miasma Theory,' <https://www.oxfordreference.com/display/10.1093/oi/authority.20110803100154969> (accessed 21 December 2023).

State Library of South Australia, 'South Australia – Health,' Manning Index of South Australian History, <https://manning.collections.slsa.sa.gov.au/sa/health/quarant.htm>.

SITE DETAILS

Torrens Island Quarantine Station Complex
Grand Trunkway, Torrens Island 5015

PLACE NO.: 26583

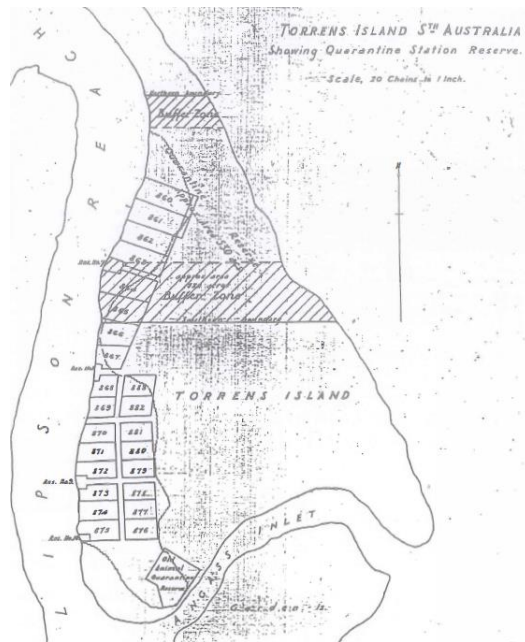
DESCRIPTION OF PLACE:	Quarantine station comprising over twenty structures and landscape elements.
DATE OF CONSTRUCTION:	1878-1980
REGISTER STATUS:	15 February 2024 (Council identified during BHI project as requiring reassessment to add elements of significance not included in the 1993 listing.) Provisional Entry: 14 March 2024
PREVIOUS REGISTER STATUS:	Nomination: 13 April 1987 Provisional Entry: 28 May 1993 Confirmation: 21 October 1993
CURRENT USE:	Historic site 2012 -
PREVIOUS USE(S):	Human Quarantine 1855-1980 Animal Quarantine 1860s-2012
ARCHITECT:	Edward J. Woods (Commonwealth Precinct) 1910s John S. Murdoch (Refshauge House) 1916
LOCAL GOVERNMENT AREA:	Unincorporated
LOCATION:	Street Name: Grand Trunkway Town/Suburb: Torrens Island Post Code: 5015
LAND DESCRIPTION:	Title CT 6211/942 D90964 A300, CT Reference: 6211/943 D90964 A301, CT 6212/771 D90964 Q302, CT 6212/771 D90964 Q306 Hundred: Port Adelaide

PHOTOS

Torrens Island Quarantine Station Complex

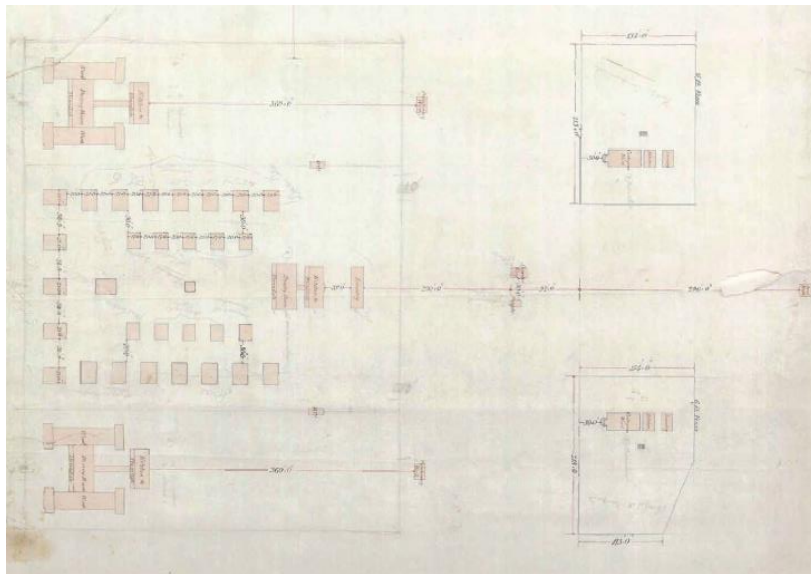
PLACE NO.: 26583

Grand Trunkway, Torrens Island 5015



Early land sections on Torrens Island in the 1850s (Crown Lands Office 1909).

