"JAMES MATTHEWS" EXCAVATION SUMMER 1974-75

By

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Report - Department of Maritime Archaeology,
Western Australian Museum: No. 26.

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Background of the Wreck

a) Discovery: The wreck was located on 22 July, 1973 on the north side of Woodman's Point in Cockburn Sound, by members of the Underwater Explorers Club. The divers were at the time engaged in an underwater line search as part of a wreck research programme organised by the Club. Under the provisions of the Museum Act the discoverers were granted a reward of $200.00.

b) Construction: The James Matthews was a snow brig of 107 tons, registered at the Port of London. The vessel was 80.2 feet in length, with a breadth of 21 feet and a depth of 11.5 feet (approximately 24.5m x 6.5m x 3.5m). It had one deck, two masts, a square stern, male bust figurehead and no galleries. On arrival at Fremantle the vessel was owned jointly by Frederick Leith and others and commanded by Mr Roberts.

c) The Sinking: The vessel arrived at Fremantle safely on 21st July, 1841 and anchored in Owen's Anchorage. A day after her arrival a series of heavy squalls struck the port and the James Matthews parted her cable, to be blown southward on to Woodman's Point. The masts were cut down but one pierced the bottom of the ship which soon filled with water. Only one life was lost, that of a fisherman who had come on board during the afternoon for shelter from the wind.

d) The Emigrant Ship: The James Matthews had left London for Fremantle on 28th March 1841 with a cargo of 7,000 slates, farming implements, general cargo, 3 passengers and a crew of 15. One of the passengers, Henry de Burgh, left a comprehensive diary covering the voyage to Australia and his later experiences on the land. Much of the cargo belonged to de Burgh, who had been involved in the organisation of the enterprise in England and had an interest in the vessel. When the brig was wrecked he suffered a considerable personal loss, including a case of guns and rifles, and a chest containing 200 sovereigns.

e) Slaver and Trader: On 25th April, 1837 the brig Don Francisco was seized as a prize near the island of Dominica by Her Majesty's Brigantine Griffon. At that time the Don Francisco had 433 slaves on board and was in a near sinking state. The vessel was condemned as a slaver by the British and Portuguese Mixed Commission Court on 21st November 1837, and re-named the James Matthews. It had been owned by the very notorious Francisco Felis da Souza, alias Char Char the slave dealer of Whydah, and had Portuguese registration. During the court proceedings it was revealed that da Souza had earlier purchased the vessel from a Frenchman, Gabriel Giron, who was apparently a slave dealer also. The Lloyds' surveyor judged the vessel to have been French built. Subsequent to its condemnation the vessel was sold, repaired and entered into general trading under British registration.

Significance of the Wreck

a) The Hull: The hull of the James Matthews is unique. It appears to be the sole surviving representative of the slave trade and thus has international historical and archaeological significance. The hull is in an excellent state of preservation and the site conditions are such that very detailed recording and excavation are possible.

In 1836 a Bill was presented to the British Parliament requiring that slave ships, immediately after condemnation, should be broken up entirely, and sold in separate parts. The purpose of the bill was to defeat the practice previously adhered to by those in the slave trade, of re-purchasing such vessels for re-employment in the slave trade. In 1837, when the Act came into effect there were 24 prizes at Sierra Leone. The schooner Gazita, which was one of the 24, was cut in two and sold; the remaining 23 were hauled out and burned. The effect of this and other similar legislation must have been to severely limit the chances of survival of any representative of this type of ship. It was fortuitous that the James Matthews was not broken up after condemnation.

The vessels built for the slave trade needed to meet special constructional requirements, such as a shallow draft, fine lines for speed and various internal fittings to provide for the slaves. Slave ships were famous for their excellent sailing qualities and some of their internal features were so obviously intended for a specific trade that legislation was passed providing that vessels of this design could be detained as a prize even without the actual presence of slaves on board.

Existing plans of slave ships are extremely scarce and limited in information, so the James Matthews offers the only source of a wealth of detailed information on this type of vessel.

b) The Cargo: The colonial cargo of settlers' supplies is of local historical importance as providing one of the earliest collections (only 3 earlier colonial wreck sites have been inspected by the Museum). Although the cargo is limited in quantity by the size of the ship, the site conditions have preserved material well. The smallness of the enterprise increases the historical value of the material. It would appear that most of the cargo was owned by those on board who were jointly involved in an agricultural pioneering enterprise. Thus, much of the material can be identified as belonging to particular persons, and its intended use in the Colony can be determined more readily than would be the case for a larger vessel. Descendants of the de Burghs can provide much information.

