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00:00:00,000 --> 00:00:08,240

Could a Nazi shipwreck lying at the bottom of the Baltic Sea finally reveal the location

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00:00:08,240 --> 00:00:12,080

of one of the world's greatest lost treasures?

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00:00:12,080 --> 00:00:15,840

We start thinking, my God, maybe it's something important.

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00:00:15,840 --> 00:00:22,920

Is there an unknown force capable of snapping ships clean in half and sinking them with

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00:00:22,920 --> 00:00:24,280

no warning?

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00:00:24,280 --> 00:00:28,720

How can a ship just break into two pieces?

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00:00:28,720 --> 00:00:36,960

And who or what is responsible for a bizarre series of sea lion mutilations in the waters

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00:00:36,960 --> 00:00:38,840

around Vancouver?

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00:00:38,840 --> 00:00:46,040

It was something, in my opinion, that did this deliberately.

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00:00:46,040 --> 00:00:50,600

The underwater realm is another dimension.

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00:00:50,600 --> 00:01:00,680

It's a physically hostile place where dreams of promise can sink into darkness.

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00:01:00,680 --> 00:01:06,440

I'm Jeremy Wade and I'm searching the world to bring you the most iconic and baffling

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00:01:06,440 --> 00:01:10,760

underwater mysteries known to science.

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00:01:10,760 --> 00:01:15,960

The vast majority of our ocean is unobserved, unmapped and unexplored.

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00:01:16,960 --> 00:01:21,760

It's a dangerous frontier that swallows evidence.

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00:01:21,760 --> 00:01:24,360

You have nowhere to run.

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00:01:24,360 --> 00:01:30,760

Where unknown is normal and understanding is rare.

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00:01:46,600 --> 00:01:52,920

Tales of lost treasure have captivated our imaginations for centuries, but few of these

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00:01:52,920 --> 00:01:57,760

stories are as puzzling as the disappearance of the amber room.

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00:01:57,760 --> 00:02:05,360

It's the height of World War II and the Nazis steal a priceless masterpiece from the Soviet

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00:02:05,360 --> 00:02:14,440

Union, a dazzling room made of amber, gemstones and gold.

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00:02:14,440 --> 00:02:20,280

When the brutal conflict comes to an end, all traces of this magnificent treasure are

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00:02:20,280 --> 00:02:21,840

gone.

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00:02:21,840 --> 00:02:27,640

But now a fresh investigation by a team of divers suggests that the amber room's final

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00:02:27,640 --> 00:02:34,280

resting place might be deep beneath the Baltic Sea.

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00:02:34,280 --> 00:02:51,680

June 22, 1941, Adolf Hitler's invasion of the Soviet Union begins.

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00:02:51,680 --> 00:02:58,200

As they advance, the Nazis pillage gold, art and other valuable treasure.

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00:02:59,120 --> 00:03:07,200

High on Hitler's wish list is the amber room, located in Leningrad's Catherine Palace.

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00:03:07,200 --> 00:03:16,880

The amber room is often dubbed the Eighth Wonder of the World, such was its absolute magnificence.

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00:03:16,880 --> 00:03:23,200

Made from huge panels containing over six tons of prehistoric amber, gold and precious

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00:03:23,200 --> 00:03:25,680

gemstones.

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00:03:25,680 --> 00:03:31,640

This extravagant chamber is the envy of the world and is estimated to be worth up to

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00:03:31,640 --> 00:03:36,320

half a billion dollars in today's money.

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00:03:36,320 --> 00:03:42,480

Once captured by the Nazis, the exquisite amber panels are ripped from the walls, placed

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00:03:42,480 --> 00:03:49,400

into individual wooden crates and transported overland from Leningrad to the port city of

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00:03:49,400 --> 00:03:51,320

Königsberg.

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00:03:52,320 --> 00:04:04,320

The tide of war turns and by 1945, Königsberg is under siege and surrounded by the Soviets.

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00:04:04,320 --> 00:04:13,160

What happens to the amber room during the onslaught is unknown.

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00:04:13,160 --> 00:04:22,760

But when Soviet troops finally capture the city, all signs of it have vanished.

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00:04:22,760 --> 00:04:27,920

She disappeared and nobody knows what's happened.

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00:04:27,920 --> 00:04:30,080

Where's the amber room?

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00:04:30,080 --> 00:04:31,960

That's the thing, we don't know.

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00:04:31,960 --> 00:04:35,080

It's a mystery.

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00:04:35,080 --> 00:04:41,720

Many people believe this priceless treasure was destroyed during the fighting.

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00:04:41,720 --> 00:04:46,200

But could the amber room have survived?

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00:04:46,200 --> 00:04:53,840

Under the orders of Joseph Stalin, in 1946 the KGB launches a secret investigation.

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00:04:53,840 --> 00:04:58,120

The amber room is one of the great cultural treasures of Russia.

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00:04:58,120 --> 00:04:59,680

The Germans stole it.

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00:04:59,680 --> 00:05:02,600

The Russians wanted it back.

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00:05:02,600 --> 00:05:07,880

And they uncover a vital clue.

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00:05:07,880 --> 00:05:14,960

A set of partially burnt letters emerge from the smoldering ruins of Königsberg.

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00:05:14,960 --> 00:05:21,120

Dated January 12th 1945, they order the immediate evacuation of the treasure.

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00:05:21,120 --> 00:05:27,000

There's a very strong chance that the amber room could have survived the Second World War.

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00:05:27,000 --> 00:05:37,040

The search shifts to mainland Europe, deep into abandoned bunkers, caves and mines.

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00:05:37,040 --> 00:05:42,280

But have we been looking for this lost treasure in the wrong place?

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00:05:42,280 --> 00:05:49,640

There have been numerous attempts to try and find the amber room on land, but very few underwater.

