



Pottery of the Ming Dynasty was found during exploration of a wreck debris site in the Gulf of Thailand.

Text by Bruce Konefe  
Photos by Bruce Konefe  
and Siwat Worachananant

**There are many benefits to living in Asia. One advantage is that the waters around Asia still have countless numbers of unexplored shipwrecks. As a certified technical diver and an explorer at heart, the Gulf of Thailand has been my playground.**

During my stay in Thailand, I have had the opportunity to meet and dive with some of the nicest people. I have fond memories working with members of the Thailand Underwater Archaeology Division, also known as the UAD. The UAD office and museum are located in a small town called Chanthaburi, which is located about a 251km, three-hour drive from Bangkok. At the museum, you can see displays of ancient pottery, which have been surveyed and excavated from some of these wrecks.

### Locating wrecks

People are led to believe that it takes costly side-scan sonars, ROVs and other expensive equipment to locate wrecks. But I have discovered that there is a much cheaper and easier way of locating

wrecks. In Thailand, the best source of finding a wreck can be found at your nearest fishing village where fishing boats are kept.

The waters of the Gulf of Thailand average between 50 to 70m in depth. At

these shallow depths, fishing boats are able to drag nets to scoop up fish. When dragging nets, the nets will sooner or later snag onto wrecks. The boat captain will then log these locations in order to avoid destroying nets in the future. These marks

also identify where one will find the most abundance of fish. One of these fishing-boat captains, whom I have known for many years, contacted me one day to let me know that he had a couple of new marks for me to check out.

### Expedition

So, over a period of two months, a new wreck exploration trip was planned. I contacted a few of my local technical diving friends: Tim Lawrence, Andrew Moore, Oliver Zaiser, Siwat



# Ming Pottery Wreck

— *Exploratory Expedition in the Gulf of Thailand*

SIWAT WORACHANANANT



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Worachananant (archaeologist) and Sira Ploymukda (a member of the Thailand UAD). An expedition boat was booked for 25-30 September 2020, allowing us four days of diving. The farthest wreck we would explore was approximately 18 hours from shore.

In the week leading up to the trip, all of the team and dive planning, tank filling (trimix and decompression mixes), and equipment preparation took place. There would be five trimix closed-circuit rebreather divers and one open circuit trimix diver on the trip.

In order to explore the new wreck and cover the most area, we divided

divers into three diving teams. Team One would consist of Worachananant and Ploymukda; Team Two, Zaiser and myself; and Team Three, Lawrence and Moore. The teams would stagger their entry times, allowing for one team to help the others in and out of the water. In doing so, we would also leave divers on the expedition boat in case of an emergency. Lastly, the teams decided on 30-minute bottom times for each dive, with total run times of around 100 minutes.

The expedition boat was scheduled to set sail around 8:00 p.m. on 25 September. Team members arrived two hours early, giving us time to load the

boat and get settled before departure. Once the boat was loaded and everything was strapped down, the boat finally set off to the first site.

### Day One

As the expedition boat arrived at the first wreck site on Saturday morning, the divers were just finishing eating breakfast and cleaning up. The captain placed a dropline and anchor right next to the wreck site and positioned the boat next to the surface marker buoys. Dive team members prepared the equipment and had one last team briefing to make sure everybody knew the plans for the dive.



SIWAT WORACHANANANT

Thailand UAD archaeologist Sira Ploymukda (above) inspects Ming pottery found on a wreck debris site in the Gulf of Thailand (left).

The first team (Worachananant and Ploymukda) entered the water. At the surface, the last equipment and buddy checks were made prior to the descent. Team One then laid a line from the anchor line to the wreck, allowing others to follow. Zaiser and I, in Team Two, would retrieve this line when we were on our way back to the anchor line.

When Zaiser and I entered the water (thanks to the help of three boat staff), we passed Team One as they were just ascending up the line to start their decompression stop. Once we had reached the bottom, we followed the line to survey the wreck. On the bottom, all we could see was a big mound of pottery—mostly vases, jars and plates. Zaiser and I reached our turn time and headed back to the ascent line where we passed Lawrence and Moore in Team Three, just starting their dive. A short while



BRUCE KONEFE

Archaeologist and CCR trimix diver Siwat Worachananant prepares for a dive on the site.



