

The discovery of an English East Indiaman at Bassas da India, a French atoll in the Indian Ocean: the *Sussex* (1738)

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The uninhabited atoll Bassas da India is situated in the Mozambique Channel (lat. 25°27'S, long. 39°45'E) and belongs to a group of small French islands called les Iles Eparses, the Scattered

Islands (Fig. 1). With the exception of Bassas da India, which is uninhabited as it is submerged by the Ocean at high tide, these islands serve as bases for French meteorological stations. Places

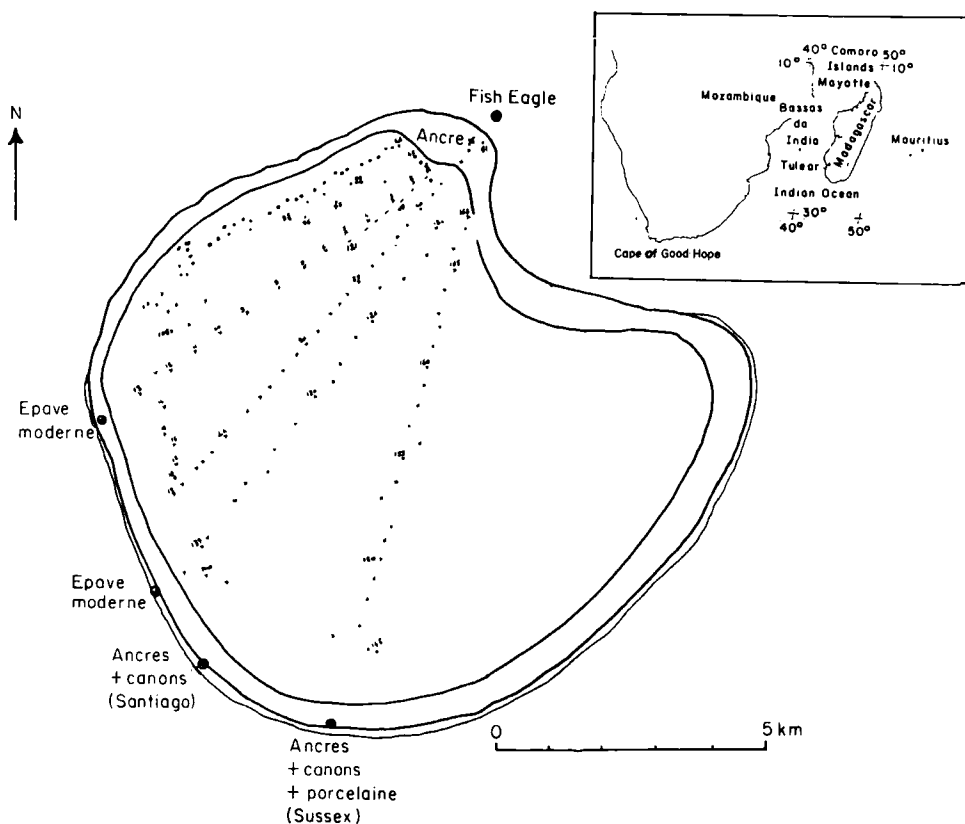


Figure 1. Bassas da India, showing magnetometer search area in the lagoon and wreck sites located on the atoll during the 1987 survey. Inset: location (drawing: F. Richez).



Figure 2. Two anchors and several guns, the first indications of the *Sussex* wreck-site (photo: M. L'Hour).

of egg-laying for the sea-turtles, they are also classified as 'complete integral natural preserves'. For that reason, access to the islands is restricted and a stay on one of them is permitted only when the planned activities are considered to be in the public interest. However, official restrictions and French naval supervision did not prevent some South African divers from visiting Bassas in 1976 and systematically looting the wrecks on the atoll. A large number of artefacts were sold after 1976 to various museums in the world, chiefly to the Natal Museum (South Africa) and to the Lisbon Museum (Portugal). It is feared that these purchases will only encourage further looting. France made a diplomatic protest in 1984 to both the Portuguese and South African Governments.

Following this, the French Ministry of Culture planned a systematic survey of the atoll in 1987 and this was financed by American sponsors. The operation was directed by Michel L'Hour and carried out in September and October 1987. Several wreck sites were discovered and south of the atoll the remains of the East Indiaman the *Sussex* were identified. This ship ran aground at Bassas in 1738, while homeward bound from her first voyage to the Far East.

