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What a combination of history and archaeology can tell us about the voyages of an 18th century VOC-ship.

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Treasures of the Sea

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Introduction

The Rooswijk was an 18th century East Indiaman, Built and owned by the VOC, that was sunk in 1740 (NA, VOC, inv. Nr. 46). In most aspects it is a rather ordinary ship, it was a standard 145 Amsterdam foot VOC ship and it sailed along the usual VOC-trading routes . The fact that the Rooswijk was such an ordinary, standard, VOC ship is also what makes this ship interesting because what this means is that proper research regarding the Rooswijk can help us understand the daily life aboard an east-Indiaman as well as enlighten us about the VOC-trade between The republic and Batavia.

This paper will have an interdisciplinary approach with both historical and archaeological research being combined to create a clear image of the life and the last voyage of the Rooswijk. However, there will still be a clear separation between the archaeological and historical sources used as this paper will also be a comparative study of the differences between historical and archaeological sources and their reliability. This will hopefully aid archaeologists in understanding and valuing historical sources, and vice versa.

There are some difficulties with researching the Rooswijk though. One of the main issues being that while parts of it are excavated, these parts are excavated by commercial salvagers and a large part has been legally sold afterwards. This means that while more research has been done than when it would have been fully ignored, this research was not done by professional archaeologists for the most part and is therefore not necessarily reliable. Furthermore, the excavation was done on a for-profit basis, thus focussing mainly on the valuable items and is therefore not statistically reliable as we are missing a large part of the ship and this has to be accounted for.

To properly guide this research I will focus on answering three different research questions. These questions are:

What sort of ship was the Rooswijk and what did it mean for the VOC?

- **What was the specific ship-type and what sort of ship was this?**
- **How important was the ship to the VOC**
- **What can archaeological research tell us about the construction of the ship**

- **What specific task was the ship used for?**
- **What sort of cargo did the Rooswijk carry at the time of its demise?**

Is further archaeological research regarding the Rooswijk still necessary after it has been salvaged and what new information could this give us?

How effective and achievable is an interdisciplinary approach to researching a shipwreck

By the end of this paper I aim to have explained a number of things about the Rooswijk based on both historical and archaeological information. The conclusion of this paper will not only be focussed on what the Rooswijk was, and where its voyages took it, but it will also be aimed at future (archaeological) research regarding this ship and will give my opinion on the archaeological value of the ship.

The Rooswijk

In an attempt to standardize shipbuilding, the VOC built the bulk of their large ships in 3 different "classes" or sizes. This standardization had a number of advantages for stocking and equipping the ship as well as loading cargo. In the early half of the 18th century these three classes were: 160ft x 40ft x 17ft, 145ft x 36ft 8¾in x 15ft 7¾in and 130ft x 33ft 6½in x 14ft 4½in (Bruijn et al 1987, 38). These measurements changed somewhat regularly throughout the entirety of the VOC its lifespan though.

One of the ships build according to these measurements was the Rooswijk. On the 12th of March, 1737, the Dutch East-India committee known as "*het Haags Besogne"*, a committee that advised the board of directors known as the "*heren XIV"*, approved the construction of a number of ships that year, the Rooswijk being one of them (NA, VOC, inv. Nr. 4471). The ship was constructed in a tumultuous year for shipbuilding, with a large number of ships sinking, and it was one of the last ships build as a 145 Amsterdam foot ship as measurements ((Bruijn et al 1987, 40).

the shiptype of the Rooswijk

As mentioned earlier, construction on the Rooswijk started on the 12th of March, 1737 by the chamber of Amsterdam. The ship was built in less than 7 months and construction was complete by October 1737, with the ship setting off for its maiden voyage by October 24th(NA, VOC, inv. Nr. 6058).

The Rooswijk was built as a 145 Amsterdam foot ship with a width of 36 foot and 8¾ inches and a depth of 15 foot and 7¾ inches. These 145 foot ships were some of the biggest ships the VOC built at the time, only being surpassed by a small number of 160 foot ships, and had a load of 425 (NA, VOC, inv. Nr. 4471) . The Rooswijk would be one of the last 145 foot ships though as in 1737 a large number of ships sank causing the VOC to started doubting the seaworthiness of their ships, often referred to (very originally) as the shipping disaster of 1737. This lead to a resolution in which the VOC

decided to change the standard measurements of their ships to increase their safety ((Bruijn et al 1987, 40). The fact that the Rooswijk was still built according to these "unsafe" standards could have been a factor in its eventual demise.

While we do know in what size-class the Rooswijk was build, there is still some speculation regarding the typology of the ship as people are unsure whether it was one of the new ship types known as a "hekboot" or whether it is something else (NA, Aanw. 1e afd. ARA, inv. Nr. 551). However, new research combined with archival records indicate that it was most likely a "Spiegelretourschip". These ships made up the bulk of the VOC fleet and are therefore generally the type being indicated when there is no further specification of ship type (Bruijn et al 1987, 40).