SIWAT WORACHANANANT



COURTESY OF THE THAILAND UNDERWATER ARCHAEOLOGY DIVISION

The Thailand Underwater Archaeology Division (UAD) is located in the National Maritime Museum in Chanthaburi, which displays some of the ancient pottery excavated from wreck sites in the area (above and right); Bruce Konefe on the downline at the wreck debris site (left)



COURTESY OF THE THAILAND UNDERWATER ARCHAEOLOGY DIVISION

reviewed the underwater videos and photographs taken at the site and discussed what we had stumbled across. Ploymukda said he believed this wreck

dated from the Ming Dynasty, approximately 300 years ago.

Later in the evening, swells and winds started picking up. This is something you do not want to

see when you are this far away from shore. The boat captain gave us the latest weather report, which said the weather was going to get worse and not better. So, we held a group meeting and planned what our goals would be for the rest of the trip.

The team decided to cut the trip one day short. In the time remaining, we would dive the new suspected pottery wreck as well as the

HTMS *Pangan*, which was a Thai naval transport vessel that sank in a storm in 1961.

### Day Two

The second day's dive was on the HTMS *Pangan*, and it went off without a hitch. The wreck was fun and easy to dive. Once everyone was back on board, we headed to the last dive site.

### Day Three

On the morning of Day Three, the weather calmed down, giving us a window in which to dive. After everybody finished breakfast, we prepared for the last dive. The first team down would be Worachananant and Ploymukda, followed by Zaiser and myself, and finally, Lawrence and Moore.

Team One entered the water with no issues. As Zaiser and I started to descend, we passed Team One as they were coming up. They signaled to us that we were not sitting directly on the wreck site. I signaled to them that we would continue down and search in another direction.

As we neared the bottom, I

noticed that Zaiser was coming down rather slowly, and he was also looking at his computers. I sensed that he was having issues with his rebreather, so I stopped to check on him. I signaled to Zaiser to find out if everything was ok, but he signaled to me that he was having problems. I decided that it was best to call off the dive and come back another time. Better to be safe than sorry.

Once we completed our decompression stop and reached the surface, I signaled to Lawrence that we were not on the right location but very close. When we got back on board, Worachananant told me that his team had seen two large pottery vases, but that was all. Then the weather started to change, and not for the better. So, Lawrence and Moore decided to sit out their dive.

Later, what we came to believe is that we had found two vases that had been dragged off the main wreck site by a fishing net. We believed we were very close to finding the main wreck site but would have to explore farther in another expedition to the area.

#### QUICK FACTS

##### DATES

25-30 September 2020 (planned)

##### DIVE TEAMS

Team #1: Bruce Konefe and Oliver Zaiser (trimix CCR divers)

Team #2: Tim Lawrence and Andrew Moore (trimix OC and CCR divers)

Team #3: Thailand UAD archaeologist Sira Ploymukda and archaeologist Siwat Worachananant (trimix CCR divers)

DEPTH OF THE WRECK SITE  
60m (200fsw)

##### DIVE PLAN

Surface interval = 1 day 0 hr. 0 min.  
Elevation = 0m  
Conservatism = GF 40/70

##### MUSEUM

The National Maritime Museum  
Open 9:00 a.m. to 4:00 p.m.  
(Wednesday – Sunday)  
80 moo 8 Bangkaja Muang  
Chanthaburi, Thailand 22000  
Phone: 039 391 431

Since the weather was getting worse, we decided to call off the trip. Everybody packed up their equipment for the long 12-hour ride back to port. ■

*Currently based in Thailand, American pioneer technical cave and deep wreck diver Bruce Konefe is a sidemount and rebreather Instructor Trainer with over 25 years' full-time experience planning and organizing the most ambitious technical diving expeditions throughout most of Asia. In addition to planning and organizing expeditions, Konefe has six years' experience as an Instructor Trainer Director. For more information, please visit: [deeptecdiver.com](http://deeptecdiver.com)*

later, when Zaiser and I were doing our decompression stop, Lawrence and Moore came up the line to start their decompression stop.

