

PROJECT:

Naval Base Dredging, Haulbowline, Co. Cork.

SCOPE:

Underwater Archaeological Impact Assessment

PREPARED BY:

Julianna O'Donoghue and Caitlyn Haskins

DATE:

July 2022

CLIENT:

ByrneLooby

Contents

List of Figures.....	4
List of Plates.....	4
Acknowledgments.....	5
1. Introduction.....	6
1.1. General.....	6
1.2. Conventions, Legislation and Guidelines.....	6
2. Receiving Environment.....	6
2.1 Location.....	6
2.2 Soils and Geology.....	7
3. Scope of Works.....	7
4. Methodology.....	8
4.1 Desktop Study.....	8
4.2 Dive Survey.....	9
5. Desktop Study.....	9
5.1 Historical and Archaeological Overview.....	9
5.1.1 Prehistoric Period.....	9
5.1.2 Early Medieval Period (AD 400-1169).....	10
5.1.3 Medieval (AD 1169-1600).....	10
5.1.4 Post-Medieval (AD 1600-present).....	10
5.1.5 The naval Dockyard.....	12
5.2 Place names and Townlands.....	19
5.3 Recorded Monuments and known sites: RMPs and SMRs.....	19
5.4 Architectural Heritage.....	20
5.5 Previous Archaeological Work.....	20
5.7 Wreck Inventory.....	20
6. Site Inspection.....	21
7. Recommendations.....	23
8. Bibliography.....	24
8.1 Documentary Sources.....	24
8.2 Other Sources.....	24
9. Appendices.....	25
9.1 Excavations Bulletin.....	25
9.2 RMPs and SMRs.....	26
9.3 Wreck Inventory.....	28

List of Figures

Figure 1: Location of proposed dredging works, outlined in red.	7
Figure 2: Extract from the Down Survey Map (1654-56) showing the Haulbowline Fort.	11
Figure 3: Extract from Maritime Survey (1776) showing Haulbowline Island with a single house and tower on it.	12
Figure 4: Extract from the 1st edition 6-inch Ordnance Survey Map, showing Haulbowline, the later naval basin, to the east, is overlaid on the map (1841-2).	12
Figure 5: Plan of extent of works 1875.	16
Figure 6: Plan of Naval Dockyard in 1910.	17
Figure 7: Locations of RMPs and SMRs on Haulbowline, Rocky Island and Spike Island.	20
Figure 8: Recorded wreck sites in the vicinity of Haulbowline.	21

List of Plates

Plate 1: Image of basin excavation works in the 1870's.	14
Plate 2: Image of basin excavation works in the 1870's.	15
Plate 3: Image of drydock in 1912 after it was extended.	18
Plate 4: Diving operations in progress.	22
Plate 5: Image of fabric of basin wall.	22
Plate 6: Image of fabric of basin wall. Note the difference in stone colour indicating the extension which was completed in 1911.	23

Acknowledgments

The authors would like to thank Jim Larkin of the Irish Defence Forces and Paul Murphy of Byrne Looby for their assistance during the project. The underwater archaeological survey team consisted of Julianna O'Donoghue, Matt Thornton, Caitlyn Haskins, Sarah Madden and Brian Doherty.

1. Introduction

1.1. General

Mizen Archaeology was engaged by Byrne-Looby to carry out an Underwater Archaeological Impact Assessment (UAIA) of proposed dredging operations at Haulbowline Naval Base on Haulbowline Island, Co. Cork. The proposed dredging works are to take place in the Naval Basin, the Basin Approach and the Graving Dock.

1.2. Conventions, Legislation and Guidelines

The archaeological impact assessment was undertaken with due regard to the following national and international protective conventions, legislation and guidelines:

- National Monument Act, 1930, amended 1954, 1987, 1994, and 2004
- Heritage Act, 1995
- National Cultural Institutions Act, 1997
- The Architectural Heritage (National Inventory) and Historic Monuments (Miscellaneous) Provisions Act, 1999
- Frameworks and Principles for the Protection of the Archaeological Heritage, 1999, Department of Arts, Heritage, Gaeltacht and the Islands
- Local Government (Planning and Development) Act, 2000
- European Convention on the Protection of the Archaeological Heritage (the 'Valletta Convention') ratified by Ireland in 1997
- Council of Europe Convention on the Protection of the Architectural Heritage of Europe (the 'Granada Convention') ratified by Ireland in 1997
- International Council on Monuments and Sites (ICOMOS), advisory body to UNESCO concerning protection of sites and recommendation of World Heritage sites ratified by Ireland in 1992.

2. Receiving Environment

2.1 Location

Haulbowline Naval Base is situated on Haulbowline Island in Cork Harbour, Co. Cork. The proposed dredge area lies within the Naval Basin, the Basin approach, and the Graving Dock; all situated on the eastern portion of the island, on 19th century reclaimed land.

2.2 Soils and Geology

The predominant soil types in the region are acid brown earth (70%), with grey brown podzolics and gleys each forming 15%. The parent material is mixed sandstone and limestone glacial till.

3. Scope of Works

Byrne Looby are commissioned by the Department of Defence to undertake dredging consultancy services at Haulbowline Naval Base, located within Cork Harbour, Haulbowline Island, Co. Cork. The proposed dredge area encompasses the Naval Basin, the Basin Approach and the Graving Dock (Figure 1). These areas will be dredged to -5.5 CD. The Naval Basin and Basin Approach are dredged on a 4 to 5-year schedule. However, the Graving Dock does not typically form part of the maintenance dredging campaign, therefore, will be considered as capital dredging.

A geophysical survey was carried out separate to the UAIA. The results of the survey were made available to *Mizen Archaeology* to inform the UAIA.



Figure 1: Location of proposed dredging works, outlined in red.

4. Methodology

A range of methodologies were utilized to assess the cultural heritage of the survey area, including a desktop study and a dive survey and a program of metal detection.

4.1 Desktop Study

The following sources were consulted to complete the desktop study:

- The Record of Monuments and Places (RMP), compiled by the Archaeological Survey of Ireland, comprises lists, classifications of monuments and maps of all recorded monuments with known locations and zones of archaeological significance. The monument records are accessible online from the National Monuments Sections (NMS) of the Department of Arts, Heritage and Gaeltacht (DAHG) at www.archaeology.ie. These were used to establish the wider archaeological context of the site.
- OSI: Ordnance Survey Ireland historic and contemporary maps were examined to measure the changing landscape.
- The Excavations Bulletin online database (www.excavations.ie) which contains summaries of all archaeological excavations in Ireland, was consulted to review archaeological investigations done previously in the area.
- Wreck Inventory of Ireland Database (WIID) and Wreck Viewer: The information contained within the inventory was gathered from a broad range of cartographic, archaeological and documentary sources, and each entry in the Inventory gives information on the ship's name, type of vessel, port of origin, owner's name, cargo, date of loss and other relevant information where available.
- The Record of Piers and Harbours is a draft unpublished document compiled by the DAHG. It draws on various historical sources dealing with historical piers and harbour development in Ireland.
- Cartography: Several historic maps and charts were examined (see references below for a full list).
- Aerial photography: A variety of low and high-altitude aerial photography was examined. See Bibliography below.
- Documentary sources: Several sources were examined. For a full list of all sources examined see Bibliography below.

