



Survey of pinnacle wreckage, Scapa Flow, Orkney.

Draft Report

Submitted to: Historic Environment Scotland

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1. INTRODUCTION

In April 2017, the wreckage of a small vessel was found in Scapa Flow, Orkney, just north of the island of Cava. The main feature of the site was a diesel engine and propeller shaft with other smaller pieces of debris scattered nearby, comprising a number of brass portholes, non-ferrous pipes and pipe fittings and the remains of a helm. A fuel tank was also present. The engine type and design, as well as its location, suggested that these were the remains of a German pinnacle that belonged to a vessel of the German High Seas Fleet, scuttled in Scapa Flow in 1919. Recreational divers operating from the local dive vessel MV Valkyrie surveyed the site, which lies at a depth of approximately 32m, and were able to produce a detailed 3D photogram of the site (see Figure 1).

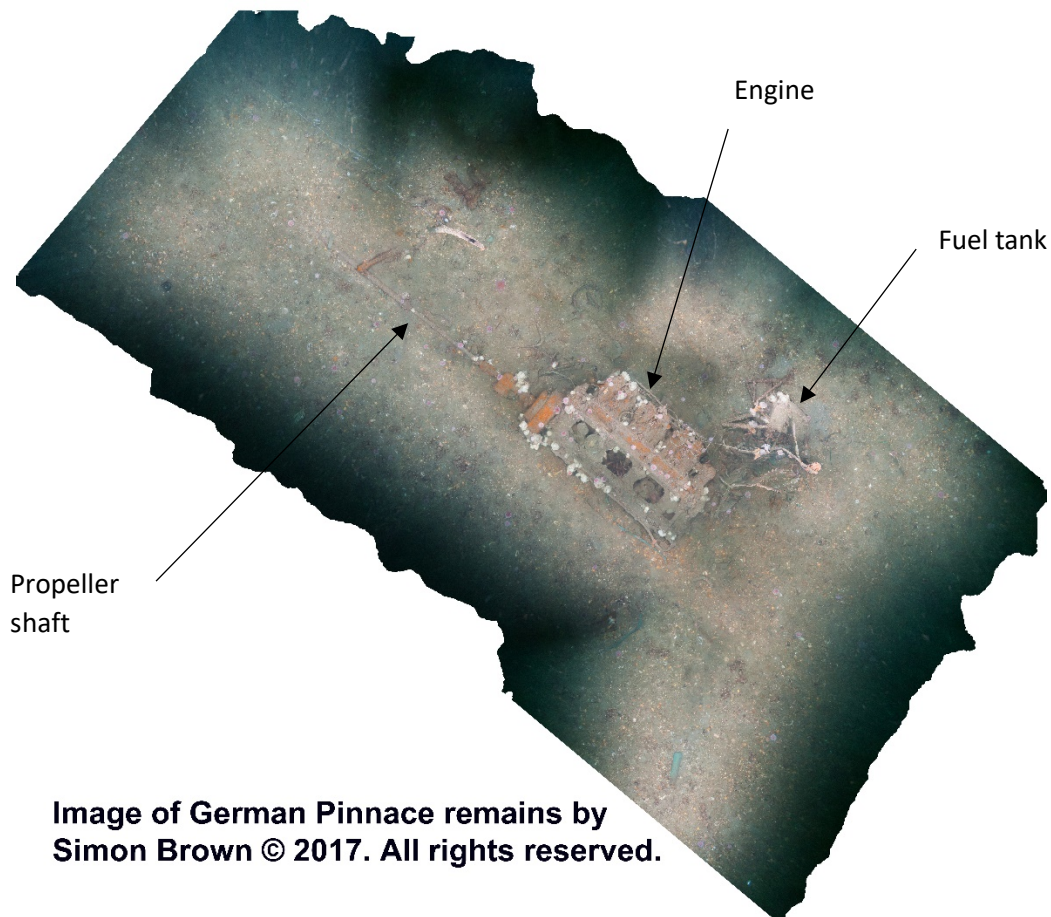


Figure 1: Still image taken from 3D photogram of the wreck site constructed after the site was dived in April 2017 (image courtesy of Simon Brown).

A year later in April 2018, the wreck was visited by a group of recreational divers who reported that artefacts that had been present in 2017 were missing from the site. This was communicated to Historic Environment Scotland (HES), who commissioned SULA Diving to undertake a detailed examination of the site in order to establish if the site had been disturbed and artefacts removed.

