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Underwater Cultural Heritage in Egypt

By Alicia Johnson

Maritime archaeology in Egypt, as part of the broader eastern Mediterranean region, is a younger discipline which has made significant progress in the past 15 years. This article explores the management of Underwater Cultural Heritage (UCH) in Egypt, considering capacity building through education, governance, legislation, and public awareness. Activities and maritime archaeological efforts taken in Egypt are too nascent to fully evaluate their impact in the community; however, Egypt has made concerted efforts regarding underwater projects (e.g. Pharos Lighthouse), international collaborations (e.g. Honor Frost Foundation, Centre d'etudes Alexandrine), and funding opportunities for students of maritime archaeology attending the Alexandria Centre of Maritime Archaeology and Underwater Cultural Heritage (CMAUCH). Such efforts strive to create a more responsive socio-political landscape for building capacity in maritime archaeology. In 2022, CMAUCH achieved a significant milestone by being awarded a UNESCO Heritage Chair, recognizing its expertise and contribution to the preservation and study of UCH. In this article, using the 1st century Fury Shoals site as a case study, we hope to consider the threats to preservation and what can be done to strengthen maritime archaeological practices within Egypt's Red Sea.

Capacity building is considered a fundamental concept in governance and public administration, according to the UN Committee of Experts on Public Administration. In the context of cultural heritage management, including UCH, capacity development plays a crucial role. In Egypt, the industry of recreational and technical diving has flourished, enabling access for SCUBA diving and SCUBA training to the greater public. Initiatives taken by the Honor Frost Foundation and Bibliotheca Alexandrina have also contributed to opportunities in maritime archaeology in the eastern Mediterranean region by creating public workshops, student scholarships, and grants for maritime archaeologists in the area. Despite increasingly favorable circumstances in terms of accessible education, trained human resources remain limited in Egypt, requiring

Amphorae from the Roman-era Satayeh site, Fury Shoals, Red Sea, 2011. Photo courtesy of CMAUCH.

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Notes from the Prez – Steven Anthony

MAHS was busy this summer advancing our archival research for our Pamunkey River Project, which worked out fine since the landing site that we are concentrating on was busy with boating activity all summer. Now that the boating season is over, MAHS is free to schedule our underwater survey and mapping work on the wrecks located nearby. At present, we are working with the landowners to set a date for the survey work.

In the meantime, MAHS volunteers continued to dig into the Official Records of the War of the Rebellion. A.J. Daverede was able to piece together new aspects of the story of JEB Stuart's raid on Garlick's Landing in June 1862. Sufficient information was collected to enable A.J. to conclude that General Grant's occupation of White House Landing in 1864 only lasted a few weeks. Not only was the 1864 occupation short lived, but Grant's men were concerned about running into mines in the area upriver from White House. So, they were likely to have limited their activity upstream in the Garlick's Landing area. After some discussion we concluded that the wrecks located at Garlick's Landing were more likely associated with the Confederate scuttling activity aimed at blocking the river in advance of General McClellen's occupation at White House Landing in 1862 or, alternatively, related to JEB Stuart's raid at Garlick's Landing in June 1862. This new research enables us to narrow our focus substantially.

Also, during the summer, Mia Denardi collected historical maps of the Garlick's Landing area and used them to develop an ArcGIS model of that part of the river. This will be an important addition to the final project report and hopefully will help us pinpoint the actual location of Garlick's landing at the time of JEB Stuart's raid.

In addition to our project research activity, MAHS processed 17 requests for PADI Certification from students who completed the 2024 Introductory Course in Underwater Archaeology. Earl Glock, MAHS Dive Safety Officer, volunteered to process these applications as he has done for many years. Thank you, Earl!

During August, MAHS conducted our summer picnic at Hank's Oyster Bar on the new Washington D.C. waterfront. The food at Hank's was wonderful but I was blown away at the prices on the waterfront these days. Everything was twice as costly as the days during the 1990's when I used to dock my boat at the old Gangplank Marina. We invited Paul Johnston, one of the longstanding members on our Board of Advisors, to the picnic too. We took the opportunity to present Paul with

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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.

notable time for the local population to acquire and retain skills and knowledge.

Egypt's rich maritime cultural heritage, coupled with a strong archaeological tradition and extensive literature, contrasts with the status of maritime archaeology in the country. Foreign teams often initiate underwater field projects before local initiatives; closer collaboration and exchange between international and local teams could enhance the capacity building in Egypt's field of maritime archaeology. Nonetheless, challenges such as limited funding, scarcity of related industries, and employment opportunities ought to be addressed to ensure continued sustainable development and wider public appreciation of Egypt's maritime cultural heritage.

Satayeh Reef within Fury Shoal, Red Sea, Egypt. Map by Mahmoud Saïd and the author.

Despite the challenges, the establishment of the Department of Underwater Antiquities (DUA) in Egypt, supported by governmental agencies and locally based research and educational institutions, has fostered progress in the field. Progress can be attributed to efforts made to enhance educational and training opportunities, conduct underwater surveys and excavations, and raise public awareness through workshops and outreach initiatives.

The Roman Wreck at Fury Shoals

During the Roman era, the Red Sea served as a crucial trade route connecting the Roman Empire and the civilizations of the Indian subcontinent. The Red Sea facilitated the exchange of valuable commodities such as spices, precious metals, and textiles. Roman naval fleets ensured safe passage and protected trade interests within the trade network, fostering cultural exchanges, and influencing the development of civilizations in both regions.

Since Jacques Cousteau brought the vibrant images of the Red Sea to the World in the 1950's, the Red Sea has been heralded as a leading example of rich marine biodiversity. But aside from the colorful fish and reefs, the Red Sea has served an important role in maritime trade since antiquity, and thus remains an area filled with shipwrecks originating from diverse peoples and civilizations. Among the Red Sea's known shipwrecks, the Fury Shoals wreck, also known as the Satayeh wreck, is one of two known wrecks which date to the Roman era, the other being Abu Fendera. Apart from its archaeological significance, the site also holds recreational value, attracting diving enthusiasts who will often dive the Satayeh site before or after diving the more well-known adjacent reef site, Dolphin Cove. Enclosed within 7-10 m of the reef's protective, clear shallow waters, Fury Shoals is open to the public; the site's ancient amphorae are interesting to divers but remain at risk of looting. Although the original size of the cargo is unknown, comparative data shows that since 1996, at least 20% of the recorded cargo has been looted, behavior that can be attributed to insufficient oversight of the site. Future surveys will be able to verify what, if anything, remains of the shipwreck at Fury Shoals.

Despite falling under the protection of Egyptian Antiquities law, as of 2024 a management plan has yet to be established. Continued degradation of the site is compounded by a lack of annual surveying and limited information/outreach initiatives to provide recreational divers a fuller enjoyment of the historical context of the heritage site. Although divers express interest in greater involvement with UCH preservation, the diving community is often unaware of a site's historical background, the appropriate etiquette, and procedures to report archaeological finds or looting. As such, a discovered site can remain unknown or undocumented by the proper authorities, or a known site may face increased instances of looting if the site is lacking oversight. Fury Shoals exemplifies a culturally significant site which is known and accessible to the public but unaddressed by authorities. The lack of oversight and management increases the risk of looting, unsanctioned excavations, and destruction of its archaeological integrity, as demonstrated by the partial removal of the site's ancient cargo of amphorae.

Without regular surveys and a management plan, it becomes difficult to create a cohesive documentation of the site to determine original and missing contents and

components of the wreck and to monitor the wreck for future changes. The lack of continuous oversight places the site at risk for further looting or further damage to the remaining amphorae. Multiple amphorae which were intact in 2001 were found relocated and damaged in 2010, indicating that divers or snorkelers tried to take the artifacts but abandoned their attempts when the task proved difficult. While dive guides are not expected to protect the site, often dive professionals are tasked with explaining the importance of respecting a site and its marine life. While the diving professionals of Egypt are talented and knowledgeable within the sport of SCUBA diving, it is difficult to presume they have the knowledge and capacity to patrol their dive groups' behavior.