The Site

The wreck lies buried in sand approximately 100 metres from shore. The water depth varies between 2 and 3 metres, and the sand basin in which the wreck lies is surrounded by a bank of sea grass. The highest section of the wreck consists of the mound of slates and a bundle of large iron lengths resembling railway lines (see photograph 1). Beneath these are the ballast stones which lie on top of the ceiling timbers.

Visibility on the site is usually poor due to the proximity of the site to a cement works jetty. Barges deposit loads of lime sands at the end of the jetty for dredging into the factory. Consequently a fine milky suspension cloud repeatedly moves over the site, sometimes reducing visibility to less than one foot. A south westerly breeze is necessary to clear the site entirely. The site is protected against swell and rough wave conditions during all weather with the exception of a north westerly wind.

Summer 1973 - 74 Excavation

At the end of 1973 members of the Underwater Explorers Club under the direction of Mike Pollard carried out a triangulation survey of the site before any excavation was started. At that time little of the wreck was visible above the sand. A limited excavation was carried out by the Museum during the period January to April 1974. The aim of the excavation was to raise the upper levels of the slate mound in order to ascertain the extent and condition of the site. Some 4000 slates were raised, of which 2000 (unbroken) were donated by the Trustees of the Museum to the National Trust, for use in the restoration of the historic Strawberry Hill farm complex at Albany. Two Museum staff were involved (Henderson and Sledge) and support was given regularly on an honorary basis by Mike Pollard and Jon Carpenter. Sixteen diving days were organised, of which four days were non-productive because of motor failure. Most of the work

(nine days) was carried out during weekends because of the dependence upon amateur support. The season was plagued by outboard engine trouble and finally brought to an abrupt halt when one motor blew up.

Summer 1974 - 75 Excavation

The aim of the 1974-75 excavation was to expose the hull for recording and to raise the cargo items and ship's equipment exposed during the process.

a) Equipment: The 7 metre plywood workboat Ballamara was used. This vessel was purchased by the Museum from the local University in the early 1960's and has been used for earlier inspection work, some minor work on the Batavia during the 1960's, the Vergulde Draeck excavation, the Eglinton excavation, and the first season on the James Matthews. The Ballamara was powered by the twin outboard motors purchased for the Vergulde Draeck excavation in 1972. During the season one motor became completely unserviceable and was replaced. Diving work was carried out with surface demand equipment, and a 5 horsepower Honda driven water pump was used for dredging. In the latter part of the season a second water pump was required to speed up the excavation. These pumps were run in a 3 metre aluminium dinghy which proved to be a satisfactory platform.

b) Techniques: The 1973-74 season had been used in part for the development of techniques for excavation of sand sites in shallow water. The water dredge pumps water through a deliver se to a short double ended 17 centimetre

internal diameter pipe held on the bottom. The current created by the pump produces a suction at the holding end and thus acts like the airlift. The important difference between the airlift and the water dredge however is that whereas the airlift loses power as the depth decreases, the water pump tends to increase its efficiency slightly. For this reason, on the shallow James Matthews site a small water pump could be used to shift large quantities of sand, thus making it possible for the operation to be carried out from a small surface platform. Nevertheless the pumps used could only move sand effectively on a nearly horizontal plane, and then only for a distance of two to three metres. In order to clear a large area of the site it was essential to develop a system of spoil removal because unless sand was taken right out of the area it would drift back onto the site overnight.

The removal system developed employed a 44 gallon drum halved lengthways, which acted as the spoil container. Lift was supplied by shackling to the drum 2 fifteen gallon plastic buckets, which could be filled with air from the surface demand unit in order to float the drum for removal from the site. The dredge spoil was directed into the drum from the pipe. The system was very cheap to produce, and proved to be effective because the open mouths of the drum and the buckets made filling and emptying an easy task. It was found that 2 spoil removal units could cope adequately with one water dredge's output, and that 3 removal units were necessary to cope with 2 water dredges working continuously. The system requires a large labor force (one man per unit) but the 'rubbish bin brigade' requires no special skills, their only task being to float the drum, swim it off the site, and empty

it by overturning the drum. For this reason it is a convenient chore to give to the 'irregulars'; those volunteers who visit a site just once or twice during a season to see what is going on. The major limitation of the system was that the half 44 gallon drum has a low capacity to weight ratio, and a larger fibreglass bath is being tested as a spoil container.

