

# Victorian Forts and Batteries

## Datasheets on the Victorian Fortifications of the United Kingdom

### Spithead



David Moore

<http://www.victorianforts.co.uk>

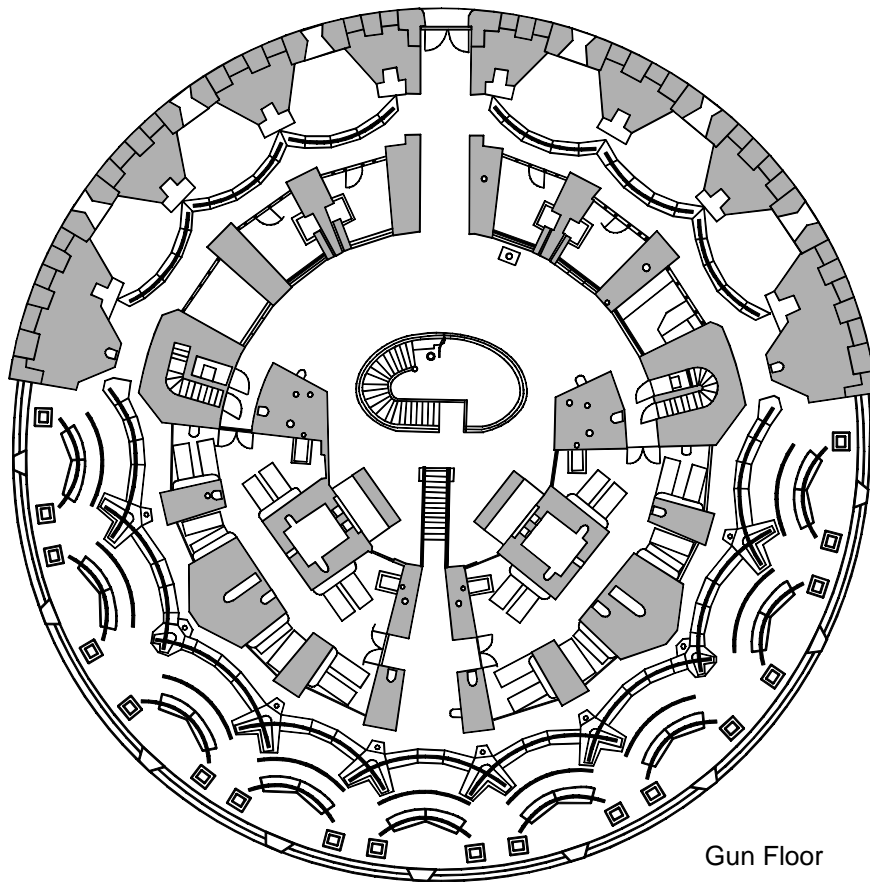
## Spitbank Fort

<b>Commenced</b>	July 1861 and March 1867	<b>Armament</b>	
<b>Completed</b>	1878	<b>1876</b>	Approved 6 x 7-inch, 9 x 10-inch R.M.L.s
<b>Cost</b>	£ 167,300	<b>1893</b>	Mounted 6 x 7-inch, 9 x 12.5-inch R.M.L.s (one 7-inch removed by 1898)
<b>Map Reference</b>	SZ 636972	<b>1899</b>	Mounted 9 x 12.5-inch R.M.L.s, 2 x 4.7-inch QF
<b>Position</b>	In sea, entrance to Portsmouth Harbour, Spithead	<b>1906</b>	Mounted 3 x 12.5-inch R.M.L.s, 2 x 4.7-inch QF
<b>Type</b>	Coast defence, Sea Fort / iron and granite	<b>1910</b>	Mounted 2 x 4.7-inch QF, 2 x 6-inch B.L. WWII 2 x Lewis, 1 x 40mm Bofors, 1 x 6-inch B.L.
<b>Ditch</b>	None - in sea	<b>Caponiers</b>	None
<b>Guns</b>	15	<b>Counterscarp galleries</b>	None
<b>Barrack Accom.</b>	Peacetime 27	<b>Haxo casemates</b>	None
<b>Present use</b>	Privately owned, open to public tours	<b>Moncrieff Pits</b>	None
<b>History</b>	Manned up to end of WW2. Put up for disposal in 1963 Sold to present owner 1982		
<b>Disposal Condition</b>	Mostly restored		
<b>Access</b>	Summer season tours, boat from Portsmouth Historic Dockyard Solent Papers No 1 'Spitbank and the Spithead Forts' G. Mitchell and A. Cantwell		
<b>Sources</b>			

