

Altres museus

Diving into the Past with Vrak - Museum of Wrecks: Exploring the Underwater Cultural Heritage of the Baltic Sea

Susana Vallejos

SMTM/Vrak - Museum of Wrecks

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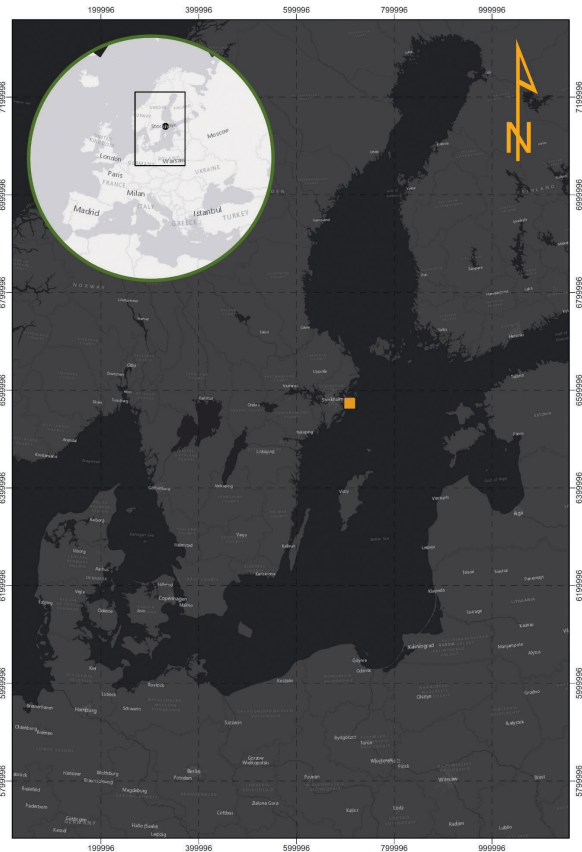


Figure 1. Map of the location of Vrak - Museum of Wrecks with an overview of the Baltic Sea region.
Author: Marco Alf. Source: Vrak - Museum of Wrecks/SMTM.

Vrak - Museum of Wrecks is the newest addition to Sweden's museum landscape, having opened to the public in September 2021 (Figure 1). Vrak is part of a larger institution that includes the renowned Vasa Museum, home to the iconic warship *Vasa*, which tragically sank on her maiden voyage on August 10, 1628¹. The Swedish National Maritime and Transport Historical Museums (SMTM) comprise five distinct museums situated across three cities. These include the Naval Museum (Marinmuseum), located within the historic Naval Port of Karlskrona, a UNESCO World Heritage Site since 1998; the Railway Museum (Järnvägsmuseet) in Gävle; and the Swedish National Maritime Museum (Sjöhistoriska museet), the Vasa Museum (Vasamuseet), and Vrak - Museum of Wrecks, all three located in Sweden's capital, Stockholm.

Vrak's focus is on maritime archaeology and the underwater cultural heritage that rests at the bottom of the Baltic Sea—a relatively young body of water that only formed over the past 10,000 to 15,000 years². It is a place where people can experience the rich and diverse underwater cultural heritage found in this unique underwater environment. It is also a place for people to explore fascinating stories about the incredibly well-preserved underwater cultural heritage in this region—stories that span the time from the very beginning of people's interaction with the Baltic Sea some thousands of years ago to the activities humans engage in alongside it in the present. However, Vrak's focus on maritime archaeology goes beyond Sweden's territorial waters, encompassing the entire Baltic Sea—a region shared by eight countries and numerous communities, both past and present³. This transnational perspective allows the museum to emphasize the significant role of the Baltic Sea in shaping human experiences, moving beyond narrow national narratives to adopt a broader regional perspective.

Although many museums throughout the Baltic region have at some point or another presented exhibitions focusing on aspects or examples of this underwater cultural heritage, it was not until the opening of Vrak that this heritage was collectively presented under one roof, providing a more comprehensive perspective.



■ A MUSEUM FOR THE 21ST CENTURY

Building a new museum is not a decision made quickly or lightly. Coming to the conclusion that creating a new museum is the right decision to make is a complex and time-consuming process that involves addressing a number of issues. SMTM reached that conclusion in 2017. However, once SMTM had made that decision, several parties were invited to participate in developing what would become an entirely new museum—a rare occurrence in the museum world.