4.2 Dive Survey

A geophysical survey (side scan sonar and magnetometry) of the entire area of the proposed dredging area was undertaken separately and prior to the UAIA. *Mizen Archaeology* liaised with the geophysical surveyors _ Hydrographic Surveys to ensure that their survey complied with the unpublished guidelines for the undertaking of maritime geophysics provided by the Underwater Archaeology Unit (UAU) of the Department of Culture, Heritage and the Gaeltacht. The results of the geophysical survey were examined in detail and all anomalies of possible archaeological significance were subject to a dive truthing survey.

A five-person dive team undertook the dive survey. All of the divers possessed H.S.A. Parts III and IV diving licenses and H.S.A. Medical Certificates. Diving operations complied with SI No 254 of 2018 Safety, Health and Welfare at Work (Diving) Regulations. The survey was carried out using commercial SCUBA equipment from a RIB.

The location of each anomaly, including a diameter of 20m around the target, was visually inspected. Features or objects of archaeological significance were recorded, including a description, photographic record and GPS position. An Excalibur 2000 metal detector was used to metal detect the seabed where appropriate.

5. Desktop Study

5.1 Historical and Archaeological Overview

5.1.1 Prehistoric Period

There is ample evidence for prehistoric occupation on the shores surrounding Cork Harbour. Over 300 Late Mesolithic lithic artefacts were recovered close to Roches Point, at the mouth of the harbour and other scatters have been found at Gyleen, Fota Island, Inch and Power Head (Rynne 1993, 2; Monk 2005, 45; O'Brien 2012, 36).

Rostellan Dolmen, a possible portal tomb located on the east side of the harbour, indicates Neolithic activity. The site is submerged at high tide, which suggests that other prehistoric activity around the harbour may also have become submerged. Further evidence of the Neolithic comes in the form of at least six polished stone axes: two from Ravenswood- near Carrigaline, three from the Mahon peninsula, and one from Ballinaspig More.

The Bronze Age is represented by several fulacht fiadh identified around the harbour. In addition, an early flat copper axe, amber beads and an amber ball were discovered at Carrigaline West. In Ringaskiddy, a Bronze Age settlement site was recently excavated by *Mizen Archaeology* (17E0641).

The Iron Age is represented by three bronze horns- known as the 'Cork Horns', which were dredged from the River Lee in 1909 (O'Brien 2012, 233) and are characteristic of La Tène style art.

5.1.2 Early Medieval Period (AD 400-1169)

Over 80 ringforts have been recorded in the Cork Harbour area, most of which date to the early medieval period. These likely represent settlement in the form of dispersed rural farmsteads through the Cork Harbour area.

A monastery was reputedly founded on Spike Island in AD 635, although no archaeological evidence has been uncovered to date which would support this.

The name 'Haulbowline' is believed to derive from the Norse 'Aalebolig' meaning 'eel area' or 'den' (Brunnicardi 1969, 90). The Vikings were active in Cork Harbour from at least AD 820, when they first raided and plundered St. Finbarr's in Cork. After that, they repeatedly returned to Cork Harbour, raiding St. Finbarr's again in AD 838 and the monastery of Cloyne six times in total. They established a fortification at Dún Corcaighe and their influence expanded in the area at the beginning of the 10th century. The possible Norse source for the name 'Haulbowline' is, therefore, a remnant of their influence in Cork Harbour.

5.1.3 Medieval (AD 1169-1600)

In 1177, the Anglo-Normans laid siege to, and conquered, the city of Cork. Henry II granted the kingdom of Cork to Milo de Cogan and Robert Fitzstephen who proceeded to seize the property of the Hiberno-Vikings and banish them from the city. This included confiscations of Hiberno-Viking lands in Kerrycurrihy (Rynne 1993, 42).

Several shell middens identified to the south of Haulbowline have been dated to the Medieval period.

5.1.4 Post-Medieval (AD 1600-present)

Starting in 1602, Haulbowline began to see significant developments. After the battle of Kinsale (1602), Cork harbour was exposed as a potential weakness which required further defences. On Haulbowline, defences were constructed, including a walled fort, bastions and a gun platform facing north towards Cobh, of which the south-eastern bastion and tower still stand today (Gowen 1978, 246). Paul Ive, an English engineer who was responsible for the re-fortification of Pendennis Castle at Falmouth and for military works in the Channel Islands, was behind the star-shaped fort at Haulbowline and James Fort at Kinsale. However, he passed in

Kinsale before seeing either work completed (Rynne 1992, 64). The original program of works was eventually completed under the direction of Samuel Molyneux in 1604 (*ibid.*).

Between 1608 and 1611, the defences were increased with addition of a keep, gatehouse, and more (*ibid.*, 249). However, by 1624, the fort was abandoned, remaining in disrepair throughout the rest of the 17th and 18th centuries (Brunicardi 1982, 11-15). At the time of its abandonment, it was described as, “a very strong fort standing on an island, the walls being made of soddes and earth” (Rynne 1993, 64).

In the early 18th century, Lord Inchiquin of Rostellan leased the island for sixty-one years at £10 a year and, under his direction, a sailing club- the first of its kind in the world- was established in 1720. Its headquarters were in a freestanding square-plan, two-stage tower. The tower still stands and is currently in use by the Royal Cork Yacht Club. In 1765, he renewed his lease, this time for six hundred years at forty shillings a year, as he represented the island to be of little value. However, the lease had a clause and the British Admiralty availed of it in 1778 to resume possession of the island (*ibid.*).



Figure 2: Extract from the Down Survey Map (1654-56) showing the Haulbowline Fort.



Figure 3: Extract from Maritime Survey (1776) showing Haulbowline Island with a single house and tower on it.