Triangulation of the hull timbers and location of the objects raised was carried out using the metal marker pegs placed around the site for the original survey. This method proved adequate for the area cleared as the majority of the site lies on an almost horizontal plane. Details of the timbers were also recorded by taping the measurements of each plank (see fig. 2). The poor visibility on the site made photography with the available 35mm lens generally unproductive underwater, and workers had to rely on drawing rather than photographic recording in the main.

c) The Timbers: The area cleared in 1974-75 was that immediately fore of the midships slate mound. The keelson was exposed, and then the adjacent inner planking was uncovered. Dredging then proceeded up the ceiling to the bulwarks of the port side about midships, where the scuppers and chain plates were exposed, as well as what may be part of the coaming of the main hatch (see fig. 1). If this is so it would imply that the James Matthews was built with an extremely wide main hatch. The remains of iron griddings, which may have been deck gratings, were also recorded in this area. The outer planking is sheathed with copper, and the timbers are fastened with copper, iron, and wooden tree-nails. A thin pine inner skin covers a section of the inner planking (see fig. 2).

d) Small Finds: The small finds consisted mainly of domestic items such as ceramics, glassware, clay pipes, a walking stick, an umbrella and several shoes; various carpenters' tools such as awls, tool handles, parts of saws and a carpenters' plane; and ship's fittings including pulley blocks, iron gridding etc.

e) Organisation: The site was visited on 28 days between January and April 1973, a 93 day period, giving an average of 2 diving days per week. Work on the site was as follows: Henderson 28 days, Powell 10 days, Staniforth (honorary) 10 days, Sledge 8 days, Ingelman-Sundberg 7 days, Pollard (honorary) 5 days, Stewart 5 days, etc in a diminishing progression. More than 15 other individuals visited the site on at least one day each. Thus the basic support team was amateur.

f) Problems Encountered: The nature of the James Matthews site is such that excavation can only be effective if intensive over a short period of time. When the sand is removed it is gradually replaced by other sand shifting in from the surrounding area. This means that overnight a certain portion of a days clearing will be negated. If the excavation is done on a weekend basis the same sand has to be shifted many times as the amount of re-fill during the interim period is extensive. This situation occurred during the last season, when an average of 2 days per week were worked on the site. There were two main reasons for this: (i) Equipment Problems: During the season work was continually interrupted by the outboard motors breaking down. These motors had previously served for the entire Vergulde Draeck season, two

seasons on the Eglinton, and a season on the James Matthews. The Ballamara hull was leaking heavily throughout the season and at one stage the bilges were filling two thirds of their depth each night. Wood worm has been found in the hull. It is hoped that Ballamara will be replaced with a more effective boat before the next season. (ii) Staffing Organisation: The James Matthews excavation season was carried out concurrently with that of the much larger Batavia excavation. This prevented work being done on many days either because insufficient staff could be spared for the work or because the director of the excavation had other overriding administrative commitments as acting curator in the department. The over-strained staff situation was such that no other staff member could be considered as a 'regular' on the site during the 1974-75 season. No expedition can be effectively run without regular support, as the alternative is continual training of new helpers by the director of the excavation, who can expect no help with the more complicated tasks from the less experienced of the amateurs. During the coming season it is planned that excavation on Batavia (March to May) and James Matthews (December to February) will not overlap.