### History and Description

The Spithead forts were built in the 1860s to guard the eastern approaches to Spithead and Portsmouth Harbour. The forts were approved by the Royal Commission of 1860 and work began on Spitbank in 1861. Work stopped in Spring of 1862 and political arguments as to their suitability ensued; various reports were asked for and supplied before work eventually re-commenced on Spitbank in March 1867. Designed by Captain E. Steward R.E. the forts were adapted to include iron portions designed by Captain Inglis R.E. consisting of twenty five inches of iron plate, wrought-iron and teak sandwiched in layers in order to withstand the latest naval guns. Standing on a stone and concrete foundation ring built directly on the seabed Spitbank Fort is constructed of iron, concrete and granite. The fort is circular with a diameter of 162 feet at the bottom narrowing to 146 feet. The lower level basement of the fort contained the shell and cartridge stores together with the kitchen and stores. On the gun floor level Spitbank is constructed in two halves, the outer iron portion designed to hold nine 10-inch guns whilst the inner brick-vaulted, granite-faced portion facing the harbour entrance was to hold six 7-inch RML guns. Peace-time accommodation was allowed for in two barrack rooms behind the gun floor, each for twelve men and quarters for two sergeants and one or two officers. The war-time garrison would have been accommodated in hammocks. The roof is of concrete. Original proposals called for two guns in turrets on the roof but these were omitted from the final plans. An artesian well was sunk in the middle of the fort in 1877. Water was reached at a depth of 401 feet. The armament was upgraded several times, large 12.5-inch 35-ton guns being substituted in the iron portions for the 10-inch guns by 1893. These were removed by 1905 leaving three as running-past guns. Two 4.7-inch guns were then fitted on the roof and searchlights were also added, the role of the fort now being to counter light craft instead of heavy warships. The armament was revised again in 1905 to take two 6-inch BL guns on the roof which remained until 1916. The 4.7-inch guns remained until 1921 but were re-fitted in 1926. A 6-inch gun was refitted in 1931 and the 4.7-inch guns removed finally in 1938. During the Second World War two Lewis guns and a 40mm Bofors were added. This was removed in 1945 and the 6-inch gun was taken off in 1948. Coast defence was disbanded in 1956 and the searchlights and generators removed from the fort the following year. The fort remained in military hands until sold to Sean Maguire in 1982. It was again sold in November 2009 to Clarenco Properties.

