

Case Name: Unidentified wreck: GAD 23

Case Number: 1429956

Background

Site GAD 23 (also known as the 'Bowsprit wreck') is an unidentified wreck located on the Goodwin Sands off Kent. The wreck was initially assessed as part of the Early Ships and Boats: prehistory to 1840 Project. Subsequent assessment has shown the wreck to post-date 1840, but of sufficient significance to warrant assessment for designation in its own right.

Asset(s) under Assessment

Facts about the asset(s) can be found in the Annex(es) to this report.

Annex	List Entry Number	Name	Heritage Category	HE Recommendation
1	1430177	Unidentified wreck: GAD 23	Scheduling	Add to Register

Visits

None: Data from other sources.

Context

The wreck lies within an undesignated area of seabed in the Small Downs, west of the Goodwin Sands off Sandwich, east Kent. Environmental decay appears to be the most dominant form of threat to the wreck and, when exposed, wooden remains remain vulnerable to mechanical and biological degradation.

The site was assessed in 2015, but not progressed to DCMS. The site has been reassessed in 2020, and a second consultation undertaken to ensure the draft List entry remains accurate.

Assessment

CONSULTATION

Thirteen organisations and individuals were consulted on the factual details of the case as part of the consultation process: The local authority, Historic Environment Record, Navigation Directorate, Marine Management Organisation, United Kingdom Hydrographic Office, Nautical Archaeological Society, Kent and Essex Inshore Fisheries, Professional Boatmans Association, British Sub-Aqua Club, Crown Estate, Natural England, Dover Harbour Board, and Receiver of Wreck were invited to comment (the owner is unknown).

The HER replied to our consultation with the HER report but had nothing further to add. The Receiver of Wreck acknowledged our consultation as did the Crown Estate as owner of the seabed but neither made any comments on the proposed designation. No other responses were received in 2015.

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The British Sub-Aqua Club and the Joint Nautical Archaeology Policy Committee replied to support the designation of the wreck. Crown Estate and internal consultees responded to ensure that Dover Harbour Board were consulted. No other responses beyond acknowledgements were received.

DISCUSSION

The 1979 Ancient Monuments and Archaeological Areas Act states that monuments are scheduled by reason of their archaeological, historic, architectural, artistic or traditional national importance. The Department of Culture Media and Sport's policy statement entitled 'Scheduled Monuments and Nationally Important but Non-Scheduled Monuments' (October 2013) sets out current Government policy on the identification, protection, conservation and investigation of nationally important ancient monuments. The statement includes and defines non-statutory criteria which should be considered when sites are being assessed for scheduling. These include: period; rarity; survival/condition; potential and group value.

Wrecks or wreck sites may be considered by the Secretary of State to merit designation if they contribute or appear likely to contribute significantly to the understanding of the past. The Historic England Introduction to Heritage Assets: Ships and Boats 1840 to 1950 (2012) provides an overview of later ships and boats while the Designation Selection Guide: Ships and Boats: Prehistory to Present (2012, update in progress) provides further guidance on our designation approach. The Selection Guide also sets out the particular considerations used by the Secretary of State when determining whether historic wreck sites are suitable candidates for statutory designation; the key considerations are period, rarity, documentation, group value, survival and potential. Only the most relevant criteria will be applicable to an individual site.

Before its appearance and initial survey in 2005 from within mobile sandbanks inshore of the Goodwin Sands, this wooden wreck was unrecorded suggesting that it has remained buried within the Small Downs at least within living memory and probably considerably longer. Therefore, given its depositional context, it is extremely well preserved and a near-complete hull survives. The wreck rests on its keel and divers reported the survival of a reasonably intact assemblage with a 4m depth of intact structure. A sand bank to the north of the site covers much of the starboard side of the ship with potential for further survival. Iron objects such as the pump and windlass survive. However, the site has experienced prolonged periods of exposure since its initial geophysical survey. Nevertheless, preservation of what is a substantial section of the lower hull, comprising not only well-preserved hull structure but a reasonably intact assemblage of the ship's fixtures and fittings, cargo and personal possessions of the crew, and cargo remains are excellent.

