

PORT AUTHORITY OF NSW HERITAGE INVENTORY

State Heritage Inventory

SHI Number: 4560006		Study Number: 4920038	
Item Name: Grotto Point Lighthouse – Front Lead			
Location: Lighthouse Track, Balgowlah Heights			
Address: Grotto Point, Sydney Harbour National Park		DUAP Region: Sydney North	
Suburb / Nearest Town: Balgowlah Heights 2093		Historic Region: Sydney	
Local Govt Area: Northern Beaches		Parish: Manly Cove	
State: NSW		County: Cumberland	
Other/Former Names: Main Entrance Leading Light - Front Lead, Port Jackson Entrance Range Front Light			
Area/Group/Complex: Category 1 Aid to Navigation Port Safety Operating Licence (SYD-002A)			Group ID: 1
Aboriginal Area:			
Curtilage/Boundary:			
Item Type: Built	Group: Maritime Industry	Category: Lighthouse Tower	
Owner: Port Authority of New South Wales			
Current Use: Aid to navigation under the Port Safety Operating Licence			
Former Uses:			
Assessed Significance: State		Endorsed Significance:	
Statement of Significance: Grotto Point Lighthouse - Front Lead is of State significance as an integral component of the collection of harbour lighthouse towers that ensure the safe navigation of Sydney Harbour by local and international shipping. It is of architectural and aesthetic significance as a rare and notable example of a purpose-built structure housing a navigation aid and it is a visually prominent landmark at the entrance to Sydney Harbour.			
Historical Notes or Provenance: <p>The Sydney Harbour Trust's annual report for the year ended 30 June 1909 noted there were discussions about constructing leading lights for the entrance to Port Jackson for the previous three years. The Harbourmaster, Alfred T Pritchard, concluded:</p> <p>'From a navigation point of view great necessity exists for a leading light at the entrance of Port Jackson. At the present time the master of any vessel entering the port at night time has to trust entirely to his own judgment as to his distance off the land on the northern side when entering between the heads, and a vessel outward bound is in the same position as regards her distance off when rounding the south reef.</p> <p>This is not a new matter as it was brought under the notice of the Commissioners some three years ago, the idea at that time being that a light on Middle Head would be preferable to lighting the leading marks. Further consideration, however, led to the substitution of Grotto Point for Middle Head, and the proposition now before you is to erect a lighthouse at this point, fitted with a light of good power divided into coloured sectors, which would serve the same purpose as lighting the leading marks and also be an aid to navigation in many other ways.'</p>			

The Sydney Harbour Trust Commissioners hosted a conference to gather the feedback and perspectives of the industry's leading shipping companies and their master mariners on 26 July 1909, and it was decided to erect leading lights at Spit Road (Rosherville also known as the Parriwi Head Leading Light) and Grotto Point (The Sydney Harbour Trust Commissioners' Tenth Report being for the year ended 30 June 1910, page 6). 'Leading lights' said one mariner, 'would be an improvement, and they would also be of great assistance. Navigation at Sydney Heads very often is risky...'. (Evening News, 29 July 1909).

Plans were prepared by mid-1910, and it was reported the works would commence as soon as the 'necessary appliances, which were ordered April last, shall have come to hand' (The Sydney Harbour Trust Commissioners' Tenth Report being for the year ended 30 June 1910, page 6). The local newspapers reported on the new scheme, devised by the Sydney Harbour Trust, in February and March 1910 (Australian Town and Country Journal, 2 February 1910, page 29 and The Daily Telegraph, 27 July 1910, page 10).

The white-painted masonry and brick tower featured a domed roof, adjoined by two barrel-vaulted sections and surrounded by a white picket fence (Grotto Point Lighthouse, Manly Library Local Studies). The works were completed by the end of year report dated 30 June 1911.

Despite this, a scheme developed by the Irish master mariner, Maurice Festu (1865-1941), drew much media attention in July 1910 and was deemed superior to that of the Sydney Harbour Trust. Although Festu is often credited as the architect of the Grotto Point Lighthouse, and other navigation aids in Sydney Harbour, there is no evidence to suggest the mariner played any role in the design or construction of any of the leading lights.