Divers on Numidia, *a general cargo ship sunk in 1901 on "Big Brothers" island, a popular wreck dive near Fury Shoals in the Southern Red Sea. Photo by the author.*

Recommendations for UCH Management

Fury Shoals exemplifies continuous site degradation, underscoring the importance of regular UCH management. Given that the last recorded documentation occurred in 2010, the lack of recent record-keeping emphasizes the necessity for additional projects, outreach, surveys, and funding to safeguard the site from being lost. Particularly, the remaining amphorae are at risk, suggesting the need for further excavation, the potential removal of key artifacts, and ensuing conservation efforts. The site has not undergone comprehensive excavation for a significant period, and no photographic record has been established for nearly a decade.

Due to looting, creating and installing replicas of the remaining amphorae might maintain the authentic attraction of the site for divers. Baia, a submerged Roman port city in Italy, is an example where replacing artifacts with replicas has not diminished the attraction or diver's enjoyment of the historic site. While looting of replicas is still a possibility, lost replicas would be relatively inexpensive to replace. The proposed solution offers the chance to explain to divers why replicas are used and the threats that unpreserved UCH faces.

UCH funding is quite limited in the region, and a suggested proposal to excavate, document, and install a dive trail, which could lead divers to less visited parts of the site and provide contextual information about its history, might be a good investment. When sites are managed effectively, they can bring additional revenue and visitors to an area. Running social media campaigns partnered with appropriate outlets would raise awareness of UCH sites and offer an inexpensive method to generate public interest and incentivize funding for research projects.

The dive community of the Red Sea is proactive towards personal stewardship; as such, efforts to involve the community would be well-received. If local dive professionals were trained in surveying methods, it could be helpful in maintaining and coordinating affordable documentation and active citizen science. As UCH stakeholders, divers take pride in a site for which they feel responsible, and a managed site partnered with local community involvement could enable more care of the resource. Moreover, organizing public seminars or events to educate dive guides about the site's history and the importance of preventing looting would aid in the site's preservation.

Community stewardship and local training offers an avenue for low-cost initiatives yielding a high reward. Involving the dive community, the primary point of contact for site visitors, is crucial for developing public relations and changing attitudes about the historical significance of sites like Fury Shoals. The potential of involving the community with surveys and other noninvasive community science will help to change divers' perceptions of the site and offer verified information on the harmful effects of looting. Diver attitudes are highly indicative of the behavior exhibited on a site, and constructive collaboration with the public would be helpful in preventing and reporting future looting. Documenting the site via photogrammetry could create a detailed digital record and allow for the comparison of the site's condition with regular surveys. The resulting 3D model of the site could be hosted on a website such as SketchFab and increase accessibility for the public and researchers (diving and non-diving alike).

Following the methods of the Underwater Archaeological Park of Baia, excavating, preserving, and

replicating the artifacts might be an option for Fury Shoals. Enacting a similar model has the potential to protect and excavate artifacts which otherwise might be
looted and or destroyed. A dive trail or digital application created with multi-lingual and descriptive information offers a cost-effective concept to emphasize the site's historical significance to visitors. A successful example of a comparable program is the Proto Belo Project, in southern Brazil, where the installation of underwater trails added a new tourist activity to the area, increased care for the marine environment, provided a new source of income for the local community, and enhanced safety and overall visitor satisfaction. Due to the high costs of excavations and the difficulty in obtaining permits, it is advisable to collaborate with the dive community. Educating them about the importance of UCH and encouraging divers to report any further site degradation would be beneficial.

While the challenges facing maritime archaeology in Egypt include limited funding, capacity, and government oversight, there is progress to report. Through increased international cooperation, outreach with the dive community, and the continued development of local capacity, sites such as Fury Shoals have a greater likelihood of remaining accessible for future generations. Egypt's continued development in Maritime Archaeology helps researchers better understand the status of the field in the greater Eastern Mediterranean. The region is rich in cultural heritage, while the need to preserve these sites and educate the local population about the importance of UCH is in a developmental stage. However, the noteworthy collaboration between groups like the Honor Frost Foundation and local archaeological leaders such as Ziad Morsy (Egypt), Lucy Semaan (Lebanon), Maria Michael (Cyprus), and Emad Khalil (CMAUCH) is laying the foundation for a more successful, sustainable, and appreciated future of UCH in the Eastern Mediterranean region.

Carnatic, *a general cargo and passenger ship sunk in 1869 on Sha'ab Abu Nuhas Reef, south of Sinai. Photo by the author.*

Propeller and stern of Thistlegorm, *a freighter sunk in the Gulf of Suez during a German air attack in 1941. Photo by the author.*

Alicia Johnson is an underwater photographer and maritime archaeologist. She completed her Master's studies in Egypt, focusing on the ancient Mediterranean, and is now an early career researcher and graduate student associate with the ACUA, concentrating her research on the preservation of historic shipwrecks in the Red Sea.

Suggestions for further reading:

Blue, L. Red Sea. In Oxford Handbook of Maritime Archaeology, *B. Ford, D. Hamilton, and A. Catsambis, editors, pp. 495–512. Oxford University Press. Oxford. 2011.*

Blue, L., J.D. Hill, R. Thomas. New light on the nature of Indo-Roman trade: Roman period shipwrecks in the northern Red Sea. In Navigated Spaces, Connected Places. Proceedings of Red Sea Project V held at the University of Exeter. *Edited by D. A. Agius, J. P. Cooper, A. Trakadas, and C. Zazzaro, pp. 91-100. Archeopress, Oxford. 2012.*

Bruno, F., A. Gallo, F. De Filippo, M. Muzzupappa, B. Davidde Petriaggi, and P. Caputo. 3D Documentation and Monitoring of the Experimental Cleaning Operations in the Underwater Archaeological Site of Baia (Italy). 2013 Digital Heritage International Congress. *DOI:10.1109/ DigitalHeritage.2013.6743719*

Demesticha, S., L. Semaan, and Z. Morsy. Capacity Building in Maritime Archaeology: The Case of the Eastern Mediterranean (Cyprus, Lebanon, and Egypt). Journal of Maritime Archaeology *14(3). Springer US:369–389. https://doi.org/10.1007/s11457-019-09243-y. 2019.* ⚓

Where Were you? Underwater Archaeology in 1970s and 1980s

by Anne Giesecke

I know where I was – living it. Let me share some history if you were not born yet and some memories if you were. Why does underwater archaeology look the way it does today?

This article does not purport to be overly academic or comprehensive. Instead, it will suggest some of the important cultural influences that moved American land archaeologists into the water. The transition was not smooth but led to underwater archaeology entering the mainstream of archaeology today. I will include personal notes on my participation in this process. The community of interested parties was very small. I have been fortunate to know many people who care about our oceans and underwater resources.

The technology to work underwater was provided by Jacques Cousteau and SCUBA equipment in the 1940s. The equipment was commercially available in the 1950s and widely available during the 1960s and 1970s. Of course, the gear was basic compared with today's options. We used a mask, fins, a regulator, a tank hung on a piece of plastic called a backpack, and maybe a belt with lead weights. I started diving in the 70s; you knew you were out of air when you inhaled and nothing happened. When I had lunch with Jacques Cousteau, always at a seafood restaurant, we would laugh about the early challenges and joke that we were pretty good divers because we were still alive.

Underwater archaeology was being pioneered on shipwrecks in Europe and the Mediterranean in the 1950s and 1960s. The *Wasa*, which sank in 1628, was located in 1956 by Anders Franzen. It was raised in 1961 and taken to Stockholm. Franzen gave me the opportunity to sit in the Captain's Quarters in the stern, and I was transported to another time; you can't sit there anymore.

Between 1957 and 1962, five Viking ships that sank in the year 1000 were recovered in Roskilde Fjord in Denmark.