The idea of the Rooswijk being a hekboot probably origins from a document written in 1815 which lists the Rooswijk as such (NA, Aanw. 1e afd. ARA, inv. Nr. 551). However, this document was written almost 75 years after the Rooswijk sunk and is therefore not necessarily a reliable source. The statement that the Rooswijk was a hekboot is further disproved by the resolutions of the chamber of Amsterdam written in 1737, which describe the decision-making process regarding the construction of 4 ships by the chamber of Amsterdam (including the Rooswijk). In this document it is written that out of these 4 ships, there is to be constructed 1 hekboot as a test, comparable to a ship of 125 foot, and 3 regular ships. This hekboot is likely to be a different ship called the Polanen which better matches the size of a hekboot at 130 foot and is also often called a hekboot in historical sources (NA, VOC, inv. Nr. 4471). Noteworthy is that the Polanen actually faired a lot better than the Rooswijk, possibly due to its dimensions being more seaworthy, and remained in use until it stranded in 1753.

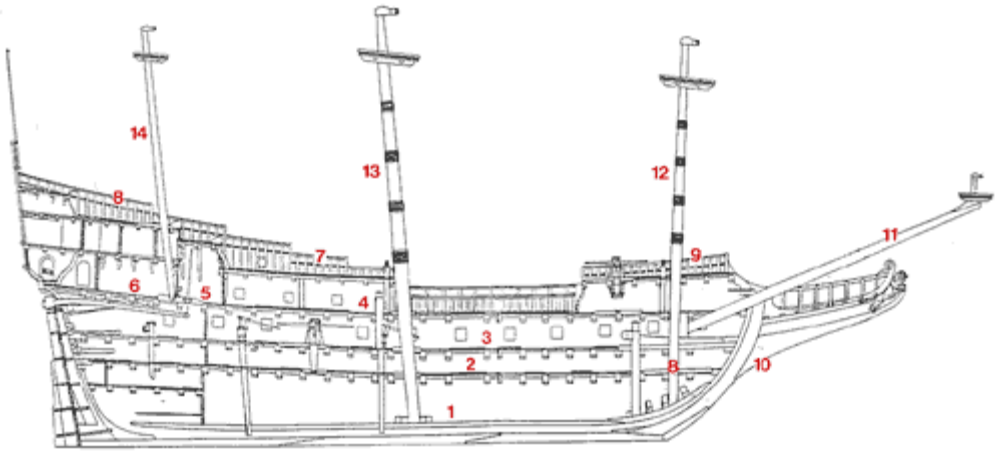
The Hekboten build by the VOC in the 1730's were usually not much bigger than 130 Amsterdam foot with a load of 100 (NA, VOC, inv. Nr. 4471). They were also quite rare with not much more than six or seven being in use at any given time (Bruijn et al 1987, 41). These measurements differ quite strongly from the 145 foot Rooswijk.

Due to its standardized measurements, along with its standard load of 140 and its passenger capacity, it is unlikely that the Rooswijk is a hekboot. Furthermore, archival records often call the Rooswijk "the ship" or "the retour ship". This does not always

indicate a spiegelretourschip, but it does strongly indicate that it is in fact of this type. Also, the fact that the time it took to build the Rooswijk matches exactly with the time it took on average to build a spiegelretourschip hints in that direction.

Typological features of the ship(?)

Assuming that the Rooswijk is in fact a so-called spiegelretourschip, there are a number of features by which these ships can be identified. First of all, as their English name of "square stern ships" already indicates, the hull ended in a flat square plane (Bruijn et al 1987, 38). The 145 foot ships, such as the Rooswijk, had a capacity of up to 56 cannons and a load of 140 with a tonnage of 850 (Bruijn et al 1987, 38).These ships closely resembled the warships of the Dutch republic, but with fewer guns and more capacity for cargo. These ships were great for both transporting passengers as well as transporting cargo due to having 2 or 3 continuous decks and a special deck could be added for transporting either spices or soldiers, despite the deck not being high enough for any man to stand up (img 1).



Img 1. VOC spiegelretourship - http://voc-kenniscentrum.nl/images/voc-schepen.gif

The ship had three masts, with the added possibility of adding two extra sails to the bowsprit. The bow was also generally adorned with an ornament which distinguished

the VOC spiegelretourschepen from other ships. Unfortunately, little is known about the specific adornments on board that could help us identify the Rooswijk.

Construction wise, many of these so called “spiegelretour” ships seemed to have a double layer of oak planking and based on archaeological evidence it is likely that the Rooswijk also had such a double layer (Wessex Archaeology 2011, 10). Further information regarding the shipbuilding techniques used on the Rooswijk is hard to find though pending future archaeological excavations as no archival records have been found yet regarding the construction of the Rooswijk. Archaeological evidence however indicates that copper sheathing might have been used on the ship to prevent it from erosion (Wessex Archaeology 2011, 14). This is interesting as it is often thought that the first experiments with copper sheathing were done in the 1750’s so the Rooswijk would be a very early example of this.

The VOC and the Rooswijk

Due to the nature of this research it is important to realise exactly what sort of period the middle 18th century was for the VOC. With the number of ships they are building on the decline as well as the ships being build decreasing in size it is easy to see that the VOC was in a worsening state.

The VOC in the 18th century

The 18th century was a tumultuous period for the Dutch East-Indian company.

