

The wreck of the Dutch East Indiaman *Amsterdam* near Hastings, 1749

An interim report

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Introduction

"We have had for a long time past the most terrible weather that I ever remember, and Sunday last in the afternoon a Dutch East Indiaman was drove ashore at Bulverhithe...". Thus begins a letter dated 17 January 1748, written by a Hastings man to his father-in-law. The New Style date of this letter is 28 January 1749, and throughout this paper only New Style dates are given as the Old Style calendar was abandoned a few years after the incident at Bulverhithe.

The ship, a large well-armed merchantman, called the *Amsterdam*, was beached just west of Hastings while *en route* from Amsterdam to Batavia, now Djakarta, in Java; and during the following weeks very quickly sank deep into the beach.

Although well known locally the wrecked ship was soon forgotten beyond the narrow confines of Hastings, until July and August 1969. During those months a contractor building a sewer outfall near the wreck site decided to look for treasure, and, using two mechanical excavators, dug into the sand filling of the ship. A great mass of antiquities was found, and several members of the Committee for Nautical Archaeology were subsequently approached by the contractor, Messrs William Press & Son Ltd., who considered that the wreck might have some archaeological value.

Clearly the wreck was important as it contained a very large, dated group of antiquities, and it was decided to carry out an

archaeological investigation (a) to define how much of the ship had survived, (b) to make a record of the excavated objects, and (c) to determine whether or not the wreck was sufficiently well preserved to justify a total archaeological excavation at some future date. Also if the ship was sufficiently well preserved to consider the possibility of raising the vessel for permanent preservation.

The investigation, carried out between 1969 and 1971, soon showed that about three-quarters of the *Amsterdam* had survived, apparently together with the bulk of her cargo, stores, and many personal items owned by the people who were on board. Many of these objects seem to lie where they were left when the ship was abandoned in January 1749. As a result it is now considered that the ship is certainly worth excavating totally and possibly even preserving. In view of all this the Dutch Government was approached by the CNA, and discussions began concerning the fate of this remarkably well preserved ship. Never before has an East Indiaman of any country which traded with Asia been found in anything like the excellent state of preservation of the *Amsterdam*.

The *Amsterdam* survey has brought into prominence several shortcomings regarding the treatment of wreck material in this country.

1. Archaeologically important wrecks have no protection as ancient monuments under the existing Merchant Shipping Act of 1894, section 521, and they have no protection under the Ancient Monuments Acts. Now that the *Amsterdam* has a legal owner, the Dutch

Government, protection is a little better—but, through its status as a claimed wreck, not an Ancient Monument. The CNA together with some individuals, has been pressing for a revision of the Salvage Law for years, and in 1970 the Board of Trade set up a committee to consider the revision of the entire law which, essentially, dates from 1894 and in many ways is not suited to the latter half of the twentieth century.

2. There is no government department or museum dealing with wrecks of archaeological importance, and this has presented several formidable problems. The absence of an archaeological laboratory suitable for dealing with wreck material has meant that few of the many waterlogged objects recovered from the ship have been able to receive treatment. A few of the pulley blocks have been treated at Fishbourne Museum, and some of the most important other items, including all the leather, have been treated by Mr W. Rector in the Guildhall Museum laboratory; but, as both museum laboratories are small and are already overworked, only a few of the objects needing urgent treatment have been treated.

3. There is no control over the treatment of antiquities, however valuable, in the hands of the Receiver of Wreck. As a result some of the antiquities have received the wrong kind of treatment by other people not qualified to carry out this specialized technical work. An extreme example of this concerns the five very fine bronze cannons which were “cleaned” initially by a labourer chipping off the corrosion deposits with a hammer and chisel, and this was followed by shot blasting; and, finally a vigorous rub down with a power-driven wire brush which left only highly polished bare metal. Although done with every good intention it was not surprising that within a few weeks the characteristic effects of bronze disease started appearing on the surface of the guns. A second dose of shot blasting was contemplated as a possible remedy, but on advice it was decided not to pursue this, and, instead, an expert opinion was sought from an archaeological laboratory. The original shot blasting unfortunately had removed all trace of the sacking in which each cannon was apparently wrapped before any archaeological record had been made.

Fortunately, however, the cannon were extremely well preserved, but had this not been the case they would have been severely damaged. The same situation existed with the objects from H.M.S. *Association*, many of which were cleaned by the finders who had no training in archaeological conservation.

These points are not a criticism of the existing museums or government departments, for, when their policies were established, many years ago, the archaeological investigation of old wrecks was not possible and therefore not considered. In Britain the problem of old wrecks has only arisen during the past ten years, and the relevant authorities are now beginning to consider how the many difficulties can best be tackled.

Historical

Documentary sources

There is a surprisingly full contemporary record of the loss of the *Amsterdam*, and in due course, when all of the Dutch and English records have been searched, these are to be fully published.

The known Dutch references to the *Amsterdam* are contained in the official records of the Dutch East India Company at the Algemeen Rijtschif at The Hague. The main references are to be found in the Resolutions of the Heeren XVII, and of the Amsterdam Chamber; and in the Paybook of the *Amsterdam*.

The contemporary English records which have so far been examined are a collection of letters written by various Hastings people to a Mr John Collier who, due to ill health, was spending the winter of 1748–9 at Bath. The letters, some of which have not yet been published, are in the East Sussex Record Office at Lewes. These are important not only because they are personal eye witness accounts of the loss of the ship and of the subsequent salvage attempts, but also because they contain details of local scandal relating to the ship. From these it is clear that lawlessness was rife in the Hastings area, and that killing, smuggling, stealing, drunkenness, and fighting directly resulted from the loss of the *Amsterdam*.

The relevant letters are

Mr Thomas Smith, dated 17 January 1748 (Old Style dating); Mrs Smith, dated 17 January 1748; Mr George Worge, dated 17 January 1748; Mr Richard Patrick, dated 24 January 1748; Mr Richard Patrick, dated 31 January 1748; Dr Russell, dated 6 February 1748; Mr George Worge, dated 11 February 1748; Mr Thorpe, dated 22 February 1748.

The following summary historical account is based upon information contained within these sources.

The voyage

The ship was built in Amsterdam and completed in 1748, and was named after that city. Her owner was the Amsterdam Chamber of the Company, the Vereenigde Oost-Indische Compagnie (usually abbreviated to VOC).

When completed she was about 150 ft (46 m) long, had an upper and a lower gun deck, as well as a long quarter deck, a short poop deck, and a forecastle. The three great masts supported a considerable spread of canvas which was to help take the ship on her long voyage half way around the world to the port of Batavia in Java. The *Amsterdam*, when made ready for her maiden voyage in early November at Amsterdam, was to carry a mixed cargo to the East Indies. This included 28 chests of silver then valued at about £30,000; silver lace and wearing apparel which included velvet cloth; and "a great many thousand dozen" bottles of wine packed in chests. Some of the wine was French. The ship also contained enough provisions to keep over 300 men alive for at least six months, and these supplies included butter, bacon, and beef.

She sailed from Amsterdam soon after she was built, and quickly reached the island of Texel at the mouth of the Zuyder Zee to await an east wind to carry her through the English Channel on the first leg of her long voyage. Her commanding officer, Captain Lieutenant Willem Klump, set sail twice but was blown back each time. These abortive beginnings to her maiden voyage occurred on the 15 and 21 November.

On board there were 203 seamen, including the officers, 127 soldiers, and 5 passengers.

Captain Lieutenant Willem Klump was born in Mittau, now Jelgava in Letland, USSR, in 1715, where his Dutch ancestors may have been involved in the extensive Dutch trade in the Baltic Sea. When his ship set sail he was 33 years old, and at his home in Amsterdam his wife Margaretha Schade, 29 years old, was looking after their 4 year old daughter Elisabeth, and their 4 month old son Coenraad. The passengers were Andries van Bockom, aged 25, who was a junior merchant, together with his wife Anna Pieterella Schoock, aged 28, and his sister-in-law Catharina Susanna Schoock, aged 22. The other two passengers were the military lieutenant Jacob Hall, possibly an Englishman, and aged 36 or 37, and his wife Maria Monk, aged 33. All the passengers were bound for Batavia.

The *Amsterdam* finally sailed on a wintry 8 January 1749 from Texel. About two weeks later she had reached the haven of Pevensey Bay, and there she struck a shoal and lost her rudder (Fig. 1). The weather was "most terrible" and, the wind blew her, temporarily out of control, north-eastwards towards the shore, until captain Klump dropped anchor off the tiny village of Bexhill. He hoped the wind would veer around to the east so that he could sail on to Portsmouth for repairs. Unfortunately he could hold out no longer than Sunday 26 January 1749 (15 January 1748 was the Old Style dating in England). Klump must have known that his ship was doomed when that morning he gave the order which set her adrift. With her bow pointing towards the shore, the *Amsterdam* sailed on. At about 15.00 hrs Klump ordered her guns to be fired as a distress signal, and soon, with the tide fairly high, she ran ashore on a flat sandy windswept beach about 3 miles west of the small smuggler-ridden port of Hastings.