Source: McDougall & Vines



Torrens Island Quarantine Station Block Plan 1878.

Source: NAA D1051, Folder D1051, D1

Torrens Island Quarantine Station Complex
Grand Trunkway, Torrens Island 5015

PLACE NO.: 26583



Tramway through the Torrens Island Quarantine Station in the 1920s.

Source: NAA D3185, 58



Looking east along Charles Barbour Road in the commonwealth precinct.

Source: DEW Files, Jan 2024

Torrens Island Quarantine Station Complex
Grand Trunkway, Torrens Island 5015

PLACE NO.: 26583



Human passenger jetty in 2021, note the crane.

Source: DEW Files, Feb 2021



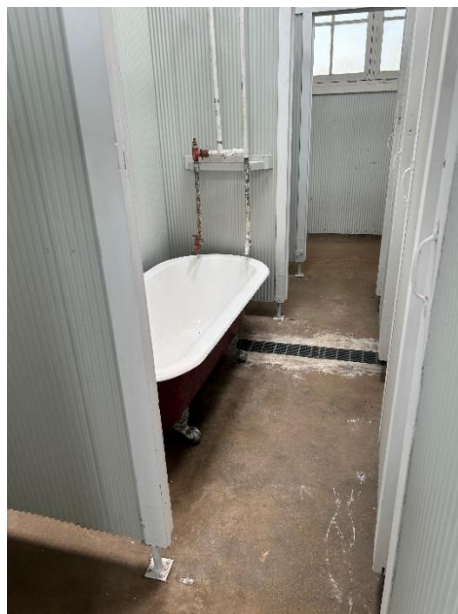
The bathing block in 2021.

Source: DEW Files, Jan 2021



Interior of the bathing block. The cubicles were removed when the human quarantine station closed.

Source: DEW Files, Feb 2021



Rebuilt cubicle with bathtub in the bathing block. Originally intended to be used by first-class passengers, it was eventually used by women.

Source: DEW Files, Jan 2024



The boiler house and chimney.

Source: DEW Files, Jan 2024



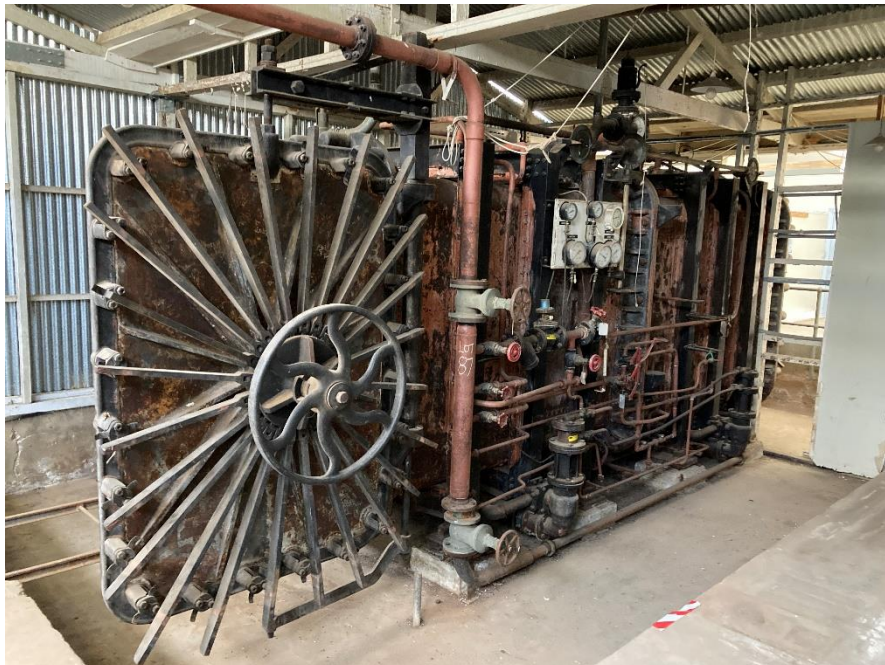
Elevated steam pipe between the boiler house and luggage store.

Source: DEW Files, Jan 2024



Luggage store.

Source: DEW Files, Jan 2024



Steam autoclave inside the luggage store.