A cargo of coal present within the hull is potentially preserving the remains of the hold and lower hull and identifies GAD 23 as a merchant sailing vessel associated with the coal trade. Britain was the world's leading producer and exporter of coal throughout the C18 and C19, with 118,000,000 tons exported (17% of the 697,000,000 tons produced) between 1853 and 1902. As such, coal was one of Britain's biggest exports throughout the C19 and early C20. In addition to the export trade, over half of the domestic trade was transported by sea. To date, over 5000 vessels of all wrecks recorded in English waters were involved in the coal trade (representing one eighth of all recorded wrecks). Only 26 wrecks in English waters have been identified as sail powered colliers, and so the wreck known as GAD 23 is a rare representative of a formerly ubiquitous trade. One other collier is designated, under the Protection of Wrecks Act (1973), at Seaton Carew (National Heritage List for England 1000077). The two wrecks are of comparable date and construction, with the wreck known as GAD 23 being far better preserved.

As an unidentified wreck, there is little historical documentation about the ship itself. Several possible candidates have been identified from the tonnage, location and cargo, including the Archimedes, sunk in 1876, the Zia Catherina, sunk in 1878 or possibly the Superior, sunk in 1868 (although the Superior is listed at 689 tons, so may be too large). Interestingly, all three were sunk in collisions, which may explain the damage to the starboard side of the wreck. Without more direct evidence from the wreck itself, it is impossible to confirm the identity of the vessel. The wreck was discovered relatively recently, and has been regularly surveyed and recorded since its discovery. Hence there is considerable recent documentation on the nature of the site and changes to the site through time.

The wreck survives in excellent condition for a C19 wooden cargo vessel. The hull is intact, with fixtures such as the windlass, pump and structural members still in situ, or close to in situ. As such, the surviving vessel is substantially more complete than other mid-C19 wooden cargo ships, such as the Seaton Carew wreck and the Thorness Bay wreck (NHLE 1402103). As a (relatively) intact vessel it has considerable archaeological potential to inform not only about the identity of the vessel and its mechanism of loss, but also on the nature of the British C19 mercantile fleet. It also has considerable potential to inform on the mechanisms of preservation and decay of wooden shipwrecks.

The wreck known as GAD 23 holds group value with other designated wrecks lost on the Goodwin Sands, including the Stirling Castle (NHLE 1000056), the Restoration (NHLE 1000057) and the Northumberland (NHLE 1000058). It also holds group value with the Seaton Carew wreck (NHLE 1000077) and the Thorness Bay wreck (NHLE 1402103).

As the bowsprit and rudder of the wreck have detached and lie to one side, and material has the potential to be moved from the wreck by water and sand movement, we recommend that a buffer of 50m diameter around the wreck be included in the scheduled area.

CONCLUSION

After examining all the records and other relevant information and having carefully considered the national importance of the site, the criteria for designation are fulfilled. It is therefore recommended that the wreck known as GAD 23 be added to the Schedule.

REASONS FOR DESIGNATION DECISION:

The wreck known as GAD 23 is recommended for scheduling for the following principal reasons:

- * **Period:** Surviving wrecked vessels of this particular type in English waters are extremely rare and number fewer than fifty;
- * **Survival:** Despite the effects of environmental decay, a significant portion of the hull survives and retains a number of key characteristic features;
- * **Potential:** GAD 23 has the potential to enhance our knowledge and understanding of merchant seafaring during this period through examination of hull constructional details, fixtures and fittings and artefact assemblages;
- * **Documentation:** The importance of this vessel is considerably enhanced by the information obtained from geophysical and archaeological survey;
- * **Historic interest:** The collier was a once prolific and highly significant part of the expansion and development of England's domestic and overseas mercantile trade.