About an hour later, all of us were back on the boat, with a lot of talk and laughter going on. Once the equipment was cleaned and put away, we

#### RUN-TIME TABLE

Dec to	65m	(004)	Diluent 14/36	0.70	SetPoint, 15m/min descent
Level	65m	25:40	(030)	Diluent 14/36	1.30 SetPoint, 36m ead, 39m end
Asc to	36m	(033)	Diluent 14/36	1.30	SetPoint, -9m/min ascent
Stop at	36m	00:47	(034)	Diluent 14/36	1.30 SetPoint, 14m ead, 22m end
Stop at	33m	01:00	(035)	Diluent 14/36	1.30 SetPoint, 12m ead, 20m end
Stop at	30m	01:00	(036)	Diluent 14/36	1.30 SetPoint, 10m ead, 19m end
Stop at	27m	02:00	(038)	Diluent 14/36	1.30 SetPoint, 8m ead, 17m end
Stop at	24m	02:00	(040)	Diluent 14/36	1.30 SetPoint, 5m ead, 15m end
Stop at	21m	03:00	(043)	Diluent 14/36	1.30 SetPoint, 3m ead, 13m end
Stop at	18m	04:00	(047)	Diluent 14/36	1.30 SetPoint, 1m ead, 12m end
Stop at	15m	05:00	(052)	Diluent 14/36	1.30 SetPoint, 0m ead, 10m end
Stop at	12m	07:00	(059)	Diluent 14/36	1.30 SetPoint, 0m ead, 8m end
Stop at	09m	09:00	(068)	Diluent 14/36	1.30 SetPoint, 0m ead, 6m end
Stop at	06m	42:00	(110)	Diluent 14/36	1.30 SetPoint, 0m ead, 5m end
Surface			(111)	Diluent 14/36	-6m/min ascent

OTU's this dive: 160

CNS Total: 60.5%

Gas density: 6.3g/l



"It appears to have been landed with care and skill."

care and skill," said acclaimed photographer and scuba diver Giorgos Rigoutsos. The cone at the airplane's nose, made of thin metal, has eroded and now lies beside the aircraft.

### Blunt nose

The characteristic blunt nose, sometimes mounted with four forward-firing 20mm Hispano Mk III cannons, was a result of an upgrade of the engines. The Bristol Beaufighter was originally conceived as a heavy fighter variant of the Bristol Beaufort torpedo bomber from which it was relatively economically adapted. The twin Bristol Taurus engines of the Beaufort, having been deemed insufficiently powerful for a fighter, were replaced by more powerful two-speed supercharger-equipped Bristol Hercules radial engines. This change moved the centre of gravity (CoG) forward, a typically undesirable feature for an aircraft, thus the CoG was moved back to its

proper desirable location by shortening the nose, which was possible as the space within the nose had been previously occupied by a bomb aimer, a role that was unnecessary in a fighter aircraft. The majority of the fuselage was positioned aft of the wing and, with the engine cowlings and propellers now farther forward than the tip of the nose, gave the Beaufighter a characteristically stubby appearance.

By fighter standards, the Beaufighter Mk I was rather heavy and slow but it soon showed its merits as a night fighter and went on to perform in other capacities.

In April 1941, the Mk IC variant of the Beaufighter entered squadron service in a detachment from 252 Squadron, operating from Malta. This inaugural deployment with the squadron proved to be highly successful, leading to the type being retained in that theatre throughout the remain-

# Beaufighter

Off the coast of the Greek Island of Naxos lies the well-preserved wreck of a WWII British warplane—the famous and versatile Bristol Beaufighter, which was used in many roles and saw extensive service in both European and Asian theatres of war.

Approximately half a nautical mile off shore and at a depth of 34m, the wreck of the Beaufighter was found in 2007. Testimonies of fishermen and inhabitants have related that this specific Beaufighter was shot down after destroying a German Arado Ar 196 seaplane during an anti-shipping mission in November 1943.