The exposed and barren spot was close to a place called Bulverhithe. A small meandering river emptied into the sea near the ship. Night was fast approaching as Hastings people arrived to help the crew off the ship to safety in the town. The crew, however, were evidently feeling far from distressed as they had found comfort in alcohol and were apparently all drunk. Many of the "helpers" had come to help themselves, and that night

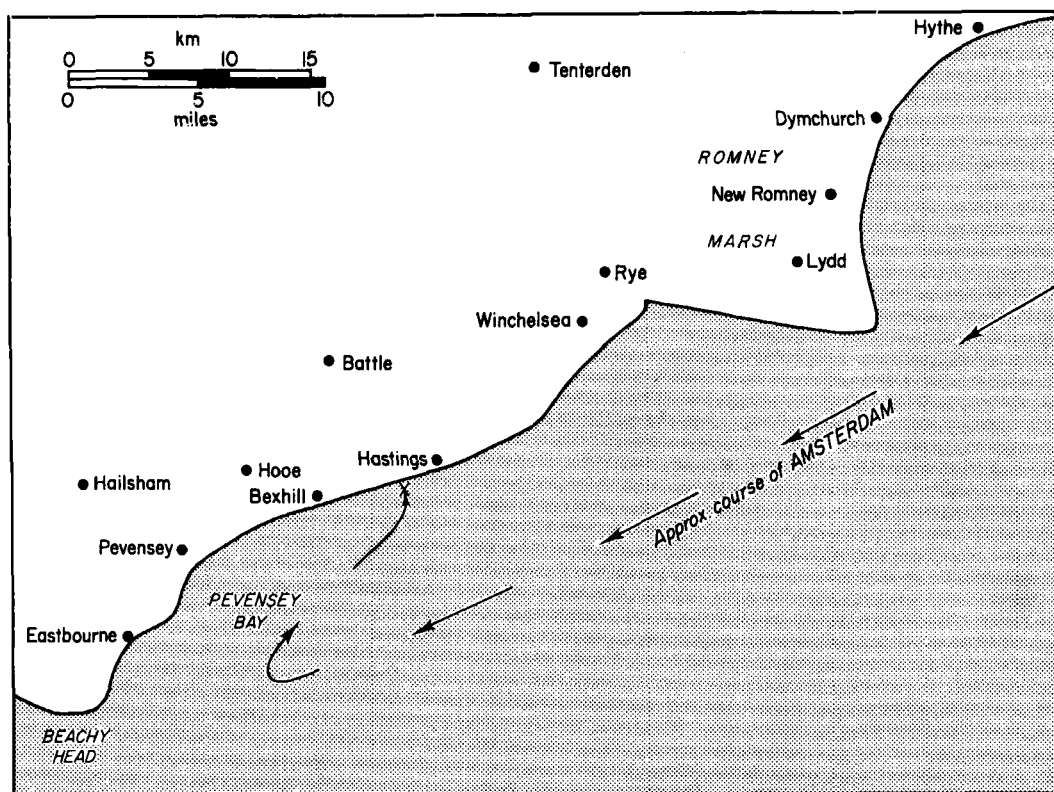


Figure 1. Map showing the course of *Amsterdam* and the wreck location.

the 50 silver bars in one chest were taken by Anthony Watson, a local smuggler. Thirty of the silver bars were later recovered through the Hastings town crier. The looting was not confined to the poorer folk, for the Mayor, William Thorpe, was soon afterwards offering bottles of French wine for sale to a friend at a shilling each; and the Duke of Newcastle attempted to seize the best anchor and cable.

On Monday, 27 January chaos reigned on the beach with over a thousand "wreckers who had come from all parts of the county" trying to remove goods from the stricken ship. The Dutch soldiers tried to defend the contents of the *Amsterdam*, and later they were joined by a company of English foot soldiers whom one local person described as "the greatest thieves I ever knew".

Sinking into the beach

Almost immediately she was beached a remarkable thing began to happen: slowly

and bodily she started sinking into the beach. The result of this can be seen now, for her keel must lie about 27 ft (8.2 m) below the beach and the beach is level with her upper deck; but the progress of the sinking can be traced through the "Collier Letters".

- | | |
|-----------------|---|
| 26 January 1749 | —she was beached. |
| 28 January | —she is described as "in appearance quite whole and may do for some months. But no possibility of getting her off. I believe they will save every thing that is worth saving." |
| 4 February | —she "still sits whole, and the plunderers speed but very indifferently, neither do the owner save any quantity of goods for the ship is so much swerved [sunken] in the sand that it is impossible to get at the cargoe, the ship always being full of water." |

- 11 February —“The ship is really a melancholy sight to behold, for she lyes on shore, on boggy sand, that she is swerved almost as high as her upper deck, and not withstanding all the contrivances imaginable, the main hatches can't be open'd, so it is feared most part of the cargoe in the main hold will perish in the sand.”
- 4 March —“The ship is so swerved in the sand, that at high water the sea covers her, and at low, her lower deck is underwater.”

On 11 March the directors of the Amsterdam Chamber of the VOC decided that further salvage was impossible. And so the *Amsterdam* was lost, and forgotten by all except some local people who dug into the ship from time to time.

The upper part, comprising the quarter and poop decks and the forecastle, were destroyed by the sea, and by early salvage attempts.

Throughout the 19th century she seems to have been in her present state with the outline of her sides just projecting out of the sand.

Several salvage attempts were made by people digging furiously into the sand inside the ship at low tide with varying degrees of success. In 1810 a group of soldiers had no luck; but in 1827 a number of people found glass tumblers, liquor glasses, metal cups, stone and glass bottles, casks of Dutch knives, a whetstone inscribed “Johan C. Von Haacke, 10 Sept. 1745”, Dutch China jars, glass goblets, wine glasses, and square glass bottles.

The most recent salvage attempt, however, occurred in July and August 1969. Messrs William Press & Son Ltd. were building a sewer outfall in the sea near the wreck site, and on several low tides Mr K. Young, agent on the site, used two of their mechanical excavators to dig inside the ship in the hope of finding valuable antiquities. They recovered an enormous quantity of objects some of which are described in the latter part of this report, and claimed salvage rights from the ship's present owner, the Dutch Government.

Identification of the wreck as the Amsterdam

The identification of the wreck at Hastings as the *Amsterdam* is based on contemporary documentary evidence, and on the archaeological evidence.

The most important Dutch East India Company record is in the “Uitloopboek” which states that the *Amsterdam* “ran ashore on 26 January between Hastings and Beachy Head”. The “Collier Letters” are more precise about the location of the wreck. A letter from Mr Thomas Smith to Collier dated 17 January 1748 (28 January 1749 New Style) states that the *Amsterdam* was “a shore a bout half a mille to the east of Bulverhithe”. Letters from Mr. Worge, dated 17 January 1748 (28 January 1749 N.S.), and from Mr Thorpe, dated 22 February 1748 (4 March 1749 N.S.) both confirm this but are less precise. The former states that the ship was “run a shore at Bulverhithe” and the latter that she was “near Bulverhithe”. The present location is indeed just east of Bulverhithe.

The archaeological evidence is equally important as the apparent form and construction of the ship conforms well with contemporary models and illustrations of Dutch East Indiamen. The objects recovered from the ship show that it was not only of Dutch origin but also belonged to the Amsterdam Chamber of the Dutch East India Company. The stonewares all seem to have been manufactured in the Low Countries; the clay pipes were all made at Gouda; and the brass tobacco box bears a Dutch inscription. That most of the items on board belonged to the Company is shown by a barrel stave branded A-VOC (the Amsterdam chamber of the Verenigde Oostindische Companie), and the five unused bronze cannon were also inscribed A-VOC together with the date of manufacture 1748. The gunfounder, Crans, is known to have worked in Amsterdam. The same date also occurs on several lead and iron weights, and it would seem likely that this was part of the new equipment made especially for this ship which was completed in that year.

On the basis of this evidence it is clear that the vessel in the beach at Bulverhithe is the *Amsterdam*.

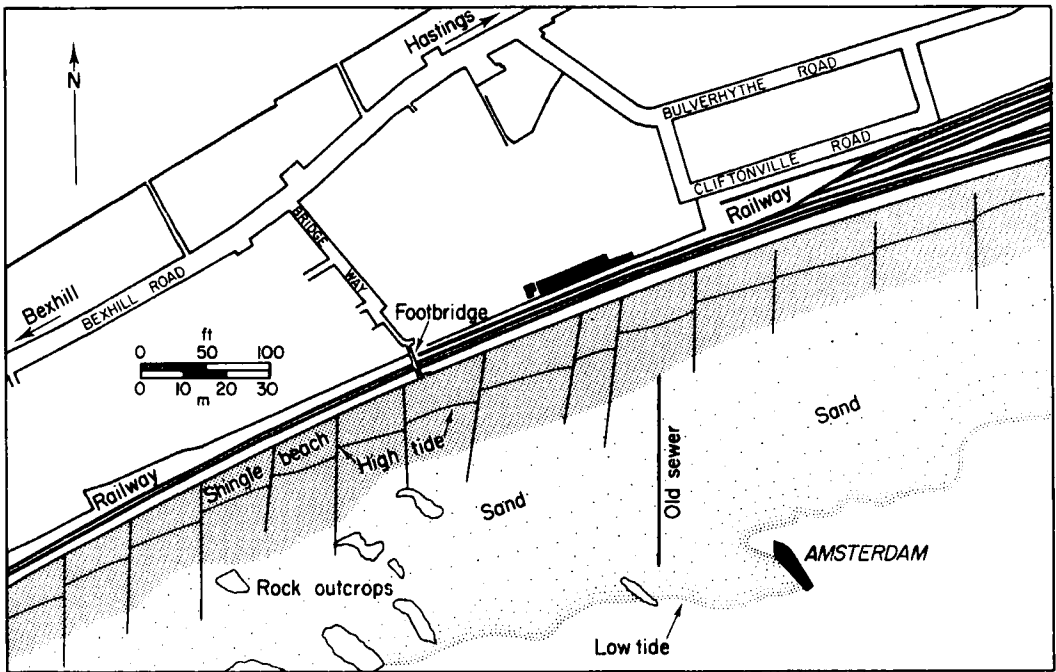


Figure 2. Map of the wreck site.

