

Investigation of a possible 18th century Dutch shipwreck on Christmas Island or the Cocos (Keeling) Islands

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October 2011

Figure 1: Wrecking of the VOC-ship *Woestduijn* in 1779



Introduction

The existence of an unidentified 18th century Dutch shipwreck emerges periodically in books, letters and conversations about Christmas Island and the Cocos (Keeling) Islands. An investigation of these sources indicated that different ships may be responsible for these rumours, but it is equally possible that the Cocos (Keeling) Islands and Christmas Island themselves have been confused over the centuries or that the drifting wreckage from one ship somewhere in the vicinity of these islands has been ascribed to both places. The purpose of this essay is to compile all the citings and to make a tentative identification of the wreck. A number of interpretations are offered and, finally, recommendations for further research are made.



Figure 2: The Cocos Islands and Christmas Island (Monij) highlighted on a map from 1666

A Dutch wreck at Christmas Island?

A possible Dutch wreck on Christmas Island appears in several versions of *The New Directory for the East-Indies*:

Seventy seven leagues to the southward of the west point of Java, or Java Head, in latitude 10°22'S lies an island called Christmas Island by the English, and Money Island by the Dutch. Some years since a ship of that nation ran aground there in the night, and was wrecked. Its longitude is 105°55' E of London, and variation 2°55'W.

(Dunn 1780: 380)

The information surrounding this wreck at Christmas Island (or Monij) is characteristically vague. The original sources are not mentioned and it is difficult to assess when the ship was wrecked since no date is given. Nevertheless, there is one piece of information which is fairly specific, namely that the ship was wrecked **in the night**. Unless this is based on a simple deduction of likelihood, this could be evidence that the report emanates from witnesses or survivors.

A similar text with the same data had appeared in the earlier edition of 1775. However, the same text is mentioned with a different latitude and longitude in the later 1804 version:

Seventy-seven leagues to the southward of the West point of Java, or Java Head, in latitude 10°34'S. lies an island, called Christmas Island by the English, and Money Island by the Dutch. Some years since a ship of that nation run aground there in the night, and was wrecked. Its longitude is 105°33' East of London, and variation 2°55'West.

(Wright 1804: 460)

The 1775 edition is the earliest recorded reference to this Dutch wreck and therefore the ship must have been wrecked prior to that date. In modern times, the wreck is mentioned in correspondence with the Western Australian Museum. The earliest entry in the Department of Maritime Archaeology's files on Christmas Island is from Victorian-based maritime archaeologist Peter Harvey:

According to French records a ship picked up some Dutch people who were wrecked here on Christmas Island some time in the 1600's. Exactly where this wreck is we have no idea, but I would imagine it would be on the southern "weather" side.

My own thoughts on the matter are that there must have been other ships wrecked on Christmas Islands [sic] very rugged coast. We are located directly in line with the Sundra Straight [sic] and ships bound for Batavia must have passed here frequently.

(Letter from P. Harvey, 1980, pers. comm., 11 August)

Jeremy Green, the head of the Western Australian Museum's Dutch and pre-colonial wreck program, examined the French records, without result. The date of "some time in the 1600's" is extremely vague and makes searching for these records all the more difficult. The notion is interesting, however, because the existence of survivors, rescued by another ship, could explain the knowledge that the ship was wrecked at night.

Both Harvey's letter and the editions of *The New Directory for the East-Indies* were probably responsible for the assumption of the existence of a Dutch wreck near Christmas Island. This appears in discussions concerning the WA Museum becoming responsible for the wrecks at Christmas Island and the Cocos group:

Mr McCarthy tabled a report and informed the meeting that, as from July 1992, the Western Australian Government has responsibility for the Cocos (Keeling) Islands and Christmas Island. The WA Museum is now responsible to DASET [sic] for a large number of pre-colonial sites, i.e. *Emden*, a Dutch wreck and a large number of modern sites on both islands.

(Maritime Archaeology Advisory Committee Minutes 8 September 1992)

Despite a lack of evidence of the existence of a Dutch wreck near Christmas Island other than those cited above, the notion had gone from possibility to certainty.

A Dutch wreck at Cocos (Keeling) Islands?

Information about an unnamed Dutch wreck on the Cocos (Keeling) Islands is possibly even vaguer than that concerning the Christmas Island wreck. Queensland-based maritime archaeologist Peter Gesner referred to the finding of an ivory tusk on West Island in his correspondence with Graeme Henderson (Letter from P. Gesner, 1982, pers. comm., 19 August). The tusk had been discovered by a Mr. Dekker who lived on the Cocos (Keeling) Islands. It might be associated with a Dutch wreck. This assumption was expressed by Graeme Henderson, who was at the time curator of colonial wrecks at the WA museum:

Peter Gesner has been doing some interesting work on Dutch archives and may have a wreck to go with the elephant tusks found on one of the islands.

(Letter from G. Henderson, 1983, pers. comm., 21 March)

The tusk has not been sighted by staff of the museum and it has not been verified or dated and the nationality of the ship importing it is unknown. Since ivory is relatively heavy, it would not have washed away from the wreck site. The wreck referred to in the letter above was marked on a map from 1832 and was later identified as the *Sir Nicholas Francis Burton*, which was wrecked as late as 1826 (Henderson 2007: 54). The tusk, it is supposed, came from this ship and was being imported by the English. However, this is not necessarily the case (see p. 17).

During the preparations for an adventure training run by the army in the Cocos (Keeling) Islands, the possibility of searching for shipwrecks was mentioned as an activity. An unidentified Dutch ship on the Cocos (Keeling) Islands appears in one of their briefs and once again a possibility had become a near certainty:

Two other wrecks may be wrecked on the reef around Cocos. One a Phoenician Trading Vessel, dating BC, and the other a Dutch Galleon from the 1600-1700's.