The project that would evolve into Vrak was initially given the working title “Treasures of the Baltic Sea” (Östersjöns skatter). This name was inspired by the temporary exhibition “Östersjöns skatter - Marinarkeologiska djupdykningar”, which was held at the Swedish National Maritime Museum from December 1, 2001, to December 31, 2002. However, the new museum would not operate in the same manner as museums had done in the past—a realization that became clearer during the COVID-19 pandemic, when museum spaces around the world, filled with thousands of artifacts, stood empty, devoid of visitors or staff, including our own⁴. Instead, the new museum would adopt an approach to underwater cultural heritage that set itself apart from previous approaches that had until that point involved raising, conserving, and exhibiting shipwrecks and their associated artifacts⁵. “Treasures of the Baltic Sea” would leave this underwater cultural heritage underwater, focusing instead on protecting this underwater cultural heritage by leaving sites undisturbed—“without salvaging or making any major alterations to the underwater sites”⁶. And by doing so, Vrak would make a significant departure from how maritime archaeology has been presented to the public, emphasizing sustainability and the museum’s commitment to a responsible approach.

■ RIGHT PLACE, RIGHT TIME

It can be added that creating a museum like Vrak would not have been possible in many other places besides the Baltic Sea region. With an average depth of about 55 meters, this underwater cultural heritage is far more accessible to our maritime archaeologists than elsewhere. Here, the unique combination of brackish water, cold temperatures, darkness, low levels of oxygen, and the absence of organisms that tend to destroy organic and other materials helps preserve this underwater cultural heritage in an exceptional way⁷. As a result, the Baltic Sea boasts an extraordinary underwater cultural landscape, featuring thousands of remarkably well-preserved shipwrecks, as well as numerous other remnants of human activity that have accumulated over the thousands of years humans have interacted with this body of water.

While comparable conditions do exist—for example, in the Great Lakes and the Black Sea—nothing quite matches the situation in the Baltic Sea, where researchers estimate that as many as a hundred thousand shipwrecks lie, not counting any other remains of human activity⁸. These unique environmental conditions allow us to keep this cultural heritage underwater, where it has been preserved exceptionally well until now, and employ alternative techniques that do not involve disturbing this submerged cultural heritage when investigating these sites and sharing them with the public. By doing so, we can make more of these sites accessible to various communities, bridging the gap between people and a cultural heritage that many are still largely unaware of, simply because it lies beneath the surface.

■ BUILDING ON FOUNDATIONS

Establishing this museum would also not have been possible without the invaluable lessons learned from the tireless efforts of those involved in the Vasa Project, starting in the 1950s, which later evolved into the Vasa Museum and the Swedish National Maritime Museum, rooted in the Swedish Maritime Museum Association, established in the early 20th century (Swedish National Maritime Museum 2023).

The Vasa Museum and the Swedish National Maritime Museum have played a pivotal role in establishing maritime archaeology in the country, with research on the 1628 warship *Vasa* also having a profound impact on the development of maritime archaeology on an international level. Consequently, the current understanding of maritime archaeology and maritime museums in this region owes a great deal to the work conducted over many decades by these two museums, particularly in terms of maritime archaeological research, museum operations, cultural heritage management and preservation, as well as several other areas⁹.

The expertise developed at both the Vasa Museum and the Swedish National Maritime Museum has been vital in establishing this new museum, providing a sense of continuity and connection to both museums. Vrak continues to



collaborate with both museums, participating in various joint initiatives to, for example, enhance museum engagement and promote maritime archaeology on a national and international level. This ongoing partnership builds on the rich heritage and knowledge these museums have developed over the years, while also creating new opportunities to engage the public through Vrak's unique approach to underwater cultural heritage.

Our museum's exhibits also complement those of our sister museums, especially the Vasa Museum. Vrak and the Vasa Museum are ideally experienced together, which is why both museums offer a combined ticket that allows visitors to explore both museums at an affordable price, with the added benefit of extending the ticket's validity to 72 hours. While the Vasa Museum focuses on a single shipwreck, Vrak showcases the remarkable cultural heritage beneath the entire Baltic Sea—from some of the earliest signs of human interaction with this sea to contemporary incidents and life. This connection encourages visitors to look beyond a single museum's stories and engage with a broader perspective.

■ HOUSING A NEW MUSEUM

The museum is located on Djurgården, an island with a long history as a place for shipbuilding as well as other maritime activities¹⁰. The museum itself is housed in a spectacular building designed by architect Paul Hedqvist, initially intended for the Swedish Navy fleet's smaller boats during the Second World War¹¹. The building, with its striking architectural features and historical significance, provides a fitting backdrop for the museum's exploration of the Baltic Sea regions' underwater cultural heritage.

After the war, the building was repurposed to house the Swedish National Maritime Museum's collection of smaller vessels¹². In 2019, it was repurposed once again, but this time for the project that ultimately became Vrak – Museum of Wrecks. The architectural firm Fahlander Arkitekter, responsible for converting the building into a museum, conducted the work with the help of the construction contractor Serneke between 2019 and 2021 (Figure 2). Today, the museum boasts an impressive layout, featuring two floors

dedicated to exploring the interconnected maritime history of this region within a building that blends historical preservation with embracing modern needs and technologies.