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00:05:49,640 --> 00:05:53,440

The key thing here is to remember exactly where the amber room was being stored.

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00:05:53,440 --> 00:05:55,320

It was in Königsberg.

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00:05:55,320 --> 00:06:02,800

The only way to leave Königsberg at this point in time was on a vessel going through the Baltic Sea.

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00:06:02,800 --> 00:06:05,680

What if the amber room never made it back to Germany?

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00:06:05,680 --> 00:06:08,600

What if it was sunk on it?

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00:06:08,600 --> 00:06:12,960

Could this priceless treasure be hidden beneath the waves,

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00:06:12,960 --> 00:06:21,000

waiting to be found on one of the Baltic Sea's many shipwrecks?

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00:06:21,000 --> 00:06:27,240

To save the soldiers and civilians trapped by the advancing Soviets,

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00:06:27,240 --> 00:06:34,120

the Germans launch a huge rescue mission, codenamed Operation Hannibal.

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00:06:34,120 --> 00:06:39,680

It was the biggest maritime evacuation ever.

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00:06:39,680 --> 00:06:46,360

Hundreds of ships crisscrossed the Baltic, running a gauntlet of brutal weather,

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00:06:46,360 --> 00:06:51,080

and Soviet submarine and air attacks.

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00:06:51,080 --> 00:06:56,480

The amber room is an irreplaceable artifact,

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00:06:56,480 --> 00:07:01,920

and very few ships can be trusted to carry it on this perilous journey.

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00:07:04,400 --> 00:07:07,800

One of them is the Wilhelm Gustloff.

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00:07:07,800 --> 00:07:11,560

It was the pride of the Nazi merchant fleet.

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00:07:11,560 --> 00:07:16,440

It was their big status cruise-lining.

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00:07:16,440 --> 00:07:20,880

Hitler's very own version of the Titanic, the Wilhelm Gustloff,

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00:07:20,880 --> 00:07:28,000

was designed to take Nazi passengers on luxury pleasure cruises.

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00:07:28,080 --> 00:07:35,040

But with Germany losing the war, the ocean liner is sent to help with the evacuation.

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00:07:35,040 --> 00:07:41,240

As German refugees pour on board, another cargo arrives at the dock.

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00:07:41,240 --> 00:07:45,320

It also picks up crates which are on the armed guard.

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00:07:45,320 --> 00:07:48,640

And you have to ask yourself, why would you need armed guards

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00:07:48,640 --> 00:07:52,920

if there isn't something incredibly valuable in those crates?

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00:07:52,920 --> 00:07:56,200

A rumour spreads, and some of the passengers on the ship

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00:07:56,240 --> 00:07:58,920

suspect they hold the amber room.

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00:08:01,400 --> 00:08:07,320

The Wilhelm Gustloff departs in a blistering winter snowstorm.

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00:08:07,320 --> 00:08:11,440

They do not expect any Russian attack during this terrible weather.

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00:08:14,680 --> 00:08:19,280

But the defenseless cruise liner isn't alone.

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00:08:19,280 --> 00:08:24,440

It's torpedoed by a Soviet submarine, and it sinks very quickly.

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00:08:27,200 --> 00:08:31,200

It was the beginning of a huge, huge disaster.

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00:08:33,200 --> 00:08:37,640

Most of the lifeboats are frozen solid to their fittings,

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00:08:39,640 --> 00:08:43,200

triggering a calamity of catastrophic proportions.

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00:08:44,200 --> 00:08:48,920

This proves to be the greatest loss of life ever in maritime history.

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00:08:48,920 --> 00:08:53,320

9,500 people lost their lives.

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00:08:57,200 --> 00:09:03,200

The wreck of the Wilhelm Gustloff is the site of one of the greatest tragedies of World War II.

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00:09:04,200 --> 00:09:08,200

But could it also be the final resting place of the amber room?

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00:09:09,200 --> 00:09:12,200

The mission to find out begins in the 1960s,

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00:09:12,200 --> 00:09:16,200

when Polish divers pinpoint the location of the wreck.

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00:09:18,200 --> 00:09:21,200

But as the outline of the ship looms in front of the ship,

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00:09:21,200 --> 00:09:25,200

it is the last time the ship has been in the wreck.

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00:09:26,200 --> 00:09:29,200

And out of them, something isn't right.

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00:09:30,200 --> 00:09:34,200

The strangest thing was that this supposedly unknown wreck, this undive wreck,

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00:09:34,200 --> 00:09:38,200

had a lot of diving activity on it.

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00:09:39,200 --> 00:09:43,200

It appeared that there was much more post-war damage to it,

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00:09:43,200 --> 00:09:46,200

that the vessel was destroyed and dynamited.

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00:09:47,200 --> 00:09:50,200

If the amber room was in the wreck,

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00:09:50,200 --> 00:09:54,200

someone has beaten the Polish divers to it.

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00:09:56,200 --> 00:10:12,200

The disappearance of the amber room is one of World War II's greatest unsolved mysteries.

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00:10:15,200 --> 00:10:21,200

But when divers narrow down the search for this lost treasure to a shipwreck in the Baltic Sea,

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00:10:21,200 --> 00:10:25,200

they find someone has beaten them to it.

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00:10:27,200 --> 00:10:33,200

Who got to the Wilhelm Gustav first and why did they ransack it?

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00:10:34,200 --> 00:10:37,200

Suspicion falls on the Soviets.

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00:10:38,200 --> 00:10:42,200

They are the navy in the region who had the technology before the 1960s

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00:10:42,200 --> 00:10:44,200

to actually do this kind of investigation.

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00:10:47,200 --> 00:10:51,200

Some people believe the Russians knew the amber room was on board

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00:10:51,200 --> 00:10:54,200

and launched a secret mission to retrieve it.