The site and its surroundings

Very few reliable charts are available for Bassas da India. The semi-submerged islet seems to have been discovered by the Portuguese pilot Gasparo Gonsalves. It lies in the middle of a busy sea route in use since the beginning of the 16th century and acts as a ship-trap. Map No. 6643 of the Hydrographic and Oceanographic Service of the French Navy and two spot satellite photographs, provided data on the bathymetry of the lagoon and of the outer periphery of the reef crown.

Submerged at high tide under 1 to 3 m of water, Bassas da India is seen at low tide as an enormous structure of coral, very roughly circular, with an average diameter of 10 to 12 km. The flat ledge of the reef, emerging sometimes more than 1 km wide, encloses at low tide a lagoon, 7 to 10 km wide and 3–16 m deep. Navigation in the centre of the lagoon is made particularly difficult by the presence of coral 'chimneys'. A pass on the North-East ensures, from mid-ebb tide to mid-flood tide, water circulation between the lagoon and the ocean. The current there is naturally very strong causing dangerous whirlpools. Only a boat with a very slight draught, or a rubber dinghy may, at slack water, venture into the channel.

Logistics and survey methods

The survey team of 15 and its equipment were taken from Mayotte on board the *Fish Eagle*, a 52 m long supply ship rented in Mombasa. Five containers, two for the storage of the material and equipment, and three for the accommodation of the survey team had been arranged on the long quarter-deck.

Exploration of the outer periphery of the reef crown soon proved to be nearly impossible, as the seabed reaches depths accessible only to submarines i.e. 300 to 400 m at 200 m away from the atoll, and near 2000 m deep at less than 1 mile away. The whole south-western and south-eastern side of the atoll, or almost 25 km of the 40 km circumference, is permanently swept by huge waves on average 3 to 7 m high.

In view of the size of the zone to be surveyed two methods were used. The first consisted arbitrarily of dividing the reef into sectors. The survey was made by sight, and with the help of metal detectors, by a team of walkers landed each day at low tide. While the northern fringe of the atoll did not present too much difficulty, the southern side was full of crevices, half-flooded and cut by channels stirred up by a perpetual current. The dead coral, weakened by the unremitting blows of the waves at low tide and breakers at flood tide, collapsed under our feet, making prospecting difficult. The other method used aimed at making a magnetometric survey of the lagoon. The mission used two magnetometers. Several tens of kilometres of profiles, mainly in the centre and west of the lagoon, were made (Fig. 1). Clearly in order to be really useful several hundreds, or even several thousands, should have been produced. However, due to the enormous operational problems this was not possible. Such remains as were detected proved to be of modern origins.

Unidentified 19th century wreck

Paradoxically the reef walkers obtained the only tangible results at this stage. On the immediate outskirts of the anchor positioned north of the reef a few finds resulted in the recognition of the remains of a capital ship or trader, probably dating from the late 18th or early 19th century.

16th Century wreck *Santiago*

Despite this first northern discovery, the southern zone, the most dangerous of the reef,

seemed to be the richest in finds. Two ancient sites could be identified. The first one revealed itself to us as a relatively homogeneous site. Concentrated in a basin 10 m wide and about 30 m long, 10 cast-iron cannon and two big anchors were recognized. Within a radius of 50 m around this group lay five other anchors and a big gun trapped in the coral. No wooden structure was identified. The artefacts appeared to be linked to late 16th-century European vessel. The hypothesis that it could be the remains of the *Santiago*, a Portuguese carrack lost in 1585 at Bassas da India after grounding in calm sea, is compatible with our evidence. However, the site did not yield sufficient proof of identity during our investigations. The wreck site has been known since 1978 and there has been much looting (Throckmorton, 1987). It is possible that some artefacts and a part of the artillery remain under 1 m of dead coral. Further excavation of the site was not possible without endangering the lives of the divers.

