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The Ocean Decade Heritage Network: An Update from the Regional Representatives Network

by Charlotte Jarvis

In 2017 the UN General Assembly tasked UNESCO's Intergovernmental Oceanographic Commission (IOC) to develop a focused program to address the multitude of stressors on global maritime systems and sustainably manage them through research and observation. The Decade of Ocean Science for Sustainable Development (2021-2030) was the resulting initiative to promote a common framework for supporting ocean stakeholders in studying and assessing the health of the world's ocean. The intended outcomes align with the UN's Sustainable Development Goal 14: Life Below Water. These outcomes are focused on being able to "predict the consequence of change, design mitigation, and guide adaptation" and to "ensure ocean science can fully support countries in creating improved conditions for sustainable development of the ocean."

Cultural heritage was, unfortunately, almost completed omitted in the Decade's "roadmap" document, except for two brief references to stakeholders. Clearly, however, underwater cultural heritage (UCH) and interdisciplinary maritime archaeology activities fit within the goals of the Decade and overlap with the Research and Development Aims as well as the proposed research agendas and seven societal outcomes. Thus, the Ocean Decade Heritage Network (ODHN) was established in June 2019 to raise awareness in the cultural heritage community about the Decade and coordinate related activities towards the once-in-a-generation opportunity that the Decade provides. ODHN does not ask "how can cultural heritage help deliver the Decade" but "without cultural heritage, how can you deliver the Decade?"

Photogrammetric recording of a stone anchor in Pakistan. Photo courtesy of MaritimEA.

The provisional Organising Committee of the Ocean Decade Heritage Network represents various institutions that have enabled us to take part in the first Global Planning Meeting. But we feel it is important that engagement in the Decade is "owned" by the emerging Network as a whole, to be truly global and to

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Notes from the Prez – Steven Anthony

In reviewing the 2025 Introductory Course in Underwater Archaeology, I noted that we signed 23 students overall, of whom 13 successfully completed the final exam. Also, eight of those students received PADI certification in recognition of their efforts in the course. So, it was a very successful year.

Earlier in 2025, we were also pleased to announce the publication of *Citizen Science in Maritime Archaeology: Terminology, Theory, and Infrastructure* by the University Press of Florida. A great big thank you is extended to Dr. John Seidel who anchored the MAHS effort to report on its history and contributions to the field of underwater archaeology over the past 38 years. The chapter John co-authored with Steven Anthony and James Smailes is titled "Citizen Science, Training, and Returns on Investment in Marine Archaeology". We are extremely grateful to John for helping MAHS get this chapter published professionally and competently.

In August, MAHS held its summer picnic at the Sequoia Restaurant on the Inner Harbor Waterfront in Washington, D.C. It was a beautiful day and a wonderful lunch. Hopefully, we can get more folks to attend next year. MAHS is now planning its Holiday party and any recommendations are welcome.

For the first time in a long while, MAHS conducted a Pool Session this year. We not only invited the 2025 class but reached back to invite students of previous classes as well. Some of the students came from as far away as New York and New Jersey for this event. We registered students for the new session which was conducted at the brand-new pool facility located at the Minnie Howard campus of Alexandria High Schol. It was a beautiful pool, but they had lots of rules and regulations! Everyone survived the bureaucracy and from all the feedback we received, the Pool Session was a big hit with our students. See the article and photos in this issue.

In September, the Board of Directors voted unanimously to recognize the long-standing service of Larry Murphy on our Board of Advisors. Unfortunately, Larry lives in Florida so we could not honor his service personally. Nevertheless, a 37th Anniversary Award was sent to him along with a thank you letter from MAHS.

I also note that Jim Smailes will be attending the SHA conference in Detroit in January 2026. Hopefully, he will return with some new speakers for our General Membership meetings and some ideas for *MAHSNews* articles for 2026.

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MAHSNEWS is the official publication of the Maritime Archaeological and Historical Society (MAHS), a non-profit educational organization dedicated to preserving our global maritime heritage.

MAHSNEWS will consider articles and notices for publication which enhance public awareness and appreciation of maritime history, archaeology, and heritage preservation.

make space for voices and perspectives that may not be as well represented by existing institutions. We anticipate that marine archaeologists, cultural heritage specialists, universities, NGOs, and national authorities will want to play a big role in the Decade, but there are also other active sectors – including local authorities and professional archaeological services – that should be encouraged to bring their expertise to the table, too. Connections also need to be made between maritime archaeologists and researchers in associated disciplines that address cultural heritage – including intangible heritage – in the marine sphere. The Network, now more than 500 strong, is open to all and welcomes your input and information.

ODHN's current board is co-chaired by Athena Trakadas and Arturo Rey da Silva, and has six other members: Rose Boswell, Dolores Elkin, Jun Kimura, Isabel Rivera-Collazo, Della Scott-Ireton, and Andrew Viduka. There is also a Secretariat made-up of the co-chairs; Georgia Holly, the project manager for the Cultural Heritage Framework Programme; Charlotte Jarvis, the Early Career Ocean Professional; and Kiki Kuijjer, the Digital Engagement Manager. ODHN is an accredited member of the UNESCO 2001 Convention on the Protection of Underwater Cultural Heritage's NGO and UNITWIN Network for Underwater Archaeology with funding from the Honor Frost Foundation and Lloyd's Register Foundation. ODHN also coordinates a targeted global response through chairing the Decade Action Cultural Heritage Framework Programme, currently the only Programme addressing cultural heritage.

Regional Representatives

ODHN also has a Regional Representatives (RR) Network to better engage and stay connected with work across the globe. Our regions are divided using a maritime approach, rather than land based. This focus on the ocean helps foster maritime connections and links. Our current RRs include:

- West Africa: Moussa Wele
- Western Indian Ocean/East Africa: Jentrix Chochy Sakwa
- Eastern Indian Ocean/South Asia: Amer Bazl Kahn
- Caribbean: Mariela Declet-Perez
- The Azores: Ana Vitoria de Magalhaes
- South America: Dolores Elkin
- North America: Aimie Néron and Marijo Gauthler-Bérubé
- Eastern Mediterranean: Vera Noon

Our RRs periodically meet with the ODHN Board and each other to update progress on their work and projects in the region. This helps Board members and RRs keep up to date with the huge scope of projects going on worldwide, connect potential advisors, and keep our network engaged. Below are a few examples from the RRs of work in the region and introductions for themselves.

Featured Stories

Underwater Cultural Heritage in Latin America

Latin America, the vast region stretching from Mexico to Argentina where Spanish, Portuguese, French, Dutch and English dominate, shows a noticeable increase in activities directed at UCH. Many states have ratified the UNESCO 2001 Convention, which indicates a desire and a commitment to approaching such heritage following internationally accepted professional and ethical standards.

The cases with greatest development in the discipline, however, are not necessarily State Parties to the Convention. Mexico and Argentina are, both with governmental units, devoted to research and management of UCH which have been operational for four and three decades, respectively. In the case of Mexico, it is worth noting, a biocultural approach is employed to many UCH sites, strongly taking into account the surrounding natural environment specially for their management.

Brazil, Chile and Uruguay, despite not yet being signatories to the Convention, have also grown significantly in the specialty of maritime archaeology. Brazil deserves particular mention since they have begun to address the issue of potentially polluting wrecks, crucial in terms of contributing to the Decade societal outcome of a Clean Ocean. Other Latin American states located in Central and South America, as well as in the Caribbean, are certainly developing their training and expertise in UCH and it is reasonable to expect positive and meaningful outcomes in the near future.

Dr. Delores Elkin, left, working in the intertidal zone with Dr. Martin Vazquez in Tierra del Fuego, Argentina. Photo by C. Underwood.

The RR for the Latin American region, Dolores Elkin, is an Argentinean archaeologist and Principal Researcher with the country´s National Research Council (CONICET). In 1996 she created the first Underwater Archaeology Program in the country, based at the National Institute of Anthropology (Ministry of Culture). Throughout all these years Dolores has been in charge of several research projects, most of them involving shipwrecks from the 18th, 19th and 20th centuries. She is Professor of the Seminar on Maritime and Coastal Archaeology at the University of Buenos Aires, and she has also trained people from many Latin American countries in the frame of UNESCO.

Western Indian Ocean/East Africa

In the Western Indian Ocean and East Africa, UCH reflects centuries of maritime trade, migration, and cultural encounters that positioned the region as a vital hub of the Indian Ocean world. Shipwrecks, submerged settlements, and anchorage sites across Kenya, Tanzania, Mozambique, Madagascar, and Mauritius stand as enduring testimonies of this history. Much like elsewhere, the exploration of these sites has been driven both by professional archaeological surveys and by community-based initiatives, yet the lack of comprehensive regional frameworks has often left heritage resources vulnerable to neglect, looting, and environmental pressures. Additionally, the countries in this region have not yet ratified the 2001 UNESCO Convention, making it difficult for them to have supporting international policies for protection of UCH.