■ SUSTAINING UNDERWATER CULTURAL HERITAGE

Though Vrak's approach to the management of underwater cultural heritage differs from that of our other sister museums, it is guided by the same key documents. In Sweden, the Museum Act (2017:563), which provides the legal framework for museums, states that "a museum should contribute to society and its development by promoting knowledge and cultural experiences..." Moreover, "museums should be accessible and adapted to different users..." This has led us to raise an important question: how can a museum make underwater cultural heritage accessible to people, including those who, for various reasons, may never have the opportunity to dive and experience this underwater cultural heritage firsthand?

In addition to the Museum Act (2017:563), Vrak must also consider the ordinance (2007:1198), which contains specific instructions for SMTM. As the institution responsible for the state's museums with a maritime and transport history focus, SMTM's mandate includes preserving and developing the cultural heritage within this area of focus, building knowledge about it, and ensuring that the institution's efforts are inclusive of all segments of society.

On the international stage, guidelines such as the International Council of Museums' (ICOM) museum definition underscore the importance of sustainability as a key aspect of museum operations (ICOM 2022). This leads us to pose another important question: how can a museum make underwater cultural heritage accessible to more people without putting it under any more strain?

Similarly, the UNESCO Convention on the Protection of Underwater Cultural Heritage (2001) emphasizes the importance of prioritizing in situ preservation. So, what has sustainability meant for SMTM's newest museum, Vrak? The answer to this question is that it has entailed finding innovative ways to contribute to the preservation of shipwrecks and their associated artifacts, while ensuring that

Figure 2. The interior of Vrak - Museum of Wrecks.
Author: Anneli Karlsson. Source: Vrak - Museum of Wrecks/SMTM.



more of them are accessible to the public, communities, and society as a whole. Rather than raising, conserving, and displaying more of them, we have adopted more sustainable practices that improve the public's access to this cultural heritage while ensuring that we both honor the heritage and the environment that has preserved it so well until now.

■ MUSEUM WITHOUT COLLECTIONS

One way in which we work in a sustainable manner is by not raising any artifacts and by not creating any collections of our own. However, when we leave this underwater cultural heritage underwater, we fulfill our role as a museum

that “researches, collects, conserves, interprets, and exhibits tangible and intangible heritage” (ICOM 2022) in a different way than our visitors might be accustomed to or expect when they pay us a visit. In many ways, Vrak challenges traditional concepts of collection by embracing a broader, more expansive perspective. Instead of collecting or maintaining our own collections, we view our collections as resting in the depths of the Baltic Sea.

For us, not having physical collections of our own has led to collaborations with maritime museums throughout the Baltic Sea region, allowing us to borrow artifacts from them to display in our exhibitions. By activating artifacts from the collections of other maritime museums—many of which might otherwise remain unseen—we



provide our visitors a unique glimpse into a shared past that fewer of them would have had the opportunity to experience had these artifacts remained behind closed doors. Additionally, by placing these artifacts in new contexts, we invite more people to experience them in unexpected ways.

In addition to these external museum collaborations, we also work closely with museums within our institution, allowing us to showcase some of their collections in contexts that would not otherwise be possible. We display, for example, artifacts from *Elefanten* (1559-1564), *Riksäpplet* (1676), and *Jutholmsvraket*, which we have borrowed from the Swedish National Maritime Museum, and artifacts from *Constantia* (1676), which the Naval Museum has temporarily placed under our care.

■ EMBRACING TECHNOLOGICAL ADVANCEMENTS

To showcase the breadth of this underwater cultural heritage and capture audiences' attention, Vrak also employs technology in its exhibitions. Vrak uses various technological solutions to feature a wide array of vessels, ranging from Stone Age logboats and Vendel Period ship burials to Viking Age longships, medieval cogs, 18th-century merchant vessels, Second World War submarines, modern-day passenger ferries, and more.

Our goal has not been to merely translate the analog experience into a digital format; instead, we have sought to harness technology in ways that transcend past approaches. We do not use technology for its own sake; instead, we are committed to creating innovative experiences that make this underwater cultural heritage accessible to a broader audience—not by simply converting more conventional museum experiences into a digital world, but by examining the affordances of various technologies and developing something new with them.

To enhance exhibitions and present maritime archaeology in a dynamic manner, we invite visitors to explore the past and its contemporary relevance in surprising ways, all the while minimizing our impact on the environment and the shipwrecks themselves. For example, this involves

inviting visitors to experience being submerged underwater in an immersive experiential film without requiring them to dive or get wet. Another example involves superimposing digital content in the form of Augmented Reality (AR) onto the physical layers of an exhibition, deepening visitors' understanding of specific exhibition components or providing digitally literate guests with alternative ways to engage with an exhibition while sharing the same space as other visitors. Or why not experience a three-dimensional artifact based on the documentation of said artifact done underwater?