(Adventure Training – Cocos Islands brief 1982: 2

Based on discussions with Mrs. Jennifer Amess, DASETT)

Although the information in this source seems specific (even dating the galleon as being 17th century), the reliability of the source needs to be examined. This entry is clearly a third-hand report, which contains references to claims about the presence of Phoenician shipping in the region. These emanate from a notorious Western Australian salvage diver and were later proven false (Robinson 1980: 68-69). The reference to a Dutch 'galleon' (a term not used by the museum in this context) is further indication of the unreliability of this entry. Nevertheless, it could be the same ship mentioned in connection to Christmas Island, the two islands having been confused with one another over the years. However, considering the fact that the reasoning behind this statement or its source is unknown, it is difficult to draw any conclusions. Nonetheless, it is important to examine all of the possibilities.

The *Fortuijn*

The VOC ship *Fortuijn* (in modernized spelling *Fortuin* and anglicized as *Fortuyn*) was built by the chamber of Amsterdam in 1722. It was a merchant frigate (or *retourschip*) of 145 feet and left the island of Texel on 27 September 1723 with c. 225 crew. Together with the 's *Graveland* (130 feet, c. 150 crew) and *Hogenes* (145 feet, c. 225 crew), the *Fortuijn* sailed to the Cape of Good Hope. It was a fast and healthy journey and the three ships all arrived at the Cape on 2 January 1724, slightly more than 3 months after leaving home. In total, only four men had died on the three ships. Two days later the *Anna Maria* (130 feet, c. 150 crew) and the *Doornik* (145 feet, c. 225 crew), both having left the Netherlands on the same day as the others but from a different port, also ran in at the Cape (Bruijn, Gaastra & Schöffer 1979a: 374).

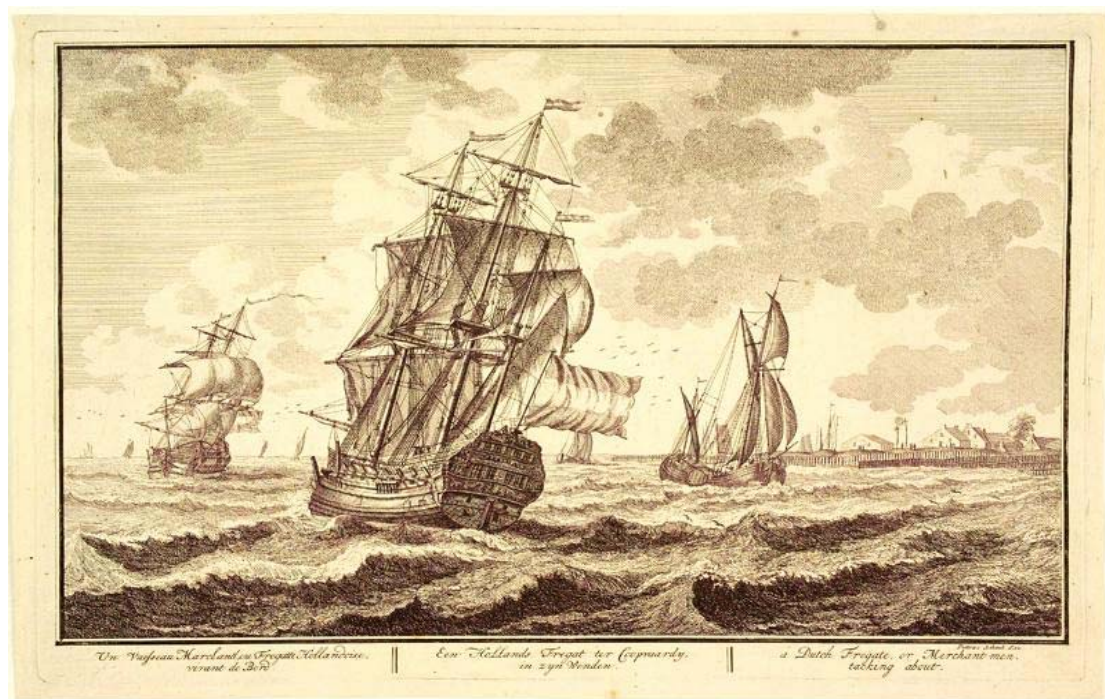


Figure 3: A Dutch merchant frigate, 1725

On 18 January 1724 the fleet of the *Anna Maria*, *Doornik*, *Fortuijn* and *Hogenes* left the Cape of Good Hope. It would be reasonable to presume that these ships had received instructions to stay together on the journey to Batavia, as they had on the first leg of their trip as well. However, they all ran into Batavia at different dates, except for the *Fortuijn*; it was never seen again. This part of the voyage was usually the faster one, with fewer fatalities and it is possible that the ships felt confident to go their own way after such a successful journey to the Cape. Another possibility is that they were separated due to bad weather.

It is likely that the *Hogenes*, *Doornik* and the *Fortuijn*, all being ships of the same size, with similar tonnage and number of crew, would have sailed at more or less the same speed. The smaller *Anna Maria* was a faster ship. It wouldn't have been long before it would have broken away from the rest of the fleet. The *Anna Maria* was the first to arrive in Batavia 2½ months later.