The decreasing profits in the second quarter of the 18th century were fuelled by a number of issues. While there were a lot of different aspects to these problems, such as increased competition making it increasingly expensive to purchase merchandise, an increased number of disasters at sea (especially in the early 18th century such as the 1737 disaster), and a number of conflicts in the later 18th century, Some of the most notable problems that the VOC faced were caused by internal strife (Bruijn et al 1987, 38). This internal strife was mostly related to either corruption, or smuggling. Both of these issues became increasingly more commonplace in the 18th century onward and affected the VOC in such a way that they would eventually play an important role, besides the fourth Anglo-Dutch war, in its demise in 1799 (Gaastra 2002, 183)).

The smuggling of goods had always been an issue for the VOC, but started becoming more than a small nuisance in the 18th century. This is likely not only because there was more smuggle going on, but also due to VOC profits in general decreasing. The smuggling of goods, or “private trade” was conducted by the crew of VOC ships who wanted to make a little profit on the side for themselves. Oftentimes it was the captain himself who was involved in the smuggle of goods, even going as far as to add secret compartments to the ship its hull to prevent their goods from being detected (Dijk 2006, 164).

There were a number of items that were being smuggled. However, the most smuggled objects were the Silver reals that the VOC itself also brought into to Asia. These reals were worth more in Asia than they were in Europe and bringing a large private stash

with you could earn one a hefty profit (Dijk 2006, 164). But this smuggle was not a one way road from Europe to Asia. Asian goods such as opium were also smuggled between the different regions in Asia aboard VOC ships, as this was a valuable good in which the VOC attempted to regulate trade as well to maximize profits. This smuggling cost the VOC a lot of money as the smugglers were often undercutting VOC prizes, forcing them to lower their prizes as well and decreasing their profit. At times competing countries such as the English even helped in teaching the VOC seamen how to smuggle goods as this would be detrimental for the VOC as a company (Dijk 2006, 164).. The smuggle in opium even forced the VOC to establish the "amfioensociëteit" which was an organization that attempted to regulate and monopolize the opium (also known as amfioen at the time) trade.

Construction on the *Rooswijk* started in march 1737 when "*het Haags Besogne*", a VOC committee advising the "*Heeren XIV",* approved the construction of a number of new ships by the chamber of Amsterdam, including the *Rooswijk* (NA, VOC, inv. Nr. 4470) The construction of this ship came at a period in which the VOC started seeing a downfall in profits while expenses stayed at the same level. This is also notable in the amount of ships being constructed, as well as in the size of these ships. While there are still some 160 Amsterdam feet ships around during the life of the *Rooswijk*, construction of these ships ended in the 1720's. By 1737 the 145 Amsterdam feet *Rooswijk* was in the largest class of ships being constructed by the VOC and these ships made up the bulk of the VOC fleet (NA, VOC, inv. Nr. 4471).

The Rooswijk was in no way a special case as it was a rather standard ship. It was however built in a period in which the VOC was struggling as a company. And even though the ship itself was not necessarily important for the VOC, its cargo of specie was (NA, VOC, inv. Nr. 123). This cargo made it even more unfortunate that the Rooswijk sunk as it was a huge financial blow for the VOC and required them to take immediate action. However, due to the rough seas and the location in which the ship was sunk they were unable to salvage any of the valuable cargo (NA, VOC, inv. Nr. 123).

Voyages and company of the Rooswijk

The life-story of the Rooswijk is a rather short and relatively boring story. With only one completed voyage to Batavia and back, sinking on its second departure from the Republic after just one day. However, the Rooswijk its first and only voyage might still hold valuable information regarding the ship itself.

After being in constructed for 7 months, the Rooswijk set off on its first voyage to Batavia on the 24th of October, 1737 (NA, VOC, inv. Nr. 6058). It sailed under command of the chamber of Amsterdam and departed from Texel. The ship was captained by Adriaan van Rensen and carried a crew of 174 seafarers, 72 soldiers, 12 craftsmen, and 5 passengers, Totalling 273 men (NA, VOC, inv. Nr. 6058). However, once it arrived in Batavia on the 23rd of September, 1738 this number had been diminished to 190, due to 48 deceased seafarers, and 35 deceased soldiers and 2 deceased craftsmen as well as a number of soldiers and seafarers leaving at either the cape (NA, VOC, inv. Nr. 6058). Interestingly enough the records state that one seafarer deserted the ship at S. Tiago, which likely implies Santiago or São Tiago which was one of the Cape Verdean islands under Portuguese command (Resources.Huygens.Knaw.nl).

The cargo of the ship on its first voyage to Batavia was quite standard, with a large amount of it being further detailed in its 1737-1739 logbooks. But the main bulk of the cargo consisted out of items such as olive oil, “grauwe moppen” (basically building bricks/stones) (NA, VOC, inv. Nr. 257), and other items and building materials of such kind. It also carried a (small) assortment of goods for which the VOC was paid to transport them to Batavia and possibly a small amount of specie (unconfirmed). It is possible that some sort of smuggled specie/wares could be on board as well as the 18th century saw an increase of smuggled goods.