In Kenya, the Ngomeni shipwreck has been the focus of survey work, exhibitions, and local engagement, while Tanzania has advanced heritage management in Stone Town with UNESCO support. Mozambique has gone further by establishing a Centre of Excellence in Underwater Cultural Heritage on Ilha de Moçambique, linked to international collaborations such as the Slave Wrecks Project. Madagascar has fostered community documentation of submerged heritage in places like Salary Bay and Sainte-Marie, while Mauritius has invested in the mapping of the Saint-Géran wreck and in national training programs. However, in countries such as Seychelles, Comoros, and Somalia, projects remain limited, leaving many resources unrecorded and at risk.

Jentrix Chochy. Photo by Samira Jamu and Moussa.

The region now faces both challenges and opportunities. Threats from climate change, coastal development, and insufficient regulatory frameworks continue to imperil UCH, echoing the broader vulnerability of marine ecosystems. Additionally, there is a gap in stakeholder involvement in the Maritime and Underwater Cultural Heritage (MUCH) field, especially in Africa. Hence, the start of a new collaborative project run by Moussa Wele and Jentrix Chochy: "Integrating Cultural Heritage into Marine Spatial Planning in Africa Atlantic and Indian Ocean." Upcoming milestones such as Kenya's hosting of the 2026 Our Ocean Conference offer an unprecedented platform to showcase heritage as central to the blue economy, climate resilience, and community stewardship. Building on local knowledge systems, youth engagement, and regional cooperation, the Western Indian Ocean can position MUCH not simply as a heritage of the past, but as an active contributor to sustainable futures.

Our RR in this region is Jentrix Chochy, a professional anthropologist specializing in maritime archaeology, with extensive experience in coastal cultural heritage conservation. She is currently pursuing a master's degree at Nelson Mandela University in South Africa. Her expertise spans both tangible cultural heritage (TCH) and intangible cultural heritage (ICH) among coastal communities along the Indian Ocean, particularly in East Africa. In TCH, Jentrix is skilled in underwater archaeology and scientific diving. Additionally, her work encompasses museological approaches to marine exhibitions and archival research. In ICH, her research focuses on traditional knowledge systems within coastal communities, with an emphasis on the significance of commonplace heritage. She actively advocates for the recognition and incorporation of these practices into global ocean management, offering valuable insights for international organizations.

Currently, Jentrix is developing strategies to engage stakeholders within her region and Africa more broadly in raising awareness of maritime cultural heritage. Her work highlights both tangible and intangible elements of heritage and explores how they can be integrated into formal heritage management systems. Additionally, for next year, she intends to use the Ocean Conference 2026,

in Mombasa, Kenya, as an avenue for networking and creating visibility for the Ocean Decade and ODHN.

North America, Canada

In 1964, Parks Canada formed the first professional underwater archaeology team at the federal level. These researchers were the first to conduct excavations on various shipwrecks and submerged remains of historical and national significance. Around the same time, recreational divers and treasure hunters also began exploring various sites, but their activities often had a negative impact, contributing to the degradation of these non-renewable heritage resources.

Today, these sites remain threatened and vulnerable in their environments, much like many marine natural resources. The lack of proper regulations, underscored by Canada's non-signature of the 2001 Convention, contributes to the ongoing undervaluation of Canadian UCH.

Over the following decades, a few organizations emerged in different provinces, mostly amateur or volunteer-based, but the field remains professionally underdeveloped. In Quebec, aside from some projects in the 1980s, it is only in the past two decades that other archaeologists have specialized in this area of research. It was in this context that the Institut de Recherche en Histoire Maritime et Archéologie Subaquatique (Maritime History and Underwater Archaeology Research Institute (IRHMAS)) was finally established in 2016, also a member of the Canadian Association for Underwater Science (CAUS).

An anchor at Pointe-des-Cascades, filmed for a public segment for children online, Vaudreuil-Soulanges, Québec, Canada. Photo courtesy of IRHMAS.

Our RRs in this region are Marijo Gauthier-Bérubé, PhD, maritime and underwater archaeologist, and Aimie Néron, MSc, underwater archaeologist and commercial diver. They are both members and co-founders of IRHMAS. Although there is a growing interest, no official academic training in underwater archaeology currently exists in Canada. Marijo and Aimie are helping to advance the field through preventive archaeology interventions and the implementation of multidisciplinary, grant-funded projects focused on knowledge-sharing. They co-create partnerships with various universities, museums, and several institutions, give scientific and public lectures, and support the training of emerging students. They also actively raise awareness among the diving community, and they bring forward the implications of climate change for the conservation of UCH, all while innovating through multidisciplinary projects, the use of new technologies, and the creation of new digital products.

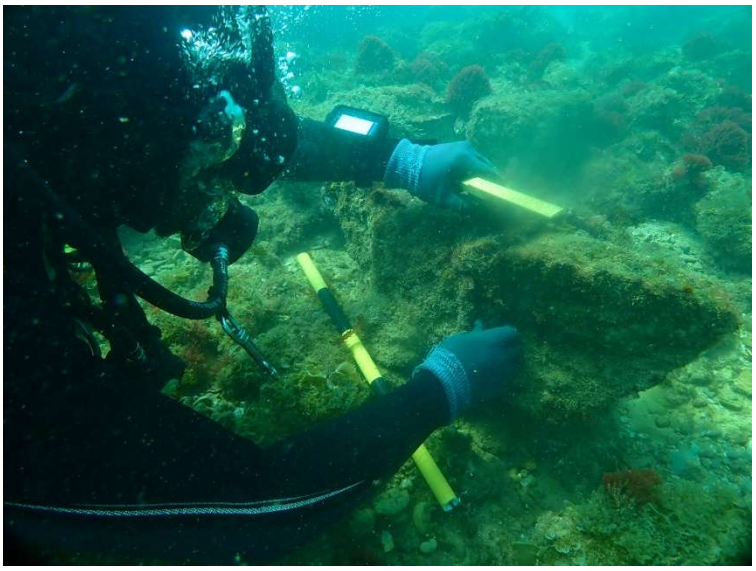
Since 2016, they have made significant discoveries including the excavation of a shipwreck in the Richelieu River and a dugout canoe in Lake Papineau. They also led the recovery and re-immersion of a barge, a first in Quebec in terms of underwater conservation. IRHMAS also innovates thought public outreach. They created a scientific art exhibition on the theme of underwater archaeology – also a first in Canada – and used virtual reality to document and enhance the shipwreck *Scotsman* in Bic National Park. Their expertise is also applied to major infrastructure projects, conducting several archaeological potential studies and inventories for development such as the new Île d'Orléans Bridge, the expansion of the Port of Montreal's Contrecœur Terminal, and the installation of a submarine hydroelectric cable.

Eastern Mediterranean

The RR here, Vera Noon, is a Lebanese multidisciplinary expert, with a background in Architecture, Marine Spatial Planning (MSP), and Sustainable Blue Economy (SBE). She is self-employed at ArchiMare Consulting and works with various international organizations and foundations. She collaborates closely with the Honor Frost Foundation (HFF), and she is a member of the Underwater Cultural Heritage Steering Committee. She designs and delivers various training on MSP, SBE, Ocean Literacy, and Sustainable Development Goals (SDGs), and has been a guest lecturer at the American University of Beirut since 2020. With funding from the HFF, she is pursuing a PhD at the University of Edinburgh addressing the intersection of Ocean Literacy and Marine Cultural Heritage with a focus on the East Mediterranean context.

Eastern Indian Ocean/South Asia

Our RR in this region is Amer Bazl Khan, a maritime archaeologist based in Pakistan with two decades of experience across the Asia-Pacific. He is an expert member of the International Committee on the Underwater Cultural Heritage (ICUCH–ICOMOS) and a member of ICOMOS Pakistan.



Recording a stone mooring near Bhit Khori in Pakistan. Photo courtesy of MaritimEA.

MaritimEA, directed by Amer, is a grant-funded research organization specializing in cultural heritage management, maritime archaeology, intangible cultural heritage, ecological surveys, marine protected areas, and community engagement. Central to its mission is collaboration with coastal fishing communities, ensuring inclusive approaches that link heritage, environment, and livelihoods to promote sustainable social and economic outcomes.

Among its flagship initiatives is the Digital Heritage Trails Project (DHTP), which digitally preserves endangered archaeological sites in Sindh's Indus Delta – including Banbhore, Ratukot, Jam Jaskar Goth, Ranokot, and Lahiri Bandar – using high-resolution 3D documentation. By creating immersive digital heritage trails, the project connects global audiences to remote and vulnerable cultural sites. Another major undertaking, the Pakistan Shipwreck Archive Project (PSAP), is being delivered in partnership with the Nautical Archaeology Society UK and supported by Lloyd's Register Foundation and seeks to compile the first comprehensive database of historic shipwrecks in Pakistani waters by cross-referencing international archives with regional records.