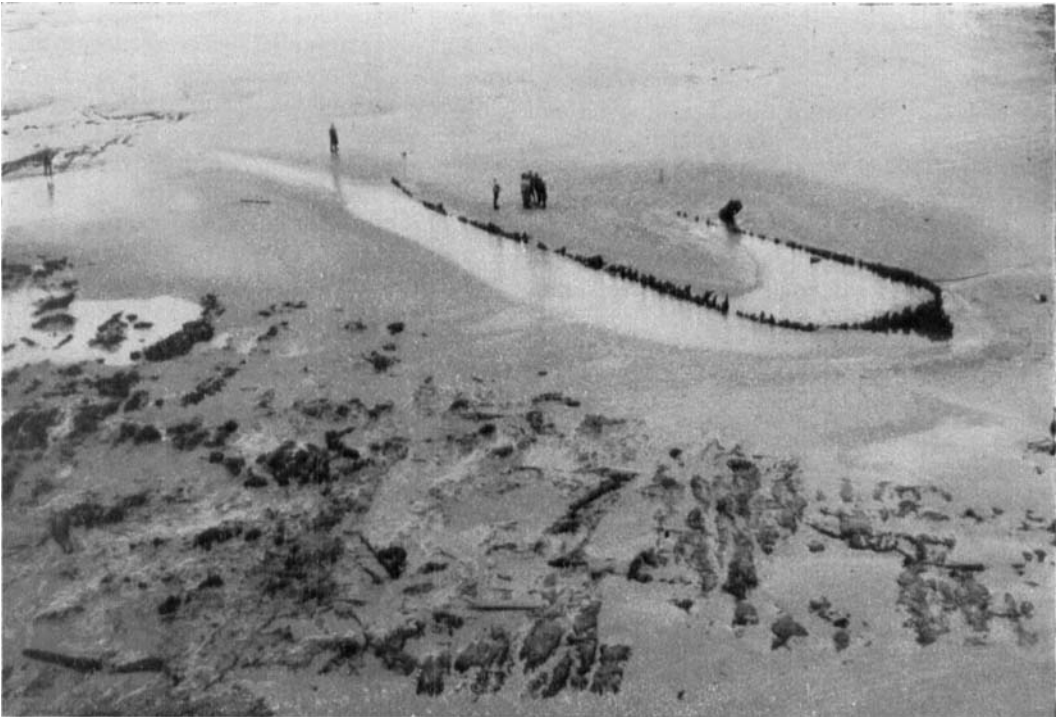


Figure 3. View of the *Amsterdam* from the air looking south-west, taken in August 1970. The rough beach surface in the foreground is clay, the smooth surface elsewhere is sand. The edge of the sea can be seen in the top left-hand corner.

Situation of the wreck

The wreck is buried in the beach in the position as shown in Fig. 2. It lies about 4.5 km (3 miles) west of Hastings and about 200 m (660 ft) below high tide mark. The ship is aligned NW–SE with her bow facing the shore. It lies just below the mean low water mark and is sometimes uncovered for an hour or two during the very low tides which occur for two or three days each month (Fig. 3). During the low spring tides, when for a few days the tides are lower than at any other time in the year, the *Amsterdam* is exposed for up to 4 hours. During 1969–71 all of these very low tides occurred both early in the morning, and just about sunset or at night. Because the beach is so flat any moderate wind will stop the tide from receding as far as predicted. At normal high water the wreck is about 6 or 7 m below the surface of the sea.

The geology of the wreck site is unfortunately masked by the shifting sands of the beach. Rock outcrops are visible west and south of the wreck dipping down to the north-east, and the *Amsterdam* seems to have

sunk into a thick bed of grey clay which overlies the rock. A hollow appears to have been scoured in the clay on the west side of the ship; both this and the ship are full of sand. For the present, the reason for sinking would seem to have been the sheer weight of the heavily laden ship. The scouring of the hollow on the west side of the ship evidently occurred in 1749, since loose parts of the ship are contained within it, and it was the action of the sea undermining the clay on that side which probably caused the vessel to heel over to port.

The ship

The contemporary records examined so far describe the *Amsterdam* as being 150 ft (46 m) long, and having an upper deck, a lower deck, a hold, and an armament of 52 or 54 guns.

Fortunately there are in existence scale drawings, pictures, and models of 18th century Dutch East Indiamen of the same size as the *Amsterdam*—the largest—and it is clear that they were built to a fairly standard



Figure 4. Early 18th century model of a Dutch East Indiaman, similar to the *Amsterdam*; now in the National Maritime Museum.

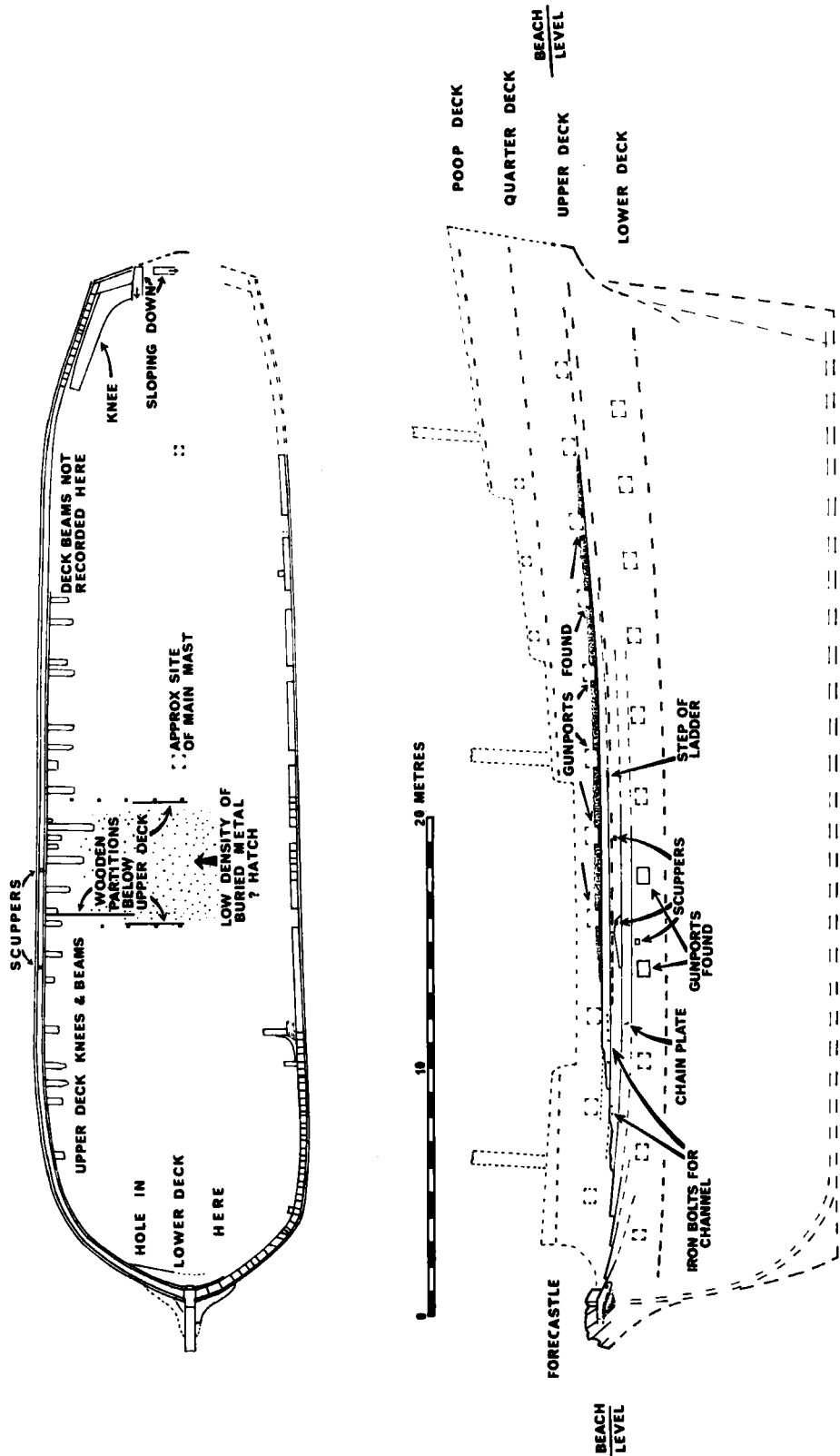


Figure 5. Plan and side elevation of the *Amsterdam*. Broken lines represent conjectural features.

form, although there were variations in details (Fig. 4). No contemporary illustrations of the *Amsterdam* are known to exist.

From these illustrations it is clear that the *Amsterdam* had three masts; a foremast, mainmast, and mizzen mast; as well as a bowsprit. She had several decks: a lower deck, upper deck, quarter deck, poop deck, and a forecastle. The main armament was mounted on the lower and upper decks, and about six small cannon were probably mounted on the quarter deck. There is some evidence to indicate that the ample hold was partly divided by an orlop deck.

The plan of the *Amsterdam* made in 1969–71 shows the ship's form and construction in far greater detail than is apparent from the beach (Fig. 5). Ideally the exact positions of all visible features of the ship's construction should have been measured but this

proved impossible in the limited time available. For example at the beach level there is a solid wall of hundreds of frames (ribs), of which less than 100 were recorded and plotted on the plan as a sample, and the remainder were ignored apart from the inner and outer limits of the line of frames being recorded.

The ship is lying with her bow facing northwards towards the shore, and she has partly heeled over so that her port side is more deeply buried than her starboard side. This accounts for the unequal shapes of the two sides of the ship on the plan. The starboard side survives up to the level of the upper deck beams and knees which are shown on the plan, but the port side survives up to the lower parts of some of the upper deck gun-ports. As a result the port side deck beams and knees are buried in the sand, except at the forward end where the deck level rises above the beach.



Figure 6. View of the bow showing the lean to the port side.

Judging by the angle of the stem the ship has heeled about 18° from the vertical to the port side (Fig. 6). Also it seems that there may have been some hogging or twisting at the bow, or that one or both of the sides of the ship have been distorted by the pressure of sand. The bow has not sunk as deeply as the stern, indicating that a layer of rock harder than the clay and sand surrounding the ship, may have stopped the subsidence of the bow to a greater depth. On the other hand the stern, with its additional and larger decks above the upper deck, was much heavier than the bow and so was more likely to sink deeper.