Nevertheless, we do this by putting people at the center of what we do, knowing that today technology is an integral part of their lives. We use technology to meet people where they are and help them navigate our museum in ways that feel familiar in some ways and new in others.

As expected, this increased reliance on technology has also placed pressure on our organization to ensure consistent performance and to implement systems that can address potential technical issues that may arise on a daily basis. Consequently, there has been a significant impetus to invest in capacity building and develop structured protocols for managing challenges we have not encountered before, or at least not to this extent in our organization. Staff members need the skills to tackle a wide range of technical problems. To this end, we have introduced standardized procedures for addressing routine issues and established additional support systems for more complex technical difficulties.

■ THE PAST IN EXHIBITIONARY SPACES

Vrak features five permanent and one temporary exhibition within a 900-square-meter building. In them, we present maritime archaeology and the underwater cultural heritage of the region, but we do this by combining digital with analog experiences that both inform and enhance each other and allow us to work in a more sustainable manner, by preserving things in situ instead of raising more of the thousands of well-preserved shipwrecks that exist here. We accomplish this in a few different, yet complementary ways

that demonstrate how a whole can be more than the sum of its parts. In our case, it also means that we need to consider the entirety of Vrak to appreciate the range and depth of our approach.

The exhibitions were developed through a close collaboration between SMTM's curators and maritime archaeologists, as well as staff from the Swedish company Expology—a studio that designs exhibitions and learning experiences for museum contexts—and an advisory board consisting of experts in maritime archaeology from countries around the Baltic Sea¹³. The Dutch company that built and installed the exhibitions, Bruns, did so between 2020 and 2021¹⁴.

The result was two exhibitions on the first floor and three on the second, with temporary exhibition space added later. The thoughtfully curated exhibitions are organized into two themes: “Beneath the Surface” on the entrance floor, and “Above the Surface” on the upper floor, each offering a unique perspective on this underwater cultural heritage. To enhance the visit, a designated route through the exhibits was created, beginning with “The Sea of Memories”.

■ “THE SEA OF MEMORIES”

In the absence of physical collections of our own, we have also sought alternative ways to exist—for example, by creating immersive experiences that introduce visitors to the museum's area of focus. “The Sea of Memories” is a film that is projected onto walls and ceiling, accompanied by a soundscape, music, and a voiceover. The space is designed to immerse the visitor in an underwater environment, complete with a carpet that mimics the seabed and lighting that provokes the feeling of being surrounded by water at a depth at which light begins to fade.

This immersive experience places people right in the middle of the Baltic Sea, and the narrative we hear is told from the non-human perspective of the Baltic Sea itself. It is the Baltic Sea's voice we hear narrating the story. The narrative presented invites the viewer to explore the long-standing relationship between people and this sea, from 7,000-year-old logboats to present-day plastic pollution.

Digital representations developed from primary historical sources are projected on the screen. They consist of, for example, artifacts from the first half of the 20th century, such as a submarine navigating through one of an estimated 65,000 mines laid in the Baltic Sea during the First World War alone, and a modern-day shipping container sinking while transporting goods around the world¹⁵. These scenes create a visually striking experience, highlighting, in the last case, containers falling from cargo vessels into the depths of the Baltic Sea.

Alongside these digital representations, physical artifacts loaned from our external partner museums and sister institutions are also exhibited. Behind the fine-mesh screen where the film is projected, numerous physical artifacts are carefully arranged into themes that recur throughout the museum's exhibitions. These artifacts are also highlighted at specific times during the film and between screenings, adding to the analog experience that enhances the film's immersive digital layer.

Some notable physical artifacts featured in the exhibition are the parts from a Saab B-18 B bomber, which was used by the Swedish Air Force during the Second World War. This particular aircraft attempted an emergency landing on sea ice but crashed and sank near Härnösand, Sweden, in 1946¹⁶. After spending more than thirty years submerged, it was salvaged from Härnösand's harbor in 1979¹⁷. Remarkably, it is the only remaining B-18 B bomber in existence, and though it is stored at the Swedish Air Force Museum in Linköping, parts of it have been loaned to Vrak. These parts serve as tangible connections to the past and further enhance “The Sea of Memories” exploration of memory, loss, and recovery.

At the end of “The Sea of Memories” is a corridor leading to the exhibition “Resande man” (“The Traveling Man”).