Ship	Departure Date Cape	Arrival Date Batavia	Journey Length
<i>Anna Maria</i>	18 Jan	1 Apr	73 days
<i>Doornik</i>	18 Jan	17 Apr	89 days
<i>Hogenes</i>	18 Jan	21 Apr	93 days
<i>Fortuijn</i>	18 Jan	--	--
's <i>Graveland</i>	3 Feb	27 Apr	83 days

Table 1: Based on Bruijn, Gaastra & Schöffer 1979a: 374

The *Fortuijn* did not arrive in Batavia and it was noted in one of the *Uitloopboekjes* (a book listing each outward-bound ship) as missing. The original text is shown in the first two rows with a translation by the author below:

gebouwt	lang	lastes	koppen	in zee gelopen	gereetourneert
1723	145	140	225	1723 27 Sept: uijt Texel	op d'uijtreijs tusschen de Caap en Bat ^a : vermist
built	length	load	heads	went to sea	returned
1723	145	140	225	1723 27 Sept. out of Texel	lost on the outward-bound voyage between the Cape and Batavia

Table 2: From NA 1.04.02 - 4935

Apparently, neither the *Hogenes* or the *Doornik* reported seeing anything unusual along their way. This was not true for the 's *Graveland*, which left the Cape later than the rest of the fleet on the 3rd of February. According to Chris Halls, an early maritime historian at the WA Museum, the 's *Graveland* encountered:

the floating remnants of a dutch [sic] ship in 13° 20' south latitude. The derelict was sighted on the 6th and 7th April, when the 's *Graveland* must have been in the vicinity of the Cocos or Keeling Islands.

(Halls 1966: 6)



Figure 4: An officer writing the ship's log

Halls' use of the terms *derelict* and *remnants* make it difficult to define the wreckage spotted by the 's *Graveland*: was this the entire ship or rather wreckage from it? An investigation of the original source would be crucial for proper identification.

Upon arrival in Batavia, the wreckage was reported and a search party was sent out on the *Windhond*, which

is said to have sailed to the Cocos Islands and found nothing, because it was impossible to effect a landing on account of the heavy surf and steep hillsides. It seems, however, from the reference to "steep hillsides" that the *Windhond* actually sailed to Christmas Island rather than to the Cocos group.

(Halls 1966: 6)

Interpretations

VOC ships had strict sailing instructions to follow to avoid getting stuck in doldrums or wrecking on dangerous reefs or coasts. These instructions also depended on the season, because this could mean a difference in the direction of the wind. Leaving the Cape in January meant that the ships had instructions to veer North well before reaching the Australian coast. They then either sailed between Christmas and Cocos (Keeling) Islands to the Sunda Strait or stayed West of the Cocos (Keeling) Islands.

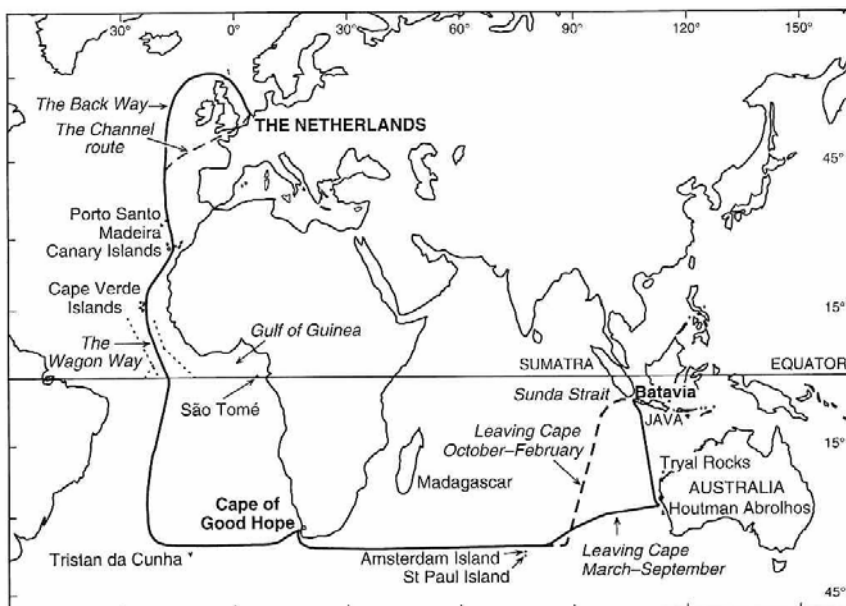


Figure 5: Sailing routes of the VOC

The *Fortuijn* could have been wrecked on the reefs of these islands or, alternatively, on the Indian Ocean. Ocean currents (the dominant one near the site of the wreckage being the westwards flowing South Equatorial Current) mean that the ship was wrecked near the place where the wreckage was sighted or more to the East. Had the ship wrecked before reaching this area, the wreckage would not have ended up in this location in such a short span of time. Therefore, it is feasible to assume that the *Fortuijn* was wrecked near the site where the wreckage was sighted or further to the East.



Figure 6: The location of the islands in relation to each other and to the Sunda Strait

There are several possible explanations as to what may have happened:

Figure 7: Ship in a storm

A storm: the ship may have been wrecked in a storm or a cyclone which occur on the Indian Ocean between January and April. However, this would have probably been noticed by the other ships in the fleet, which could have been damaged as well. This does not appear from later sources, but a thorough investigation of the journals of these ships would be required to rule out this possibility. At the moment, this does not seem likely.



Instability due to poor design: according to Graeme Henderson (2007: 53) the ship may have foundered due to poor design or unseaworthiness. During the beginning of the 18th century the VOC built wider ships (to fit more cargo in the hold) and this may have changed the centre of gravity. In this scenario the ship would have capsized somewhere on the ocean and sunk. Depending on the speed at which this happened, more or less wreckage would have been created. In principle, however, if the ship would have sunk largely intact due to instability, the wreckage would have been limited to barrels and other loose objects that could have floated away. If it sunk slowly, the people on board may have demolished part of the ship (for instance, the awning) to create rafts. The amount of wreckage, however, would have been fairly small and probably not what was described in the journal of the '*Graveland*'. Furthermore, VOC ships were generally very seaworthy and it is hard to believe the ship could have capsized unless it was caught in a storm.



Figure 8: Deck view of a VOC-ship showing loose objects that could float away

Misidentification of the wreckage: the wreckage spotted by the 's *Graveland*, despite having been identified as the remnants of a Dutch ship, could have been from a foreign ship. However, this does not seem likely as an identification of the wreckage being Dutch probably would not be made without a basis. Each nation built characteristically different ships during this period, so it is likely that an identification could be made. However, this would have probably required a substantial amount of wreckage from the ship itself, which weakens the possibility that the ship may have sunk due to instability (see above).

