

Arq. en Aguas Profundas III

Case Studies 2

Especialización en Patrimonio Cultural Sumergido
Cohorte 2021

Universidad
Externado
de Colombia

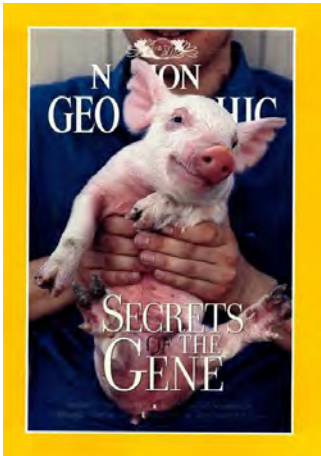
Filipe Castro
Bogotá, April 2021



FACULDADE DE CIÊNCIAS
SOCIAIS E HUMANAS
UNIVERSIDADE NOVA DE LISBOA



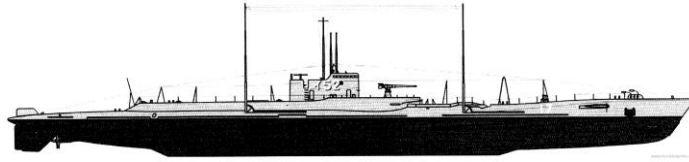
Japanese submarine lost in the Atlantic with a gold cargo, bound for Europe. It was found 5 Km deep in 1995 by Paul Tidwell.



National Geographic Magazine
October 1999



I-52



Many of the records from World War II are kept in the National Archives in Washington D.C.

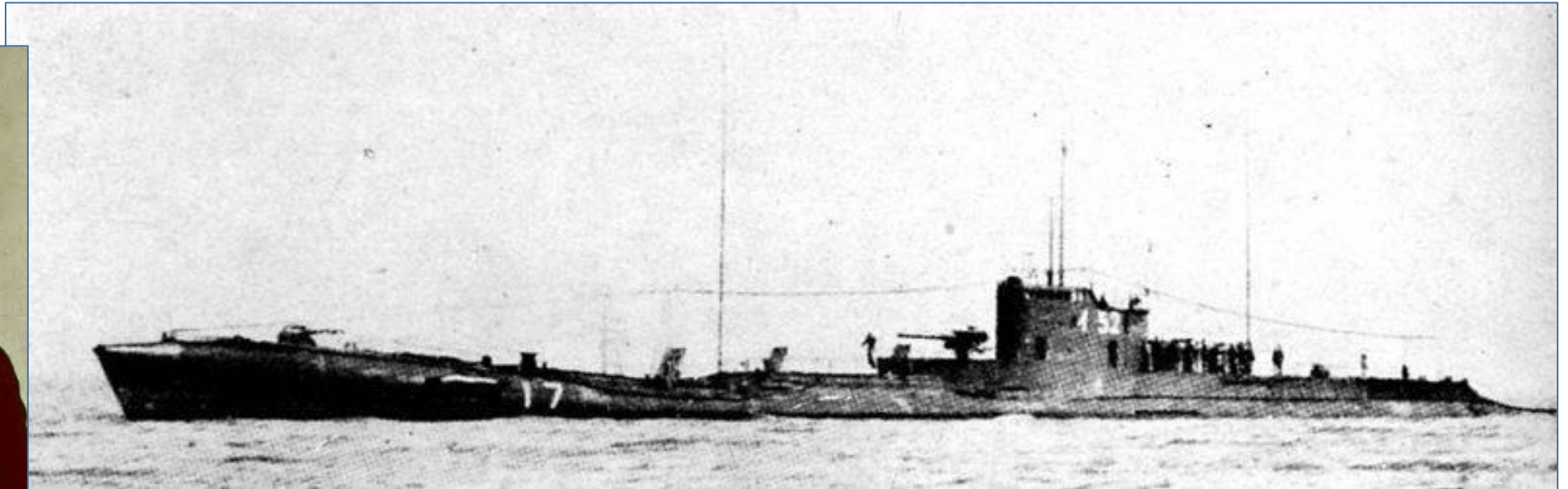
There historian Paul Tidwell found the actual log of the aircraft carrier *Bogue* which describes the action of events surrounding the I-52 on June 23rd and 24th, 1944.



Tydwell also found Commander Taylor's report of how he located and sank the I-52, logs from other ships in the task force, and even the war diary of the U-530. The pages contained the secret of the location of the wreck of the World War II Japanese submarine I-52. Paul Tidwell had been looking for the I-52 and other historical shipwrecks for many years.

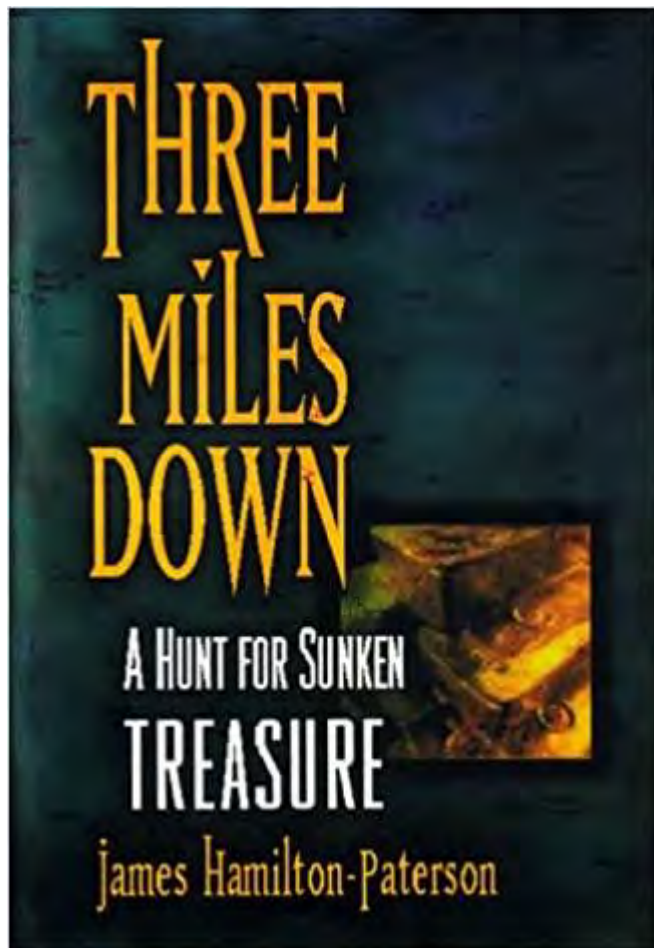


Uno Kameo



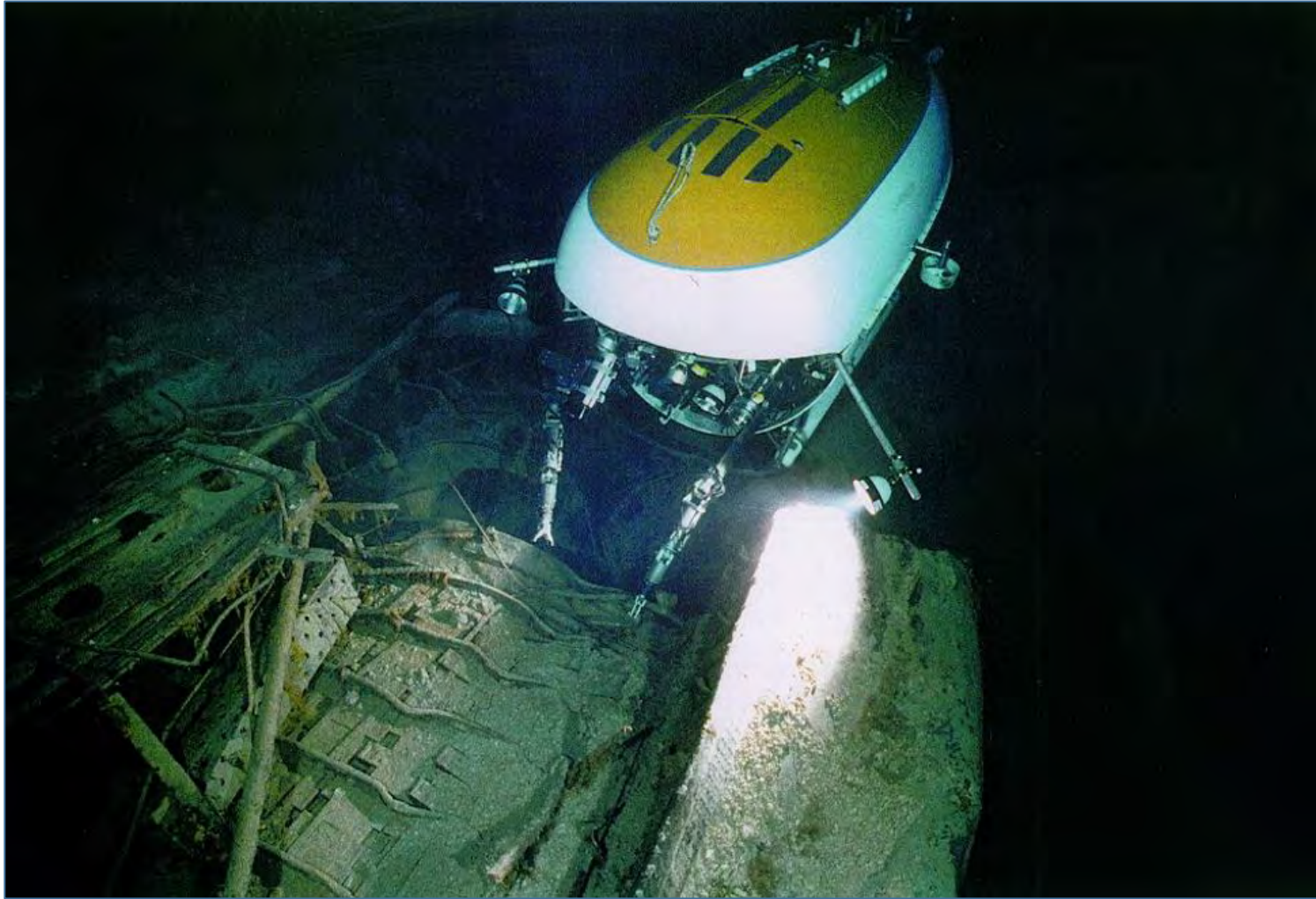
In 1995 Tidwell sponsored an expedition to search for the sub, and hired Ted Brockett of Sound Ocean Systems, Inc. to manage the project. Ted in turn, relied on Nauticos Corporation, at the time called Meridian Sciences, to fill key roles, with Tom Dettweiler serving as Operations Director and David Wyatt responsible for the operation of the ORION side scan sonar image processing system.





Jeff Burns, Nauticos' Director of Marketing, was also aboard, standing watches and documenting the events of the cruise. Assisting Tom was Sound Ocean System's Bob Cooke, a seasoned veteran of ocean exploration.

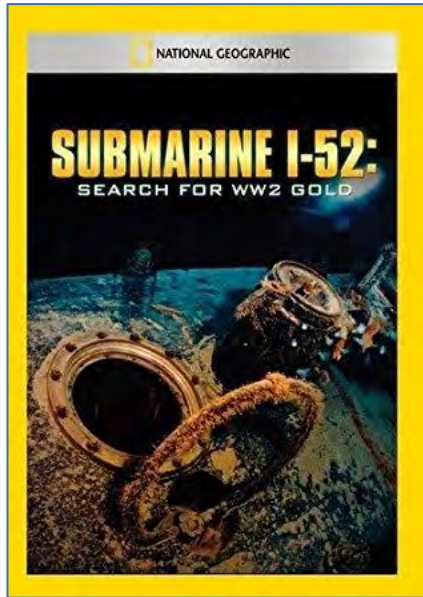
The Russian R/V *Yuzhmorgeologiya* and its equipment were used in this deep-water search operation.



Tidwell eventually raised \$2m to try to salvage part of the gold (in 1998). He did not find the gold.



Tidwell announced that he was going to recover the submarine in 2005 but there is no information on this project.