In the United Kingdom, the *Mary Rose* sank in 1545 and was located on a map in 1961. In 1967, Harold Doc Egerton surveyed the wreck with new technologies: side-scan sonar and a sub-bottom profiler. Doc Egerton patiently explained the technology to me over the years. Beginning in 1971, 600 sport divers began recording the wreck and recovering artifacts in water with 1 to 2 feet of visibility. In 1972, Margaret Rule was appointed Director of the project. Sport divers surveyed the area by tying a rope around the anchor chain and taking compass readings while swimming in a circle. The ship was raised in 1982. Marty Klein helped make side-scan sonar commercially available in 1966. Klein called me in as an archaeological consultant in 1976 and continued to help underwater archaeology projects all over the world. The other method of surveying, at least when you had visibility, was to drag a diver behind a boat. Some still use this low-tech method today.

Jacques Cousteau and Luis Marden. Photo by Charles Dierchsmier. From Scuba America, *by Zale Perry and Albert Tillman, used with permission.*

Ancient wrecks were known off France and Italy. In 1959 Peter Throckmorton, a marine surveyor, spoke with Turkish fisherman and that led to the investigation of Bronze Age shipwrecks off Turkey. Throckmorton contacted George Bass, a graduate student at the University of Pennsylvania, and America entered the scene. Bass developed a method of underwater excavation that reflected the methods used on land but with modifications like the use of PVC pipe instead of string to form grids. Bass moved his underwater work to Texas A&M in 1974, establishing the Institute of Nautical Archaeology. One of the people to work with Throckmorton and Bass during the 50s and early 60s was Honor Frost, from the United Kingdom. She was the first to record wreck sites with photographs as well as paper and pencil recording. George Bass encouraged me and other women.

The United States was engaged in the Viet Nam War from 1964 to 1973; 2.6 million men served in the war. Women's career choices at that time were teacher,

Left to right: Peter Durell, George Bass, Peter Throckmorton, Honor Frost. Cape Gelidonya, 1960. Peter Throckmorton Collection, copyright INA, used with permission.

nurse, secretary, wife. Graduate schools in archaeology and history began to accept women to fill their classes but awarded few degrees. During the 1970s, there were few women in underwater archaeology. I have mentioned Honor Frost and Margaret Rule; Pilar Luna was in Mexico. Ten or so of us women were working across the United States. I won't list names because I might forget someone. I was very lucky to know everyone but Frost, although I knew her work.

By 1973, Ray Ruppé was investigating submerged oyster middens and prehistoric sites in Florida and the Gulf of Mexico. Springs in Florida were also being studied. The potential for submerged prehistoric sites began to be recognized.

There was a saying during the 1970s, dilution is the solution to pollution; discharge pipes were made longer, and stacks were made higher. Diving with sport divers on a Civil War site in Virginia, we were often in raw sewage and miles of monofilament fishing line. Unfortunately, these conditions are still true now, especially in urban areas. Then, coral reefs were for collecting coral and shipwrecks were for collecting souvenirs. "Skin Diver Magazine" was the place to go for diving information and ran big ads for goody bags.

Computers appeared in universities in the 1960s. My college got one in 1968. It took up a whole room, and I used it in Physics class coding in Basic. In 1977, there was a shift from mainframe computers to microprocessors and personal computers. In 1990, the internet used dialup connections; they were really slow. Cell phones came along in 2006.

Underwater technology made strides in remote sensing during the 1980s. In 1985, Bob Ballard located the *RMS Titanic*, and in 1986, The Titanic Maritime Memorial Act was passed to protect the site.

Until sometime in the late 1980s, land archaeologists argued that underwater sites were disturbed and had no integrity. They believed that water environments were too dynamic to preserve sites in a way that they could be excavated using archaeological methodology. Preservation of artifacts was questioned. The earlier European finds of well-preserved wrecks were not accepted as archaeology.

During the 1950s, underwater archaeology conferences were held in Europe. In 1959, the Council on Underwater Archaeology (CUA) was organized in the United States and had their first conference in 1963. In 1970, the CUA and the Society for Historical Archaeology (SHA) held a joint meeting. In 1973, the CUA became the Advisory Council on Underwater Archaeology (ACUA).

The journal of the SHA and other professional organizations would not publish articles about shipwrecks and underwater archaeology, arguing that the subjects were not of interest to the larger archaeological community. Consequently, in 1978 the ACUA began publishing a "Proceedings" for the papers presented at the conference. In 1987, the SHA and ACUA held one conference, such as we have now. The discord between land and underwater archaeologists faded toward 2000.

The CUA was an interesting mix of interests: George Bass and Paul Johnston archaeologists; Robert F. (Bob) Marx an adventurer; Mendel Peterson of the Smithsonian a collector; Peter Throckmorton a marine surveyor with an interest in ancient shipwrecks. At the meetings that I attended, the variety of perspectives resulted in lively discussion.

I got into underwater archaeology when working on a 9,500-year-old site at Weirs Beach on Lake Winnipesaukee in New Hampshire. After a summer of excavating on land, and a young boy bringing a woodland pot in perfect condition out of the water, we expected that the main and best-preserved part of the site was under the lake. I was already a diver, and I asked my friends at the University of New Hampshire to help me do a survey. We identified some features, and I saw some interesting shipwrecks.

Peter Throckmorton certified me for Wreck Diver (PADI) and Archeology Diver (YMCA). I still have dreams about counting rivets in low visibility water. I had been diving since the early 1970s but did not get Certified until 1979 (NAUA) when dive shops would no longer fill your tank unless you showed a card. Insurance companies were increasing their interest in the activity as the number of divers increased.

Formal acceptance of the historical importance of shipwrecks slowly became institutionalized. During 1960 and 1961, sport divers in Lake Champlain discovered, evaluated and nominated as National Landmarks the Revolutionary War Ships of Valcour Bay from 1776 and the British Warships of the War of 1812, in Plattsburg Bay from 1814. The first underwater park in the United States was John Pennekamp Coral Reef State Park in Biscayne Bay, Florida, 1963. The site of the *Monitor*, a Civil War ironclad, which sank in 1862, became the first National Marine Sanctuary in 1975. By 1984, 37 sites with 100 shipwrecks were listed in the National Register of Historic Places.

What the general public knew about shipwrecks from 1950 to 1990 came from National Geographic magazine. The magazine was the primary forum for archaeologists to publish about their sites, and one or two shipwreck articles were published a year. It also published articles about the treasure hunters' exploitation of sites. Many television shows were made about the treasure hunters. I was an advisor on the subject of shipwrecks and submerged sites to National Geographic from 1976 to 2015. As time went on the magazine published fewer treasure hunter articles and more archaeology projects.

On television we watched "Sea Hunt" from 1958 to 1962, starring Lloyd Bridges and Zale Perry. Many of us got interested in diving watching their adventures. The show was filmed and broadcast in black and white. I met Zale Perry in 2000, and during one conversation she said, "Few women in Hollywood were diving so I had two wet suites, a white suit as Bridges' sidekick and a black suit when I played the villain role."

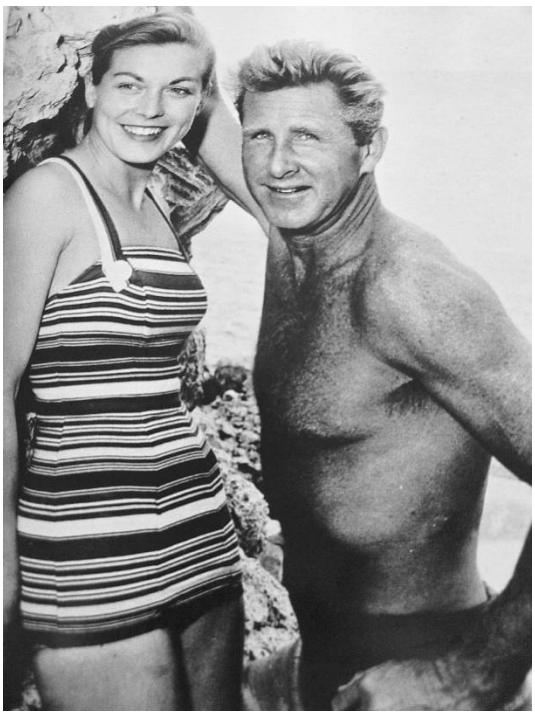
As mentioned, "Skin Diver Magazine" kept the sport diving community informed from 1954 to 2002. By 2000, fewer articles were about collecting coral and shipwreck artifacts and more about opportunities to save coral and the stories that shipwrecks had to tell.