2. METHODS

The investigation of the site was carried out by a dive team using SCUBA and working under the Scientific & Archaeological Approved Code of Practice (ACoP). The dive team operated from the dive support vessel MV Challenger. A risk assessment was carried out (SULA ref 18-364) and a permit to dive was granted from Orkney Islands Council Department of Marine Services. Photos and video footage of the survey are provided in electronic format, along with this report.

3. SURVEY FINDINGS

The survey of the pinnacle wreckage was carried out on 31st May 2018. The site location was confirmed as 58° 53.770'N, 003° 10.601'W. The wreck site was approximately 12m long and 4m wide and lay on a level seabed composed primarily of a coarse sand/gravel substrate. As previously known, the main feature of the site was a diesel engine and propeller shaft, with a fuel tank located nearby. The engine was lying on what would have been its port side. Associated engine pipework and fittings (ferrous and non-ferrous) were also scattered around the site. Very little timber was observed on the site although a section of the ships wheel was present along with its brass ring. Video footage was used to make a 3D photogram of the entire site to provide a comparison with the earlier photogram made in 2017 (Figure 2). On the occasion of this survey however, a rope from a line of buckie pots was suspended in mid-water just above the engine and running right through the site. This detracted somewhat from the quality of the resulting photogram.

In comparison with the original survey results, a number of artefacts appeared to have been removed from the site. These included:

- 6 brass portholes
- A brass filler cap
- A shell casing.

It was also evident that specific items had moved position within the site, including the brass ring from the ships wheel and some of the non-ferrous engine pipework. The removal/disturbance of portholes, and the possible disturbance to engine fittings is demonstrated in the pictures provided in Appendix 1. No images of the shell casing are provided here but inspection of the video footage suggested it was not in the location where it was observed in April 2017.

4. CONCLUSIONS

The survey provided current information on the condition of the wrecksite. As a detailed survey of the site was carried out April 2017 following its discovery, it was possible to determine with certainty that the site had been disturbed in the intervening months. None of the 6 portholes present in April 2017 were seen during the May 2018 survey. While the site may clearly experience disturbance from fishing gear, it is most likely that the portholes have been removed from the site by divers. A number of other artefacts including various non-ferrous items had either moved relative to their 2017 position or been removed from the site.

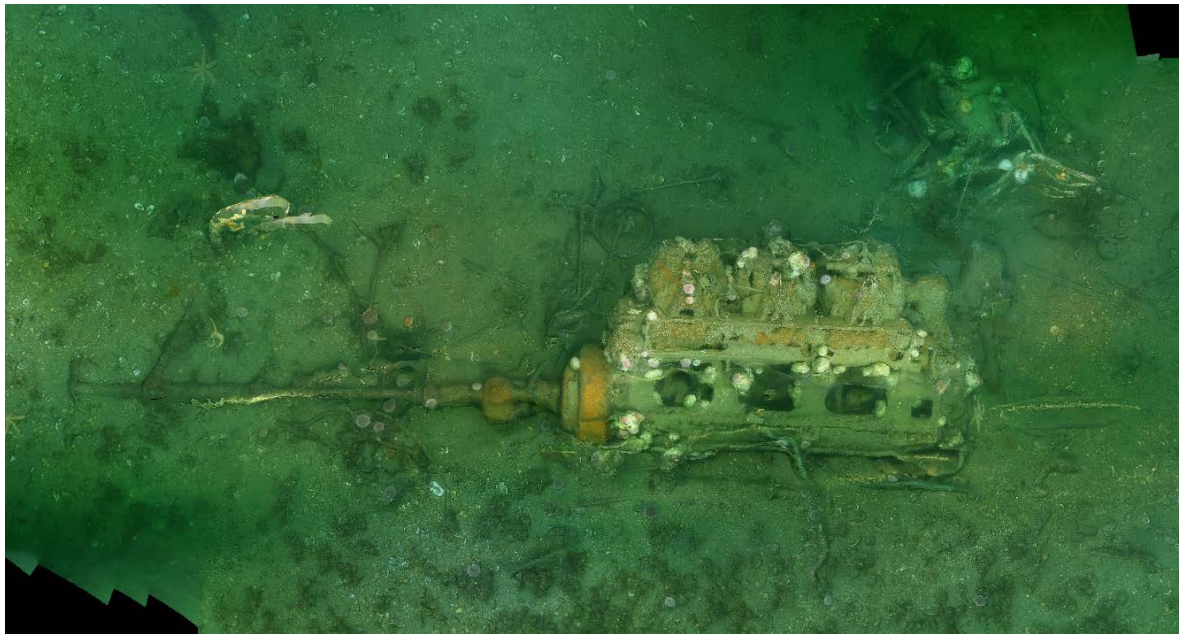


Figure 2: Original photo mosaic constructed from 2017 survey (top, courtesy of Simon Brown) compared to photomosaic constructed following the May 2018 survey (bottom). The fuel tank and associated pipework is located in the top right of each image.