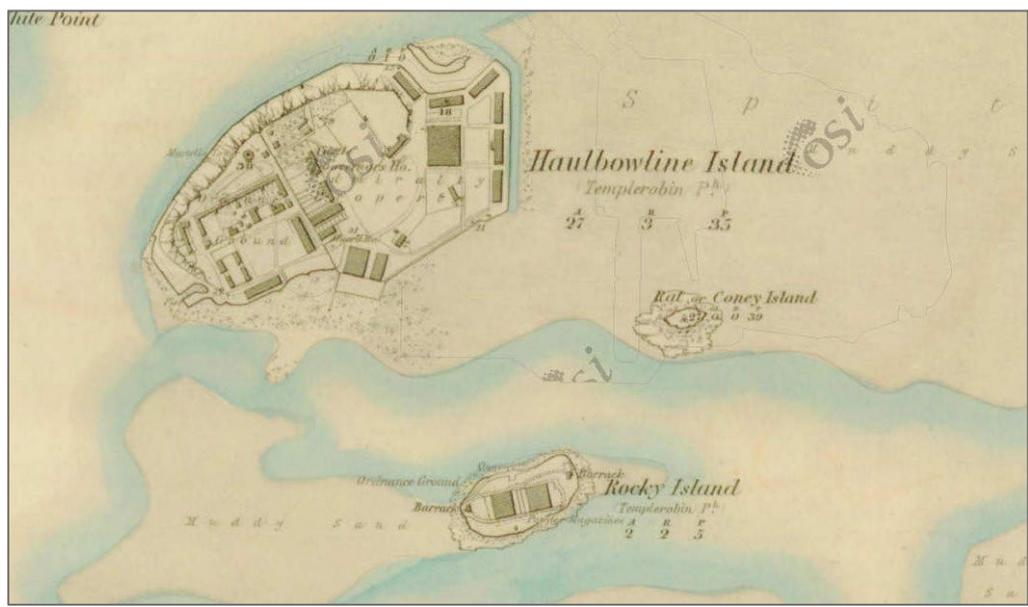


Figure 4: Extract from the 1st edition 6-inch Ordnance Survey Map, showing Haulbowline, the later naval basin, to the east, is overlaid on the map (1841-2).

5.1.5 The naval Dockyard

In 1790, a military presence returned to Haulbowline when it was chosen over Kinsale to hold naval stores and an arsenal. It has served as small depot for the Royal Navy ever since (McCarthy and O'Donnabhain, 2016). During the Napoleonic War (1799-1815), Cork Harbour saw an intensive program of defensive works, which included the construction of a naval dockyard at Haulbowline. Haulbowline Tower was constructed during this

period; located on high ground at the northern edge of the island, overlooking the entrance to the upper harbour. The Haulbowline victualling stores continued to function as a depot for ships at this time.

In 1805, the Inspector General of Naval Works commented to the secretary to the Admiralty that, "Haulbowline was excellently situated 'being defended by the very extensive fortifications now erecting on Spike Island'" and that there were not, at that time, "any building on Haulbowline except those within the enclosure of the small fort erected a long time ago (Brunicardi 2012, 25).

In 1806, Lord Inchiquin's lease was terminated, and the island was divided between Ordnance, to the west, and the navy, to the east. The division was demarcated by a high stone wall with an archway to facilitate access. Directions were given by the order of council to erect a naval establishment at Haulbowline (Breen and McCarthy 2014, 54). The Royal Alexandra Yard- a victualling yard with several large storehouses and workhouses- was subsequently built to the north of the island (*ibid.*). This yard included a Zymotic Hospital for the treatment of tropical diseases. Today the hospital is extant and Royal Alexandra Yard is well preserved. Between 1813 and 1815, the Martello tower was constructed on the high ground at the northern edge of the island (McCarthy 2019, 29).

In 1815, after the end of the war, the needs for the stores on Haulbowline declined, but they continued to function as a depot for ships on the Irish Station, and as a receiving location for the delivery of contracted supplies (Brunacardi 2012, 29).

Haulbowline was later extended by 4.5 acres of reclaimed land in order to construct a flat wharfage area (*ibid.*). In 1841, the 1st edition OS map shows the naval base on Haulbowline, but the East Tip had not yet been reclaimed and was marked by a spit bank. Between 1845 and 1852, the island operated as a relief depot, storing imported grain and biscuit, and discharging it to small coasters, which transported it on to various harbours. Two US naval ships, Jamestown and Macedonia, provisioned in Haulbowline in 1847

In 1865, a new dockyard was constructed at the spit bank. A part of the spit bank to the east was reclaimed and Coney Island was consumed by the development. The following year, 300 labourers were provided from Spike Island to complete the dockyards. In 1867 a causeway was constructed between Spike Island and Haulbowline, which would remain until 1893 (Brunicardi 1982). The remains of the causeway are still visible on the shoreline as a linear arrangement of stones extending from the upper foreshore to the sub-tidal zone. In September 1869 the Lord Lieutenant Earl Spenser arrived at Haulbowline to lay the foundation stone for the new dockyard. By that stage a considerable portion of the west wall of the basin had been completed.

By 1870 467 convicts as well as 210 civilians were employed quarrying and dressing stones for the basin.

The basin was created within the reclaimed land by excavating silt, and blasting and removing rock. 2,800ft (853.44m) of quay wall was built around the excavated area. The quay was 42ft (12.8m) high from its

foundation, 18ft (5.5m) thick at that level and decreasing to 2ft (0.6m) thick at the top (Brunicardi, p.50). On the north and east sides, the quay walls were built on piles and on the west and south on rock. The new development was separated from the original island by a channel connected by two bridges.

The dockyard opened in 1887, even though much of the necessary equipment and facilities were not in place. To remedy this, a committee was set up in 1895 and summarised that *'in a time of war, it is evident that this harbour would be extensively used and that the yard would be of great value for the repair of ships, both from its geographical position and as a relief to other Dockyards'* (ibid, 56). The result of the committee's report was the construction of a wooden jetty (Spenser's Jetty) on the western approach, two concrete dolphins on each side of the basin entrance, and the slipway in the south east corner of the basin was built with a large cradle capable of lifting vessels of about 300 tons displacement (ibid, 57).

In 1907, construction began on lengthening the dry dock to 609ft, and following a lot of difficulties with the project, and the Admiralty Works Dept. having to take over from the contractor, it was opened in 1911. The result was one of the finest and largest graving docks in Ireland with beautifully finished stonework and features (ibid, 63).