Peter Benchley published "Jaws" in 1974 and "The Deep" in 1976. Both books were made into very popular movies. "The Deep" stars Nick Nolte and Jacqueline Bisset and features a shipwreck. In 1976 Clive Cussler published "Raise the Titanic" also made into a movie. These authors portrayed treasure hunters as bad guys and shipwrecks as important history. I got to know both men as they worked to understand the debate between treasure hunters and archaeologists. Benchley was supportive of my writing. One morning I called to express frustration at trying to find the right words and arguments; he simply replied, "Writing is hard work." Even for you? "Yes." I got back to it. Cussler had a vocational organization, the National Underwater Marine Agency (NUMA), locating shipwrecks and submerged features and reporting them to the state. In his books, NUMA foils bad guys of all kinds. I ended up as a character in one of his books as did many of his shipwreck friends.

In 1963, Colorado passed the first law including shipwrecks in the management of submerged lands. The law was to clarify water rights and access to water. In 1984, 21 states had done survey work for submerged lands. As a result of the surveys, 617 shipwrecks were considered historic.

By 1988, there were about 200 underwater archaeologists in the world. In the United States, there were 20 active treasure hunters and as many as 40 companies trying to raise money to hunt for treasure. There were about 2 million sport divers in the United States. Twenty-seven states had laws and 18 allowed for compensation to treasure salvors of shipwrecks.

Florida was at the forefront of treasure hunting. In 1963 gold coins from the 1715 Spanish Plate Fleet washed ashore. In 1967, Florida state law gave 75% of the recovered shipwreck material to the salvor and kept 25%. Often the salvors got the gold and the state got the broken pottery. In 1971. Mel Fisher and his company Treasure Salvors found the *Atocha* of the 1622 Plate Fleet. In 1978, Mel Fisher and his company Cobb Coin Inc. claimed the 1715 Plate Fleet in Federal Court.

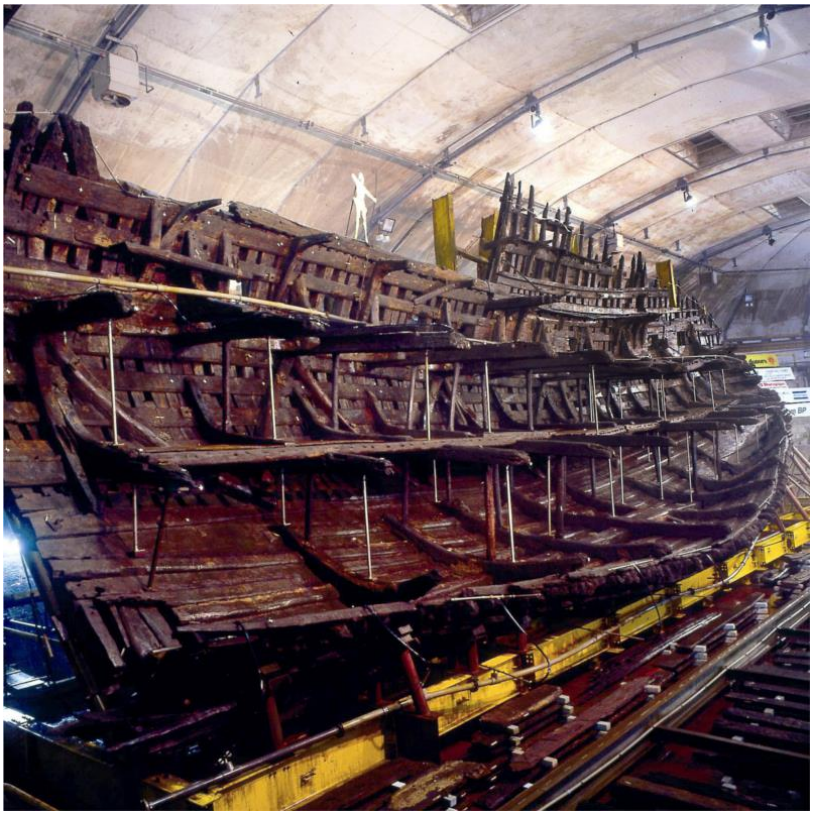


Zale Perry and Lloyd Bridges. From Diving Pioneers and Innovators, *by Bret Gilliam, used with permission.*

Mel Fisher and I got to know each other and would have dinner when we were in the same cities. He had many entertaining stories. We respected each other's tenacity at sticking to our positions on shipwrecks. I did a free dive on one of the *Atocha* excavation sites in 13 feet of water; it had a PVC grid.

In 1981, the Supreme Court awarded the *Atocha* in Federal waters to Fisher. In 1982, the federal Court awarded the 1715 Plate Fleet in state waters to Cobb Coin, Inc. In 1982, I drafted the Abandoned Shipwreck Act on my own, and it became law in 1988. The law gives states the ownership of shipwrecks in state waters and allows states to control the excavation of state land for any purpose.

At one of the House Hearings on the Abandoned Shipwreck Act, Mel Fisher, his lawyer David Horan, Bob Marx, and I were testifying – Bob and I in favor of the law and Mel and David opposing it. During the question period, Mel started banging on the table and shouting that I was sent by the government to destroy him. I was escorted to the office of the Speaker of the House by an armed guard. After the Hearing Mel and I happened to meet on the steps leaving the building and went for coffee.



The Tudor period carrack Mary Rose *at the Historic Dockyard in Portsmouth, U.K. By Peter Isotalo, Creative Commons license.*

I had redefined the debate from archaeologists vs. treasure salvors to state governments vs. the Federal Admiralty Court. The purpose of the Federal Admiralty Court is to encourage the saving of lives and the salvage of ships to return goods to commerce. States have the authority to excavate state land wet or dry for all other purposes, such as oil and gas, sand and gravel. Able to take in a variety of interests and uses for an area of dry or submerged land, the state was in the best position to manage shipwrecks and possible excavation.

Between my dating Congressmen and talking about treasure hunters that she had seen on television, my mother expressed constant concern for my sanity and safety.

Archaeologists, sport divers and treasure salvors each have a particular interest in underwater cultural resources and shipwrecks. Archaeologists value shipwrecks for the stories they tell. They use careful excavation to reveal the stories. They want exclusive use of the site but also want to engage with sport divers. Sport divers are diving for recreation. Some love history and shipwreck sites and volunteer on projects. Some divers do photography or spear fishing, hopefully not on the same reef at the same time. Many divers have become engaged in volunteering on projects to reestablish coral reefs. Access to sites is most important to sport divers. During the 1980s, sport divers created a voice separate from archaeologists or treasure hunters and became engaged in local and state politics especially with issues of beach access, fisheries and pollution. As Legislative Director for the Underwater Society of America, I hope that I was helpful in articulating that voice.

Treasure hunters want exclusive use of shipwreck sites to mine whatever they consider the treasure to be to make money. Perhaps two treasure salvors ever made money from a shipwreck project. Treasure hunting activities in the drive for treasure have included dynamiting coral reefs, using propwash to blast holes in the sand, destruction of fishery nursery areas and endangered species habitat, and dredging recreational beaches endangering children and turtles.

In 1979, there was one bill in Congress which gave control of shipwrecks to a Federal Agency. In 1988, there were 22 bills. The bills gave control over shipwrecks to various Federal Agencies and the Federal Admiralty Court and, of course, one bill to the states.

After the Abandoned Shipwreck Act of 1987 became law in 1988, admiralty treasure salvor cases dropped from 20 to 40 per year to 2 or 3. The most important result of the Abandoned Shipwreck Act was the education process engendered by the debate between 1982 and 1987. After the law was passed states spent their money not on Federal Court cases but on parks and resources for sport diving and the management of shipwrecks.