After staying in Batavia for 3 months, it set sail for the republic on the 25th of December, 1738 with a “skeleton” crew of only 111 men out of which 6 were “impotent” which were people that were removed from VOC service and had to be transported back to Europe (NA, VOC, inv. Nr. 6058). It is likely that the ship was manned by so few on the voyage back due to the fact that it didn’t necessarily need a full crew of 250+ men to sail. Also, a large amount of the original crew either died, or was needed in Asia, and

therefore did not return with the ship. It might also be possible that the archival records used to gather this information are incomplete. However, as they are the same records that were used to gather information about the first outbound voyage they are most likely correct (NA, VOC, inv. Nr. 6058)

The large amount of deceased crewmembers show the dangerous that such a journey posed to the low ranking servants aboard such a ship. There was a massive turnover rate on these VOC journeys due to terrible working conditions, lack of proper food causing scurvy, as well as heavy seas and strongly varying climate (NA, VOC, inv. Nr. 6058). However, the fact that the passengers and high ranked members of the VOC have a much higher survival rate shows that it they were not necessarily incapable of keeping their crew alive, but that it was economically more viable to let a certain number of them perish than to properly care for them (NA, VOC, inv. Nr. 6058'. This goes to show how much the value of a human life differed during colonial times.

It left from Batavia in the company of approximately 5 other ships, of which 2 have been identified as de *Haaksburg* and *'t huijs te Speijk (*NA, VOC, inv. Nr. 9150*)*. Both sailing for the chamber of Rotterdam. This is interesting as the Haaksburg's last records are from 1733 when it sailed off to Asia, with a small mention in 1740 of it being laid off (Resources.Huygens.Knaw.nl) There is a big hiatus in between and it is likely that the ship was used for intra-Asian trade in those 7 years. This would explain why there is a lack of records present on the ship in the Dutch archives. These ships sailed alongside the Rooswijk until they reached the Cape, Where the Rooswijk stayed for three weeks before it set sail for the Republic (NA, VOC, inv. Nr. 6058).

On the 11th of July, 1739, the ship arrived back at Texel. The Rooswijk's cargo on this voyage back home was a mix of different spices and trade goods picked up in Asia. These spices mainly consisted out of Brown pepper, White pepper, mace, etcetera (NA, VOC, inv. Nr. 4471). Nothing out of the ordinary seemed to have been on board according to the archival records, which is likely to be true as it was just an ordinary voyage back from Asia.

The final voyage of the Rooswijk

After the Rooswijk arrived at Texel from its maiden voyage to Batavia on the 11th of July, 1739, there was a 5 month break until its next planned voyage in early 1740. During this time repairs were carried out on the ship, a new crew and captain were appointed to the ship, and the ship was restocked. Finally, they would also load the cargo onto the ship, which was a rather special cargo in this case as it would be loaded with a large amount of silver and gold (NA, VOC, inv. Nr. 122).

