

The British Sub-Aqua Jubilee Trust



Gun Rocks Cannon Site: Summary Report 2018

2018 Summary activity report

The Gun Rocks Project received funding to undertake a range of objectives during 2017-2018 financial year. This report summarises the objectives and tasks which were met, during a busy and productive year.

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Divers preparing to dive Gun Rocks

1 INTRODUCTION

1.1 A brief project history

1.1.1 Background

Tyneside 114's association with the cannon on Gun Rocks began back in 1970 thanks to a curious Diving Officer of the time, Mr. W.R. Smith (known as Bill). During the initial Gun Rocks Project in the 1970s, a cannon was raised, a TV programme made, and a huge amount of diver participation was involved in the surveying of the cannon site. All of the findings were recorded in the Gun Rocks Project, Interim Report 1970, written by Bill Smith.

In 2010 Andy Hunt, the Diving Officer of Tyneside 114 at the time, started a Gun Rocks Project II, to celebrate the 40th anniversary of the initial project. The main aim of this project was to re-survey the Gun Rocks cannon site and compare the results with the original survey. During the resurvey of the cannon, there was a lot of diver participation, and many people learned a lot about RIB diving, surveying and reporting.

In 2013 Wessex Archaeology (WA) was commissioned by Historic England (previously English Heritage) to undertake an "Undesignated Site Assessment" of the wreck on the Gun Rocks site. The work was undertaken as part of the "Heritage at Risk - Designated Wrecks at Risk". The fieldwork was part of a staged investigation of a number of wreck sites in the Farne Islands, beginning in March 2013. A report was subsequently published by WA, which has an interesting conclusion as to the reason for the wreck and its potential origins.

1.1.2 The Wreck Award

In 2015, 45 years since Tyneside 114's initial investigations into the cannon and other wreckage at Gun Rocks began, Nicola Faulks decided to tell the story of Gun Rocks. The report, Gun Rocks Cannon Site, was written with the aim of providing not just an entry for the Wreck Award, but a full report of activity and findings for posterity.

The report was written and submitted for the BSAC Wreck Award with the following aims:

1. Provide a summary of the 1970s Gun Rocks project;
2. Provide information on the intervening 40 years;
3. Collation and presentation of the data for the 2010 Gun Rocks Project II;
4. Provide information on, and a summary of, the WA site investigations in 2013;
5. Discuss the future of Tyneside 114's involvement with Gun Rocks.

In February 2015 Tyneside 114 were informed that Gun Rocks Cannon Site report had won the BSAC Wreck Award, fighting off some stiff competition. The trophy was presented by Jane Maddocks (BSAC Wrecks and Cultural Heritage Advisor), on a foggy day at the Farne Islands; sadly, a day when it was too foggy to actually dive the Gun Rocks site.



The Wreck Award Trophy

1.1.3 From Wreck Award to dive trail

The final section of the Gun Rocks Cannon Site report contained a section called “The future of Tyneside 114 and Gun Rocks.”, a sub-section of which was “A dive trail”. Here the following information was presented, and from it, the Gun Rocks Dive Trail was developed:

“Following on from all of the publicity received about Gun Rocks, and conversations with other divers and boat skippers up at Seahouses, the general opinion has been that a dive trail of some sort would be a great idea for Gun Rocks. Gun Rocks is a site that is often dived by beginners, or as a second dive, so having a dive trail to enable divers to find the cannon and learn about the history of the site would be very beneficial.

“Tyneside 114 members have therefore been researching dive trails and how to implement them. Peta Knott from WA has been particularly helpful with our considerations, providing examples of trails that she has helped to implement. The figure right, shows an example of the site layout for the Iona II dive site.

“Funding would also be required in order to implement a dive trail. Leaflets would be needed to describe the trail and the artefacts to be found. Annual site maintenance would need to be undertaken to ensure that the diver drop off point is clearly buoyed and that the start and end of the trail is visible. At the time of writing, this is being researched through organisations such as the Sharing Heritage Grant from the Heritage Lottery Fund and also the Landmark Trust. This report will likely also form part of any funding application.”

In addition to a dive trail, the Gun Rocks Cannon Site report goes on to state that further exploration should be undertaken. The report set out the following aims:

- *Full measured survey and photographic recording of all known cannons, including the cannon reported to be to the east of Gun Rocks, followed by further specialist analysis to identify them;*
- *Further searches on the east side of Gun Rocks to investigate historic reports of wreck material associated with Site 1;*
- *Searches around Sites 1 and 2 to define their full extent;*
- *Further ground truthing of cannon-like geophysical anomalies;*

- *Further investigation of wooden ship timber 6020 and its vicinity.*

1.2 Funding and Donations

Since the Gun Rocks Cannon Site report was written, Tyneside 114's committee and members have discussed at length how to set up a dive trail project; with funding requirements in mind. It was decided that a funding package should be put together, but with a range of aims, benefitting both divers and non-divers as well as promoting diving on the Gun Rocks site itself.

The initial round of funding was undertaken through the online portal Crowdfunder. It was more of an experiment to see if people would be interested in funding such a project. An account was set up, information provided and then pushed out live, with a little help from the local press. During the eight-week funding period, 27 supporters pledged money, and a total of £600 was raised. Interestingly the majority of the donations came from friends and family, rather than local divers. It was therefore decided that other avenues of funding should be investigated.

After talking to Jane Maddocks at BSAC, we were advised to apply to the Jubilee Trust for Funding for the Gun Rocks Dive Trail, so an application was put together. The process of putting the application together was very informative, as it really helped to draw out and categorise the aims and goals of the Dive Trail project. The application was submitted in December 2016, for a sum of £1000. We were informed in March 2017 that this application had been successful.

During the application process it became obvious that, for what we wanted to achieve, further funding would be required. Following a conversation with Alison James from Historic England, it was decided that a funding application should be made to the National Lottery Heritage Funding. Although the application form was quite long, it was straight forward to fill in and again enabled us as a dive club to really determine and set out what we as a club wished to gain from the Project, if funding was made available. In April 2017 we were informed that our application had been successful, and we were awarded £8,000.

1.3 Report objectives

This report has been written so that it can be amended accordingly, then submitted to each of the funding sources, in order to provide them with information on how the funding was spent, and what the tangible outcomes of the project have been. It is also intended as a stand-alone report, to be published on the Gun Rocks website, so that any interested parties can find out what has been achieved between April 2017 and May 2018. This report will also be submitted for the 2018 Duke of Cambridge scuba prize.



Ladies day on Gun Rocks



Stephen's first RIB dive, and it is on Gun Rocks!

2 PROJECT ACTIVITIES 2017-2018

2.1 General overview

Prior to submitting funding for the Gun Rocks Dive Trail project, all aspects of the project had to be priced up, so that a ball park cost could be arrived at. As part of this process, the Marine Management Organisation was engaged, and advised us that to leave a mooring buoy on Gun Rocks and to put in a dive trail a marine licence would be required. The licence could be eligible for the fast track process and should cost £175. The licence was therefore duly applied for once funding had been secured, in time to install the trail in July 2017. Unfortunately, the MMO did not process the licence until September 2017, and the cost increased to £470. The late provision of the licence meant that the decision was taken not to install the dive trail so close to the end of the 2017 dive season, but to delay installation to the start of the 2018 dive season: early May bank holiday 2018.

The site was however “shot” with a marker buoy tied to one of the pile of three cannon in the centre of the site during the 2017 dive season. Over the course of the summer, a number of dive operators used the shot for their divers, so that they could easily locate at least three of the cannon. Via social media, we did identify a range of divers who had visited the site with cannon as they had heard about it on Facebook and the diver’s grapevine. Dive groups were from Bradford, Tynemouth, Dundee, and elsewhere. When we spoke to some of the divers, the feedback was generally positive, but some divers did find it hard to locate all of the cannon. It was because of this comment that we decided that the trail between the cannon, although not far, should be roped, rather than just using a map and letting divers navigate on their own.



