Chapter 5 - The Big Ships

HMVS *Nelson*

Two years after launching the *Elder*, George Verdon went to Britain and negotiated the loan of an obsolete Man-Of-War, HMVS *Nelson*. Verdon also negotiated a £100,000 contribution towards the construction of the ultra-modern HMVS *Cerberus* by the British Government. A further £15,000 of the cost of *Cerberus* was allowed for as the amount owed by the Admiralty for the cost of stores and coal consumed by HMCS *Victoria* in New Zealand. A further £10,000 was allowed for the value of HMCS *Victoria* which was to be handed over to the Admiralty.[83] The Victorian Navy was soon to make a great leap forward by acquiring two substantial vessels with real firepower.

Charles Bradney Payne, a Captain in the Naval Brigade, accompanied George Verdon to the U.K. as his secretary and stayed there to superintend *Nelson's* fitting out and to then bring her to Victoria. Reinstated into the Royal Navy, Captain Payne was able to bring *Nelson* to Victoria under the imperial flag as a Man-Of-War.[84]

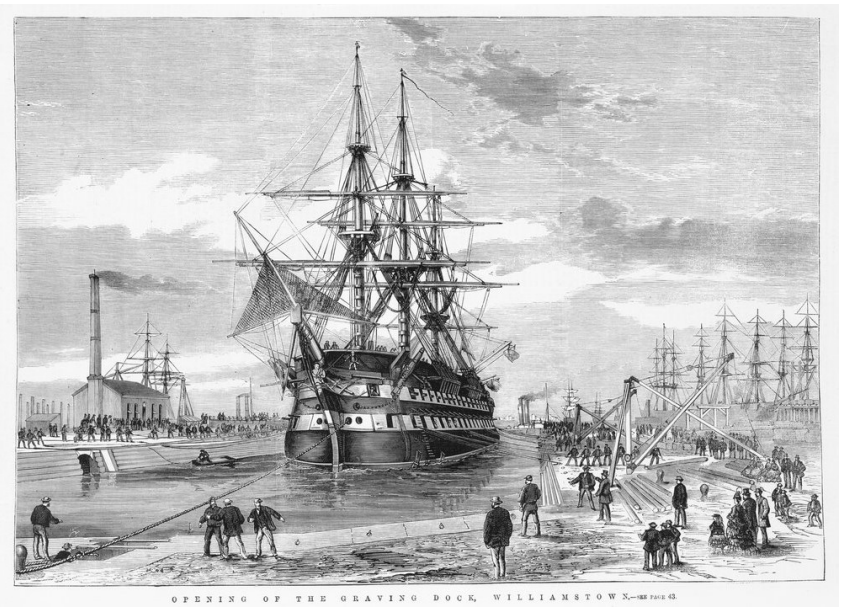

Figure 20 - HMVS *Nelson* in the Alfred Graving Dock in 1874.
Engraving: State Library of Victoria.

Launched in 1814, *Nelson* was the largest Line-of-Battleship built in England up to that date. Ordered just a month after the Battle of Trafalgar, Nelson's round bow, designed by Sir Robert Seppings, was the first change in bow design for 200 years. The raised bow of the three Nelson class ships protected the men against raking fire from ahead and was a direct result of Admiral Nelson's tactic of crossing the T at Trafalgar. The round bow also gave additional strength allowing guns to be mounted further forward.

Although fitted for 120 guns plus six carronades in the roundhouse, the barrels were almost certainly never installed as, with the end of the Napoleonic Wars, *Nelson* lay in ordinary at Portsmouth for most of her life. In 1828 the ornate square stern was rebuilt as a round stern and in 1845 Nelson was fitted out as an Advanced Ship, i.e. ready for service. Again fitted out for 120 guns, they had now been upgraded to 108 x 32 pounders and 12 x 68 pounders. Nelson's hull was clad in copper in 1846 but in 1849 she was returned to ordinary.

Although launched in 1814, *Nelson* had only been fitted with jury (temporary) masts. In 1846 full masts were fitted, only to be removed two years later for use in HMS *Powerful*. In 1859 *Nelson* was converted to a 91 gun screw ship by being lengthened by about 29 feet, having one deck removed and having a 500 horse power engine installed driving a single screw that could be raised when under sail. After achieving 10¾ knots at half boiler power on a speed trial, Nelson was placed in the steam reserve at Portsmouth.