Video



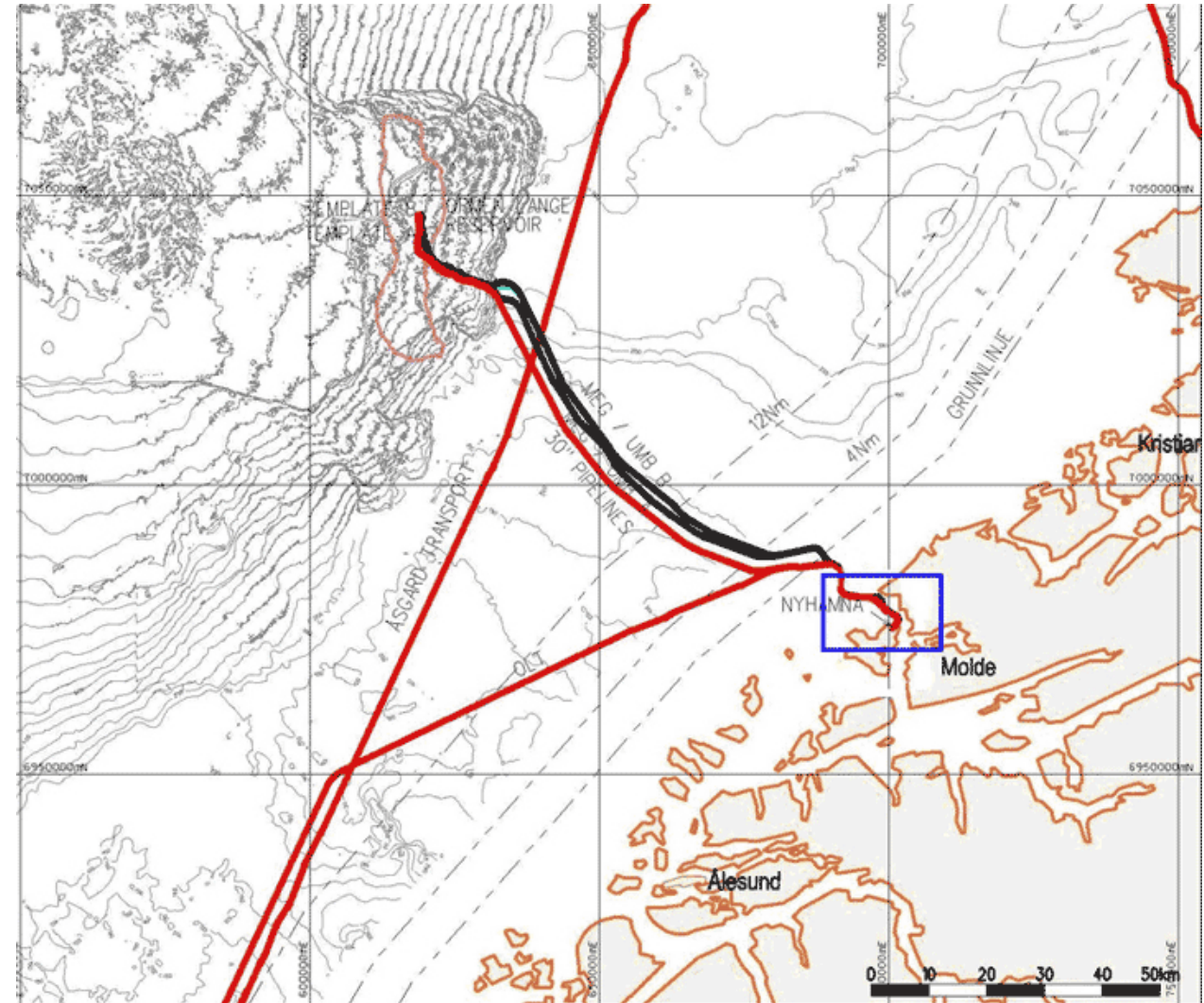
The Ormen Lange Project

Norway

2003



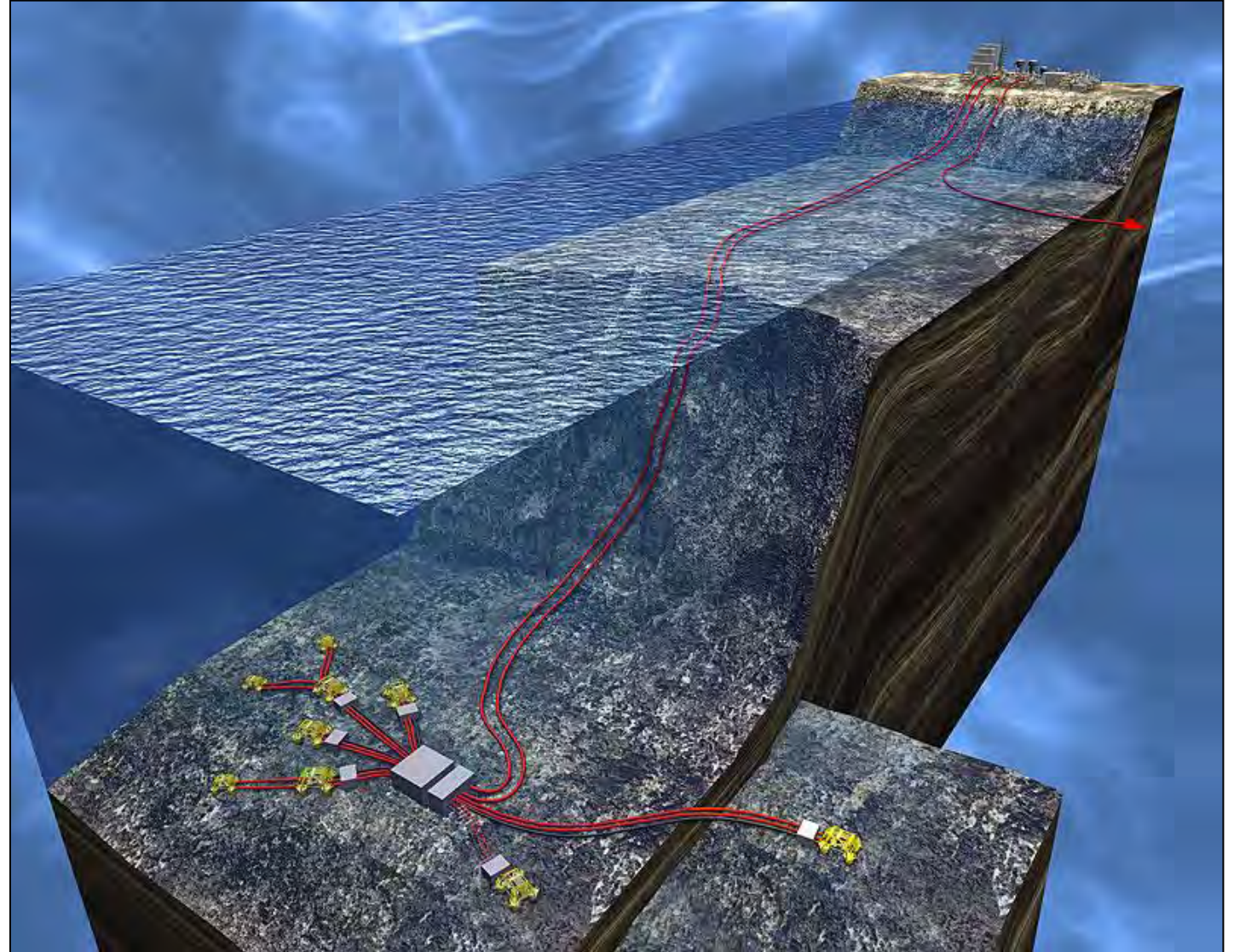
Pipeline route.



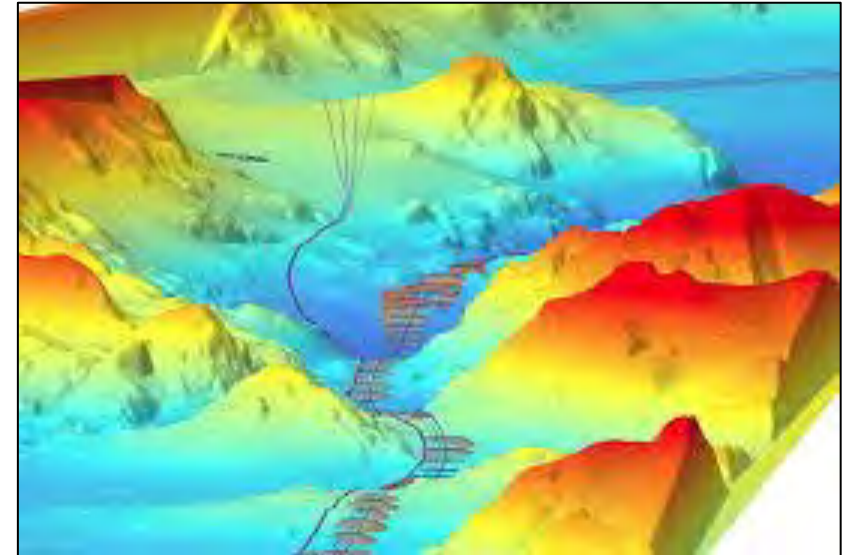
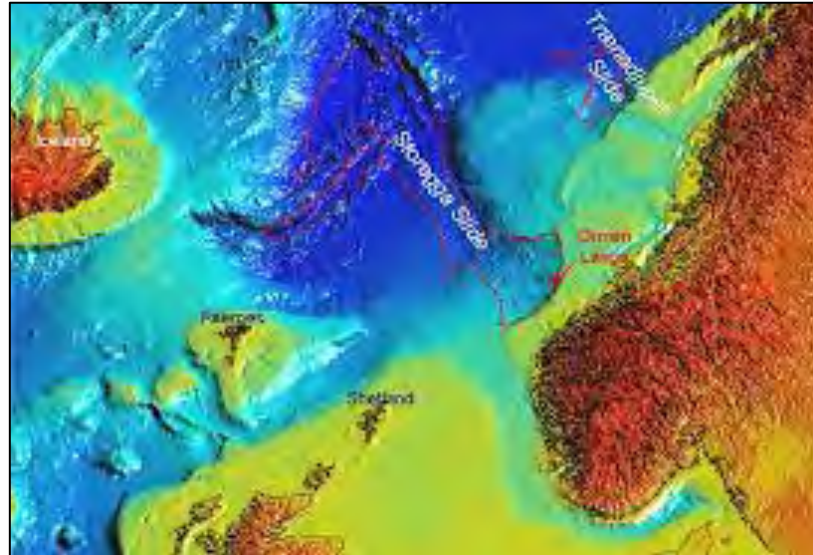


NTNU carried out a marine archaeological survey in the planned pipeline corridors in August and October 2003 to fulfil the requirements in the Norwegian Law on Protection of Cultural Heritage.

The sea bottom in the area does not leave much space to move pipelines around.



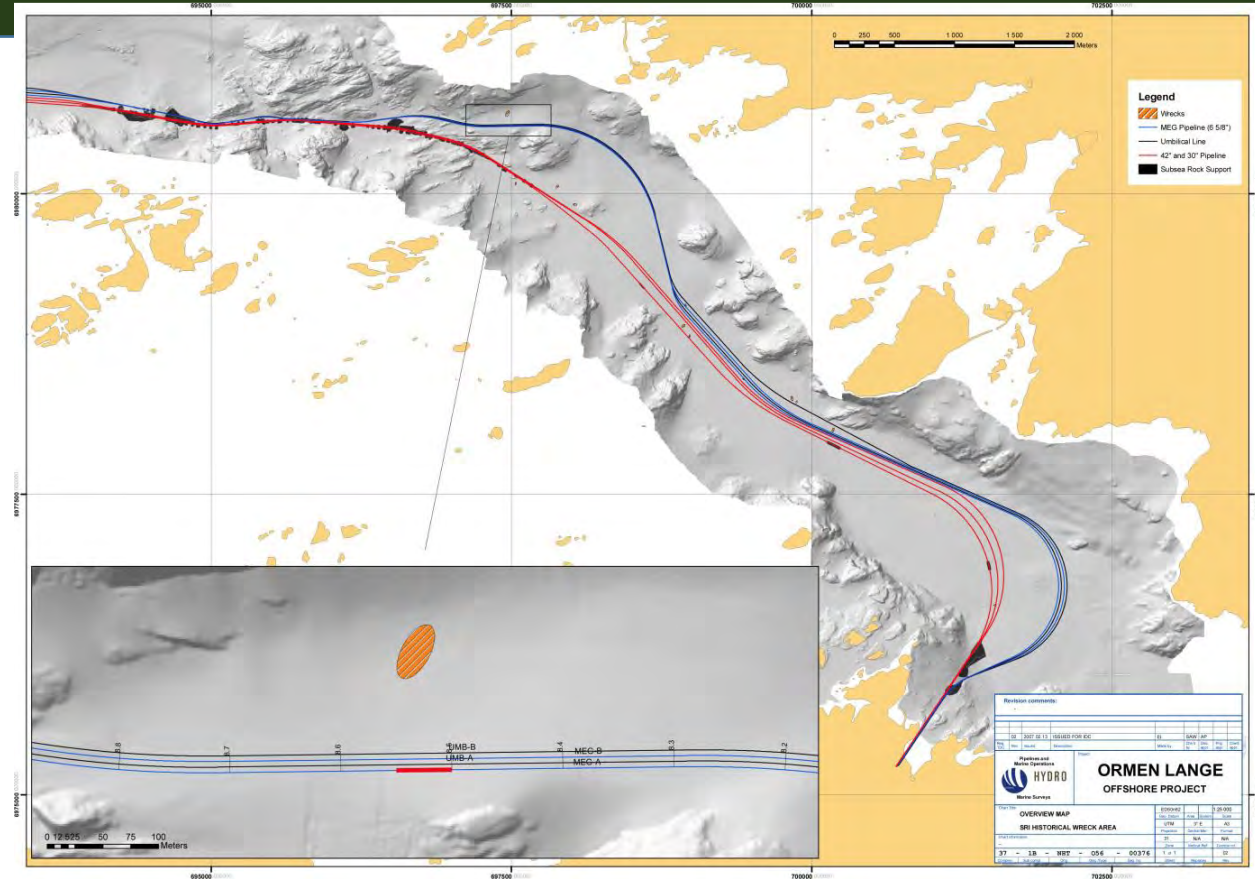
The team utilised a 60-foot catamaran equipped with a Kongsberg Simrad DP system, and a Sperre ROV equipped with Kongsberg Simrad sonar and camera equipment to locate shipwrecks in the pipeline corridors.



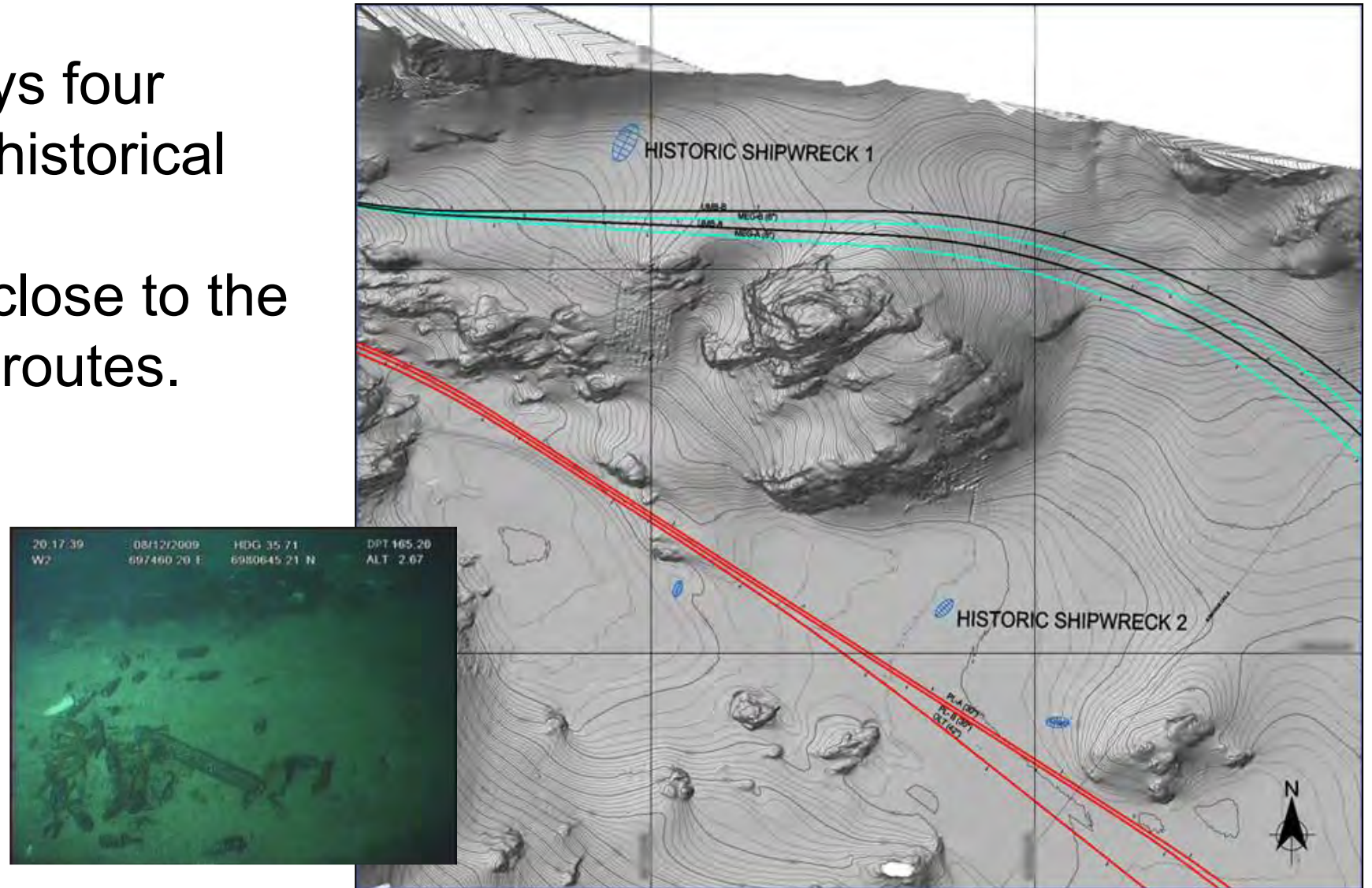
Although the multibeam and sidescan surveys had detected eight modern shipwrecks in the area, it was decided that the existing survey data were inadequate to detect, with reasonable certainty, the presence of archaeological material in the proposed pipeline corridors.