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00:10:55,200 --> 00:11:02,200

But if this was the case, why wouldn't they announce the rediscovery of this beloved national treasure?

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00:11:02,200 --> 00:11:05,200

Finding the amber room, if they had managed to find it,

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00:11:05,200 --> 00:11:09,200

would have been a tremendous coup for the Soviet Union.

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00:11:13,200 --> 00:11:17,200

A survivor's testimony emerging decades later

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00:11:17,200 --> 00:11:22,200

suggests they may have recovered a different kind of Nazi treasure.

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00:11:22,200 --> 00:11:27,200

Rudy Langer, who is a survivor of the sinking of the ship and the radio operator,

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00:11:27,200 --> 00:11:30,200

he came out in the 1980s and said,

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00:11:30,200 --> 00:11:33,200

nope, sorry, there was no amber room.

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00:11:33,200 --> 00:11:37,200

He said that those crates were being guarded because they were full of gold.

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00:11:37,200 --> 00:11:42,200

Could the amber room have actually been loaded into a different ship?

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00:11:42,200 --> 00:11:46,200

Have we been hunting in the wrong place all this time?

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00:11:47,200 --> 00:11:52,200

Now a team of Polish researchers thinks this might be the case.

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00:11:52,200 --> 00:11:57,200

I'm absolutely sure they do not use Wilhelm Gustloff for this mission.

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00:11:58,200 --> 00:12:04,200

Led by Tomasz Dahura, the team has identified a standout alternative ship,

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00:12:05,200 --> 00:12:08,200

the SS Karlsruhe.

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00:12:09,200 --> 00:12:15,200

Records indicate this ship was heavily laden with up to 360 tons of cargo.

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00:12:15,200 --> 00:12:20,200

The Honeywell operation focused on civilians and on the soldiers,

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00:12:20,200 --> 00:12:23,200

so it was not very common to take some cargo.

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00:12:24,200 --> 00:12:30,200

And there's another key detail that makes the Karlsruhe such an enticing candidate.

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00:12:31,200 --> 00:12:38,200

It was the very, very last ship to leave Königsberg before the Soviet forces arrived.

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00:12:39,200 --> 00:12:44,200

So maybe in a panic, the Germans placed the amber room, the gold, the gems,

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00:12:44,200 --> 00:12:47,200

the wealth on this last ship.

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00:12:47,200 --> 00:12:54,200

But the ship doesn't get far before it's spotted and attacked by Soviet torpedo bombers.

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00:12:56,200 --> 00:13:03,200

One aircraft bomb was sent directly to the Karlsruhe and she sank in three minutes.

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00:13:04,200 --> 00:13:11,200

To find out what the Karlsruhe was carrying, Tomasz and his team first need to find its wreck.

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00:13:12,200 --> 00:13:17,200

So hunting these ships is not a quick process. It can take years.

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00:13:18,200 --> 00:13:22,200

To aid the search, they deploy a multi-beam echo sounder.

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00:13:22,200 --> 00:13:28,200

They create more of a three-dimensional image rather than a two-dimensional image of what's on the seabed.

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00:13:28,200 --> 00:13:31,200

It's a pretty fantastic technology.

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00:13:32,200 --> 00:13:36,200

We were very lucky because we found the ship which was exactly the same size.

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00:13:37,200 --> 00:13:40,200

Oh my God, maybe we found Karlsruhe, yes?

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00:13:42,200 --> 00:13:47,200

But the only way for the team to know for sure is to dive the wreck themselves.

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00:13:56,200 --> 00:14:00,200

We start to be absolutely sure that we found Karlsruhe.

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00:14:01,200 --> 00:14:08,200

We start to see more and more details and our eyes was bigger and bigger because we were absolutely surprised.

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00:14:09,200 --> 00:14:19,200

I am a diver for 40 years and I never ever saw so many artifacts, so many chests, so many trucks, motorcycles, guns.

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00:14:21,200 --> 00:14:24,200

But are there any signs of treasure on board?

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00:14:25,200 --> 00:14:28,200

We were convinced that maybe we can find one or two crates.

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00:14:28,200 --> 00:14:32,200

But in one day we find 15 of them, one five.

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00:14:33,200 --> 00:14:41,200

It's seeing a presence on Christmas morning. You don't know what's in them, but you notice something cool ready to be unwrapped.

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00:14:42,200 --> 00:14:48,200

Some of the crates have spilled open, giving a tantalizing glimpse of their contents.

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00:14:50,200 --> 00:14:55,200

The divers can see what looks like the remains of canvas and frames.

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00:14:56,200 --> 00:15:03,200

If they've got very fine, expensive artwork on board, the Karlsruhe, then maybe also that could be where the amber room is.

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00:15:08,200 --> 00:15:13,200

Tomas and his team plan to return to the wreck of the SS Karlsruhe in the near future.

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00:15:14,200 --> 00:15:20,200

With special permission from the Polish government, they plan to salvage some of the unopened crates.

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00:15:20,200 --> 00:15:30,200

Their contents could reveal the location of the long lost amber room and finally solve one of the greatest mysteries of World War II.

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00:15:39,200 --> 00:15:48,200

It's 2020 and the picturesque beaches of Vancouver, Canada are about to become the setting of a series of shocking discoveries.

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00:15:50,200 --> 00:15:55,200

Over the course of just a few months, the remains of several sea lions are found.

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00:15:56,200 --> 00:16:01,200

All their heads are missing, removed and separated from the rest of the body.

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00:16:02,200 --> 00:16:07,200

Whatever is behind these brutal attacks remains at large.

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00:16:08,200 --> 00:16:14,200

But can the growing list of suspects help solve these bizarre animal mutilations?

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00:16:15,200 --> 00:16:18,200

CTV News, Vancouver Island Report.