Steam propulsion made *Nelson* ideal for a small colonial navy and so in February 1867 it was agreed to lend her to the Colony of Victoria for use as a Block Ship and Naval Training Ship. *Nelson* was therefore again masted but because of the small crew available on this delivery voyage (263 men), the Admiralty did not supply the usual topmasts and yards as they would not have been able to be fully manned.[85] This dispensing with the upper rigging, including two yards per mast, explains the stunted appearance of *Nelson* evident in Figure 20 where the large hull is out of proportion to the remaining masts and yards. Interestingly, most paintings of Nelson in Victoria show the absent upper masts and yards.

All but four of the officer's cabins on the orlop deck[A] were removed so as to leave clear room fore and aft. A schoolroom was provided on the after part of the lower deck and toilets were provided on the main deck.[86]

[A] The lowest deck on the ship.

Figure 21 - *Nelson's* Gun Deck with 64 pounder RML Guns
Photo: AWM 30052

Nelson's armament now consisted of two seven inch rifled guns.[A], converted from 68 pounder smooth bore guns, twenty 64 pounder rifled guns, converted from 32 pounders, twenty 32 pounder smooth bore guns and six 12 pounder howitzers. The seven inch and 64 pounder guns converted for use on *Nelson* were the first smooth bore guns to be converted to rifled guns using the palliser method of conversion. This conversion technique solved the problem of 6,000 smooth bore guns in use by the British that would otherwise have been obsolete.

When firing chilled armour piercing shot, the converted 6.3 inch 64 pounders could penetrate the 6 inch armour of HMS *Warrior*[87] and hence any foreign ironclad. Over thirty years in Victoria, *Nelson* fired the 64 pounders fifty times each.[B]

The converted 7 inch 115 pounder guns, which were even more powerful, could penetrate *Warrior's* armour at 500 yards. As long as naval battles continued to be

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[A] One of these Bow Chaser guns fired the shell that accidentally landed in St Kilda in 1877. After passing through an organ workshop, it almost killed a Chinaman, bounced off the ground at St Kilda railway station, causing a horse to bolt, crossed Fitzroy Street at a height of five feet, (1.5 m) narrowly missing some women & finally, bounced off Mr Dare's place of business & landed in a vacant block in Grey Street.

[B] Based on the 64 pounder in the Colac Botanic Gardens having, fired 50 times.

fought at close quarters, which naval authorities[88] agreed would be the case, then *Nelson* would be a valuable defence asset. Of equal importance to the colony was the ability of the 64 pounders to also fire its large stock of 32 pound cannon balls currently held in the Colony.

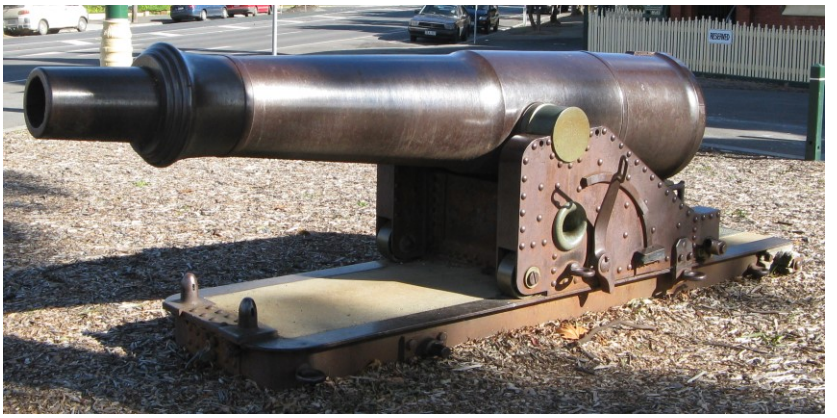

Figure 22 - One of *Nelson's* two Bow Chaser Guns in Eaglehawk, Vic.
The tube insert can clearly be seen protruding from the 68 pounder barrel.