Parts of the rudder are missing and the side of the aircraft, being riddled with bullet holes from anti-aircraft artillery, provides a pretty strong clue as to what brought down and forced the twin-engine aircraft to ditch at sea. Upon closer look, the aircraft seems to be in a relatively undamaged condition. "It appears to have been landed with



US AIR FORCE

The British-built Beaufighter even saw service with the United States Army Air Forces (USAAF). In the Mediterranean theatre, the 414th, 415th, 416th and 417th night fighter squadrons received a hundred Beaufighters in the summer of 1943.





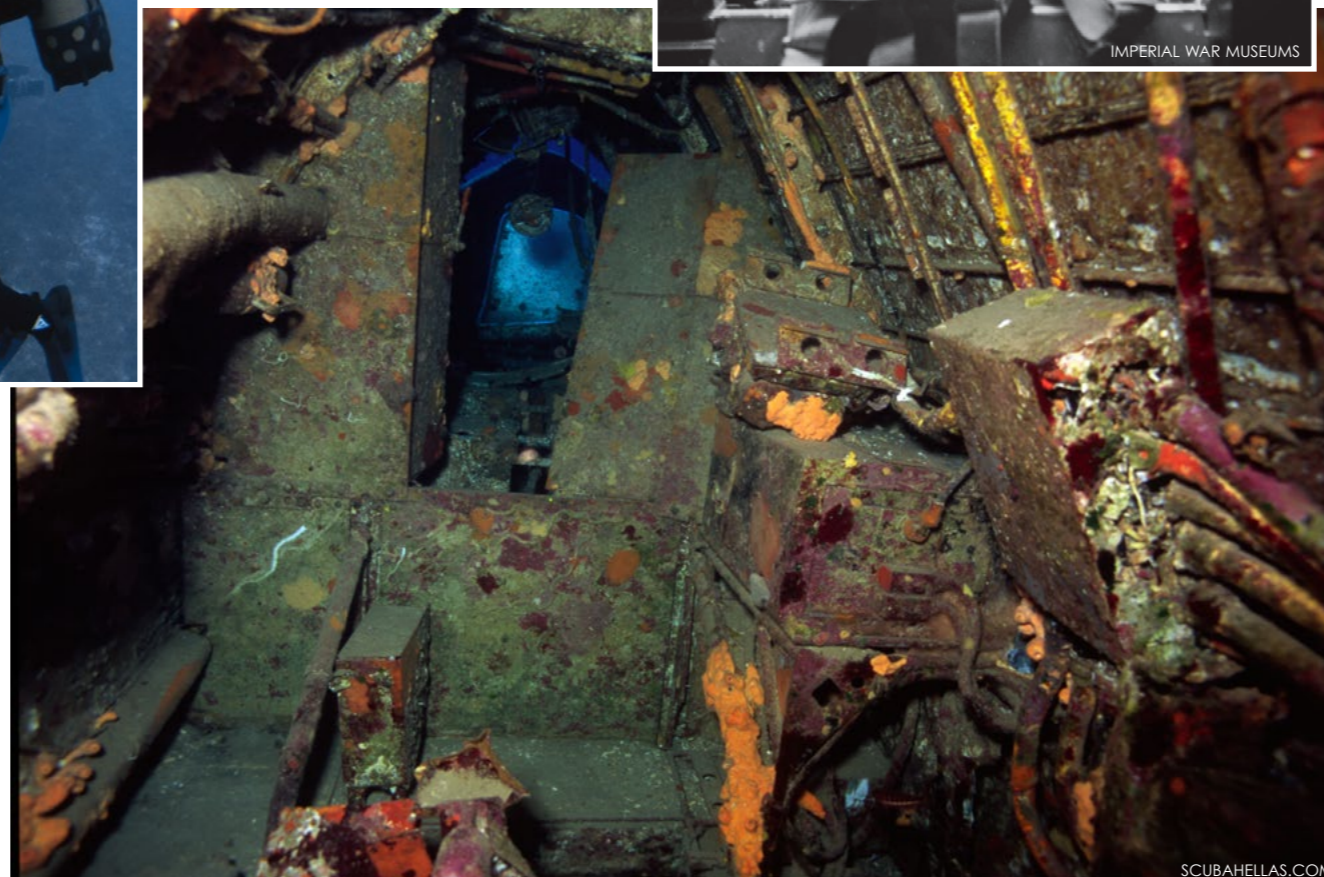
Bristol Beaufighters of No. 272 Squadron RAF in flight over Malta. Nearest the camera is a Mark VIC, X8079, "K," which was shot down by German fighters off Maritime Island on 22 May 1943.