The upper deck

When completed in 1971 the plan showed the form and construction of the ship at the upper deck level, and also some details of the lower deck below. The *Amsterdam* was originally 150 ft long (about 46 m) of which about 44 m survives. The latter measurement is taken from the foremost surviving part of the stem to the surviving after side of the counter at the stern.

The upper deck has been mostly destroyed, but the ends of some of the deck beams, and many of the knees which held them in position, have survived.

The lower parts of six gunports were found on the port side in the form of openings in the solid wall of frames. The openings vary between 0.6 and 0.74 m wide, and are approximately 2.35 m apart although there is some variation in the distance. The sill of each gunport is about 0.41 m above the upper deck planking.

Scuppers, lined with lead, were found passing through the port side of the ship, and their outlets outside are below the level of the upper deck. Two of these were found below the upper deck gunports, and, as all of them may have been positioned beneath gunports, it should not be difficult to establish the positions of gunports which have been completely destroyed. The lead lining of several scuppers on the starboard side were also found between the frames.

The upper deck beams vary in size but one on the port side which was especially well

preserved was 0.33 m wide, and about 0.2 m thick. On its forward side was a well preserved lodge knee 0.12 m thick, and on the other side the upper part of a hanging knee. On top of these lay a portion of deck planking 0.1 m thick, but as this was probably the bottom of a waterway, the actual thickness of the upper deck planking might have been greater. Other portions of the upper deck may well have survived on the port side which will help to show the thickness of the upper deck planking away from the waterway. There was not sufficient time to clarify this important point at this stage, and in any case it was felt unwise to excavate close to the inside edge of the ship, as the iron bolts holding the timbers together have completely corroded and the excavation might cause important portions of the ship's structure to become lost.

The hull at the upper deck comprises a solid wall of timber. The frames lie side by side, and are generally about 0.2 m thick. Close to the stem they are thicker. The outer planks, laid carvelwise, are generally between 0.1 and 0.15 m thick.

Attached to the outside of the outer skin on the starboard side is a sheathing of pine wood 0.02 m thick, and between the two thicknesses of planking is a mixture of tar and hair to help protect the main planking from damage by the *teredo* "shipworm". This sheathing was found just below the level of the upper deck on the starboard side, but none was found at this level on the port side. Attached to the frames inside the ship is a ceiling of planking about 0.1 m thick.

It should be pointed out here that the sizes of timbers were irregular, and that the dimensions mentioned here are merely average. The ceiling, for example, has been found to be 0.6 m thick at one place, and 0.12 m elsewhere. This is no doubt due to the use of planks of different thicknesses, but in the very limited time available to make a record of the ship it has proved difficult to study the ship's construction in greater detail.

The lower deck

This deck is completely buried under the sand, and in digging inside the wreck in 1969 Mr Young's excavators hit the deck surface

on several occasions at the stern and amidships. From this and from the subsequent archaeological probings it is clear that much of the lower deck probably survives below the upper deck, and that it has suffered some damage especially just inside the bow where there is a large hole. This hole is possibly the one which was made on 4 March 1749 (N.S. dating), by explosives with which the salvage engineer in charge blew himself up. His name was Mr Nutt!

The investigation of the lower deck has proved to be the most difficult part of the survey owing to the original decision not to disturb by excavation either the structure of the interior of the ship or the objects lying on the deck where the crew abandoned them more than 200 years ago in a drunken stupor.

However, during one very low tide in September 1969, which occurred at night, a hole was excavated in the quicksand outside the ship and this exposed a sufficient number of features, including two of the lower deck gun ports, to make it possible to reconstruct a side elevation of the ship with the help of

copies of contemporary drawings of similar vessels kindly supplied by the Director of the *Nederlandsch Historisch Scheepvaart Museum*, in Amsterdam. This excavation was about 2 m deep and exposed the smooth carvel-built side of the vessel. There was no sheathing and no projecting wales between the upper and lower deck gun ports. Two lower deck gun ports were exposed, and both were found to be closed by their port lids (Fig. 7). The top of the lower deck gun ports lies 1.4 m below the bottom of the upper deck gun ports, and the ports measure about 0.65 m square. Holes found in the top of the port lid and in the planking above must be part of the arrangement by which the lid was hinged and raised.

A larger outlet was found level with the top of the lower deck gun ports, and below the line of smaller upper deck scuppers. Its larger size and different position from the smaller ones previously described suggests that it was an outlet for a pump which drained the bilge.

A metal detector was used inside the ship to



Figure 7. Upper part of a closed gun port of the lower deck on the port side. Scale in 0.1 m divisions.



Figure 8 View of *Amsterdam* looking aft, showing the transverse partitions, and just outside the ship the end of the mast.

locate the positions of metal objects on the lower deck. This instrument showed a scatter of objects on that deck, and a low density of buried metal in the area where the main hatch into the hold was normally located in Dutch East Indiamen, so it seems most likely that this low density of metal is due to the presence of an opening in the deck.

Fore and aft of this low density area are a series of transverse wooden partitions. On the forward side there are two partitions, and aft of the area just one. These presumably rested on the lower deck, and stopped at the underside of the upper deck before that deck was destroyed (Fig. 8).

The two outer partitions comprise a series of vertical square wooden posts about 0.1 m square, attached to which are horizontally laid boards 0.04 m thick. The boards are on the sides facing towards the hatch.

About 0.5 m aft of the forward partition is another partition built in a different form. It is constructed of a series of planks standing vertically.

It seems most likely that these partitions were associated with the main hatch, but no suggestions have been put forward as to their purpose.

It should be mentioned here that a massive timber breast hook was found in the bow. This lies roughly mid-way between the upper and lower decks. A photograph of the ship, taken probably in 1911, shows a breast hook at a higher level and this almost certainly supported the extreme forward end of the upper deck. This timber is now missing, and is probably the large curving timber removed from the ship by William Press & Son in 1969, and now in the grounds of the Hastings Museum.

The stem

The stem is well preserved and is the most obvious visible part of the ship. The stempost is a massive timber 0.43 m wide, and on its forward side is the solid knee of the head or stem, built up of chocks, and the bobstay piece. This last mentioned timber is covered on its forward side with lead sheeting. The knee of the head is 0.38 m wide, and on each side is covered with wood sheathing 0.03 m

thick. The surviving top of the knee is partly eroded, but the tops of some of the chocks have been cut off at various angles.

On the port side is a well preserved lower cheek of the head, and beneath it a sloping filling piece of timber whose job was clearly to throw sea water clear of the underside of the cheek in a heavy sea (Fig. 6).

The knee of the head seems to be unusually high in the *Amsterdam* judging from the contemporary drawings and models of other Dutch East Indiamen, and it would be useful to find parallels to this to help with understanding and reconstructing the bow.

The entering steps

Part of one step of the ship's permanent ladder up the port side was found in 1969. It is positioned at a seam in the outer strakes between the upper and lower deck gun ports. It was traced for a length of 0.45 m and was clearly longer. It projects 0.1 m from the side of the strakes, is 0.1 m thick, and is moulded on its underside. The full length of the step could not be determined due to the proximity of the fallen main mast which made further excavation in that area impossible.

The stern

The stern was also difficult to record as it is usually buried in the sand, and in any case was exposed by the sea for a shorter time than the rest of the ship because it lay farthest from the shore. For these reasons the record of the stern is far from complete.

The most obvious feature of the stern construction was the enormous knee on the starboard side. This was probably situated beneath the now missing great transom which supported the upper deck.

Just outside the great knee is the sloping planking of the counter which occurs between the top of the rudder and the bottom of the now destroyed ornamented upper part of the stern. This planking is well preserved on the starboard side, but on the port side it is buried in the sand.

In 1969 the presumed port side counterpart of the great knee was found lying loose in the sand just beyond the stern where it had

evidently been dumped during the previous digging. This proves that the port quarter has been damaged, but to what extent is unknown. This loose knee has had an unfortunate history because it was dug up and dumped elsewhere by an unauthorized person in 1970 who used a mechanical excavator to look for antiquities.

The rigging

The excavation in the sand outside the port side of the ship revealed some features associated with the rigging of the foremast.

Particularly important is a row of corroded iron bolts, each square in section and measuring 0.05×0.04 m, in the outer strakes just below the upper deck gun ports. These were presumably used to hold to the side of the ship the wooden channel or shelf which increased the spread of the shrouds.

William Press & Son had dug here earlier and found several deadeyes and parts of links of the corroded iron chain plates. The archaeological investigation in September 1969 exposed the broken bottom link of one of the chain plates about a metre below the after end of the row of iron channel bolts.

Part of one iron link in the chain plates is sufficiently well preserved to show its probable original size and form; it is made of iron, square in section and measures 0.015 m square. The link is 0.31 m long, and was about 0.105 m wide.

Another link contains a lower deadeye at one end, and the deadeye is 0.315 m in diameter, and 0.18 m thick. The lanyard passing through each of the three holes is 0.03 m in diameter (Fig. 11, no. 1). Several other deadeyes, each bearing traces of corroded iron chain plates, were also found.

The mast

A mast, which from its situation is probably the main mast, has long been known to be lying in the sand just beyond the ship's port side, as reference to it is made in earlier accounts of the ship, and its end is visible in photographs taken soon after AD 1900.

In 1969 William Press & Son tried to pull it up out of the sand using a mechanical

excavator, but only succeeded in breaking it so that the end is now sticking out of the beach at an inclined angle.