Source: DEW Files, Jan 2021



Tramway tracks leading into the luggage store (left) and the laundry block (right).

Source: DEW Files, Jan 2021, and Jan 2024



The calendar or roller press located in the laundry block.

Source: DEW Files, Jan 2024



Drying cabinet in the laundry block.

Source: DEW Files, Jan 2024



The linen steriliser located in the laundry block.

Source: DEW Files, Jan 2024

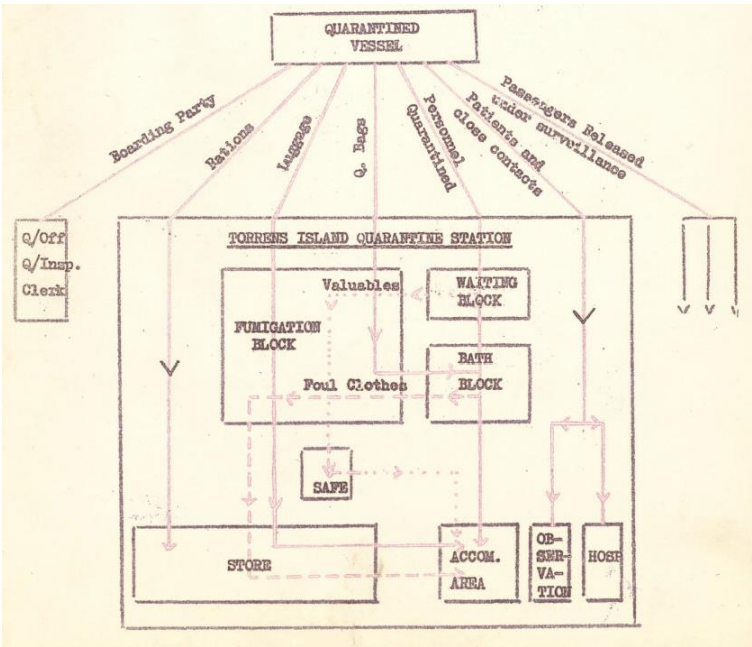


Diagram showing the flow of personnel and stores from quarantined vessels into the Torrens Island Quarantine Station during the 1920s.

Source: NAA, D2166, Item 23

SUGGESTED MENU			
DAY	BREAKFAST	DINNER	TEA
SUNDAY	Flakes Oatmeal or Stewed Prunes Eggs & Bacon Toast Tea or Coffee	Roast Beef Roast Potato, Beans Marrow Sago Plum Pudding & Sweet Sauce	Cold Ham Lettuce, Celery Apple, Fresh Fruit Cheese, Orange Cake Tea or Milk
MONDAY	Wheatmeal or Stewed Apples Tomatoes on toast Toast Tea or Coffee	Vegetable Soup Fricassee Lamb Chops & Green Peas Mashed Potatoes, cabbage Carrot rings with parsley Bread & Butter custard with raisins	Brain Cakes & Bacon Lettuce, grated carrot Grated cheese Fresh Fruit Tea or milk
TUESDAY	Oatmeal or Stewed Pears Poached Eggs on Toast Toast Tea or Coffee	Pea Soup Spanish Steak Mashed Potatoes Silverbeet, Tomatoes Baked Apples & Custard	Fricassee Rabbit Lettuce, Radishes Fresh Fruit Cheese Tea or Milk
WEDNESDAY	Wheatmeal or Stewed peached (dried) Sausages in gravy Toast Tea or Coffee	Tomato Soup Roast Lamb, mint sauce Roast Potatoes, caulif- lower with white sauce Green Peas Fruit Salad & Cream	Grilled chops Lettuce, Tomatoes Cheese, Scones (wholemeal fruit Tea or milk

Suggested menu for contacts and patients during active quarantine in the 1920s.

Source: NAA, D2166, Item 28



Cyanide store along the foreshore.

Source: DEW Files, Jan 2024



Flagpole (left) and fire hose box (right).