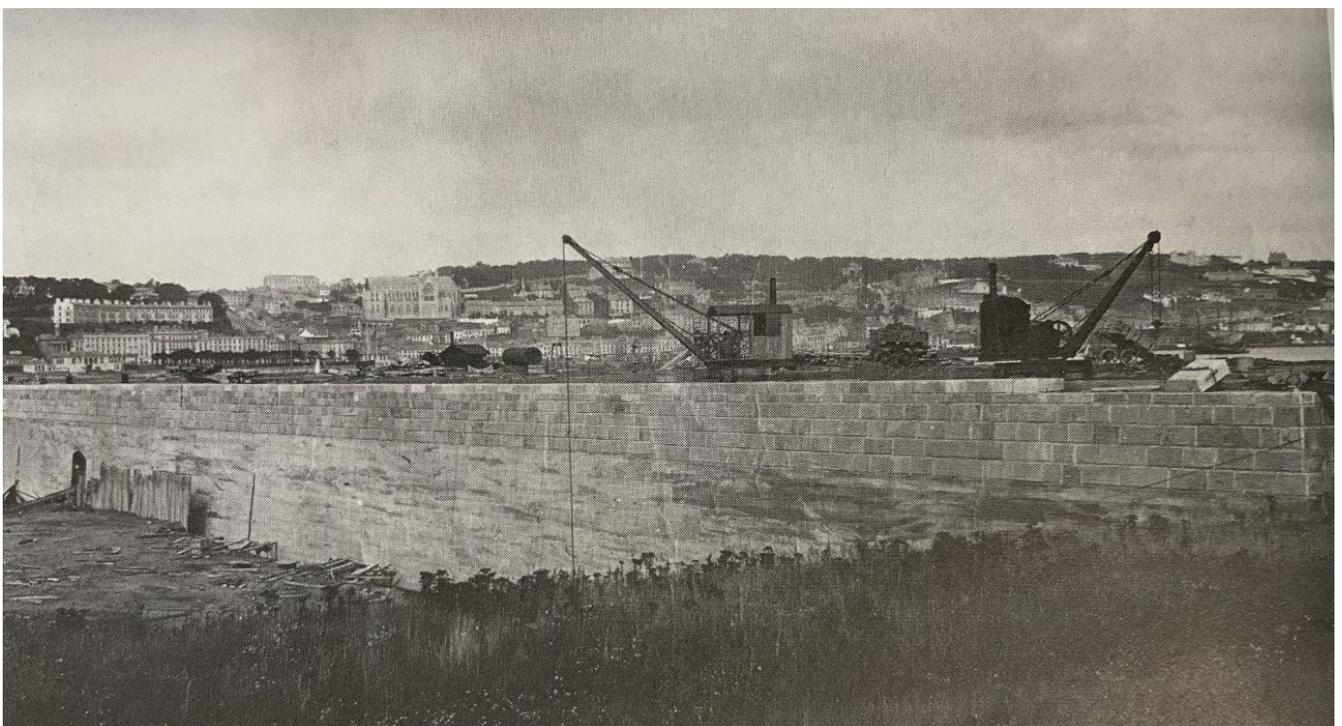


Plate 1: Image of basin excavation works in the 1870's.

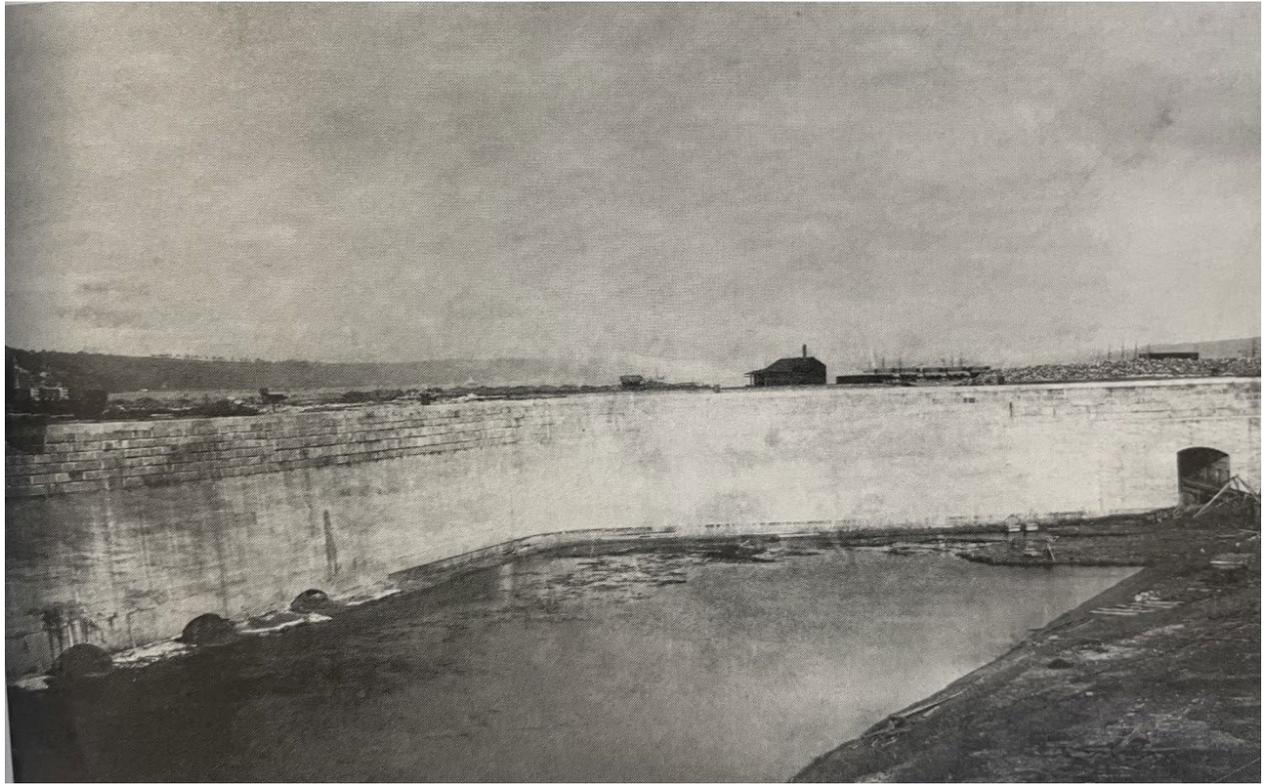


Plate 2: Image of basin excavation works in the 1870's.