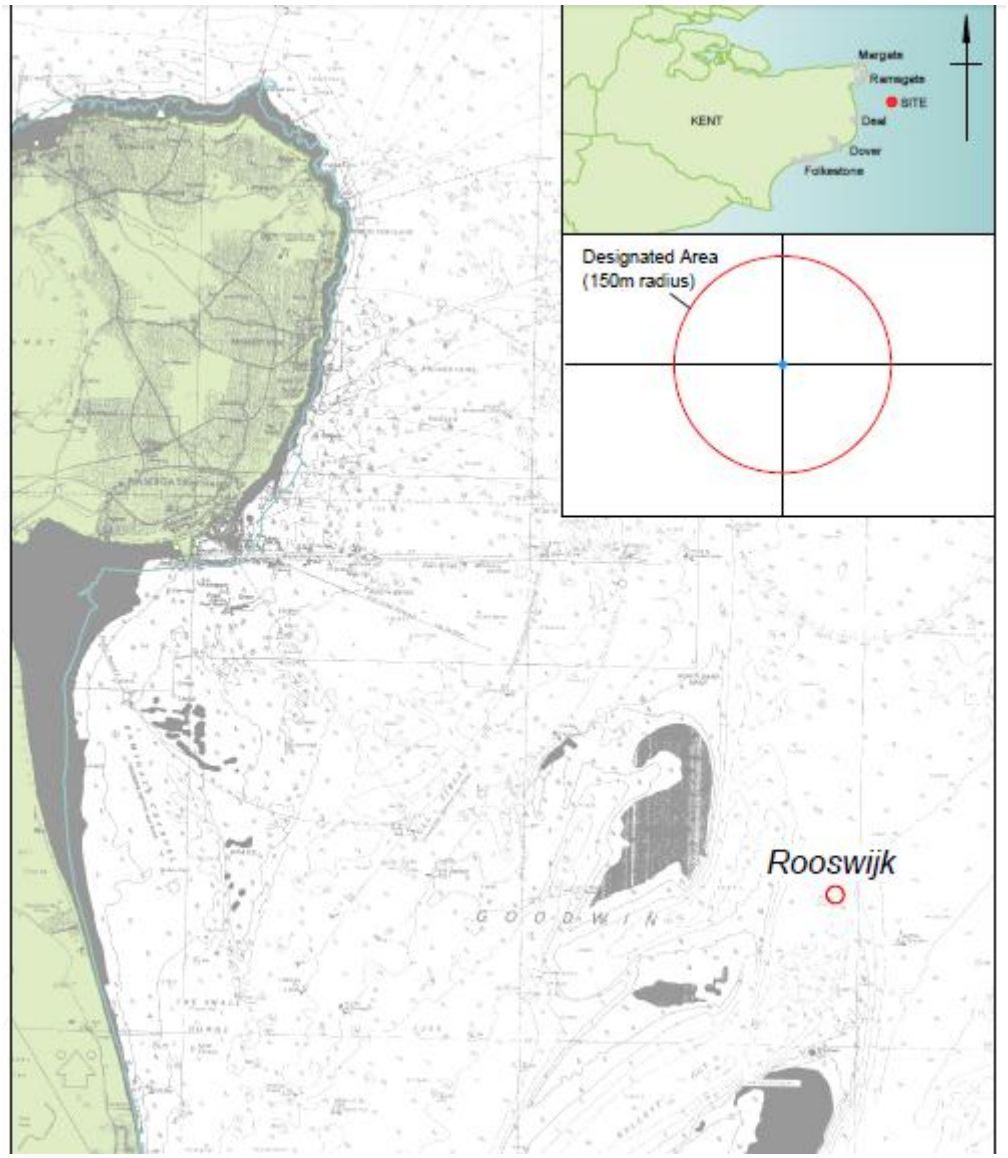
The final voyage

The Rooswijk its final voyage started on the 8th of January, 1740, when it left Texel for the last time and headed to Batavia, accompanied by a number of other ships. This fleet was one of the first of the so called "retour fleets" sent out in 1740 and would travel, mostly together, until modern day Cape-town in South Africa (NA, VOC, inv. Nr. 123).

The route the Rooswijk took was a relatively new one through the modern day North-Sea Channel between England and France. These route was not a newly discovered route, as it was one of the quickest routes, but due to conflicts with France and England had been unused for a while as to avoid privateers and other ships from these countries that were a threat to the Dutch ships (NA, VOC, inv. Nr. 122). The route often used in the early 18th century was called the "route achterom", which translates roughly into the "route behind" as it took a detour around the England, sailing past the north-western parts of modern day Scotland and Ireland. However, in 1737 the route through the canal was deemed safe enough and the VOC passed a resolution stating that VOC ships were to start using this route again (NA, VOC, inv. Nr. 122).

So on the 8th of January, 1740, the Rooswijk set off on its route through the channel and, as the night fell, decided to anchor down near the Goodwin sands, a 16 kilometre long sandbank off the coast of the English port-town/naval base of Deal (NA, VOC, inv. Nr. 123). As it was anchored down for the night, a massive January storm set in. This storm combined with the unpredictable tides at Goodwin Sands were too much for the Rooswijk its crew to deal with and it sank at the Goodwin sands (img 2). The Dutch VOC

archives state that the ship “met man en muis was vergaan”, meaning so much as that the ship was completely lost and there were no survivors (NA, VOC, inv. Nr. 123).



Img. 2, the last resting place of the Rooswijk. – Wessex Archaeology 2007, 18.

There are a number of sources on the sinking of the Rooswijk. It is mentioned in a number of local newspapers at the time such as the Sherborne Mercury and the Kentish post (Sherborne Mercure 1740). Hendrik Hessing, captain of the VOC ships the Drechterland which was staying in England at the time, also sent notice to the VOC on January 17th about witnessing the sinking of a Dutch VOC ship on January 10th (NA, VOC, inv. Nr. 4472) It is also mentioned in a letter by Hendrik Hop, a Dutch VOC envoy in

England, in which he states that they could hear canon fire in the night and could see debris floating in the sea the next day. It also states that a box with letters washed up ashore which contained letters from the Rooswijk (NA, fam. Hop., inv. Nr. 90) Unfortunately, the faith of this box filled with letters is unsure as it is not clear what happened to it after it washed ashore. This is unfortunate as this box could give us a wealth of information regarding the crew of the ships and its cargo.

During its last voyage, the Rooswijk its crew probably numbered around 225 seamen, with Daniel Ronzieres as captain. A ship of this size was usually manned by approximately 250 men but it was decided that in early 1740 ships would be equipped with 25 men less (NA, VOC, inv. Nr. 122). the reason why is unclear but it is possibly due to budgetary reasons or a lack of enemies at the time, eliminating the need for more personnel. The distribution of men aboard the ship was quite standard for the VOC at the time, with 2/3rd of the personnel being crew and 1/3rd of the personnel being the VOC its own military (NA, VOC, inv. Nr. 122). It is unknown whether this reduction of 25 men came out of the crew, or out of the military personnel aboard. Unfortunately the ships register sank with the ship itself, or may have been part of the (still missing) crate of letters washed ashore. This means that there is no crew/passenger list and it is thus unclear exactly how many people were aboard. There were probably no notable passengers aboard though, as this would have been mentioned in some of the VOC resolutions.