The ROV was flown along the centerline of the pipeline routes. Sonar images were interpreted on the fly and used to locate potential targets. When an interesting target was located, the ROV was flown to it and the target was inspected using the ROV's video cameras, while the survey ship was holding position.



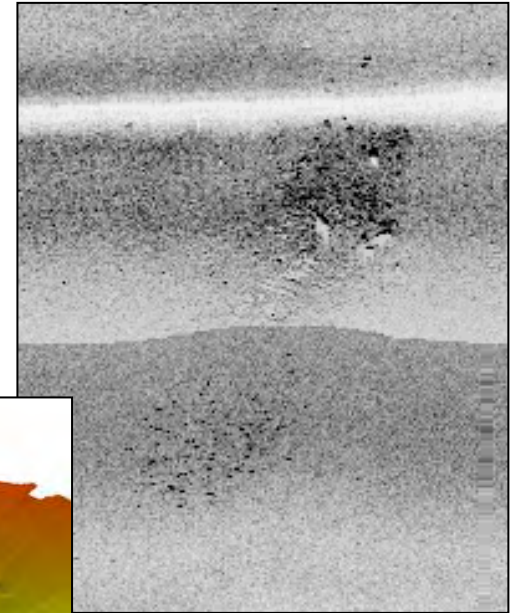
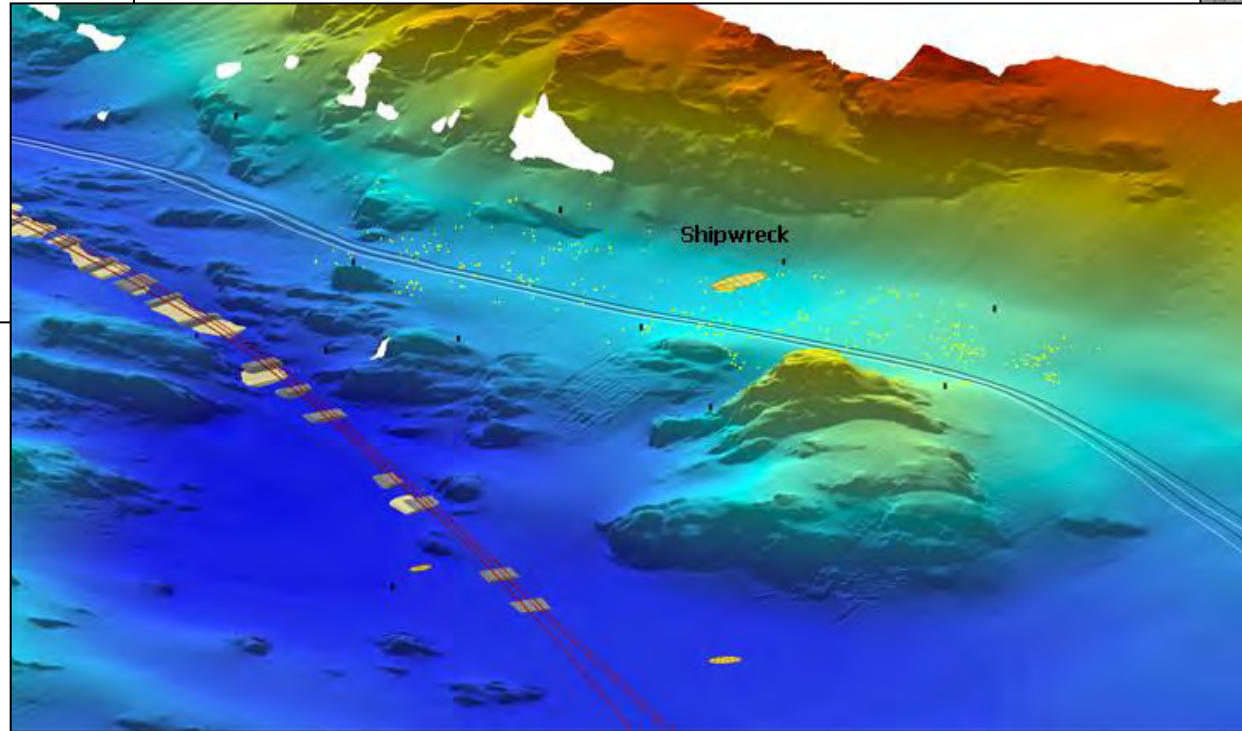
During the surveys four modern and two historical shipwrecks were discovered in or close to the planned pipeline routes.

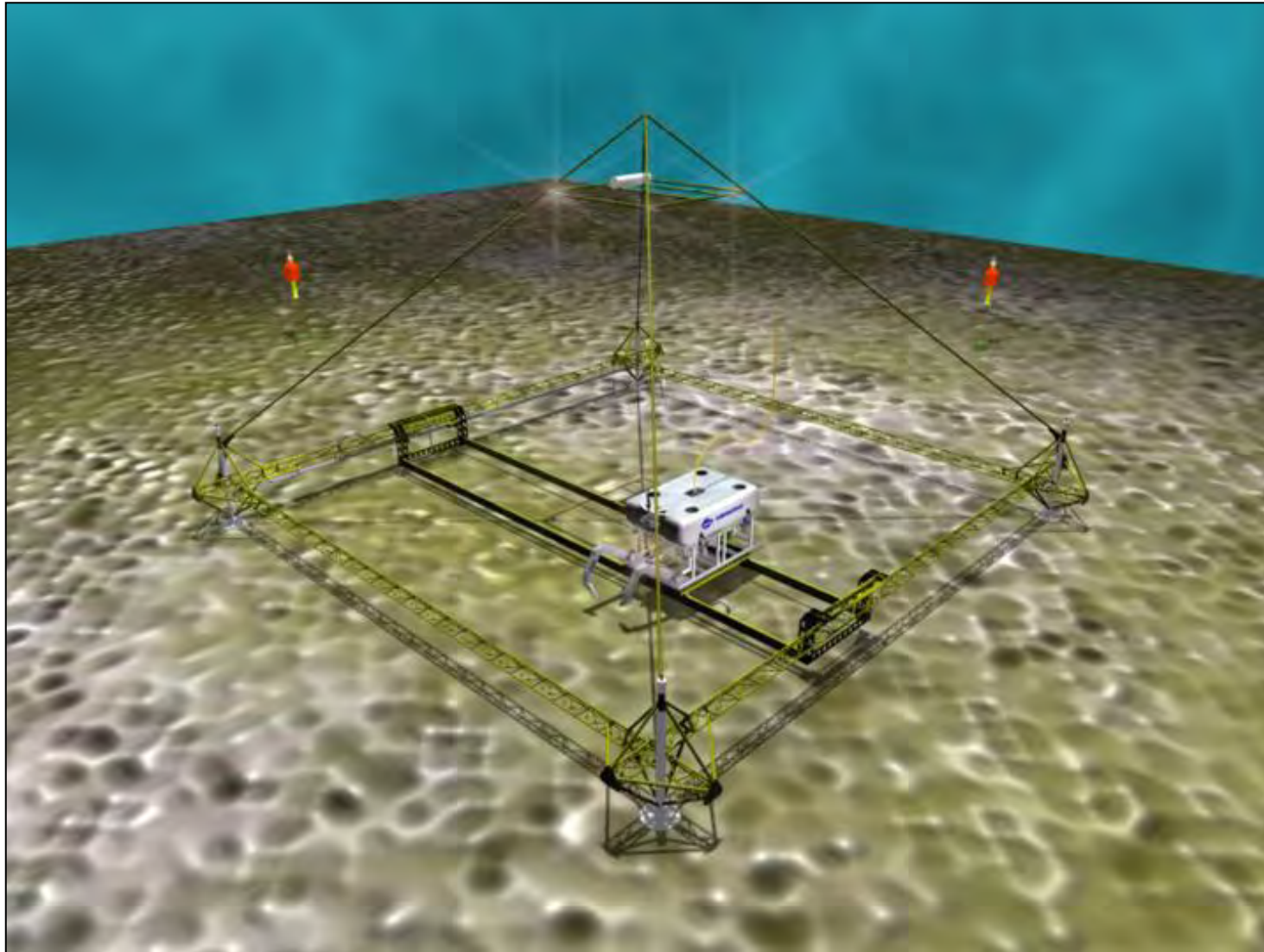




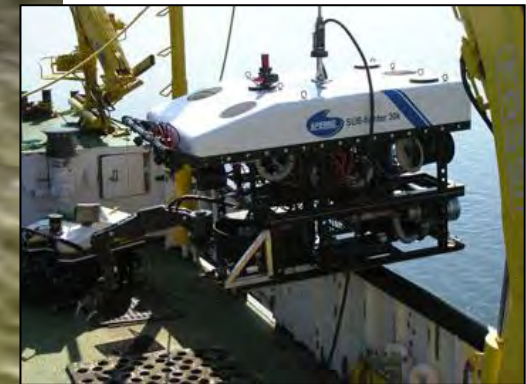
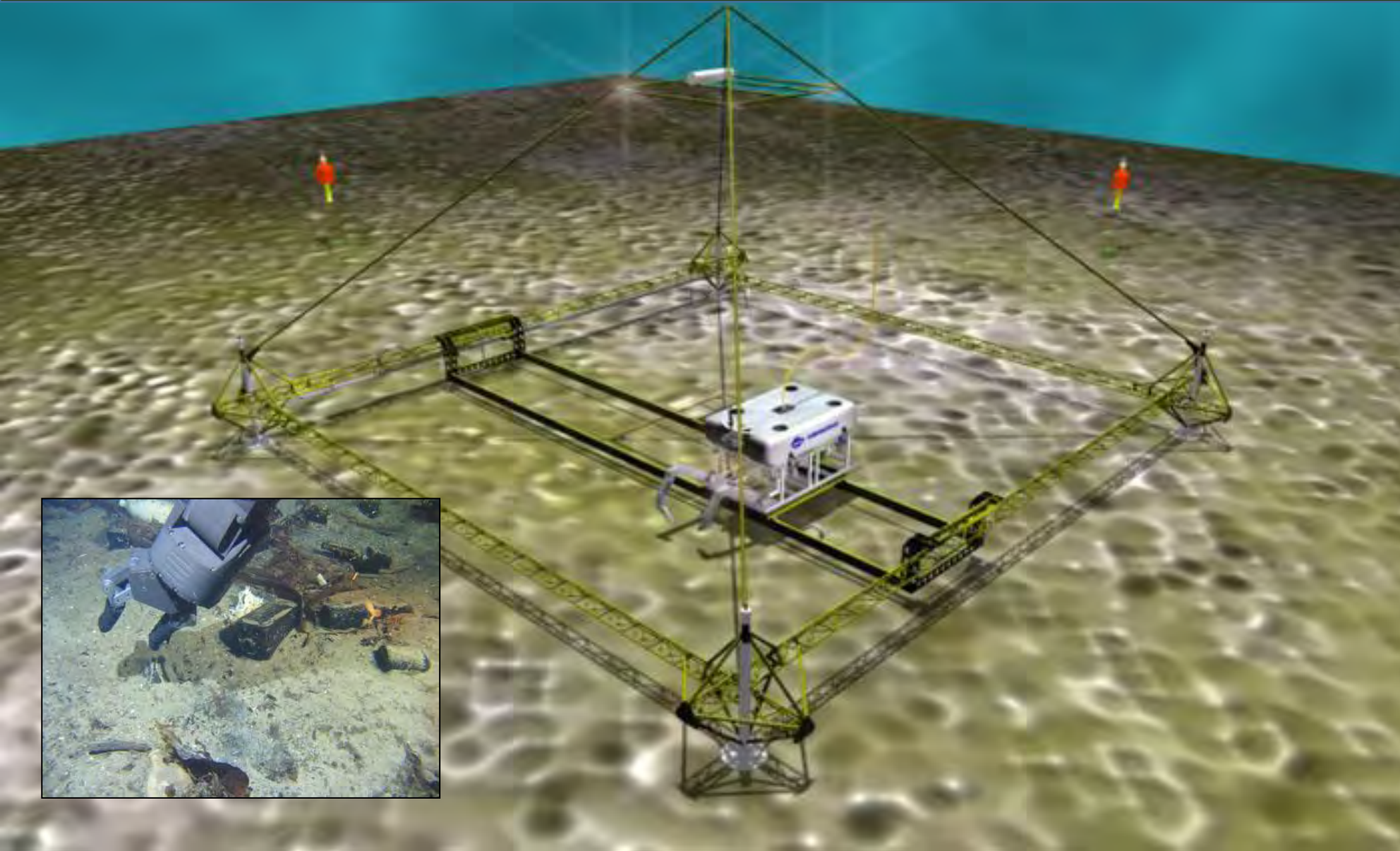
Later picture, from the monitoring program.

It was decided to remove part of one shipwreck, which was located too close to the pipelines.