Appendix 1: Comparison of images of the wreck site taken in April 2017 and May 2018.

April 2017



May 2018



Porthole (1) by the propeller shaft (circled at top). The same section of shaft is shown in the lower image with a hole in the sediment where the porthole had been located.

April 2017



May 2018



Portholes (2&3) lying on/in the engine casing (circled at top). The same section of engine is shown in the lower picture.

April 2017



May 2018

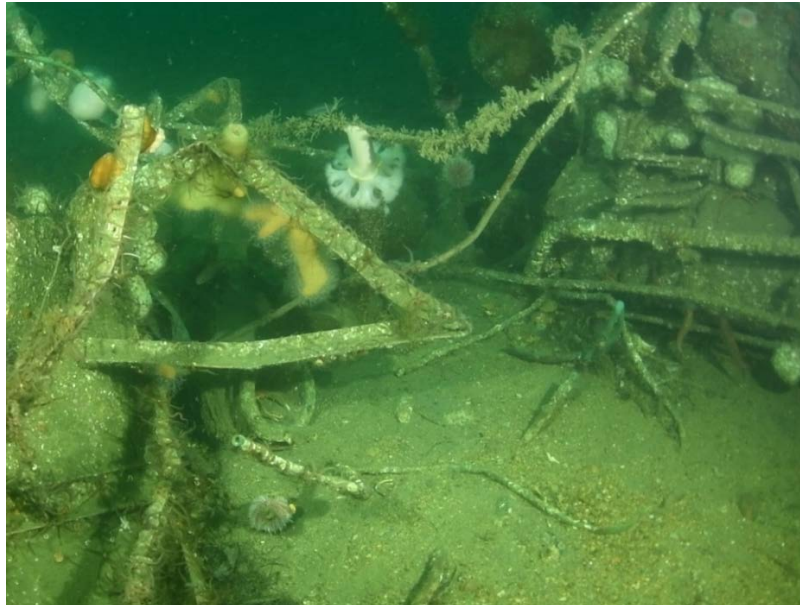


Porthole (4) lying on the seabed just forward of the engine (circled at top). The lower picture shows the same location and a disturbed area of sediment.

April 2017



May 2018



Porthole (5) lying on the seabed just beside the engine (circled at top).
Lower picture shows same area in bottom right of image.

April 2017



May 2018

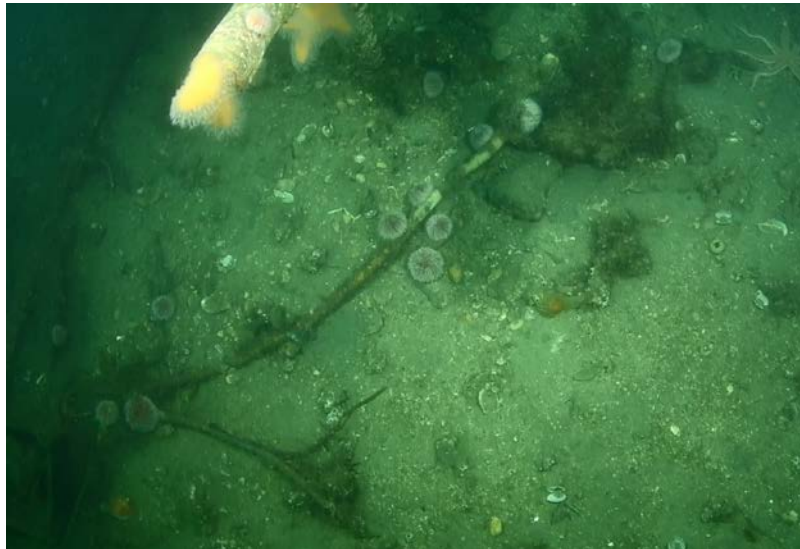


Porthole (6) lying off the aft end of the engine (circled at top) and brass ring from the ships wheel nearby. Lower image shows the same area, with the porthole absent. The brass ring and some pipework are now lying where the porthole was located.

April 2017



May 2018



A brass fitting, possibly a filler cap (circled, at top) lying on the seabed next to curved section of metal sticking out of the seabed. The lower image shows the same area of seabed minus the artefact.

May 2018



A hole and evidence of brass polishing (circled) indicates that something may have been removed from this area to the aft end of the engine.