If you are interested in becoming an ODHN Regional Representative, please reach out!

We are especially interested in more RRs from Southeast Asia, South America, and the Pacific generally. Find us at info@oceandecadeheritage.org.

For further information, please consult the following:

Ocean Decade website at https://oceandecade.org.

Ocean Decade Heritage Network at https://www.oceandecadeheritage.org/

Cultural Heritage Framework Programme https://oceandecadechfp.org/

UN Dept. of Economic and Social Affairs at https://sdgs.un.org/goal14

UN Revised Roadmap for Sustainable Development at https://unesdoc.unesco.org/ark:/48223/pf0000265141

Charlotte Jarvis is a researcher based at the National Maritime Museum, Netherlands. She holds degrees in maritime archaeology and history and specializes in bringing archaeological research into the museum's exhibitions. She is also part of the Secretariat for the Ocean Decade Heritage Network. ⚓

Cat Island Shipwreck, St. Bernard Parish, Louisiana

by Robert Westrick

The northern coast of the Gulf of Mexico has a long history of maritime activity. The Spanish were active in Louisiana waters by the early sixteenth century. In 1519, the Governor of Jamaica, Francisco Garay, sent Alonzo Alvarez de Piñeda to explore the northern coast. The governor hoped he might discover the Strait of Anian, a mythical waterway that supposedly could be followed to reach the Orient. During his voyage, Piñeda charted much if the coastline from the tip of La Florida to the general area near the present-day city of Tampico, Mexico.

Alvar Nuñez Cabeza de Vaca's account of the ill-fated expedition led by Pánfilo de Narvarez is one of the earliest recorded accounts of Spanish explorers in the region. After exploring the interior of Florida, the expedition tried to sail across the Gulf in four sailing barges, which they constructed from local resources. All four vessels were lost, most likely along the coast of Texas. Although Navárez's party originally numbered 400, only Cabeza de Vaca and three other survivors reached Mexico.

Cat Island is a barrier island in Gulf of Mexico, south of the modern city of Gulfport, Mississippi. It was called *Isle-aux-Chats* by the early French explorers who mistook the island's raccoons for cats. The island saw action during the War of 1812 when a lighthouse keeper, Juan de Cuevas, delayed the British forces from attacking New Orleans, thus giving General Andrew Jackson time to organize his American Army, Choctaw Indians, and pirate allies. According to legend, de

Approximate location of Cat Island. All images courtesy of Coastal Environments, Inc.

Cuevas awoke on the morning of December 10, 1814, only to find a fleet of thirty British Royal Navy warships and thirty transports under the command of Admiral Sir Alexander Cochrane anchored between Ship Island and Cat Island. The transports were carrying 10,000 British soldiers.

Later that day, the British commander sent out a foraging party to procure food and provisions. In addition to serving as the lighthouse keeper, De Cuevas also tended to a large herd of cattle on the island. When three of the British soldiers and a Chinese cook attempted to confiscate some of the cows, de Cuevas fired several shots at the party, killing two men. The soldiers returned fire wounding him in the leg. De Cuevas was captured and taken aboard on the warships anchored off Ship Island and held prisoner. The British urged him to show them the best route through the bayous and marshes to New Orleans, but Cuevas refused. His lack of cooperation delayed the British invasion. For his actions, de Cuevas became known as the "Hero of Cat Island."

On January 8, 1815, soldiers under the command of Andrew Jackson – accompanied by frontier militiamen from Kentucky and Tennessee, local Louisiana Creoles, Choctaw Indians, and a band of pirates commanded by Jean Lafitte – fought the British at the Battle of New Orleans. Ironically, the Battle of New Orleans was fought after the War of 1812 was already over. The Treaty of Ghent that officially ended hostilities was signed on Belgium on Christmas Eve, 1814. News of the peace treaty, however, did not reach New Orleans until the following February. Andrew Jackson became a national hero, entered politics and due in large part to the popularity he had attained after his victory at New Orlean, was elected to serve as the seventh President of the United States in 1828.

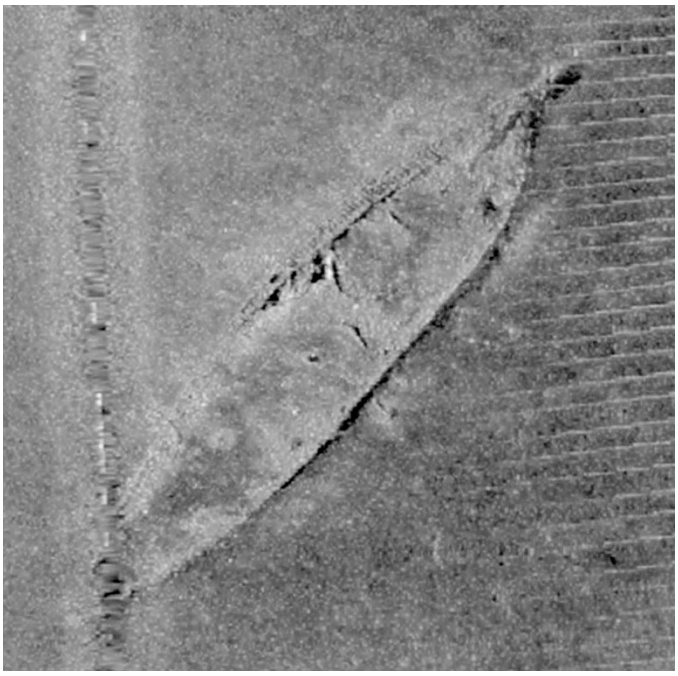
In addition to events related to the War of 1812, the island undoubtedly served as a haunt for pirates and smugglers during the early 19th century. During World War II, the island served as the base for the Cat Island War Dog Reception and Training Center, where American citizens could send their pet dogs to be trained by the U.S. Army Signal corps for military use.

During the summer of 2023, two business partners from Pass Christian, Mississippi, were out cruising in their boat and fishing the waters near the Cat Island Channel when they noticed an unusual "bump" on their depth finder. Curious, they recorded the coordinates and returned to the site with a relatively inexpensive rented side-scan sonar unit. Their suspicions were confirmed; they had stumbled upon an old shipwreck.

Given Cat Island's long history, could the mystery shipwreck have historical significance?

The fishermen soon contacted an attorney friend and together they formed Silver King Exploration LLC (Silver King) and filed an admiralty claim on the wreck. The U.S. District Court for the Eastern District of Louisiana appointed Silver King to serve as the substitute custodian of the Shipwrecked Vessel in part "to safely keep, and to allow no one to remove, molest, or in any manner interfere with the same." *Silver King Exploration, LLC v. Unidentified Shipwrecked Vessel, Her Tackle, Armament, Apparel, Appurtenances, and Cargo*, Case No. 2:23-cv-05513-WBV-JVM (E.D. La.). The attorney realized the wreck might lie inside Louisiana state waters and so, to avoid any potential legal consequences, notified the Louisiana Division of Archaeology of their discovery. State archaeologist and director Dr. Charles "Chip" McGimsey confirmed the coordinates the group provided did indeed place the wreck within St. Bernard Parish, Louisiana.

Dr. McGimsey completed a site form on November 20, 2023, and the site was formally assigned a site



Side-scan sonar image of the Cat Island shipwreck.

number (16SB173). McGimsey informed the group that if they wanted to explore the wreck further, they would need to hire a professional marine archaeologist to conduct a non-intrusive remote sensing survey to properly record the wreck and ascertain the existence and extent of any associated debris field.

Silver King subsequently contracted Coastal Environments, Inc. (CEI) of Baton Rouge, Louisiana to provide marine archaeological services and perform a Phase I marine cultural resources survey related to the shipwreck. CEI applied for a Non-Intrusive Cultural Resources Investigation Permit from the Louisiana Office of Cultural Development's Division of Archaeology to collect additional remote sensing data to better understand the shipwreck site, its overall condition, any diagnostic features, and potential archaeological and historical significance. The Division of Archaeology issued a permit to CEI and Silver King on June 27, 2024.

CEI drafted a Research Design Plan that outlined survey methodology designed to meet the Louisiana Standards requirements for marine archaeological resource surveys. Survey data acquisition included high-frequency side-scan sonar (SSS), magnetometer (MAG), sub-bottom profiler (SBP) and bathymetry. Upon completion of fieldwork, CEI prepared an archaeological assessment report that addressed the results of the fieldwork and efforts to identify any cultural resources within the Area of Potential Effect (APE) which are potentially eligible for inclusion on the National Register of Historic Places (NRHP). The completed draft report was designed to meet the Louisiana Division of Archaeology Report Standards for Cultural Resource Investigations (2018 revisions). The draft report was then submitted to Silver King Exploration and the Louisiana Division of Archaeology.