Source: DEW Files, Jan 2021



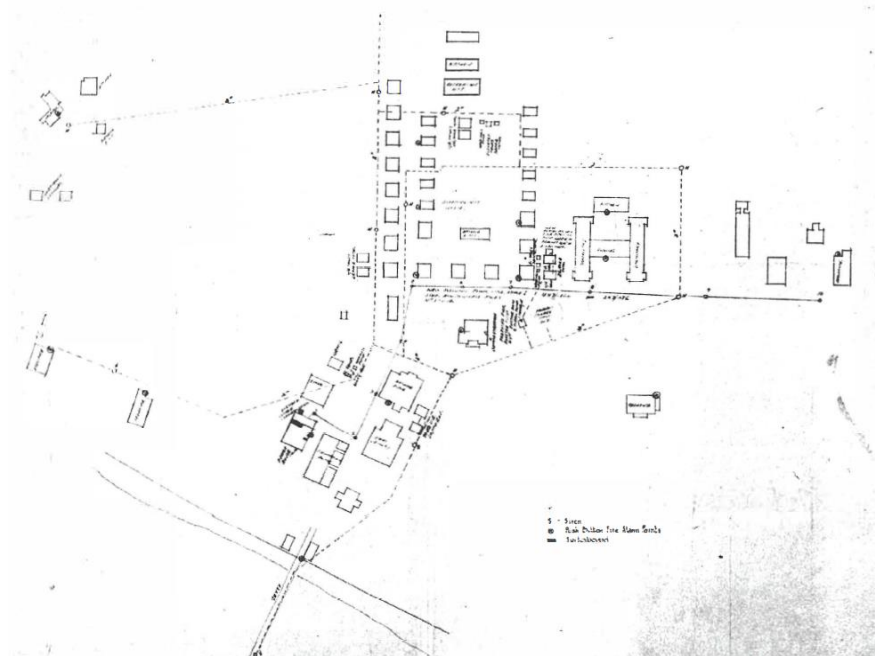
The quarantine office.

Source: DEW Files, Jan 2021



Refshauge House.

Source: DEW Files, Jan 2021



Torrens Island Quarantine Station in 1966. These plans illustrate the station's new push button fire alarm system.

Source: NAA D1051, Folder 57, D34



View of the accommodation compound in 1972. The chalet on the right stands out from the prefabricated timber cottages and linen store on the left.

Source: NAA D3481, Torrens Island QS 3898/14A



One of the four accommodation chalets in the accommodation compound.

Source: DEW Files, Jan 2024



Interior of the chalet with private bathroom facilities.

Source: DEW Files, Jan 2024



The accommodation block in January 2024. This building was used as a tea/smoko room during the period of animal quarantine.

Source: DEW Files, Jan 2024



The eastern accommodation block in January 2024. This building was mainly used as a storeroom during animal quarantine.

Source: DEW Files, Jan 2024

Torrens Island Quarantine Station Complex
Grand Trunkway, Torrens Island 5015

PLACE NO.: 26583



Aerial view of the quarantine station looking south-east c.1930. The animal quarantine structures are circled in yellow.

Source: NAA D3185, 57



Rear of the horse stable with access doors.

Source: DEW Files, Jan 2024



Cattle shed.

Source: DEW Files, Jan 2024



Cattle shed holding boxes.

Source: DEW File, Jan 2024



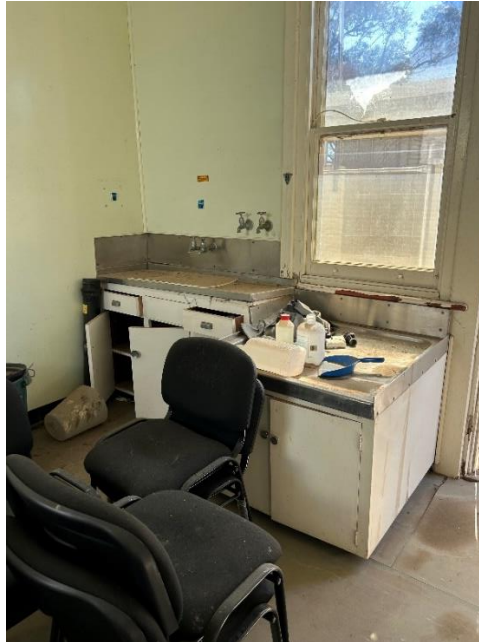
Store room and animal treatment Block.