Mr J. Manwaring Baines has drawn a cross-section of the mast which is reproduced here (Fig. 9). The visible part is almost square in section and measures 0.52 m by 0.465 m. It comprises four main timbers carefully put together, as is shown on the accompanying drawing. The dimensions of

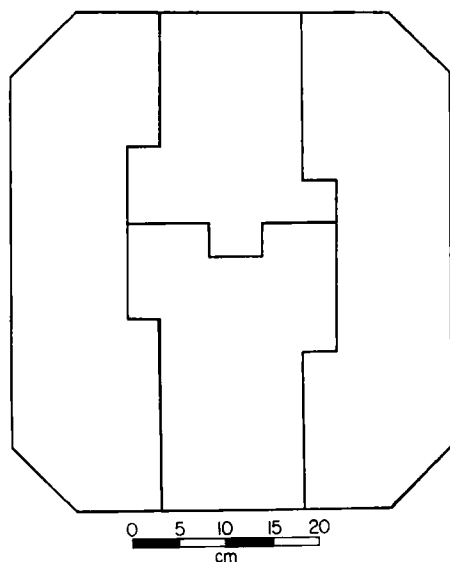


Figure 9. Cross-section of the mast.

the visible surviving part of the mast are too small to be part of the main mast, and may only represent the core of that mast. When it was pulled up in 1969 it was apparently noticed that part of the mast was bound with rope, but that this was washed away very quickly.

Fallen parts of the ship

The excavation beside the ship's port side showed that there is a thick deposit of quicksand on that side in which lie timbers which have fallen off the upper part of the ship. The main mast is one example, and about 1 m below the north end of the mast there is a rectangular board, possible a gun port lid, which was located in 1969 and which has been left *in situ*. Smaller objects also lie in the

sand, like a mass of broken clay pipes, evidently jettisoned down the side just forward of the ladder.

Fortunately the ship is leaning towards the port side so that many timbers, especially heavy ones like the figurehead and the channels, may have fallen into the quicksand and been preserved.

Conclusion

About three-quarters of the *Amsterdam* seems to survive in the beach, and there is no doubt that if the ship is raised some of those incomplete parts of the ship, like the upper deck, could be restored with a fair degree of confidence because the surviving portions give excellent guidance to the restorers. It seems, however, that the iron bolts which held the ship's timbers together have more or less completely corroded away.

Antiquities

On 31 July 1969, William Press & Son began digging into the ship to recover as many objects as they could using mechanical excavators. No record of where the holes were dug was kept at the time and as far as can be judged the areas shown on Fig. 10 are approximately where the mechanical excavators dug into the interior of the ship. The sizes of the holes are unknown, and again no record was made of what was found in each area. I am grateful to Mr Young, Mr Aaron, and Mr Manwaring Baines who were on the site at the time for giving as much information as they could remember.

Hole no. 4 was dug first just inside the bow apparently to a depth of about 3–4 m. At about that depth they recovered all of the pulley blocks, three heather brushes, portions of rope, barrel staves, a cake of white tallow which had evidently come from a small barrel broken by the excavator, the skull of an ox and some vertebrae, and a wooden shoe last which was stolen by sightseers. From the excavation it is clear that there was a hole in the lower deck at this point, and that the excavator was recovering objects which were lying on the orlop deck at an even lower level. Mr J. Aaron, a diver working for the contractor, dived into the water-filled hole, and although there was no visibility he did manage to feel a ledge, presumably the remains of the lower deck, at the edge of the hole at a depth of about 2 m. The ledge was about 0.06 m thick.

On 1 August, hole no. 3 was dug to a depth of about 2.5 m where a hard surface, presumably the lower deck, was encountered. The hole was partly full of water; after one dig into the sand dozens of glass bottles almost full of red wine came to the surface. About 60 complete bottles were collected, as well as fragments of several more which had been broken by the excavator. These were all placed on a lorry from which many of the bottles were stolen. Soon after digging began again the mechanical excavator brought up five bronze cannon. Other finds from this hole included lead musket balls, bronze smoothing irons, some lead sheeting, most of the stoneware jugs, and a large number of corks which subsequently floated away on the rising tide. The lead, which includes a length of pipe, is particularly interesting as it

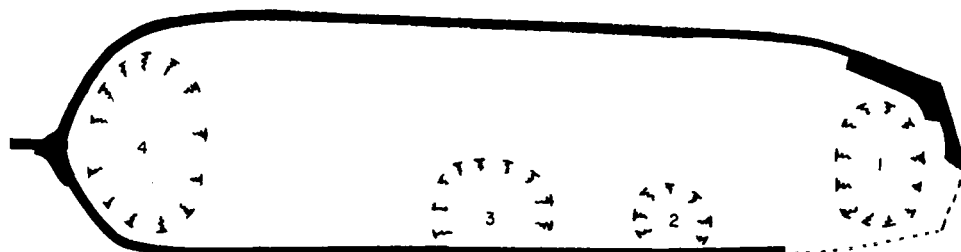


Figure 10. Approximate areas where objects were found in 1969.

seems likely that it is part of the ship's pump for removing bilge water. The form of the lead was very seriously damaged during its recovery and it is impossible to identify with any certainty what the object was.

Digging continued during the next few low tides. In hole no. 2 was found an iron cannon ball. Digging was carried out in the starboard side of the ship with no success.

The digging of hole no. 1, however, produced most of the objects, which included leather belts, shoes, a fan, and the bulk of the other small objects. If a total archaeological excavation of the ship eventually takes place, it will be necessary to record carefully traces of the areas in which W. Press & Son dug so that the find-spots of the objects they discovered can be more precisely established.

Significance of the ship and her contents

Because about three-quarters of the *Amsterdam* has survived this ship is unique. No other large ocean going sailing merchant ship of the 18th century or earlier is known to be in such an excellent state of preservation. This fact alone sets the *Amsterdam* apart as something quite special and worthy of very careful archaeological investigation. It is true that the 18th century documentary records tell us much about such ships, but this is a poor substitute for the modern scientific study of one well preserved vessel. In addition, there must be very many details of construction and life on board these ships which are not known. For example, the purpose of the transverse partitions on the lower deck both fore and aft of the main hatch of the *Amsterdam* cannot be satisfactorily explained at present.

It is true that two other large ships also survive, the *Wasa* in Stockholm and H.M.S. *Victory* in Portsmouth. The former was completed in 1628 and the latter launched in 1765. Neither is a merchantman, however, and the *Wasa* is so much earlier than the *Amsterdam* in date that many constructional and design changes occurred between the dates when the two ships were built.

The *Victory* is a different matter, however, for she has been so drastically altered, in successive efforts to bring her up to date in

her active service, that she cannot be considered a good example of 18th century shipbuilding. Her present appearance as a magnificent example of a ship of the early 19th century is the result of extremely skilled and careful historical research.

The *Amsterdam* therefore stands alone amongst the large ships as an unaltered example of shipbuilding of the 18th century. She was built in 1748, and lost in January 1749. Amongst the contemporary Dutch records of the 18th century no plans of the various decks in any East Indiaman have so far been found. There are, however, a few drawings of longitudinal sections, and of course some fine ship models. There is every reason to believe that the *Amsterdam* was a typical example of the largest class of Dutch East Indiaman, and her total investigation would fill considerable gaps in our knowledge of these ships. It is particularly important for it is just those interior parts, which are so poorly recorded in drawings, paintings and models, which survive in the *Amsterdam*. The destroyed upper, quarter and poop decks, and the forecastle are all well represented in models of similar ships.

The *Amsterdam*, although a Dutch ship, is particularly significant to Britain as a guide to the design and construction of English East Indiamen which are so poorly recorded—especially before 1750. The various maritime nations of northern Europe copied each other so much in shipbuilding and ship design that a good example of a ship of one country is of almost equal importance to nearby countries. For example the chief shipwright responsible for constructing the Swedish warship *Wasa* was a Dutchman, and presumably many features of Dutch shipbuilding were incorporated in the *Wasa*.

It is the fact that many of the objects which were in the *Amsterdam* when she set sail are still where they were placed, which makes the careful investigation of the ship doubly important. The quality, state of preservation and variety of these is indicated by the objects found in 1969. It is a pity that no record was made of the position in the ship in which most of the objects were found, for it would have been easier to interpret the significance of the objects in so far as they help us to

reconstruct life on board. A full report on the objects will be published later.

The objects seem to fall into five categories: 1. parts of the ship and her armament; 2, the ship's stores; 3, equipment officially issued by the East India Company for use on board; 4, the personal belongings of individuals on board; and 5, the cargo.

1. *Parts of the ship and her armament*

Under the heading of parts of the ship should be mentioned a number of bricks found in the after half of the ship on the lower deck, presumably from the lining of the galley hearth. Green window glass fragments found in the stern on the lower deck probably came from