Wrecked on the reef: the ship could have been wrecked on the reefs surrounding Christmas Island or the Cocos (Keeling) Islands. Alternatively, it could have been wrecked on the beach or coast of either of these islands. In either case, the wreckage would have been considerable. This wreckage would probably be substantial enough to be the “remnants” of a ship and could, therefore, be identified as Dutch. This scenario seems to be the most likely. Presumably the ship was not wrecked due to carelessness or lack of able seamen, considering the safe and healthy voyage it had had so far. Wrecking was probably the result of a small error in judgement; possibly, as mentioned in some of the sources, at night without noticing the surf. Depending on the place where the ship was wrecked and the severity of the impact, there may have been a number of survivors. This could be connected to the story of the French rescue.



Figure 9: Shipwrecked on a rocky coast with survivors and wreckage on the beach

The *Fortuijn* and Christmas Island

There is one contemporary source that directly links the loss of the *Fortuijn* to Christmas Island. This is a book listing all VOC ships that were made or owned between 1603 and 1778. It also lists where each ship was lost or broken down. It states the following about the *Fortuijn*:

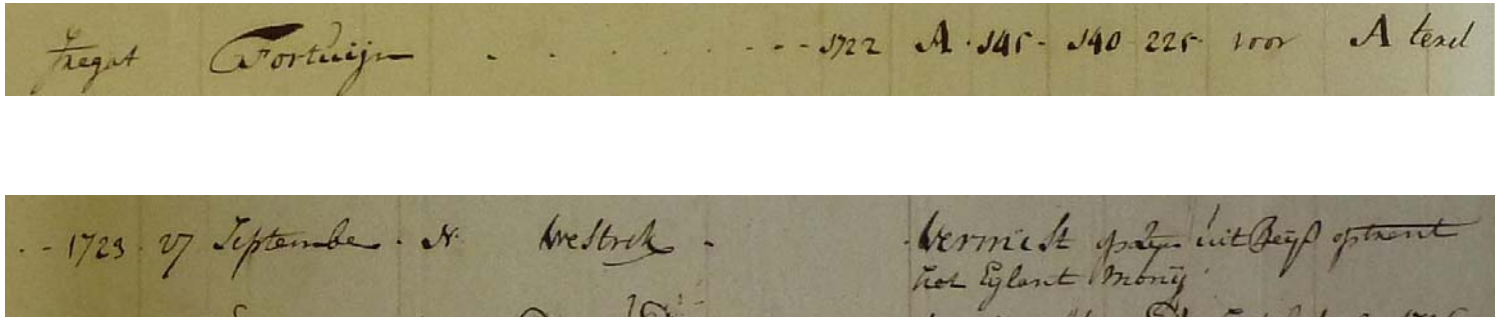


Figure 10: From N.A. 1.11.01.01-551

The following information is listed:

The type of ship	frigate [fregat]
Its name	Fortuijn
The year it was built	1722
Where it was built	A (Amsterdam)
Its length	145 feet
Its tonnage	140 'lasten'
Its crew	225 heads [coppen]
The chamber it sailed for	for A (Amsterdam)
The harbour it departed from	Texel
The date of departure	1723 27 September
The name of the skipper	Westrik
And the fate of the ship	Lost on her outward-bound journey around the Island Monij [vermist op zyn útgeijf optrent het Eijlant Monij]

The wording in this entry, concerning the fate of the *Fortuijn*, is a little vague. 'Vermist' could either mean that the ship was lost (and that it was last seen near the island) or that it was wrecked. The term 'optrent' can mean *near*, *around* or *in the vicinity of* but probably does not mean it was wrecked *on* the island. Although this narrows down the area in which the *Fortuijn* was lost, it is still not a very precise description.

The *Fortuijn* and the Cocos (Keeling) Islands

There are a few sources that identify the *Fortuijn* as having been lost on the Cocos (Keeling) Islands. The first is a contemporary VOC document listing all of the ships that sailed for the company between 1603 and 1794 and includes the eventual fate of most of the ships. The *Fortuijn* is listed as follows:

2 ^{de} Fortuín	A 1723	Op zijn Uijtrijts bij de Kokús Eilanden gebleven
[2 nd Fortuin	A 1723	On the outward-bound journey remained at the Cocos Islands]

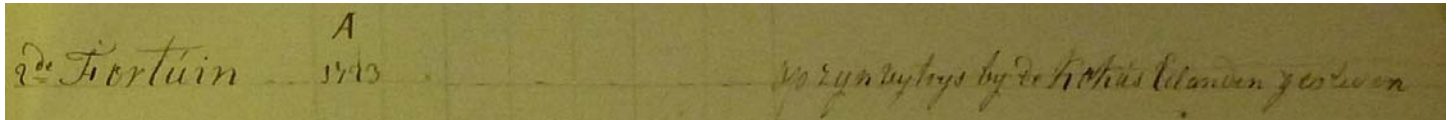


Figure 11: From NA 1.04.02-4934

‘A 1723’ means that the ship sailed for the chamber of Amsterdam in 1723. The fate of the ship is, again, worded quite vaguely. ‘Gebleven’ could either mean that it stayed there (i.e. got stuck or ran aground) or that it was wrecked there. The latter meaning is probably the one intended, considering the use of the term throughout the book. Whether this ‘remaining’ was *on* or *near* the island is not certain from the wording either. It was probably this source that encouraged Peter Gesner to say the following in a letter to Graeme Henderson of the Western Australian Museum:

But if all goes well I should be able to get a good idea about an early 18th. C [sic] VOC ship outwardbound, so if Fortuyn is on the Cocos [sic] should have no problems recognising what’s what!