Planned Excavation 1975 - 76

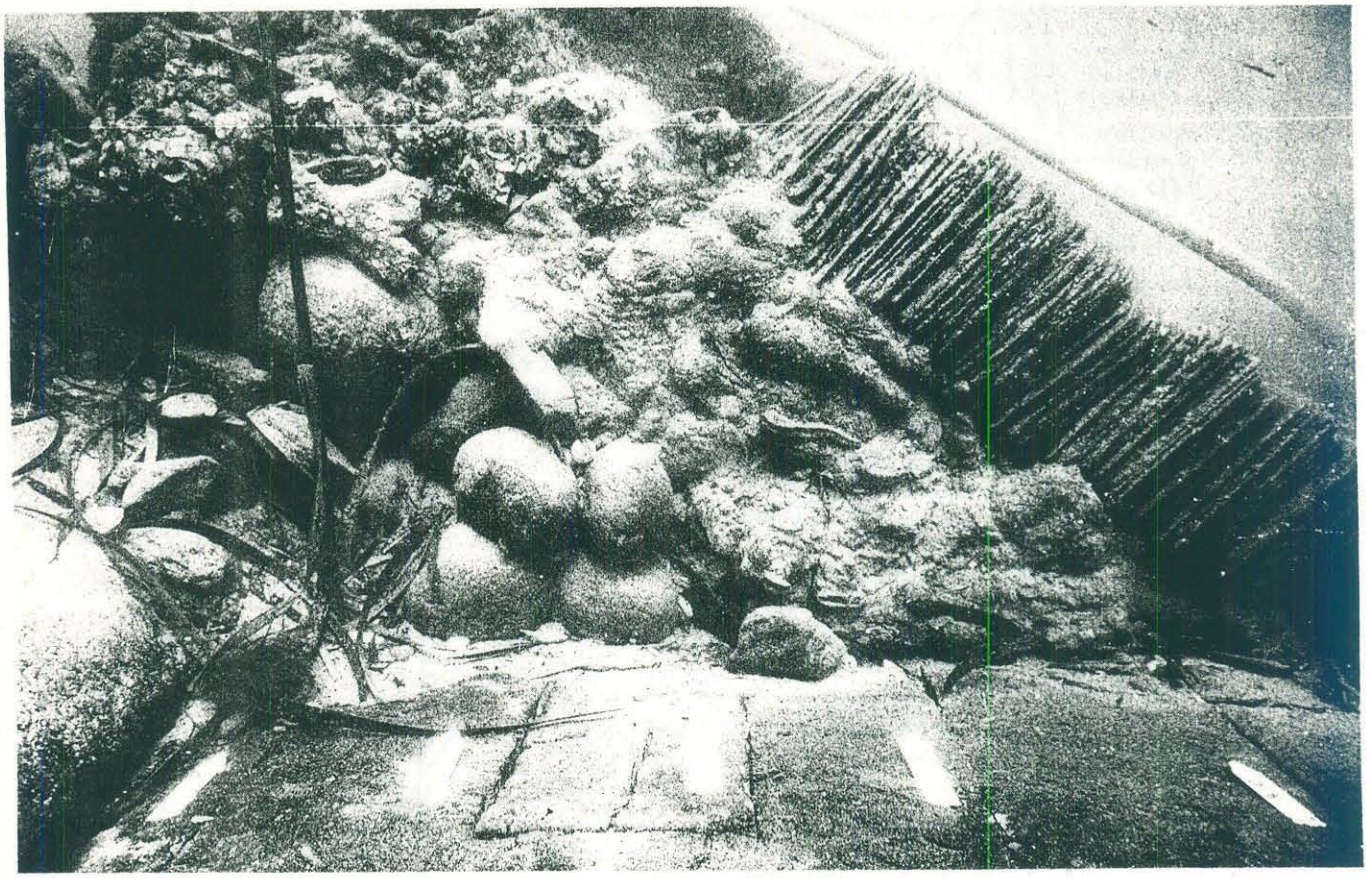
During the period December 1975 to February 1976 it is planned to completely uncover and draw the hull of the James Matthews, as well as to raise the small artifacts. From the detailed hull survey it is hoped that a decision will be possible as to whether it would be of value to raise

the hull in future for study and restoration as an example of a slave ship. The intensive work during the season will require the regular support of the Maritime Archaeology Department staff, with amateur support in a complementary capacity rather than as the backbone of the operation. It will also require a better boat.

Acknowledgements

The work to date could not have been accomplished without the enthusiastic support of a number of amateur divers. The Underwater Explorers Club members, particularly those who discovered the wreck, have played an important role throughout the work. Mike Pollard's archival research was as helpful as his assistance on site and he is in many ways the ideal honorary associate for this work. Jon Carpenter (now on the Conservation Department's staff) also did a lot of voluntary work. Members of the recently formed Maritime Archaeology Association, in particular Mark Staniforth and Gerry Russell, formed part of the team on many occasions. Many others helped in an honorary capacity. Maritime Archaeology Department staff provided their skills enthusiastically on the site on all occasions when present, Scott Sledge being my chief assistant during the 1973-74 season. The valuable assistance of the Conservation Department and the Administration section of the Museum goes without saying.