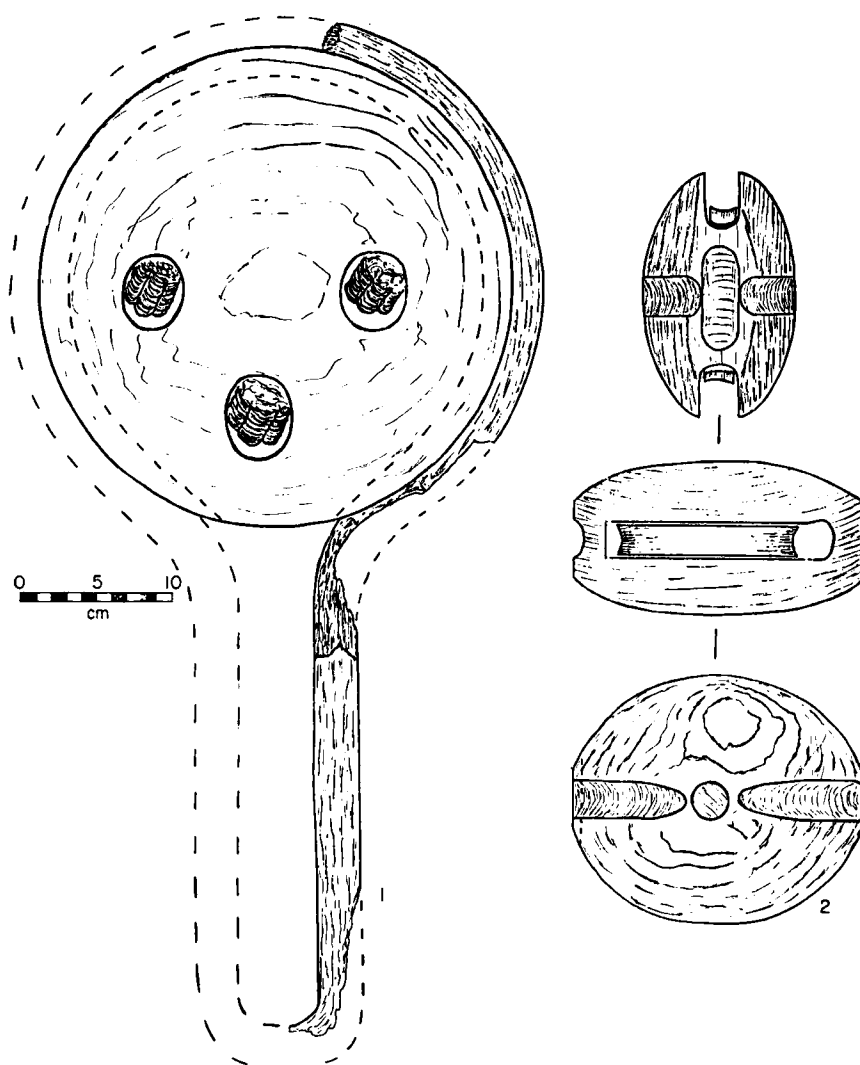


Figure 11. No. 1. Wooden deadeye, pierced by three holes which contain portions of rope lanyard 0.03 m in diameter. That this was a lower deadeye is shown by it being surrounded by the top link of an iron chain plate, square in section. It is possible that the lower end of the chain plate was bent when it was dug up in 1969. Six lower deadeyes were apparently found in 1969, and all were lying in the sand outside the ship on the port side below the position of the missing foremast channel. No. 2. Small wooden pulley block, one of a number found on the orlop deck in the bow.

the stern windows of the upper or quarter decks, and when those decks were destroyed the glass fragments fell on to the lower deck. Parts of the rigging were also found: several deadeyes (Fig. 11, no. 1) and iron chain plate fragments were originally connected with the foremast shrouds on the port side. A wooden "toggle" containing part of a rope may also have come from the rigging.

The ship's armament is represented by 12 and 8 lb iron cannon balls. Bronze reamers (Fig. 12, no. 4) for clearing the touch holes of the guns, cannon ball gauges (Fig. 12, no. 3), and a gun carriage wheel all give a good indication of the kinds of objects to be expected during a complete excavation. Dutch documentary records of 1749 show that an attempt

was made to sell the salvaged cannons, but there is reason to believe that one or two of the ship's main armaments may survive in the ship. It seems most likely that many of the wooden gun carriages will have survived, since these would have had little or no value to the salvors.

2. The ship's stores

These are represented by the finds recovered from the orlop deck just inside the bow. Pulley blocks of different sizes and forms were found (Fig. 11, no. 2); and barrels (Fig. 13,

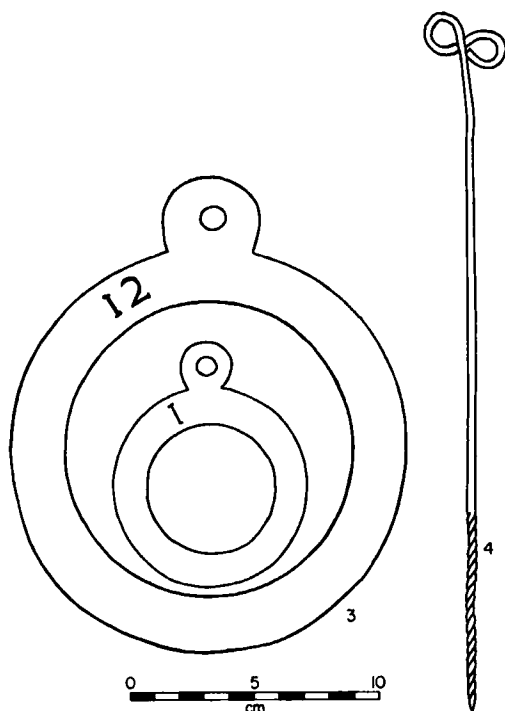


Figure 12. No. 3. Bronze cannon ball gauges inscribed with the numbers 1 and 12, presumably to check the sizes of 1 and 12 lb cannon balls. The metal is 0.002 m thick and the workmanship is good.

No. 4. Bronze reamer, with a figure-of-eight top end for easy turning, and a twisted lower end for cleaning the touch-hole of a cannon. Four bronze reamers were found all of the same thickness but of slightly varying lengths.

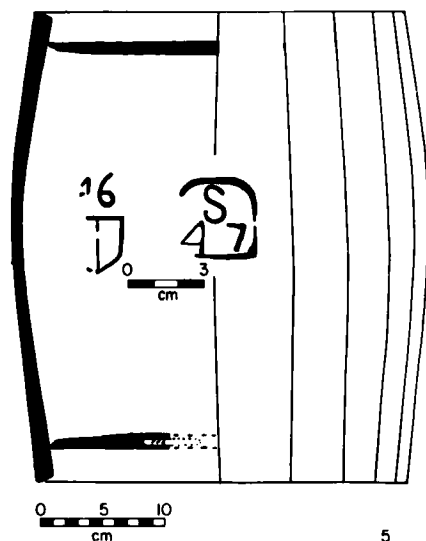


Figure 13. No. 5. A small wooden keg, reconstructed from fragments. This originally contained white tallow. Branded marks 46 above a shield, and S over 47, are on one of the staves.

no. 5) of different sizes also stood on that deck. One contained tallow; and the contents of another left an as yet unidentified brown deposit on its inside. These barrels presumably mostly contained food, but the 19th century discovery of a barrel on the orlop deck containing 1000 knives shows that they were also used for other purposes. An ox skull and vertebrae must be a remnant of the ship's food supply. A shoe last and three heather brushes indicate the repairing and cleaning activities and duties of some of the crew during the long voyage to Batavia.

3. Equipment officially issued by the East India Company for use on board the ship

It is difficult to judge which of the objects were issued officially by the Company, but it seems fairly certain that these items should

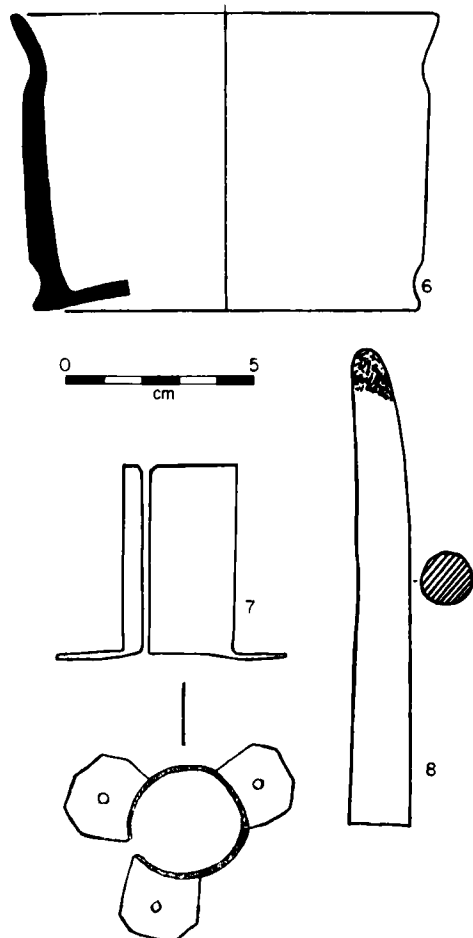


Figure 14. No. 6. Delft ware drug jar. Yellow ware with a white glaze both inside and outside. Fragments of 12 drug jars were found. No. 7. Bronze candlestick of very simple form, made from one sheet of metal. The three flanged "feet" each have holes for nails so that it can be attached to a table or shelf. It is likely that this was used on board the ship. One example. No. 8. Part of a stick of red sealing wax with a burnt end. Several fragmentary sticks of sealing wax were found each varying in form and thickness, indicating that there was no standardization in size. One bears the letters KOK beneath a crown.

be included: an assortment of earthenware cooking pots, a bronze cauldron and a bronze kettle all connected with the cooking and serving of food. Several Delft ware drug jars (Fig. 14, no. 6) were probably part of the stock of the ship's surgeon. The simple candlestick (Fig. 14, no. 7), designed to be nailed to a wooden surface like a table, must have helped with illuminating the interior of the ship at night. Sticks of used sealing wax (Fig. 14, no. 8) were undoubtedly part of the official equipment of the captain or of his officers. And finally several iron and lead weights were used for many varied purposes as one would expect in a confined and self-sufficient community like that in the *Amsterdam*.

There were 127 soldiers on board the *Amsterdam* whose job was to relieve the Company's garrisons in the Indies and at the Cape. About 13 leather cartridge case belts, each containing a bronze cartridge case, 50 lead musket balls, and a leather sword belt are all likely to have been part of their equipment issue.