# Spitbank Fort



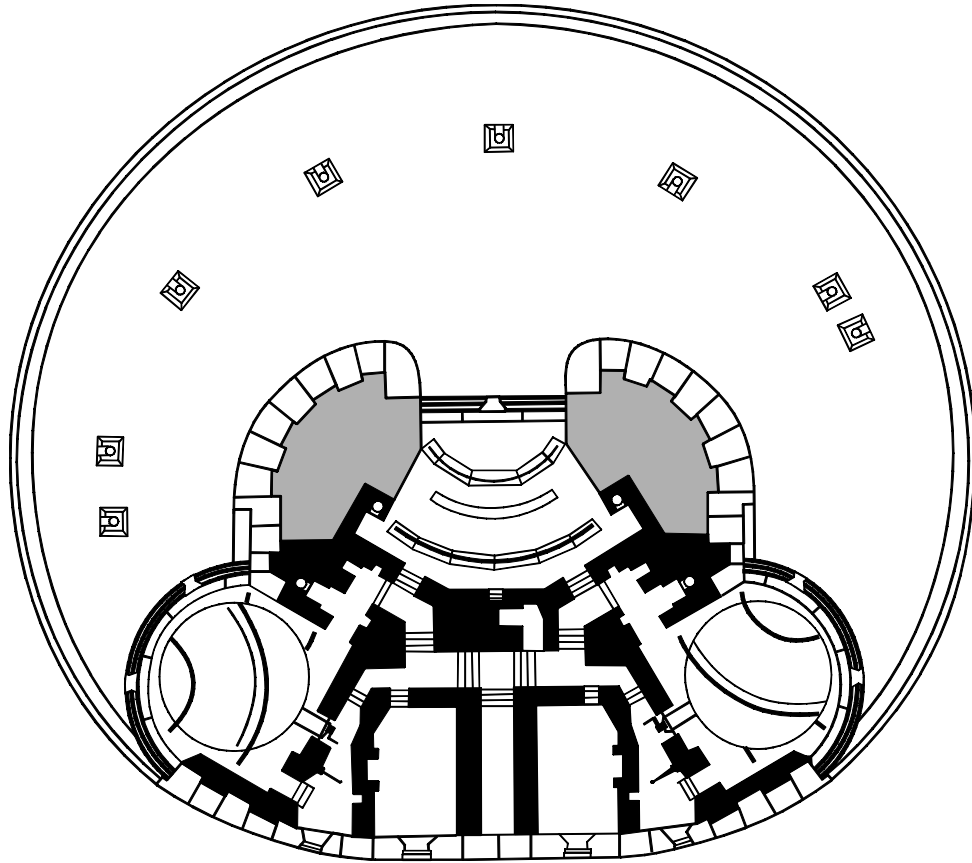
## St. Helens Fort

<b>Commenced</b>	1867	<b>Armament</b>	
<b>Completed</b>	1873	<b>1867 - Proposed</b>	4 x 12-inch, 6 x 10-inch , 4 x 7-inch R.M.L.s
<b>Cost</b>	£ 123,311	<b>1893 - Mounted</b>	1 x 12.5-inch R.M.L., 2 x 10-inch R.M.L.
<b>Map Reference</b>	SZ 648899	<b>1899 - Mounted</b>	1 x 12.5-inch 2 x 10-inch R.M.L.s, 2 x 6pr. QF
<b>Position</b>	St. Helen's Point, Ryde, eastern Spithead Approaches	<b>1895-1899</b>	2 x 6pr. Q.F. Hotchkiss
<b>Type</b>	Coast Defence, Sea Fort / Granite	<b>1906 - Mounted</b>	- nil
<b>Ditch</b>	None - in sea	<b>1916 - 27 Mounted</b>	2 x 12pr. QF
<b>Guns</b>	5	<b>WWII</b>	1 x 40mm Bofors
<b>Barrack Accom.</b>	1 NCO & 5 gunners + 25 hammocks	<b>Caponiers</b>	None
<b>Present use</b>	Was private residence, now empty	<b>Counterscarp galleries</b>	None
<b>History</b>	Army to 1920 then Admiralty	<b>Haxo casemates</b>	None
<b>Disposal</b>	Sold in 1983 to private buyer	<b>Moncrieff Pits</b>	None
<b>Condition</b>	Habitable		
<b>Access</b>	None, can be seen from IOW		
<b>Sources</b>	Solent Papers No 1 'Spitbank and the Spithead Forts' G. Mitchell and A. Cantwell		