A situation developed in the United Kingdom when the government tried to enforce an Admiralty tax on the *Mary Rose*. In 1989, I worked with the Parliament to modify tax law to prevent the sale of artifacts from shipwreck sites such as the *Mary Rose*, requiring a 20% tax on the value by the sale of artifacts. The

modification influenced changes in the Commonwealth countries. Next, I worked with the International Law Association to write the archaeological language for the UNESCO Convention on the Protection of Underwater Cultural Heritage 2001 and attended the meetings in Paris to argue for its adoption.

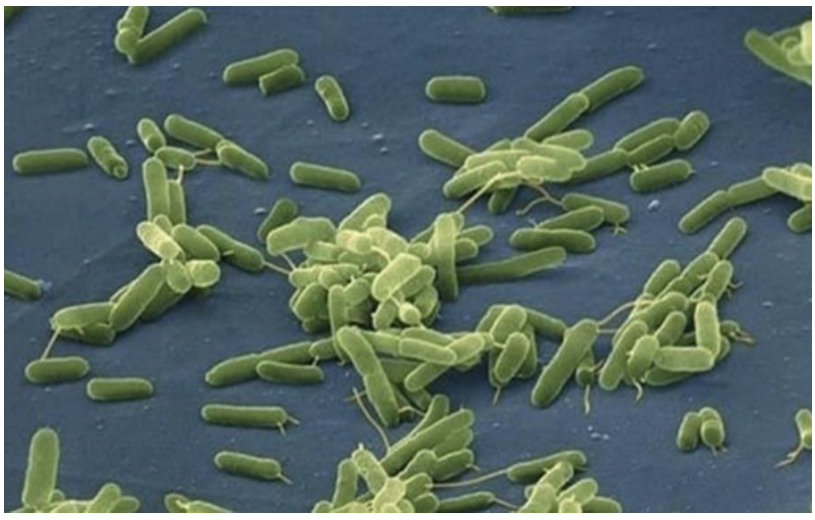
Now, cultural values have shifted. The historical value of shipwrecks has been institutionalized in law. Underwater archaeology programs are part of several institutions of higher education. Women are accepted in the field. Sport divers are organized and active with many archaeological and biological projects. There are still treasure hunters out there, but they have an arduous task with the shift in cultural values to the history of the shipwrecks not just the artifacts, state laws limiting destruction of shipwreck sites, and original owners of many ships such as the Spanish galleons claimed by Spain. Underwater Archaeology looks the way it does today because some people moved forward to change the culture and increase appreciation of the wonder of the world underwater.

Dr. Giesecke is an archaeologist, diver, and ocean advocate who works with sport divers and the cultural resource community to monitor and influence state and federal legislation that affects cultural resources and the oceans. She 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. ⚓

Vibrio vulnificus: Climate Change and Disease Risk for Maritime Archaeologists

by Susan Langley

Maritime archaeologists are facing unprecedented numbers of challenges with many, if not most, related to climate change. The majority are threats to sites from storms that are increasing in frequency and intensity and from the expansion of wood-devouring biota into waters that are colder and fresher. An aspect that is less considered is the potential for physical threats to diving archaeologists in the form of microbial infections. Some of these are relatively common and avoidable, such as conjunctivitis (pink eye) from using a communal rinse bucket for masks or waters with algal growth like cyanobacteria from blue-green algae. More dangerous are infections known as vibriosis, resulting from the bacterial pathogens of the genus *Vibrio*. Note that for background, the following discussion uses data generated from studies involving contact with the *Vibrio* bacteria but are not confined specifically to scuba diving.



Scanning electron microscope image of Vibrio vulnificus. *Image from public domain.*

Vibrio vulnificus is the most dangerous source of infection, particularly to the diving public. It is the virus associated with *Staphylococcus aureus* and *Streptococcus pneumoniae* resulting in septicemia (blood infection) and is often commonly referred to as a "flesh-eating" disease. It acts rapidly and frequently results in the loss of an infected limb and, if not treated quickly, can result in death. Males are affected more frequently than females and individuals over 40 years of age are at higher risk. Overall mortality is approximately 25% but increases to 54% in patients with underlying health conditions. The disparity between gender and age may be due to the higher prevalence of liver disease in older males. Of the 80,000 *Vibrio*-related illnesses reported each year in the U.S., 150-200 are from *V. vulnificus*.

Sea level rise and increasing temperatures and salinity are reflected in increased occurrences of *V. vulnificus* and predictive models indicate this trend will continue. A 75% increase in infections between the 1990s and 2006 has been reported, and an almost 300% increase between 2008 and 2018. Vibrio infections were not required to be reported to the CDC until 2007, so the earlier figure may not be entirely accurate. Researchers on the east coast of the U.S. reported an 8-fold increase in wound infections (10-80 cases per annum) between 1988 and 2018, and a shift northward in case occurrence by 48 km per annum reaching Delaware Bay. These researchers also note there have been occurrences even farther

north, in the Baltic Sea, for example. They predict that between 2041 and 2060 the North American range will expand to cover New York, and because of the ageing population, cases may double. *Vibrio* will be present in all eastern seaboard waters between 2081-2100. At a global level, between 1980 and 2020 the population at risk virtually doubled, rising from 610 million to 1,100 million. Some models predict a more moderate increment in the future and more stability after 2050 at 1,300 million people vulnerable to infection.

The potential hazards of *Vibrio vulnificus* in Maryland have long been recognized. A study of its distribution in the Chesapeake Bay was published in 1996 and noted that *Vibrio* counts were comparable with those from the Gulf of Mexico. The study checked oyster beds, sediments, and the water column at the bottom and surface monthly over two years (1991-1992) and recorded no instances of *Vibrio* in any samples in February and March when water temperatures were lower than 8°C. When the temperature exceeded 8°C, it was found in 80% of the samples, and in May it was found in 100% of the plankton (water) samples and 4 of 9 sediment samples, confirming its widespread distribution.

Predictably, Maryland is experiencing increasing numbers of occurrences of *V. vulnificus* infections. Comparison of data from 2006-2012 with data from 2013-2019 recorded a 39% increase in vibriosis per 100,000 population. Of these, *V. vulnificus* infections represented 53% (*V. parahaemolyticus* represented 47% but there was no indication whether ingested or from a wound). The number of hospitalizations increased by 58% and lasted for 10 days or longer. Overall statistics on morbidity and mortality are difficult to locate, but one example at the national level is from 2012 when there were 944 cases of vibriosis, of which 45% were *V. parahaemolyticus* (25% hospitalized and 2% died) and 14% were *V. vulnificus* (86% hospitalized and 30% died). In 2023, there were eight fatalities due to *V. vulnificus* on the East Coast; two in Connecticut, one in New York (Long Island), and five in Florida.

The National Oceanic and Atmospheric Administration (NOAA) publishes live information about the levels of *Vibrio* in the Chesapeake at https://nowcoast.noaa.gov/ (it may be necessary to click on "legend" to read the map provided), in order to avoid or minimize exposure. In addition, Anne Arundel Community College is home to Operation Clearwater that samples the Chesapeake Bay throughout Anne Arundel County, analyzes the samples and posts the information as to whether it is safe to swim (https://sites.google.com/view/aaccecoperationclearwater).

While the websites above offer guidance for both recreational and commercial/research usage of Maryland's waters, maritime archaeologists should employ additional preventative efforts. These include, wearing gloves for diving, handling lines and cables for boats, and for handling remote sensing equipment and dive gear, which should be thoroughly cleared after dives. In short, anything that has been in the water and especially if it has had the potential to be in contact with oyster shell and/or bottom sediments. Deferring work to the off-season with lower water temperatures, and the obvious avoidance of diving with open wounds, fresh tattoos, razor burn, and other scrapes and abrasions, may also limit the chances of exposure. If exposure takes place, such as a wound occurring while working, steps to thoroughly cleanse the affected area and treat with antibiotic cream or ointment should be undertaken immediately, and the wound should be carefully monitored for redness and heat. It is strongly advised to seek medical attention in any case. Vibriosis is generally treated with antibiotics; the type, dose, and method of management (oral, IV, etc.) being dependent on the species of *Vibrio* and the individual patient, with respect to underlying conditions or allergies, as well as age and gender.