Cockpit of a Beaufighter Mk IF—the two-seat night fighter variant.



It is not immediately clear which variant of Beaufighter is now resting off Naxos. One anti-ship version, the Mk VIC, was equipped with a torpedo.



A glimpse inside the fuselage indicates how cramped the conditions were for the crew.

der of the war. From mid-1942, the Beaufighter made valuable contributions in other areas such as anti-shiping, ground attack and long-range interdiction, in every major theatre of operations. It also commenced service overseas, where its ruggedness and reliability quickly made the aircraft popular with crews. In the Mediterranean, four United States Army Air Forces (USAAF) night fighter squadrons received a hundred Beaufighters in the sum-

mer of 1943, achieving their first victory in July 1943.

The Beaufighter was reputedly very effective in the Mediterranean against Axis shipping, aircraft and ground targets; Coastal Command was, at one point, the primary user of the Beaufighter, replacing its inventory of obsolete Beaufort and Blenheim aircraft. ■

SOURCES: WIKIPEDIA, IMPERIAL WAR MUSEUM, SCUBA HELLAS

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# THE AIRPLANE GRAVEYARD

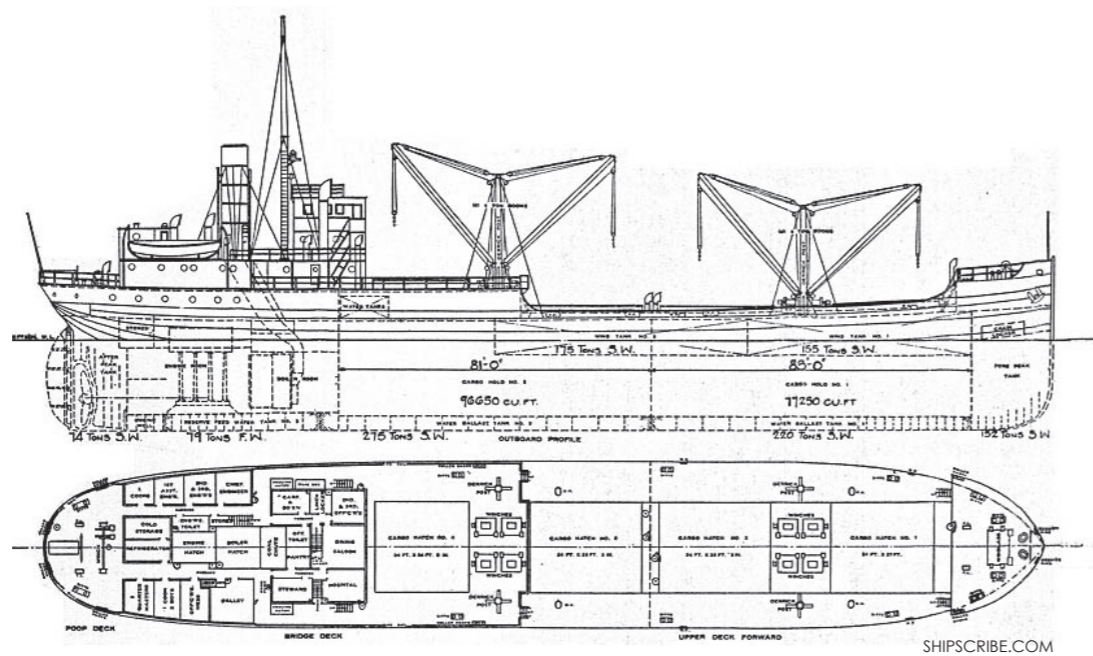
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Design illustration of the SS *Cotopaxi* and sister ships



# Wreck identified 95 years after ship's mysterious disappearance

**SS *Cotopaxi* was assumed swallowed by the infamous Bermuda Triangle after the steamship, and all 32 crew members on board, inexplicably vanished in 1925.**

The SS *Cotopaxi*—an American merchant steamer—left Charleston, South Carolina, on 29 November 1925, with a cargo of coal, destined for Havana, Cuba; but the vessel did not make it far. The vessel vanished without a trace and the fate of the *Cotopaxi*, and the 32 people on board, has long puzzled experts.