4. The personal belongings of the people on board

Some of the items found in the stern must have been owned by the people on board, and most of them are of sufficiently good quality to have been beyond the meagre income of the ordinary crew members. The fine European pottery and Chinese porcelain (Fig. 15, no. 12) table-ware perhaps graced Captain Klump's table, as did wine glasses (Fig. 15, no. 11) and glass cups (Fig. 15, no. 10), and a pewter tankard. Some of the pewter spoons bear the owner's initials, and one has a beautifully scratched graffito of a Dutch "hooker" (Fig. 15, no. 9). Two of the spoons bear the initials of Andries van Bockom and his wife Anna Pieterella Bockom-Schoock. Flemish chamber pots were a luxury which would not be expected amongst the crew, and two of these which were found probably came from the officers' quarters. An ivory or horn comb, wooden needle dollies (Fig. 17, no. 14), decorated knife sheaths (Fig. 17, no. 16), leather shoes, a flute and several marbles were also probably (but not necessarily) personal belongings of the officers. The deco-

ration on a fine bronze tobacco box which refers to an unfaithful wife reflects the uncertainty and worry of a man who is away at sea for several years. A reference to a brothel on the tobacco box is equally significant—brothels were a feature of old Amsterdam. The seamen of these East India-men, having been away from home for several years, “were so mad for women, that if they had not houses to bait in, they would

force the very citizens’ wives and daughters” (contemporary quotation published in Prof. C. R. Boxer, “The Dutch East-Indiamen: their sailors, their navigators, and life on board, 1602–1795”, in the *Mariner’s Mirror*, 49: 1963, 100).

In the “Collier Letters” reference is made to three women passengers being rescued from the *Amsterdam*, and there can be little doubt that a few items recovered in 1969 belonged to them. Two of the ladies, Anna Bockom-Schoock and her sister Catharina Schoock, were “especially fine” and impressed the wife of an Eastbourne Custom House official. The objects are several ivory combs (Fig. 17, no. 13), fragments of a leather shoe, a decorated ivory fan (Fig. 16), and two small glass beads.

5. The cargo

About the time the *Amsterdam* was beached and before she was flooded an attempt was evidently made to salvage the cargo of the ship. Unfortunately for the salvors they not only had to abandon the cargo in the hold, but it seems that they also had to abandon some of the items actually raised on to the lower deck next to the main hatch. These include dozens of bottles of red table wine (Fig. 18, no. 18), and five bronze cannon (Fig. 19, nos. 19, 20). Broken clay pipes found

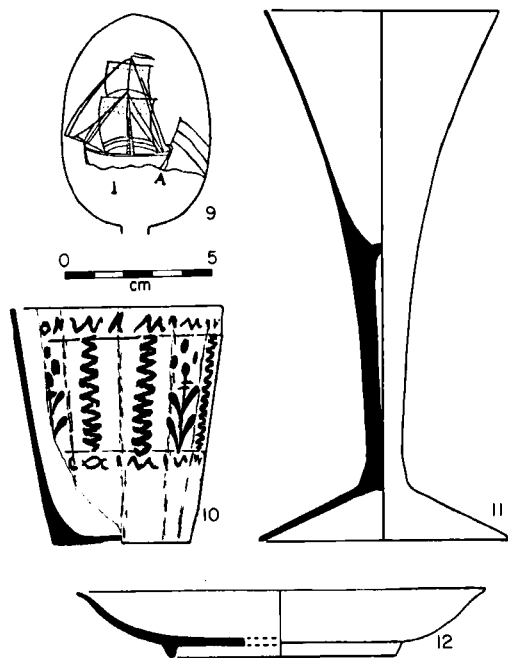


Figure 15. No. 9. The oval bowl of a pewter spoon. There is an unidentifiable maker's mark stamped on the handle, and the owner's initials I.A. in the bowl.

Also in the bowl is a beautifully scratched graffito of a single masted ship, a Dutch “hooker”, with a large flag at the stern. The bowl was photographed, and a tracing of the graffito was made from an enlargement.

There was one example of this type of spoon, and a total of 14 spoons of various types found in the ship.

No. 10. Small cup of clear glass, slightly fluted, and with a broad band of engraved decoration. The form of the cup and style of decoration is very similar to another cup found in the ship, and it is likely that both were manufactured in the same glassworks. The outline at the base of the cup is drawn below.

This is an old find from the wreck and has long been in Hastings Museum (Accession no. LA.318).

No. 11. Wine glass, of clear glass, with an elongated bubble in the stem. The drawn specimen was found many years ago, probably during one of the 19th century attempts to salvage the ship, and is now in Hastings Museum (Accession no. LA.316).

Part of the stem of another wine glass of similar form was recovered in the 1969 excavations.

No. 12. Glazed Chinese porcelain saucer. Hard white ware. Blue mostly floral decoration on upper side. Brown colour between rim and footring on underside.

Fragments of at least four similar saucers were found in the ship, together with fragments of several Chinese porcelain cups.

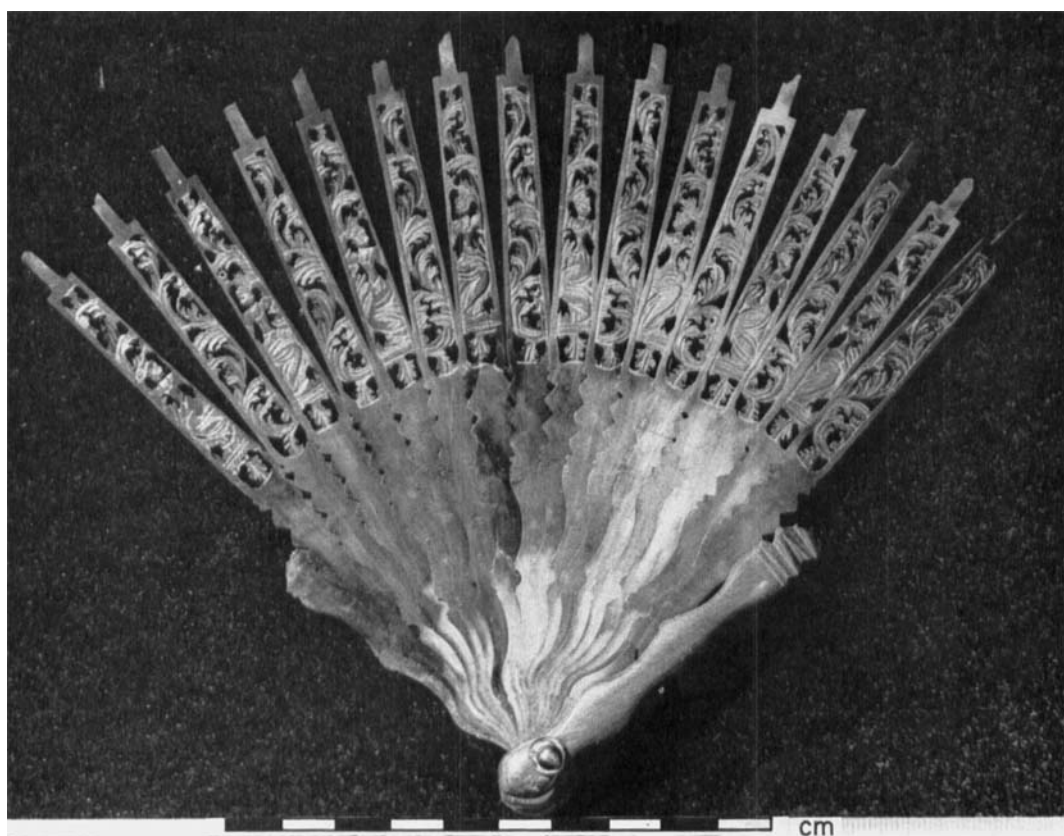


Figure 16. Decorated ivory fan.

outside the ship with their packing material suggests that the cargo also included pipes. Other objects which may have been part of the cargo include stoneware jugs, also from the main hatch area, which may have contained gin; bronze smoothing irons; and possibly the bronze candlesticks (Fig. 18, no. 17). It is curious, however, that one of the "Collier Letters", dated 31 January 1748 (Old style), refers to the impossibility of opening the main hatches.

A final significant feature of the wreck is that already it has provided archaeologists with the largest recorded group of precisely dated post-medieval antiquities so far recovered in the British Isles. Well dated objects in ordinary every-day use even as late as the 18th century have not been properly studied, for until recently it has been only the fine works of art which have been collected. The precise dating of the contents from the

Amsterdam will enable archaeologists in this country and abroad to date similar items found elsewhere in less definite contexts.

The finds

Only a selection of the drawn finds is included in this paper as a considerable amount of work on them, including laboratory cleaning, is still necessary. A summary list of the range of objects found in the ship is included here:

Stoneware jugs; a Bellarmine jug; chamber pots of Westerwald ware; fine saltglazed stoneware table ware; light grey glazed stoneware jugs; Delft ware drug jars; Chinese porcelain cups and plates; "Astbury" ware bowls from England; coarse ware cooking pots with brown and green glazes; bricks from the galley hearth; square green glass bottles; wine bottles containing red table wines; wine glasses; glass cups with engraved decoration; engraved glass

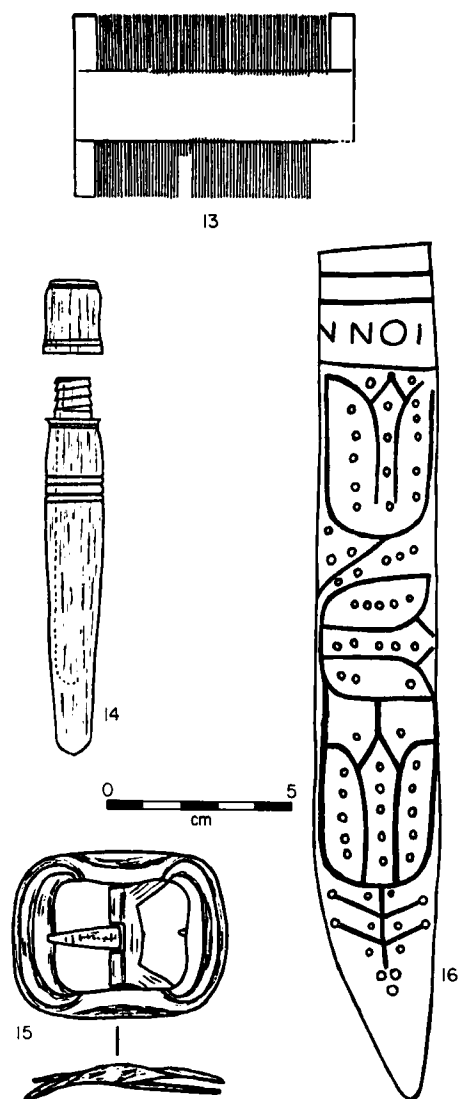


Figure 17. No. 13. Flat horn or ivory comb, 0.0015 m thick. Four combs of this type and approximately of this size were found, two of which are so incomplete that their lengths cannot be determined. One comb was curved or bent along the middle, but this may be due to distortion on drying.

