

The *Griffin*, an English East Indiaman lost in the Philippines in 1761

Charles Daggett

2 Ormonde Gate, London SW3 4EU, UK

Evelyne Jay

3 rue Cecil, 75010, Paris, France

Frederic Osada

3 rue du jeu de pauvre, 71100 Châlon sur Saône, France

Introduction and historical perspective (CD)

The *Griffin* was one of only five UEIC ships to sink during the 18th century whilst on the return voyage from China. She sank in the Sulu Sea, off the southern coast of Miñdanao in 1761.

A permit to search for the *Griffin* was issued by the National Museum of the Philippines to Franck Goddio of World Wide First, a French private organization specializing in underwater archaeology, on 28 March 1985. He entered into a partnership with Christopher Shaffer and Terry Restall to undertake the survey and excavation. The fund's archivist, P. Lizé, undertook the research which enabled the wreck to be located and collected the documentation of her shipwreck.

On 21 September 1748 the Secretary of the United or English East India Company affixed an advertisement on the Royal Exchange in the City of London. It requested owners of suitable ships who were prepared to hire them to the Company for the 1749 season to make their proposals known within 4 days. This system, known as 'open tender' had been introduced as part of the reforms at the 1708 merger between the 'Old' and 'New' Companies. It was an attempt to break the virtual monopoly of the 'Marine Interest', a powerful group of ship owners who acted together to prevent others from offering their ships and set high charter rates.

Under the new system the names of all ships offered were to be balloted and only the successful ones taken up, according to the number of vessels required. However, it too was seriously flawed, as the Company set rigid guidelines for a

vessel's construction which made a ship only suitable for the Far Eastern trade. In addition the three month period between the advertisement and date of sailing meant that only completed vessels could apply and no one was prepared to build a ship without some certainty of the Company's chartering it.

Most new ships applying to the Company were built under a system which had its origins in the 1660s when an owner of a captured vessel successfully applied for permission to replace her with a new one. This gradually developed into an accepted practise. Later the Company declared that a ship was 'worn out' after four voyages and this brought protests from the owners so the replacement system was extended to cover those scrapped after their fourth voyage. It became known as the hereditary bottom convention.

The *Griffin* was built under this arrangement as a replacement for the *Princess Amelia*, captured by the French in 1747. Her keel was laid in John Perry's yard at Blackwall in early 1748 and the new ship was ready for launching on 27 September, having been built at a cost of £8 10s per ton. She was named after Commodore Thomas Griffin, RN who had defeated a French attack on Fort St David. Fortunately, the original specification for the *Boscawen*, the *Griffin*'s sister ship survives^[1] and from it can be deduced the first design of a new type of East Indiaman which abandoned the traditional raised forecastle and two decks aft in favour of a continuous deck from the bow to the single quarter deck immediately aft of the mizzen mast^[2]. The *Griffin* was approximately 130 ft.

long. She must have rated about 600 tons, but was only taken up at 499 tons to avoid the regulation for any ship over 500 tons to carry a chaplain.

The day following the *Griffin*'s launch, the names of 21 ships which had applied for the ballot were read out to the Directors. The rules stated that each tender must be accompanied by the names of two owners, in the *Griffin*'s case Captain Richard Micklefield and Francis Salvador, and the Captain, Thomas Dethick. Most of the ships on the list had only recently returned from the East and stood no chance of being made ready to sail again. A few were referred to simply as 'New Ship', and were vessels which had not yet been launched. Both these categories were simply applying in the hope that, should more ships be required later, the Directors would remember them. The remaining vessels exactly matched the number which the Company had decided to charter and this was the case year after year.

The *Griffin* made four voyages^[3], each time to China. She became the penultimate ship to trade at Limpo/Ningpo on her third voyage (1755–57) and had her usual share of adventures, being chased by the French, attacked by pirates and damaged by storm, but was an extremely healthy vessel, never recording a death from scurvy. She also had an unusually loyal crew; several seamen sailed for two or three voyages and her first mate for all four.