(Letter from P. Gesner, 1983, pers. comm., 11 May)

But it seems that he later reconsidered this notion. He probably read the journal of the ‘*Graveland* in Halls’ article (cited above) and realized that:

[...] it is not entirely certain that the ‘Fortuyn’ is on the Cocos: the reference was to a sighting of flotsam near the Cocos, which can mean that she was lost in deep water in the vicinity.

(Letter from P. Gesner, 1983, pers. comm., 19 June)

Again, the contemporary source does not indicate the exact location of the ship. It gives an island near which the ship was lost but this still leaves a large part of the surrounding ocean which would also have to be searched. Neither this entry about the *Fortuijn* nor the previous one mentioning it as lost near Monij contains any references. It is, therefore, not certain whether these observations were based on evidence or hearsay.

Cocos or Christmas?

Both Cocos (Keeling) Islands and Christmas Island are mentioned in VOC documents as the location where the *Fortuijn* 'remained' or was 'lost'. Although neither of these documents is dated, they were probably written in the second half of the 18th century, decades after the loss of the ship. It seems reasonable to assume that the reference to Monij (Christmas Island) is older than the reference to the Kokus Eilanden (Cocos Islands). The first book must have been written before the end of the VOC (and kept updated) because it has many empty pages after each letter to add future ships. Careful investigation of the empty spaces between ships puts the original date of this book at c. 1738-1740, with later entries updated continuously. The *Fortuijn* & Monij entry was written less than two decades after its loss. The latter book only has an occasional empty or half empty page and was probably written either after the VOC had gone bankrupt in 1798 (Gaastra 2009: 179) or not long before that date. The handwriting also points to this document originating towards the end of the 18th century (Mr. Kinkelder, Nationaal Archief in The Hague, 2011, pers. comm., 13 September). This would mean that the *Fortuijn* & Kokus Eilanden entry was written about 60 years after the fact.

It would be feasible to assume the older Monij-reference to be more reliable, since it must have been written closer to the date of the wrecking. However, it is likely that both sources used the information given in the journal of the '*s Graveland*. This would explain the wording of the ship being lost *near* or *in the vicinity of* these islands. The journal, it seems, is the primary source.

How can we interpret the information in the journal? Could the wreckage have come from another VOC ship? Several VOC ships went missing between the Cape and Batavia in the 30-year period prior to the loss of the *Fortuijn*. Many more, such as the *Aagtekerke* (1726), were wrecked later and can not have been responsible for the wreckage. Those prior to, and including, the *Ridderschap van Holland* (1694) would have happened too long before. Their wreckage would have spread out over seas, reefs and islands or decayed long before the passing of the '*s Graveland*.

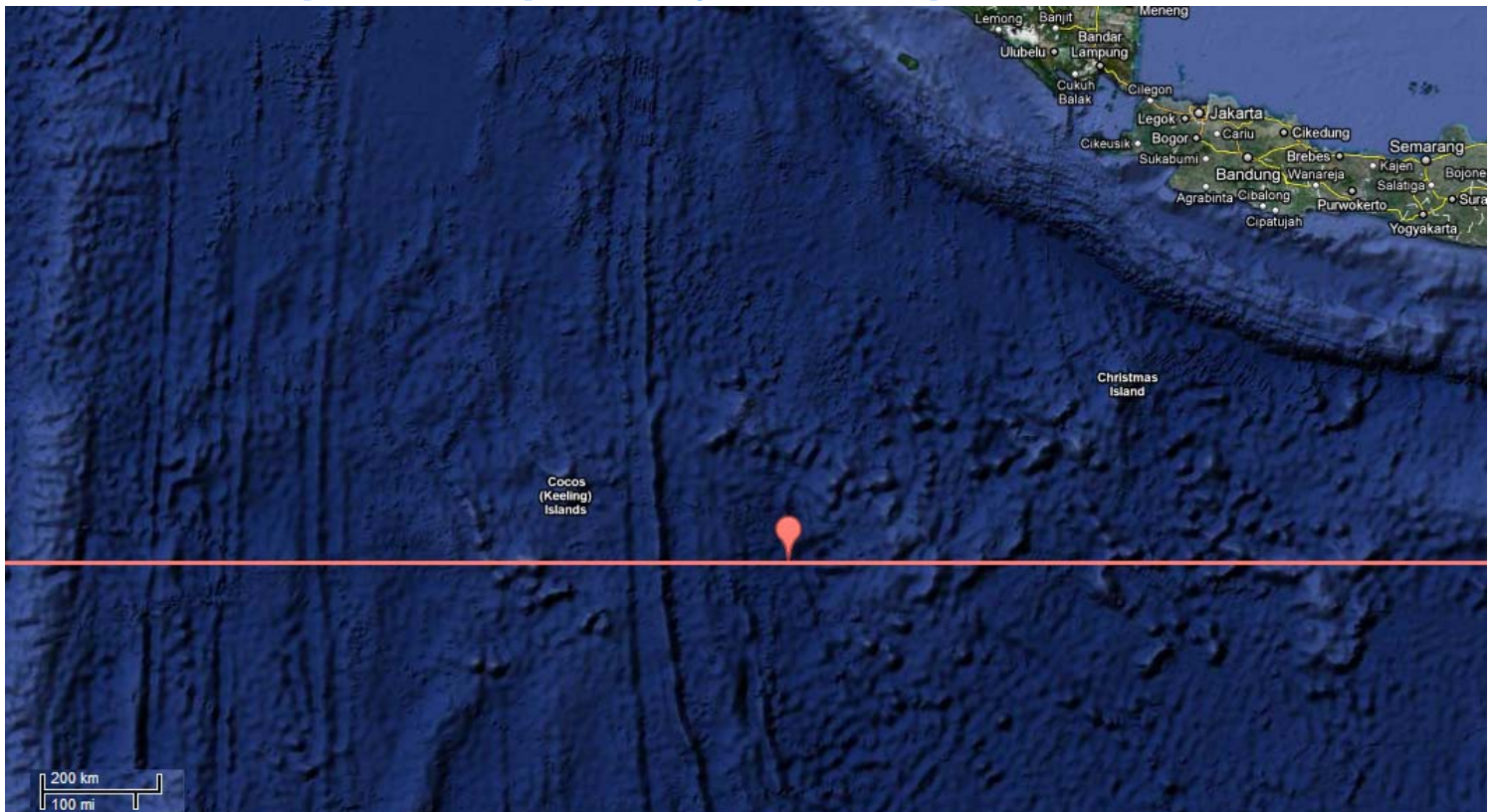
Between 1694 (the year of the *Ridderschap van Holland*) and the loss of the *Fortuijn* in 1724 there were no other ships lost between the Cape and Batavia on their outward-bound voyages (Bruijn, Gaastra & Schöffner 1979a: 244-382). Two homeward-bound ships were lost after leaving Ceylon in 1710, but these ships would not have sailed anywhere near the Cocos (Keeling) or Christmas Islands (Bruijn, Gaastra & Schöffner 1979b: 202). Finally, two other homeward-bound ships were lost between Batavia and the Cape: the *Boor* in 1700-1701 and the *Bleijenburg* in 1721-1722 (Bruijn, Gaastra & Schöffner 1979b: 164 & 250).