Glad Tidings VII, dropping divers on the Gun Rocks marker buoy

The dive trail was installed on the 4th May 2018, after two cancelled attempts due to the Beast from the East. Five divers took turns to clean the cannon and lay the trail. A shot has also been put back in for the 2018 dive season, so that boats can find the shot buoy and the divers can descend this directly on to the pile of three cannon. The grand opening of the trail (attended by 12 Tyneside 114 members) was held on the 7th May 2018 with lots of positive feedback and some happy divers. Some of whom had dived the site previously but had never seen the cannon!

2.2 Sea based

2.2.1 Kelp clearing

In order to prepare for the installation of the dive trail (at the time we didn't know this would be delayed) kelp clearing took place. This was also required so that we could undertake the photogrammetry. Kelp clearing was undertaken over two days of diving and was quite successful. During the kelp clearance an additional cannon was found, just to the north of the site, which started to raise questions about the orientation of the WA produced canon maps.



Cleaned cannon, ready for photogrammetry

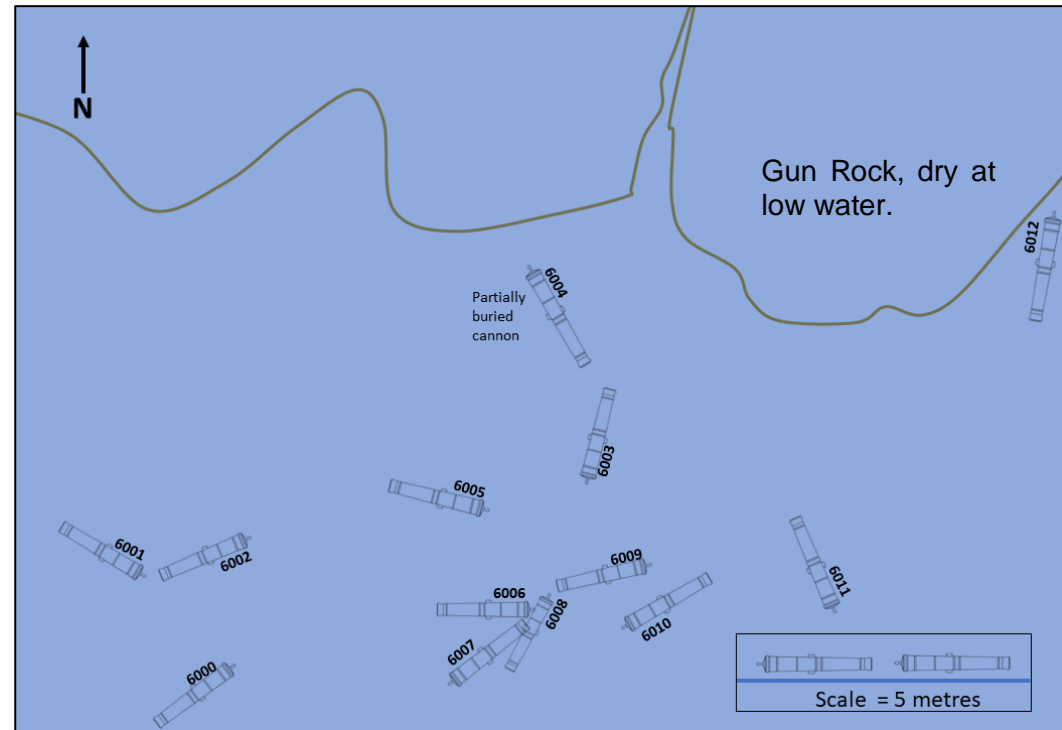
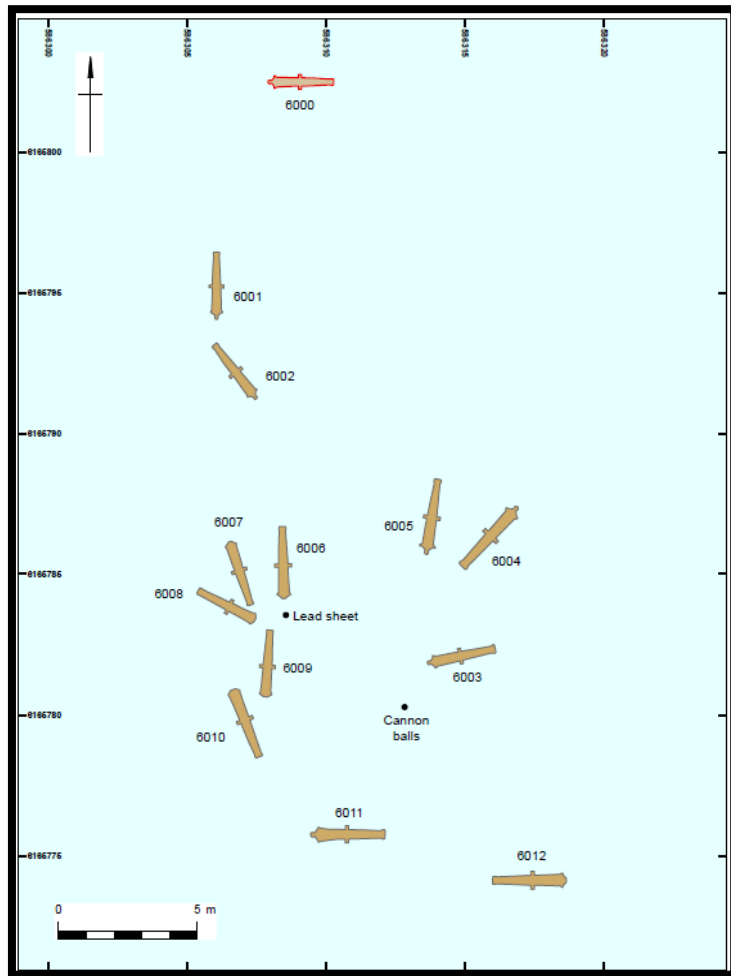
2.2.2 Re-mapping the site

As the cannon were cleaned, it became apparent that the WA cannon maps were not in the correct orientation and therefore not accurate enough to use to guide divers around a dive trail. In order to remedy this, four days of diving were undertaken based around remapping the cannon, including orientation, length of canon and the distance between the cannon. The resulting map can be compared with the original and is shown below.