“Resande Man”

The “Resande man” exhibition, named after a ship that sank in 1660 in the Stockholm Archipelago, offers a digital, immersive experience¹⁸. It uses various techniques to enhance the sensation of being underwater. However,



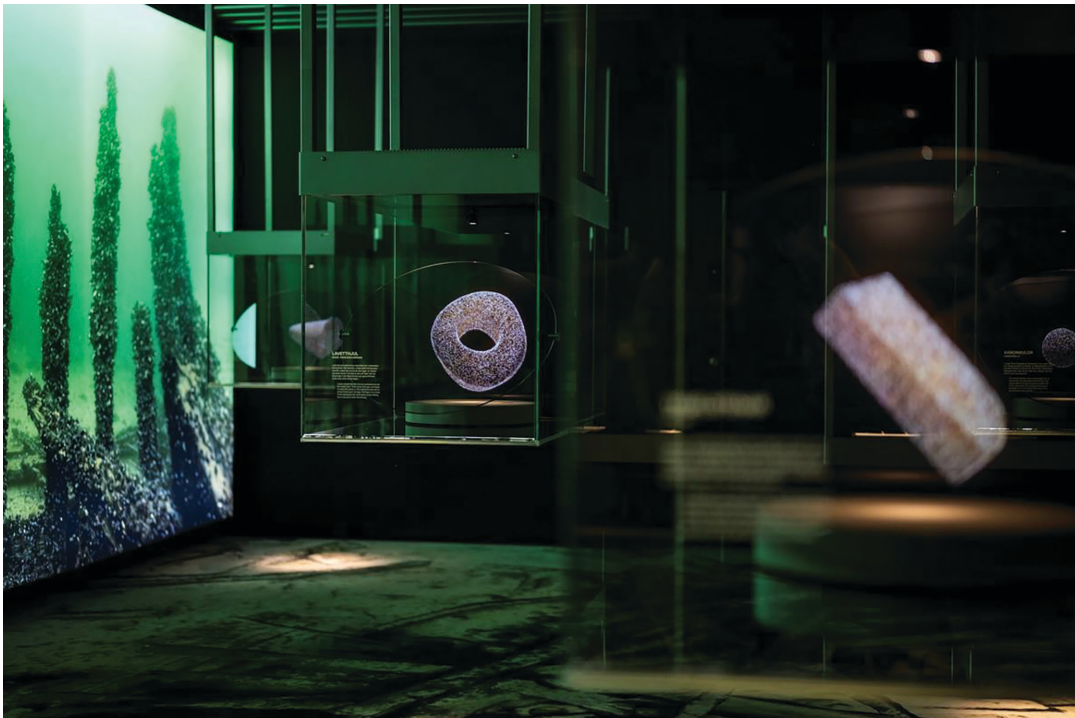
Figure 3. The “Resande man” exhibition at Vrak - Museum of Wrecks.
 Author: Lovisa Brämning. Source: Vrak - Museum of Wrecks/SMTM.

rather than simply recreating a wreck site, it presents an alternative way to showcase shipwrecks, based on the scientific fieldwork our maritime archaeologists conduct underwater.

In this space, the wreck site of *Resande man*, discovered in 2012, is recreated on a carpet that stretches across the entire exhibition floor¹⁹. It was made to scale (1:1) with a three-dimensional model that was assembled using approximately 7,000 photographs taken by our team²⁰. This carpet allows visitors to experience the exact dimensions and layout of the shipwreck as if they were diving on it themselves, bridging the gap between physical reality and digital innovation. When walking across it, the visitors can examine the wreck up close and in detail.

In the background, visitors can hear divers breathing through regulators that supply them with air from the cylinders they carry on their backs. They can also see a large-scale photograph of one side of the hull, with fully visible frames protruding from the bottom, displayed across one side of the exhibition room.

The exhibition features multiple display cases with stunning digital representations of archaeological artifacts created from our photographic documentation²¹. These holographic representations are displayed in suspended cases, creating an ethereal viewing experience (Figure 3). This innovative presentation blends technology with thoughtful design, deepening the sense of immersion and making the artifacts accessible to visitors in a visually captivating way.



Each holographic representation rotates on its axis for a multi-angle view. The cases are suspended above the location of the artifacts inside them. Below each case, the specific location of the artifact inside the case is enhanced by lighting that shines directly above the artifact's location on the wreck site. This careful arrangement allows visitors to connect the digital artifact to its exact position on the recreated shipwreck, deepening their sense of immersion on a site that is otherwise inaccessible to the public due to a diving ban in the area²². Thus, it is a place people would not be able to experience for themselves in any other way than through the meticulous non-destructive methods employed by our maritime archaeologists and the innovative presentation techniques of our exhibition team²³.