There is a caveat: antimicrobial resistance is on the rise in general. This has not been demonstrated in *Vibrio* yet, but research in North Carolina is demonstrating that the presence of increased heavy metals in the water, largely from runoff of pesticides and use of algicides, coupled with rising temperatures have allowed bacteria to adapt and resist widely available synthetic antibiotics. Therefore, minimizing exposure and addressing incidents need to be included in planning for cultural and natural resource projects in the water, and considered by both project directors and project safety officers.

Susan Langley is State Underwater Archaeologist for the State of Maryland.

Suggestions for further reading:

CDC (Center for Disease Control). 2024. Harmful Algal Blooms and Your Health. https://www.cdc.gov/harmful-algal-blooms/about/index.html#

DAN (Divers Alert Network). 2020. Waterborne Illnesses. https://dan.org/safety-prevention/diver-safety/divers-blog/waterborne-illnesses/

Haftel, Anthony and Tariq Sharman. 2023. Vibrio vulnificus Infection. National Library of Medicine, National Institutes of Health. https://www.ncbi.nlm.nih.gov/books/NBK554404 ⚓

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. She is a member of MAHS.

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. Usually, the report was done in January for the previous year. This year the report was compiled in June to have something to report. The report does not 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. Talk to or write to your Representatives and Senators about bills and apply for NOAA Advisory Council positions.

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

During the 118th Congress more than 483 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

H.R. 2741. DEMA, the Department of Emergency and Military Affairs, supports the DIVE BOAT Act (Don't Imperil Vessel Employees, Business Owners, and Tourism Act). The bill would provide insurance relief for liability claims. The amendment is part of the Coast Guard Authorization Act of 2023, H.R. 2741.

Bills that passed the House or Senate are listed below. No laws have been passed at this time.

Coastal Communities Ocean Acidification Act of 2023

H.R. 676, S. 1808 Passed the House (05/09/2023)

This bill requires the National Oceanic and Atmospheric Administration (NOAA) and the Ocean Acidification Advisory Board to collaborate with various entities affected by ocean acidification and coastal acidification (i.e., the decrease in pH and changes in water chemistry of certain bodies of water and waterways).

Specifically, NOAA's Ocean Acidification Program must collaborate with state, local, and tribal entities that are conducting or have completed community vulnerability assessments, research planning, or climate action plans related to ocean and coastal acidification and their impacts on coastal communities. The program must (1) support collaborative interagency relationships and information sharing involving state, local, and tribal entities; (2) assist these entities in improving their existing programs to better address ocean and coastal acidification; and (3) assist these entities in identifying whether other communities can use these activities as a model.

The bill also requires the Ocean Acidification Advisory Board to include two representatives from Indian tribes, tribal organizations, and tribal consortia that are affected by ocean and coastal acidification.

Save Our Seas 2.0 Amendments Act

H.R. 886 Passed House (03/11/2024) S 318 Passed the Senate (12/13/2023)

This bill reauthorizes through FY2025 and modifies the Marine Debris Program and makes other modifications to the Marine Debris Act.

The bill modifies the program to allow the National Oceanic and Atmospheric Administration to (1) enter into other agreements, outside of contracts; (2) make in-kind contributions for projects; and (3) receive and expend funds from outside sources for projects.

Next, the bill modifies requirements for the Marine

Debris Foundation, including by modifying the process for approving or removing members of the foundation's board of directors. The board must appoint a chief executive officer of the Foundation.

The bill also directs the foundation to locate its principal office in the National Capital Region or a coastal shoreline community.

In addition, the bill requires the foundation to develop best practices for conducting outreach to Indian tribes.

Supporting the Health of Aquatic Systems through Research Knowledge and Enhanced Dialogue Act or the SHARKED Act

H.R. 4051 Passed House (02/05/2024)

This bill establishes requirements to address shark depredation (i.e., consumption of a fishing catch by a shark before it is retrieved by a fisherman). Specifically, the bill directs the National Oceanic and Atmospheric Administration (NOAA) to establish a task force to identify and address critical needs with respect to shark depredation. The task force must terminate within seven years.

When making funds available under its cooperative research and management program, NOAA must also prioritize projects related to understanding shark depredation.

Sea Turtle Rescue Assistance and Rehabilitation Act of 2023

H.R. 2560 Passed House (04/11/2024)

This bill requires the National Oceanic and Atmospheric Administration to establish a Sea Turtle Rescue Assistance and Rehabilitation Grant Program to encourage and facilitate coordinated rapid response and rescue of stranded marine turtles.

South Pacific Tuna Treaty Act of 2023

H.R. 1793 Reported to House (03/21/2024)

This bill revises federal requirements for U.S. commercial fishing vessels operating in the South Pacific. The changes reflect amendments to the South Pacific Tuna Treaty that were agreed to at Nadi, Fiji, on December 3, 2016. The treaty details mutual obligations of the United States and 16 Pacific Island countries when U.S. fishing vessels operate in the region.

The Alabama Underwater Forest National Marine Sanctuary and Protection Act

H.R.897 Passed the House (7/8/2024)

This bill, which was introduced by Reps. Jerry Carl (R-AL-01), Garret Graves (R-LA-06), Terri Sewell (D-AL-07), and Seth Moulton, (D-MA-06), would designate an ancient cypress forest in the Gulf of Mexico as the Alabama Underwater Forest National Marine Sanctuary. Recreational fishing, diving, and mooring are allowed.

National Oceanic and Atmospheric Administration

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.

NOAA will be establishing a new Sanctuary Advisory Council to provide advice and guidance to NOAA on the management of the sanctuaries. **Watch for the advisory council seat application announcement. For more information on the advisory council please contact pam.orlando@noaa.gov.** The Great Lakes Regional Coordinator is Ellen.Brody@noaa.gov.

Lake Ontario National Marine Sanctuary

NOAA has established (June 2024) **Lake Ontario National Marine Sanctuary** in eastern Lake Ontario to recognize the national significance of the area's historical, archaeological, and cultural resources. The sanctuary boundary encompasses 1,300 square nautical miles (1,722 square miles) of eastern Lake Ontario waters and will border Wayne, Cayuga, Oswego, and Jefferson counties.

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.

Release Draft Designation Documents and Provide for Public Comment Period; Target: Late Summer/Fall 2024. 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: Late Winter 2026. NOAA will prepare Final Designation Documents; Target: Spring/Summer 2026.

Chumash Heritage National Marine Sanctuary - Proposed

NOAA released for public comment the draft designation documents for the proposed Chumash Heritage National Marine Sanctuary. This action comes after the agency conducted a thorough analysis and evaluated feedback from the public, stakeholders, tribes and Indigenous communities, scientists, and federal and state agencies. The proposed sanctuary designation stretches along 134 miles of coastline and would encompass more than 5,600 square miles of water off the Central California coast.

Publish Final Designation Documents, Target: Late-2024.

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."

Release Draft Designation Documents and Provide for Public Comment Period, Target: Mid-2024 to Late-2024 Public review and comment on the draft designation documents.

Papahānaumokuākea National Marine Sanctuary – Proposed

"NOAA is proposing a sanctuary area of approximately 582,250 square miles. The agency's preferred boundary overlaps with marine portions of the monument. The boundary includes marine environment surrounding the Northwestern Hawaiian Islands from the shoreline of the islands and atolls seaward to 200 nautical miles, including all state waters and waters of the Northwestern Hawaiian Islands Coral Reef Ecosystem Reserve, Midway Atoll and Hawaiian Islands National Wildlife Refuges, and State of Hawai'i Northwestern Hawaiian Islands Marine Refuge. Large-scale conservation areas such as this are important to protect highly mobile species, such as sharks and marine mammals. They also protect entire ecosystems, preserving critical ecological functions and conserving biodiversity."

Proposed Papahānaumokuākea National Marine Sanctuary Draft Environmental Impact Statement has been published. The review period has closed.