The Grotto Point Lighthouse featured a fourth order fixed catadioptric lens and reflector, while the window had red, white and green sectors, with the white sector being in the centre. As a result, if a ship were in the red or green sector, it would change course so that it would enter the white sector (R G Fenn, Port of Sydney Journal, page 249). The 1913 Harbour Trust handbook notes the 'white tower' was 61 and a half feet in height and operated via acetylene gas (The Port of Sydney NSW: Official Handbook, 1913, page 67). It was first illuminated on 1 September 1911.

The ground level chamber attached to the tower was used for generating acetylene gas for the light and it was noted that 'the lights can be so arranged as to burn continuously for 60 days.' In the Harbourmasters' report for 15 August 1916, it was stated 'the Aga system of lighting was applied during the year', which appears to refer to the replacement of on-site generation of acetylene with the supply of the compressed gas in cylinders.

In more recent years the light has been converted to electricity from the suburban grid. Vessels approaching Sydney by night usually make their landfall by the Macquarie Light, check with the Hornby Light and enter on the line-up of the Grotto Point and Rosherville Lights which leads clear of all dangers until the channel lights are picked up. The red and green sectors on either side of the white give good warning of deviations from course. Access for servicing was originally by water, from the more sheltered Western side of the Point (Tranter: 1986).

A heritage impact assessment (Advisian, 2022) was commissioned to assess: the installation of a solar panel to the north elevation of the lighthouse structure below the barrel roof of the chamber section; the installation of batteries inside the lighthouse for energy storage; the potential upgrade of the light to an LED omni-directional sector lantern (ODSL); potential installation of CCTV for added security; and removal of existing mains electrical cabling and poles that service the lighthouse and associated electrical infrastructure within Sydney Harbour National Park. This work is planned to be undertaken in 2023.

Themes:	National Theme: 3. Economy	State Theme: Transport	Local Theme: (none)
Designer:			
Maker / Builder: Sydney Harbour Trust			

Year Started: 1910	Year Completed: 1911	Circa: No
<p>Physical Description: A small white painted masonry and brick tower approximately 8 metres high with a domed roof. A horizontal slit, 2 metres by 1 metre on the seaward side provides an opening for the lantern. Two sections, a 4 X 4 metre chamber and a water reservoir, both with elegant barrel-vaulted roofs, 7 metres and 5 metres respectively adjoin the building on the North side.</p> <p>The complex is surrounded by a white picket fence and occupies a prominent site on Grotto Point overlooking Middle Harbour and the entrance to Sydney Harbour (Tranter 1986). Coupled with the light at Parriwi Head near the Spit, the Grotto Point Light formed one of the leading pair of navigational beacons for shipping entering Port Jackson. The light is catadioptric: that is coloured red, white or green depending on the position of vessels in relation to it (Blackmore, Ashton, Higginbotham, Rich, Maitland, Pike: 1985).</p> <p>Mains supply: White light - Sectorred Red/White/ Green Flash rate GPFlash (4) 15 seconds.</p>		
Physical Condition: The structure is observed to be in good condition with no significant issues noted upon general inspection of the exterior (15.12.2022)		
Modification Dates:		
<p>Recommended Management: Retain in situ and conserve</p> <p>Preparation of a Heritage Assessment of Port Authority of NSW Sydney Harbour Aids to Navigation in order to confirm relevance of group listing, assessed State significance and applicability of individual items.</p> <p>Preparation of a Maintenance and Conservation Works Schedule to ensure acceptable condition and assist in long-term conservation.</p>		
Management: Statutory Instrument		
Further Comments: Port Authority of New South Wales Category 1 aid to navigation under the Port Safety Operating Licence.		
Criteria a) The Main Entrance Leading Light-Front also known as the Grotto Point Lighthouse is one of Sydney Harbour's most prominent landmarks. It is still regarded as among the most useful and important of Sydney's unmanned major lights (Tranter 1986). Major significance as a well preserved and pleasingly designed structure forming an integral part of the Harbour navigation system (Blackmore, Ashton, Higginbotham, Rich, Burton, Maitland, Pike 1985).		
Criteria b)		
Criteria c) This vital part of Sydney's navigation network is, whilst situated only a short distance from the city centre, isolated within Sydney Harbour National Park in the middle of a most beautiful area of remnant native vegetation and is unmarred by any intrusion by more recent unsympathetic developments (Tranter 1986). Of architectural and aesthetic significance as a rare and notable example of a purpose-built structure housing a navigation aid. (Anglin1990:3010)		
Criteria d)		
Criteria e) The Entrance Leading Light - Front also known as Grotto Point Lighthouse is an interesting example of a light which has been illuminated by three successive systems - on-site generated gas, compressed gas, and electricity from the suburban grid (Tranter 1986).		
Criteria f)		
Criteria g) The Entrance Leading Light - Front or Grotto Point Lighthouse is an integral part of the series of lights that allow Sydney Harbour to function as a world class harbour. The lighthouse tower is representative of the collective group of harbour lighthouse towers that ensures the safe navigation of		