It has been claimed that *Nelson's* 32 pounder smooth bore guns were suitable for the *Nelson* boys to practise on. This is debatable given that the boys on *Sir Harry Smith*, who transferred to *Nelson* in 1868, had been practising with 6 and 12 twelve pounder howitzers, the heaviest of which weighed 6½ cwt (330 kg). Even *Victoria's* 32 pounders, which had been briefly fitted to *Harry Smith*, only weighed 25 cwt (1,270 kg) compared to the 42 cwt (2,133 kg) of the *Nelson* 32 pounders. No contemporary reports refer to the Nelson boys as practising on the guns on *Nelson* with one stating[89] "the guns, with the exception of half-a-dozen[A], are too heavy for the boys to move". The boys' participation appears to have been limited to assisting in the role of powder monkey. It is therefore unlikely that the 32 pounders were ever fired in practise, instead being only occasionally used for saluting purposes.

As *Nelson* and *Cerberus* were commissioned after the passing of the 1865 Colonial Naval Defence Act, they therefore bore the designation HMVS for Her Majesty's Victorian Ship. That the later torpedo boats were not referred to as HMVS is almost certainly because they were boats rather than ships.[90]

[A] Most likely *Nelson's* 12 pounder bronze howitzers.

Although obsolete by the time *Nelson* joined the Victorian Navy, and nowhere near as powerful as *Cerberus*, *Nelson* nevertheless remained the official flagship of the fleet until relinquished in 1897. Most likely this was because *Nelson* offered far superior accommodation for the officers than that available on board *Cerberus*. With limited natural light inside *Cerberus* and no ventilation when the boilers were not lit, it is understandable that the officers preferred to be quartered on board *Nelson* with its larger cabins and natural lighting (Figure 23) Living conditions in *Cerberus* were described as "not fit for a dog to live in"[91] and one journalist described her as:- "Descending from the deck is like going down into a coal mine; not a ray of light meets the eye, everything is enveloped in pitchy darkness, except where illuminated by artificial light. Dark narrow passages, steep narrow ladders, innumerable *impedimenta* in the shape of all kinds of indescribable constructions to assist in working or fighting the vessel, render a tour of her, anything but agreeable, especially to the timid or nervous, while the close smell of the engine-room, and the fumes of constantly burning lamps, by no means add to the attraction she offers to visitors."[92] It is not surprising that when *Nelson* was relinquished in 1897 and the officers moved to *Cerberus*, electric lighting and electric ventilation were installed in *Cerberus*, using the discarded gunboat's generators.

Figure 23 - Naturally lit cabin on board HMVS *Nelson*.
Left to right - Paymaster Treacy (V.N.), Captain Neville (R.N.)
& Commander Kingsford (R.N.)
Photo: The Museum of HMAS *Cerberus*

Being larger than *Sir Harry Smith*, *Nelson* accommodated up to 350 boys, none of whom had committed any crime, but rather were judged to be in need of support due to their being mistreated, neglected or homeless. When two boys, McCaffrey and Johnstone, aged ten and twelve, were charged with vagrancy, they explained to the court that their parents had died, they had no friends and generally nowhere to live. They mentioned that a boy from the Naval Training Ship, *Sir Harry Smith,* had told them that "it was a first rate place, and advised them to get in".[93] Many such boys joined *Sir Harry Smith* and its replacement *Nelson*. As well as being trained for a career at sea they also benefited from receiving food, clothing,[A] somewhere to live and general tuition. As mentioned earlier, many boys progressed into the Victorian Navy.

Submitted in March 1876, one of the recommendations of the Volunteer Commission Report, was that "The *Nelson* is at present used as a training ship, and might be useful as a harbour defence and for protecting the torpedoes in the channels."[94]

Nelson's role as a Naval Training Ship for boys ended in December 1876 after eleven and a half years. The debate then started as to how to best utilise *Nelson* as part of Victoria's defence scheme. George Ward Cole MLC, suggested that *Nelson* should be cut down so as to have a shallower draught and a lower profile in order to present a smaller target to the enemy. Captain Panter strenuously objected to the cost of altering *Nelson,* stating that doing so "would not make her more efficient as a Man-Of-War or strengthen the defences of the harbour in the least".[95] Captain Panter's opinion was supported by that of Lieutenant Edward S. Dugdale of the Royal Navy.