"The *Cotopaxi* was on a routine voyage," marine biologist and underwater explorer Michael Barnette told *Newsweek*. "She was employed in the coal trade and so this was just another trip at the end of November of 1925. We know that on that voyage something happened because

she delivered a mayday message early December saying she's in distress," said Barnette. "And then that was it. They never found any wreckage. They never found any lifeboats, bodies or anything. The vessel just disappeared after that point. So, we've been trying to determine what happened."

When Barnette moved to Florida from the mid-Atlantic almost 20 years ago, he sought out shipwrecks he could explore while diving. One wreck in particular, known to locals as "the Bear Wreck" and located about 35 nautical miles (65km) off the eastern coast of St. Augustine, in northern Florida, caught his attention.

Unlike most shipwrecks in that area, the Bear Wreck was large. Intrigued,

Barnette did some research. He took measurements of the shipwreck, looked at historical newspaper articles and insurance records, and examined artefacts found at the wreck.

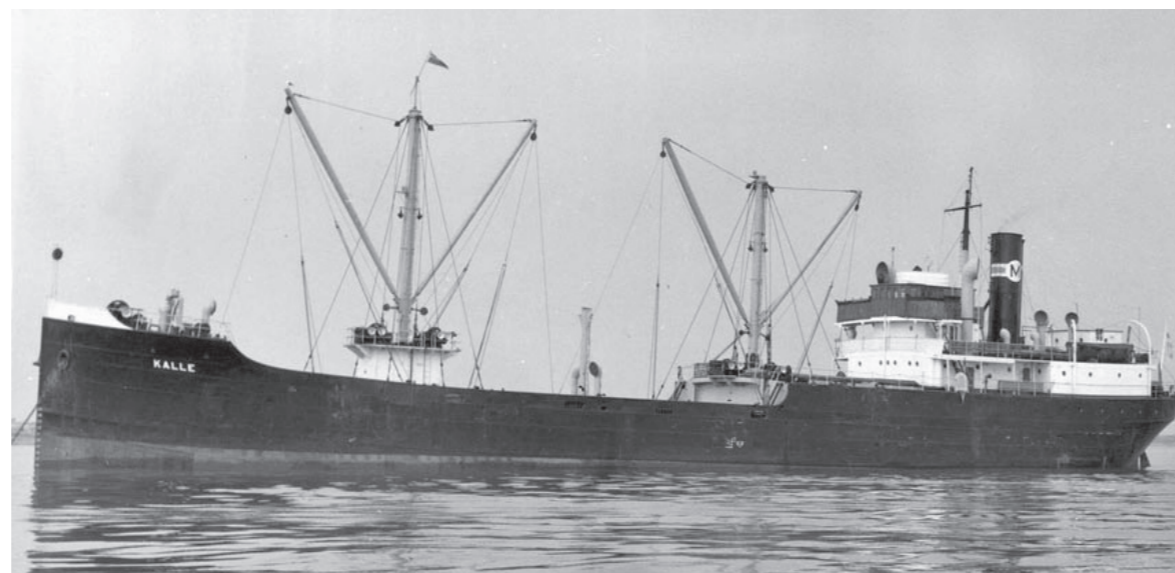
Barnette also contacted British historian Guy Walters and asked him to dig through the archives of Lloyd's of London, which contains insurance documents related to the ship's fateful voyage. It was

Walters who uncovered evidence that the *Cotopaxi* had sent out a distress signal on 1 December 1925—a key piece of information that historians had not previously known about.