Artifact assemblage recovered from the wreck site, including Muntz metal sheathing and fasteners. Scale in centimeters.

Geophysical operations were conducted by a CEI survey crew aboard the M/V *Lucy G*., a 30-foot aluminum survey vessel on July 25, 2024. The CEI team included senior marine archaeologist Robert Westrick, marine project archaeologist Walter Hano, and senior scientist and vice president of operations Mark H. Gagliano. Sea conditions during data acquisition ranged from flat calm to a light chop with 3 knot winds blowing from the south-southeast. Geophysical instruments utilized for the survey included an Edgetech 4125 Side Scan Sonar (400 to 900 kHz), an Innomar SES-2000 Medium Sub-Bottom Profiler, a Geometrics 882 Cesium Vapor Marine Magnetometer, and a Bathylogger BL200 single-beam echosounder. Survey vessel positioning was accomplished using HyPack Navigation and Acquisition software.

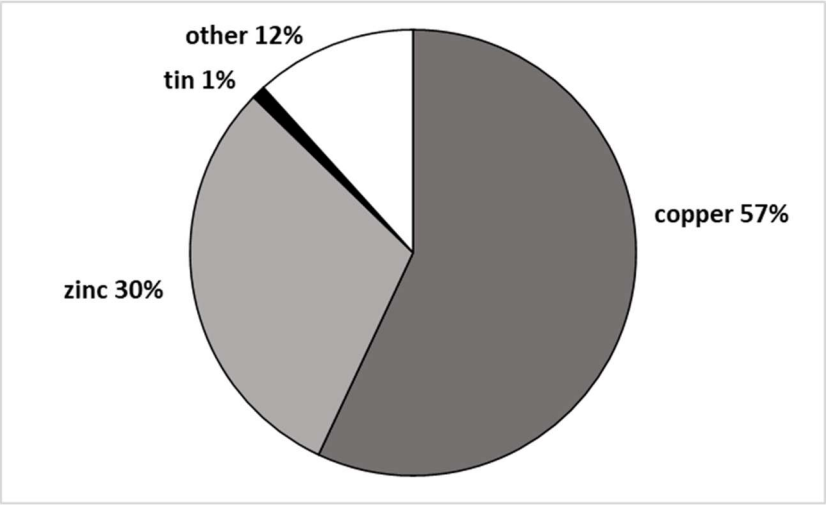
Magnetometer Survey Results

The magnetometer detected eight unidentified magnetic anomalies that could not be correlated to any known features within the project area. The unidentified magnetic anomalies displayed amplitudes ranging from 117.29 to 522.55 gammas, and durations ranging between 4.99 feet (1.52 meters) and 66.31 feet (20.21 meters).

Side Scan Sonar Survey Results

The side-scan sonar revealed a shipwreck measuring approximately 136 feet (41.6 meters) in length with a 39.45-foot (12.05-meter) beam. The vessel appeared largely intact with a substantial amount of lower hull structure presumably preserved below the sediment. The lack of any significant debris field, as observed in the geophysical data indicated the vessel either stranded, swamped, capsized, or sank intact as opposed to breaking apart before sinking. Ten individual sonar contacts were recorded within hull structure, each denoting a separate feature within the overall site.

Given its apparent length and beam, the vessel was likely ship rigged, or perhaps less likely, a sizeable schooner. The magnetometer data appeared to be associated with small machinery, possibly ground tackle or sail handling equipment. It could also, but perhaps less likely, be associated with cargo.



Metal composition of artifacts based on XRF analysis consistent with Muntz metal, a copper-zinc alloy used in the mid-19th century.

Prior to CEI's involvement, Silver King had recovered several artifacts from the site to file their Admiralty arrest (legal action to secure the claim against a shipwreck). Silver King delivered the artifacts to CEI's Baton Rouge office on July 11, 2024. The artifact assemblage included five ship spikes, four sections of hull sheathing, two drift pins, one through bolt, one metallic strip with two small nails (or tacks) and one iron concretion (shown on the previous page).

CEI sent a representative sampling of three sheathing pieces, one ship spike and one drift pin to the Archaeology Institute at the University of West Florida for X-Ray Fluorescence (XRF) spectroscopy testing. XRF is a non-destructive analytical technique used to determine the elemental composition of solid and liquid materials. The sample is irradiated by an intense primary x-ray beam, which causes the emission of fluorescent (or secondary) x-rays. The emitted x-rays can then either be detected and measured using energy dispersive or wavelength dispersive detectors.

The XRF testing confirmed what was expected. All the artifacts analyzed from Site 16SB173 were made of similar copper alloys, the average of which was 56.97% copper and 30.32% zinc, with 1.00% tin and other trace elements. They appear to be consistent with Muntz metal, a copper-zinc alloy first patented by George F. Muntz in 1832. It can be assumed that the other artifacts recovered by Silver King (except for the single iron concretion) are comprised of similar copper alloy materials.

The Muntz metal provides important chronological information, indicating 1832 as the earliest possible date for the shipwreck. However, it can be assumed that the wreck most likely occurred a few years later. Muntz metal began to replace copper sheathing on ship's hulls after 1850 and had nearly replaced copper entirely by the 1860s. There remains a possibility that the wreck may be slightly earlier since metal hull sheathing needed to be replaced every 20 years of so. A wooden sailing ship with a 60-year career may have had its sheathing replaced multiple times over the course of its lifespan. This could lead to a vessel having sheathing that was several decades newer that the vessel itself. However, since the XRF testing of the drift pins and ship's spikes yielded similar results, this seems unlikely. Such drift pins would have been used in the vessel's initial construction to attach key wooden structural components, although a rebuild at some point remains another possibility.

In conclusion, the remote sensing data indicates the wreckage represents a remarkably intact sailing vessel, with a sizable portion perhaps preserved beneath the seafloor. Given the length and beam, the vessel was likely ship rigged, or possibly a large schooner. The analysis of the recovered artifacts supports these initial conclusions and indicates the wreck represents a mid-to-late 19th-century vessel. The archaeologists from CEI recommended that further study is needed to verify the conclusions of the survey, to better understand the site formation processes related to the wreck, and if possible, to identify the vessel.

For further reading the author recommends:

Ships' Fastenings: From Sewn Boat to Steamship, by Michael McCarthy. College Station: Texas: Texas A&M University Press, 2023.

The Archaeologist's Manual for Conservation: A Guide to Non-Toxic, Minimal Intervention Artifact Stabilization, by Bradley A. Rodgers. New York: Kluwer Academic/Plenum Publishers, 2004.

A History of Waterborne Commerce and Transportation within the U.S. Army Corps of Engineers New Orleans District and an Inventory of Known Underwater Cultural Resources, by Charles E. Pearson, George J. Castile, Donald Davis, Thomas E. Redard, and Allen R. Saltus. U.S. Army Corps of Engineers, New Orleans District. New Orleans, Louisiana, 1989.

Robert Westrick is Director of Marine Archaeology with Coastal Environments, Inc. of Baton Rouge, Louisiana. He earned his MA degree in Maritime History & Nautical Archaeology from East Carolina University and has worked on shipwreck projects around the world over the past 28 years. Mr. Westrick has published several books and numerous articles. He has also been the primary author on more than 400 archaeological reports submitted to various institutions and state and Federal government agencies. ⚓

A Brief Report on U.S. Legislation and NGO Programs Pertaining to Ocean Management

compiled by Anne Giesecke

Dr. Anne Giesecke, an archaeologist, sport diver and ocean advocate, has worked with sport divers and the cultural resource community to monitor and to influence state and federal legislation that impacts ocean resources.

Those of you who have been reading these reports over the past years will notice a change in emphasis. Reports up to now have listed House and Senate laws and bills for many pages. The scarcity of action by the US Congress has meant that more NOAA and United Nations actions have been noted. The report does not generally include Resolutions, Authorizations or Appropriations. This material is taken from the web site www.congress.gov.

Participation in the regulatory and legislative process is critical for the success of democracy. Look for opportunities to participate in government decision making. Write to your Representatives and Senators about bills and apply for NOAA Advisory Council positions.

This is a follow-up to the report on the 118th Congress presented in an article in *MAHSNEWS* in the Fall of 2024. Thus far in the 119th Congress, which began January 3, 2025, 44 bills have been introduced that deal with water related subjects. They will be discussed in the Spring 2025 issue of the newsletter.

Legislative Report, 118th Congress (2023 -2024) Second Session

During the 118th Congress more than 732 bills were introduced in the House of Representatives (H.R.) and the Senate (S.), that dealt with ocean management.