Captain Panter's resignation in July 1877 removed the main objection to cutting down *Nelson.* Colbrooke Thomas Mandeville was promptly appointed as temporary commander of the Victorian Naval Forces, and six months later the *Argus* newspaper reported that "Captain Mandeville's proposal to cut down the *Nelson* and convert her into a frigate for defence purposes has been approved of by the Government".[96] Within a month the cutting down of *Nelson* had commenced with the end result eleven months later, being a ship with both a shallower draught and a lower profile. Even after the

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[A] Each boy received, one cloth cap with "Naval Training Ship" cap ribbon, one pair of cloth trousers, 2 duck (course material) jumpers, 3 pairs of duck trousers, one duck bag, 2 flannels, 2 blue serge frocks (shirts), 3 drill frocks, one pair of shoes, 2 combs & a knife, 2 shirts for sleeping, one silk handkerchief, one bar of soap & a scrubbing brush. See Figure 11 for blue serge frock & cloth trousers.

above modifications, *Nelson* was still of limited value. With only nominal shore defences at the entrance to Port Phillip, a lot was riding on *Cerberus*.

HMVS *Cerberus*

The Colony's need for a warship occurred just as ship construction was changing from timber to iron. When asked to design a ship for a small colonial navy, Edward Reed dispensed with sails and produced the first British warship powered purely by steam. This had the advantage of reducing the size of the ship's crew, and hence its running cost. This was important for a small colonial navy. Relying on coal alone was only possible as *Cerberus* would never be far from port, and hence her coal supply.

Figure 24 - Our "Watch Dog"
with armour plate & collar studded with cannon, snarling at the Russian bear.
Whereas the evil Russian invader is depicted as having been sunk, the friendly Russian gunboat, *Haydamack*, in Hobson's Bay at the time, is left untouched.
Engraving: *Melbourne Punch*, 27 April 1871

As Port Phillip was a large shallow bay, Reed designed *Cerberus* with a flat bottom which meant that, unlike any attacking force, *Cerberus* would not be restricted to the bay's channels. Following the success of USS *Monitor* just a few years earlier, Reed designed *Cerberus* with a monitor (very low) deck, thereby producing a ship that presented a small target to its enemy. To further reduce the size of the ship's profile, *Cerberus* could take on 490 tons of water, thereby lowering the ship a further 18 inches (.4572 m). No evidence has been found that this feature was ever implemented, possibly because of the effect on the ship's speed.