Until 1758, all sailings to China were governed by the prevailing winds across the South China Sea. East Indiamen were forced to arrive in Canton between June and August and depart during mid-December and mid-January. In 1758 the *Pitt* was delayed in Madras and her captain decided to sail East as far as New Guinea before turning north and proceeding up the Pacific side of the Philippines. He then set course for China and duly arrived in Canton out of season. This success suggested that ships could sail at any time of year and the Canton Supracargoes lost no time in recommending that this route be investigated. Meanwhile in Madras, Alexander Dalrymple had discovered that not all the Spice Islands were under Dutch influence; the Sulu Islands were ruled by a Sultan independent of both the Dutch to the south and Spanish in Manila. The *Pitt*'s passage gave the Governor an excuse to dispatch, under the auspices of the

Secret Committee, a small vessel with Dalrymple in command, ostensibly to look for dangers on the route, but primarily to sign a trade agreement in Sulu.

He was forced to sail to China for provisions and discovered in Canton that a vessel arriving without goods for trading was regarded with the greatest suspicion and the Supracargoes were unable to help for fear of infuriating the Chinese officials. He remained near Macau for most of 1760 when intelligence arrived warning of French warships cruising in the Malacca Strait. This placed the Supracargoes in a considerable dilemma as they had five fully laden ships, including the *Griffin*, ready to sail. Dalrymple had been forced to bring his ship into Whampoa for repairs. He confirmed to the authorities that he possessed Spanish directions for the Philippines and offered to guide the ships to the safety of the Macassar Strait, provided he could sail via Sulu. This was accepted and they left China on New Year's Day 1761. The *Griffin* was laden with 4087 chests of tea, 800 pieces of Nanking cloth and over 194 chests of chinaware and carried, as a passenger, the retiring Chief Supracargo.

Exactly three weeks later the *Griffin* was in the process of hauling up for the night when she struck on an uncharted reef. During the next 3 hours the passengers and most of the crew were taken off and she was lightened as much as possible in an attempt to float her off. This was successful and she lay at anchor for a short time until it became obvious that the pumps could not cope. Captain Dethick set a course for an island about 4 miles to the south in an attempt to beach the ship. She was, however, too seriously holed and sank on 21 January. Dalrymple knew nothing of this until the next day as he was anchored elsewhere. They carried on and arrived in Sulu 2 days later, whereupon the *Griffin*'s crew were distributed amongst the four remaining Indiamen^[4].

In August, a Danish ship, the *Count Moltke*, imported at London and informed the Company that she had spoken to the *Suffolk* (with some of the *Griffin*'s men on board) at St Helena on 27 May. This was the first report of the disaster until ten days later the *Valentine* arrived off Portland carrying Captain Dethick. He wrote to the Court of Directors and the matter was referred to the Committee of Private Trade to investigate. The investigation found the Captain

and Officers absolved of any blame. Whether the finger of guilt was pointed towards Dalrymple will never be known; he makes no mention of the wreck in his reports.

The only detailed description of what happened is a letter, stated to have been written by an eye-witness, and published in the *London Evening Chronicle* for 24–26 September. This is supported by a chart drawn by the *Griffin*'s third mate for the Company's Chairman^[5]. It shows the place where the ship struck, the positions of the other Indiamen and subsequent southerly course of the *Griffin*.

Exactly how and where the *Griffin* struck is still unclear. There are several rocks on the reef, now called Griffin Rocks, and she may have come up against these holing her side. When the hull was found, it was 66% complete. The lack of damage seems to indicate that the bottom was not dragged over a reef, but the stern section was not found and a second expedition will be required to answer this and other questions.

The survey (EJ and FO)

Two separate surveys were undertaken on the *Griffin* site, each lasting for about 1 month. The first took place before excavation in order to pinpoint the position of the wreck. The second was made after a 7 month excavation, to locate the missing stern (approximately one third of the whole structure) and the rest of the cargo. A visual inspection of the surroundings showed high sand dunes, but failed to reveal the exact configuration of the site.

A trisponder Motorola position-fixing system and several proton magnetometers (Elsac 7706 and/or Geometrix) were used. Two factors reduced the expected accuracy of the method: (1) the small size of the metallic remains and (2) the presence of a few highly volcanic islands which partly disturbed the proper interpretation of the graphs. An E.G. & G. side-scan sonar and a sub-bottom profiler were also tried but did not give positive results. Difficulties were encountered in positioning the anomalies due to the strong currents which deflected the position of the towed electronic *fish* by about 20 m on both sides of the survey vessel. Corrected data was put on a master chart of the site, together with the location of the artifacts. The sondage was performed on the biggest anomaly (60 gamma) and a hole 4 m deep, was dug between two sand

dunes. The average depth of others was 12 m. The first sherd of porcelain was found below 4.5 m of sand. By following an axis NNE to SSW along the maximum anomaly concentration, the first ballast bar was discovered.