Remapping the cannon; orientation, size and distance

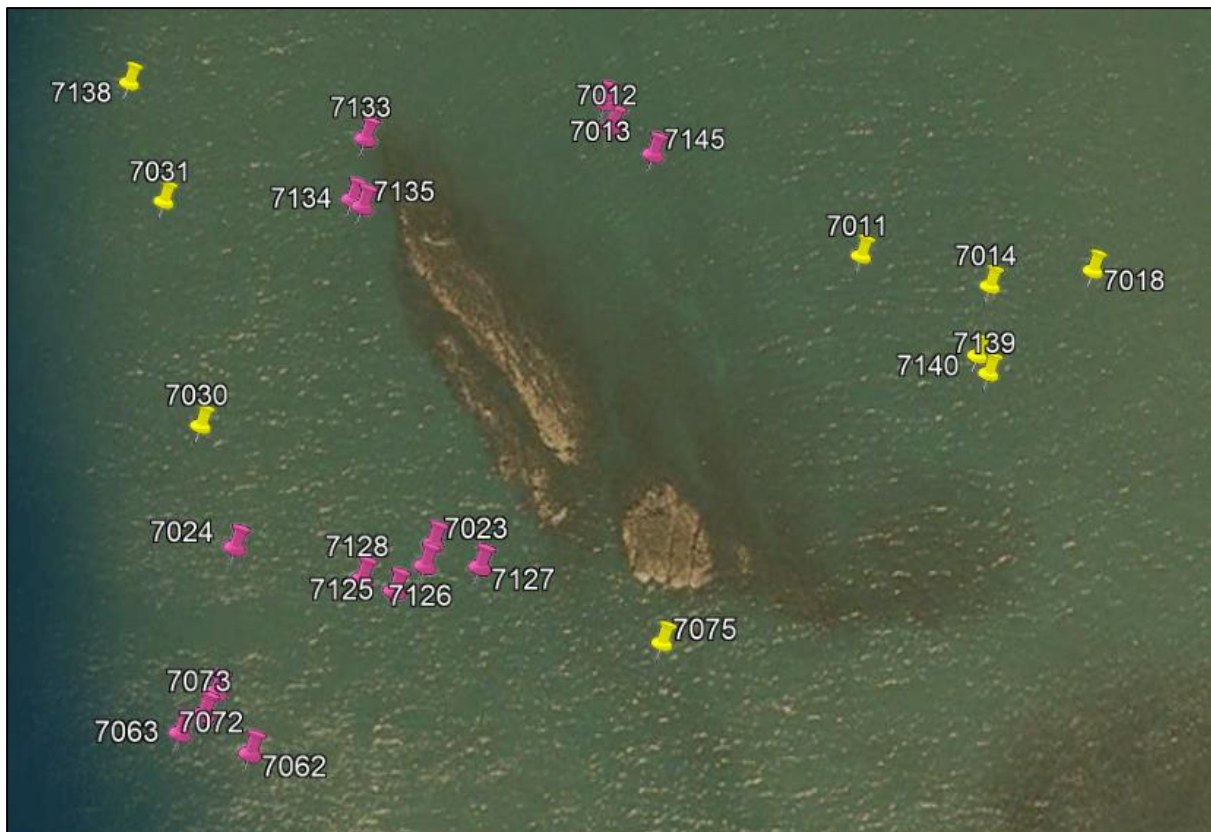
Cannon Layout as provided in WA report



Above is the revised map of the cannon drawn since the 2017 surveys – notice that the orientation has been change about 90 degrees. Also cannon 6000 was found and photographed. It lies just to the south of canon 6002. An additional cannon was also found which lies further west of 6001, just on the edge of the drop in to Staple Sound.

2.2.3 Anomaly diving

When WA undertook surveys of the site in 2013, they produced a table of data from their seabed scans. This table includes over 150 points of interest, lying on the seabed in and around the Farne Islands (not just Gun Rocks). As part of the funding bid, we aimed to dive 20 of these anomalies in order to confirm what they were. Due to the additional time which was spent re-mapping the cannon site, only 16 anomalies were dived and checked out. The anomalies which were dived are all in the vicinity of Gun Rocks and were as follows:



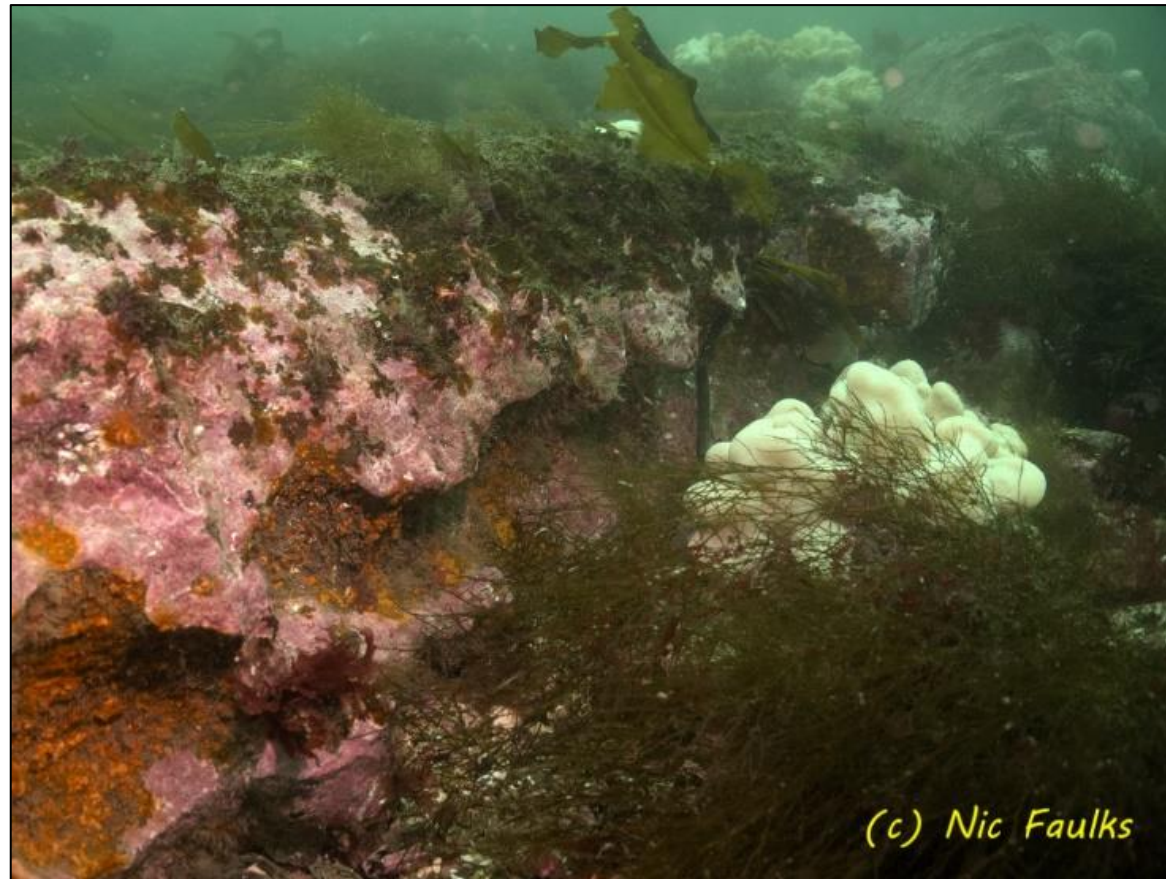
Aerial photograph showing the locations of anomalies: pink locations were investigated

Table 1 Anomalies and description of findings

WA ID	Easting	Northing	Length (m)	Width (m)	Height (m)	Description taken from WA Report	2017 Survey Findings
7012	586296	6165917	6.1	0.4	0.4	Elongated anomaly with a distinct curved rectangular shadow visible showing height variation. Located on the edge of a rocky outcrop.	No debris found, kelp very dense.
7013	586294	6165924	1.9	0.6	0.7	Curved anomaly with a distinct tapered shadow visible. Located on edge of rocky outcrop.	Small piece of wreckage found but did not match description. Difficult to identify location due to kelp growth.
7023	586249	6165797	1.8	0.3	0.6	Elongated anomaly with an irregular shadow visible showing some height variation. Located on a gravelly seabed.	Cannon found on edge of slope laid on gravelly ground. Photographed and found to be quite eroded.
7024	586195	6165795	4.1	0.4	0.4	Elongated anomaly with a distinct shadow visible.	Known to be seven cannon in this area. One found to be in the general area, but also basalt rocks, which are rectangular in shape.
7062	586202	6165740	2.6	1.2	0.5	Elongate anomaly with a distinct rectangular shadow visible. Located on gravelly seabed.	Gravel mounds present here due to strong tidal movements. Possibly this could affect the imagery.
7063	586183	6165745	1.4	0.3	0.3	Anomaly with a distinct rectangular shadow visible.	Likely to be a rock.