Source: DEW Files, Jan 2024



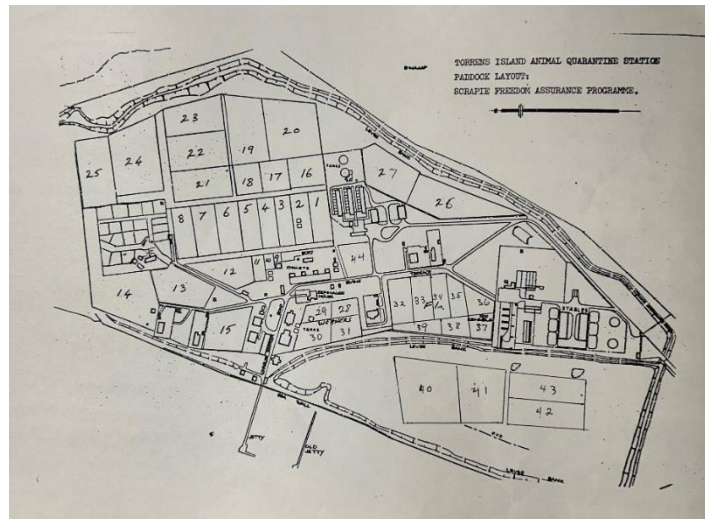
Animal treatment block animal enclosure.

Source: DEW Files, Jan 2024



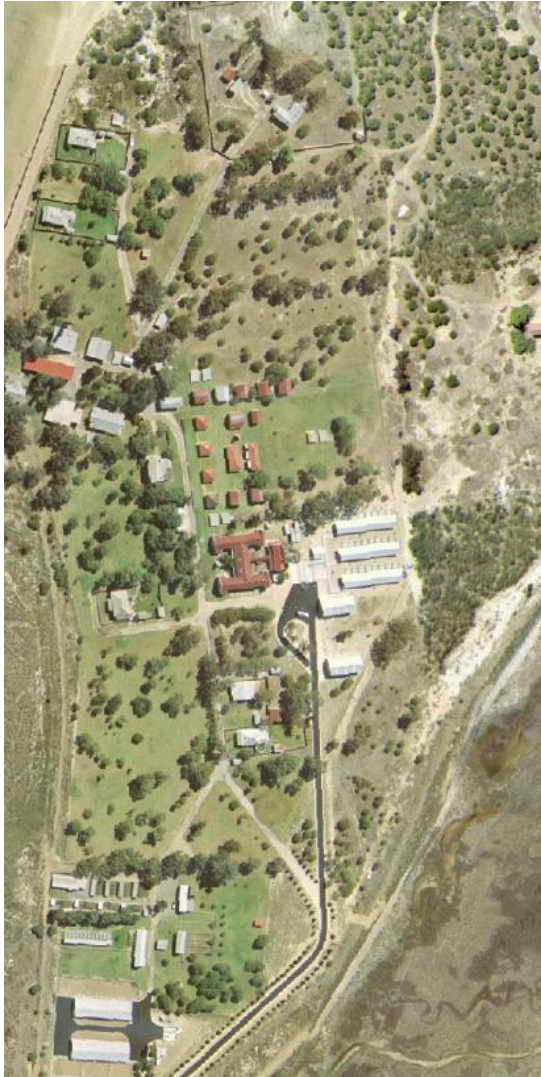
Treatment block sink station.

Source: DEW Files, Jan 2024



Paddock layout at the Torrens Island Quarantine Station during the Scrapie Freedom Assurance Program in the 1980s.

Source: DEW Files, Jan 2024



Aerial map of the station in March 1979.

Source: EnvMaps, 2024



Aerial map of the station dated 1986-1989 illustrating the animal paddocks of the animal quarantine station. The feed sheds can be seen dotted around the human quarantine structures.

Source: EnvMaps, 2024.



Goats in quarantine at Torrens Island in the 1980s.

Source: Courtesy of Chris Bunn



Cemetery at Torrens Island in the 1980s.

Source: DEW Files, 1987



Site plan illustrating demolished structures at the Torrens Island Quarantine Station.