The *Sussex* shipwreck

The day after the discovery of the *Santiago*, a second site was located 1200 m to the east. The wreck was marked on the surf edge by a concretion of two anchors and several guns and some 200 m further on by a heap of ballast bars. Spread over more than 1 km² several thousand sherds of Chinese porcelain were found. This blue and white porcelain belongs to a transitional Yung Chêng production (1723–35) and Quienlong production (1736–96) and indicated an East Indiaman. Moreover, finding the cargo on the south rather than the north of the atoll indicated the wreck of the *Sussex*, an EEIC vessel lost in 1738 south of Bassas da India.

Historical background

During her homeward voyage from Canton to England in March 1738 the *Sussex*, a 490 ton vessel built in 1736, was caught in a storm, east of the Cape of Good Hope. She sprang a leak and despite the crew's efforts, within a few hours more than 10 feet of water lay in the well of the bilge pump (Dean, 1740). With torn sails and fore and mizzen masts down, the ship seemed doomed to sink, but the water in the well subsided to 3 feet and the *Sussex* seemed able to resume her journey. However, Captain Gostlin and his officers deemed it impossible to round

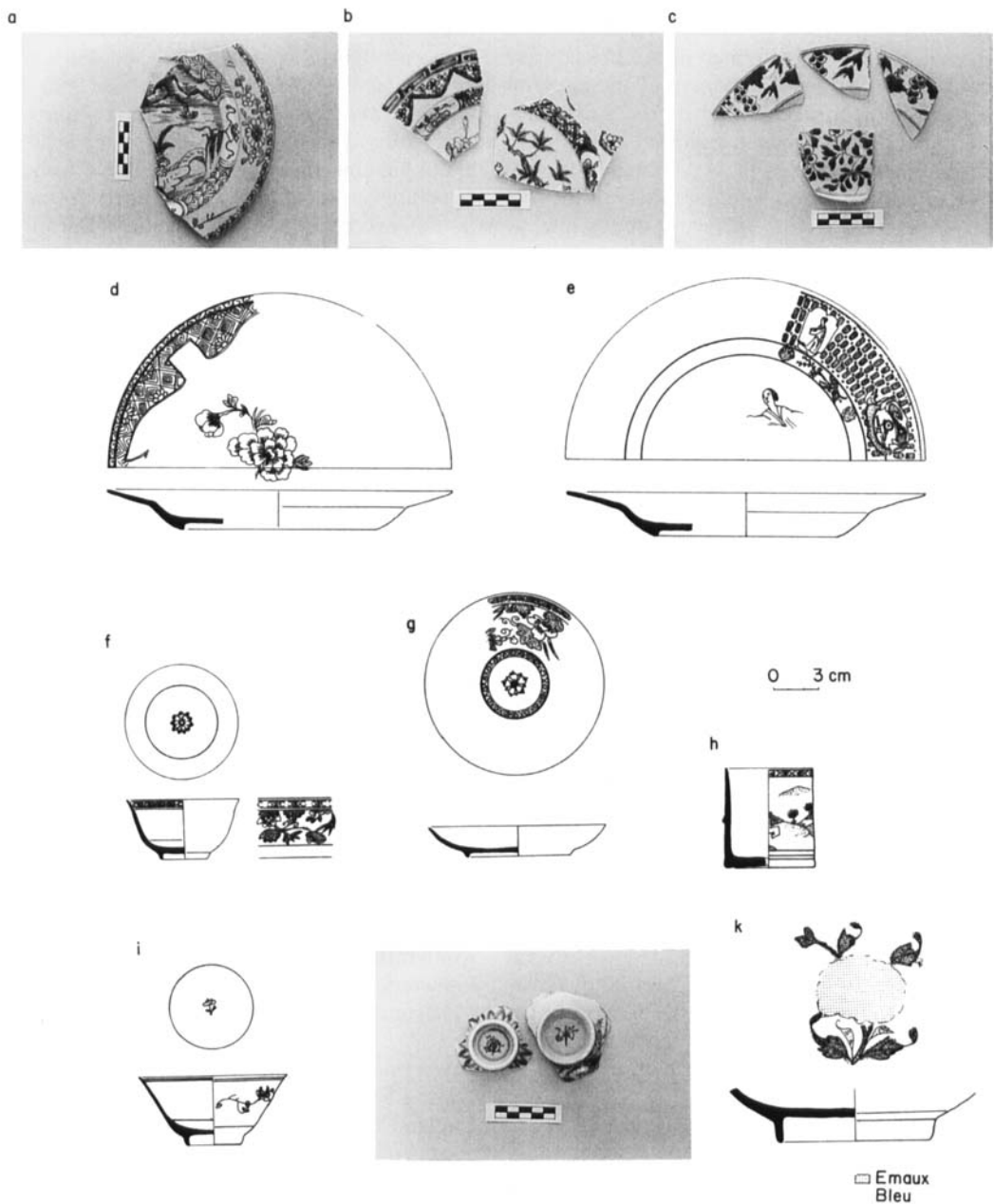


Figure 3. Chinese porcelain from the *Sussex*. (a)–(j) blue and white underglaze: (a) first service with landscapes in a frieze of geometric petals and ‘precious symbol’ medallions; (b) third service with meander border and trilobed medallions; (c) fourth service with washdrawn vine leaves, grapes and tendrils; (d) second service with an irregular geometric border; (e) fifth service with figure and bird medallions in a geometric border; (f, g) bowl and saucer from a service with a central rosette and vine-scroll border; (h) landscape pattern on a cylindrical-handled cup; (i) one of ten flared bowls with floral sprigs; (j) bases of two flared bowls; (k) blue and white enamelled bowl with a deep foot and central motif of a large peony with four petals.

the Cape of Good Hope with such an unseaworthy ship and on March 11 ordered the crew to abandon ship and transfer to the *Winchester*, another EEIC vessel sailing in convoy with the *Sussex* from Canton. One sailor, John Dean, protested that the ship could be saved and the cargo brought back to England and, he and 15 crew stayed on board.