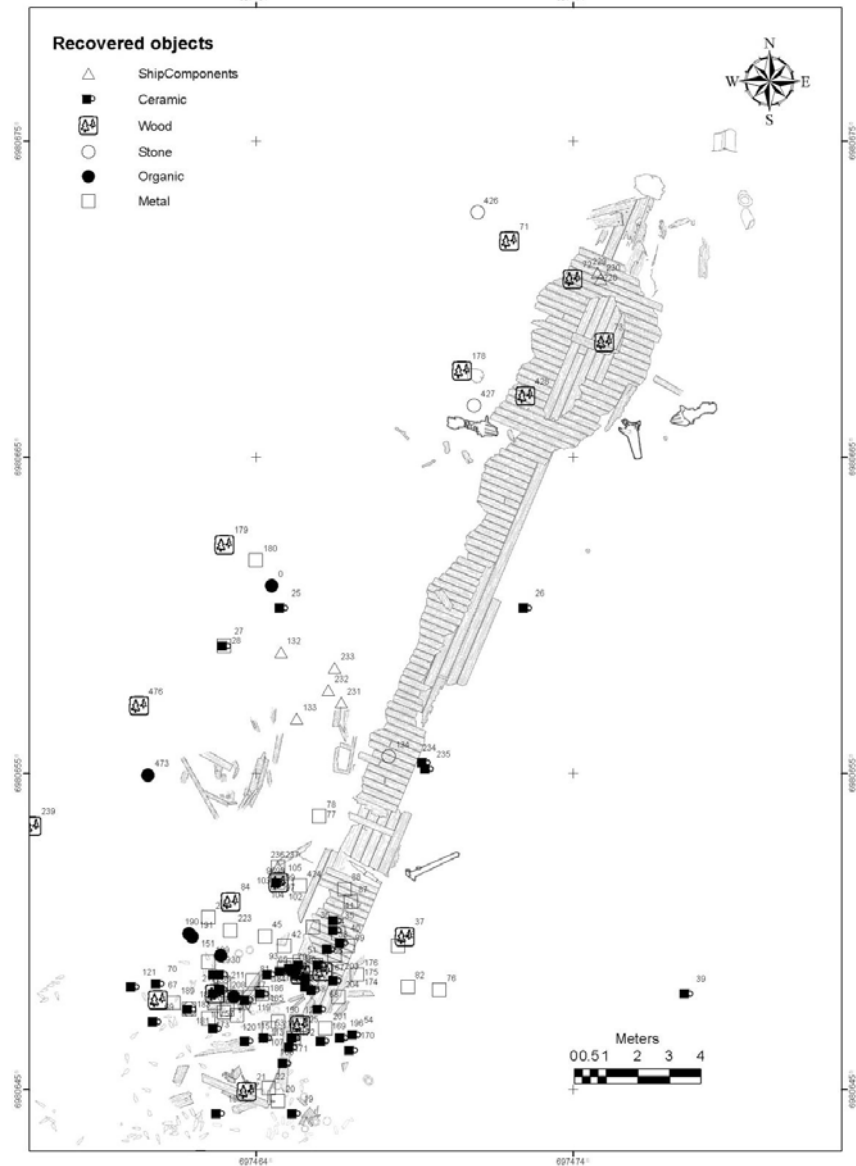




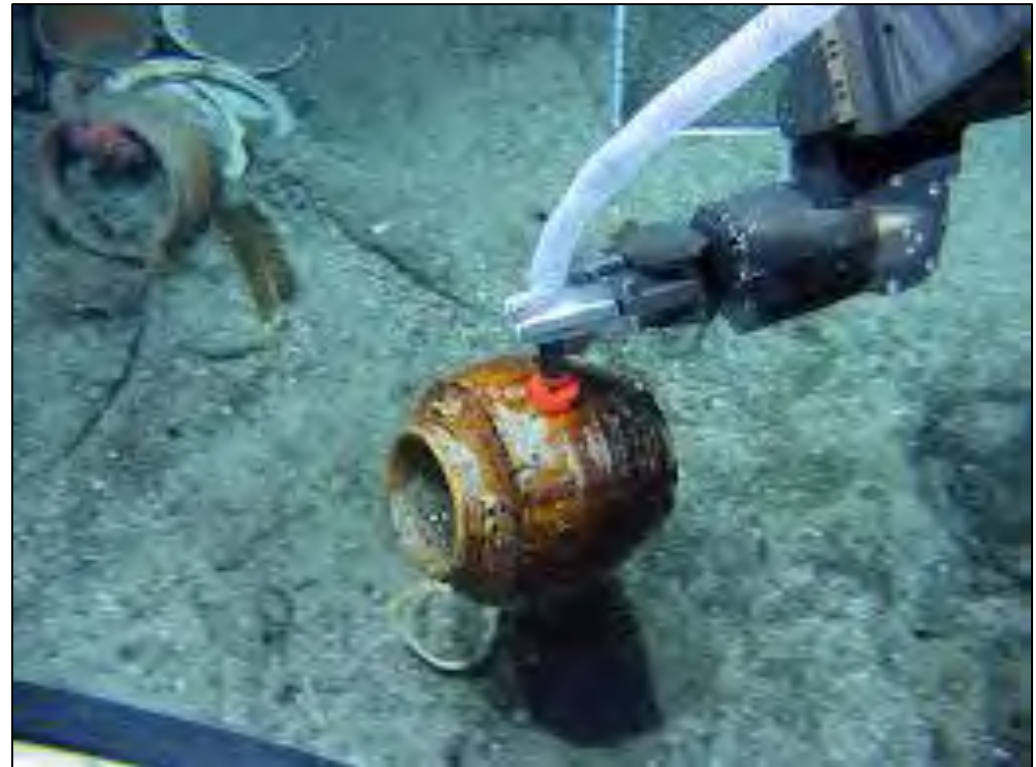
A frame was designed and set over the shipwreck site, and excavation was carried out with an ROV mounted on the frame.



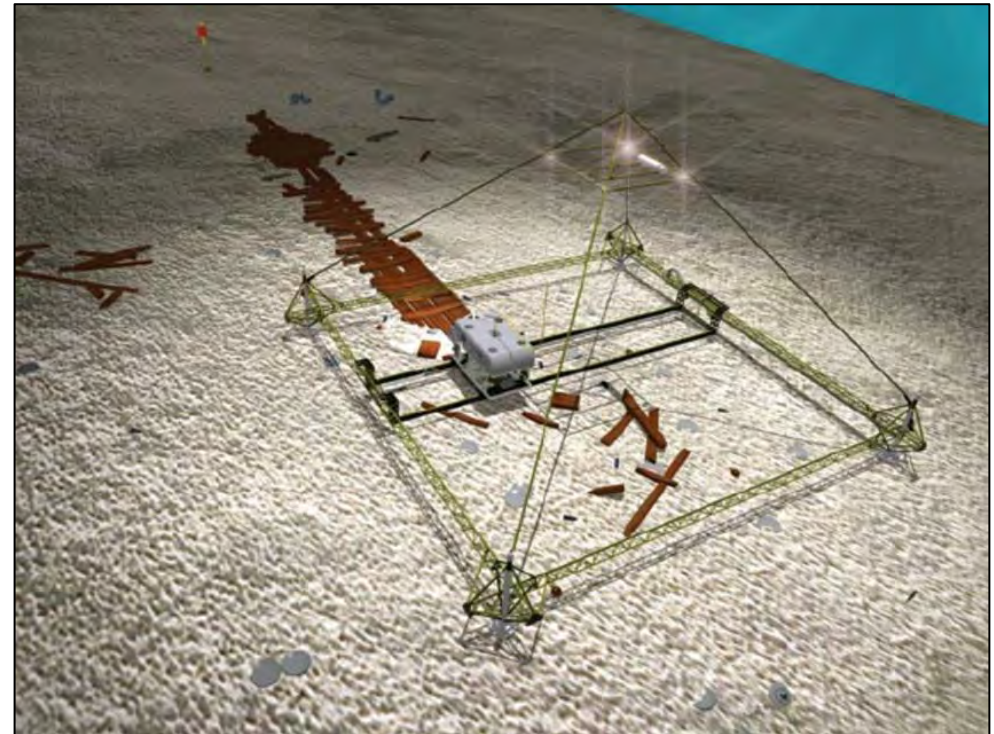
A large collection of bottles and porcelain, along with a large ship's bell and cannons, were observed on the seabed at a depth of some 170 meters.

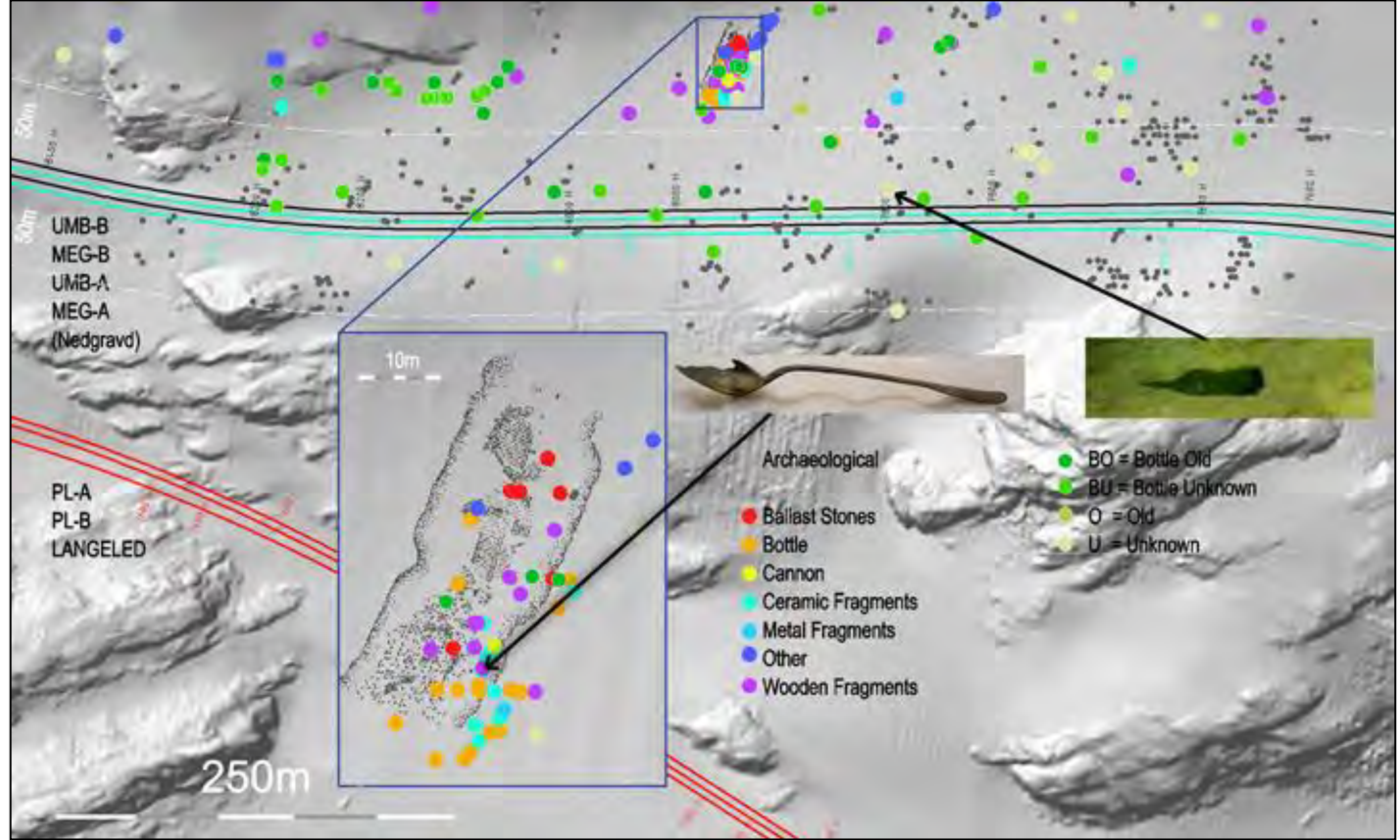


Underwater pictures from the site indicated that the ship probably went down in the second half of the 17th century.