WA ID	Easting	Northing	Length (m)	Width (m)	Height (m)	Description taken from WA Report	2017 Survey Findings
7072	586192	6165756	2.1	0.2	0.3	Anomaly located on stretched data with a distinct rectangular shadow visible.	Search of area conducted, no cannon found. Difficult conditions with the tide.
7073	586189	6165750	1.1	0.6	0.8	Anomaly with a distinct slightly tapered shadow visible. Located on gravel seabed.	Considered likely to be a rock.
7125	586239	6165784	6.1	0.7	0.6	Two to three elongated anomalies located amongst a group of debris. The two main elongated anomalies cut each other at 45 degrees with the larger positions on top of the smaller. Both have distinct oblong shadows visible. Third anomaly located adjacent to these overlapping anomalies. Dimensions range in length from 1.3m to 6.7m. Width ranges from 0.2m to 0.7m. Height ranges from 0.1m to 0.6m.	This is the pile of three cannon, confirmed and remapped correcting the orientation.
7126	586247	6165791	10.2	3.2	0.9	Group of three distinct adjacent elongated anomalies located near a group of debris. Two elongated anomalies with oblong shadows visible and an angular anomaly with a distinct irregular tapered shadow visible. The angular anomaly and the central elongated anomaly possibly overlap, with the second elongated anomaly offset by 45 degrees in orientation. Located close to rocky outcrop and gravelly region. Offset elongated anomaly measures 2.9m by 0.4m by 0.4m. Central elongated anomaly measures 4.1m by 0.3m by 0.3m. Angular anomaly measures 5.6m by 3.2m by 0.9m.	As above, cannon re-mapped and new orientation recorded.
7127	586262	6165791	2.4	0.4	0.5	Elongated anomaly in a group of	As above.

WA ID	Easting	Northing	Length (m)	Width (m)	Height (m)	Description taken from WA Report	2017 Survey Findings
7128	586230	6165787	4.5	4.3	1	Two anomalies adjacent to one another with distinct sub-oval tapered shadows visible. Located by area of debris. Southern anomaly measures 1.7m by 0.4m by 1m. Northern anomaly measures 0.9m by 0.8m by 0.6m.	Two cannon located considered likely to be cannon 6001 and 6002. Orientation noted and re mapped.
7133	586226	6165912	1.5	1.5	0.3	Angular anomaly with a distinct shadow visible. Located on the edge of rocky outcrop.	Considered likely to be a rock.
7134	586223	6165894	2	0.5	0.5	Elongated anomaly with a distinct triangular shadow visible. Located at base of rock outcrop.	Considered likely to be a rock, nothing else found.
7135	586226	6165892	3.3	1.4	0.6	Rounded anomaly with a distinct rectangular shadow visible. Located on edge of rocky outcrop.	No debris found, considered likely to be a rock.
7145	586308	6165909	-	-	-	Unidentified wreck lying in 7.6m of water on east side of Gun Rocks. Site of 16 th century wreck according to local knowledge. 3 cannon and large number of cannon balls were located in the vicinity. Strong tidal stream flows across the site.	Hard to access site, tidal and with kelp. Some debris noted, no cannon. Unfortunately not photographed, due to losing camera in kelp.



New Cannon - anomaly 7023 - very eroded.

2.2.4 Photogrammetry

During the 2017 dive season, five dive days were dedicated to photogrammetry. It was found that photogrammetry, in order to be productive had to be undertaken on days with little or no swell, good visibility and on days with a constant light (not patchy clouds). No flash could be used with the cameras for photogrammetry, as it creates shadows which do not work well with the soft-ware which creates the three-dimensional images. Calm clear days, as rare as they are, were definitely best suited to undertaking photography for photogrammetry.

We also tried using small sports cameras (MUVI pro) in burst mode to take lots of images of each cannon. This approach did work, but the quality of the final image was affected. It was therefore decided that we would continue to use the Olympus OMD EM1 with a 12 – 40mm pro lens. During the photogrammetry surveys over 4000 photographs were produced, with between 200 – 800 per cannon!

The photogrammetry process, which uses software to stitch the photographs together in 3D, was outsourced so that professional software could be used to create the best images possible. The photogrammetry is an ongoing process so will be updated as each completed model is returned to us. Prior to the outsourcing of the photogrammetry, we were able to use free software to create a range of images using the 2017 data. The images have been uploaded on to the Gun Rocks website, a sample of which are shown below:



Some of the cannon which have been subject to photogrammetry.

2.3 Land based activities

2.3.1 The website

In April 2017 following the “go ahead” from the Heritage Lottery Fund for the Gun Rocks project, the website was begun. The website was created to complement the Gun Rocks information presented on the Tyneside 114 website; but to be solely dedicated to the history and finds on Gun Rocks. The Gun Rocks website was created in WordPress for easy ongoing management.

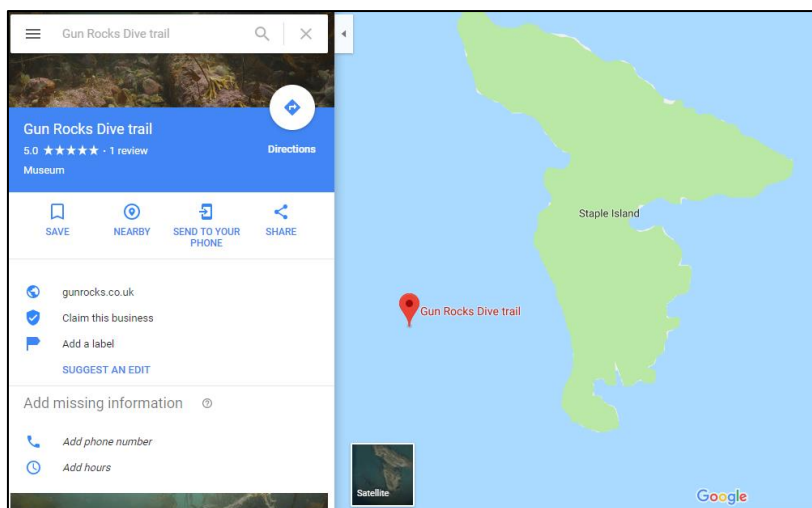
<http://www.gunrocks.co.uk/>

For the structure of the website, the following tabs have been added to group the information together:

- Home – general introduction to the project and links to other pages.
- History – timeline of the project since its inception on 1970s and the current time.
- Media – compendium of articles and films which concern Gun Rocks past and present.
- Dive Trail – logistics, marine life information and down loads, everything you need to dive the site and enjoy the environment. A video of the dive trail has also been included here.
- Reports – downloadable PDF versions of the 1970, 2010, 2013 and 2015 Gun Rocks reports. Recently added is also a report containing the results of ongoing research by Joe Mallon, and his ideas on the identity of the wreck/cannon.
- Imagery – photogrammetry imagery.
- Blog – keep up to date with the goings on both in the water and in the background.
- Gallery – photographs of people and objects, recent and historic.

The website will be hosted for a minimum of five years and will continue to evolve and be updated as new finds are made, or new theories on the origin of the cannon develop. The blog especially will be kept up to date as this is seen as being a good way to advertise our activities and to encourage discussion

In addition to the website, a link has been placed on Google Maps showing where Gun Rocks is and listing it as a museum. If you then click on the link it gives, it takes you to the Gun Rocks website. The aim is that this will encourage traffic to the website, and divers to visit the dive trail. The screen shot below has been taken from Google Maps.