The Western Australian Museum sent me to the National Maritime Museum, Greenwich, in 1974 for a period of study under the supervision of Commander David Waters. This enabled me to research archives in England.



PHOTOGRAPH 1. Ceiling timbers showing keelson on lower left, ballast stones in centre and slates on upper right.

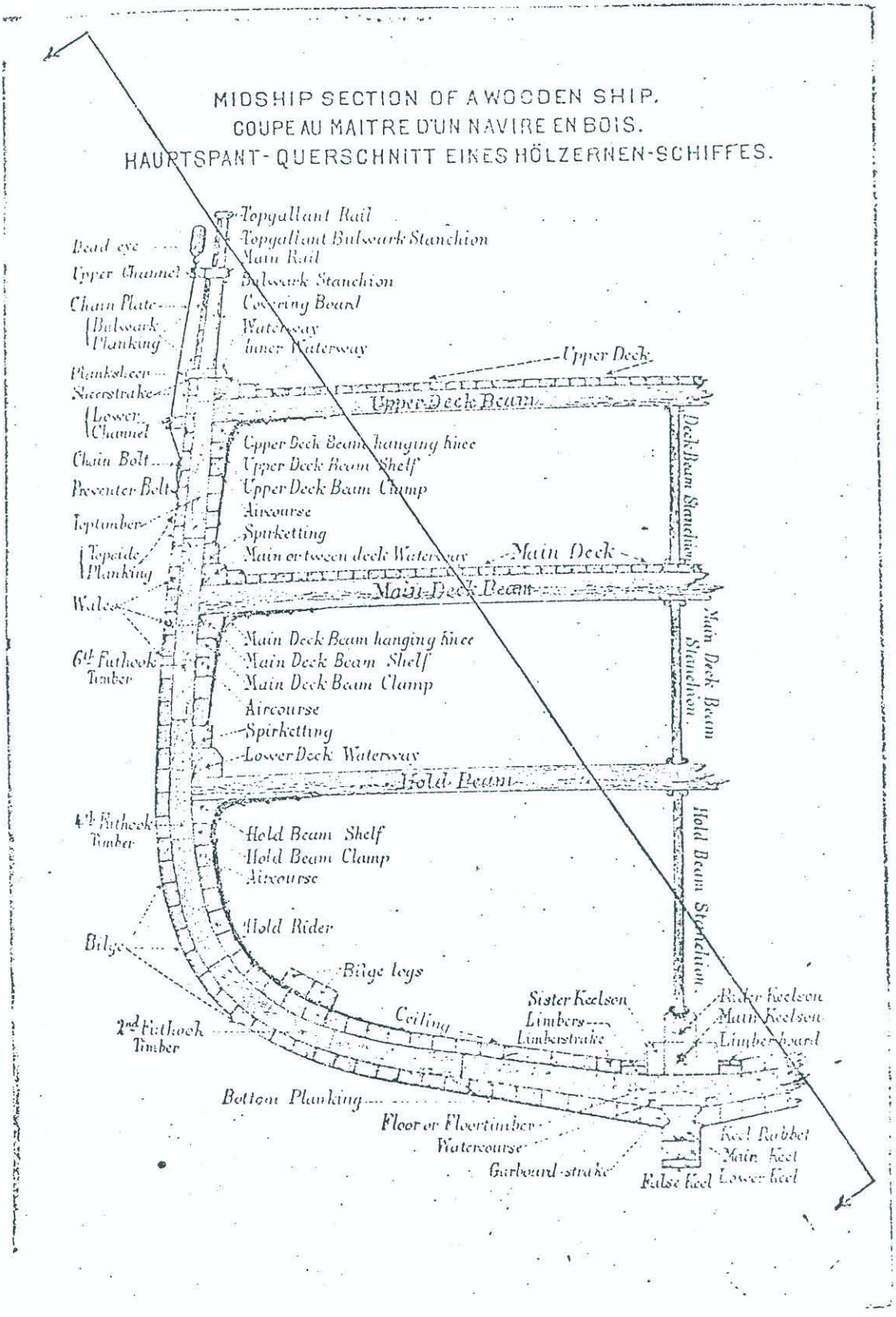


FIGURE 1. The area exposed to date.
N.B. The James Matthews has only 1 deck.

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FIGURE 2. Timber Measurements.