The excavation

A 45 m vessel, *Load Star*, well equipped for diving and the team accommodation, was provided by Kris Shaffer and Terry Restall together with several other ships to stay on-site along with the *Load Star* and solve problems of regular supply. Airlifts proved to be the most useful excavation tool due to the sandy nature of the seabed and the strong currents. Starting from the sounding made during the survey, more extensive investigation revealed the path of a sunken vessel. The trail was 3 m wide on the average, and consisted of iron ballast pigs, small ballast stones, fragmented and complete porcelain and portions of lead sheeting (Fig. 1). A baseline reference system in conjunction with a 2 × 2 m grid was used to plot the relative position of the artefacts (Fig. 2).

As the wreck shifted direction during full moons when tide currents were particularly strong, the resultant track changed accordingly. Thus constant repositioning of the baseline along the 1600 m excavation became necessary. The site was 12 m deep and the archaeological deposit was covered from time to time by sand dunes up to 6 m deep. At the end of the project, a total of approximately 500 000 tons of sand had been shifted, representing 5317 diver hours. A team of eight divers was divided into four groups of two each, diving for 2 hours twice a day. The field work lasted 14 months with 55 persons involved.

The hull

After several months of excavation, a large part of hull structure was discovered under 6 m of sand. The 29 m long section represented two thirds of the hull (the bow part), with associated ribs, outer planking with nailed cladding and ceiling fastened with treenails. All these structures were found in a good state of preservation in spite of 226 years of immersion. The hull had apparently broken just aft of the mizzen mast. All upper structures and the stern section were missing. None of the 26 cannon or the anchors were found. Samples of wood were taken in vari-