The reduced crew headed for Madagascar, while the *Winchester* sailed homeward. Not caring to help these new style mutineers Captain Gostlin took with him all charts. Four days later, however, the *Sussex* came in sight of Madagascar, and less than one week after being abandoned by the *Winchester*, she anchored in Saint Augustin Bay. There, Dean's sailors were able to barter Chinese porcelain for water and food. In the face of a rising threat of an attack from the natives Dean proposed to leave Madagascar and head for the coast. However, while crossing the Mozambique Channel in April 1738, the *Sussex* ran aground in good weather and at high tide, on Bassas da India. The enormous waves broke up the ship, Dean and three crew members escaped by building a small craft and 3 days later reached the western coast of Madagascar. His companions died, but Dean was given shelter for several months by natives. He then boarded another English East Indiaman the *Prince William* (then calling at Madagascar on her way to Bombay). Finally, in the autumn of 1739, Dean arrived in London. As a reward for attempts at saving the *Sussex* and her cargo, the EIC granted him a yearly pension of £100 (Sutton, 1981).

The *Sussex* cargo, composed essentially of tea, silks, Chinese porcelain, and 53 tons of zinc, was abandoned. Of the cargo mentioned in the EIC archives, nothing has been found on the atoll except freight.

The cargo

The porcelain. Chinese porcelain sherds, numbering 150 and scattered over the reef, were collected

to join the 539 sherds, seized in 1984 from the South African sailboat, *Southern Strilser*.

The bottom of a bowl, bearing the imperial mark of Yung Chêng (1723–35) dates the manufacture. This porcelain is characterized by a very thick blueish to greyish glaze, a very large number of impurities in the paste and a real speckling of pin holes. Two groups differ in the technique of the 'blue and white underglaze' and the 'blue and white enamelled' decoration. For the first one, the decoration is painted with cobalt blue on rough paste before glazing and fired at very high temperature (1300° C). For the second group some parts of the decoration are painted with blue underglaze, and completed after firing with enamelled motifs fired in muffle furnace (750° C); the enamels are poorly preserved, common to both groups are dishes, plates, saucers, cups, bowls, large bowls, lids and jars.

The glass. Fifteen or so fragments of dark glass bottles, characteristic of this period, complete the inventory of finds.

Conclusions

The expedition confirmed that Bassas da India constitutes without doubt a ships' cemetery and that there is a vast reservoir of archaeological relics on this enormous atoll. However, due to the tides, currents and storms in this cyclone zone any structure is quickly destroyed and dispersed. The *Sussex* demonstrates the limited evidence to be expected.

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