### History and Description

The defence of the anchorage at St. Helens was not originally included in the plans of the 1860 Commission but the abandonment of the proposed fort on Sturbridge, because of lack of a foundation and shifting sands, led to the proposal for a fort on Ryde Sand instead. A design was approved for a masonry casemated work for nine guns on the beach in front of St. Helens Point to cover the beach and anchorage. No progress was made with this and in February 1867 another design for a small sea fort with one tier of sea-facing, iron plated-casemates and granite faced casemates covering the land side was approved. The suggested armament was fifteen guns in casemates. In 1867 two turrets were also approved each mounting two guns. The fort was built on a spit of land projecting eastward from Bembridge Point. A ring of iron caissons filled with concrete was laid on the soft blue clay of the shoal and a structure 150 feet in diameter built as a foundation. The sand within the ring was excavated and filled with concrete. The foundations were nearly complete by 1867 and walls of granite were added to form the superstructure, supplemented with concrete. Subsidence caused a change of plans and the final form of the fort was not circular as proposed. The whole lower gun floor above the basement level was abandoned and the two seaward guns, 10-inch 18-ton R.M.L.s, on each flank were fitted on turntables with two ports for each gun. To keep the weight over the central caissons the gun floor was shifted rearwards and the turrets abandoned, a 12.5-inch R.M.L. being fitted in the centre face firing through an iron shield. This armament was installed in 1880. Two 40pr. R.B.L.s intended to flank the rear entrance were not fitted and the casemates used as accommodation instead. The entrance to the fort is at the rear, at basement level. At the centre of this floor is the pump room with shell and cartridge stores around it. Accommodation was in two rooms at the rear of the gun floor. In war time more accommodation would be provided by hammocks. The central casemate held a 12.5-inch RML on a traversing platform. Either side were the 23 feet in diameter steel-plate turntables, for the 10-inch R.M.L.s. In 1915 the fort became the examination battery of St. Helens Road and two 12pr.s and two searchlights were fitted. These were dismantled in 1918 but not removed until 1927. The fort was re-activated in 1940 to provide searchlight illumination. It remained in Military hands until sold and converted as a private residence. It was recently acquired by the Isle of Wight Council and is now empty.