The *Boor* was wrecked too long before to be considered as the source of the wreckage spotted by the '*s Graveland*. The *Bleijenburg* is also an unlikely candidate, because the wreckage was noticed by the '*s Graveland* but not by the *Anna Maria*, *Doornik* or *Hogenes*. It is possible that the wreckage was already there, but that these three ships missed it. However, it does not seem very likely. It seems, therefore, that the wrecking must have happened fairly recently prior to the passing of the '*s Graveland* to account for the fact that no other ships noticed wreckage. If the distinguishable stern section of the ship was not seen by the '*s Graveland*, it is possible that identification was limited to noting that the wreckage was Dutch. They may have been insecure if the wreckage was that of the *Doornik*, *Fortuijn* or *Hogenes* (since these were all of the same type and size). A

positive identification must have been made later in Batavia when the *Fortuijn* was the only ship missing. The wreckage is almost certainly that of the *Fortuijn*.

Where was the wreckage? The location of the wreckage was at latitude $13^{\circ}20'$ South (Halls 1966: 6). No longitudinal position is mentioned. This latitude is more South than either Christmas Island ($10^{\circ}29'$ South; DASETT 1991b: 3) or the Cocos (Keeling) Islands ($12^{\circ}05'$ South; DASETT 1991a: 4). Considering the accuracy of latitudinal measurement at the time by the Dutch, it is unlikely that they would have erred more than half a degree in this measurement (Green 1977: 9). The lack of longitudinal position means that a wide area must be considered. The wreckage could have been A) East of Christmas Island B) between the islands or C) West of Cocos (Keeling) Islands. The distance between Christmas Island and the Cocos (Keeling) Islands is nearly 1000 km and provides a wide corridor to the Sunda Strait. It is unlikely that the 's *Graveland* would have ventured further East than Christmas Island. Let's assume B to have been the most likely location of the 's *Graveland* and the wreckage, with C as a less likely (but possible) option.

Figure 12: Line showing the latitudinal position of the wreckage in relation to the islands



It is possible that 10 days or two weeks had passed between the wrecking of the ship and the sighting of the wreckage. The location of the *wreckage*, therefore, does not have to be the same as the location of the *wrecking* and, indeed, probably is not. The wreckage is likely to have floated a distance to the West under influence of the South Equatorial Current (see above). The South Equatorial Current moves at a speed of about 3-6 km/day, possibly increased slightly by the subsurface current (Pidwirny 2008, chapter 8: q). This means the wreckage may have floated between 30 and 84 km or slightly more, depending on the weather. This is a small distance compared to the width of the corridor. Furthermore, if the wreckage was in fact the remains of the entire ship, it would not have floated very far.

One more piece of evidence has to be considered, namely the results of the rescue expedition by the *Windhond*. Considering the topography of the islands, they must have indeed visited Christmas Island, an island notoriously difficult to land on with steep cliffs all around except for at Flying Fish Cove. Unable to land, they returned without having seen anything. If the *Fortuijn* had wrecked on Christmas Island they must have noticed something: survivors, fires or wreckage (considering the short distance the wreckage would have travelled). Furthermore, the 's *Graveland* would not have spotted the wreckage so far South (from Christmas Island the distance to the latitudinal position of the wreckage is c. 200 km, far more than the wreckage could have travelled in two weeks' time). Therefore, it is unlikely that the *Fortuijn* was wrecked on Christmas Island.

The only remaining explanation is the following: the *Fortuijn* was wrecked on the reefs of Cocos (Keeling) Islands. The wreckage was spotted less than 100 km to the West or South-West by the 's *Graveland* which was heading North and would pass the Cocos (Keeling) Islands on the West. The *Windhond*, having visited the wrong island, did not find any remains. The VOC records initially made the same mistake as the *Windhond* and noted the *Fortuijn* as having been wrecked near Monij. Later records were corrected to show the location of the wreck at Cocos (Keeling) Islands. These records were based on the findings of the 's *Graveland* and were necessarily vague. Other parts of information may have been deduced (such as the wrecking happening in the night), based on hearsay or could have simply concerned another ship (such as, perhaps, the story of the French saving some Dutch castaways in the 1600's).

Recommendations

The journals of the *Hogenes*, *Doornik* and 's *Graveland* would be a good source for clues about the disappearance of the *Fortuijn*. For instance: was the crew healthy? Which route was taken with regards to the Cocos (Keeling) Islands and Christmas Island? Was there anything unusual about the weather, such as a storm? Did any other ships notice any wreckage? When and where were the ships separated from one another?