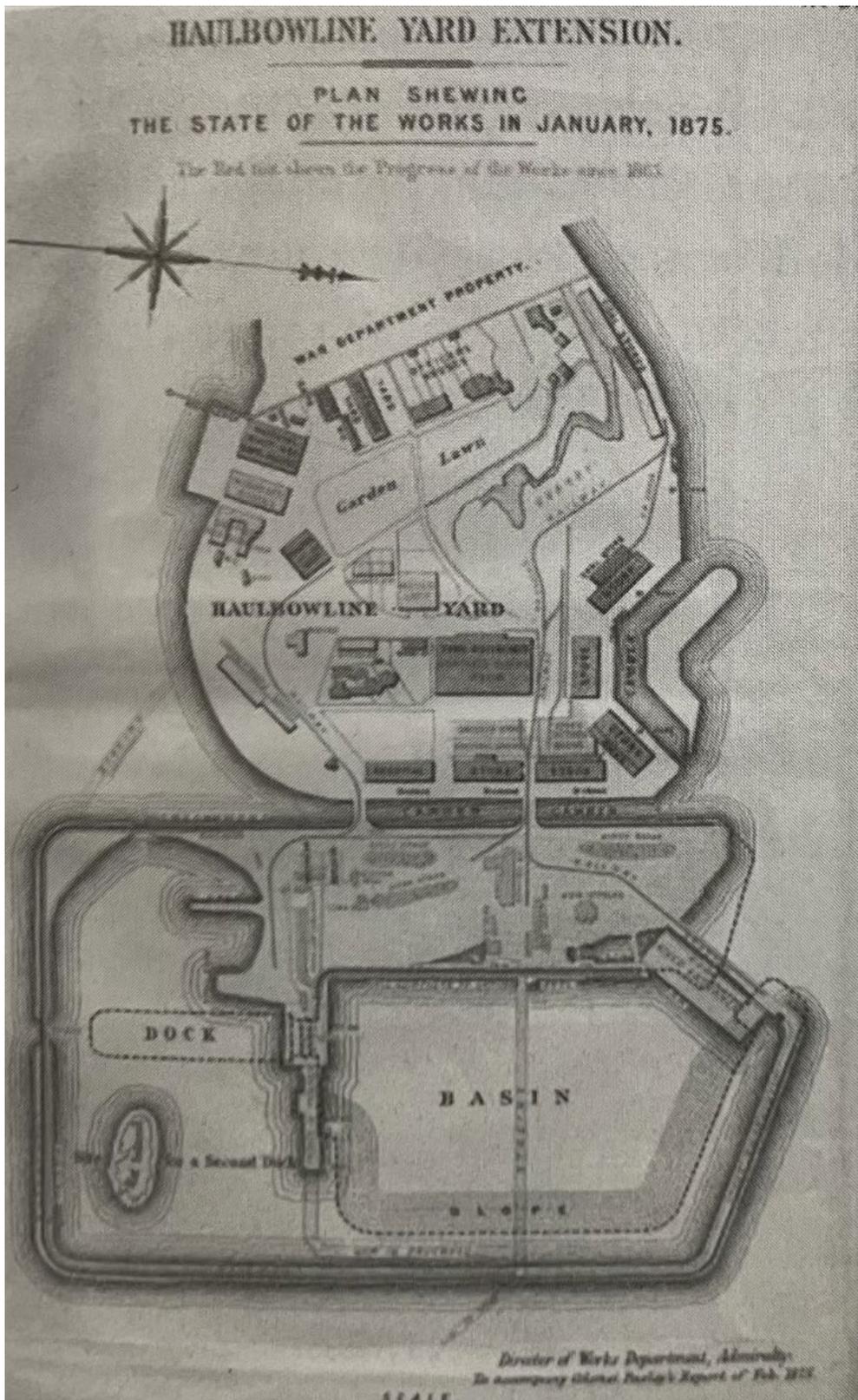


Figure 5: Plan of extent of works 1875

H. M. DOCKYARD, HAULBOWLINE.

PART PLAN SHEWING DOCK AND BASIN.

* *NOTE: Caissons are interchangeable.*

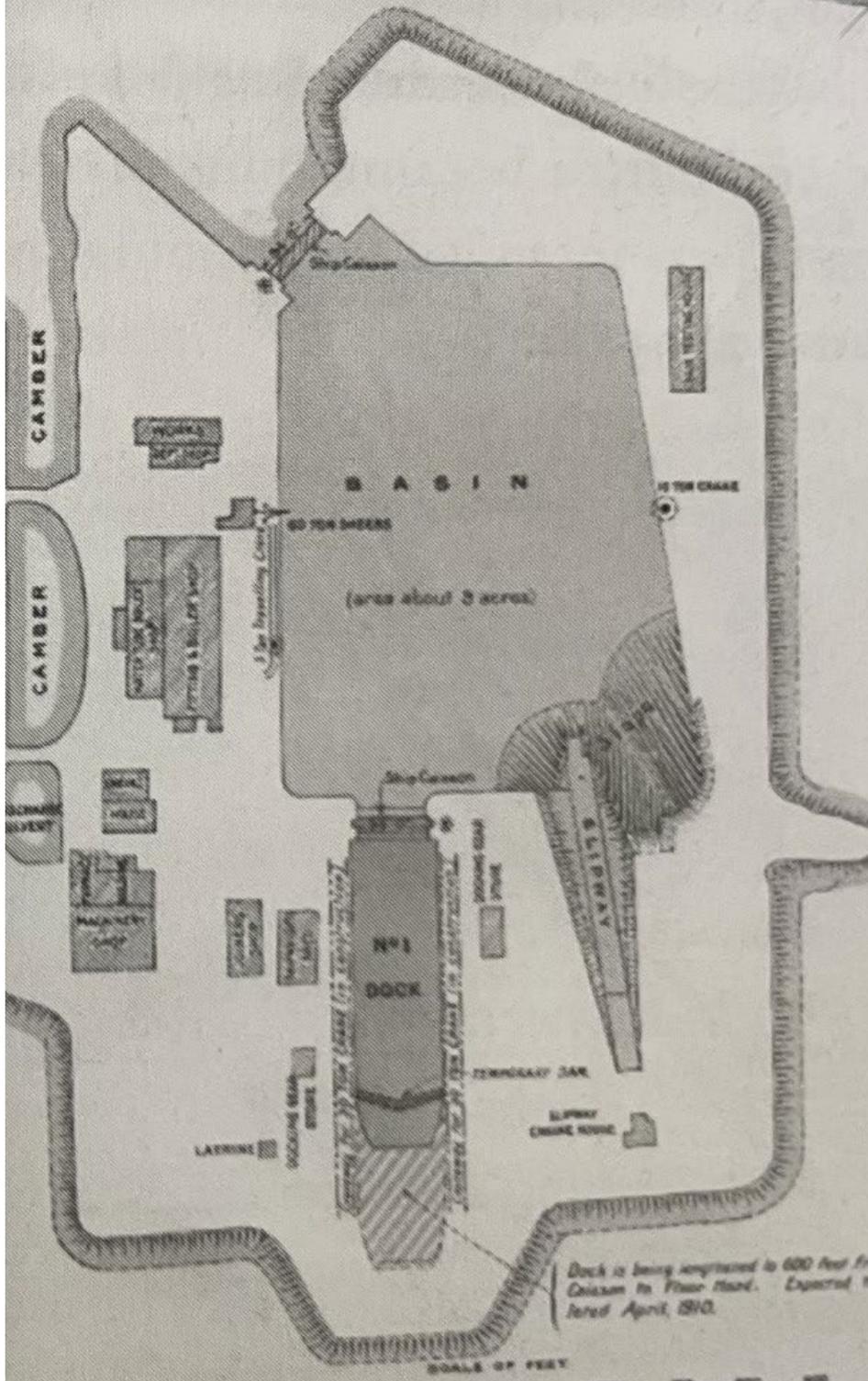


Figure 6: Plan of Naval Dockyard in 1910



Plate 3: Image of drydock in 1912 after it was extended.

During World War 1, in an attempt to hinder Britain international supply routes, the German forces coordinated a deadly submarine combat. German submarines regularly mined the entrance to Cork Harbour. Between 1917 and 1918 one hundred and six mines were laid at the mouth of Cork Harbour, in 31 separate missions by submarines of the Flanders Flotilla. The British Navy had to regularly sweep the area Haulbowline provided with several classes of anti-submarine vessels. At the outbreak of war in 1914 about 1400 men were employed on the island, but during it, the number rose to over 3,000.

Following the Anglo-Irish Treaty, Britain kept possession of Cork Harbour as a Treaty Port. This lasted up until 1938, when all three Treaty Ports were handed over to the Irish Free State. After the turnover, Haulbowline was developed into a steel plant to assist Cobh in replacing the income from the departing British forces. While the site belonged to the Board of Public Works, it was developed by Hammond Lane Foundry. In September 1937, 25,00 tons of plant and dismantled building- previously part of a steel mill at Charleroi, Belgium- were landed at Haulbowline for the works to start (McCarthy 2019, 132). The intention was for the mill to supply the Irish Free State's needs, as well as exporting excess steel. In June 1938, a new company called Irish Steel Ltd. was formed. The deep-water basin and dock accommodation allowed the industry to take maximum advantage of the cheapest method of transporting raw material to, and finished product from, the mills. In

1947, Irish Steel Ltd went into receivership and was taken over by the government shortly after. ISPAT leased the operation from the government from 1996 to 2001, when the plant went into liquidation (*ibid.*).