The Bills addressed the following topics:

Acidification
Antidumping, plastic waste
Arctic drilling
Blue Energy
Bycatch
Chesapeake Bay
Climate impacts on regional coastal and ocean communities
Endangered species
Energy production and pipeline safety
Fisherman, fisheries, salmon, sharks, finfish, red snapper
Great Lakes mapping
Marine mammals
North Pacific Ocean protection
Renewable Fuel for Ocean-going vessels
Southern California Coast protection
Trawling
West Coast protection

Four bills became law and are detailed below. The implementation of these laws may be in question under the current administration.

FISHES Act
H.R.5103 01/04/2025 Became Public Law No: 118-229
Fishery Improvement to Streamline untimely regulatory Hurdles post Emergency Situation Act
This bill establishes procedures for the review of spend plans submitted to the National Oceanic and Atmospheric Administration (NOAA) by requesters seeking fishery resource disaster assistance funding. The bill requires NOAA to review a spend plan within 10 days of its submission and determine whether it is complete. If such spend plan is not complete, NOAA must provide the requester (i.e., prospective grantee) with a detailed description of the information that is necessary for the spend plan to be determined complete. Further, NOAA must notify a requester when the spend plan has been determined to be complete. Under current law, fishery resource disaster assistance funds must be disbursed to approved grantees within 90 days after NOAA has received a completed spend plan. The bill provides that the Office of Management and Budget (OMB) may review a completed spend plan concurrently with NOAA, provided OMB's review does not delay the 90-day timeline for providing funds to the grantee.

Coastal Habitat Conservation Act of 2023

H.R.2950 12/11/2024 Became Public Law No: 118-138
This act provides statutory authority for the Coastal Program of the U.S. Fish and Wildlife Service (FWS). Under the voluntary program, the FWS works with partners to provide technical and financial assistance for habitat restoration projects, habitat protection projects, and related activities in priority coastal areas. The act also directs the FWS to submit to congressional committees an annual report on the program. The FWS must also make the report available to the public on its website.

America's Conservation Enhancement Reauthorization Act of 2024

S. 3791 12/23/2024 Became Public Law No: 118-198
This bill reauthorizes through FY2030 and modifies

several wildlife and conservation programs, including the Chronic Wasting Disease Task Force, the management of invasive species under the Fish and Wildlife Coordination Act, the North American Wetlands Conservation Act, the National Fish and Wildlife Foundation Establishment Act, the Chesapeake Bay Program, the Chesapeake Bay Initiative Act of 1998, and fish habitat conservation projects under the America's Conservation Enhancement Act. In addition, the bill modifies the America's Conservation Enhancement Act, including to provide statutory authority for FWS to carry out a black vulture livestock protection program that allows one public entity per state to hold a statewide depredation permit to protect commercial agriculture livestock from black vulture predation. It also authorizes appropriations for the FWS to complete the National Fish Habitat Assessment and the associated database. Finally, the bill extends through FY2030 a prohibition on the Environmental Protection Agency taking any action to regulate the lead content of sport fishing equipment or components under the Toxic Substances Control Act.

Thomas R. Carper Water Resources Development Act of 2024

S.4367 01/04/2025 Became Public Law No: 118-272 This bill authorizes, deauthorizes, and modifies various water resources feasibility studies and projects of the U.S. Army Corps of Engineers, such as studies or projects to

- make certain waterways more navigable,
- support water supply and storage projects,
- reduce flood and storm damage,
- restore aquatic ecosystems and conserve fish and wildlife,
- maintain ports and harbors,
- manage recreational sites and facilities,
- rehabilitate dams,
- construct water and wastewater infrastructure, and
- support other water resources infrastructure.

National Oceanic and Atmospheric Administration - Marine Sanctuaries

Note that comments and involvement from the dive industry and divers are critical to the success of these protected areas. Consider applying to Advisory Councils and commenting on published documents.

"The Office of National Marine Sanctuaries serves as the trustee for a network of underwater parks encompassing more than 620,000 square miles of marine and Great Lakes waters from Washington state to the Florida Keys, and from Lake Huron to American Samoa. The network includes a system of 16 national marine sanctuaries and Papahānaumokuākea and Rose Atoll (American Samoa) marine national monuments."

Hudson Canyon National Marine Sanctuary - Proposed

"Hudson Canyon is the largest submarine canyon along the U.S. Atlantic coast and is one of the largest in the world. Beginning approximately 100 miles southeast of New York City, the canyon extends about 350 miles seaward, reaches depths of 2 to 2.5 miles, and is up to 7.5 miles wide. Hudson Canyon's grand scale and diverse structure – steep slopes, firm outcrops, diverse sediments, flux of nutrients, and areas of upwelling – make it an ecological hotspot for a vast array of marine wildlife." NOAA will release Draft Designation Documents and Provide for Public Comment Period; Target: 2025. NOAA solicits public review and comment on the draft designation documents.

Lake Erie Quadrangle National Marine Sanctuary

"The proposed Lake Erie Quadrangle National Marine Sanctuary would encompass approximately 740 square miles of Pennsylvania's Lake Erie waters, from the shoreline to the Canadian border. The approximately 75 miles of proposed sanctuary shoreline along Erie County contain six townships, two boroughs, and the city of Erie. The nomination proposes to exclude the Port of Erie from the sanctuary boundaries to ensure compatible use with shipping and other commercial activities." NOAA will release Draft Designation Documents and provide for Public Comment Period; Target: 2026.

Pacific Remote Islands National Marine Sanctuary - Proposed

"The proposed national marine sanctuary would include the marine areas within the existing **Pacific Remote Islands Marine National Monument**, as well as those currently unprotected submerged lands and waters to the full extent of the U.S. Exclusive Economic Zone, an area totaling about 770,000 square miles. The Pacific Remote Islands encompass Baker, Howland, and Jarvis Islands; Johnston, Wake, and Palmyra Atolls; and Kingman Reef. The proposed sanctuary would not include upland areas." NOAA will release Draft Designation Documents and Provide for Public Comment Period, Target: 2025.

United Nations

High Seas Treaty

The material on the following page is summarized from press.un.org/en/2024.

General Assembly 79th Session, 52nd Meeting 12 December 2024

The Assembly adopted a resolution titled "Oceans and the law of the sea" by a recorded vote of 152 in favor to one against (Türkiye), with two abstentions (Colombia, El Salvador), the Assembly reaffirmed the unified character of the 1982 United Nations Convention on the Law of the Sea and the vital importance of preserving its integrity.

The Assembly also adopted, without a vote, a resolution titled "Sustainable fisheries, including through the 1995 Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks, and related instruments." Introducing the text, Norway's representative said that achieving sustainable fisheries, combatting illegal and unregulated fishing and ensuring safety at sea are "all necessary means to meet the sustainable goals."

The Assembly also adopted, without a vote, a resolution titled "World Lake Day," through which it decided to designate 27 August as World Lake Day. The text, introduced by the representative of Indonesia, also saw the Assembly invite stakeholders such as Member States, civil society, the private sector and academia to observe the Day through activities aimed at educating and raising awareness regarding the importance of lakes.

State of the Ocean Report 2024: Up-to-date knowledge for ocean action

The material is summarized from ioc.unesco.org.

The Intergovernmental Oceanographic Commission of UNESCO launched the State of the Ocean Report 2024 publication (StOR) in Iceland on 3 June 2024. It is a truly global effort made possible thanks to the contributions by 98 experts from 25 countries, the reviews by 45 specialists and the international Advisory Board. The Report aims to support the identification of policy and management priorities and focus areas for research. Its findings should stimulate research and policy actions contributing to the 2030 Agenda, the Climate Change and Biodiversity conventions, and the Sendai Framework for Disaster Risk Reduction.

Dr. Giesecke has served as an archaeologist and environmental consultant with the Department of Interior and environmental specialist with EPA. An archaeologist since the 1960s and a diver since the 1970s, she is a member of the Women Divers Hall of Fame and has served on the boards of the Advisory Council on Underwater Archaeology and the Society for Historical Archaeology. Anne is known for drafting the Abandoned Shipwreck Act of 1987 and guiding it through the legislative process. ⚓

Passges

by James Smailes

Two long-time friends of MAHS, Susan Lanlgey and Paul Johnston, are transitioning out of their current professional roles and passing on to new endeavors.

Susan Langley

After 31 years of service, Susan Langley, PhD., has retired as Maryland's Underwater Archaeologist and has returned home to Canada. She leaves behind a rich history of underwater exploration, program development, public outreach, and preservation.

Susan's impressive career in Canada, Thailand, and other exotic locations had made her a leader in maritime archaeology before coming to Maryland. Since then, she has guided some of Maryland's most ambitious underwater surveys and shaped national preservation policy.