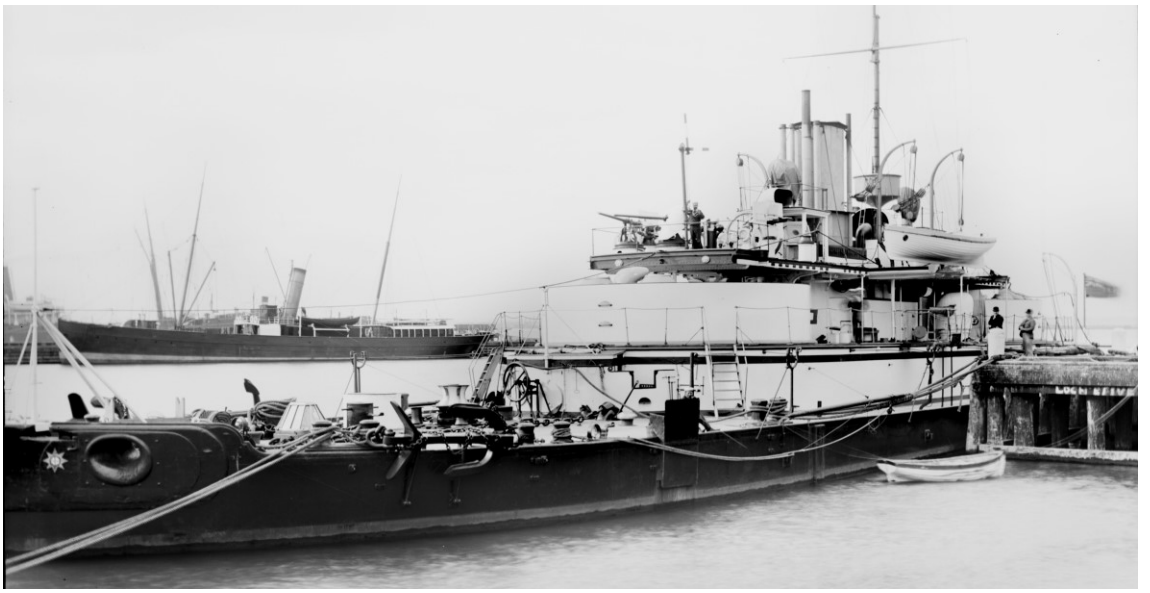

Figure 25 - *Cerberus* from the Bow on 30 November 1898
Photo: Museum Victoria

Turrets were included to give all round fire from four powerful 10 inch rifled guns firing 400 lb (183 kg) projectiles. To prevent water entering the ship between the turrets and deck, as happened with USS *Monitor*, causing her to sink, Reed designed *Cerberus* with a central superstructure (Breastwork Deck), the first ship so designed. Another first were the two turrets mounted either end of this central superstructure.

Improving on USS *Monitor* even more, Reed used the superior Coles design turret rotating system. He incorporated auxiliary steam engines throughout the ship to perform various tasks, such as raising ashes, ventilation, checking moorings, pumping water, rotating the turrets, and raising the anchor. In comparison, HMS *Warrior*,

launched just six years earlier, had only one small auxiliary steam engine. These auxiliary engines further reduced the manning levels required of a small colonial navy. When *Cerberus* needed to move a short distance from the Naval Depot to the Dry Dock, rather than raise the anchor manually, one of the boilers would be lit to produce enough steam to raise the anchor. *Cerberus* would then be towed to the Dry Dock.

The ship was very heavily armoured, with 10 inches (25.4 cms) of armour at the gun ports and 9 inches elsewhere on the turrets. The hull was protected with between 6 and 8 inches (15.24 – 20.32 cms) of armour above the waterline and for approximately 2.1 metres below the waterline. As the lower hull was not armoured, due to the absence of locomotive torpedoes, it is this lower hull that collapsed in 1993.

As well as being steered from the Flying Deck, *Cerberus* could be steered from the Shield Deck (inside the Breastwork), or after 1876 by a steam steering wheel placed in the Pilot House.

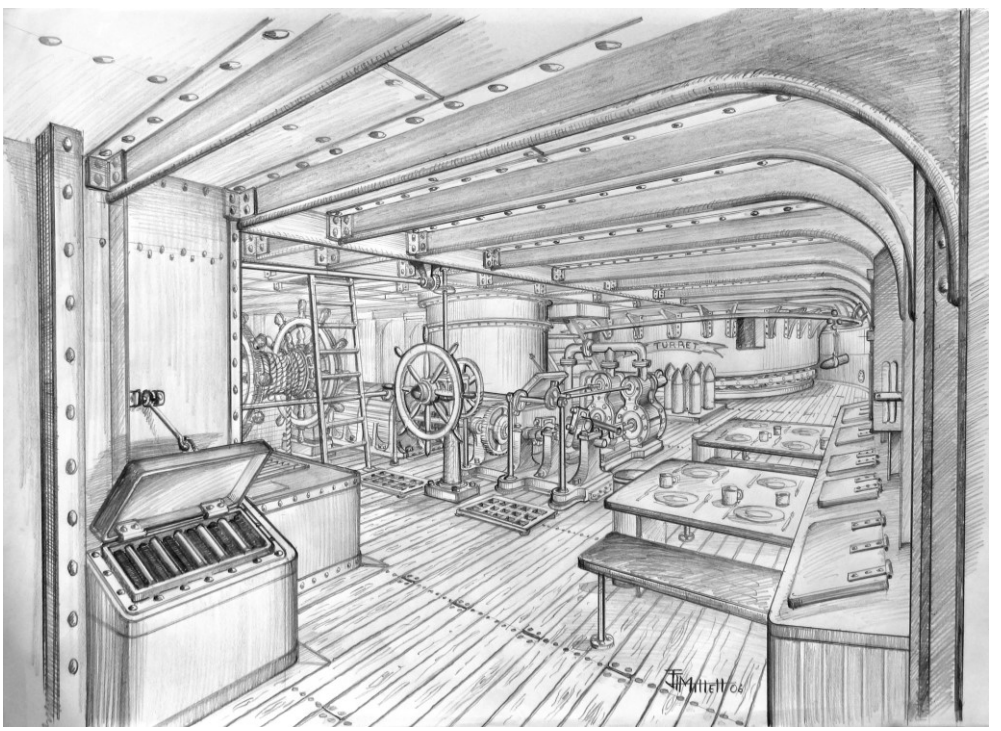

Figure 26 - Looking Forward on the Shield Deck of *Cerberus*
Drawn by Jim Millett