Source: Habitable Places, 2014

-
- ¹ Austral Archaeology, 'Torrens Island Energy Park, Non-Indigenous Historical and Cultural Heritage Study,' report prepared for Coffey Natural Systems on behalf of AGL Energy Limited (December 2009), p.6.
- ² National Parks and Wildlife Service South Australia, 'Torrens Island Conservation Park,' <https://www.parks.sa.gov.au/parks/torrens-island-conservation-park> (accessed 23 November 2023).
- ³ Vivienne Wood, 'Kaurna cultural heritage survey, July 2007,' City of Port Adelaide Enfield (2007), p.1.
- ⁴ City of Port Adelaide Enfield. *Aboriginal People and Culture Handbook*. https://www.cityofpae.sa.gov.au/_data/assets/pdf_file/0030/836805/AboriginalPeople-and-Culture-Handbook.pdf (accessed 1 February 2024), p.8.
- ⁵ Port Adelaide Enfield, *Aboriginal People and Culture*, p.8.
- ⁶ Port Adelaide Enfield, *Aboriginal People and Culture*, p.22.
- ⁷ ABC News, 'Burials mark 'closure for the Kaurna nation',' 13 December 2010.
- ⁸ *Environment SA News*, 'New parks co-management agreement paves way for stronger First Nations agreement,' Department for Environment and Water, 15 August 2022.
- ⁹ *South Australian Register*, 'Obituary,' 4 August 1891, p.3.
- ¹⁰ Julie Collins, *The Architecture and Landscape of Health: A Historical Perspective on Therapeutic Places 1790-1910* (London: Routledge, 2020), p.74.
- ¹¹ Collins, *The Architecture and Landscape of Health*, p.74.
- ¹² Collins, *The Architecture and Landscape of Health*, p.74.
- ¹³ Collins, *The Architecture and Landscape of Health*, p.75.
- ¹⁴ Krista Maglen, 'A World Apart: Geography, Australian Quarantine, and the Mother Country,' *Journal of the History of Medicine and Allied Sciences*, vol. 60, no. 2 (April 2005), p.204.
- ¹⁵ Christine Lockwood, 'Early Encounters on the Adelaide Plains and Encounter Bay,' in Peggy Brock and Tom Gara eds., *Colonialism and its Aftermath: a history of Aboriginal Australia* (South Australia: Wakefield Press, 2017), p.65-66.
- ¹⁶ Brown, 'Quarantine Island', p.301.
- ¹⁷ Maglen, 'A World Apart, p.198.
- ¹⁸ Milton J. Lewis, *The People's Health*, vol. 1 (London: Praeger, 2003), p.29, 33-35. Quoted in Rebecca Brown, 'Quarantine Island,' p.301.
- ¹⁹ Richards, Eric, 'Migration,' in Wilfred Prest ed., *The Wakefield Companion to South Australian History*. South Australia: Wakefield Press, 2001, p.353.
- ²⁰ Quarantine Act 1950.
- ²¹ Collins, *The Architecture and Landscape of Health*, p.74.
- ²² *South Australian Register*, 'Cholera Ships,' 21 November 1849, p.2.
- ²³ *South Australian Register*, 10 November 1854, p.2.
- ²⁴ *South Australian Register*, 'Internal Communication,' 4 August 1855, p.2.
- ²⁵ *South Australian Register*, 'Law and Criminal Courts,' 6 August 1855, p.2.
- ²⁶ *Adelaide Times*, 'Domestic News,' 7 August 1855, p.2, and *South Australian Register*, 'Chamber of Commerce,' 7 August 1855, p.2.
- ²⁷ State Library of South Australia, 'South Australia – Health,' Manning Index of South Australian History, <https://manning.collections.slsa.sa.gov.au/sa/health/quarant.htm> (accessed 22 December 2023).
- ²⁸ Collins, *The Architecture and Landscape of Health*, p.95.
- ²⁹ *Adelaide Observer*, 'Establishments Detailed,' 10 May 1856, and *Adelaide Times*, 'Advertising,' 6 September 1856, p.3.
- ³⁰ *Adelaide Observer*, 'Second Adelaide Steeplechase,' 25 October 1856, p.3.
- ³¹ *Adelaide Times*, 'Local Intelligence,' 15 December 1856, p.2.