This exhibition features a rare exception among the digital artifacts on display—one of the very few artifacts salvaged from the *Resande man*. This physical artifact stands in striking contrast to the digital displays, yet it also powerfully enhances them. Its presence prompts us to consider important museological questions regarding the role, pursuit, and, perhaps, the possible meaning of authenticity in our current digital age.

Advancements in technology have enabled us to present the story of *Resande man* to the public in unexpected ways. However, this approach often challenges people's expectations of how museums should operate—particularly the emphasis on displaying physical artifacts, such as shipwreck remains and their associated collections raised from the sea and conserved before being put on display. By choosing to leave this cultural heritage undisturbed underwater, we help ensure its preservation for future generations and open opportunities to share a broader range of stories with our visitors. Nevertheless, we frequently need to provide additional context to explain our approach. The Baltic Sea's unique underwater environment offers exceptional preservation conditions, allowing us to adopt more sustainable, non-invasive approaches to both our fieldwork and our exhibitions. This strategy not only safeguards this underwater cultural heritage but also invites the public to engage with it in new and meaningful ways.

Just as our immersive digital techniques in the “*Resande man*” exhibition challenge traditional expectations of museum displays, they also reflect a broader shift in how we engage with underwater cultural heritage. Rather than raising every artifact, we focus on salvaging stories and using technology to bring these narratives to life for a wider audience. This method enables us to create experiences that are both accessible and sustainable while honoring the integrity of the sites themselves. By adopting innovative ways to connect with and engage visitors, such as digital reconstructions, soundscapes, or interactive storytelling, we aim to deepen people's appreciation for this cultural heritage. In doing so, our exhibitions do more than display underwater cultural heritage; they also serve as platforms for dialogue, encouraging conversations, sharing insights, and exchanging perspectives, thereby fostering a more comprehensive understanding of maritime archaeology and this underwater cultural heritage.

“Vikings before Vikings”

Following the “*Resande man*” exhibition, visitors are directed to the museum's upper floor via an elegantly designed and crafted concrete staircase that leads to an open space with vast windows, offering expansive views of the water. The second-floor features four exhibitions: the temporary exhibition “Vikings before Vikings” and the permanent exhibitions “Our Shared Sea”, “The Assignment”, and “The Epilogue”.

The museum's temporary exhibition “Vikings Before Vikings” opened on April 11, 2025. “Vikings Before Vikings” explores the Salme ship burials, Salme I and II, discovered between 2008 and 2010 in Salme, on Saaremaa Island, Estonia²⁴. Curated by the Saaremaa Museum, the exhibition combines analog and digital techniques to present these findings.

It is the first time this archaeological material has been displayed outside of Estonia, with Vrak being the first museum outside of Estonia to host this exhibition. “Vikings before Vikings” runs until fall 2027.



“Our Shared Sea”

Past “Vikings Before Vikings” is the permanent exhibition titled “Our Shared Sea”. This exhibition illustrates how the Baltic Sea has long been a source of connection for the people who have lived along its shores and passed through its waters. These shared experiences have built lasting connections across cultures and borders. Through a variety of methods, this exhibition demonstrates how the Baltic Sea has continuously brought communities together.

In contrast to “The Traveling Man” and “The Sea of Memories”, “Our Shared Sea” maintains a more traditional display format, featuring artifacts on loan displayed in cases, each section enriched with interactive components. This exhibition was developed in collaboration with multiple institutions from countries across the Baltic Sea region, showcasing artifacts from their collections. By doing so, we are making these artifacts accessible to the public, placing them in a new setting for new communities to experience, learn from, and enjoy.

This exhibition showcases several different shipwrecks from various periods, organized chronologically, each highlighting a different region of the Baltic Sea. Among these is the warship *Solen* (“the Sun”), which met its fate off the coast of Danzig, modern-day Gdansk, Poland, in 1627²⁵. Another featured vessel is *Vrouw Maria*, a 17th-century merchant vessel, found near the island of Jurmo in present-day Finland. The *Vrouw Maria* sank in 1771 on its way from Amsterdam to St. Petersburg²⁶. Despite many investigations over the years, *Vrouw Maria* has never been fully excavated²⁷. The exhibition also includes the M/S *Estonia*, a passenger ferry that tragically sank near the Finnish island of Utö on September 28, 1994. Designated a protected gravesite in 1995, the M/S *Estonia* stands as a poignant reminder of the human cost of shipwrecks²⁸.

In “Our Shared Sea”, we present physical artifacts, photographs, and archival materials—displayed both in their original analogue form and enhanced through multimedia and interactive elements. A compelling example is “The Family Feud”, a digital storytelling experience that seamlessly combines narrative with multimedia to recount the struggle for the Swedish throne during the reigns of

Gustav Adolphus II and Sigismund (Figure 4). This engaging presentation leads visitors through the dramatic events culminating in the sinking of *Solen* at the Battle of Oliwa on November 28, 1627²⁹. By weaving historical context with immersive media, visitors can immerse themselves in the events leading up to the shipwreck while gaining a deeper understanding of those events.