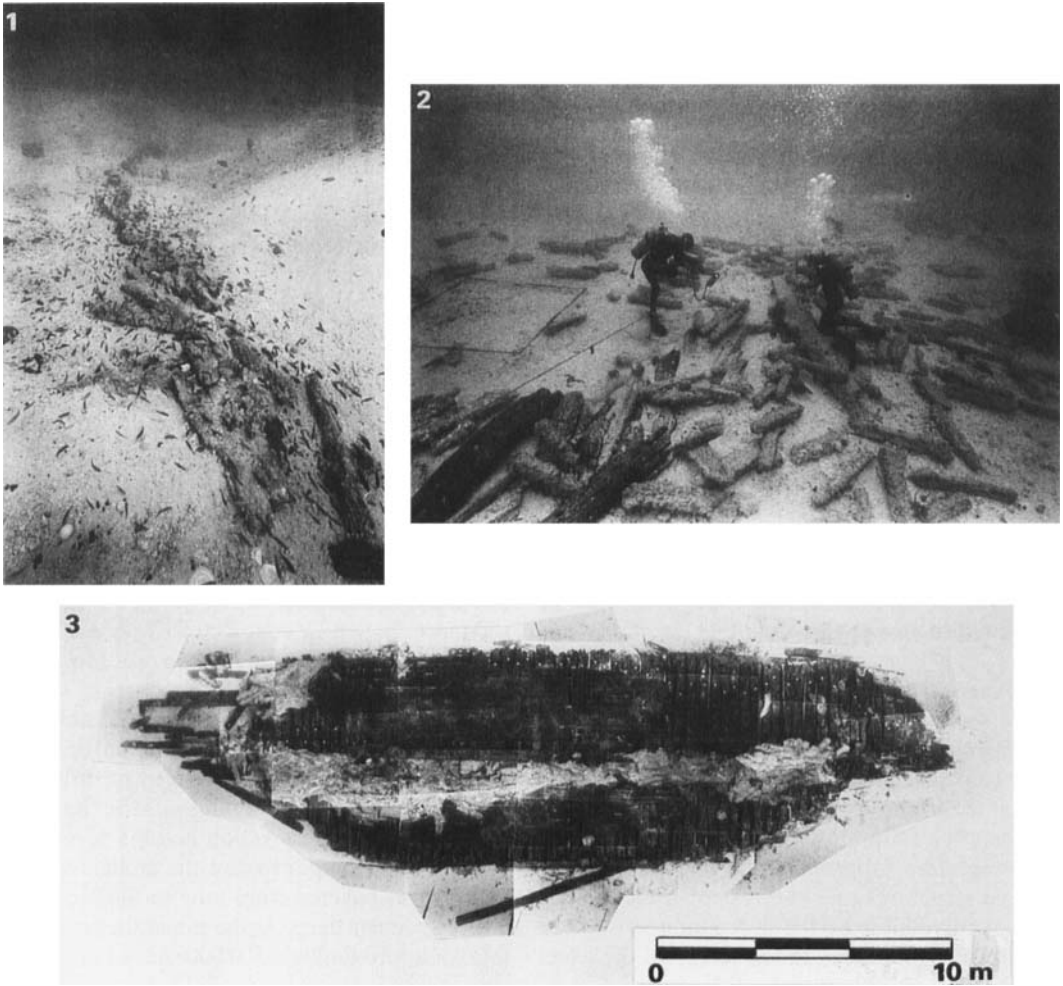


Figure 1. The track of the *Griffin* (photo: F. Osada).

Figure 2. Working on the site with the baseline and the 2 × 2 m grid pattern (photo: F. Osada).

Figure 3. The photomosaic of the wreck (photo: F. Osada).

ous parts of the wreck as well as from tea and porcelain crates. The analyses will be published in a monograph in preparation.

Graphic and photographic documentation

Thousands of photographs were taken of structure, objects, the environment, the conservation/alteration processes and excavation progress. A photomosaic of the entire hull was made using equipment developed by the professional underwater photographer, F. Osada. A 10 m long alu-

minium rail was fastened between two telescopic tripods, perpendicular to the baseline at a distance of 3 m from the wood. Two cameras were fixed to a carriage running along the rail. The tripods were positioned in five different places to allow full coverage of the 29 m length.

The final photomosaic was composed of 40 separate photographs (Fig. 3). To complete this work, a precise plan of the wreck was drawn using measurements, sketches and notes made underwater.



Figure 4. A crate of octagonal dishes associating wood, porcelain and one iron pig (photo: Zau Min Yu).



Figure 5. One of the most beautiful concretions kept for exhibition purposes (photo: Zau Min Yu).



Figure 6. Sample of the bottle types found on the *Griffin* (photo: Zau Min Yu).

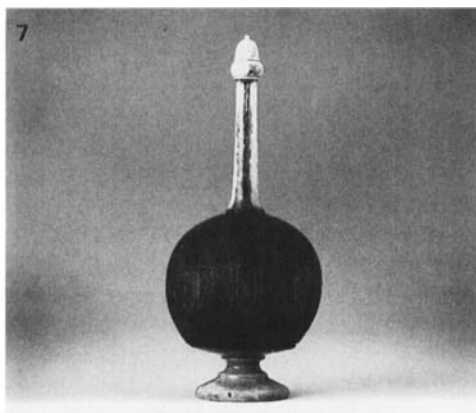


Figure 7. A small jar made of wood and ivory (photo: Zau Min Yu).

Conservation and storage of artefacts on-site

To preserve the most sensitive items, all organic pieces were maintained at a cool temperature (around 10°C), to avoid propagation of micro-organisms. Metals (mostly iron and copper alloys) were kept during the field work in appropriate corrosion inhibitors such as sodium bicarbonate and sesquicarbonate. When decorated with an underglaze blue, the porcelain was stored in a swimming pool which was regularly filled up with demineralized water to initiate desalination. When enamelled, with surviving decoration, the porcelain appeared much more sensitive. Urgent consolidation was necessary for all pieces with thick layers of enamel. Regeneration of thin enamels (iron red, gold, some green, some

brown/sepia) proved possible using oxidizing substances: particularly hydrogen peroxide. The alteration of the enamelled porcelain was obviously, and at least partially, due to biochemical activity (Goddio & Jay, 1988), for example sulphate-reducing bacteria (Montluçon & Lacoudre, 1989: 25–7).

