'DAMNED UN-ENGLISH MACHINES'

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Submarines, those dangerous, 'underhand, unfair and damned un-English machines', to quote Admiral Sir Arthur Wilson, Controller of the Royal Navy in 1901, are some of the most iconic shipwrecks of the First World War. Used by both Britain and Germany, they had a profound impact on the war. Many were sunk and their wrecks are an important part of Britain's maritime heritage.



Examples include the wreck of the *UB-109*, one of the last U-boats to be lost when a mine blew it in two whilst it was trying to sneak past the anti-submarine barrage between Folkestone and the French coast. The commander Kurt Ramien and two of his crew were trapped in an air pocket in the conning tower of the sunken submarine, with more than 20m of water above them. Whilst all three miraculously

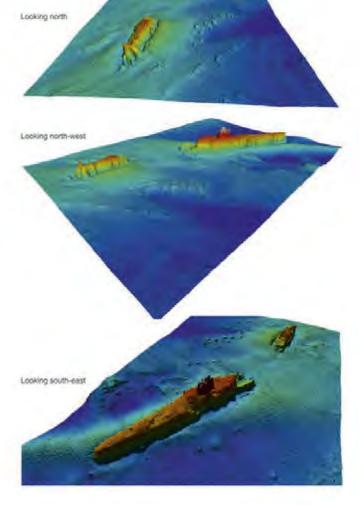
managed to escape to safety and captivity, when the captain opened the upper hatch, the escaping air blew all three up into the opening at the same time, causing them to become stuck. Their British interrogator is reported to have subsequently drily noted in his account that all three had then 'competed with each other' for the honour of being first to leave the submarine.

Graham Scott
preparing to dive.
Credit: Wessex
Archaeology

To mark the centenary commemorations of the worldwide 1914–18 conflict, Historic England undertook the multi-year *First World War: Submarine Wrecks* project (https://historicengland.org.uk/research/current/discover-and-

understand/military/first-world-war-home-front/sea/submarine-wrecks/). A strategic desk-based assessment was first commissioned to assess the potential significance of submarine wrecks of the conflict. This identified a total of 47 submarine wrecks lost in that part of UK Territorial Waters that lies off the English coast, mostly the famous German U-boats. Of those, eleven were selected as being of special interest because of their rarity and identity. These were subsequently investigated by teams of geophysicists and archaeologists, with a number subsequently being given protection.

Multibeam swath
bathymetry images of the
wreck of UB-109 on the
seabed off Folkestone.
Sound pulses bounced off
the seabed have been
used to create a depth map
which shows the two halves
of the submarine. The
different colours represent
different depths. Credit:
Wessex Archaeology &
Historic England



hard struggle' and when he reached the surface, he was astounded to find himself amongst a group of five other men who had also escaped from the submarine. The hatch, used subsequently by Royal Navy divers to enter the submarine to search for code books and secret equipment, remains open today.

The lessons learned from that project have since been captured in a document called Approaches to Submarine Wreck Investigations. This aims to help professionals and avocationals carrying out investigations of a First World War submarine wreck to better understand what is likely to be important about that wreck, what from an archaeological perspective should be recorded, and how that can be achieved. It also provides recommendations about assessing condition and risk, as well as importance. The recommendations have been drawn from project experience, as well as from other studies of submarines that were lost both before and shortly after the war. It is

not intended as formal guidance, but rather provides examples for consideration.

Approaches to Submarine Wreck Investigations and an appendix of examples can be downloaded as free pdfs from the Wessex Archaeology website at

https://www.wessexarch.co.uk/sites/defaul t/files/field_file/8052_227560_Approache stosubmarinewreckinvestigations_GS_20 221218.pdf

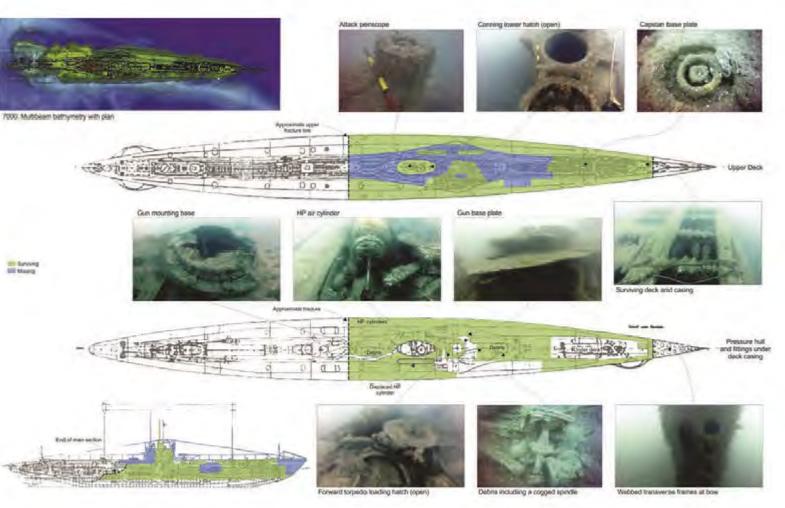
https://www.wessexarch.co.uk/sites/defaul t/files/field_file/8052_227560_Approache stosubmarinewreckinvestigations_Appendix_GS_20221219.pdf

The archaeological report on the investigation and history of the UB-109 wreck can be downloaded from the Historic England website at https://historicengland.org.uk/research/results/reports/123-2015 The investigation of the wreck was assisted by volunteer divers from the Canterbury and Folkestone branches of the British Sub-Aqua Club.



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Graham Scott is Wessex Archaeology's Senior Maritime Technical Specialist and Subsea Superintendent and has been a full-time marine archaeologist for over 20 years. A veteran director of dozens of historic shipwreck and aircraft crash site investigations for both domestic and international clients, Graham had a leading role in much of the fieldwork carried out for Historic England during their First World War: Submarine Wrecks project.



Diver photographs of the wreck of the UB-109, with schematics showing how much of the wreck has survived. The open conning tower hatch can be seen second row from the top. Credit: Wessex Archaeology & Historic England