It would also be necessary to investigate the French records referring to castaways being picked up from Christmas Island in the 1600's. This would be very interesting information if it could be found and traced to its source. However, if the date is correct, this would be a different ship and the survivors would not have been the crew of the *Fortuijn*.

Although the wreck is probably near the Cocos (Keeling) Islands, a search of Christmas Island would be useful to rule out the possibility that the wreck lies here. Other wrecks may also be found. The difficulty lies in the conditions for wreck searching near Christmas Island, which are generally described in the following terms:

I believe there are possibly wrecks on the southern side of the island, but due to the difficulties attached [sic] to getting in and out of the water on this side, very few, if any, divers dive there. The coast is mostly sheer cliff and very rugged.

[...] Another problem here is that the water drops down very deep just a few yards off the coast in some places. Any ship that went over the drop off will probably never be found.

(Letter from P. Harvey, 1980, pers. comm., 11 August)

That commonly held perception was examined in October–November 2004 by Graeme Henderson (Museum Director at the time) and Michael McCarthy (then Inspector of Wrecks) who conducted a preliminary examination of Christmas Island. Their aim was to examine all known maritime sites and shipwrecks in the region, to establish management plans and to “set the scene for remote sensing searches of the outer reefs” (McCarthy 2004: 150). This was a result of a then widely held belief that while the reefs around the Cocos were gradually shelving, forcing a wrecked ship into shallow water, at Christmas Island a wrecked ship could slide back into deeper water. While this was certainly the case at the wreck of the torpedoed WWII steamer *Eidsvold*, where part of the ship lay down the slope, it was soon discovered that this is very unlikely in the case of a wrecked wooden vessel. They found that if a ship had run ashore, there was sufficient shallow water to allow it to remain visible. There was no immediate wall underwater on which all wrecks would have tumbled down.

Therefore, wooden wrecks on the island will remain on the shallow shelf to break up without sliding back into deeper water. Because the coastal waters are exceedingly rough, any inspection of newly found wrecks will have to be from an offshore boat. An initial search should be done by airborne magnetometer with ground truthing by swim line (McCarthy 2004: 154-155; Henderson 2007: 71).

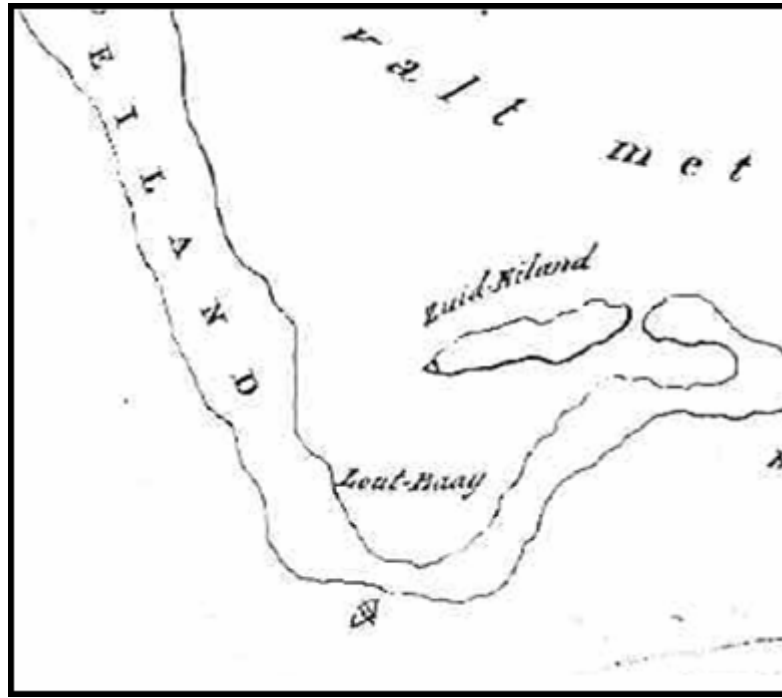


Figure 13: A small boat marked on a map of the Cocos (Keeling) Islands in more or less the same location where the tusk was found

The Cocos (Keeling) Islands should also be examined with similar remote sensing techniques and promising sites in the shallows and around the reefs may require investigation by divers. Furthermore, the tusk-site should be re-evaluated; the *Fortuijn* and the *Sir Nicholas Francis Burton* may have been wrecked close to each other. This double site may be the one marked with a boat on the 1832 map (Fig 12 & Appendix I). The best place to start looking would be the surf zone, as observed in the following note:

People told me that a wreck striking that shoal [Rowley Shoals] would tumble down the sides into deep water, but it is not so. The forces of swells and tide have taken the wreckage right into the surf zone. I suspect that sites on the Cocos Islands will be the same. That is where you will have to search.

(Letter from G. Henderson, 1981, pers. comm., 28 September)

In conclusion, a great deal of archival research must still be done to examine the journals of the fleet and the French records. Furthermore, Christmas Island and the Cocos (Keeling) Islands should be examined with remote sensing techniques. If conditions are suitable, diving expeditions may be helpful, especially around Cocos (Keeling) Islands. It is possible that the wreck of the *Fortuijn* may be found there in the shallows.

Acknowledgements

This essay was written as a part of my internship at the Department of Maritime Archaeology, Western Australian Museum. My thanks and appreciation to my supervisor Michael McCarthy for suggesting the subject of VOC wrecks on the Western Australian coast, his support for my search for the missing Fortuijn on Cocos & Christmas Islands and his guidance during the research and writing phases. Many thanks also to Jeremy Green and Michael McCarthy for their critical editing and proofreading. Finally, my eternal gratitude to my father, Freek Ariese, for agreeing to become my research assistant in the archives in The Hague & to my mother, Anna Tüdös, for her enthusiasm and encouragement.