-
- ³² GRG 38/43/³/₂, Department of Public Buildings, Assessment of costs compiled at the time of transfer to Commonwealth control.
- ³³ *The South Australian Advertiser*, 'The Meeting of the Homeward Mill,' 19 February 1859, p.2.
- ³⁴ *South Australian Register*, 'Shipping Intelligence,' 22 January 1859, p.2.
- ³⁵ *South Australian Register*, 'House of Assembly,' 12 July 1865, p.3.
- ³⁶ *South Australian Register*, 'The English National Debt,' 27 July 1866, p.2.
- ³⁷ *South Australian Register*, 'Marine Board,' 30 August 1866, p.3.
- ³⁸ Katrina McDougall and Elizabeth Vines, 'Torrens Island Conservation Analysis,' report prepared for Australian Construction Services by McDougall & Vines (April 1988), p.39.
- ³⁹ *South Australian Register*, 'The Town Council and Tee Overdraft,' 16 December 1869, p.2.
- ⁴⁰ MacGillivray, Leith, 'Pastoralism,' in Wilfred Prest ed., *The Wakefield Companion to South Australian History* (South Australia: Wakefield Press, 2001), p.402.
- ⁴¹ Department of Primary Industries and Regions, 'Quarantine,' History of Agriculture in SA, https://pir.sa.gov.au/aghistory/departments/agriculture/agriculture_programs/pest_and_disease_programs/quarantine (accessed 19 December 2023).
- ⁴² *Yorke's Peninsula Advertiser and Miners' News*, 'Quarantine Station,' 6 February 1874, p.2.
- ⁴³ *Evening Journal*, 'Quarantine,' 23 August 1873, p.2.
- ⁴⁴ McDougall and Vines, 'Torrens Island,' p.12.
- ⁴⁵ *Evening Journal*, 'Latest News,' 15 April 1876, p.2.
- ⁴⁶ *Border Watch*, 'Our Adelaide Letter,' 11 April 1877, p.2, and *South Australian Chronicle and Weekly Mail*, 'An Infected Ship,' 7 April 1877, p.5.
- ⁴⁷ *South Australian Register*, 'The Month's News,' 17 May 1877, p.4.
- ⁴⁸ *Evening Journal*, 'A Visit to the Quarantine Station,' 24 January 1879, p.3.
- ⁴⁹ *The Areas' Express*, 'Telegraphic News,' 15 June 1878, p.2.
- ⁵⁰ *Evening Journal*, 'Latest News,' 15 June 1878, p.2.
- ⁵¹ National Archives Australia, D1051, Folder 57, D1.
- ⁵² GRG 78/2, September 17, 1875, report on location of a quarantine station, P.R.O.S.A.
- ⁵³ *Evening Journal*, 'A Visit to the Quarantine Station,' 24 Jan 1879, p.3.
- ⁵⁴ *South Australian Register*, 'Advertising,' 14 September 1878, p.2. And *Adelaide Observer*, 'The Week's News,' 5 October 1878, p.13.
- ⁵⁵ *South Australian Register*, 'Enlargement of the Adelaide Gaol,' 17 May 1879, p.2.
- ⁵⁶ R. Parker, *Miasma: pollution and purity in early Greek religion* (Oxford: Clarendon Press, 1983), quoted in Valerie A. Curtis, 'Dirt, disgust and disease: a natural history of hygiene,' *J Epidemiol Community Health* (2007), p.662.
- ⁵⁷ Hippocrates. *Hippocratic writings* (Harmondsworth: Penguin, 1983), quoted in Curtis, 'Dirt, disgust and disease,' p.662.
- ⁵⁸ *The South Australian Advertiser*, 3 September 1879, p.4.
- ⁵⁹ *The South Australian Advertiser*, 'Advertising,' 25 October 1879, p.2.
- ⁶⁰ *The Express and Telegraph*, 'Government Gazette,' 23 December 1879, p.3.
- ⁶¹ PIRSA, 'Quarantine.'
- ⁶² GRG 38/43/³/₂, PROSA, List of works and costs at Torrens Island.
- ⁶³ PIRSA, 'Quarantine.'
- ⁶⁴ GRG 38/43/³/₂, PROSA, List of works.
- ⁶⁵ *The Advertiser*, 27 January 1879, p.12.
- ⁶⁶ McDougall and Vines, 'Torrens Island,' p.16.
- ⁶⁷ GRG 35/47, Correspondence of Health Office, Port Adelaide, 1849-1885, passim: P.R.O.S.A.
- ⁶⁸ *Torrens Island Act 1882*, 45 & 46 Victoriae, no. 246.
- ⁶⁹ Krista Maglen, 'A World Apart: Geography, Australian Quarantine, and the Mother Country,' *Journal of the History of Medicine and Allied Sciences*, vol. 60, no. 2 (April 2005), p.196-217.
- ⁷⁰ *Quarantine Act 1908* (Cth)