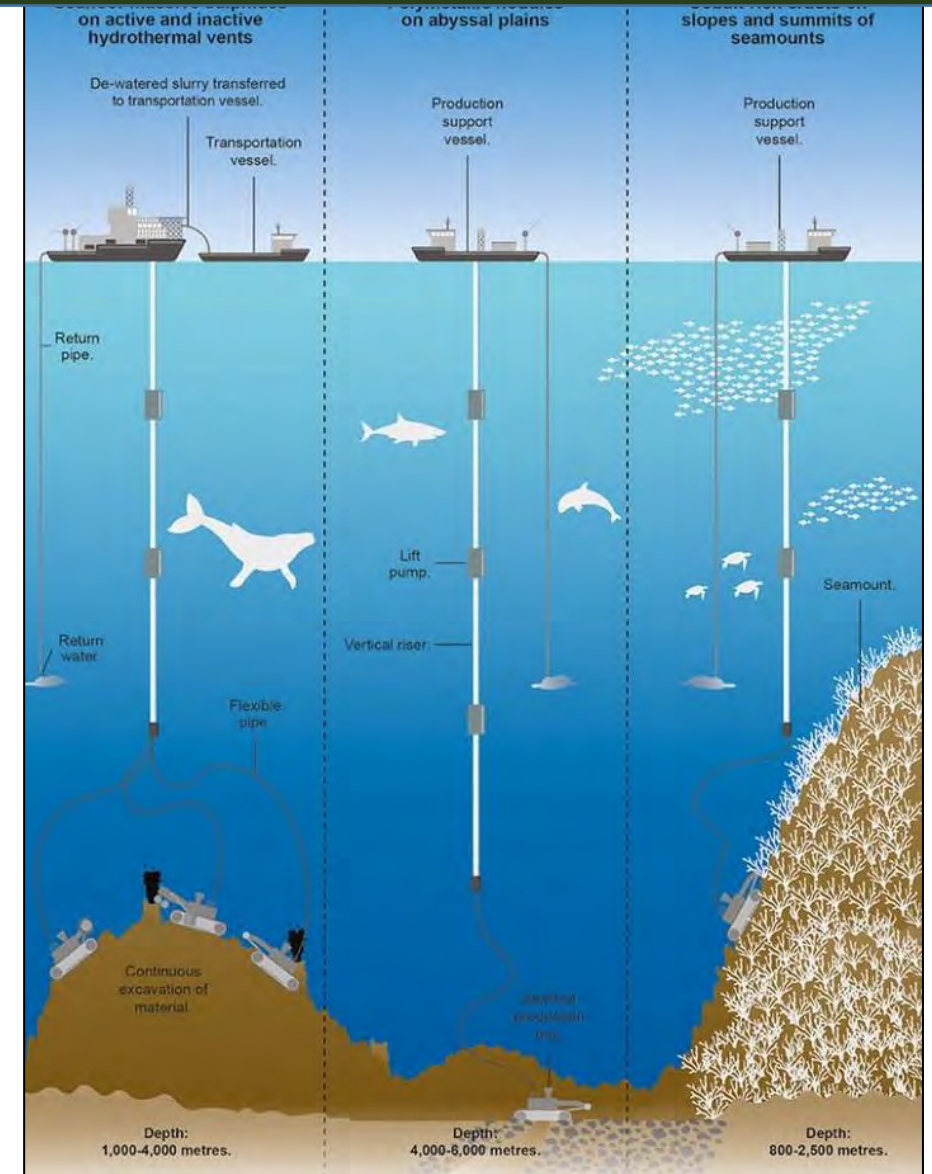


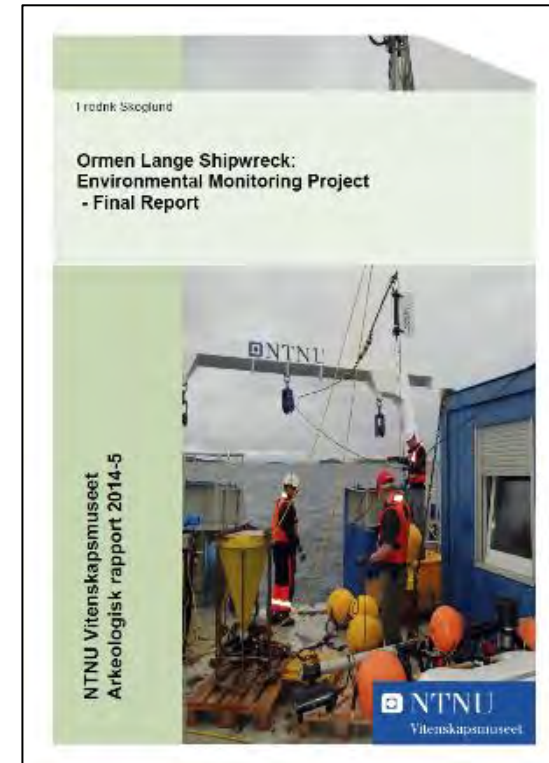
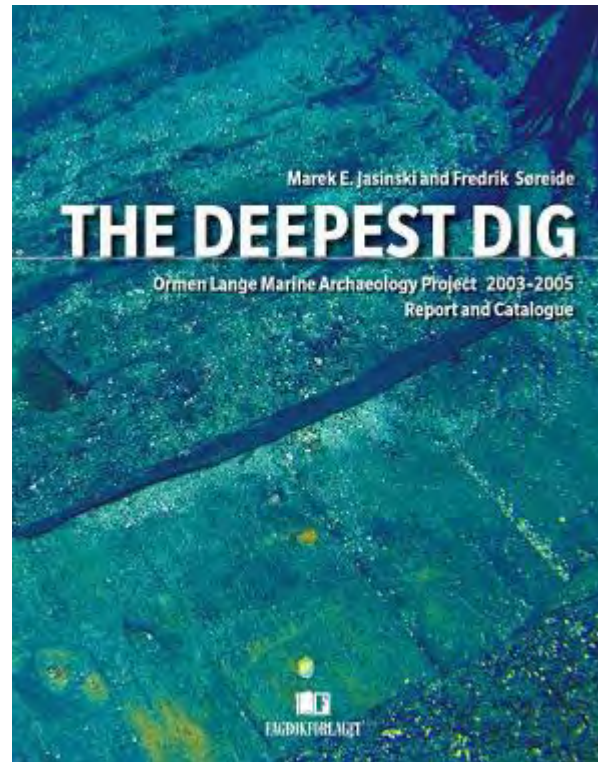
A challenging and detailed investigation of the historical site was started, including excavation of parts of the wreck site. The water depth created significant technological challenges for the archaeologists.

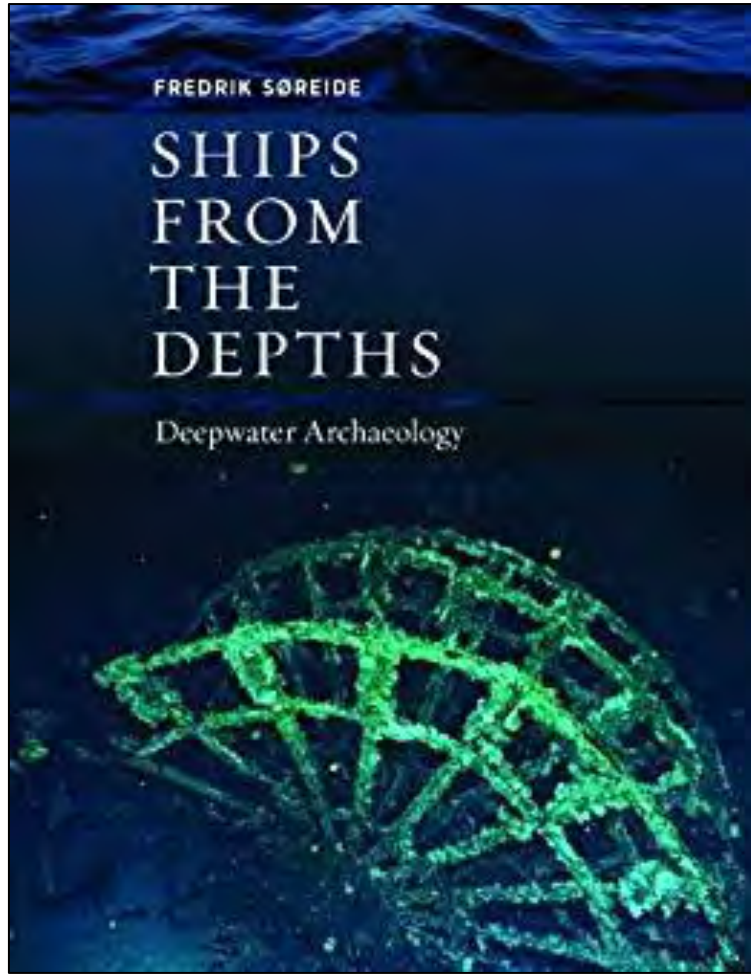




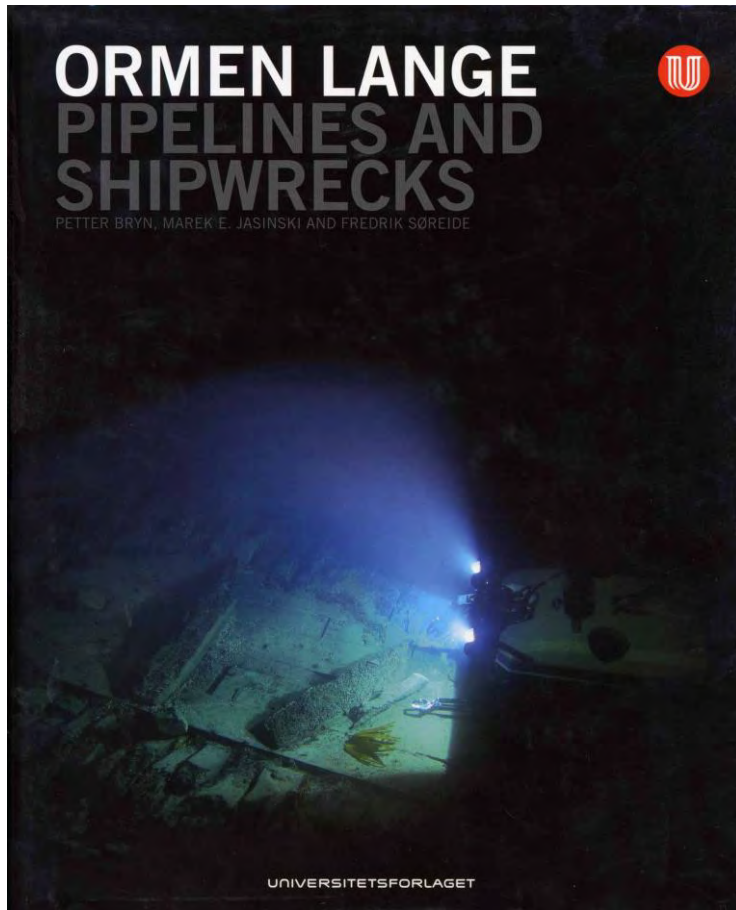
In a few years, the advances on automation, marine robotics, and artificial intelligence promise to make it easy – although expensive – to plan and excavate a shipwreck site situated beyond diving depth with the same high standards used in the *San Juan* excavation.







Soreide, Frederick, 2011. *Ships from the Depths*. College Station: Texas A&M University Press.



Bryn, Petter, Jasinski, Marek E., and Søreide, Fredrick, 2007.
Ormen Lange: pipelines and shipwrecks. Oslo:
Universitetsforlaget

SS Republic, 1865

Found in 2003 by Odyssey
Marine Exploration 500 m deep.
Salvaged in 2004.



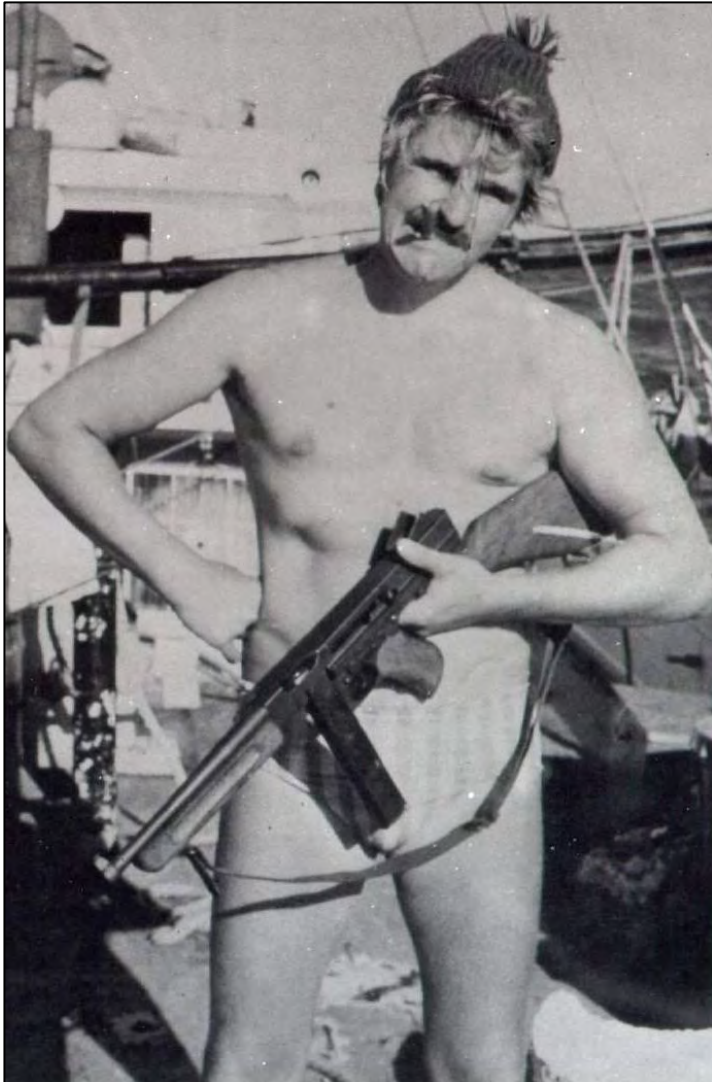
En route from New York to New Orleans with passengers and commercial cargo, *Republic* was lost in a violent hurricane on October 25, 1865. The passengers and crew escaped from the sinking ship, yet a fortune in coins and much needed cargo to help rebuild New Orleans' post-Civil War economy sank to the bottom of the Atlantic seabed 518 meters deep.



Sites are discovered by towing side-scan sonar and magnetometer devices over large distances looking for anomalies in the seabed which can then be inspected further. Remotely Operated Vehicles (ROVs) outfitted with video cameras allow archaeologists on the surface ship to inspect the wreck without getting wet.



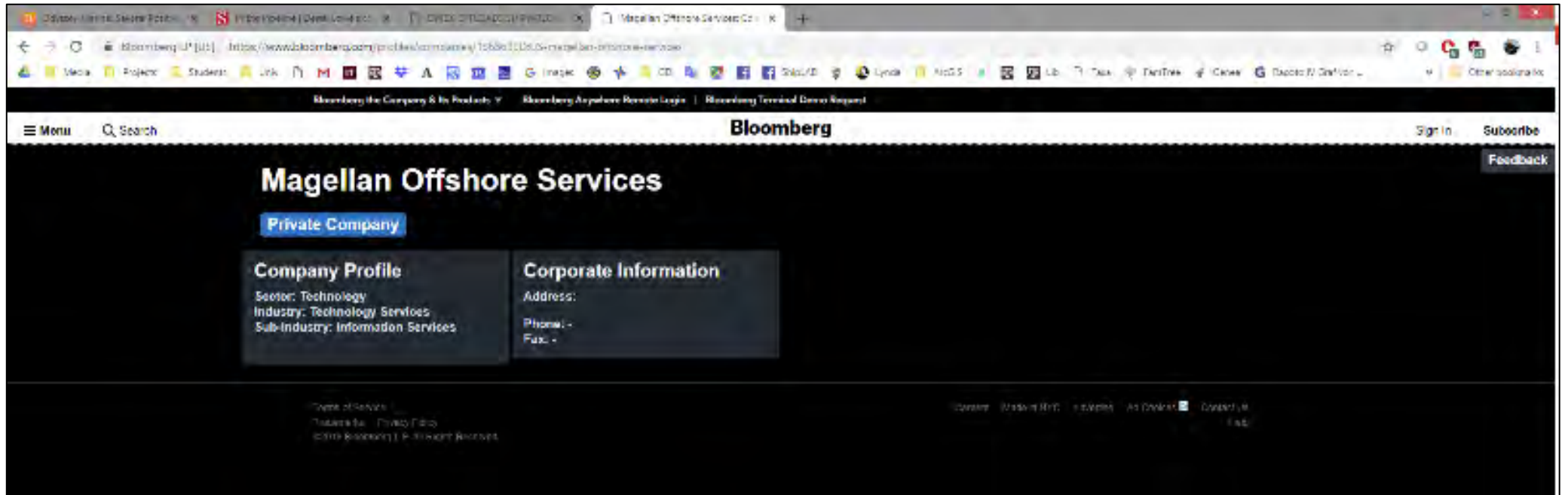
<https://www.shipwreck.net/technology>



In the case of Odyssey Marine Technology, there is a database of shipwrecks with the potential to raise investor's interest.

Robert Marx, a pioneer in the treasure hunting business, sold information on shipwreck locations to Greg Stemm (Seahawk).

This database was partly developed with money from the Dry Tortugas investors, passed from **Seahawk** to **Odyssey**, and sold in 2014-15 to a company named **Magellan Offshore Services** (to avoid bankruptcy. Magellan Offshore Services was a subsidiary of **Monaco Financial LLC**.