In 1946, the Irish Naval Service was formed, with Haulbowline forming their headquarters. In 1968, a new double bridge, which connected Haulbowline with the mainland at Ringaskiddy, was opened.

5.2 Place names and Townlands

The name 'Haulbowline' is believed to derive from the Norse 'Aelbolig' meaning 'eel area' or 'den' (Brunnicardi 1969, 90). If taken as fact, this origin would reflect the Viking activity in Cork Harbour from the 9th and 10th centuries.

However, one local source- an electrician and ex-navy man- gave the following reasoning for the name:

"When ships (sailing) were coming into the port they had to pass this island on their way to Passage and Cork. Often with adverse winds or absence of wind there was danger of striking the island.

In order to clear the island (with tide running) the skipper used to shout 'Haul in the Bowling'. This 'Bowline' was a knot put on the sea to train or tighten it. The island was then a rock and the marines came to call it the place where they 'Hauled in the Bowlin'." (Schools Collection Vol. 0386, 211).

Local information suggests that the original name for the island was Innish Sionnach- island of the foxes- or, possibly, Inishinagh- abounding in ash trees (Schools Collection Vol. 0386, 201).

5.3 Recorded Monuments and known sites: RMPs and SMRs

There are three recorded monuments or sites listed on Haulbowline island. These include Barracks (CO087-059001-), a Bastioned Fort (CO087-0590003-), and a Martello Tower (CO087-059002-). Details of these monuments are fully listed in Appendix 9.2.

In addition, there is a magazine on Rocky Island (CO087-105), and a possible ecclesiastical site(CO087-065002-), a fortification (CO087-065003), and a burial ground (CO087-065001) on Spike Island.



Figure 7: Locations of RMPs and SMRs on Haulbowline, Rocky Island and Spike Island.

5.4 Architectural Heritage

The naval base is designated as an Architectural Conservation Area (ACA). Twenty-eight structures on Haulbowline Island and Rocky Island are listed in the National Inventory of Architectural Heritage (NIAH). The earliest of these is an early 18th-century fortification (Reg. No. 10908767), although most of the structures belong to the 19th century and were associated with the island's role as a military store.

5.5 Previous Archaeological Work

Two previous archaeological investigations are recorded on the Excavations Bulletin in Haulbowline and the surrounding waters. These are detailed in Appendix 9.1.

No archaeological features or artefacts were identified during dredging works carried out within the Naval Basin, the approach channel, and Rat Island in 2004 (04E1441).

In 2014, monitoring of dredging works at Fort Mitchell Pier, Spike Island, identified several ex-situ timbers as well as timber uprights. The latter was believed to be the remnants of a former pier structure (Ministerial Consent No. 501).

5.7 Wreck Inventory

The wreck inventory records at least 10 wrecking events in and around Haulbowline.

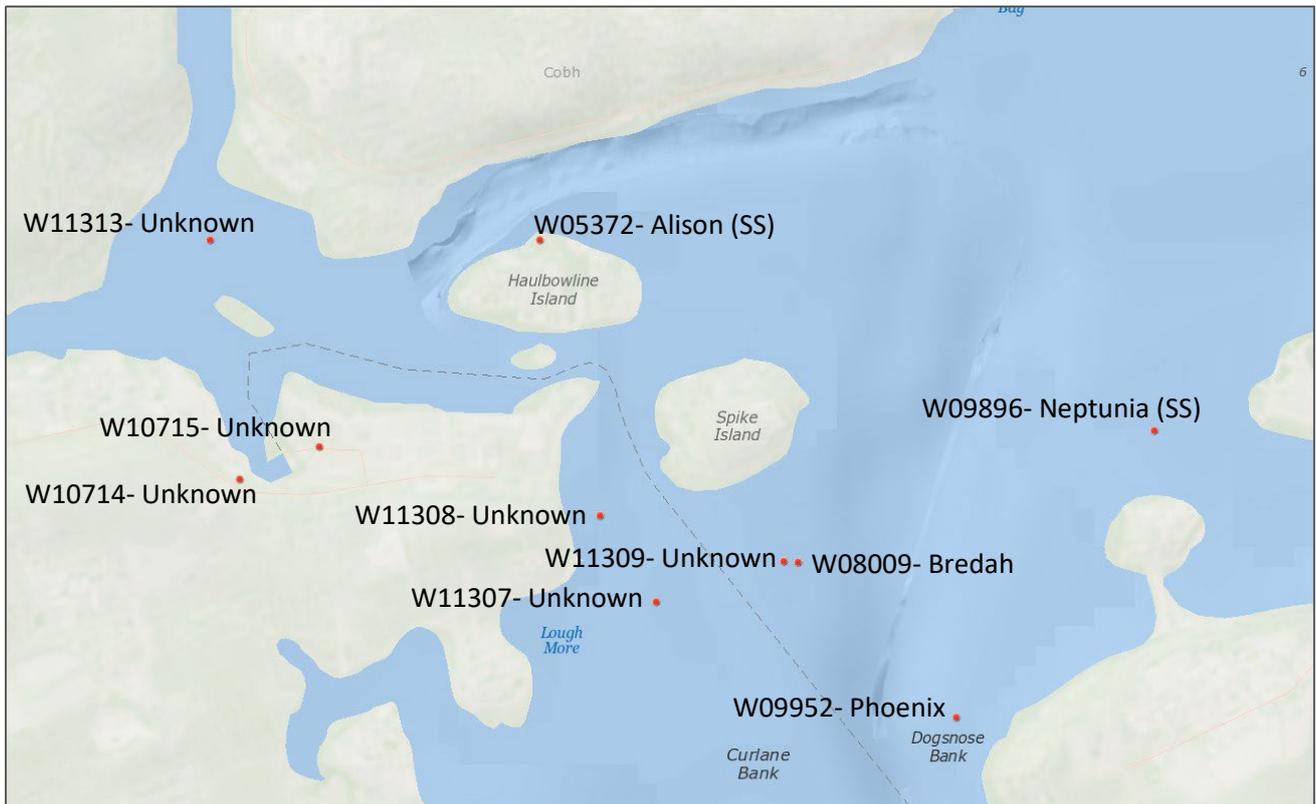


Figure 8: Recorded wreck sites in the vicinity of Haulbowline.

6. Site Inspection

The geophysical report including the raw data was reviewed by Mizen Archaeology. Three anomalies (T1, T2 & T3) were apparent on the basin floor and these were subject to dive truthing. The geophysical survey did not include the graving dock and therefore it was subject to a more extensive dive inspection.