-
- ⁷¹ Habitable Places, 'Torrens Island Quarantine Station CMP Volume 1,' Department of Planning, Transport and Infrastructure (2014), p.25.
- ⁷² *The Register*, 'Torrens Island and Quarantine,' 7 June 1913, p.6.
- ⁷³ Habitable Places, 'Torrens Island,' p.25.
- ⁷⁴ W. P. Norris, 'Report on quarantine in other countries and on the quarantine requirements in Australia,' Commonwealth Department of Customs (Melbourne: Government Printer, 1912) p.38. As quoted in McDougall and Vines, 'Torrens Island,' p.17.
- ⁷⁵ Collins, 'spread of epidemics,' p.91.
- ⁷⁶ McDougall and Vines, 'Torrens Island,' p.16.
- ⁷⁷ Habitable Places, 'Torrens Island,' p.26.
- ⁷⁸ Habitable Places, 'Torrens Island,' p.26.
- ⁷⁹ Habitable Places, 'Torrens Island,' p.26.
- ⁸⁰ Habitable Places, 'Torrens Island Quarantine Station CMP Volume 2,' Department of Planning, Transport and Infrastructure (2015).
- ⁸¹ Habitable Places, 'Torrens Island Vol.2,' p. 29.
- ⁸² Rob Dusting, 'Torrens Island Quarantine Station Conservation Management Plan' report prepared for Australian Estate Management by Works Australia (June 1996), p.10.
- ⁸³ Dusting, 'Torrens Island Quarantine Station,' p.10.
- ⁸⁴ *Daily Herald*, 'Work on Torrens Island,' 27 September 1912, p.4.
- ⁸⁵ GRG 38/43/³/₂, PROSA, List of works.
- ⁸⁶ *The Register*, 'Animal Quarantine,' 6 February 1913, p.9.
- ⁸⁷ Mandy Paul, 'Torrens Island Internment Camp,' SA History Hub, History Trust of South Australia, <https://sahistoryhub.history.sa.gov.au/places/torrens-island-internment-camp> (accessed 20 December 2023).
- ⁸⁸ *The Argus*, 'Pneumonic Influenza,' 13 December 1918, p.7.
- ⁸⁹ *The Advertiser*, 'The Boonah,' 3 January 1919, p.7.
- ⁹⁰ *The Advertiser*, 'Landing of Troops,' 26 April 1919, p.10.
- ⁹¹ *The Advertiser*, 'More Quarantine Accommodation,' 13 May 1921 p.10.
- ⁹² *Border Watch*, 'Animal Quarantine Station,' 21 April 1925, p.3.
- ⁹³ McDougall and Vines, 'Torrens Island,' p.8.
- ⁹⁴ Dusting, 'Torrens Island Quarantine Station,' p.9.
- ⁹⁵ NAA series D701, item 1659010.
- ⁹⁶ NAA, 'Register of admission and discharge – Torrens Island Quarantine Station hospital', D2305, Vol. 1, (1923-), p.46.
- ⁹⁷ Chris and Sandra Bunn, *Personal communication*, 29 February and 1 March 2024.
- ⁹⁸ NAA, D761, 160/8/5.
- ⁹⁹ McDougall and Vines, 'Torrens Island,' p.9.
- ¹⁰⁰ McDougall and Vines, 'Torrens Island,' p.27.
- ¹⁰¹ *Port Lincoln Times*, 'Animal importation chances increased,' 21 June 1979, p.10.
- ¹⁰² *The Canberra Times*, 'Boars to be allowed,' 1 December 1979, p.12.
- ¹⁰³ *The Canberra Times*, 'Cattle direct from Britain, Ireland,' 5 December 1979, p.10.
- ¹⁰⁴ Stapleton, Doug L., 'The imports,' in *Mohair: Farming the Diamond Fibre* (2017), chapter 7.
- ¹⁰⁵ Stapleton, 'The imports,' chapter 7.
- ¹⁰⁶ Christopher Bunn, 'The history of quarantine on Torrens Island, South Australia, 1850s to the present,' paper presented at the Annual Conference of the Australian Veterinary Association in Adelaide, 23 May 2016, p.11.
- ¹⁰⁷ Bunn, 'The history of quarantine on Torrens Island,' 23 May 2016, p.11.
- ¹⁰⁸ Laura Poole, *ABC Rural*, '160 years of quarantine on Torrens Island to end,' 21 May 2012.
- ¹⁰⁹ *South Australian Gazette and Colonial Register*, 'Proclamation,' 3 June 1837, p.2.