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00:16:19,200 --> 00:16:24,200

Good evening, thanks for being here. A stellar sea lion has washed up on a beach near Campbell River without its head.

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00:16:27,200 --> 00:16:32,200

The recent reports of these grisly remains have gripped the local population.

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00:16:33,200 --> 00:16:36,200

But it isn't the first time this has happened.

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00:16:37,200 --> 00:16:46,200

Over the past ten years, countless other headless sea lions have been found, dotted at different locations around the Vancouver area.

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00:16:48,200 --> 00:16:57,200

I cannot imagine the horror that must have been experienced to come upon a sea lion that has been decapitated on the beach.

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00:16:59,200 --> 00:17:03,200

Are all these deaths connected? Is there a sea lion serial killer on the loose?

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00:17:04,200 --> 00:17:10,200

More worrying still, whatever is happening to these sea lions appears to be spreading.

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00:17:11,200 --> 00:17:16,200

And several seals have been found in a similar state.

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00:17:20,200 --> 00:17:23,200

I'm no stranger to unexplained animal attacks.

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00:17:26,200 --> 00:17:31,200

And I've spent many years on the trail of unknown pillars that lurk beneath the surface.

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00:17:34,200 --> 00:17:42,200

So far, this case has defied explanation. So I'm eager to hear first-hand evidence for myself.

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00:17:47,200 --> 00:17:53,200

In 2016, Vancouver resident Dave Stewart is walking his dog on a local beach.

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00:17:55,200 --> 00:17:58,200

I'm back to it. I just found this on the beach.

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00:17:59,200 --> 00:18:07,200

The seal's head has been completely sheared off, completely taken off.

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00:18:09,200 --> 00:18:15,200

It almost looks faking away, but this is a real seal.

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00:18:16,200 --> 00:18:26,200

I've never seen anything like this ever. It was fresh, like sushi. Blood was coming out of the

neck, dripping out fresh. You can see this in the video.

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00:18:26,200 --> 00:18:29,200

Dave, are there any signs of what might have done this?

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00:18:30,200 --> 00:18:38,200

You can see really nothing disturbed in the sand, certainly not around the seal itself of drag marks or anything. It was just sitting there like it had been placed.

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00:18:39,200 --> 00:18:42,200

And can you tell me any details about the wounds around the neck?

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00:18:43,200 --> 00:18:53,200

So it was something, in my opinion, that did this deliberately. Not only does it look like it's been sliced, but in one section it looks like it's been gnawed at.

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00:18:54,200 --> 00:19:04,200

It seems the heads of these animals are being intentionally targeted and taken by something. Or someone.

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00:19:05,200 --> 00:19:14,200

Sea lions are huge animals. They can typically weigh over 2,500 pounds and they can range up to 12 feet in length.

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00:19:14,200 --> 00:19:19,200

They're on many other animals which can take them out.

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00:19:20,200 --> 00:19:28,200

But there is one leading suspect. Some people think these attacks could be the work of a known killer.

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00:19:28,200 --> 00:19:51,200

When a series of decapitated sea lions are found on the beaches of Vancouver, Canada, the general public and law enforcement are equally baffled.

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00:19:51,200 --> 00:19:59,200

Could a ferocious predator known to frequent these waters be responsible for these strange animal deaths?

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00:20:01,200 --> 00:20:07,200

Killer whales, also known as orcas, frequently attack other kinds of marine mammals.

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00:20:09,200 --> 00:20:16,200

It's been documented that they catch sea lions and sea lion pups and play with them.

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00:20:16,200 --> 00:20:26,200

Literally, it looks like they're playing ocean volleyball. It could be forceful enough to cause literally a separation of some body parts.

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00:20:28,200 --> 00:20:33,200

But these highly intelligent hunters may have a more specific motive.

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00:20:34,200 --> 00:20:40,200

Killer whales will kill blue whales and fin whales and eat their tongues because they think they're tasting.

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00:20:41,200 --> 00:20:46,200

And some killer whale got the taste for sea lion heads.

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00:20:47,200 --> 00:20:53,200

But are killer whales really to blame or are they just an easy scapegoat?

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00:20:54,200 --> 00:21:04,200

Well, killer whales are known to play with their food. There's no documented cases of killer whales

actually ripping the heads off their sea lion prey.

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00:21:05,200 --> 00:21:20,200

The fact that these sea lions have simply been decapitated and none of their juicy blubber consumed leads me to think that it was not a natural predator such as sharks or killer whales.

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00:21:21,200 --> 00:21:28,200

With suspects thin on the ground, the case is in danger of going cold.

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00:21:29,200 --> 00:21:39,200

But several of the sea lion carcasses hold an easily overlooked clue. What appear to be gunshot wounds.

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00:21:40,200 --> 00:21:48,200

Fishermen have an uneasy relationship with sea lions because they're competing with these sea lions for the same fish stock.

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00:21:49,200 --> 00:21:55,200

In recent years, stocks of wild salmon have plummeted in the Vancouver area.

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00:21:56,200 --> 00:22:03,200

The reasons why are complex, but an overpopulation of sea lions is sometimes blamed as the cause.

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00:22:04,200 --> 00:22:10,200

They eat a lot of fish, they have a habit of breaking nets. This can all make local fishermen very upset.

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00:22:11,200 --> 00:22:22,200

And there have been documented cases where some fishermen have injured shot taken out sea lions, which is really unfortunate.

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00:22:24,200 --> 00:22:31,200

But if some fishermen are shooting these sea lions, why would their heads also be missing?

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00:22:33,200 --> 00:22:38,200

They're protected, they should not be harmed. Harming a sea lion is breaking the law.

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00:22:39,200 --> 00:22:49,200

The penalty for harming a sea lion in Canada is a massive fine of half a million dollars or a potential two-year jail sentence.