Composite structures were numerous: crates of porcelain combining wood, ceramic and sometimes iron pigs (Fig. 4), mixtures of calcareous concretions and ferrous oxides surrounding iron pigs and containing porcelain (Fig. 5). It was decided to keep the most beautiful composite structures for exhibition while others were separated by chemical treatment.

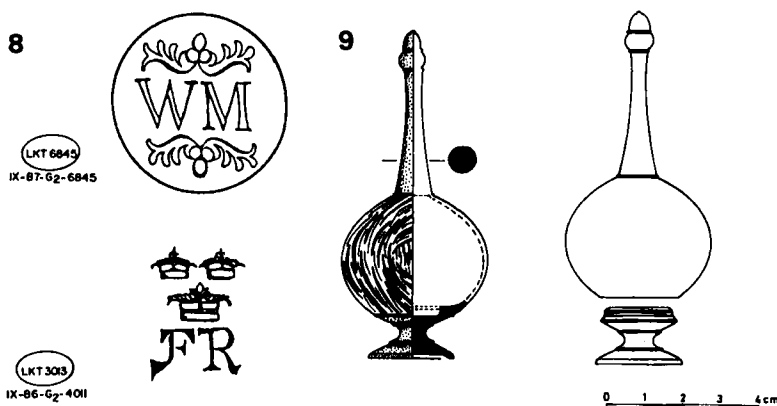


Figure 8. The two kinds of marks found on clay pipes (drawn by R. N. Bantog).

Figure 9. The small jar (drawn by R. N. Bantog).



Figure 10. A very refined teaset called *fish-roe diaper service*. The technique of decoration is mixed: underglaze blue and enamels (photo: Zau Min Yu).

The cargo

While the most valuable part of the *Griffin* cargo consisted of tea and silk, very little was left of the tea and nothing remained of the silk. One crate of octagonal dishes, one crate of saucers, concretions, pulley-blocks and metal bars, one chain, cannon balls and lead sheets formed the bulk of finds. Metal finds included two Chinese coins, four buckles made of silver and gilded bronze, four brass kettles and musket balls. After removing concretion from several iron pigs, we found repeated the legend *Elk Ridge* and sometimes date 1758 or 1757. The foundry has been identified close to the Elk River in Maryland, south of Baltimore (Singewald, 1911; Elkridge Bicentennial Committee, 1976; McGrain, 1977). Several English bottles of different types, made during the first half of the 18th century (Fig. 6) were represented. One fragmented stem of a

wineglass, decorated with typical opaque white twists conformed with the date and origin of the wreck. A few broken clay pipes were recovered (Fig. 8). The most delicate items were a series of fan sticks and guards, probably made of ivory and a small jar of wood and ivory, the bottom of which could be unscrewed (Figs 7 and 9).

The Chinese porcelain

Several thousand broken and complete pieces of porcelain were recovered, illustrating more than 250 different types. Although the complete cargo of the *Griffin* was not found, it was clear that the ceramics found in large quantities were mostly simply decorated with an underglaze blue technique. In much smaller quantity and apparently of a much higher quality were the enamelled pieces (*Famille Rose* and *Imari* style; Fig. 10) and statues (*Blanc de Chine* and coloured glazes).

This may help in differentiating that which belongs to the VEIC from private trade. It is planned to publish this porcelain fully in a monograph on the *Griffin* excavation which is in preparation.

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Notes

[1] Essex Record Office, D/D Ru. B20.

[2] The *Griffin* and the *Boscawen* are the earliest recorded East Indiamen to be constructed in this way. The pattern was then gradually adopted by the Perry Yard. See the deckplan of the *Falmouth*, built 1752 (NMM) and reproduced in Sutton (1981) *Lords of the East*. Conway, London, and also Chapman (1768) *Architectura Navalis Mercatoria*. Reprint Adlard Coles 1971, which includes a plan of an East Indiaman which may be that of the *Warwick* (built 1750), as Chapman was in London in that year. Another titled plan of the *Warwick* is in the Rigsarkivel, Copenhagen and is reproduced in Sutton, 1981.

[3] See the logbooks of the *Griffin*, IOLR, L/Mar/C/603A-D.

[4] These were the *Suffolk*, *Pocock*, *Valentine* and *Oxford*.

[5] BL Map Room, Maps 141 a.1. (71).

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