She oversaw the archaeological survey of the World War II-era German submarine U-1105, one of the first vessels to use a covering of neoprene rubber as stealth technology. A cooperative agreement between the US Navy and the State of Maryland in 1995 enabled the U-1105 to be designated as Maryland's first underwater shipwreck preserve.

Susan Langley between dives on the Chesapeake Bay. Photo courtesy of Maryland Historical Trust.

With Susan's support in 1997 and 1998, MAHS received grant funding from the Maryland Historical Trust enabling MAHS to record our Introductory Course

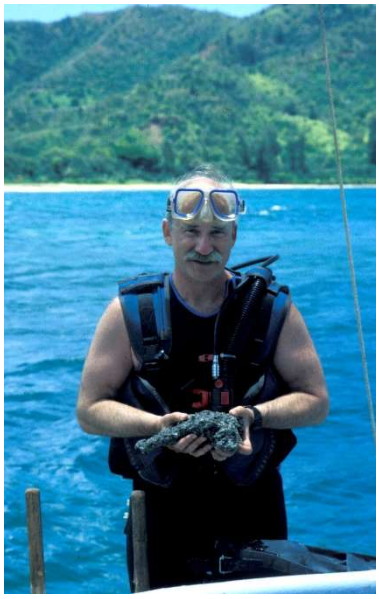
on Underwater Archaeology, first onto video tape and then DVDs. These will soon be replaced by an online version of the course. Susan will continue to participate in the Law and Ethics class of the online course.

Susan also oversaw the creation of Maryland's first National Marine Sanctuary at Mallows Bay near Nanjemoy, Maryland, designated on September 3, 2019. In these shallow waters lie ships abandoned from the Revolutionary War through the 1970s, creating unique fish and bird habitats and recreational opportunities. Over 100 ships from World War I make up most of the vessels, but there are more than 200 documented shipwrecks in the area, known as the "Ghost Fleet" of Mallows Bay.

Paul Johnston

Paul Johnston has retired as Curator of Maritime History and is now Curator Emeritus after a 36-year career at the Smithsonian National Museum of American History. As such, he will continue his valuable work at the museum, as well as pursue his love of motorcycles and sports cars.

Paul's broad experience includes maritime and road transportation history, marine art and nautical archaeology, automobiles, motorcycles, and museology. Before coming to the Smithsonian in 1989, Paul was Curator of Maritime History at the Peabody Essex Museum in Salem, Massachusetts for seven years.



Paul Johnston in Hanalei Bay, Kauai, with a concretion from the Royal Hawaiian Yacht Ha'ahe 'o Hawai'i *(Pride of Hawaii), which sank in 1824. Photo courtesy P. Johnston*

Paul has been associated with MAHS in various capacities since its inception in the late 1980's. He has counseled MAHS presidents and steered MAHS forward to ethical underwater archaeology activities for years. We look forward to continuing our work with Paul in the future. ⚓

Pool Session 2025

by James Smailes

The process of measuring shipwrecks to scale is a fundamental aspect of underwater archaeology. MAHS focuses on scaled mapping using the baseline trilateration survey method. To practice mapping, we conduct a pool session to provide students with a hands-on, in-water experience in confined water on a mock shipwreck set up at the bottom of a swimming pool.

This year the class was held at the Minnie Howard Aquatics facility in Alexandria, Virginia. MAHS President, Steven Anthony organized and led the course. Jim Smailes, MAHS Secretary and Treasurer, taught the class, and Earl Glock, MAHS DSO, and Dave Shaw, MAHS Director, assembled the mock shipwreck and supervised the underwater activities.

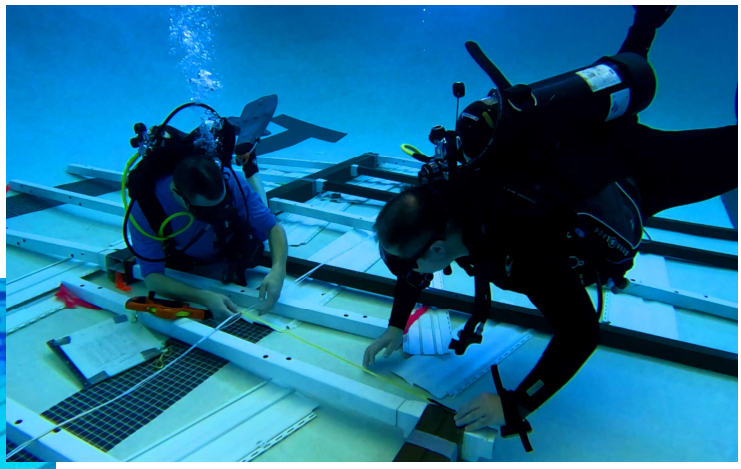
The class began with a slide display in which Jim recapped the process as it is presented in the Survey, Recording and Mapping Class, followed by a dryland practice session. The students then donned their dive gear and entered the water to try out their mapping skills.

Divers measuring shipwreck. Image by Derek Smith.

After each diver practiced taking measurements underwater, they came to the surface, changed into their

street clothes, had a brief lunch, and began mapping their measurements.

It was pretty busy in the pool with all the divers crowded on the wreck at the same time, but with a little patience everyone was able to map the mock wreck and had a great time doing it!



Top right and above, divers measuring shipwreck; right, S. Anthony (left) helps students plot their data.
Images by Mia DeNardi and Derek Smith. ⚓

BOOK REVIEW

Intertidal Shipwrecks: Management of a Historic Resource in an Unmanageable Environment

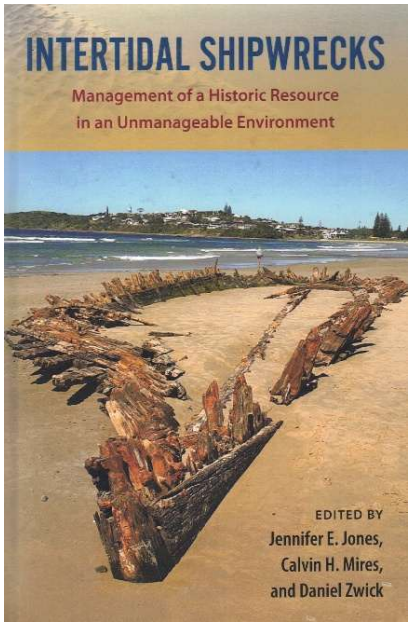
edited by Jennifer E. Jones, Calvin H. Mires, and Daniel Zwick (University Press of Florida, 2025)

reviewed by Dennis Knepper

A 30-foot section of wooden ship's hull was found on the beach in the Scottish Orkneys in 2024. Beached wreckage is a common sight, and most maritime archaeologists have likely had experience with remains such as these. The Scottish find was somewhat unusual because it was eventually identified as part of HMS *Hind*, a 250-year-old British frigate that intercepted American ships in the Atlantic during the Revolutionary War. The majority of finds on beaches or similar areas, however, remain unnamed but for terms associated with their location.

Abundant as these maritime sites are, the question of how to treat them is one faced by historic preservationists in many parts of the world, with differing approaches and with differing results. A new title from the University Press of Florida, *Intertidal Shipwrecks: Management of a Historic Resource in an Unmanageable Environment*, addresses the issue in a series of articles offering perspectives on matters such as the effects of climate change on this type of wreckage, approaches to conservation, and the research opportunities these wrecks present. Edited by

Jennifer E. Jones (East Carolina University), Calvin H. Mires (Woods Hole Oceanographic Institution), and Daniel Zwick (State Archaeology Department of Schleswig-Holstein, Germany), the book is a collection of 17 papers by archaeologists, educators, and resource managers from nine countries who present their views on these historical sites. The articles include discussions on methods aimed at preventing or limiting damage to the sites, ways of reducing environmental threats, and the effectiveness of employing volunteer participants in historic preservation efforts.



The intertidal environment seems at first a simple idea: the area between high and low tides. But as the editors point out in an introductory chapter, the intertidal zone can be deceptively complex and may include a range of environmental conditions.

Vertical tidal range can be remarkably wide, for example, running from a few centimeters in parts of the Mediterranean, Baltic, and Caribbean seas to as much as 16 meters in Canada's Atlantic provinces. The intertidal zone can be wide and flat, or narrow and steep; it can consist of sandy beach, mudflats, near-shore shoals or sand banks; or it may lie in a variety of inland locales along tidal estuaries. Each environment presents unique conditions.

An early chapter in the book considers the variety of environments and vessel types that occur in properties managed by the U.S. National Park Service. The Park Service has developed a national database of intertidal wreck sites in and outside the parks. Citing examples from marine settings in New England, North Carolina, and California, as well as from several inland lakes and rivers, the chapter describes the development of a framework for assessing and characterizing the variability of the sites.