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00:22:50,200 --> 00:22:58,200

Fishermen could be shooting the sea lion in the head and then decapitating it to remove evidence of the fact that they shot the sea lion.

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00:22:59,200 --> 00:23:05,200

If you cut off the head, you of course remove the evidence of it having been shot and you create a mystery.

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00:23:09,200 --> 00:23:20,200

With mounting evidence that humans are behind Vancouver's decapitated sea lions, this decade-long mystery might finally be solved.

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00:23:21,200 --> 00:23:30,200

And with citizens and law enforcement on high alert, hopefully it's only a matter of time before those responsible are brought to justice.

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00:23:39,200 --> 00:23:54,200

In 2015, scientists are mapping the bottom of Lake Constance, Switzerland, with state-of-the-art sonar scanners when they detect an unexpected anomaly.

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00:23:55,200 --> 00:24:06,200

Beneath the surface, they find 170 large stone mounds that form an incredible unbroken chain running for six miles parallel to the shore.

216

00:24:06,200 --> 00:24:18,200

No one knows who or what created this inexplicable formation of rocks, but can fresh scientific analysis shed new light on this megalithic mystery?

217

00:24:19,200 --> 00:24:38,200

The discovery of this strange configuration of underwater rocks in Lake Constance is soon picked up by the European press, who dub it the Swiss Stonehenge.

218

00:24:38,200 --> 00:24:46,200

These are very strange piles of stone. They're a hundred foot wide and five foot high.

219

00:24:47,200 --> 00:24:53,200

Each pile is made up of thousands of individual large stones.

220

00:24:56,200 --> 00:25:01,200

There are many, many of them and they stretch six miles around the coast.

221

00:25:02,200 --> 00:25:15,200

When archaeologists are confronted with an anomaly, the first thing we ask ourselves is, is this a man-made structure or is this a natural formation?

222

00:25:16,200 --> 00:25:27,200

So one reason for thinking these might just be natural arrangements of stone is that if you look at the total weight, you see 78,000 tons of rock.

223

00:25:28,200 --> 00:25:33,200

If these stones had been put there by hand, then that would have taken an incredible effort.

224

00:25:35,200 --> 00:25:40,200

What natural force could be capable of moving and assembling this formation?

225

00:25:42,200 --> 00:25:48,200

Glaciers may appear static when you look at them from the outset, but they are in fact constantly moving.

226

00:25:49,200 --> 00:25:58,200

As these huge walls of ice advance and retreat, they have the power to carve out valleys and move huge amounts of stone.

227

00:25:59,200 --> 00:26:04,200

These stones can find themselves left behind when the glacier retreats.

228

00:26:05,200 --> 00:26:13,200

Twenty thousand years ago, glaciers covered a vast area of the Alps, including present day Lake Constance.

229

00:26:14,200 --> 00:26:19,200

So could the Swiss stone hinge have been formed by a glacier?

230

00:26:21,200 --> 00:26:27,200

To put this theory to the test, the mapping team turn more high-tech equipment on the underwater stones.

231

00:26:31,200 --> 00:26:36,200

Scientists use GPR or Ground Penetrating Radar to survey the site.

232

00:26:37,200 --> 00:26:41,200

It gives them an idea of any structures that are below the surface.

233

00:26:43,200 --> 00:26:47,200

The data it beams back reveals something totally unexpected.

234

00:26:51,200 --> 00:26:57,200

The Swiss stone hinge sits well above the mineral deposits left by the retreating glacier,

235

00:26:58,200 --> 00:27:05,200

meaning these stone mounds were placed here thousands of years later and are man-made.

236

00:27:06,200 --> 00:27:10,200

What on earth are they? It's a real mystery.

237

00:27:14,200 --> 00:27:21,200

When scientists discover that a strange formation of rocks beneath the surface of a lake in Switzerland is man-made,

238

00:27:22,200 --> 00:27:24,200

it raises more questions than it answers.

239

00:27:25,200 --> 00:27:29,200

78,000 tons of stone are involved.

240

00:27:30,200 --> 00:27:35,200

If it was man-made, it would be a great idea to have a stone hinge.

241

00:27:35,200 --> 00:27:42,200

In 2019, archaeologists returned to the site with the mission of unlocking its secrets.

242

00:27:44,200 --> 00:27:51,200

If they find out when these structures were built, it might help reveal who made them and for what purpose.

243

00:27:53,200 --> 00:27:57,200

The archaeologists have been working on the project for a long time.

244

00:27:57,200 --> 00:28:04,200

If they find out when these structures were built, it might help reveal who made them and for what purpose.

245

00:28:06,200 --> 00:28:13,200

The team dig trenches and take core samples around the rocks, which they date back at the lab.

246

00:28:14,200 --> 00:28:20,200

It would appear as though these enigmatic stone piles were placed there over 5,000 years ago.

247

00:28:23,200 --> 00:28:30,200

These stone platforms date to the Neolithic and they're actually older than stone hinge itself.

248

00:28:31,200 --> 00:28:38,200

When we're talking about the Neolithic period, they're doing all sorts of weird and weird things.

249

00:28:38,200 --> 00:28:42,200

We can see that across Europe.

250

00:28:44,200 --> 00:28:50,200

But the underwater location of these stone-age structures makes them particularly unique and their purpose all the more puzzling.

251

00:28:52,200 --> 00:28:59,200

Could the answer lie in the close proximity of the stone piles to the water's edge?

252

00:28:59,200 --> 00:29:06,200

They do bear a striking resemblance to similar platforms in the Outer Hebrides in Scotland and those platforms are village sites.

253

00:29:07,200 --> 00:29:14,200

Known as crannogs, these artificial rock islands are believed to be the sites of ancient wooden houses.