2.3.2 Archive film

During the summer of 2017 Joe Mallon contacted the North East Film Archive. It was decided by Nicola and Joe, that the archive likely had enough film of the 1970s Gun Rocks project to enable a short film clip to be compiled for the website. The film was all in 16 mm format so needed to be digitised. A price was agreed, and the film digitised. On reviewing the film, it was apparent that the archive footage consisted mainly of out-takes from the TV footage, and the Tyneside 114 committee decided that there was not enough of interest in the footage to warrant paying the additional fee for the film to be edited and a licence fee to place the film on line for one year. The majority of the film was found to be divers being interviewed on the boat

(but with no sound); lots of scenic shots of the Farne Islands; only 4 minutes of the film contained underwater footage, most of which was of poor quality.

The search for the original ITV film footage continues, with emails being sent to the BSAC media centre, Tyne and Wear Museums and other possible keepers of such footage.

2.3.3 Collating additional information

The search for the identity of the wreck which deposited the cannon on Gun Rocks has continued during the last year. Joe Mallon has been very involved with sourcing historical maps and talking to other historians about their theories. The results of Joe's investigations have been uploaded on to the Gun Rocks website on the reports page. His theory is that the cannon may have been deposited by ships from a Dutch convoy which was bound, with Merchant Ships, for Scotland. In the early months of 1689 there was a great deal of military shipping movement up and down the North East coast, mostly in convoys controlled by Dutch and English Warships. A renowned cartographer of the time Mr Moll, has drawn a map of the Farne Islands, marking a rock called the Grimstone (in the same location as Gun Rock) and has stated that a Dutch man of war was lost here in 1689.

2.3.4 Dive trail maps

Once the kelp had been cleared from the site, and the map of the cannon had been redrawn/orientated, it was discovered that the seaweeds were growing back during the summer in about 6-8 weeks. The speed with which the kelp regrew over the cannon, surprised all of us! So, it was decided that the dive trail should be installed using ropes leading from a central point out to the various cannon to make them easier to find. The dive trail was installed on the 4th May 2018, but as a project, we made the decision that the dive trail maps should be printed after the installation of the trail, so that we can ensure that the correct configuration of the trail rope is shown on the map prior to printing. As a result, the dive trail maps are currently available in draft format. See Below for the draft map, available also to down load from the website.

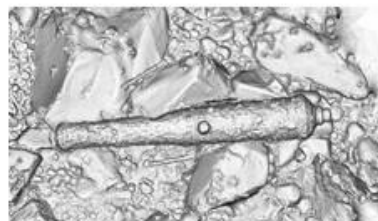
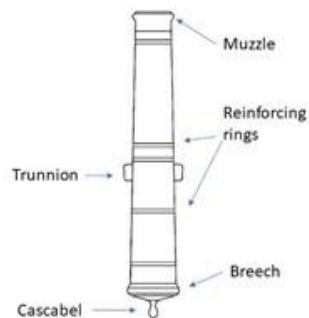
The back side of the dive trail map will contain information about a selection of the cannon. It is shown below, in draft format, pending the completion of a couple of the photogrammetry images and some good weather, so that new images of the cannon can be incorporated. The idea of this information is to give divers a bit more information about the cannon, so that the trail isn't just visual, but also informative too.



Cannon 6009, the dive trail rope clearly visible



Highlights of the Gun Rocks Dive Trail



Photogrammetry model. Crown Copyright, Wessex Archaeology

6002, 6 pounder, 2.3m long
Made in 1600s by British gun-founder John Browne as shown by the double banding either side of the *trunnion* and the pyramid shaped *button* at the back of the gun.

6012, 6 pounder, 2.6m long
This gun in the gully has rope tied around it – evidence of an attempt to lift it from the seabed.



Simon Smith



Nic Faulks and Peta Knott

6005, 8 pounder, 2.6m long
This 1600s gun is a Swedish Finbanker which copied the British double banding either side of the *trunnions* but changed the *cascabel* design to have a pronounced neck before the *button*.

6011, 6 pounder, 2.5m long
The positioning of the *trunnions* higher up on the circumference of the gun show that it is upside down. It is very damaged with a worn *cascabel* and half the *muzzle* blown out.



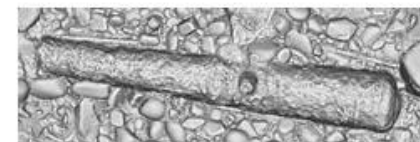
Photogrammetry model. Crown Copyright, Wessex Archaeology



Nic Faulks

6008, 8 pounder 2.3m visible.
As one of three in a pile of guns, this one sticks up at an angle of 45 degrees and is therefore the beginning of the dive trail as an easy reference point.

6009, 8 pounder, 2.4m long
This gun also has a blown out *muzzle* and the *cascabel* is missing from the breech end of the gun which could have occurred before or after the wreck.



Photogrammetry model. Crown Copyright, Wessex Archaeology

2.3.5 Archaeological leaflets

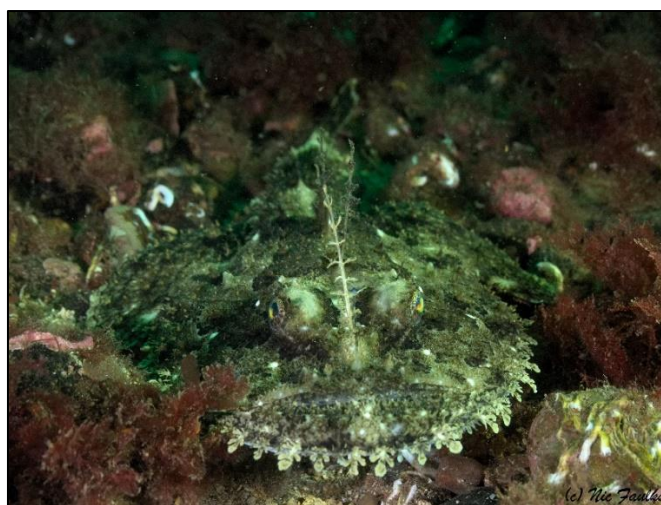
The archaeological leaflets have been published and are available to download from the website. 500 leaflets have also been printed out and distributed to various dive shops, tourist information outlets and other marine related venues. The leaflet has information about the history and layout of the site, but most importantly links back to the website, so that the reader can find out more information if required, and also download the dive trail map (when available).

A copy of the archaeological information leaflet has been placed in Appendix A.

2.3.6 Marine identification leaflets

The marine identification leaflet has also been published and is available to download from the website. A run of 250 leaflets has been made, and distributed to outlets (dive shops, tourist information etc) up at Seahouses, the stepping stone to the Farne Islands. The leaflet has been designed in order provide some basic information about marine life which may be found on Gun Rocks. The leaflet also directs the reader to the Gun Rocks website to find out more information. It also provides information about Seasearch, a citizen science programme which has been running for 30 years, training people to collect marine identification data. Nicola Fauks is a Seasearch tutor; and has been submitting data on the Gun Rocks site over the last 7 years.

A copy of the marine identification leaflet has been placed in Appendix B.



Angler fish on Gun Rocks

2.4 Training

2.4.1 Boat Handling

During the project phase, Gun Rocks is best accessed via a RIB as this provides more flexibility, both in dropping individual buddy pairs to investigate anomalies and in working on the Gun Rocks site to install the dive trail. So far, we have qualified 3 new BSAC boat handlers; and in order to maximise future boat handling capability we have also managed to qualify a

new BSAC boat handling instructor to conduct future training and assist with gaining post qualification experience.

2.4.2 Diver Cox'n

Whilst the boat handling qualification provides basic training in driving a RIB for diving, it is only the starting point and does not indicate full competence to navigate and, crucially, drop off and pick up divers. This requires further practice and experience to be gained under the supervision of an experienced diver cox'n; following which the boat handler can undergo a formal diver cox'n assessment to test their skills and knowledge before qualifying them to operate without supervision. 2 trainees sat the diver cox'n assessment, only one of whom has passed so far; and we have potentially 2 further trainees planning to take the assessment later in the year after a period of gaining experience over the summer. We have also been able to qualify a new BSAC Diver Cox'n Assessor to continue the assessment process into the future.