United Nations

High Seas Treaty

The United States on September 20, 2023, signed the Agreement under the United Nations Convention on the Law of the Sea on the Conservation and Sustainable Use of Marine Biological Diversity of Areas Beyond National Jurisdiction, otherwise known as the High Seas Treaty at the United Nations in New York.

The ocean is one global system, and its health is key to the health of our planet. This historic High Seas Treaty creates a coordinated approach to establishing marine protected areas on the high seas, a critical step to conserving ocean biodiversity and reaching the global community's "30×30" target to conserve or protect at least 30 percent of the ocean by 2030." U.S. Department of State.

The 30x30 target was established by the Marine Conservation Institute.

UN Decade of Ocean Science for Sustainable Development (2021-2030)

The **2024 Ocean Decade Conference**, held in Barcelona from April 10 to 12, 2024 and co-organized by UNESCO's Intergovernmental Oceanographic Commission (IOC/UNESCO), rallied over 1,500 participants from 124 countries and over 3,000 online viewers, and was the culmination of Ocean Decade Week with 120 Satellite Events (April 8-12). The main outcome of this event was the Barcelona Statement which identifies priority areas for action for the Ocean Decade in the coming years.

The Barcelona Statement identifies the future priorities for ocean knowledge and science generation within the framework of the Ocean Decade, including the co-design and co-delivery of science and knowledge to understand global distribution, human health, ecosystem impacts of marine pollution; and to strengthen sustainable aquatic food production and encourage sustainable and climate resilient ocean economy projects" (oceandecade.org 6/9/2024). White Papers by the ten working groups should be available soon.

Plastic Pollution

In March 2022, at the resumed fifth session of the UN Environment Assembly (UNEA-5.2), a historic resolution was adopted to develop an international legally binding instrument on plastic pollution, including in the marine environment.

The resolution (5/14) requested the Executive Director of the UN Environment Programme (UNEP) to convene an Intergovernmental Negotiating Committee (INC) to develop "the instrument," which is to be based on a comprehensive approach that addresses the full life cycle of plastic, including its production, design, and disposal.

The INC began its work during the second half of 2022, with the ambition to complete the negotiations by the end of 2024. The first session of the INC (INC-1) took place in Punta del Este, Uruguay from 28 November to 2 December 2022, followed by a second session (INC-2) from 29 May to 2 June 2023 in Paris, France. The third session (INC-3) marked the process midway point from 13 to 19 November 2023 in Nairobi, Kenya, followed by the fourth session (INC-4) from 23 to 29 April 2024 in Ottawa, Canada. The fifth session (INC-5) is scheduled for 25 November to 1 December 2024 in Busan, Republic of Korea.

The revised draft text of the international legally binding instrument on plastic pollution, including in the marine environment (UNEP/PP/INC.4/3) is available in all six UN official languages.

Material for this article was adapted from public web sites: https://www.congress.gov/; https://sanctuaries.noaa.gov/ https://oceandecade-conference.com/home.php https://www.unep.org/inc-plastic-pollution.

Paul Johnston Receives MAHS 36th Anniversary Award

by Steven Anthony

In August of 2024, MAHS presented Paul Johnston, long-time member of our Board of Advisors, with the MAHS 36th Anniversary Award. Johnston is currently a Curator at the National Museum of American History at the Smithsonian Institution, where he also serves as Acting Chair of the Division of Work and Industry. He has been associated with MAHS in various capacities since its inception in the late 1980s.

Paul Johnston is presented with the MAHS 36th Anniversary Award by the MAHS Board of Directors. Left to right: D. Knepper, T. Berkey, P. Johnston, S. Anthony, D. Shaw, J. Smailes.

Many of us first met Paul back in 1995, when treasure hunter Paul Tidwell was making a presentation to MAHS about his discovery of the I-52 submarine, an Imperial Japanese Navy cargo submarine active during World War II. Nicknamed the Golden Submarine, the vessel was carrying a shipment of gold from occupied France to Germany as payment for matériel and technology when it was sunk by American forces in the Bay of Biscay in 1944. Paul came to the presentation to debate Tidwell on his plan to salvage the submarine, warning MAHS to stay clear of any involvement in the project.

I don't know whatever happened to the two tons of gold reported to be housed in the submarine along with many other items of value which were originally intended to pay Germany for technology that Japan needed to pursue its war effort. Japan apparently declared the I-52 to be a war grave so hopefully it remains undisturbed.

Paul has counseled MAHS presidents and steered MAHS forward to ethical underwater archaeology activities for years, as we have grown into one of the leading avocational underwater archaeology organizations in the country. Further, he has supported MAHS in our ongoing role as Institutional Advisor to the Advisory Council on Underwater Archaeology in which MAHS has been an ongoing member for decades.

In recognition of his wise and devoted counsel over these many years, the MAHS Board of Directors thanked Paul and presented him with the MAHS 36th Anniversary Award. ⚓

The Ocean Foundation Book Series

Ole Varmer, The Ocean Foundation's Senior Adviser on Ocean Heritage, asked us to announce that, in partnership with ICOMOS-ICUCH (the International Committee on Monuments and Sites- International Committee on Underwater Cultural Heritage), IUCN (the International Union for the Conservation of Nature), and the Lloyd's Register Foundation, there are two books now available for free download. *Threats to Our Ocean Heritage: Bottom Trawling* (https://link.springer.com/book/10.1007/978-3-031-57953-0), contains articles that address the threats to our Ocean Heritage from the destructive activities of bottom trawling. *Threats to Our Ocean Heritage: Potentially Polluting Wrecks* (https://link.springer.com/chapter/10.1007/978-3-031-57960-8_1), contains articles covering the legal context, environmental impacts, archaeology, and case studies of pollution from wrecks in certain areas of the Atlantic, Pacific, and the Baltic Sea.

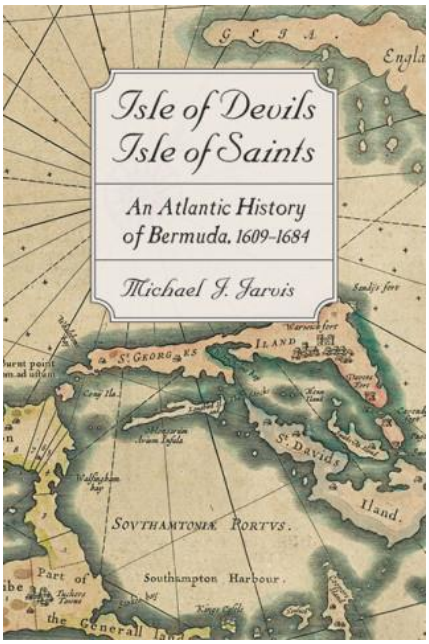
The group is also seeking contributors for a third book about threats from deep seabed mining. Finally, please see Project Tangaroa (https://www.project-tangaroa.org/) regarding their effort to develop international standards (or tool kit) for nations to use to address threats to our heritage from potentially polluting wrecks. ⚓

BOOK REVIEW

Isle of Devils, Isle of Saints, An Atlantic History of Bermuda

by Michael J. Jarvis (Johns Hopkins University Press, 2022)

reviewed by Dennis Knepper



Bermuda lies isolated in the western North Atlantic. The island's history has been shaped by its proximity to the Gulf Stream and by its remoteness, each being important factors in the way the island was colonized, in its economic, political, and cultural development, and in its relationship with other Atlantic settlements. Initially, the island was used as a landmark, a navigational waypoint on voyages from the Americas to Europe in the days when latitude could be determined from the position of the sun, but determining longitude was not much more than guesswork. To verify their progress, ships that sailed northward with the Gulf Stream would typically veer eastward at thirty-two degrees north and continue until they sighted the island. Having verified their position, they would sail onward to the northeast toward the Azores and Europe.

The waypoint was also a hazard, however, due to extensive reef formations lying to the north and west of the island. Bermuda is low-lying and had to be closely approached to be seen. Ships venturing too close have wrecked on the shoals from the 16th century onward. The remains of many of the wrecks litter the shallow waters, where they have attracted recreational divers and have been studied by archaeologists for decades.