Wreck sites found in intertidal areas often present more complex management concerns than do fully submerged sites in terms of site formation processes, weathering and preservation, and access. The intertidal zone is a dynamic environment. Wrecks in these settings are often periodically buried, exposed, and buried again. They may be subject to currents, wave action or surf breaking on a shore, the drying effects of sun, freeze-thaw processes in cold climes, salvage or looting – all threats that may hasten their deterioration.

Case studies of sites form a significant part of *Intertidal Shipwrecks*. The studies are from locations in the Americas, Europe, and the South Pacific, and describe administrative challenges specific to the locales. Managing the preservation of different vessel types in New Zealand, for example, from aboriginal *waka* (canoes) to historical wrecks, is carried out within a legislative framework that is sometimes inconsistently spread across national, regional, and local jurisdictions. Similar political complexities are described among the wrecks of ships stranded in the Wadden Sea, the world's largest contiguous tidal mudflat, located on Germany's North Sea coastline. Preservation efforts there involve archaeological concerns but must also contend with politics among the German federal states, each of which has its own historic preservation mandate, statutes, and practices.

Challenges in recording and managing the number of new sites in Australia that are being exposed due to climate-related erosion are highlighted by the ongoing investigation of an intertidal wreck along the coast of New South Wales. Ireland's intertidal zone has been similarly affected by rising sea levels, strong storms, and potentially destructive storm surge. There, a management approach to sites has used archival research to identify concentrations of wrecks and how they have been recorded since the 18th century, documenting the changing seasonal shifting of wrecks after storms.

At Mallows Bay, a recently created National Marine Sanctuary that lies in the freshwater tidal Potomac River in Maryland, a large collection of abandoned vessels, most of which are from the World War I era, faces increasing encroachment of salt water related to sea level rise. Documenting climate data at the site is aimed at providing a baseline to better inform ongoing management plans. Similar efforts are described on the Texas Gulf Coast, where rising sea levels and storms of increasing intensity threaten the coastline's many intertidal shipwrecks. Documenting the impacts of climate-related conditions on wrecks and on port communities across the region are designed to aid in developing long-term mitigation strategies. In somewhat of a contrast, wrecks in the Mediterranean may be found in relatively good condition, occasionally with portions of their cargos preserved. Focusing on these wrecks, the environmental agents involved in their preservation, such as hydrodynamic action that scours and replenishes sediments on sandy beaches leading to sinking and rapid burial of wreckage, are described.

Technological strategies to document the deterioration of wrecks in the intertidal zone are discussed as ways to predict ongoing damage and help develop successful plans for site protection. For example, the deterioration of a WWII American Air

Rescue Boat in the Mallows Bay Sanctuary is being documented using historical sources, site monitoring, and 3-D modeling to predict future impacts. Cyclical re-exposure of an 18th-century shipwreck exposed on the beach in York, Maine, prompted detailed field documentation, drone-assisted aerial imagery survey, and a dendrochronological study to establish a date of construction and eventual identification of the remains. The information is being used to develop baseline data to aid management decisions.

Not all preservation efforts are easily undertaken. Impediments to preservation work are documented by studies in the Basque region of Spain as cautionary tales for researchers in similar situations. The challenges faced there have included public misperception of wrecks as merely abandoned rubbish, a lack of legal protection for the resources, and varying access to sites due to changing tide patterns and sedimentation rates.

Exposed intertidal wrecks are *bona fide* archaeological sites that often are easily accessible. These wrecks lie in what may be highly vulnerable settings where they are subject to non-archaeological activity such as fishing, shipping, dredging, or polluting. Since they are not constantly submerged, the sites can be reached without special gear or training (i.e., SCUBA). In many cases access is only a matter of waiting for the tide to go out. The sites may thus be particularly vulnerable to souvenir hunters and outright looters.

Getting adequate personnel to document intertidal sites when they do appear can be challenging. Managing public involvement is thus critical to the long-term success of preservation efforts. Public outreach and education are important to fostering a sense of stewardship and responsibility for the sites and in helping manage and protect them. Study of a mid-19th-century whaler on the Patagonian coast of Argentina that is under threat from erosion involves temporary protective measures, alternatives for longer-term measures, and importantly, community participation. In another successful example of public involvement, wrecks occurring along the coast of Kent County, in the UK, were documented and evaluated with the assistance of community members, who also provide ongoing monitoring that has revealed additional sites in the area. A similar success story is documented in the Museum of London Archaeology's digital recording project, in which volunteers are trained by museum staff to use a smartphone app to record basic features of wrecks that appear on a transient basis.

Shipwrecks are commonly found along coastlines, either the direct result of vessels running aground or more indirectly having come to grief in shallow waters off-shore and being carried into the intertidal zone by winds or currents. Managing these potentially valuable historical resources may be challenging, given the variety of conditions encountered and the need for baseline data to assess area-wide impacts and monitoring strategies. The case studies and discussions of individual wrecks among the articles in *Intertidal Shipwrecks* are interesting in their own right, beyond the management challenges they exemplify. Yet, key to effective management is the sharing of ideas and approaches that is represented by the collection of articles in this publication.

The book is part of a series published by the University Press of Florida, *Society and Ecology in Island and Coastal Archaeology*, which explores "the nature of humanity's relationships to seas, coasts, and estuaries, focusing on the link between society and the ecology of these environments." The text of the book runs to 318 pages, with bibliographies at the end of each chapter. Contributor data and an 11-page index make up the end matter. Production is up to UPF's high standards, with clear, readable printing, and illustrations typified by good-quality grayscale photographs and clean line drawings.

Intertidal Shipwrecks: Management of a Historic Resource in an Unmanageable Environment is a valuable compendium of perspectives and approaches to managing a fragile and threatened class of maritime archaeological sites. The studies represent substantial insights into protecting an often overlooked and underappreciated resource, and they will be consulted and referenced profitably for some time to come. ⚓

BOOK REVIEW

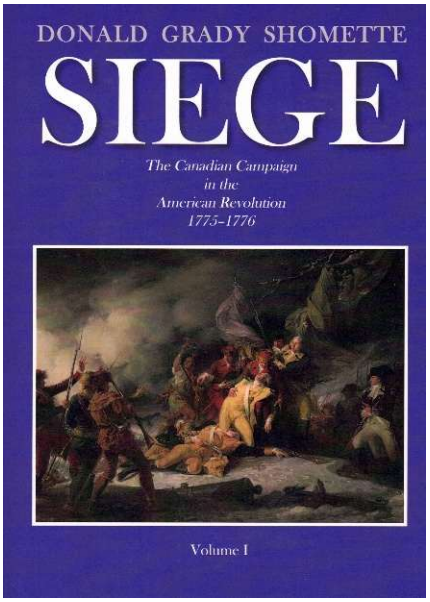
Siege: The Canadian Campaign in the American Revolution, 1775-1776

by Donald Grady Shomette (Heritage Books, 2025)

reviewed by Dennis Knepper

Lexington, Concord, Bunker Hill: these are names of familiar battles associated in popular histories with the early phases of the American Revolutionary War. Somewhat less memorable are the initial days of the so-called War in the North, where names like Saratoga, Ticonderoga, and Lake Champlain were prominent. The first major land and naval campaign of the war, the Canadian Campaign, was fought in this region and is perhaps the least known large-scale operation of the conflict. Nonetheless, it was

filled with stories of adventure, sacrifice, and complex political issues that are examined in detail in a new history by Donald Shomette entitled *Siege: The Canadian Campaign in the American Revolution.*



The campaign of the title was, in the words of the book's foreword, "the bold but ill-conceived effort" to bring Canada into the war on the American side. Taken in its entirety, the campaign was the longest offensive of the war.

Popular history notwithstanding, the outline of the Canadian Campaign is familiar to most students of the Revolutionary War. In late summer 1775, Continental Army General Richard Montgomery set out from Fort Ticonderoga traveling northward up Lake Champlain with a force of 1,200 men to take Montréal and eventually Quebec City. General Benedict Arnold followed in the early fall with a similar force, leaving Massachusetts on a grueling wilderness passage overland. Shomette documents both transits in sharp detail. The two forces rendezvoused near Quebec City in December, Arnold's army reduced by starvation and dysentery during the trek and with little remaining supplies and equipment, while Montgomery's force was in not much better condition.

The assault on the city unfolded during harshly cold and snowy weather. The British army maintained a commanding defensive position behind the fortified walls of the city, while the American forces attacked from the west across the wind-swept Plains of Abraham in an intense snowstorm on Dec. 31. The assault was repelled by the defenders, and the Americans were soundly defeated. Montgomery was killed early in the action in a hail of grapeshot and musket balls, an event memorialized in an oil painting by the American painter John Trumbull in 1786: the image, currently housed in the Yale University Art Gallery collection, serves as the cover illustration for Shomette's book. Arnold was wounded during the assault, struck in the leg by a ricocheting bullet. He recovered sufficiently, however, to continue the offensive, mounting what eventually became an ineffective siege of the city.