The sinking of the Rooswijk was a major let down for the VOC due to large amount of gold and silver it was carrying. This gold and silver was of great importance for the Asian trade as there was almost no demand for any European products in Asia, apart from precious metals. Due to the state the VOC was in at the time, they could not miss out on the profits that the Rooswijk would have brought in for them. Therefore they needed another ship to carry out a similar delivery as soon as possible, this replacement was renamed “Kasteel van Woerden” (NA, VOC, inv. Nr. 123). This was a ship of similar size and load, built in 1736, that managed to complete the journey to Batavia with a similar amount of gold and silver aboard.

Even though the loss of the Rooswijk and its cargo was a serious issue for the VOC, It was not completely unexpected as the VOC itself deemed the 145 foot ships less seaworthy than they would like, causing them to adjust their standards shortly after the Rooswijk was built (Bruijn et al, 1987. 39).

The cargo

On its final voyage, the Rooswijk was loaded with a rather special cargo. This cargo is also what made the ship so interesting for both archaeologists, commercial salvagers, and treasure hunters alike. When the Rooswijk left for its final voyage it was loaded with both gold and silver intended for the Asian trade. The VOC Heeren XIV allocated 300.000 guilder worth of gold and silver to be transported to Batavia aboard the Rooswijk (NA, VOC, inv. Nr. 123). These 300.000 guilder worth of precious metals were transported in the shape of mostly Silver bars and Spanish reals. There should supposedly have been approximately 1000 silver bars aboard the ship together with anywhere from 26.000-36.000 Spanish reals aboard the ship, depending on whether the cargo consisted solely out of 8 reals, or whether 4 reals were also on board (img 3) . While almost all of the silver bars have been found, only around 9000 coins have been salvaged so far. Besides carrying a large amount of silver, the archives also mention 52 tons of gold being transported to Batavia in early 1740 (NA, VOC, inv. Nr. 123). It is unlikely that any of this was transported on the Rooswijk though as no mention of this has been found so far, nor has any gold been found during preliminary archaeological research.

Img. 3, Silver bar aboard the Rooswijk, http://www.nederlandsemunten.nl/Virtuele_munten_verzameling/Anders/VOC/Rooswijk/verzam_zilveren_baar_van_de_Rooswijk-1.jpg

Besides the huge amount of specie being transported it is unlikely that the Rooswijk carried any other archaeologically interesting bulk-goods. There was hardly any interest in European goods in Asia and therefore a large amount of the cargo shipped to Asia was related to building materials that could be used as ballast at the same time. These were often loads of timber or Dutch bricks, as Asian wood were a lot more difficult to utilize for Europeans due to the different properties related to European wood.

Archaeological research on the Rooswijk

The wreck of the Rooswijk was found in the early 2000's by an amateur diver who discovered it by accident. While some archaeological research on the Rooswijk has been done in the meantime, this research comes with a lot of pitfalls.

"Research" on the wreck started in 2004 and 2005 lead by commercial salvager Rex Cowen. The rights to salvage the ship were sold by the Dutch ministry of finance to this commercial salvager as this would both give us insight regarding the wreck as well as earn us a fair share of money and artefacts, or so they thought (Wessex Archaeology 2011, 3). The problem with maritime archaeological research being led by a commercial salvager however is that the focus is no longer on the research value of the objects, but on the monetary value. This means that while the valuable items, such as the silver bars or large cannons, are being lifted so they can be sold while the items that have no monetary value but a lot of research value are being neglected or even destroyed to ease access to the more valuable items. First of all this means that you miss out on a fair share of relevant information as it is deemed not valuable enough. While this makes the research conducted statistically irrelevant, it also means that future research and excavations will be less accurate as a lot of items are being destroyed or displaced. Furthermore these commercial salvages often lack any form of scientific publication makes it even more difficult to conduct any sort of research regarding the wreck. Besides this commercial salvage being unscientific, it is also against the treaty of Valetta which was ratified by both the Netherlands and England.

However, the site has been since been designated as a protected archaeological monument by the English ministry of culture which means that no unapproved diving is allowed to take place on the wreck, protecting it further from treasure hunters (Historicengland.co.uk). In the meanwhile, Wessex Archaeology has started conducting surveys on the wreck and has published designated site assessments in both 2007 and 2011, as well as a site management plan being published by English Heritage in 2008. These efforts safeguard the site from further looting and also monitor on site erosion (Wessex Archaeology 2007, 3). Furthermore a new excavation was planned in

2008/2009 but this excavation never took place due to disagreements with the English government. However, the Rooswijk is quickly eroding due to tidal movements and moving sandbanks and it is therefore important to either quickly protect the site in situ, or conduct a (full-scale)maritime excavation before it is lost.