the harbour. Collectively the lights which are detailed in the Admiralty Sailing Directions (7th Edn) 1999) for the information of international shipping are of State significance.

Integrity / Intactness: The structure overall reflects the integrity of the lighthouse tower as it was originally constructed, with minor changes and is subsequently considered generally intact.

References:	Author:	Title:	Year:
	Bayldon, F.J	History of the Pilotage Service	1936
	Ibbotson, J.	Lighthouses of Australia- A Visitors Guide	2003
	P Tranter	Grotto Point Lighthouse	1986
	Ports of NSW	Sailing Directions for the NSW coast	1983
	Sydney Harbour Trust	The Sydney Harbour Trust Commissioners' Tenth Report being for the year ended 30 June 1910	1910
	Sydney Harbour Trust	The Port of Sydney NSW: Official Handbook	1913
	Unknown	'Lights at Sydney Heads', Evening News, page 5	29/07/1909
	Unknown	'Leading Lights in the Harbor', Evening News, page 7	7/08/1909
	Unknown	'To Meet the Mariner', The Daily Telegraph, page 14	2/09/1911
	John MacRitchie	'Grotto Point lighthouse', The Dictionary of Sydney, https://dictionaryofsydney.org/entry/grotto_point_lighthouse	2008
	R G Fenn, Electrical engineer	'Lighting in the Port of Sydney, Part II', Port of Sydney Journal, volume 2, no. 8	April 1950
	Ward , A.M	'The Entrance Channels, Port Jackson', in Port of Sydney Journal	1951

Studies:	Author:	Title:	Number:	Year:
	Heritage Group, Dept of Public Works	NSW Marine Ministerial Holding Corporation, Heritage and Conservation Register	4920038	1998
	Susan McIntyre-Tamwoy Heritage Consultants	Sydney Ports Corporation Heritage and Conservation Register	4560006	2004
	Conybeare Morrison Pty Ltd	Cooks River Container Terminal: Heritage Assessment Report	3010	2006
	Blackmore, C., P.Ashton, E.Higginbotham, E.Rich, C.Burton, N.Maitland and PikP	Heritage Study: Municipality of Manly		1986

	Northern Beaches Council (former Manly Library Local Studies)	Grotto Point Lighthouse, https://northernbeaches.recollect.net.au/nodes/view/11940			1985
	Advisian Pty Ltd	Grotto Point Lighthouse Solar Panel Installation			31 May 2022
Parcels:	Parcel Code:	Lot Number: 1	Section:	Plan Code: DP	Plan Number: 1154756
Latitude: -33.817744			Longitude: 151.261569		
Listings:	Name:	Title:	Number:	Date:	
	Heritage Act – S.170 NSW State agency heritage register	Grotto Point Lighthouse – Front Lead	4920038		
	Manly Local Environmental Plan 2013	Grotto Point Light and timber picket fence	I41		
	State Environmental Planning Policy (Biodiversity and Conservation) 2021	Grotto Point lighthouse and remains of former wharf	43		
	National Parks and Wildlife Register		LEP1988		
	Heritage study			1/12/1985	
	National Trust of Australia Register	Grotto Point Lighthouse		28/07/1986	
Within a National Trust conservation area	Sydney Harbour Landscape Conservation Area		24/01/1983		
Data Entry:	Date First Entered: 19/06/2004		Date Updated: 21/12/2022	Status: Basic	

Image: 1



Caption: Grotto Point Lighthouse - Front Lead

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Image By: Susan McIntyre-Tamwoy Heritage Consultants

Image Date:

Image File: 4560006b1.jpg

Image: 2



Caption: Grotto Point Lighthouse

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Image File: 4560006b2.jpg

Image: 3



Caption: Grotto Point Lighthouse

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Image: 4



Caption: Grotto Point Lighthouse

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Image: 5



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Image File: 4560006b5.jpg

Image: 6



Caption: Grotto Point Lighthouse

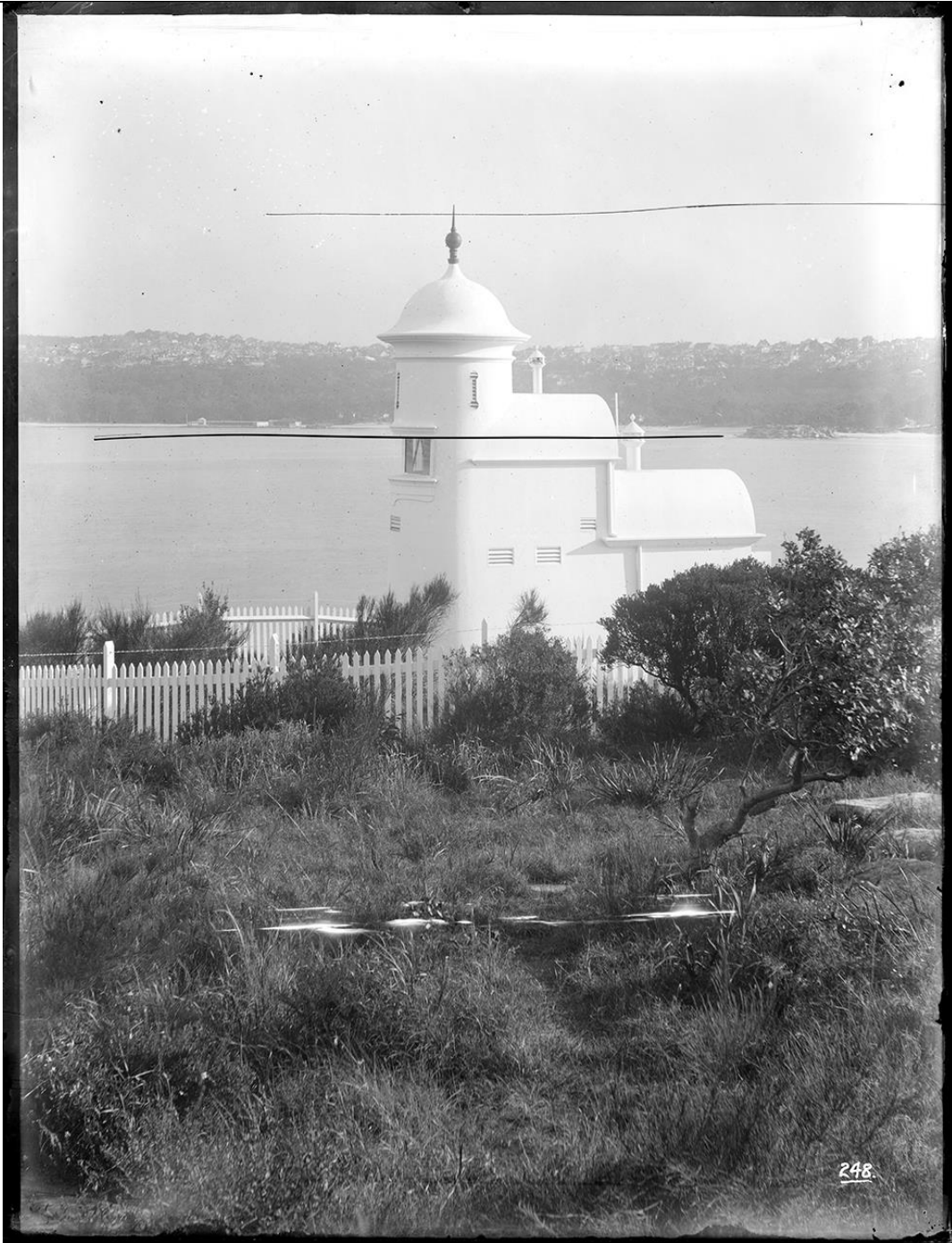
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Image: 7



Caption: Grotto Point Lighthouse

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Image By: Unknown

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