St. Helens Fort



Gun Floor



## Horse Sand Fort

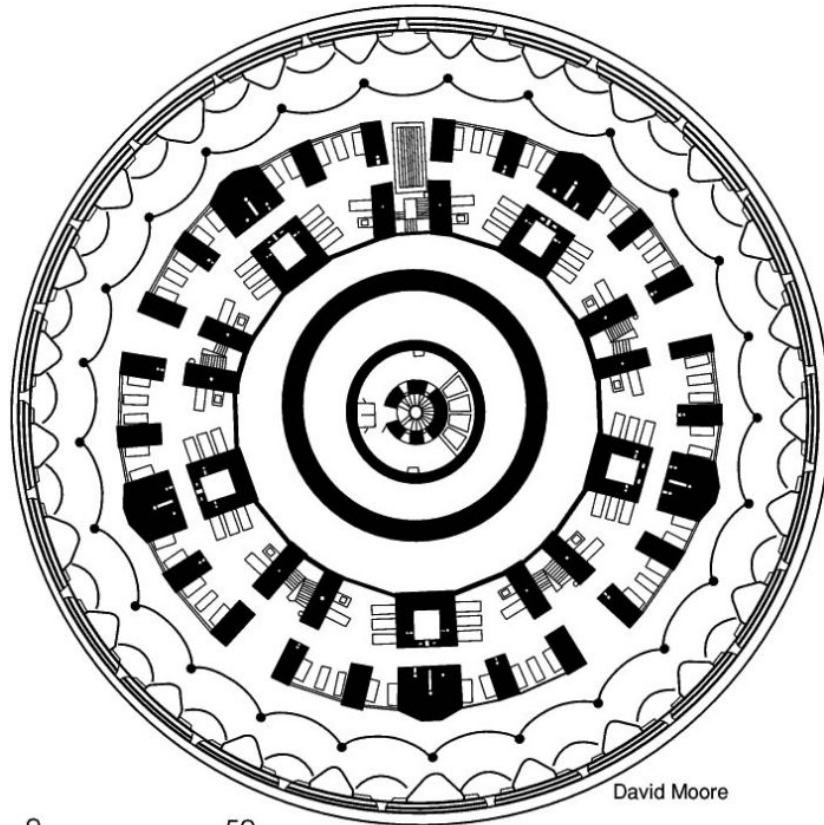
<b>Commenced</b>	July 1861 and March 1865	<b>Armament</b>	
<b>Completed</b>	March 1880	<b>1886 - Mounted</b>	Lower - 10 x 12.5-inch RML 1 x 12-inch BL Upper - 12 x 10-inch RML
<b>Cost</b>	£ 424,694	<b>1893 - Mounted</b>	Lower - 7 x 12.5-inch R.M.L., 5 x 12-inch B.L. Upper - 8 x 10-inch R.M.L. 5 x 12-inch B.L.
<b>Map Reference</b>	SZ 655949	<b>1898 - Mounted</b>	Lower - 7 x 12.5-inch R.M.L., 5 x 12-inch B.L. 12 x 6pdr.QF Upper - 8 x 10-inch R.M.L. 5 x 12-inch B.L. 12 x 6pdr.QF
<b>Position</b>	In the sea at Spithead, Eastern approaches to Portsmouth Harbour	<b>1912 - Mounted</b>	3 x 6-inch BL guns, 9 x 12-inch BL (12-inch removed 1918)
<b>Type</b>	Sea Fort, circular, casemated iron/granite	<b>1925 - Mounted</b>	Roof - 2 x 6-inch BL, 3-inch AA (removed 1941)
<b>Ditch</b>	None, in the sea	<b>Caponiers</b>	None
<b>Guns</b>	49 in two tiers plus roof	<b>Counterscarp galleries</b>	None
<b>Barrack Accom.</b>	5 Officers, 72 soldiers + hammocks	<b>Haxo casemates</b>	None
<b>Present use</b>	Empty, undergoing clearance.	<b>Moncrieff Pits</b>	None
<b>History</b>	In active use by the military up to 1957		
<b>Disposal Condition</b>	1993 Portsmouth Naval Base Heritage Trust Poor, mostly derelict but restoration is planned.		
<b>Access</b>	None yet but may be opened to the public in the future		
<b>Sources</b>	Solent Papers No 1 'Spitbank and the Spithead		

### History and Description

The Spithead forts were built in the 1860s to guard the eastern approaches to Spithead and Portsmouth Harbour. The forts were approved by the Royal Commission of 1860 and work began on the two larger forts in March 1865. Horse Sand Fort and No Mans land Fort are identical in plan, each having two floors of gun casemates, a basement level containing the shell and cartridge stores and a roof level originally intended to mount guns in turrets. Built by the same method used for Spitbank Fort, Horse Sand Fort has its foundation on the sea bed of Horse Sand Shoal. A ring of stone 240ft. in diameter narrowing to 204ft. at the top of the sill course, rises from the sea bed. Contained within the masonry basement were the twenty-four shell stores and fourteen cartridge stores. On top of this the gun floors were constructed with an iron framework supporting iron armour. A central core separated from the main gun floors by a courtyard contained ancillary rooms and officers' quarters.