No. 14. Wooden needle dolly circular in section, with a screw thread at the top for a cap. The hollow interior contains no trace of the needles it once contained, except an iron corrosion deposit.

No. 15. Pewter buckle, curved, with a swivel hinge.

No. 16. Leather knife sheath, stitched at the back, and decorated with tulips. At the top it is inscribed "ANNO 1744".

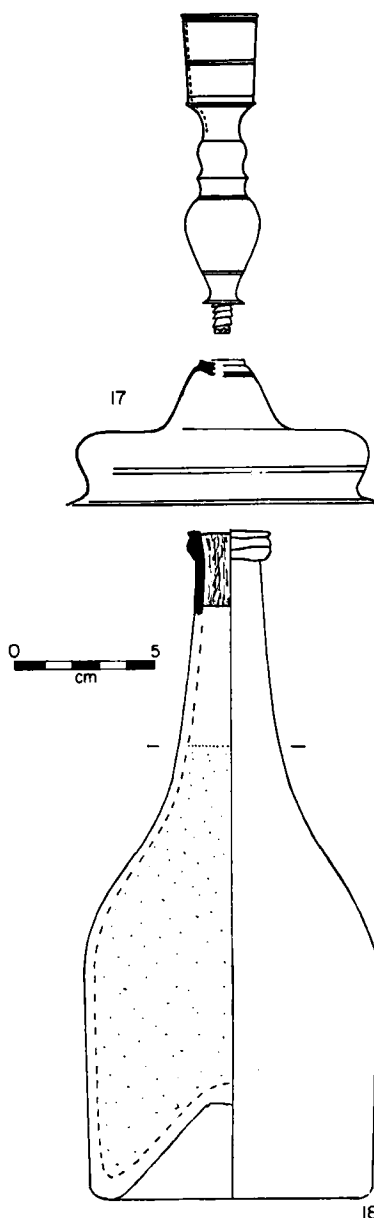


Figure 18. No. 17. The top and bottom of a circular bronze candlestick, the former screwing into the latter. Nine examples of this type of candlestick base were found, all of about the same size. These were found in the after half of the ship. Each has a small hole near the top for removing wax (not drawn).

No. 18. Tall, green glass wine bottle, corked, and containing red table wine (stippled). This bottle form of the mid 18th century is typically French.

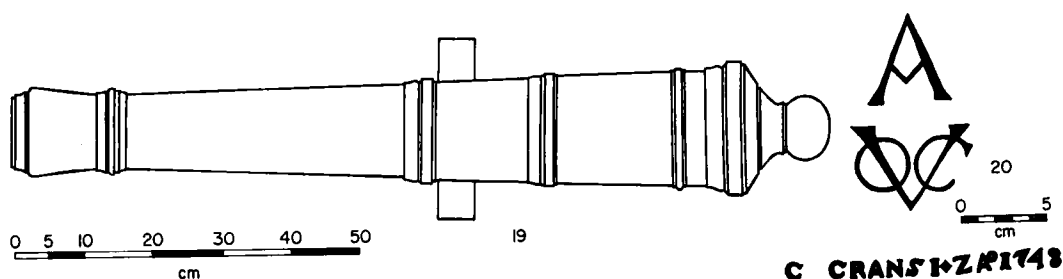


Figure 19. Nos. 19 and 20. A small bronze cannon, 1.2 m long, weighing about 117 kg. It has a bore of 0.055 m. It is inscribed (no. 20) with the insignia of the Amsterdam Chamber of the Dutch East India Company —“A-VOC”; and also the maker’s name and date of manufacture, “C. CRANS 1 Z A° 1748”. Mr D. Bevaart has identified the gunfounder as Cyprianus Jansz. Crans of Amsterdam. Crans was making guns as early as 1734 and continued till he died in 1755. The cannon also bears a mark of three crosses beneath a simple crown, which are the arms of the city of Amsterdam. The gun also bears the mark “249A”, and at the end of one trunnion the numeral “111”. Four other identical bronze cannon were found with this gun, each bearing exactly the same inscriptions, except for the numerals at the end of the trunnions. One gun has the figure “111” another the figure “4”, and another the figure “11”. The cannon were found together on the lower deck close to the main hatch. Their small size together with the fact that when found they bore traces of sacking in which they are presumed to have been wrapped, all suggests that they were part of the ship’s cargo.

panel; green window glass; clay pipes; knife or fork handles; pewter spoons; bronze cauldron; bronze kettle; bronze hinge; bronze candlesticks; bronze smoothing irons; pewter tankard; wooden needle dollies; shoe and belt buckles of pewter and bronze; sticks of red sealing wax; buttons of bone and pewter; decorated leather knife sheaths; wooden pegs; marbles; a flute; a lead sheet inscribed with geometric designs; iron and lead weights dated 1748; inscribed and decorated brass tobacco box; ivory fan; brass pins; bronze tacks; leather shoes for men and women; five small bronze cannon made in Amsterdam in 1748 for the Dutch East India Company; wooden deadeyes each containing part of the rope lanyard from the foremast shrouds; parts of iron chain plates; iron cannon balls (bar shot, 12 and 8 lb Dutch); lead musket balls; bronze reamers for cleaning the touch holes in cannon; bronze cannon ball gauges; leather cartridge case belts and the bronze cartridge cases; leather sword belt; pulley blocks of various sizes and types; heather hand brushes; barrels of several sizes some with branded marks and cut inscriptions on the staves; the wooden wheel of a gun carriage; and lead sheeting and piping probably from a bilge pump.

Acknowledgements

The survey was carried out under my direction and I am extremely grateful to all those individuals

and organizations who have made the investigation successful. My grateful thanks are due to Mr and Mrs W. St. John Wilkes who have consistently worked on the site at all hours of night and day and in all weathers when the especially low tides occurred and exposed the surviving top of the ship projecting out of the beach. Their enthusiasm has helped to sustain us all, especially in the early hours of the morning before sunrise.

My thanks are also due to all the others who have helped; and especially to Lt Commander A. Bax, Prof G. Bass, Mr E. van der Porten, Mr A. Excell, Mr P. Sellens, and Mr M. le Mesurier.

I am most grateful to Dr E. Hall, Director of the Research Laboratory for Archaeology, Oxford University, and to his assistant Mr J. Green for organizing and financing a survey of the *Amsterdam* with a proton magnetometer and a metal detector. The actual work was carried out by Mr Green and the results have been extremely valuable.

The Research Laboratory also arranged for E.G. & G. Geophysical Ltd. to examine the wreck with sonar, and thanks are extended to Mr I. Bowyer and Mr A. Cameron of that company for carrying out this work without charge. The results of the sonar, which deeply penetrated the sea bed in and around the wreck, cannot be published at this stage because the interpretation of the graphs has not yet been completed.

International Distillers and Vintners Ltd., of Harlow, kindly examined the wine, and in this

connection I am most grateful to Mr A. Simpson, Chief Chemist of the Company.

Dr M. Stant of the Royal Botanic Gardens at Kew kindly identified the wood and other botanical samples from in and around the ship.

An especially great debt of gratitude is owed to the B.B.C., T.V. "Chronicle" programme which, through Mr P. Johnstone and Mr R. Sutcliffe, was the main sponsor of the investigation. It was through them that it was arranged that Mr J. Reinboud of the Dutch television service, K.R.O., should search for records of the *Amsterdam* in the archives of the Dutch East India Company at the Hague. And very special thanks are due to Mr Reinboud for permitting me to draw from the remarkable results of his research.

Particular thanks are also due to the companies which helped on the site. Hy-mac Ltd., through the initiative of Mr P. Hamilton, Mr P. Vaughan and Mr R. Garfield, made a major contribution to the survey by placing at our disposal mobile high level platforms and an excavator, together with the skills of expert operators. This equipment was required for photographing the wreck and to aid the draining.

Itt Flygt Pumps Ltd. also made a major contribution, without charge, through Mr J. Francis. In March 1970 they pumped nearly 100,000 gallons of sea water in about 30 minutes from the scoured hollow in the beach in which the ship lies, to expose features of the vessel not normally seen.

Grateful thanks are due to Mr J. Manwaring Baines, Curator of Hastings Museum for a grant of £25 from Hastings Corporation and for an enormous amount of help and many kindnesses; to the CNA for paying £20 towards the cost of the preparation of this archaeological report; to the Town Clerk of Hastings Corporation; to Superintendent Hailey of the Sussex Constabulary; to Mr J. Aaron, chief diver on the sewer outfall scheme; to the Brockbourne Plant Hire Co. for making probes free of charge; to Mrs M. Rule of Fishbourne who treated some of the wood pulley blocks in polyethelene-glycol to ensure their preservation and kindly sent drawings of those items; to Mr. J. Waterer of the Leathercraft Museum for advice on the leather; to Mr B. Bathe and Mr G. Naish for help in various ways; to Mr A. Oswald for the identification of the clay pipe makers; Mr. R. Hazelhoff Roelfzema and Mr R. Vorstman of the Nederlandsch Historisch Scheepvaart Museum, Amsterdam for help and advice; to Mr K. Young and his colleagues of William Press & Son Ltd., who made the initial discoveries in 1969. Although their mechanical excavators did a considerable amount of damage, it is fair to say that when Mr Young and his colleagues realized the significance of what they had found they did everything possible to assist the archaeological work. In fact had they not dug into the ship, the *Amsterdam* would still be unknown as an important archaeological site.