Countersigning comments:

The wreck has a high level of archaeological potential to help increase our understanding of a key stage in the process and story of the Industrialisation of Britain and the world. While such vessels were a common site, well preserved examples either surviving afloat or as well preserved wrecks are surprisingly rare. This potential is best protected and managed under the 1979 AMAA Act, now that this option is available.

Paul Jeffery
26th October 2020.

Annex 1**List Entry****List Entry Summary**

This monument is scheduled under the Ancient Monuments and Archaeological Areas Act 1979 as amended as it appears to the Secretary of State to be of national importance.

Name: Unidentified wreck: GAD 23

List Entry Number: 1430177

Location

The site of GAD 23 lies approximately 8.1km south-east of Ramsgate in between the Kellet Gut and the Gull Stream regions of the north-west Goodwin Sands. The site position has been taken from data gathered during sidescan sonar surveys and confirmed by diver tracking. The site position in the apparent centre of the site in the middle of the main wreckage was plotted as a point at Lat. 51° 16.113' N Long. 001° 29.583' E and converted to 51.269722 1.499444. Protected Area: 50m within 51.269722, 1.499444.

The monument may lie within the boundary of more than one authority.

There is no County, District, Parish information for this application/case.

National Park: Not applicable to this List entry.

Grade: Not Applicable to this List Entry

Date first scheduled:

Date of most recent amendment:

Legacy System Information

This section only relates to older records, created before the introduction of the National Heritage List for England in 2011.

Legacy System: Not applicable to this List entry.

Legacy Number: Not applicable to this List entry.

Asset Groupings

This List entry does not comprise part of an Asset Grouping. Asset Groupings are not part of the official record but are added later for information.

List Entry Description**Summary of Monument**

The wreck known as GAD 23 comprises the remains of a mid- to late-C19 wooden sailing ship of about 400 tons, carrying a cargo of coal.

Reasons for Designation

The wreck known as GAD 23 is scheduled for the following principal reasons:

- * **Period:** Surviving wrecked vessels of this particular type in English waters are extremely rare and number fewer than fifty;
- * **Survival:** Despite the effects of environmental decay, a significant portion of the hull survives and retains a number of key characteristic features;
- * **Potential:** GAD 23 has the potential to enhance our knowledge and understanding of merchant seafaring during this period through examination of hull constructional details, fixtures and fittings and artefact assemblages;
- * **Documentation:** The importance of this vessel is considerably enhanced by the information obtained from geophysical and archaeological survey;
- * **Historic interest:** The collier was a once prolific and highly significant part of the expansion and development of England's domestic and overseas mercantile trade.

History

The wreck known as GAD 23 comprises the remains of a mid- to late-C19 wooden sailing ship carrying a cargo of coal. In the C19 and early C20, Britain was the world's largest producer of coal, with 75 million tons extracted in 1850, rising to over 200 million tons in 1900. Much of that was mined in the north-east of England, with increasing coal production in South Wales from 1850. Coal was used for domestic and industrial purposes, with a large proportion used in the transport industries, and was primarily moved by sea. C19 colliers were typically wooden brigs or their variants, snows and brigantines, averaging between 250 and 400 tons, the majority of which were engaged in shipping coal from the north-east of England to London and beyond. Collier brigs were a common type of coastal vessel, with over one-eighth of the wrecks recorded in English waters being involved in this trade. Wooden brigs were gradually replaced by iron and steel steam ships throughout the second half of the C19, while other, larger sailing vessels such as the schooner and barque, also became more common in the coal trade. The last collier brig, the Remembrance, sank in a gale off Aldeburgh in 1904.

The Goodwin Sands comprise two principal sandbanks located 10km off the east coast of Kent, forming a historically notorious hazard to shipping. Over 800 shipwrecks have been recorded on the Goodwin Sands, 46 of which were recorded as carrying coal between 1833 and 1899. GAD 23 remains unidentified, but its location in the Goodwin Sands suggests a collier bound from Newcastle to either the south coast of England or a port on the west coast of the European mainland.