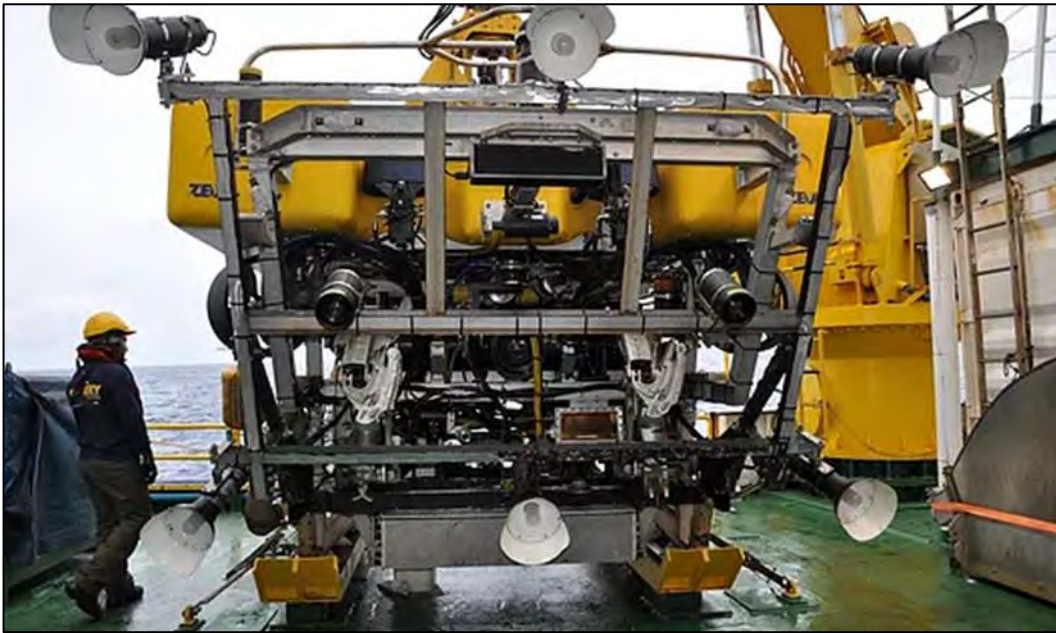
Monaco Financial, LLC buys and sells rare coins and precious metals products. The company is involved in various aspects of the rare coin trade, the wholesale market, the collector market, the international market, and auctions. It operates as a dealer of California Gold Rush numismatic artifacts, including gold dust, gold nuggets, assayer and territorial coinage, assayer “slugs” and ingots, and early San Francisco mint coinage; shipwreck treasure collectibles; Double Eagles; Morgan silver dollars; historical commemorative restrikes; gold bars and monetary ingots; and rare gold and silver coins. The company also sells rare coins online. Monaco Financial, LLC is based in Newport Beach, California.

Before touching a wreck, its profile is recorded with multibeam sonar to reconstruct the ship's 3D contours. Thousands of photos are taken and digitally stitched together to provide a zoomable bird's-eye view of a site. Sediments might be cored to assess a wreck's buried survival.

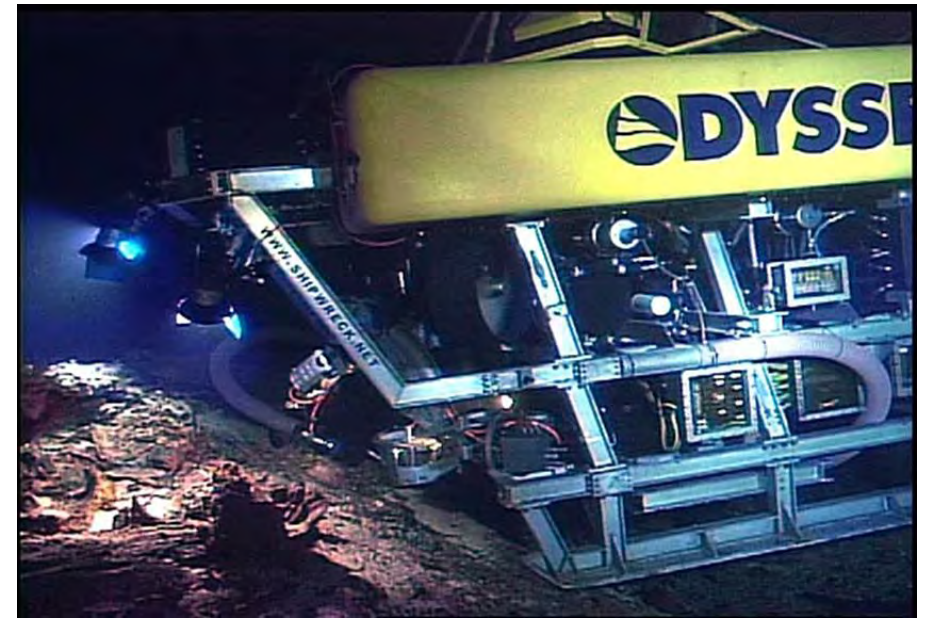
In the case of HMS *Victory* (1744) sub-bottom imaging mapped the buried wreckage in 3D.



Surveying, recording and recoveries are all built around unmanned ROV's (Remotely Operated Vehicles), the eyes and hands of archaeologists in the deep. These sophisticated robots are driven by hydraulic thrusters and can travel thousands of feet deep.

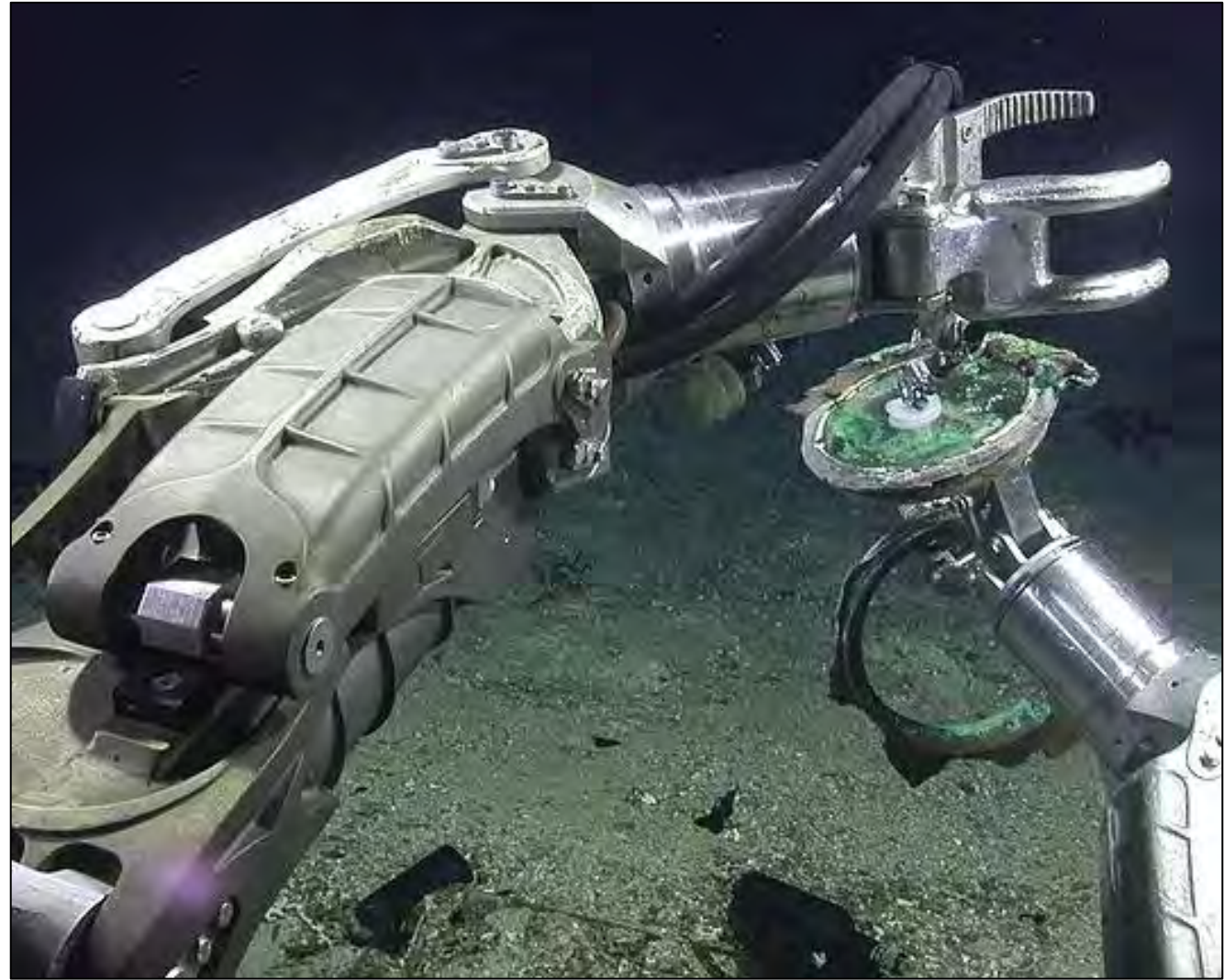


Odyssey Marine Exploration built a proprietary ROV named ZEUS. This ROV is equipped with acoustic positioning gear and telemetry, as well as a suite of HMI lights and high-definition still and video cameras



<https://www.shipwreck.net/technology>

ZEUS is remotely piloted by two technicians manipulating joysticks from the recovery ship on the surface above the wreck site. One pilot "flies" ZEUS while the other operates the manipulator arms.



Integrated into ZEUS is Odyssey's proprietary Sediment Removal and Filtration System or SeRF™ for short. This venturi system channels sediments and small artifacts into a collection and filtration chamber to capture very small artifacts, such as buttons, fragments, or seeds, while sediments exhaust through an opening at the rear of the container. The SeRF™ unit may also be configured to retain sediments for sieving. The venturi system can be reversed to “dust off,” and clean the surface of the site to expose artifacts and structural elements without disturbing the main matrix.

Odyssey's ROV is also equipped with several suction tools.





Suction tools can grab very small to medium sized artifacts and move them to lifting baskets.



Just like a physical grid on land, the Odyssey team invented a digital grid to log and map the position of every object from a tiny button to a large cannon. After artifacts are recovered, the story of a wreck is forensically reconstructed based on their original locations and contexts.



The *SS Republic* was a Civil War-era sidewheel steamship that sank in 1865 while carrying a large cargo of silver and gold coins and a stunning variety of everyday wares essential to life in mid-19th century America.



Over 51,000 U.S. gold and silver coins were recovered from the wreck site, as well as over 14,000 artifacts - a fascinating assortment of 19th century goods in use during the Civil War years.



Archaeological Reports

The Nature of Encrustation on Coins from the Wreck of the Republic (1865)

Hawk Tolson, Ellen Gerth, Faith of Our Fathers: Religious Artifacts from the SS Republic (2010)

David L. Balkwill, April C. Smith, Microbiological & Chemical Analysis of Bottles from the SS Republic (2009)

Q. David Bowers, The SS Republic Shipwreck Excavation Project: the Coin Collection (2009)

Neil Cunningham Dobson, Ellen Gerth, The Shipwreck of the SS Republic (1865). Experimental Deep-Sea Archaeology. Part 2: Cargo (2009)

Neil Cunningham Dobson, Ellen Gerth, J. Lange Winckler, The Shipwreck of the SS Republic (1865). Experimental Deep-Sea Archaeology. Part 1: Fieldwork & Site History (2009)

Books

Ellen C. Gerth, Bottles from the Deep. Patent Medicines, Bitters and other Bottles from the Wreck of the Steamship Republic (Shipwreck Heritage Press, 2006).

Priit J. Vesilind, Lost Gold of the Republic (Shipwreck Heritage Press, 2005).



In spite of the value of the coins and other artifacts raised, Odyssey's stock kept plunging and by 2017 the company had lost over \$234m.

At least one stock holder was sued by the SEC for inside trading: buying stock before announcing a major treasure discovery and dumping the stock when the prices rise, before the media lowers the expectations and analyses the claims.

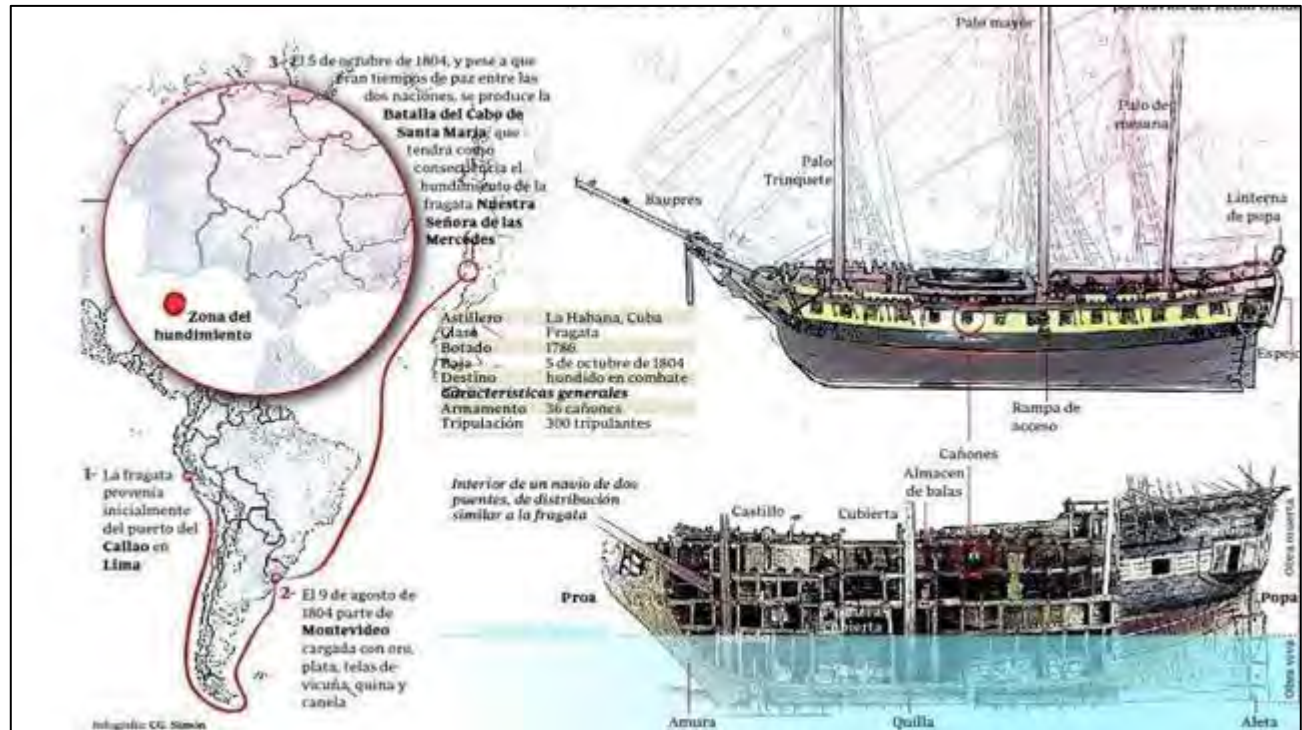
<https://www.nasdaq.com/symbol/omex/interactive-chart>



The Spanish ship *Nuestra Señora de las Mercedes*, was sunk by British warships in time of peace. This act of piracy ignited a war with England.



The site was located by an English treasure hunter, John Kingsford, probably in 1996, and the position sold to Odyssey Marine Exploration sometime later.



Odyssey Marine Exploration announced the trove of a treasure worth \$500m and issued stocks to finance its recovery.



Odyssey kept the position and identity of the ship secret and raised as many coins as possible in 2007.

He ended up recovering 17 tons of silver, worth around \$15m, far from the \$500m estimated in the investment raising phase.



The positions of ships are tracked worldwide via satellite, but Odyssey switched their ship's positioning device off, except when other vessels were approaching.