Target 1 (T1) was located at ITM E579306, N565538 close to the western wall of the basin. The geophysical survey indicated 'rubble' at this location. A 10m diameter sounding the co-ordinate was visual inspected. The seabed was inclined eastwards from the quay wall with the depth dropping from 4.6m to 5.8m. No rubble or any other anthropogenic material was noted on the seabed. Bedrock was exposed close to the quay wall.

Target 2 (T2) was located at ITM E579370, N56555 in the centre of the basin. It was interpreted as a cable/chain from the geophysical data. A chain was not identified on the seabed inspection of this area. However, a scour measuring c.50cm in depth and 20m in length was recorded.

Target 3 (T3) was located at ITM 7E9328, N 565512 close to the western wall of the basin. The geophysical survey indicated 'rubble' at this location. Again, no rubble or any other anthropogenic material was noted on the seabed but bedrock was exposed close to the quay wall.

The seabed within the drydock was composed of silt. No evidence of any archaeological features was noted in the sediment.



Plate 4: Diving operations in progress.



Plate 5: Image of fabric of basin wall.



Plate 6: Image of fabric of basin wall. Note the difference in stone colour indicating the extension which was completed in 1911.

7. Recommendations

The proposed works involve dredging the Basin, the Approach and the Graving Dock to -5.5 CD. No new archaeological sites were identified during the geophysical and dive truthing surveys. However, it is possible that archaeological material may be buried within the subsea sediment. It is recommended that dredging operations are archaeologically monitored by an underwater archaeologist under licence from the National Monuments Service.

All mitigation measures are recommendations only. The ultimate decision rests with the National Monument Service of the Department of Housing, Local Government and Heritage in collaboration with the National Museum of Ireland.

8. Bibliography

8.1 Documentary Sources

Breen, D. and McCarthy, K. 2014. *Cork harbour through time*. Gloucestershire: Amberly Publishing.

Brunicardi, N. 1969. 'Is Haulbowline a Norse name?' *Journal of the Cork Historical and Archaeological Society*, V. 72 No. 219, pp. 90-91.

Brunicardi, N. 1982. *Haulbowline, Spike, and Rocky Island in Cork Harbour*. Fermoy, Co. Cork: Éigse Books.

Brunicardi, D. 2012. *Haulbowline: The Naval Base & Ships of Cork Harbour*. Dublin: The History Press Ireland.

Gowen, M. 1979. *Irish artillery fortifications 1500-1700*. Unpublished MA thesis, University College Cork.

McCarthy, C. and O'Donnabhain, B. 2016. *Too beautiful for thieves and pickpockets: a history of the Victorian convict prison on Spike Island*. Cork: Cork County Library and Arts Service.

Rynne, C. 1993. *The Archaeology of Cork City and Harbour from the Earliest Times to Industrialisation*. Cork: The Collins Press.

8.2 Other Sources

The Schools Collection: www.duchas.ie

Excavations Bulletin: www.excavations.ie

Historic Environment Viewer, National Monuments Service; www.archaeology.ie

Irish Placenames website: www.logainm.ie

Ordnance Survey of Ireland: www.osi.ie

National Inventory of Architectural Heritage (NIAH): <http://www.buildingsofireland.ie/niah/>

National Monuments Service: www.archaeology.ie

9. Appendices

9.1 Excavations Bulletin

2004:0279- Haulbowline Island, Cork

Sites and Monuments Record No.: SMR 87:105, 87:59

Licence No.: 04E1441

Site type: Underwater

ITM: E 579133m, N 56541m

Monitoring was undertaken of three separate areas within the Irish Naval Base, Haulbowline Island, Co. Cork. These areas comprised Rat Island, the Naval Basin and the approach channel to the basin. This work was completed in response to a request by the Underwater Archaeology Unit as part of the draft condition of the dumping at sea permit granted by the Department of Communications, Marine and Natural Resources to the Department of Defence.

Two known monuments are within and adjacent to the proposed development site. These are a magazine fort and a military barracks, Martello tower and star-shaped fort on Haulbowline Island. There are also a number of listed shipwrecks in this area.

No archaeological features or artefacts were identified within the area of dredging.

Catriona Gleeson

2014:502- Fort Mitchell Pier, Spike Island, Cork Harbour, Cork

Sites and Monuments Record No.: N/A

Licence number: Ministerial Consent No. 501

Site type: Monitoring

ITM: E 579998m, N 564937m

Monitoring of dredging works was undertaken at Fort Mitchell Pier, Spike Island, in Cork Harbour. The dredging was carried out in association with the installation of pontoon anchors. The upgrading of the landing facilities at Fort Mitchell Pier form part of Cork County Council's heritage-tourism development of Spike Island.

The excavation of eight pits was monitored. The excavated material consisted of a layer of gravelly sand overlying grey silty-clay. Five timbers were uncovered from Pit no. 6 and one from Pit no. 7. The timbers appeared to be ex-situ and displayed no evidence of recent splitting or fractures. All of the timbers were heavily eroded and damage from gribble infestation. Metal fixing holes and in-situ clout-ended spikes are visible on most of the timbers. Pit 6 and Pit 7 are located close to a concrete pier where several timber uprights are visible on the foreshore at low tide. These remains appear to be remnants of a former pier structure. Although the exposed sections of the timber uprights do not display any evidence of teredo or metal fixings, it is possible that the recovered timbers are also part of this construction.

The convict's causeway is also in the vicinity of the pontoon. The causeway, which spanned the channel between Spike Island and Haulbowline, comprised a stone causeway and wooden footbridge built in the 1860s. The causeway is not indicated on any available maps but a drawing of the area depicts the structure further east of the pontoon.

Julianna O'Donoghue

9.2 RMPs and SMRs

Number	Type	Location	Description
CO087-059002-	Martello tower	E 578823 N565542	On high ground at N edge of Haulbowline island, overlooking entrance to Upper harbour; formerly part of 'Ordnance Ground' (CO087-05902-), now occupied by Naval Service. Constructed 1813-15 at cost of £3,000 erected wooden stairs. Oval in plan (14.6m x 9.1m; H c. 13.4m) (Enoch 1975, 28); large water tank installed in roof area. Restored wooden floor; tower is being converted into museum by Naval Service.
CO087-059003-	Bastioned fort	E 578882 N 565580	On rocky island of Haulbowline, between Great Island and Ringaskiddy, in Cork Harbour. Possible Viking occupation of island (Jeffries 1985, 16) maybe reflected in name (O Murchadha 1982, 142). Earliest known fortification here is fort begun in summer of 1602 to design of Paul Ive (Ives/Ivye) (Brunicardi 1982, 142); though garrisoned in October still unfinished by March 1603 (Hayes-McCoy 1604, 32). Contemporary plans show 'an irregular work based on a quadrangle with demi-bastions on the north, or cliff edge, and two bastions on the southern corners' (Gowen 1978, 246). Slightly later (1608-11), a keep, gatehouse, etc. were added (ibid, 249). Brunicardi (1965-6, 21) describes remains of some of these features, including keep 'now only about 15 feet in height', but Gowen (1979, 251) found 'the whole area has been subject to much disturbance' and concludes 'it is unlikely that any diagnostic features remain'. By 1624 fort abandoned and remained in disrepair throughout rest of