Another example is in a section on submarine *U-479*. Submarine *U-479* is a Type VIIC U-boat—the most common type of German submarine from the Second World War³⁰. The only surviving example of this type, the *U-995* submarine, is found outside of Kiel, Germany. The interactive component in this section includes a three-dimensional model of *U-995*’s exterior and interior, allowing visitors to explore this type of submarine and the conditions aboard during the first half of the 20th century.

“The Assignment”

Past “Our Shared Sea” is the next exhibition: “The Assignment”. Unlike the more traditional “Our Shared Sea”, in “The Assignment”, we firmly move away from viewing content as something to be passively observed to fully embracing interactive technology. In this exhibition, we actively engage participants in their own learning experience by immersing them in the world of maritime archaeology and in hands-on scientific research and fieldwork that mirror the real-life experiences of maritime archaeologists in Sweden. Through innovative design and dynamic activities, “The Assignment” invites visitors to step into the role of maritime archaeologist from a Swedish perspective, connecting more deeply with the heritage on display. This interactive approach not only enhances the learning experience but also inspires curiosity and a sense of discovery among participants of all ages.

In this immersive adventure, visitors use a Virtual Reality (VR) headset to explore a shipwreck and undertake a range of hands-on tasks simulating underwater archaeological work. The experience extends beyond the virtual dive, as participants also conduct research in a laboratory setting and go through archives, piecing together clues to identify a wreck and uncover its hidden stories.

Figure 4. The Family Feud in the exhibition "Our Shared Sea" at Vrak - Museum of Wrecks.
Author: Lovisa Brämning. Source: Vrak - Museum of Wrecks/SMTM.



Beyond these practical tasks, "The Assignment" also includes several educational components designed to deepen people's engagement and understanding of this subject (Figure 5). Three-dimensional models, engaging educational videos, and interactive screens provide visitors with opportunities to learn about important archaeological areas, including the conservation of waterlogged wood, osteology, the classification of archaeological artifacts, and, perhaps, the use of reference collections. These elements help demystify the scientific processes behind maritime archaeology and make complex concepts accessible to a broader audience.

As a result, "The Assignment" has become a standout exhibition for both children and adults, offering an experience that encourages repeat visits to explore fully. By

offering a unique blend of immersive technology, hands-on learning, and engaging educational content, this exhibition inspires curiosity and a deeper appreciation for the fascinating world of maritime archaeology. Ultimately, "The Assignment" not only brings the excitement of underwater exploration to life but also empowers visitors of all ages to become active participants in uncovering and preserving this cultural heritage.

"The Epilogue"

The museum's last exhibition, "The Epilogue", offers an immersive experience where visitors can explore wrecks near the museum. However, this visual experience will soon be updated with new content, discoveries, and more.



Figure 5. The exhibition The Assignment at Vrak - Museum of Wrecks. Author: Anneli Karlsson. Source: Vrak - Museum of Wrecks/SMTM.



■ BEYOND THE MUSEUM

We cannot fit all the stories and shipwrecks we want to share into our museum. We have thousands of stories to share and shipwrecks to explore, but limited space to do so. Therefore, our public programs have also become essential to making our underwater cultural heritage accessible to a broader audience. Through these programs, we are able to continually enhance and update our exhibitions and the stories we share, offering new experiences—both digital and physical—and sometimes intentionally blending the two. From Live Dive, where people can follow and engage with our maritime archaeologists while they are out in the field diving on a wreck site, to animation

workshops for kids, Vrak provides people of all ages with a unique experience.

We also encourage our visitors to step outside the museum's walls and immerse themselves in the surrounding environment—whether that's in Stockholm or other locations around the Baltic Sea region. The beauty of collaborating with other museums around this region is that it highlights the collectively rich history of the entire Baltic Sea and offers a broader perspective on how these stories connect across different times and places. Ultimately, it encourages people to explore this underwater cultural heritage wherever they go. It makes people consider what exists within their community and other places they visit, leading to greater awareness of what's out there.

Figure 6. Maritime archaeologist conducting fieldwork underwater for Vrak - Museum of Wrecks.
Author: Marco Ali. Source: Vrak - Museum of Wrecks/SMTM.