Research so far

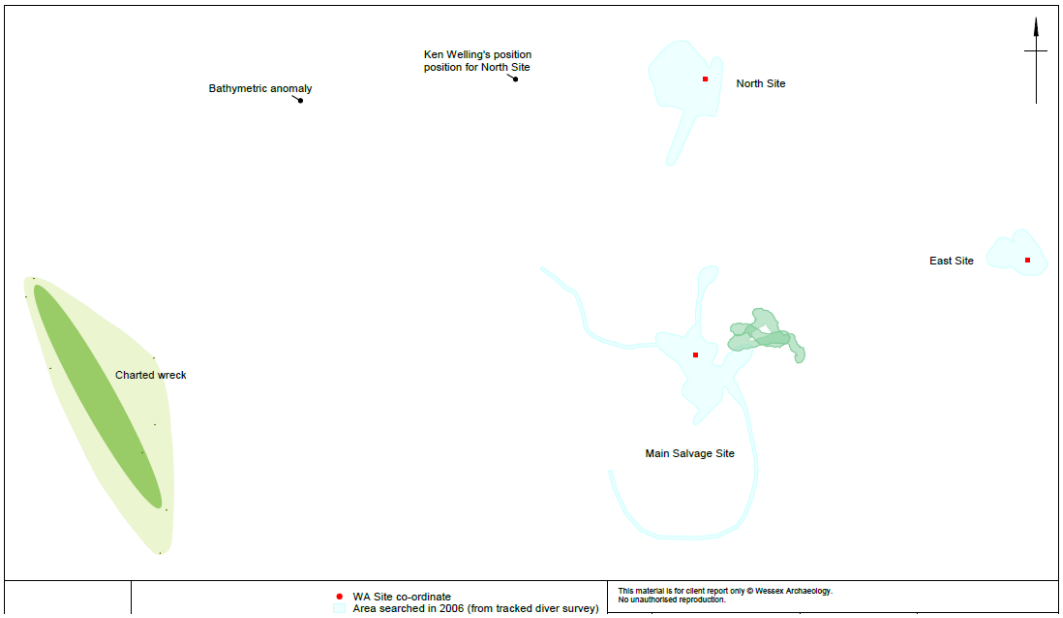
Even though the Rooswijk has been surveyed and researched, most of the artefacts found so far have been either Spanish Reals or Silver bars. A few interesting finds have been made though. One of the most interesting finds is some copper plating. While it is unknown what these copper plates were used for one of these plates was in alignment with parts of the wooden hull (Wessex 2011). According to some, this suggests that copper sheeting might have been used on this ship. If this is true this would be one of the earliest examples of copper sheeting found as it is often assumed that the first experiments with copper sheeting took place in the 1750's.

Furthermore, a double layer of wood is suspected based on a piece of oak hull found. This likely suggests that there was a layer of double oak planking present (WA 2011) . While this is not surprising as this was a quite common feature on VOC ships, it might help in identifying the ship its typology.

Research on the ship is complicated though by the fact that the site is spread over a large area, and split into 3 sites in which finds linked to the Rooswijk are concentrated. These 3 sites are effectively named the North side, the East side, and the West side, with the West side likely holding the main bulk of the ship its hull but in all 3 sites finds related to the Rooswijk are present.(WA 2007) The spread of these finds is likely due to both the tidal swells and shifting sands present at the Goodwin Sands as well as the fact that the ship sank and possibly broke up during a heavy storm (Destination plan).

The west site is by far the largest site, covering an area of approximately 3966 square meter. This site holds the main bulk of the Rooswijk artefacts found so far and also seems to be where the main part of the wreck is. The east site, being only 25 meter to the east of the west site, covers an area of 487 square meter (Wessex Archaeology 2011, 2) . A third concentration has also been found, just 90 meter north of the west site, this

site covers 213 square meter and is the smallest site (img 1.) (Wessex Archaeology 2011, 2).



Img. 3, Rooswijk site plan. Wessex Archaeology 2007, 19.

Interestingly enough the ship its decks collapsed on top of each other when it sank, giving stratified contexts that can show us the different functions and objects present on the different levels of the ship (WA 2007). For example, the top layer contained items from the officer's dining room and also contained most of the silver bars on the ship. Underneath was a layer with a large number of muskets, therefore likely being the constable's cabin (WA 2007).

The preservation of a ship in such a stratified way is quite uncommon, and would have made this ship the perfect opportunity to learn more about the life aboard a middle 18th century VOC ship. It is therefore unfortunate that the excavation of this part of the ship was done by a commercial salvager, which means that scientific studies based on these stratified layers can likely no longer be carried out.

A number of new finds have been located in recent surveys by Wessex archaeology. These surveys were carried out in a non-intrusive diagnostic manner and aimed mostly at risk assessment (WA 2011). A large amount of the finds located during these surveys consist out of more durable materials, as other materials would have been eroded away

had they been exposed. However, new parts of the ship its hull were uncovered in 2011 that had not been seen before, probably caused by shifting sandbanks. The finds uncovered in 2006 and 2007 consisted mainly out of granite and stone blocks, worked wood, yellow bricks, and a number of iron bars and iron concretions (WA 2011). A large cannon was also discovered. Furthermore a number of modern waste materials were found on the site as well some 16th century mugs, indicating a possible slight contamination of the site (WA 2011).

The 2011 survey recorded a number of previously unknown hull structures, probably uncovered due to shifting sandbanks. During this survey gun ports and probable double planking was uncovered on the ship (WA 2011). These 2011 surveys also saw a number of wooden planks and iron fastenings being uncovered. These artefacts could hold valuable information regarding the construction methods of the ship but were unfortunately either too eroded or too buried to hold this information. Furthermore a box that is thought to contain sabres and muskets has been found as well as more copper plates, bricks, and some everyday items such as glass bottles and copper cauldrons. Geophysical anomalies have also indicated a possible anchor and more pieces of wreck structure (WA 2011).