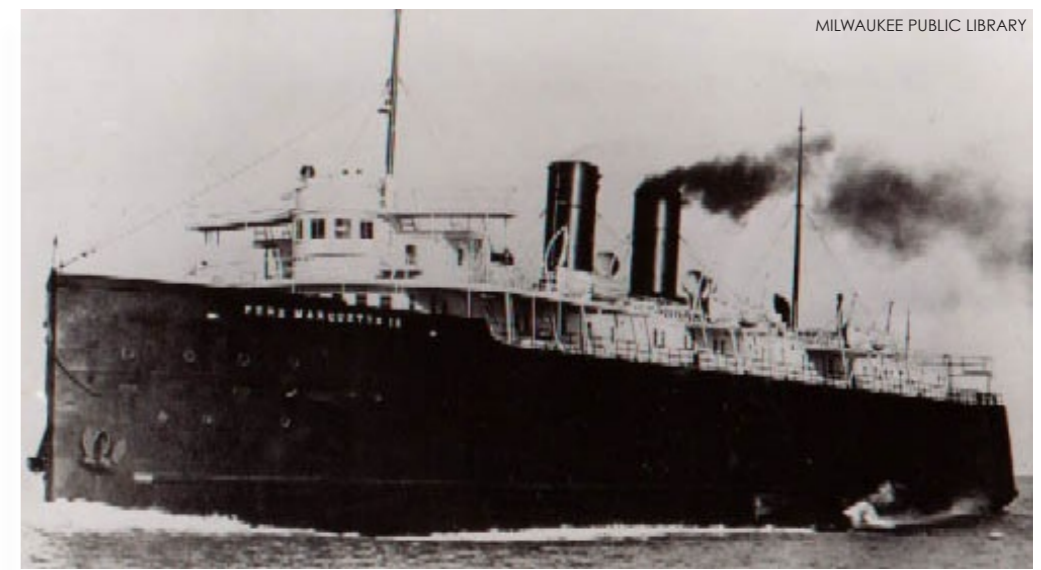
Furthermore, a diver had discovered brass valves from the wreck with the letters SV on them. Barnette concluded that this probably stood for Scott Valve Manufacturing Co., whose Michigan headquarters were not too far from where the *Cotopaxi* was built.

Armed with this new information, Barnette headed to Florida with his dive partner, Joe Citelli, to dive the wreck. Further research was able to corroborate the wreck's location compared to where the distress signals were sent out, leading Barnette to come to no other conclusion: They've uncovered the long-lost SS *Cotopaxi*. ■

SOURCES: NEWSWEEK, DISCOVERY CHANNEL, LIVESCIENCE



SS *Kalle* was a sister ship to SS *Cotopaxi*.



Archive photo of *Pere Marquette 18*

## Minnesota shipwreck hunters locate long-sought after *Pere Marquette 18*

**A ship branded the "Titanic of the Great Lakes" has been found 110 years after it mysteriously sank.**

Exactly what caused the *Pere Marquette 18* to founder became a much-debated mystery. And the ship's final resting place was lost to time. It was among the most notable Lake Michigan wrecks to have eluded searchers—until this summer.

On 9 September 1910, the *Pere Marquette* was en route from Ludington to Milwaukee with a cargo of 29 railroad cars and 62 passengers and crew, when it began taking water in the compartment housing the main propeller shafts. Pumps were unable to keep the stern from settling deeper and course was altered for the west shore of Lake Michigan. Thirteen railroad cars were jettisoned and three lifeboats were launched when the *Pere Marquette 17* arrived on the scene to provide assistance. Just as *17* arrived, *18* sank stern first, taking 27 lives.

Thirty-five people were rescued by the *Pere Marquette 17*.

There were multiple witnesses to the sinking—including another ship, the *Pere Marquette 17*, which came to the rescue—but the cause of the calamity remains a mystery. This is mainly because no officer survived the disaster to recount what had happened prior to the sinking to cause all the water to enter the hold. And the vessel itself was never located until shipwreck hunters Ken Merryman and Jerry Eliason found the *Pere Marquette 18*. Using rough location information from some of the many eyewitness and survivor accounts, Merryman had done some initial searching in 2019 without success—but those contemporary reports could often be unreliable.

The two men analysed all the available information, and made their best guess as to the wreck location. It was a remarkably good choice: They located a likely target that first day, and confirmed it was the *Pere Marquette 18* the next. ■

SOURCES: WISCONSIN HISTORICAL SOCIETY, MINNESOTA PUBLIC RADIO