Spain sued Odyssey and won in court. Odyssey tried to convince the court that it did not know which ship it was in vain.



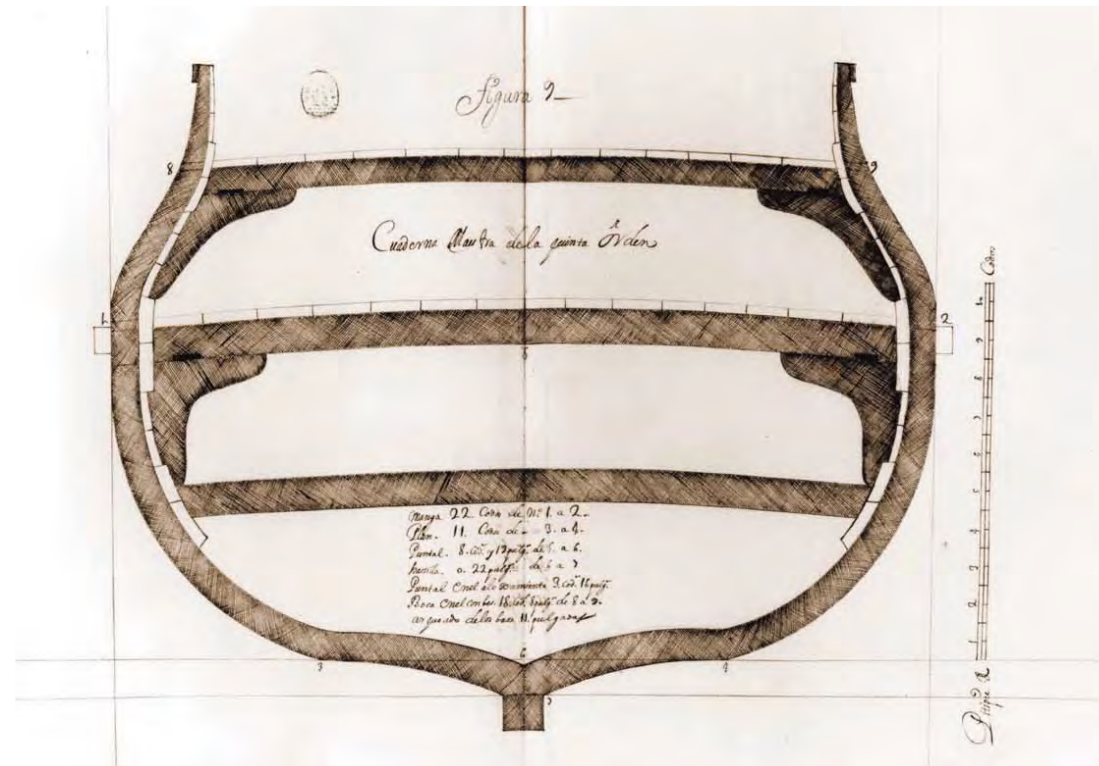
September 2013 Judge Merryday wrote:

“Odyssey went where it went because it knew full well where to go; Odyssey found what it found because it knew full well what it was looking for; Odyssey withheld and deceived and deflected with respect to what it found because Odyssey knew full well why Spain was asking and knew full well the adverse consequence to Odyssey’s financial aspirations if Spain discovered the answer. To come to court and deny the truth of these facts is, as stated earlier, an unacceptable enormity propounded and maintained in bad faith and for an improper purpose.”

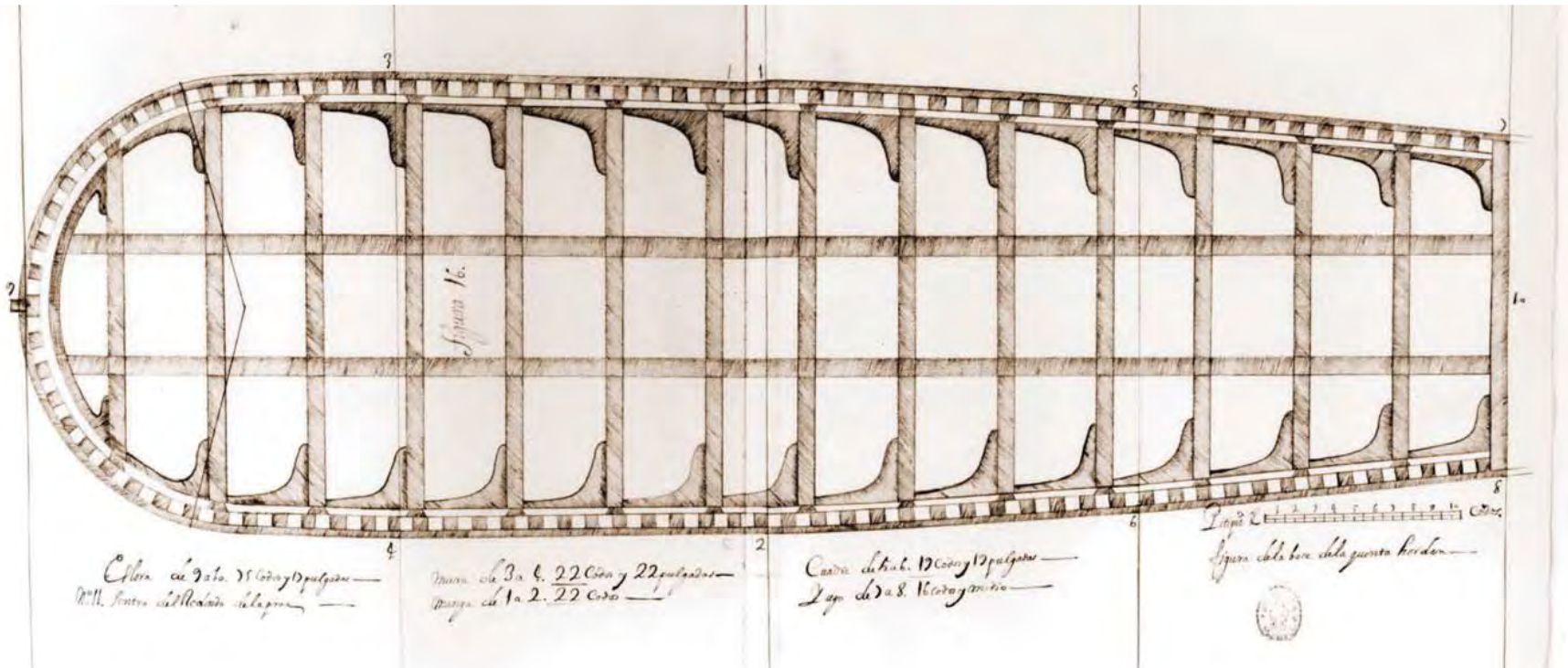
San José sunk in 1708, off the coast of Colombia, during the War of Spanish Succession.

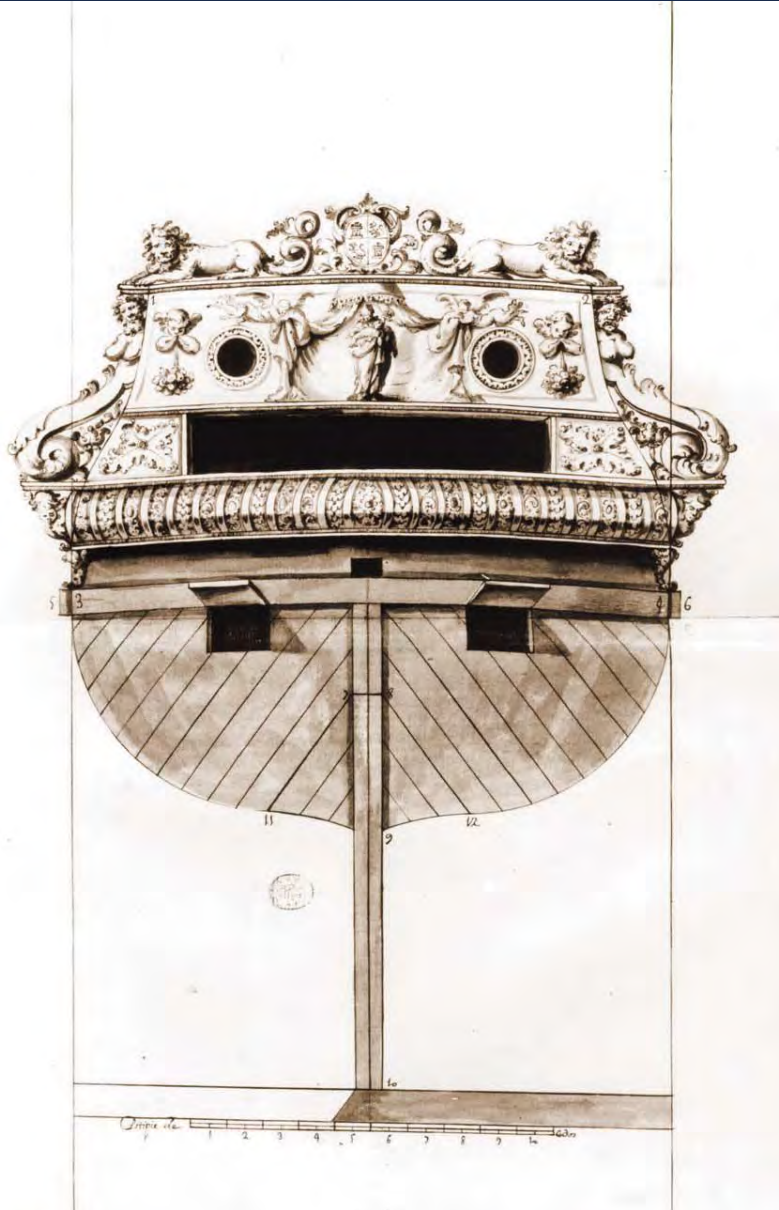


San José was a 64-gun ship was built in Spain, in the Basque Country, following Francisco Antonio Garrote's specifications, and constructed by a subcontractor of Pedro de Aróstegui, Miguel de Echebeste.



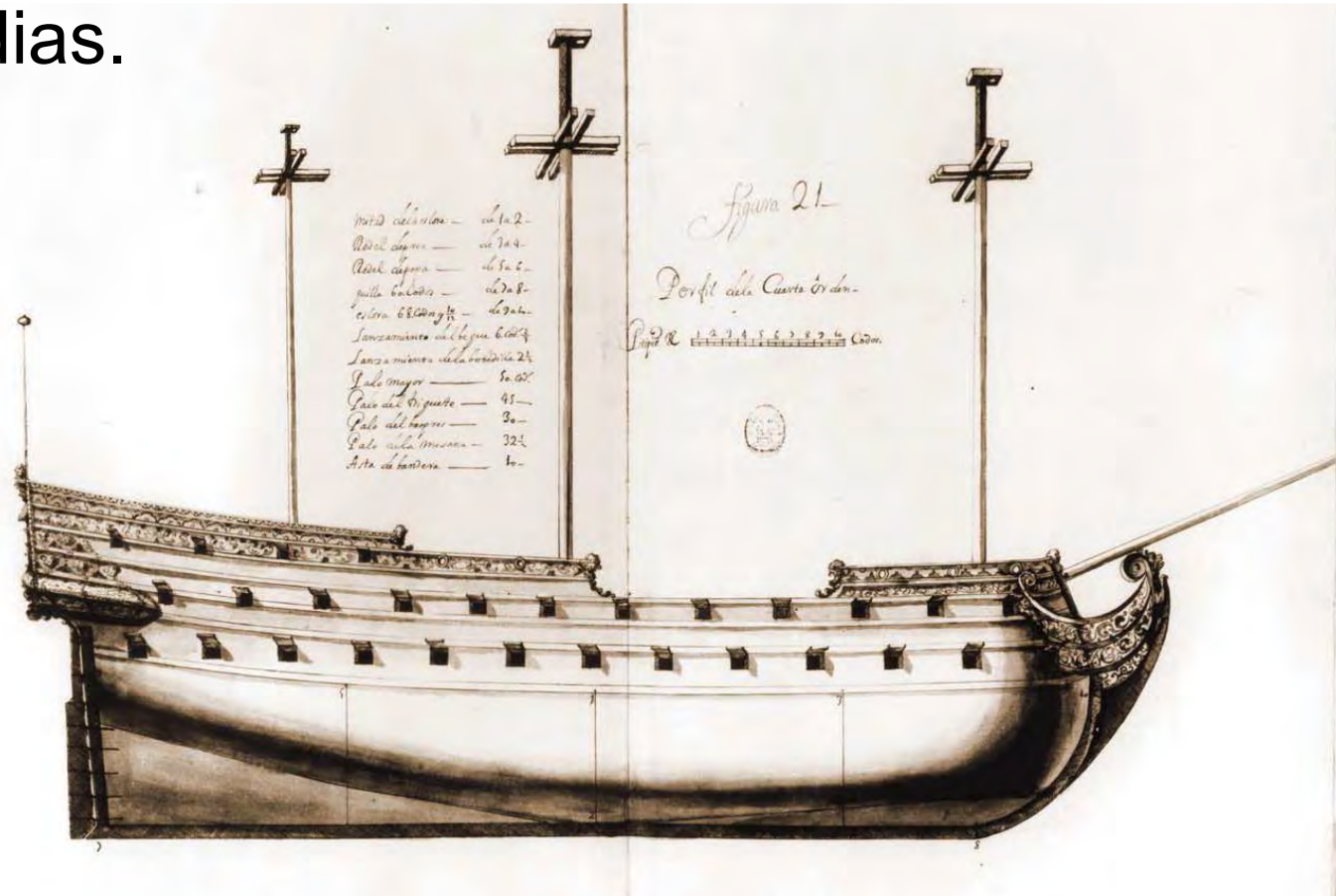
It was a two-decked ship with 70 gun ports and at launching it carried 26 18-pounders, 26 10-pounders, and either 8 or 10 6-pounders.





Rated at 1,200 tons, *San José* had a length overall of 71 *codos* (40.8 m), a beam of 22 *codos* (12.65 m) and a depth in hold of 10 *codos* (5.75 m).

It was launched in 1698 and assigned to the Armada de Guerra of the Carrera de Indias.