Tiago practicing for his diver cox'n assessment

2.4.3 VHF Short Range Certificate

This qualification, gained through the RYA, is a mandatory requirement to use a marine VHF radio in anything other than emergency situations. It is a normal safety precaution to contact the Coast Guard whenever leaving harbour for any voyage or to dive, and it was therefore appropriate to increase our qualified radio operators in line with the increase in competent RIB crew to facilitate safe boat diving on Gun Rocks during and beyond the project. Through a course booked through a local RYA provider in April 2018, 3 new radio operators were qualified.

2.4.4 Wreck appreciation award

We had initially planned to undertake Nautical Archaeological Society training, however, on further investigation this proved to be a sub-optimal option for us. Instead we chose to conduct a BSAC Wreck Appreciation course, which provides more flexibility for investigation of further anomalies on and around the Gun Rocks site. We qualified 6 divers to conduct wreck site surveys, including measuring and recording the site; this has been valuable in preparing the maps and dive trail. A new wreck appreciation instructor was also gained through running the course.



Wreck appreciation award in progress



Laying the Gun Rocks dive trail

3 PROJECT LEGACY

3.1 Diving

3.1.1 Dive Trail

Tyneside 114 aim to maintain the dive trail over a minimum of five years. It is hoped that the legacy of the dive trail will continue beyond this, and well into the future, with the kelp clearing and trail checking forming part of the club's early season dive calendar. Over the last year, we have been speaking with William Shiel who is very supportive of the trail, therefore in the future he may be persuaded as a business to part fund maintenance of the trail; especially since his clients often ask to dive the mysterious cannon of Gun Rocks!

Throughout 2018 the intention is to complete the photogrammetry of the cannon on Gun Rocks site 1 and 2. The two new cannon - found in 2017 - will also be subject to photogrammetry.

3.1.2 Anomaly diving

As a club Tyneside 114 will continue to dive the anomalies listed in the WA report. It is only through this type of exploratory diving that we will find new cannon, and possibly something that will unlock the mystery of Gun Rocks. As a club, our RIB is kept in Northumberland, close to the Farne Islands. So, to have a continued aim of diving anomalies as and when we can, is something that club members will enjoy doing. Who doesn't enjoy a new adventure?

3.2 Internet Site

3.2.1 Website and Blog

All of the people who donated to the Gun Rocks Project through Crowdfunder have been added to the website so that they can be emailed when updates are made, or the blog written. The intention is to continue to do this so that individuals know how their money is being spent, and how the project is progressing. For interested parties, especially divers, the website will continue to be updated. This will include the dive trail maps (PDF download) in case the roped trail is ever changed due to conditions or damage.

The hosting of the site is paid annually, so a decision has been made that the website hosting feed will be guaranteed for a minimum of five years. After this date, additional funding may be required, but will be investigated and sourced if possible, during the year preceding (2021).

3.2.2 On-going research

Research will continue on the Gun Rocks site. A number of people are very interested in the project so have said that they will continue to investigate the origins of the cannon. Peta Knott, who used to work for WA will continue her research as she now works for the NAS. Joe Mallon has also said that he will continue to collect historical maps, to confirm his theory on the origin of the cannon.

3.2.3 Historical Recording

The project has continued to pull together a variety of historical and contemporary records which relate to Gun Rocks. These records are now preserved on the website for the future and will continue to be added to as the investigations continue. Those involved in the original 1970 Gun Rocks project are, sadly, rapidly dwindling in number; and it has been hugely important for the whole project to capture and record their knowledge and recollections before they are lost forever.

3.3 Training

3.3.1 RIB driving

We now have an increased in-club ability to conduct future training courses and qualify more divers to drive and cox the RIB in the future. Those newly qualified will increase their experience and become the future leaders of RIB diving within the club. This will benefit further investigation of new wreck sites and contribute to the continuing investigation of Gun Rocks.

3.3.2 Radio operation

Whilst we have been unable to generate an in-club capacity to provide radio training, the ability to properly use a VHF radio is a vital skill for safety at sea: this increased capability will make continuing investigation of Gun Rocks, and other anomalies, safer.

3.3.3 Wreck Appreciation

We have increased ability to teach this skill, and a new-found enthusiasm for diving and investigating wreck sites. This is beneficial not just within the scope of the Gun Rocks project, but also to further the investigation of other sites, including the many sites about which there is currently very little known, beyond a common name, such as 'the wheel wreck' or 'the cider wreck'.

3.4 Diver Participation

As described previously, Gun Rocks is a shallow site: only around 8 metres deep. The Gun Rocks 2 site is only 15-18 metres deep. The sites are therefore accessible to all experience levels. This is what makes the Gun Rocks site such a good site for a dive trail; but also a great site for divers of all levels to get involved in exploration and survey.

During 2017, as a club, twelve club members participated in the research at Gun Rocks, and divers from a further 5 BSAC clubs were also involved in the project. During 2018 with funding and training in place, the aim will be to involve at least 20 club members (50% of our active membership), in the exploration and photogrammetry of Gun Rocks. Members will benefit from gaining a new range of survey skills, diving new sites, boat handling skills and will also enjoy being involved in such an interesting project. I have not listed the names of all to be involved here, but it will be open to all club members, and contacts in local clubs who have expressed a desire to be involved.

Outwith the club environment, local clubs have been involved in trying out and giving feedback on the Gun Rocks dive trail and the maps. Once the maps are finalised, then divers will benefit from an *in-situ* dive trail with interest and freely available information. Laminated copies of the dive maps will be given to the commercial skippers for use on their boats. The maps can also be downloaded from the Gun Rocks website.

3.5 Seahouses local community

The publicity surrounding this project is also likely to benefit the local dive boat operators. Groups often dive a deeper first dive, then the skippers try to find a second dive of interest which is sheltered and shallow. Gun Rocks is this dive, so visitors can, with the aid of leaflets and maps, learn about the site prior to diving it. At least one of the local charter boat skippers is already using the site and trail on a regular basis. The local tourist information is aware of the project and now has a stock of Gun Rocks leaflets. We are also in the process of arranging some public talks for the people of Seahouses and surrounding area.

4 SUMMARY

The Gun Rocks project represents Tyneside 114 branch's ongoing involvement with a cannon site in the Farne Islands, Northumberland. Designed to complement and continue the work originally commenced in 1970, the Gun Rocks Cannon Site project was devised.

This phase of Gun Rocks Cannon Site project started in earnest in April 2017: kelp was cleared from the cannon – during which time two new cannon were found. The site was re-mapped, and the centre of the site was shot from the surface, to enable easy location for other divers. Throughout 2017, local dive operators regularly dropped divers on the site, and we met a number of clubs who visited the site by club RIB having learned of the project through BSAC.

The Marine Management Organisation licence, being granted in September 2017, delayed the installation of the dive trail to May 2018, due to the winter weather, however the delay in installing the dive trail did not stop all work on the site during 2017. Photogrammetry surveys were undertaken, and models created for the web site. Various anomalies (recorded during the 2013 Wessex Archaeology surveys) were also dived and investigated: during which two additional cannon were discovered.

Concurrent with the diving activities, the Gun Rocks website has been created, bringing together 48 years' worth of research materials. The site also has an up to date blog, downloadable materials (maps and leaflets) as well as the photogrammetry models. The website will continue to be hosted for a minimum of five years and will be regularly updated with the group's findings and photogrammetry models. Leaflets on the history and marine life are distributed through the local dive operators and Tourist Information in Seahouses.