The wreck was first discovered during a multibeam sonar survey of the sea bed around the wreck of the Stirling Castle in April 2005, as part of the Rapid Archaeological Site Survey and Evaluation (RASSE) project. As the bowsprit of the vessel was still in situ, the wreck was provisionally named the Bowsprit Wreck. The wreck was resurveyed in September 2005, by which time the bowsprit was no longer in position. The site was surveyed by the RASSE project again in 2006, and by Wessex Archaeology in 2008, 2009 and 2011. The 2011 survey was accompanied by a tracked diver survey, which looked at the structure of the ship more closely. More recently, GAD 23 was surveyed in 2017 and 2018 by Pascoe Archaeology, MSDS Marine and Swathe Services on behalf of Historic England. The repeated surveys show some degradation to the structure of the wreck.

Details

PRINCIPAL ELEMENTS: The site of GAD 23 comprises the wreck of a mid- to late-C19 wooden sailing ship operating in the coal trade. The site position in the apparent centre of the site in the middle of the main wreckage was plotted as a point at Lat. 51° 16.113' N Long. 001° 29.583' E and converted to 51.269722 1.499444.

DESCRIPTION: The wreck of GAD 23 comprises an intact wooden vessel measuring approximately 40m by 10m lying at a depth of 16m, but a deep scour on the west end extends to 19.5m. The wreck lies east – west, with the bow pointing west and is canted over on its starboard side by about 50 degrees.

The ship's bow is visible in the scour to the west and the sides of the hull are exposed for most of the length of the vessel. In 2012, exposed planking to a height of 4m was visible at the bow, although there has subsequently been some collapse and unsupported structures have moved to starboard. However, several deck beams and a 5m stretch of deck survive in situ. The structure is less clear towards the stern of the vessel, and a breach in the port side has allowed some of the cargo of coal to spill onto the sea bed. A long,

heavy timber, possibly the transom, is visible at the stern of the vessel. The rudder was recorded by divers on the sea bed adjacent in 2012.

The ship is of carvel construction. The outer planks are 0.22m wide and 0.08m thick, and are fastened with copper or copper alloy fastenings. Ferrous fastenings and treenails were also seen. The vessel was not sheathed. Deck beams are supported by iron knees and wooden stanchions.

A large iron pump-brake windlass sits to the port side of the bow. This was recorded as in situ on the wreck in 2012, but has shifted to the port side of the vessel. Remains of the stern post were recorded in 2012. Forward of the stern, a number of ferrous reinforcements, including knees and riders were recorded, together with the ship's pump and its flywheels. High resolution data from 2017 and 2018 also show an anchor resting on the surviving deck beams. 2017 and 2018 data also show what appears to be the bowsprit of the ship immediately off the port bow.

Selected Sources

Books and journals

Cant, S, England's Shipwreck Heritage: From Logboats to U-Boats, (2013), 175-182

Hill, A, 'Coal: A Chronology for Britain' in British Mining, Vol 94, (2012), 59-247

Websites

Historical data on the coal trade from 1850, available from the Office of National Statistics, accessed 22 September 2020 from <https://www.gov.uk/government/statistical-data-sets/historical-coal-data-coal-production-availability-and-consumption>

Pascoe, D 'Multi-Beam Surveys of the Designated Wrecks on the Goodwin Sands and the Downs 2017' (2017) Historic England Research Report Series No 84-2017, accessed 10 August 2017 from <https://research.historicengland.org.uk/Report.aspx?i=15958&ru=%2fResults.aspx%3fp%3d1%26n%3d10%26rn%3d84%26ry%3d2017%26ns%3d1>

Pascoe, D 'Multi-Beam Surveys of the Designated Wrecks on the Goodwin Sands and the Downs 2018' (2020) Historic England Research report Series No 243/2020, accessed 10 August 2020 from <https://research.historicengland.org.uk/Report.aspx?i=16779&ru=%2fResults.aspx%3fp%3d1%26n%3d10%26t%3dMulti-beam%2520surveys%2520of%2520the%2520designated%2520wrecks%2520on%2520the%2520Goodwin%2520Sands%2520and%2520the%2520Downs%26ns%3d1>