254

00:29:15,200 --> 00:29:20,200

This house was built on this lake, and it's a very old and old building.

255

00:29:20,200 --> 00:29:27,200

But unlike the crannogs in Scotland, the Swiss mounds don't have any telltale signs of the bridges that would have been necessary to connect to dry land.

256

00:29:29,200 --> 00:29:33,200

Their absence opens the door to an entirely different world.

257

00:29:34,200 --> 00:29:38,200

The city of Scotland is a city of the world.

258

00:29:39,200 --> 00:29:43,200

The city of Scotland is a city of the world.

259

00:29:43,200 --> 00:29:56,580

The city of Uruk focuses exclusively on building a city location, which requires a unambiguous,

260

00:29:56,580 --> 00:29:59,500

weren't built in water after all.

261

00:29:59,500 --> 00:30:01,500

Lake levels go up and down.

262

00:30:01,500 --> 00:30:05,540

And actually, we know that during the Neolithic period,

263

00:30:05,540 --> 00:30:09,660

the lake levels would have been much lower than they are today.

264

00:30:09,660 --> 00:30:13,740

So therefore, the stones could actually have been on dry land.

265

00:30:13,740 --> 00:30:15,900

If they were built on dry land,

266

00:30:15,900 --> 00:30:21,300

what purpose could these rounded stone circles have served?

267

00:30:21,300 --> 00:30:24,660

Researchers have long speculated that other ancient sites

268

00:30:24,700 --> 00:30:27,180

have a hidden celestial meaning.

269

00:30:29,540 --> 00:30:31,820

There's various arguments about the pyramids of Giza

270

00:30:31,820 --> 00:30:34,340

lining up with Orion, and of course, stonehenges,

271

00:30:34,340 --> 00:30:37,820

most famously associated with various stalemats.

272

00:30:37,820 --> 00:30:42,740

We know that Neolithic people were interested in the seasons

273

00:30:42,740 --> 00:30:44,820

and measuring these things.

274

00:30:44,820 --> 00:30:48,700

Could the Swiss stonehenge be some kind of stalemate

275

00:30:48,700 --> 00:30:50,700

or seasonal measuring tool?

276

00:30:51,700 --> 00:30:55,260

Turns out this long line of underwater stones

277

00:30:55,260 --> 00:31:00,700

appears to line up with the sunrise and sunset on 21 June,

278

00:31:00,700 --> 00:31:05,260

which happens to be the longest day of the year.

279

00:31:17,060 --> 00:31:19,740

The stone formations discovered in Lake Constance

280

00:31:19,740 --> 00:31:22,740

are fascinating, and they remain a mystery.

281

00:31:22,740 --> 00:31:26,180

One theory states that they were designed to align

282

00:31:26,180 --> 00:31:28,420

to different solar phenomenon.

283

00:31:29,740 --> 00:31:33,740

The stone piles do seem to line up with the sunrise and sunset

284

00:31:33,740 --> 00:31:38,740

on 21 June, the northern hemisphere's summer solstice.

285

00:31:39,740 --> 00:31:42,740

Initial thoughts are, yes, these align.

286

00:31:42,740 --> 00:31:44,740

That's really exciting. We're seeing something.

287

00:31:44,740 --> 00:31:48,740

But actually, when they start serving, more and more of them.

288

00:31:48,740 --> 00:31:50,740

That pattern just disappears.

289

00:31:55,740 --> 00:32:00,740

So the Swiss stonehenge doesn't match with the stars.

290

00:32:00,740 --> 00:32:04,740

But that doesn't mean its purpose wasn't aimed at the heavens.

291

00:32:04,740 --> 00:32:07,740

In my opinion, the most likely explanation

292

00:32:07,740 --> 00:32:09,740

for these incredible stone piles

293

00:32:09,740 --> 00:32:12,740

is that there was some kind of monument

294

00:32:12,740 --> 00:32:15,740

to do with funerary rights or religion.

295

00:32:18,740 --> 00:32:22,740

Throughout our entire history, humans have built magnificent monuments

296

00:32:22,740 --> 00:32:26,740

to mark death and our passage to the afterlife.

297

00:32:27,740 --> 00:32:31,740

But how might the Swiss stonehenge have been used in this way?

298

00:32:31,740 --> 00:32:35,740

We see quite a few megalithic structures dating to the Neolithic,

299

00:32:35,740 --> 00:32:39,740

and some across this region as well, which act as tombs.

300

00:32:40,740 --> 00:32:45,740

But no bones or chambers have been found inside the stone piles.

301

00:32:45,740 --> 00:32:50,740

Could the remains of the dead have been placed on top of the rocks instead?

302

00:32:51,740 --> 00:32:54,740

They may have actually been some sort of burial platform.

303

00:32:56,740 --> 00:33:01,740

These mounds might have acted as altars for water burials,

304

00:33:01,740 --> 00:33:05,740

where bodies are placed on the rocks in shallow water

305

00:33:05,740 --> 00:33:09,740

and left to be decomposed by the lake.

306

00:33:09,740 --> 00:33:13,740

It's a very complicated scenario, and we need to investigate more,

307

00:33:13,740 --> 00:33:16,740

because ultimately, what this site is, is a mystery.

308

00:33:18,740 --> 00:33:22,740

So the true purpose of the Swiss stonehenge remains unknown,

309

00:33:22,740 --> 00:33:26,740

and some people believe we may never reveal its secrets.

310

00:33:26,740 --> 00:33:31,740

But similar searches of Switzerland's other alpine lakes are already taking place,

311

00:33:31,740 --> 00:33:34,740

and future discoveries may reveal more

312

00:33:34,740 --> 00:33:37,740

about this baffling underwater wonder.