Over the period of the project, research in to the origin of the cannon has been on-going. A report of Joe Mallon's findings (a member of the original 1970 project) has been uploaded on to the website. The ITV film footage from the 1970 expedition was also searched for, but sadly only short out takes were found in a local archive; these clips were digitised but provided no useful footage beyond a record of diving equipment in 1970.

Although the funding period for the project has now finished; Tyneside 114 will continue to maintain the dive trail, by clearing kelp, replacing ropes and the marker buoy annually at the start of the diving season. Archive research and examination of the photogrammetry models will be ongoing too, with an ultimate aspiration to one day establish the origin of the cannon and the name of the ship that brought them to Gun Rocks.



The opening day of the dive trail

5 APPENDICES

A – Archaeological Leaflet

Gun Rocks History

This small outcrop of rock, which lies to the west of Staple Island, and within Staple Sound, is covered at high tide. It has been marked on maps since 1778 as Gun Rocks, likely earning its name following a ship wreck event. Archive data provides evidence of a 40 cannon Dutch merchant ship having foundered here, in the late 17th early 18th century. But none of the evidence is conclusive.

For a time, people assumed that the cannon came from one of the Spanish Armada wrecks. Later analysis of the cannon (F mark on the trunnion, and their overall design) dates them to the late 17th early 18th century, produced by the Finsprong foundry in Sweden for the Dutch market.

But the cannon are all single examples, in a variety of sizes and designs, and ships did not carry such a range of mismatched cannon for use in war. More recent research suggests that some of the cannon may in fact be British. So, why would a ship be carrying Swedish and British cannon? It is also possible that Gun Rocks has been the site of more than one wreck.

This project, co-ordinated by Tyneside 114 a local branch of the British Sub Aqua Club, aims to try and answer these questions, through further research and the use of social media, just in case someone has information that may help us.

Gun Rocks

Further Information

If you are interested in finding out more about the Gun Rocks Project, or perhaps even helping with some of the investigation of the site, then please visit the website:

www.gunrocks.co.uk

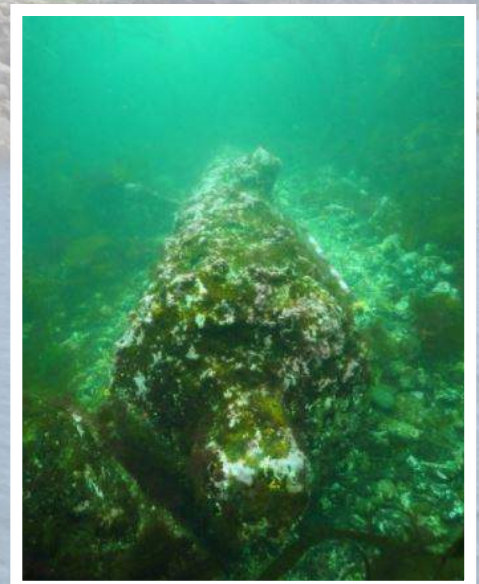
On the website you can find:

- ♦ Blog with project updates
- ♦ Details of the Gun Rocks dive trail
- ♦ Downloadable dive maps
- ♦ Marine identification guides
- ♦ History of Gun Rocks
- ♦ Theories on where the ship(s) came from and how the cannon arrived on Gun Rocks!
- ♦ Downloadable past survey reports
- ♦ A gallery of images old and new

You can also contact us through the website if you have a question or some information relating to Gun Rocks.



Gun Rocks Dive Trail Farne Islands



www.gunrocks.co.uk





Above: Sword hilt found during the 1970s. Dated to between 1500 and 1720, its origins remain unknown. Many other items were also found including cannonballs. Many are still present on the site, but have become naturally concreted in to the seabed. If you dive the site you can still see them.



Above: Grey seals often visit the cannon, alongside divers. When the weather is calm, they haul out and sunbathe on top of Gun Rocks at low tide. On the cannon site there is lots of marine life, including octopus and anemones.

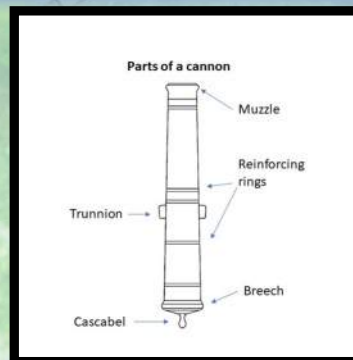
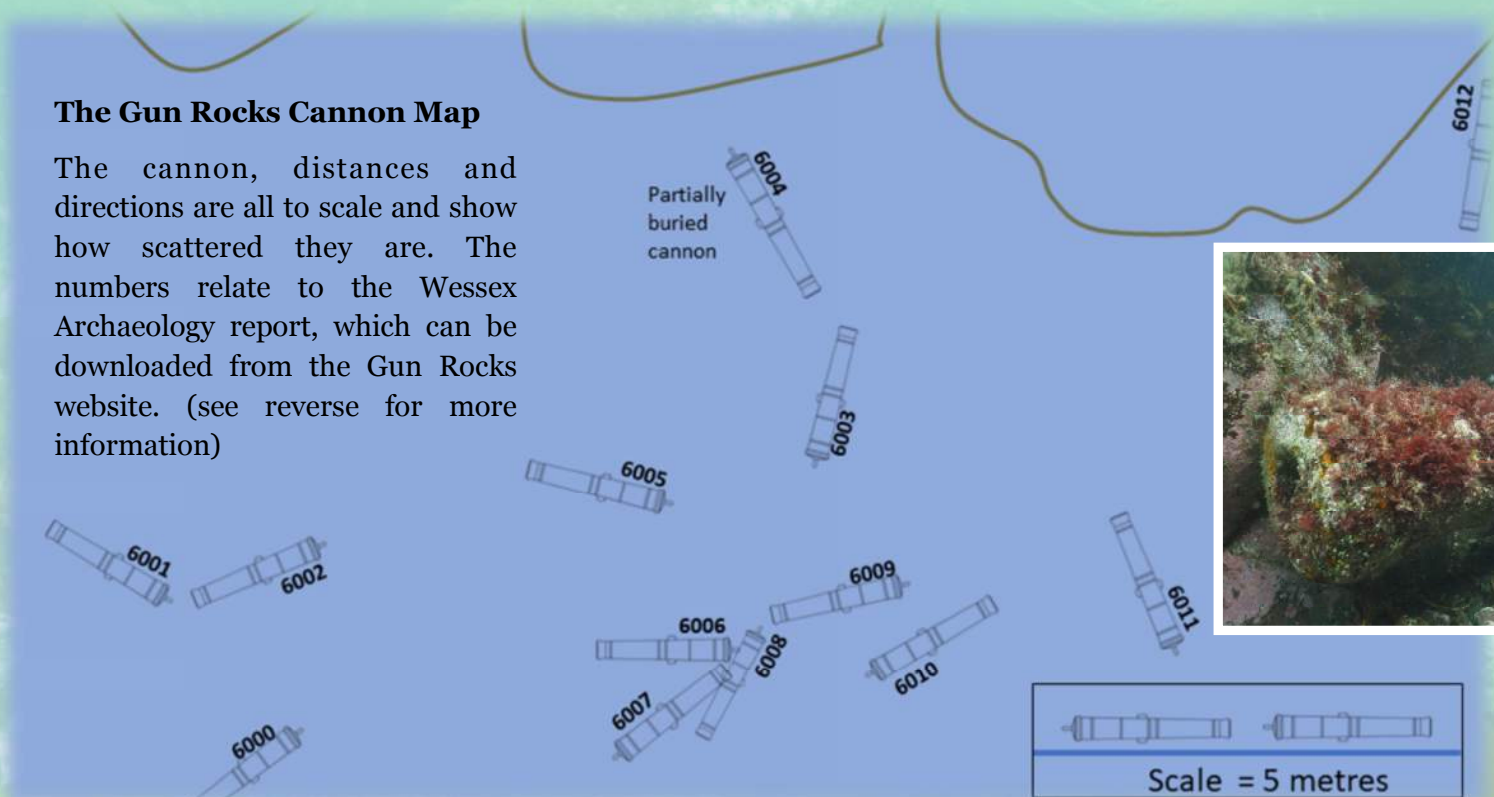
Right: Gun Rocks is uncovered at low tide and is covered at high tide; presenting a hazard to shipping as it sits just below the surface in a channel known as Staple Sound. The tide flows through Staple Sound at up to 4 knots: a vessel in difficulty could easily end up on the rocks. Over the years many ships have been wrecked in this area.