Horse Sand's main armament of 24 guns on the lower tier and 25 on the upper tier, together with 10 guns in turrets was to give a total armament of 59 guns. In June 1871 the Defence Committee recommended that some of the new 35-ton guns be introduced into the armament of the Spithead forts. By 1874 a change was made and the proposal was to mount heavy 12.5-inch 38-ton guns on the lower tier with 10-inch 18-ton guns on the upper one. In 1887 trials took place on Horse Sand to test hydraulic machinery for the 38-ton guns. This resulted in an accident damaging part of the iron structure which had to be made good. Then began a series of armament and re-armament as the Engineers struggled to keep up with developments in artillery. Eventually the largest guns installed were huge 12-inch B.L. 45-ton guns on special 'yoke' mountings. Between 1884-86 trials took place on Horse Sand Fort to test the hydraulic buffers on a 12-inch BL gun. In May 1887 some of the 12.5-inch guns had been removed from Horse Sand Fort and four emplacements prepared for the 45-ton guns, which were paid for by the 1888 Imperial Defence Loan. At the same time the outer ring of magazines were filled in to give greater stability. Experiments were carried out to operate the 12-inch guns by hydraulic machinery. Sometime prior to 1891 6pdr. QF guns were added to the main armament. In 1909 the section of sea between Horse Sand Fort and the mainland at Southsea was closed by a line of concrete blocks as defence against fast torpedo boats. With a similar line from No Mans land Fort to the Isle of Wight the only channel open to ships lay between the two forts. In 1912 both forts were armed with three 6-inch BL guns. Horse Sand also retained nine of the 12-inch guns and two 12.5-inch guns. In 1925 two 6-inch guns remained on each with a 3-inch AA gun on Horse Sand. During the second World War a boom defence was laid between the two forts and an indicator loop placed on the sea bed to detect enemy craft. Horse Sand Fort was finally released by the military in 1993 when the Portsmouth Naval Base Heritage Trust bought it for £80,000. They planned to restore it and open it to the public, but finally decided to put it on the market in 2002.

Horse Sand Fort



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Gun Floor



## No Mans Land Fort

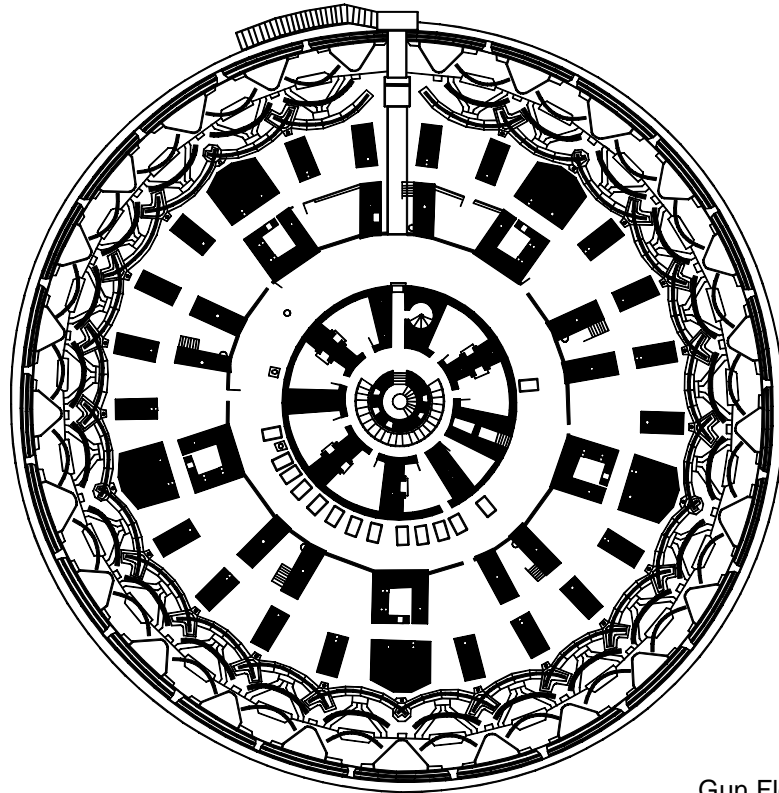
<b>Commenced</b>	July 1861 & March 1865	<b>Armament</b>	
<b>Completed</b>	March 1880	<b>1886 - Mounted</b>	Lower - 12 x 12.5-inch RML Upper - 12 x 10-inch RML
<b>Cost</b>	£ 462,500	<b>1893 - Mounted</b>	Lower - 8 x 12.5-inch R.M.L., 4 x 12-inch B.L. Upper - 9 x 10-inch R.M.L., 4 x 12-inch B.L.
<b>Map Reference</b>	SZ 639938	<b>1898 - Mounted</b>	Lower - 8 x 12.5-inch R.M.L., 4 x 12-inch B.L. 12 x 6pdr.QF Upper - 9 x 10-inch R.M.L., 4 x 12-inch B.L. 12 x 6pdr.QF
<b>Position</b>	In the sea at Spithead, Eastern approaches to Portsmouth Harbour	<b>1912 - Mounted</b>	3 x 6-inch BL guns, 3 x 12-inch BL (12-inch removed 1918)
<b>Type</b>	Sea Fort, circular, casemated iron/granite	<b>1925 - Mounted</b>	Roof - 2 x 6-inch BL
<b>Ditch</b>	None, in the sea	<b>1943 -45 Mounted</b>	40mm Bofors 1948 & 1951 all remaining guns removed.
<b>Guns</b>	49 in two tiers plus roof	<b>Caponiers</b>	None
<b>Barrack Accom.</b>	5 Officers, 72 soldiers + hammocks	<b>Counterscarp galleries</b>	None
<b>Present use</b>	High security conference centre	<b>Haxo casemates</b>	None
<b>History</b>	In active use by the military up to 1957	<b>Moncrieff Pits</b>	None
<b>Disposal</b>	1987 sold to a developer		
<b>Condition</b>	Restored/converted to modern use		
<b>Access</b>	None except on business but can be viewed from the sea.		
<b>Sources</b>	Solent Papers No 1 'Spitbank and the Spithead		