“As a rule, her decks present but little appearance of animation, and it is seldom that more than the figures of the two or three men on duty are to be seen thereon. Quiet, however, as all seems to the passer-by, a busy little world exists beneath those decks regulated by a discipline that would do credit to any man-of-war....”[97]

In action *Cerberus* not only presented a small target to the enemy, but no-one at all would be visible, with up to 155 men inside the ship.

So popular was *Cerberus* with the public, that when, in 1871, the Sabbatarians petitioned the government to close *Cerberus* to visitors on Sundays, a counter petition ensured that *Cerberus* remained open to the public. The petition also asked that the Botanic Gardens, Museum and Public Library also open on Sundays. It was not until 1880 that the Botanic Gardens did so, with the Museum, Art Gallery and Public Library not opening on Sundays until 1904.

One design flaw was the position of the flying deck supports as seen in Figure 27. As built it was possible to fire the guns when the supports were directly in front of them. As the guns were electrically fired, Engineer Breaks (VN) was able to build a Dead Point Firing Gear which prevented the firing mechanism from operating if the supports were in the line of fire. The wooden signalling masts were not a problem as they were removed when the ship went to Action Stations. The supports were totally removed in 1888 when the Flying Deck was shortened.

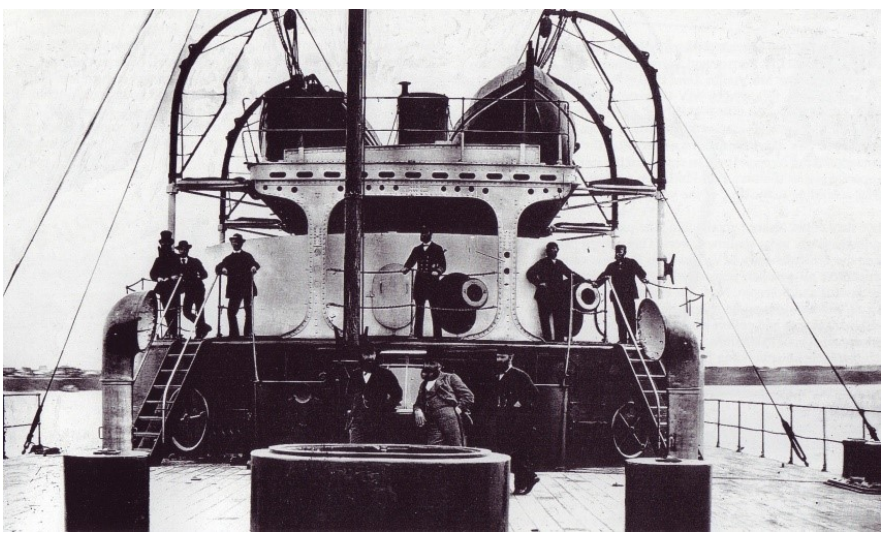

Figure 27 - Aft Turret circa 1871

The Better Ship?

"The following will show why the Nelson boys like her [*Cerberus*]: -

Gentleman – "Well, boy, which ship do you like best, the Nelson or the Cerberus?"
Boy – "Oh, the 'Cerberous'."
Gentleman – "Why?"
Boy – "Because she is a better ship."
Astonished and delighted with the lad for having studied the qualities of the vessel, the gentleman further questioned – "But then the Nelson is larger; there is more room in it for you to knock about."

"Oh, yes," said the boy, "but you see we get better tucker on board the 'Cerberous'."

And away the lad bolted through a hole in the deck as he saw the chief officer approach, and the gentleman sorrowfully retired. The intelligent boy had made his belly and not his brain decide upon the merits of a ship."

Geelong Advertiser, 29 August 1871