			17 th and 18 th centuries (Brunicardi 1982, 11-15). IN 1806 island divided between Ordnance (W) and Navy (E), the line marked by high stone wall. Ordnance built Martello Tower (CO087-05903-) on high ground to N in area of old fort; also a barracks with storehouses, workshops, etc.. Navy built a supply depot or victualling yard, most prominent feature of which was six large warehouses, still surviving, as do many other early 19 th century buildings shown on 1842 OS 6-inch map. Later dockyard (1865-1887) built on reclaimed ground to E of island (Brunicardi, 1865-6, 28-32). Island now jointly shared by Irish Naval Service and Irish Steel.
CO087-059001-	Barracks	E 578958 N 565471	
CO087-105----	Magazine	E 579203 N 565045	Occupying central part of Rocky Island (area c. 2.5 acres) in Cork Harbour; island now crossed by bridge linking Ringaskiddy to Haulbowline. Magazine built 1808-18 to store gunpowder for naval base at Haulbowline. Consists of two identical structures facing each other across open forecourt; each section consists of three inter-connecting vaulted brick-built caverns with flanking corridor; common entrance through archway with classical surround in limestone ashlar, on N side of forecourt. Eastern section filled in during construction of bridge in 1966; western section still open. Ancillary building on island demolished and fittings for magazines missing. Island unoccupied from 1920s until purchased by Irish Steel in 1964; later used as storage for industrial waste. (pers. comm. W.J. Williams).
CO087-065002-	Ecclesiastical site	E 580294 N564663	According to Hurley (1980, 63), Spike island is 'identifiable with the early ecclesiastical site of Inispicht' (see also Coleman 1893, 1-8; Lynch 1912, 162-4; J.C.Q. 1936, 47-8; Bolster 1972, XLI), of which there are no visible surface traces; map of 1625 appears to show ruined church on island (Hayes-McCoy 1964, plate 21) but none shown on Vallancey's map (MacCarthy <i>ibid.</i>), nor does the latter show any remains of castle/tower house shown on 1587 map (Hayes- McCoy <i>ibid.</i> , 25, plate 15).
CO087-065003-	Fortification	E 580294 N 564661	Large star-shaped artillery fortification with glacis, occupying over half of Spike island, in Cork Harbour. Fort replaced a battery erected 1779 but abandoned by 1783 (Brunicardi 1982, 39). Work on new fortifications designed by Charles Vallancey began 1791; original plan for small irregular fort (MacCarthy 1970, 161-2), but structure built described as 'extensive artillery barracks' (Lewis 1837, vol. 2, 572). Barracks erected 1806 (Windele 1844, 193) and by 1811 ordnance depot established. Though Windele (<i>ibid.</i>) says 'these works are incomplete...it is at present garrisoned by a small military force', the fort had largely taken its present form by 1842 (compare plan on 1842 OS 6-inch map and photo in

			<p>Kerrigan 1978, 145 & Brunicardi <i>ibid.</i>, 45); however work continued at least to 1860. From 1847-1883 fort used as convict prison. Described by Kerrigan (1978, 147) as of 'irregular outline consisting of six bastions connected by ramparts and surrounded by a broad dry ditch'; inside are ranges of barrack buildings arranged a round a large parade ground. Fort now used as civilian prison. To W are remains of 'a large and handsome military hospital' (Lewis <i>ibid.</i>); various buildings erected for 'persons connected with the establishment' (<i>ibid.</i>) along shoreline to N. According to Hurley (1980, 63), island 'identifiable with the early ecclesiastical site of Inispicht' (see also Coleman 1893, 1-8; Lynch 1912, 162-4; J.C.Q. 1936, 47-8; Bolster 1972, XLI), of which there are no visible surface traces; map of 1625 appears to show ruined church on island (Hayes-McCoy 1964, plate 21) but none shown on Vallancey's map (MacCarthy <i>ibid.</i>), nor does the latter show any remains of castle/tower house shown on 1587 map (Hayes-McCoy <i>ibid.</i>, 25, plate 15).</p>
CO087-065001-	Burial ground	E 580046 N 564432	

9.3 Wreck Inventory

Wreck Inventory No.	Name	Date of loss	Place of loss	Description
W05372/ W07895	<i>Allison (SS)</i>	22 Nov. 1928	North of Haulbowline (51.84333, -8.30167)	This Iron steamer sank after colliding with the <i>SS Lissa</i> . Bourke, 1994, 114
W08562	<i>Luvius</i>	1/5 Nov. 1845	Near Haulbowline	This vessel from Cardiff was making for Cork Harbour on the 1 st under the command of Cox. She was in contact with the steamer <i>Sirius</i> near Haulbowline and sank. The crew survived. Bourke, 1998, 103; CSP, 1846, Vol. XLV, Collisions of Shipping, 14.
W08867	<i>Shannon Lass</i>	1 Feb. 1935	Haulbowline wharf	This motor fishing vessel sank at the wharf after colliding with the <i>SS Lisa</i> at the piles. Bourke, 1994, 114.
W05465	<i>Unknown</i>	20 Oct. 1898	Off Haulbowline	This wooden rowing boat of H.M.S. weighed around 2 tons and was owned by the Lords Commissioners of the Admiralty, London. She was en route from Haulbowline to Ringaskiddy with 16 workmen aboard. She collided with the military steam

				launch <i>Cambridge</i> and became a total loss. Five workmen were lost. CSP, 1900, Vol. LXXVII, Shipping Casualties, 153.
W08263	<i>Fleswick (SS)</i>	17/10/1908	Haulbowline Island, Co Cork, White Point and Black Point, between/ Monkstown Bay, N side of channel in	Steel Steamship Lloyd's List 22, 176, Monday 19 th October 1908; Lloyd's List 22, 299, Friday 12 th March 1909; Lloyd's List 22, 332, Wednesday 21 st April 1909; Lloyd's List 22, 335, Saturday 24 th April 1909; BOT Wk Rtn 1908 Appx C Table 1, 119 (757); Bourke 1994, 103
W09009	Unknown	20/10/1898	Haulbowline	PP 1900, Vol. LXXVII, Shipping Casualties, 153.
W14370	<i>Ellen & Margaret</i>	19/11/1846	Haulbowline	Lloyd's List 10, 200, Monday, 23 rd November 1846.
W16710	Unknown	17/01/1901	Haulbowline, 50 yards out fram (towards Rocky Island)	Punt. Lloyd's List 19, 769, Saturday, 19 th January 1901.
W17029	<i>Rathcoursey</i>	12/10/1904	Haulbowline and Rocky Island, Between	Smack. Lloyd's List 20, 926, Wednesday 12 th October 1904; LL 20, 932, Wednesday 19 th October 1904.
W18165	<i>Tamar (HM)</i>	13/12/1866	Haulbowline, outside	Lloyd's List No. 16, 437, Monday, 17 th December 1866.