Other

Bates, R, Dean, M, Lawrence, M, Robertson, P, Tempera, F and Laird, S 'Innovative approaches to Rapid Archaeological Site Surveying and Evaluation (RASSE)' Unpublished University of St Andrews Report 3837

Historic England National Record of the Historic Environment (NRHE) 881190

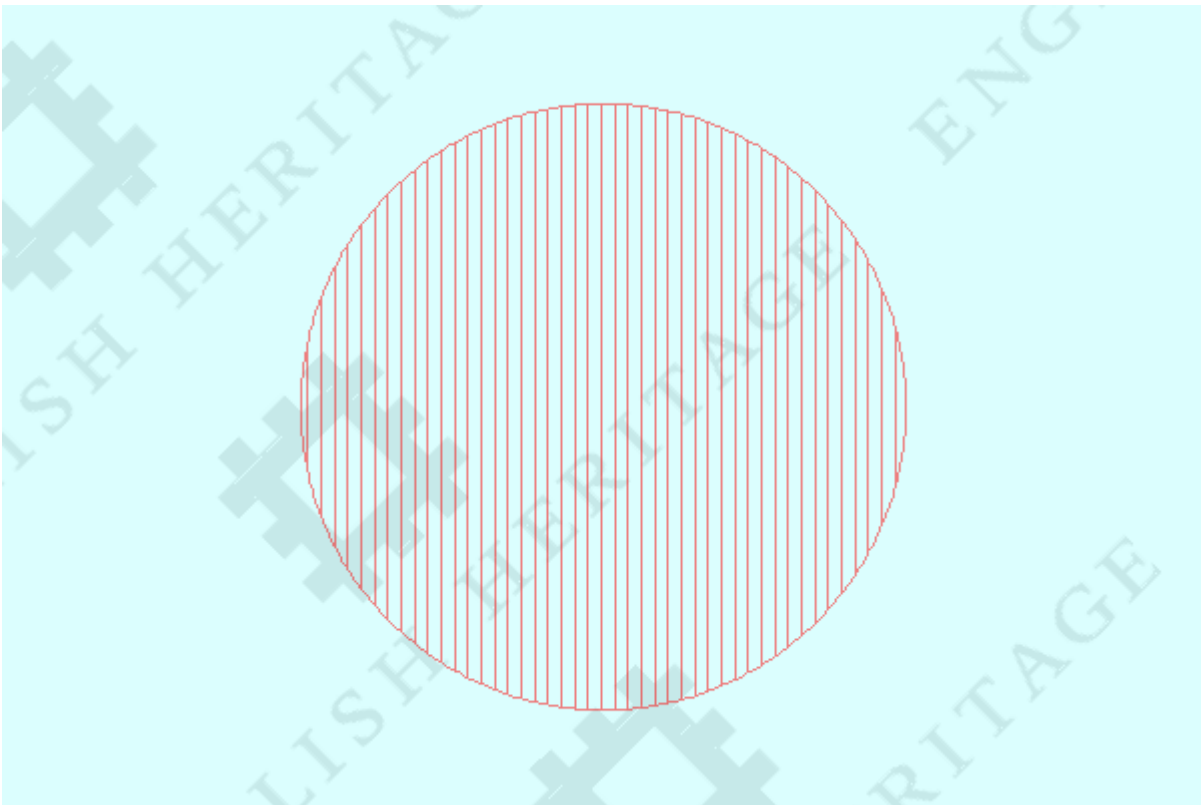
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Wessex Archaeology (2012) GAD 23 'The Bowsprit Wreck', Goodwin Sands: Undesignated site assessment report. Unpublished report prepared for Historic England

Map

National Grid Reference: TR4419958103



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