Some of the most recognizable historical figures associated with the campaign include Ethan Allen, reportedly the first to promote the invasion; Guy Charleton, British general and Governor of Quebec; Horatio Gates, former British captain and later adjutant general in the Continental Army charged with commanding Fort Ticonderoga and the defense of Lake Champlain; Philip Schuyler, Continental Army major general given overall command of the invasion; and Montgomery and Arnold, the two American generals who carried out the operation. Fleshing out the events of the campaign, Shomette highlights a host of other actors in a *tour de force* narrative of the invasion in all its political intrigue and military detail.

The book's author, Donald Shomette, is a respected maritime archaeologist and historian, a widely published writer and literary award winner. He has said his interest in the campaign dates to his days at Richard Montgomery High School in Rockville, Maryland. Given the task of writing an essay about Montgomery – who he was and why he became the school's namesake – he began research that grew to "more or less occup[y] half a century of my life." The book, *Siege: The Canadian Campaign in the American Revolution*, is the result of that extended research.

In keeping with many of Shomette's histories, *Siege* depicts not only the actions of the major players, but also the personal experiences of both major and minor participants in the events. The author draws from a large number of journals and diaries that provide depth to the narrative with telling details. George Morison, for example, was a private in Arnold's force who described a difficult portage through rapids far up the Kennebec River: "we were often obliged to haul the boats after us through rock and shoals, frequently up to our middle and over our heads in the water; and some of us with difficulty escaped being drowned." Benjamin Turnbull, one of the soldiers in Montgomery's force and son of Connecticut Governor Jonathan Turnbull, recorded the poor conditions outside Montréal, seeming to rue his decision to join the army: "wet and muddy almost to my knees…I am unwell and between three and four hundred miles from my home." Isaac Senter, a surgeon in Arnold's force, noted that after the march north "the army was now much fatigued, being obliged to carry all the bateaus, barrels and provisions, warlike stores, &c., over on their backs through a most terrible piece of woods conceivable."

There were many losses from the cold, and frostbite was common. Journal entries, says Shomette, depict "an almost indescribable bleakness to existence." On one occasion, a British officer on early morning patrol of the city ramparts at Quebec came upon a sentry who neglected to challenge him, in violation of his duty:

> [He] angrily confronted the soldier to chastise him for his negligence. "God bless Your Honor," said the guard. "I am glad you are come for I am blind." When the officer

examined him, he found the man's eyelids literally frozen shut. His frostbitten face was so tender from the icy winds "he durst not rub them "lest the skin fall off."

Fuel was in short supply, and in the severe conditions, warmth was as necessary as food and water for survival. Fighting between the two sides occasionally became a matter of forays through countryside, forests, and abandoned structures that often resulted in skirmishes dubbed "a cat-and-mouse firewood war."

By early summer, British reinforcements arrived to break the siege. The fresh army launched a counteroffensive that forced the Americans to retreat southward to Fort Ticonderoga in a prelude to one of the first naval battles of the war. The British General Carleton intended to gain control of the Hudson River Valley using Lake Champlain as a link to the river and thus to British forces in New York. General Gates, commanding Fort Ticonderoga, put Arnold in charge of developing a small fleet to counter the British strategy. Late summer saw what Shomette characterizes as "the "first 'maneuvers' of a significant American fleet in national waters." The fleet actually consisted in the main of gunboats, gondolas, and row galleys. The craft were assembled and began sailing northward when almost immediately, near disaster struck. High winds split the squadron nearly sinking several vessels before the expedition had begun.

Shomette describes in great detail the careful planning in which Arnold established a position in the lee of Valcour Island where he hoped to draw the larger pursuing British fleet to a disadvantage in restricted maneuvering space. Arnold's fleet was outgunned, however, and was forced to flee southward. The vessels were eventually scuttled in the shallows of Ferris Bay north of the small fort at Crown Point. The surviving troops retreated overland to Ft. Ticonderoga. The battle and most of the fleet were lost, but the British invasion of the Hudson River Valley was effectively delayed.

Shomette is a true historian, and the book contains historical prose that can at times require reading with a certain attentiveness, as it can be subject to long and occasionally run-on sentences. But the rewards are indeed great, and the narrative soon becomes compelling reading, with the attention to detail and focus on the individuals involved drawing in the reader. The subject matter is complex, and the players are many, but the account is well-organized and clearly presented. As he has done in past works, the author puts faces on the people involved and personal stories behind the historical events, bringing the actors to life with concise physical descriptions and biographical details to produce apt character portrayals.

The work covers two volumes, totaling 718 pages, including 625 pages of text closely referenced with 63 pages of end notes found at the end of the second volume. The book is sparsely illustrated; a few more strategically placed maps would have been helpful. An extensive bibliography and an index of names complete the text.

Siege: The Canadian Campaign in the American Revolution is a fine addition to the scholarship of the American Revolution. It is a well-researched and well-written history that is also entertaining and will be enjoyed by scholars and more general readers of history alike. ⚓

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continued from page 2

Our field project on the Pamunkey River is ongoing. Now that we have pool-trained divers, we plan to assemble them into a field team for our next foray into the site. Stay tuned for news on our progress on this project in future editions of *MAHSNews*.

We are looking forward to the 2026 Class and more news on the Garlick's Landing project next year.

Best wishes for the Holidays!

See you on the water.

Steven Anthony

MARITIME ARCHAEOLOGICAL AND HISTORICAL SOCIETY

Statement of Ethics

The Maritime Archaeological and Historical Society is organized for the purpose of enhancing public awareness and appreciation of the significance of submerged cultural resources and the science of maritime archaeology. In pursuit of this mandate, members may come into contact with unique information and cultural material associated with terrestrial and underwater sites containing evidence of the history of humankind. To protect these sites from destruction by commercial salvors and amateur souvenir hunters, the Society seeks to encourage its members to abide by the highest ethical standards. Therefore, as a condition of membership and pursuant to Article 2, Section 1 (A) of the bylaws, the undersigned executes this statement of ethics acknowledging adherence to the standards and policies of the Society, and further agrees as follows:

1. To regard all archaeological sites, artifacts and related information as potentially significant resources in accordance with federal, state, and international law and the principles and standards of contemporary archaeological science.
2. To maintain the confidentiality of the location of archaeological sites.
3. To excavate or otherwise disturb an archaeological site solely for the purpose of scientific research conducted under the supervision of a qualified archaeologist operating in accordance with the rules and regulations of federal or foreign governments. Artifacts shall not be removed until their context and provenience have been recorded and only when the artifact and related data have been designated for research, public display or otherwise for the common good.
4. To conduct oneself in a manner that protects the ethical integrity of the member, the archaeological site and the Society and prevents involvement in criminal violations of applicable vandalism statutes.
5. To observe these standards and aid in securing observance of these standards by fellow members and non-members.
6. To recognize that any member who violates the standards and policies of the Society shall be subject to sanctions and possible expulsion in accordance with Article 2, Section 4 of the bylaws.

Signature _____ Date

MARITIME ARCHAEOLOGICAL AND HISTORICAL SOCIETY
PO Box 44382, L'Enfant Plaza, Washington, D.C. 20026

Application for Membership

Membership in the Maritime Archaeological and Historical Society is open to all persons interested in maritime history or archaeology whether or not they are divers. Members of MAHS have first preference for enrollment in all courses and other activities and projects of the Society. To join MAHS, please sign the Standards of Ethics above and send it to MAHS along with your check and this application form. You may also submit dues via our website at http://www.mahsnet.org/membership.php.

Name (print) _____

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Phone
(H) _____ **(O)** _____ **(FAX)** _____

E-mail _____

DUES ENCLOSED

____ **$30**
____**Individual**
____ **$35 Family**
____ **$50 Sponsor**
____ **$100 Patron**

Skills (circle): research/dive/video/communications/writing/first aid/other:

_____

General membership meetings of the Maritime Archaeological and Historical Society are held on a bi-monthly basis, the second Tuesday of the month. Meetings are conducted by Zoom Technology starting at 7:30 pm EST. See the Meeting Schedule posted on our website at https://www.mahsnet.org/meetings.php for more information.

Renew Now!

It's time to renew your membership in MAHS. It's easy. Just complete the application form on the inside back cover, sign the Statement of Ethics, add the applicable dues payment, and mail to MAHS at the address listed at the top of the form.

An online payment can be made on our website at https://www.mahsnet.org/membership.php. Scroll down to the "PAY NOW" button to make a credit card or PayPal payment.

MARITIME ARCHAEOLOGICAL AND HISTORICAL SOCIETY
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www.mahsnet.org

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