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Nationaal Archief, Den Haag, Verenigde Oost-Indische Compagnie (VOC), nummer toegang 1.04.02, inventarisnummer 4934. Previously K.A. 4390* in the Koloniaal Archief.

Lijsten van voor de VOC uitgevaren schepen, met aantekening betreffende het jaar van uitvaren, van de kamers waarvoor werd uitgevaren en van het uiteindelijke lot van het schip. 1603 - 1794

[Lists of the outward-bound ships of the VOC, with notes as to the year of departure, the chambers for which they sailed and the eventual fate of the ship. 1603 - 1794]

Nationaal Archief, Den Haag, Verenigde Oost-Indische Compagnie (VOC), nummer toegang 1.04.02, inventarisnummer 4935. Previously K.A. 4390B in the Koloniaal Archief.

Lijsten van voor de VOC uitgevaren schepen, met aantekening betreffende het aantal bemanningsleden, de data van vertrek en aankomst in de Republiek (sinds 1696), jaar van aanbouw, lengte en tonnage (sinds 1698) en namen van de schippers (sinds 1780). 1673 - 1796

[List of the outward-bound VOC ships, with notes as to the amount of crew, the dates of departure and arrival in the Republic (from 1696), year of construction, length and tonnage (from 1698) and the names of the skippers (from 1780). 1673 - 1796]

Nationaal Archief, Den Haag, Aanwinsten Eerste Afdeling, nummer toegang 1.11.01.01, inventaris nummer 551.

Lijst van de schepen in de soorten als bij de generale Oost-Indische Compagnie zijn gemaakt, gekocht of gehuurd, alsmede waar dezelve zijn achtergebleven, zo verongelukt als genomen, verbrand of vermist en afgelegd. 1603 - 1778

[List of all the ships of the kind which were, by the general East India Company, made, bought or rented, and also where these remained, either wrecked or taken, burned or missing and laid off. 1603 - 1778]

Conversation with Mr. Kinkelder, 13 September 2011, with Freek Ariese.

Department of Maritime Archaeology, WA Museum Christmas Island file 238.81.1-2

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Letter from Peter Gesner, 19 June 1983, to Graeme Henderson. MA - 239.81.1

Letter from Peter Gesner, 11 May 1983, to Graeme Henderson. MA - 239.81.1

Letter from Graeme Henderson, 21 March 1983, to R. Moon. MA - 239.81.1

Letter from Peter Gesner, 19 August 1982, to Graeme Henderson. MA - 239.81.1

Adventure Training - Cocos Islands. 1982. MA 239.81.1

Letter from Graeme Henderson, 28 September 1981, to R.A. Moon. MA - 239.81.1

Chart of the Cocos (Keeling) Islands, 1832. MA - 239.81.1

(Appendix I. Original: Jagt, A. van der & A.C. Edeling. 1832. Uittreksels uit een rapport...over de Kokos Eilanden. *Tijdschrift toegewijd aan het zeewezen.*)

Images

Fig 1: Wrecking of the *Woestduijn* in Zeeland, the Netherlands. Fokke Willzn, Engel Hoogerheyden & P. Gillisen. 1779. Schipbreuk van het VOC-schip 'Woestduin', 1779: kappen van tuig en masten. Het Scheepvaartmuseum.

<http://www.maritiemdigitaal.nl/index.cfm?event=search.getdetail&id=101003419>

Fig 2: Segment of a map of the East Indies, highlighting Cocos Islands and Christmas Island. Pieter Goos. 1666. Paskaerte zijnde 't oosterdeel van Oost Indien.

http://www.nla.gov.au/exhibitions/southland/maps-1642-1644_Pieter_Goos.html

Fig 3: A Dutch merchant frigate turning. Adolf van der Laan. 1725. Prent uit de serie "Zee, Land en Stroomlust: een Hollands koopvaardijfregat in de wending". Het Scheepvaartmuseum.

<http://www.maritiemdigitaal.nl/index.cfm?event=search.getdetail&id=101002228>

Fig 4: An officer writing the ship's log. Jan Brandes. 1770-1808. Officier schrijft logboek. Rijksmuseum collectie.

<http://www.rijksmuseum.nl/collectie/zoeken/asset.jsp?id=NG-1985-7-1-149&lang=nl>

Fig 5: Map of the VOC sailing routes (Playford 1996: 13).

Fig 6: Segment of a map of the Indian Ocean showing Cocos (Keeling) Islands and Christmas Island.

<http://www.geographicguide.com/africa-maps/indianocean.htm>

Fig 7: Ship in a storm. Willem van de Velde. Second half of the 17th century. De windstoot. Rijksmuseum collectie.

<http://www.rijksmuseum.nl/collectie/zoeken/asset.jsp?id=SK-A-1848&lang=nl>

Fig 8: Deckview of a VOC-ship with loose object and steersman at the helm. Jan Brandes. 1779-1787. Dekzicht van een Oostindiëvaarder met stuurman aan het roer. Rijksmuseum collectie.

<http://www.rijksmuseum.nl/collectie/zoeken/asset.jsp?id=NG-1985-7-1-3&lang=nl>

Fig 9: Shipwrecked on a rocky coast. Wijnand Nuijen. c. 1837. Schipbreuk op een rotsachtige kust. Rijksmuseum collectie.

<http://www.rijksmuseum.nl/collectie/zoeken/asset.jsp?id=SK-A-4644&lang=nl>

Fig 10: Segment from page from NA 1.11.01.01-551. Nationaal Archief, The Hague. Photo: Freek Ariese.

Fig 11: Segment from page from NA 1.04.02-4934. Nationaal Archief, The Hague. Photo: Freek Ariese.

Fig 12: Map showing the latitude of the wreckage. Author's adaptation from Google Earth.

Fig 13: Enlarged section of the map shown in Appendix I

Appendix I - Chart of the Cocos (Keeling) Islands

An indication of a ship is visible at the Southern side of Lange Eiland.