Quinta Orden de Baxeles:

Manga – 22 codos

Quillas – 66 codos

Plan – 11 codos

Redel de Popa – 8 codos

Redel de Proa – 6 codos

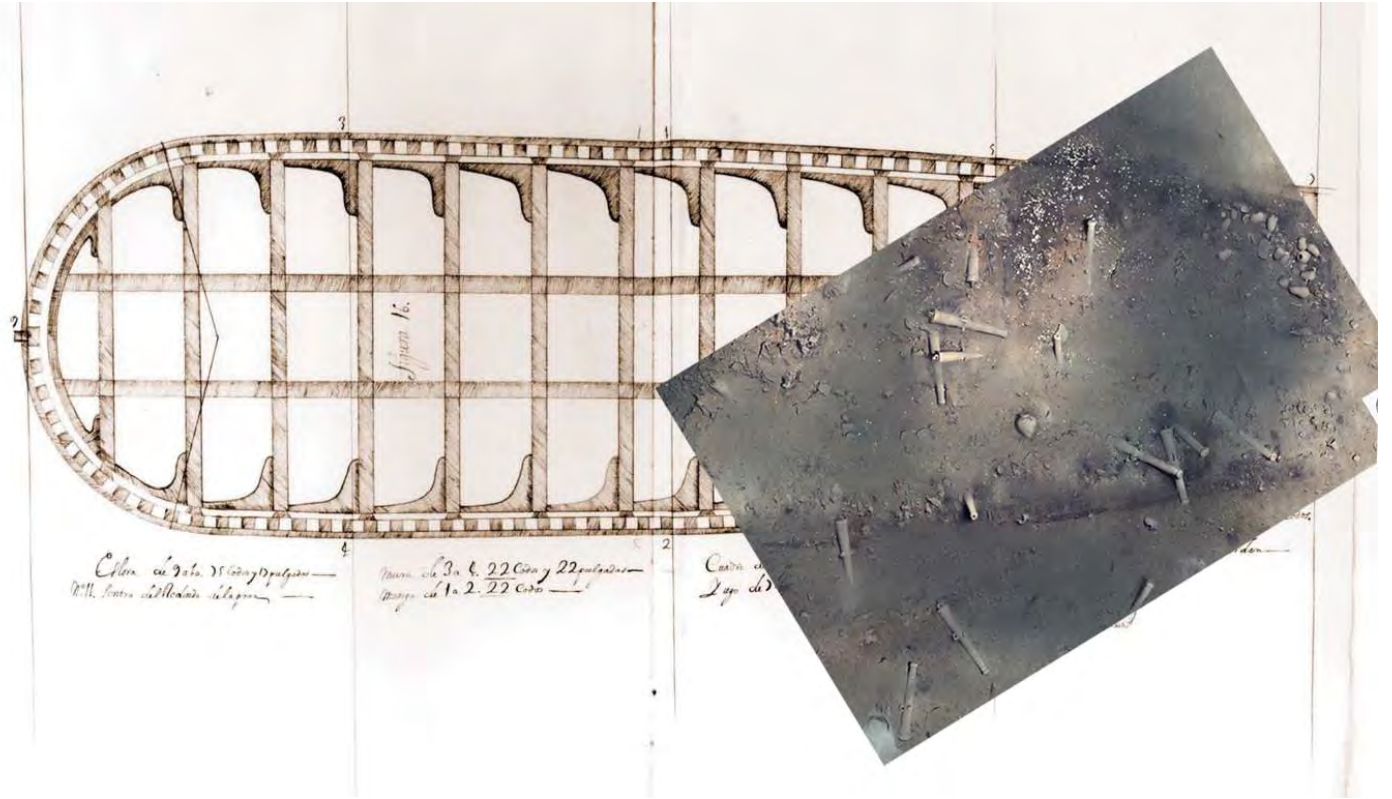
VIII

	Primera	Segunda	Tercera	Cuarta	Quinta	Sexta
Núm ^o Expediente de Coda y Baxeles	Codos	Codos	Codos	Codos	Codos	Codos
1 Manga, con correspondencia de codos de la redel de popa	22 - 00	15 - 00	18 - 00	20 - 00	24 - 00	24 - 00
2 Quillas	66 - 00	66 - 00	66 - 00	66 - 00	66 - 00	66 - 00
3 Plan	11 - 00	11 - 00	11 - 00	11 - 00	11 - 00	11 - 00
4 Redel de Popa, y de Proa	08 - 00	08 - 00	08 - 00	08 - 00	08 - 00	08 - 00
5 Redel de la Popa Nueva	08 - 00	08 - 00	08 - 00	08 - 00	08 - 00	08 - 00
6 Viga	10 - 00	10 - 00	10 - 00	10 - 00	10 - 00	10 - 00
7 Redel de Popa	08 - 00	08 - 00	08 - 00	08 - 00	08 - 00	08 - 00
8 Redel de Proa	06 - 00	06 - 00	06 - 00	06 - 00	06 - 00	06 - 00
9 Redel de la Bodega	08 - 00	08 - 00	08 - 00	08 - 00	08 - 00	08 - 00
10 Quilla de Coda	12 - 00	12 - 00	12 - 00	12 - 00	12 - 00	12 - 00
11 Quilla de Proa, y de la Mesa Nueva	06 - 00	06 - 00	06 - 00	06 - 00	06 - 00	06 - 00
12 Escarrioles de Proa	08 - 00	08 - 00	08 - 00	08 - 00	08 - 00	08 - 00
13 Escarrioles de Popa	08 - 00	08 - 00	08 - 00	08 - 00	08 - 00	08 - 00
14 Muro	40 - 00	35 - 00	40 - 00	40 - 00	40 - 00	40 - 00
15 Escarrioles de la cubierta del Redel mayor de Popa	08 - 00	08 - 00	08 - 00	08 - 00	08 - 00	08 - 00
16 Escarrioles de la cubierta del Redel mayor de Proa	08 - 00	08 - 00	08 - 00	08 - 00	08 - 00	08 - 00
17 Redel de la cubierta de popa	08 - 00	08 - 00	08 - 00	08 - 00	08 - 00	08 - 00
18 Redel de la cubierta de proa	08 - 00	08 - 00	08 - 00	08 - 00	08 - 00	08 - 00
19 Redel de la Bodega	08 - 00	08 - 00	08 - 00	08 - 00	08 - 00	08 - 00
20 Redel de la Mesa	06 - 00	06 - 00	06 - 00	06 - 00	06 - 00	06 - 00
21 Redel de la Mesa Nueva	06 - 00	06 - 00	06 - 00	06 - 00	06 - 00	06 - 00
22 Redel de la Mesa de la Bodega	08 - 00	08 - 00	08 - 00	08 - 00	08 - 00	08 - 00
23 Redel de la Mesa de la Bodega Nueva	08 - 00	08 - 00	08 - 00	08 - 00	08 - 00	08 - 00

The site was allegedly found in 2015 by a crew from the Woods Hole Oceanographic Institution, lying in deep water, and its treasure was valued at \$17b.



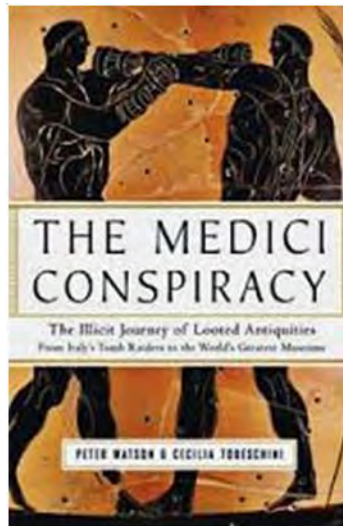
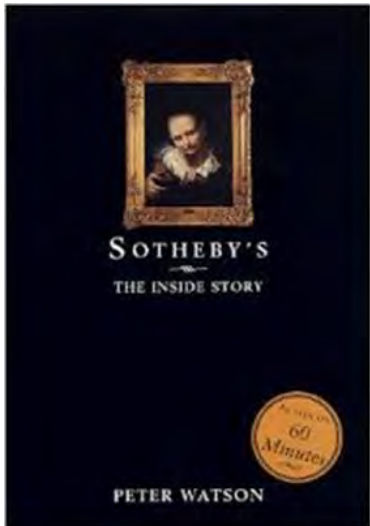
A project to salvage the shipwreck and charge Colombian tax payers several thousands of dollars per hour for the work was proposed by some investment group. As usual, the risk was passed to the investors – the Colombians – and as usual, there were a number of politicians ready to rob the tax payers for personal profit.



The treasure hunters proposed to raise the treasure in a few months and charge the Colombians a price that can be paid in artifacts or money. As usual, after they have the contract they will pressure the government for more money, extra hours, expenses that were not budgeted, then they will throw the data on the lap of the Colombian archaeologists nominated by the government, and disappear.



Since the early 2000s treasure hunting has become more integrated with the antiquities markets and associated businesses: drug dealing, money laundering, human trafficking and terrorism.

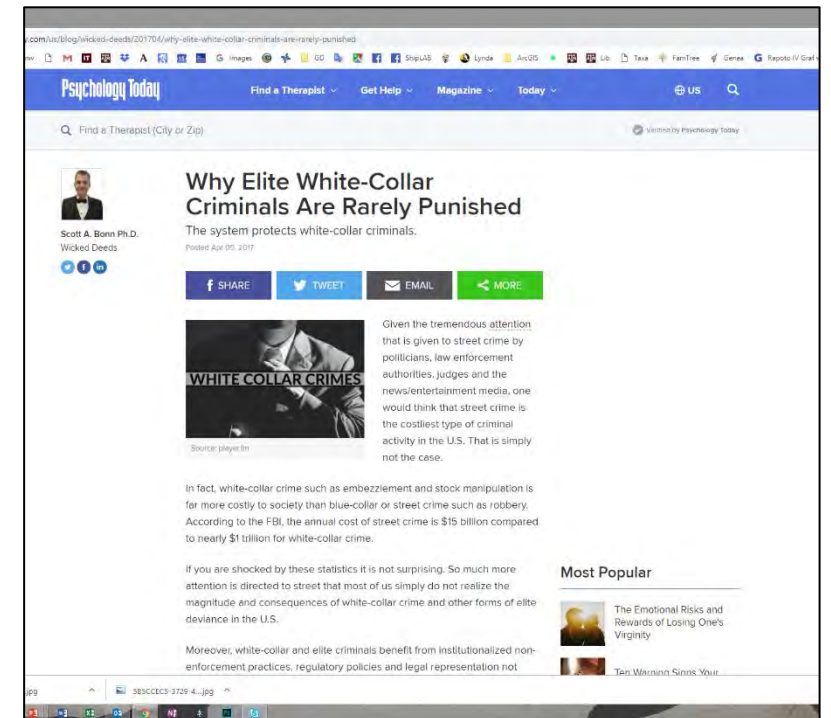


Alderman, K., 2012. “Honor Amongst Thieves: Organized Crime and the Illicit Antiquities Trade,” *Indiana Law Review* 45.3: 601-627:

“Government agencies,¹ non-profits,² scholars,³ and advocacy groups⁴ alike assert that organized crime fuels the illicit antiquities trade. The illicit antiquities trade has been linked to organized criminal activities including money laundering,⁵ extortion,⁶ the drug and arms trades,⁷ terrorism and insurgency,⁸ and slavery.⁹”

The political consensus around what neo-liberal governments call ‘small government’ has defunded the police and any eventual watchdog agencies that might be able to check on the treasure hunters, their investors, and their real businesses.

<https://www.psychologytoday.com/us/blog/wicked-deeds/201704/why-elite-white-collar-criminals-are-rarely-punished>



The screenshot shows a web browser displaying an article on the Psychology Today website. The article is titled "Why Elite White-Collar Criminals Are Rarely Punished" and is written by Scott A. Bonn, Ph.D. The article's sub-headline is "The system protects white-collar criminals." The article is dated April 05, 2017. The article text discusses the cost of street crime versus white-collar crime, noting that white-collar crime is more costly to society. It also mentions that white-collar and elite criminals benefit from institutionalized non-enforcement practices, regulatory policies, and legal representation.

Psychology Today

Find a Therapist Get Help Magazine Today

Find a Therapist (City or Zip)

Why Elite White-Collar Criminals Are Rarely Punished

The system protects white-collar criminals.

Posted Apr 05, 2017

SHARE TWEET EMAIL MORE

WHITE COLLAR CRIMES

Given the tremendous attention that is given to street crime by politicians, law enforcement authorities, judges and the news/entertainment media, one would think that street crime is the costliest type of criminal activity in the U.S. That is simply not the case.

In fact, white-collar crime such as embezzlement and stock manipulation is far more costly to society than blue-collar or street crime such as robbery. According to the FBI, the annual cost of street crime is \$15 billion compared to nearly \$1 trillion for white-collar crime.

If you are shocked by these statistics it is not surprising. So much more attention is directed to street that most of us simply do not realize the magnitude and consequences of white-collar crime and other forms of elite deviance in the U.S.

Moreover, white-collar and elite criminals benefit from institutionalized non-enforcement practices, regulatory policies and legal representation not

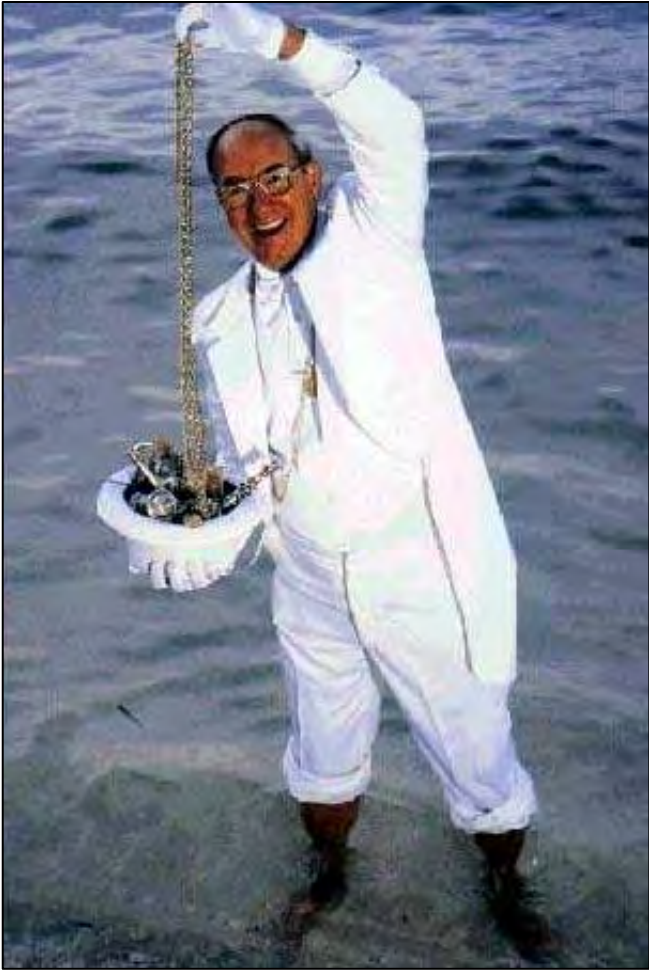
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Ten Minutes, Simon Spur



Unless the Colombian people engage the media in a democratic process of information, *San José* is going to be yet another shipwreck destroyed by treasure hunters.



1. Treasure hunters are, by definition, not capable of carrying out a deep-water archaeological excavation.
2. For profit operations must watch the costs, cut corners, move fast and recover the stuff with market value.
3. It is rare that a salvage operation turns a profit. The money in treasure hunting in the **investor's money**.



Questions?