### History and Description

No Mans Land Fort is identical in most respects to its twin, Horse Sand Fort and the description for that fort will suffice also for No Mans Land. Minor difference in the armaments of the two forts reflected their different positions in the eastern approaches to the harbour. Various proposals were made and tests carried out to find a more efficient method of loading and firing the heavy guns. In July 1877 tests were carried out on hydraulic machinery for loading and firing one of the 12.5-inch 38-ton guns. An average time over four rounds from load to ready was 2 minutes 11 seconds. In July 1880 the Inspector General of Fortifications declared No Mans and Horse Sand Forts to be complete and satisfactory works, but unarmed. The lower batteries had been completed for the 12.5-inch gun but the supply of guns and racers had been postponed pending the possibility of the introduction of a BL gun. In 1882 the armament was revised to allow for four 12-inch 45-ton BL guns on each tier. In 1886 mounted on No Mans Land Fort were twelve 12.5-inch 38-ton guns and twelve 10-inch 18-ton guns, all bearing on the deep-water channel. It was reported that none of the 38-ton guns could be fired with full service charges because the shorter 6ft. recoil carriage had to be used owing to the lack of space. In May 1887 eight emplacements for the 45-ton BL guns on No Mans Land Fort were proposed but were said to be in a backward state. Between 1889 and 1895, on No Mans Land Fort experiments were carried out to operate the 12-inch guns by hydraulic machinery. Under the supervision of Maguire Bates, Inspector of Iron Structures, machinery was installed that could supply power for raising ammunition from the basement and loading it into the gun. Traversing and elevating was also achieved hydraulically, making it the first Fort in England, perhaps Europe to utilize hydraulic or other power for such a purpose. It was also the first to be lighted throughout by electricity. By 1898 6pdr. QF guns were added to the main armament. In 1902 a 4.7-inch QF gun was installed on top of the Fort as an examination gun. A 1906 inspection revealed that No Mans Land Fort had only one of the three proposed 6-inch guns mounted. By 1925 two 6-inch guns were still in place. In 1943 it was armed with a 40mm bofors which was removed in 1945. The fort was scheduled as an Ancient monument in 1967 and was finally released by the military in 1987. It was bought by a developer who converted into a luxury residence but failed to find a millionaire buyer. It is now owned by a business consortium who have plans to convert it to a high security conference centre.



No Mans Land Fort



Gun Floor