313

00:33:44,740 --> 00:33:48,740

Each year, dozens of cargo ships crossing the world's oceans

314

00:33:48,740 --> 00:33:51,740

vanish for unknown reasons.

315

00:33:51,740 --> 00:33:55,740

Some of these vessels disappear so quickly they take all clues

316

00:33:55,740 --> 00:33:57,740

as to why they sank with them.

317

00:33:57,740 --> 00:34:01,740

But can a terrifying viral video shed new light

318

00:34:01,740 --> 00:34:06,740

on what's causing some ships to sink without trace?

319

00:34:07,740 --> 00:34:13,740

It's January 2021, and the MV Arvin is at anchor in the Black Sea,

320

00:34:13,740 --> 00:34:16,740

close to the northern coast of Turkey.

321

00:34:22,740 --> 00:34:27,740

As the cargo ship rides rough swells, disaster strikes.

322

00:34:28,740 --> 00:34:32,740

This must be a truly, truly terrifying experience,

323

00:34:32,740 --> 00:34:35,740

the crew are on a ship that's been torn in two.

324

00:34:39,740 --> 00:34:43,740

There was no warning signs, and that to me was just like, holy cow,

325

00:34:43,740 --> 00:34:45,740

people are going to die on this thing.

326

00:34:45,740 --> 00:34:48,740

I'm going to go and get a little bit of the crew.

327

00:34:48,740 --> 00:34:51,740

I'm going to get a little bit of the crew.

328

00:34:51,740 --> 00:34:54,740

I'm going to get a little bit of the crew.

329

00:34:55,740 --> 00:34:57,740

And to me was just like, holy cow,

330

00:34:57,740 --> 00:35:01,740

people are going to die on this thing.

331

00:35:04,740 --> 00:35:07,740

The ship sinks within a matter of minutes,

332

00:35:07,740 --> 00:35:10,740

disappearing beneath the waves in two pieces.

333

00:35:12,740 --> 00:35:15,740

Only six of its 12 crew managed to be safe,

334

00:35:15,740 --> 00:35:17,740

managed to escape.

335

00:35:19,740 --> 00:35:20,740

How in the heck can this happen?

336

00:35:20,740 --> 00:35:22,740

You know, if things made out of steel,

337

00:35:22,740 --> 00:35:25,860

you know, welded, it's put together.

338

00:35:25,860 --> 00:35:27,060

What would break a ship?

339

00:35:31,140 --> 00:35:34,020

The footage is chilling, but what causes

340

00:35:34,020 --> 00:35:37,980

this sudden and deadly disaster?

341

00:35:37,980 --> 00:35:40,300

We know how dangerous the Black Sea

342

00:35:40,300 --> 00:35:43,060

can be at certain times of the year

343

00:35:43,060 --> 00:35:45,020

and with certain weather conditions.

344

00:35:48,260 --> 00:35:51,100

The strong winds that sweep across the region

345

00:35:51,100 --> 00:35:55,020

are capable of whipping up waves as high as 60 feet.

346

00:36:01,700 --> 00:36:05,420

But in rough seas, it's not just a huge single wave

347

00:36:05,420 --> 00:36:08,900

that can pose a threat to ships.

348

00:36:08,900 --> 00:36:13,100

As the ship travels through rough seas,

349

00:36:13,100 --> 00:36:15,740

you can get quite dynamic stress

350

00:36:15,740 --> 00:36:18,900

that's being applied to the ship's hull.

351

00:36:18,900 --> 00:36:21,700

The hull is actually bent here and there,

352

00:36:21,700 --> 00:36:22,980

depending on the power of the waves,

353

00:36:22,980 --> 00:36:24,980

depending on which way the waves are going.

354

00:36:27,780 --> 00:36:30,820

A particularly dangerous scenario can unfold

355

00:36:30,820 --> 00:36:32,740

when the front and back ends of the ship

356

00:36:32,740 --> 00:36:36,100

are riding two different waves,

357

00:36:36,100 --> 00:36:39,300

leaving the weight at the centre of the ships unsupported.

358

00:36:43,300 --> 00:36:46,380

This phenomenon is known as sagging,

359

00:36:46,380 --> 00:36:48,060

and in severe weather conditions,

360

00:36:48,060 --> 00:36:53,100

it's been known to seriously damage or even sink ships.

361

00:36:53,100 --> 00:36:55,860

The question is, are the wave conditions alone

362

00:36:55,860 --> 00:37:00,740

enough to explain why the MVRVN broken to?

363

00:37:00,740 --> 00:37:02,540

On the day it snaps in half,

364

00:37:02,540 --> 00:37:05,460

the RVN is experiencing choppy conditions,

365

00:37:05,460 --> 00:37:08,300

but it's nothing out of the ordinary for the Black Sea.

366

00:37:08,300 --> 00:37:12,460

This puts stress on the hull, but the ship's designed to take it.

367

00:37:12,460 --> 00:37:15,020

Ships only get pushed beyond these limits

368

00:37:15,020 --> 00:37:17,020

in the most extreme weather.

369

00:37:18,340 --> 00:37:20,300

Which has led some people to believe

370

00:37:20,300 --> 00:37:23,620

there could be more going on than meets the eye.

371

00:37:23,620 --> 00:37:26,580

Did something below deck cause this disaster?

372

00:37:38,780 --> 00:37:42,460

When a cargo ship snaps in two in the Black Sea

373

00:37:42,460 --> 00:37:45,140

and sinks in a matter of minutes,

374

00:37:45,180 --> 00:37:48,260

people look to the rough seas for an explanation.

375

00:37:51,140 --> 00:37:54,220

But could the true cause of this maritime disaster

376

00:37:54,220 --> 00:37:57,820

lie below deck in the belly of the ship?