However, no matter how we engage with our visitors, we aim to leave them with a renewed perspective on the Baltic Sea and what lies beneath it. To reach people, we also go beyond the museum's walls and visit various communities to connect with them where they are, especially those rarely represented in museums. Using mobile educational tools, we have begun taking Vrak on the road to places where we can introduce people of all ages and backgrounds to underwater cultural heritage, including individuals whom, for various reasons, we might not otherwise have a chance to meet. This initiative allows us to connect with communities both within Sweden and beyond. For most, it's an eye-opening experience that changes how people think about the Baltic Sea.

■ VRAK'S MARITIME ARCHAEOLOGISTS

At Vrak, our dedicated team of maritime archaeologists specializes in diving, conducts research, and engages in contract archaeology, among other things (Figure 6). Recently, their efforts have focused on developing a baseline of knowledge in the form of monitoring plans. These plans help monitor wreck sites over time and assess factors such as natural degradation and looting. This baseline approach also allows us to gather information that enhances the museum experience we offer, whether through exhibitions or public programs. This ongoing process keeps our museum constantly evolving, regularly presenting new material to engage the public.





Our maritime archaeological work allows us to quickly incorporate discoveries and new insights into our museum. Our archaeologists document shipwrecks, collecting valuable knowledge while aiming to keep the physical remains undisturbed underwater as much as possible. Much information can be obtained without excavation, although, when necessary—such as when important research questions need to be addressed—excavation may still be required³¹. However, by prioritizing minimal disturbance and using technology to tell these sites' stories, we help preserve them while creating engaging new experiences for the people we meet. This focus on technology and preservation reflects Vrak's commitment to sustainability, ensuring that this underwater cultural heritage continues to inspire and educate future generations. By using technology, we also enable more people to explore more of this underwater cultural heritage.

Our maritime archaeologists are also taking additional steps to preserve this underwater cultural heritage by engaging external organizations to assist in safeguarding it. While leaving artifacts in situ can help ensure their long-term preservation, it can sometimes also pose a threat to the environment, other living things, and the underwater cultural heritage itself. A notable example of this occurred in 2021 when a recreational diver found a mine in the Stockholm Archipelago. The mine was located at a fairly shallow depth of about 6 meters, and in relatively close proximity to the wreck of *Resande man*. Despite mines being cleared over the years, tens of thousands of mines as well as other forms of ammunition remain in our waters and other areas of the Baltic Sea, some—like this one—coming dangerously close to threatening maritime safety and the cultural heritage³². By working together with the Swedish Navy, this mine was safely neutralized in fall 2021, with Vrak's maritime archaeologists and the Coast Guard conducting a detailed inspection after the detonation, which confirmed that the controlled explosion had not damaged the wreck site³³. Collaborations like this one are vital for maintaining safety and preserving this underwater cultural heritage.

Another example of measures to preserve this underwater cultural heritage is a collaboration between

Vrak's maritime archaeologists, the Swedish Coast Guard, the Swedish Navy, and the Swedish Maritime Police to combat looting. This partnership was established to monitor shipwrecks affected by unauthorized diving and to prevent damage to and the disappearance of artifacts from these sites³⁴. To protect this underwater heritage, our maritime archaeologists have been working closely with these agencies, exchanging knowledge and resources to not only monitor but also prosecute offenders³⁵.

As a result of this work, in 2022, four divers were convicted for a serious antiquities crime involving the looting of a number of shipwrecks off the Swedish East Coast³⁶.

Alongside efforts to preserve this underwater cultural heritage, we are also continually making new discoveries and expanding it. Recently, our maritime archaeologists have increasingly focused on the 17th-century warship *Äpplet* ("The Apple"), the sister ship of the 1628 warship *Vasa*, on display at the Vasa Museum³⁷. Identified by our team in 2022, it offers a unique opportunity to explore questions about both *Äpplet* and *Vasa* that previously could not have been studied³⁸. Over the past couple of years, our maritime archaeologists have conducted fieldwork on *Äpplet* with support from Swedish Navy divers and vessels, resulting in several notable finds that we hope to explore further in the coming years and to incorporate into our exhibitions and public programs in various ways.

■ CONCLUSION

As demonstrated, our partnerships and collaborations are essential to our research, preservation, management, and public sharing of this underwater cultural heritage, highlighting Vrak's long-standing dedication to these issues and how we can accomplish more by working together. Looking ahead, we hope more people will have the opportunity to experience the underwater cultural heritage at the bottom of the Baltic Sea and explore its depth and breadth, whether here or elsewhere. Making this cultural heritage accessible to more people, whether in person or digitally, helps protect it and the collective memory that

links us across time and space. At Vrak, we are committed to ensuring that this underwater cultural heritage remains accessible and protected for future generations, whether through in-person experiences or digital means. Significant discoveries and new perspectives will continue to emerge, enriching our museum with valuable insights, and new technologies will enable us to continue preserving this remarkable underwater cultural heritage in a sustainable manner for years to come.

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