Some ecological research has also been conducted regarding the wreck of the Rooswijk. This research indicated there is little ecological activity on the wreck apart from a small number of sponges, barnacles, and crabs. This is unsurprising as most of the wreck is often covered by moving sandbanks (WA 2007).

The Rooswijk – Why an archaeological excavation is still necessary

While historical research can and has taught us a lot about the Rooswijk, it could still benefit strongly from further archaeological research as there is still quite a bit of information regarding the ship that cannot or has not been discovered yet through historical research.

First and foremost, there is a wealth of personal information aboard a ship such as the Rooswijk that has not been described in any archives. Information regarding who were on the ship at the time of sinking, what kind of personal items did they have with them on the ship, how were their living quarters arranged? Archaeological research regarding questions such as these can teach us a lot about personal- and day to day life on board of an 18th century VOC ship. It is unsure how much information remains on the sea-floor ever since the commercial salvaging of parts of the ship, but research done by Wessex Archaeology indicates that there is still enough of the ship remaining beneath the ever shifting sandbanks to justify further archaeological research.

Apart from giving us information regarding the daily life on board of the Rooswijk, further archaeological research can also give us more information regarding the exact typology and construction methods of the ship. While it is likely that the ship is a Square stern, or “spiegelretour” ship, there is no definitive evidence as the archival records are conflicting with some 19th century sources stating that it is a so called “hekboot”. It is also unclear in the historical sources whether the ship was build either shell-first or frame-first and if a double layer of oak planking was used (which likely was the case). Even more interestingly, further archaeological research could also tell us whether the ship was copper-sheathed or if the copperplates found was just cargo being transported towards Asia. This information would not just teach us about VOC shipbuilding, but to shipbuilding techniques in Europe as a whole.

The fact that the ship’s decks collapsed on top of each-other, creating a clear stratigraphy between the different decks, could also be archaeologically very valuable as

this makes it easier to differentiate between the different layers on such a ship. It is now possible to identify a room and associated artefacts such as the officer's dining room or the constable's room as they did when they salvaged the silver. It is possible however that stratigraphy has been destroyed during the salvage and is no longer usable for future archaeological research though.

While the information we can gather from the ship by itself is enough to warrant further archaeological research, it is also at a high risk of disappearing soon due to erosion and the ever shifting sandbanks at Goodwin Sands. Especially since parts of the ship have been uncovered by salvage operations and are now exposed to the tides and the *teredo navalis*. It is therefore eminent that, if we want to preserve some of the information present in the Rooswijk, quick action is required.

What is positive about the Rooswijk's wreck is that there are hardly any stakeholders involved that will be opposed an archaeological excavation. The wreck presents little ecological value as it is often covered by sandbanks and therefore there is almost no marine life or growth dependant on the hard substrate it offers. Furthermore it is a protected wreck-site and diving on the wreck is not permitted without prior permission from the English government. This means that there is no recreational tourism depending on the wreck either. Also, the fact that it is already being monitored and surveyed plus the fact that historical information on the wreck is available would ease an excavation as it is already known where to look for, and in some cases even what to look for.

Besides giving us information on the wreck itself a further excavation of the wreck would also make it possible for to compare the historical information presented, and the actual information aboard the ship. Thus giving us greater insight into the reliability and usability of historical sources and how they can be combined with archaeological research.

An interdisciplinary approach to the Rooswijk – conclusion

As someone who often tunnel-visions on the archaeological approach it is interesting to see how much information can be present in archival and historical records. I can however see why many archaeologists and historians are weary of an interdisciplinary approach as it can be a completely different in the way one conducts his or her research. Both disciplines often have different goals and objectives and want to answer different questions. With historians often being focussed on the bigger picture and the impact the sinking of a shipwreck had on the course of history, or society, while archaeology is more focussed on the wreck itself and what information it holds within.

But it is exactly these differences that give the interdisciplinary approach its value. They both fill certain gaps that the other approach leaves open and in that way complement each other. And it is my opinion that both approaches are required to create a more complete image of the historical events that took place. However, historical sources can give a huge amount of both relevant and irrelevant information, and are not always as reliable as one would hope. It is therefore difficult, especially for archaeologists, to pick out the relevant and reliable information to use in your research.

I do think that archaeologists should be trained in the historical approach, and historians in the archaeological approach, at least so they know what other approaches to history there are. Having said that, the interdisciplinary approach should be conducted by both a historian and an archaeologist, not an archaeologist with little experience on the historical side or a historian who occasionally dabbles in archaeology. There is a reason why they are different specializations but they should work together more often.

In the end though I do not necessarily think that it is an unwillingness to work together, at least not with the new generation of historians and archaeologists. It is more likely a financial and time pressure issue which prevents these two disciplines from combining their research more often. At least from the archaeological side of things, where the person paying for an excavation often has no interest in what is found but only in how soon we are gone, it is difficult enough to properly finish the project and there is no time

or money remaining for any sort of historical research. And it is this problem that has to be solved before any sort of interdisciplinary approach can become popular.

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