Below: photograph and location of cannon 6012. This cannon lies in a shallow gully, with ropes still attached. Police ordered that it be returned, after an illegal salvage attempt. It is a cast-iron six pounder, so would have been quite heavy to lift in the first place.

The Gun Rocks Cannon Map

The cannon, distances and directions are all to scale and show how scattered they are. The numbers relate to the Wessex Archaeology report, which can be downloaded from the Gun Rocks website. (see reverse for more information)



Left: The start of the dive trail is marked by a pile of three cannon with one sticking up. The cannon all show signs of damage: some is due to time and the action of the sea, but several also show signs of battle damage such as blown out muzzles .

Were they scrap cannon being taken back to the foundry?

B – Marine Life Leaflet

Gun Rocks

Natural History

This small outcrop of rock, which lies to the west of Staple Island, and within Staple Sound, is covered at high tide. It has been marked on maps since 1778 as Gun Rocks, likely earning its name following a ship wreck event. Archive data provides evidence of a 40 cannon Dutch merchant ship having foundered here, in the late 17th early 18th century. But none of the evidence is conclusive.

What we do know is that the cannon have lain here for a very long time, in an area which is swept by strong currents, particularly on northerly winds. As a result the marine life here is abundant. This leaflet only gives a small snapshot of the critters which can be found here. As part of the Gun Rocks Project, we are not only recording and trying to decipher the history of the cannon, but also to record the marine life which occurs here. The results of the marine recording have been collated through Seasearch; a long running citizen science project.

Front cover images are top: a sun star and bottom sea urchins and dead man's fingers growing on a cannon.



Gun Rocks

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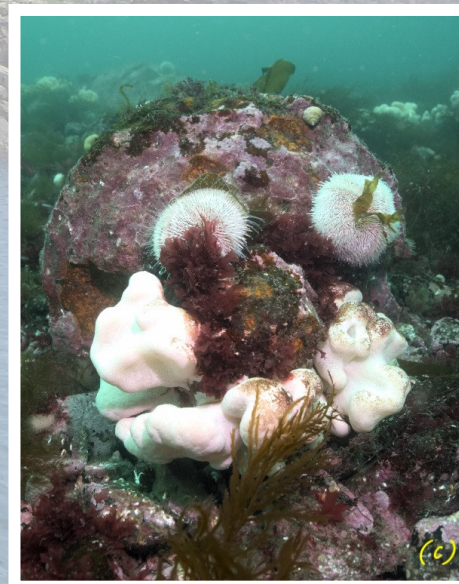
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Gun Rocks

Marine Life

Farne Islands



www.gunrocks.co.uk





Right: Gun Rocks is uncovered at low tide and covered at high tide, presenting a hazard to shipping as it sits in a channel known as Staple Sound. The tide flows through the Sound at up to 4 knots: it is this current which encourages so much life to grow on the rocks, including soft corals called dead men's fingers!



Below: Two Polycera nudibranchs. Nudibranchs are a type of sea slug, and come in a range of colours including pink, yellow, orange and purple. In the photograph they are eating a bryzoan, or sea moss, which is growing on kelp. Bryzoans are also animals not plants.

Above: There are plenty of lobsters on the cannon site, as well as lots of relatives of the lobster including porcelain crabs, shrimps and edible crabs!



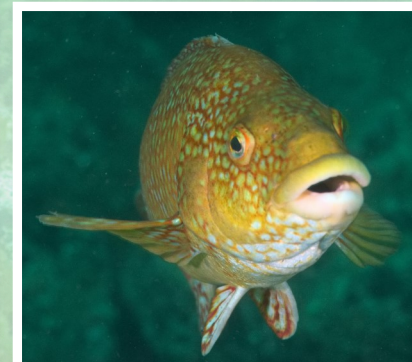
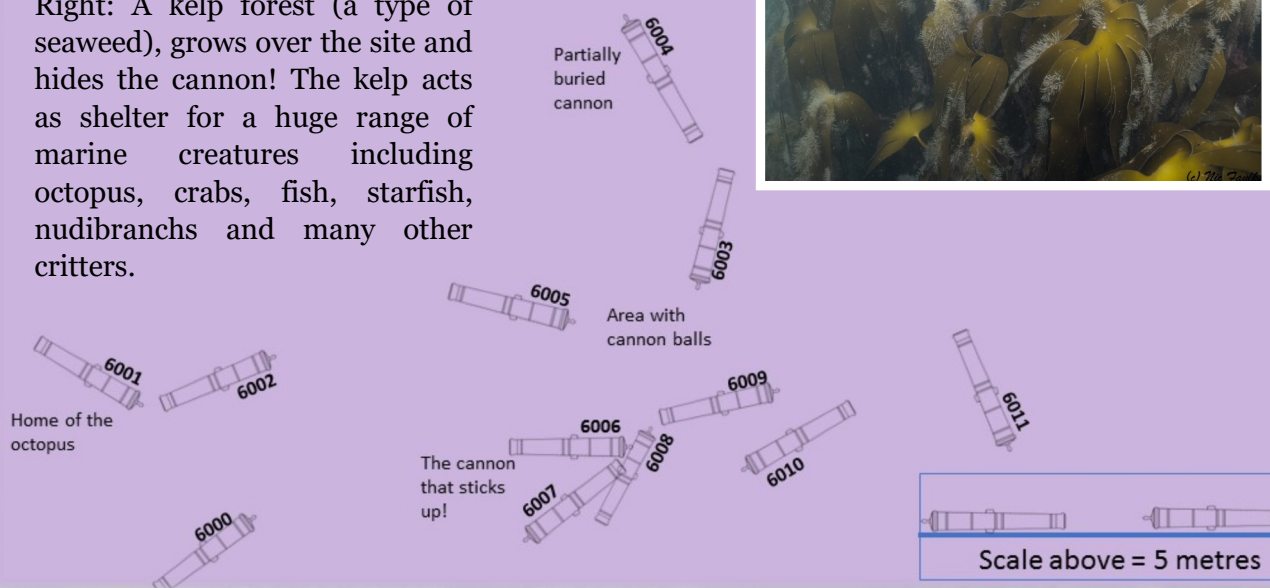
Above: Grey seals often visit the cannon alongside divers. When the weather is calm, they haul out and sunbathe on top of Gun Rocks at low tide.

The Gun Rocks Cannon Map

The cannon lie scattered on a shallow part of the seabed.

Right: A kelp forest (a type of seaweed), grows over the site and hides the cannon! The kelp acts as shelter for a huge range of marine creatures including octopus, crabs, fish, starfish, nudibranchs and many other critters.

Map of Gun Rocks



Left: Two elegant anemones; although they look like flowers, they are in fact animals. They often come in a range of colours.

Right: The really pretty ones are called dahlia anemones.



Above: A ballan wrasse; always inquisitive, friendly to divers, and so colourful.

Left: An octopus; one of the cannon often has an octopus underneath.