The earliest English colonization of Bermuda is the subject of a book recently published by Johns Hopkins University Press titled *Isle of Devils, Isle of Saints: An Atlantic History of Bermuda, 1609*-1684. Written by historian and archaeologist Michael Jarvis, it is an in-depth analysis of the roots of Bermuda's commercial trade. The book is, in effect, a prequel to Jarvis' earlier study, *In the Eye of All Trade: Bermuda, Bermudians, and the Maritime Atlantic World, 1680-1783*, published in 2010, which is a history of the mercantile connections of the Atlantic world from the perspective of Bermuda's seafaring community.

In both works, Jarvis situates the history of Bermuda in the context of the growing English presence in the Atlantic world. *Isle of Devils, Isle of Saints* spans the island's discovery through the period of the Bermuda Company, the commercial venture appointed by the British Crown to administer the island.

The title of the book comes from contrasting contemporary views of the island. The name Isle of Devils first appeared on Spanish maps in the 1540s. The devils in question were probably birds: the cahow or

Bermuda petrel, nocturnal birds that swarmed some of the early Spanish sailors who made landfall on the island. The demonic effect may have been enhanced by the grunting and snorting of feral hogs, descendants of animals that had escaped to shore from earlier wrecks. Seventeenth-century English settlers had a less ominous vision of the island, however, enshrined in verse in 1620 by Sir Thomas Wroth of the Bermuda Company that reads in part, "what evils hath made men call your Iles the Iles of Devils…let's hear no more complaints…they may be Iles of Saints."

Jarvis argues that Bermuda's isolation allowed it to develop differently in comparison with other English colonial possessions in the Atlantic region. It became the nexus of a web-like arrangement of contacts throughout the Atlantic and Caribbean, rather than being directly dependent on the original New England colonies.

The original commercial trading concern chartered by James I to oversee English colonization of the eastern coast of North America was the Virginia Company. Company shareholders were mostly Londoners administering large land tracts. A separate commercial venture, the Bermuda Company, was formed to administer Bermuda. First established with the ungainly name "Company of the City of London for the Plantation of the Somer Islands," or more briefly, the Somers Isles Company, it was comprised of investors who developed approaches unlike those of the larger Virgnia Company. With smaller, less expensive shares and serviced by so-called magazine ships with set rates for passengers and cargo, Bermuda developed a one-household-per-share pattern rather than the large collective plantation units typical of Virginia.

Differences came to a head early on, in part over tobacco. Bermuda grew to be England's top source of tobacco by 1620, surpassing Virginia at that time. The importance of tobacco exports from the island during this period is highlighted by the *Warwick*, a merchant vessel owned by one of leaders of the Bermuda Company, Robert Rich, the Earl of Warwick. The ship was wrecked in a storm in 1619 while at anchor in Castle Harbor, at the north end of the island. Historians had assumed the vessel to have been old, called out of retirement after years in the colonial trade to transport tobacco from Bermuda to the London market. Archaeological investigations of the wreck in 2010-2012 showed that the vessel was in fact new and of particularly robust construction. Rich's influence in the Somers Isle Company meant that he was under enough pressure to quickly get the crop to the English market that he put his own new ship to use.

But the market soon became saturated with leaf from Spanish holdings and from other Caribbean islands. In the face of English imposts, or taxes, it collapsed. The price drop created an economic crisis in Bermuda that was eventually ameliorated by the Bermuda Company when it directed planters to diversify and to grow other crops. The settlers turned away from tobacco and, flipping the existing import\export model, exported other products to New England and the West Indies, thus developing a degree of economic self-sufficiency.

Jarvis is a social historian and historical archaeologist by training, a professor of History at the University of Rochester (NY) and Director of the Smith's Island Archaeology Project, where he conducts archaeological and historical research at the site of the first settlement in Bermuda. His academic background is skillfully employed in the extensive interdisciplinary research behind the book, which he acknowledges was 30 years in the making. His reach into archival sources is broad and deep, whether it be official records, contemporary correspondence, histories, and personal accounts, or the wide range of literature pertaining to the English colonial world, all attested to by 90-plus pages of detailed notes and a short essay on sources.

Spanish vessels had made landfall in Bermuda since the very early 1500s, but perceiving the island to have thin soil and no fresh water they did not attempt to stay, lured instead by the easier riches of Mexico and Peru. Permanent settlement of the island is traced to the wreck of the English vessel, *Sea Venture*, in 1609, when two of the survivors remained behind as others sailed on for Jamestown and eventually back to England. When news of *Sea Venture*'s voyage and the "true and bountiful nature" of Bermuda reached London, the Virginia Company began recruiting settlers. With no indigenous population, the island was quicky populated with around 2,000 settlers in the decade between 1612 and 1622. The colonists consisted largely of families, and there was little additional immigration at first, allowing a core of familial interconnections to develop. Thus, Jarvis holds, a large part of the success Bermuda had within the Atlantic colonial world grew from kinship connections, beginning within Bermuda and soon extending to other islands.

A strong Puritan commitment determined the direction of life in Bermuda from the beginning. Life was characterized by hard work, personal piety, and purity of worship. Yet things were without what Jarvis calls "an institutional infrastructure" as developed in New England. Bermuda was also a genuinely maritime society, isolated in the Atlantic with its inhabitants never more than a mile from the sea.

He also notes that Bermuda was the first place in which the English encountered slavery "and had to reconcile African-born and -descended people and enslavement to English religion and law." Speaking of the first Africans who arrived in Bermuda as the "charter generation," Jarvis notes that most did not come to the

island directly from Africa, but from Spanish colonies. They found conditions better in Bermuda, the climate more temperate and their situation overall less harsh and uncertain. Many among this first influx became part of the household of their owner rather than being mere chattel. But they arrived enslaved, and their status was maintained. Not until the 1760s, however, was formal bondage expressed in statutory law.

Jarvis documents tensions that grew between local assembly members and the Bermuda Company over control of island affairs, the details of which are intricate and comprise about half of the book. The conflict eventually culminated in a long court case in which the Crown supported the island's inhabitants against the Company. The Royal Charter of the Bermuda Company was revoked in 1684, and the Crown assumed responsibility for appointing the Colony's governors. The change in government ultimately led to a "maritime revolution," with economic orientation shifting from agriculture to shipbuilding and various other maritime trades including an "indigenous fleet of specialized merchant, privateer, and wrecking vessels."

In his summation, Jarvis notes that in many ways Bermuda was like most transatlantic colonial ventures: it was backed by English investors who had goals of profit and expansion; it was populated by settlers who exploited new agricultural and mineral products and established trade networks; and it experienced an influx of labor that resulted in an intermixing of cultural systems. In contrast to other Atlantic colonies, however, Bermuda soon went its own way. In spite of the Navigation Acts, first enacted in 1651, that essentially required all colonial trade to go through England, Bermuda merchants bypassed English customs houses resulting in the island developing as a key independent trading hub in the Atlantic. With the termination of the Bermuda Company, maritime trades soon began to replace agriculture as major economic drivers.

Isle of Devils, Isle of Saints expertly documents the development of Bermuda's trading independence. It contains an abundance of information, highly detailed and capably interpreted, and it should become an essential reference for historians and archaeologists of the Atlantic colonial period. ⚓

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an award commemorating his outstanding service to MAHS for all these years. See the article in this edition of *MAHSNews* for a full report of the activities.

Finally, I am pleased to report the appointment of a new "At Large" member to our Board of Directors. Phil Sankovitch volunteered for this position at our recent General Membership meeting. Phil was a recent student in our 2024 Introductory Course in Underwater Archaeology and currently resides in the State of Washington. We are looking forward to Phil's participation in 2025 as the West Coast representative for MAHS as we continue to expand our activities across the nation. Welcome aboard Phil!

OK. That's it for now. Remember to keep in touch with MAHS activities through MAHSmail.

See you on the water.

Steven Anthony

Be sure to keep your MAHS Membership current. If you aren't a member, become one and join us in supporting maritime historic preservation.

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 Statement 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) _____

Address _____

City_____ **State** _____ **Zip** _____

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.

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