377

00:38:01,540 --> 00:38:04,340

The contents of the ship, the cargo,

378

00:38:04,340 --> 00:38:06,660

and how it's been stowed,

379

00:38:06,660 --> 00:38:09,340

and the weight of the cargo, of course, as well,

380

00:38:09,340 --> 00:38:11,540

is also really important.

381

00:38:12,540 --> 00:38:17,100

Is this ship transporting anything dangerous in its hold?

382

00:38:17,100 --> 00:38:21,540

The MVRVN is carrying urea, which is a granular substance,

383

00:38:21,540 --> 00:38:24,140

and it's not normally considered hazardous.

384

00:38:25,700 --> 00:38:29,700

Urea is an inert and non-flammable product,

385

00:38:29,700 --> 00:38:31,700

often used as fertilizer.

386

00:38:33,540 --> 00:38:36,980

But even supposedly safe cargos like this

387

00:38:36,980 --> 00:38:40,340

can turn deadly in the wrong conditions.

388

00:38:41,980 --> 00:38:43,820

When cargo ships are loaded,

389

00:38:43,820 --> 00:38:46,740

the weight needs to be distributed evenly.

390

00:38:48,620 --> 00:38:53,340

An unbalanced ship can list or tilt dangerously once at sea.

391

00:38:54,540 --> 00:38:58,940

And in worst-case scenarios, it can even capsize.

392

00:39:04,740 --> 00:39:09,740

But could an unstable cargo hold the power to rip a ship in two?

393

00:39:10,740 --> 00:39:12,620

Unlike container ships,

394

00:39:12,620 --> 00:39:16,220

which can have thousands of separate metal boxes,

395

00:39:16,220 --> 00:39:19,020

the RVN is a bulk carrier.

396

00:39:19,020 --> 00:39:24,020

The MVRVN had four separate holes to put their cargo in,

397

00:39:24,020 --> 00:39:26,220

and it's dry, bulk cargo.

398

00:39:27,500 --> 00:39:30,860

Huge loose loads, such as grain or sand,

399

00:39:30,860 --> 00:39:33,140

are poured directly into the ship.

400

00:39:33,140 --> 00:39:37,140

A rare, poorly understood phenomenon can strike at sea

401

00:39:37,140 --> 00:39:41,620

that instantly transforms these safe, dry heaps of material

402

00:39:41,620 --> 00:39:44,620

into a deadly ship-sinking force.

403

00:39:45,620 --> 00:39:50,620

If liquid or water is introduced into a dry-bulk cargo,

404

00:39:50,620 --> 00:39:53,140

it can become semi-liquified,

405

00:39:53,140 --> 00:39:56,820

basically turn into a mushy jelly or pudding,

406

00:39:56,820 --> 00:39:59,620

and start sliding around.

407

00:40:00,620 --> 00:40:03,300

This is known as liquefaction.

408

00:40:06,300 --> 00:40:10,900

If small, coarse substances like sand contain moisture,

409

00:40:10,900 --> 00:40:13,100

with enough disturbance or vibration,

410

00:40:13,100 --> 00:40:15,500

the molecules can become energized

411

00:40:15,500 --> 00:40:17,500

and instantly change state.

412

00:40:20,100 --> 00:40:25,100

For ships at sea, this can lead to devastating consequences.

413

00:40:25,100 --> 00:40:27,860

The liquefied cargo is a very large,

414

00:40:28,340 --> 00:40:31,860

the liquefied cargo can then move around freely

415

00:40:31,860 --> 00:40:33,220

within the hulls of the ship,

416

00:40:33,220 --> 00:40:37,220

which can wreak havoc with the ship's weight distribution.

417

00:40:38,900 --> 00:40:42,500

Does the RVN's cargo turn to liquid

418

00:40:42,500 --> 00:40:47,100

and slosh dangerously around inside the ship,

419

00:40:47,100 --> 00:40:51,100

causing a weight overload that snaps the vessel clean in two?

420

00:40:52,100 --> 00:40:54,100

For this to be the case,

421

00:40:54,100 --> 00:40:59,100

moisture must have found a way into its watertight cargo hulls.

422

00:40:59,100 --> 00:41:01,100

That vessel was old.

423

00:41:01,100 --> 00:41:03,100

It was almost 50 years old.

424

00:41:03,100 --> 00:41:06,100

They actually did an inspection on it,

425

00:41:06,100 --> 00:41:09,100

and they were complaining about the rust on the deck,

426

00:41:09,100 --> 00:41:11,100

the poor maintenance of the vessel.

427

00:41:13,100 --> 00:41:17,100

Did water seep through the RVN's rusty bulkheads

428

00:41:17,100 --> 00:41:19,100

and the water was completely dry?

429

00:41:21,100 --> 00:41:23,100

Did the cargo turn to liquid?

430

00:41:23,100 --> 00:41:26,100

Did the cargo sink into the cargo holds

431

00:41:26,100 --> 00:41:28,100

and help trigger this disaster?

432

00:41:30,100 --> 00:41:32,100

This vessel, being as old as it was,

433

00:41:32,100 --> 00:41:34,100

I think had something to do with it.

434

00:41:35,100 --> 00:41:38,100

The footage captured on the MV RVN

435

00:41:38,100 --> 00:41:41,100

provides a rare chilling glimpse

436

00:41:41,100 --> 00:41:45,100

of the final moments onboard a doomed ship.

437

00:41:45,100 --> 00:41:48,100

Cargo liquefaction could have played a key role

438

00:41:48,100 --> 00:41:53,660

10 cargo ships a year could be lost due to this poorly understood phenomenon.

439

00:41:53,660 --> 00:41:58,820

Footage like this is helping scientists and shipbuilders better understand its causes

440

00:41:58,820 --> 00:42:05,220

and consequences, and their urgent work could help prevent more disasters in the future.