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In times of natural disaster with increasingly urgent requests for aid, why would we still consider making a donation to INA? Why choose to support archaeology in a world with so many pressing social needs? Why should we save history? Given the recent events in Haiti and elsewhere around the world, those are good and pertinent questions. Myself, I have chosen to give… plain and simple. I give where I can and when I can. I give to social and humanitarian causes, and I also choose to lend support to my life’s passion, and I do so with a sense that by giving to archaeology I am also supporting the needs of society.

I’m reminded of that every time I visit an archaeological site or participate in a dig and confront the reality beyond a sunken hull, scattered artifacts, and scientific data. Archaeology is also about people and provides us with a link to past lives, especially the lives of those souls lost or forgotten by the history books.

Last summer, I joined the team diving on the 1901 wreck of the sternwheeler A.J. Goddard in a near-frozen sub-Arctic lake in Canada. Five men crewed that tiny steamer on the wilderness frontier during the Klondike Gold Rush, and three of them died in the wreck. The frigid, clear water has made the wreck a time-capsule, their last moments frozen in time… an axe dropped on the deck after the supply barge was cut free, an open furnace door on the boiler containing the last load of firewood tossed in during a desperate bid for more steam, and the shrugged off coat and shoes of a man struggling to claw out of the freezing lake still lie on the deck. Who were these men? We know very little about these five souls who left the comforts of home for a rugged life on the frontier, trying to eke out a living. Their personal effects, and perhaps their identifying papers, may lie within the wreck. If we manage to recover these things, to preserve and study them, then we help give life again to the forgotten crew of five whose stories were swallowed not only by the lake, but also by history.

All of us stand to gain by the illumination of the past, not only through the accumulation of knowledge, but also in more tangible ways as artifacts make their way into museums encouraging tourism, inspiring learning and sparking curiosity.

In this issue of The INA Quarterly we announce the opportunity of a lifetime, as we celebrate the 50th anniversary of the excavation at Cape Gelidonya and the emergence of nautical archaeology as a legitimate scientific discipline with a return journey to Turkey led by Dr. George F. Bass.

We also feature articles written by three students enrolled in the Texas A&M University Nautical Archaeology Program who have found their inspiration. What do they think of their studies and the opportunities they have to make a difference in reconstructing the past and uncovering history’s untold stories for themselves? You will also read about the damage caused to shipwrecks by trawling, and why treasure hunting makes “no cents.”

The passion for nautical archaeology shared by all our contributors serves to remind me of this discipline’s ability to make a difference for people… past, present, and future. It’s really all about people, and that’s why I belong to and support INA.
50th Anniversary Celebration!
Back to where it all began with Dr. George F. Bass.

PHOTO INA ARCHIVES - Peter Throckmorton (1960)
Several times during the summer, the expedition was almost washed from its beach camp.

Maritime History Under Attack
Historic underwater sites are under increasing threat from treasure hunting and trawling activities.

A case study from the southeast Aegean Sea by Michael L. Brennan.

A case study from NOAA’s Stellwagen Bank National Marine Sanctuary by Deborah Marx.

A case study from the coast of Sicily by Jeffrey G. Royal of the RPM Nautical Foundation.

The Next Generation
Life in the field with some of our nautical archaeology students from Texas A&M University.

PHOTO Sarah Herkes
Fifty years ago, George Bass led an extraordinary expedition to Cape Gelidonya, Turkey, where a Late Bronze Age wreck had been discovered by Kemal Aras, a sponge diver from Bodrum. He in turn described it to photojournalist, diver and amateur archaeologist, Peter Throckmorton, who was able to locate the site himself. Recognizing its great age and potential, he asked the University Museum of the University of Pennsylvania if it would organize an excavation.

The 1960 excavation of this ship from “a time when Agamemnon quarreled with Achilles on the beach at Troy. A ship from the time when Odysseus set sail for home across a wine-dark sea. A ship that was more than three thousand years old” (Bass) was to be the first of many firsts. It was the first shipwreck excavation carried out in situ, and held to the same scientific standards as terrestrial excavations, and it was the first to be directed by a diving archaeologist, George Bass—and it was his first time diving on a wreck as well.

Living in a camp, that would euphemistically have been called rustic, an hour’s sail from the wreck site, the expedition party including George’s new bride Ann lived in makeshift structures and made do with a diet of beans, rice, tomatoes and watermelon for three months. It was indeed a grand adventure and together he, Peter Throckmorton, and Claude Duthuit, along with the other team members, were inventing the discipline of underwater archaeology as they went along… relying on the energy and enthusiasm of youth and their own ingenuity. This expedition not only made history, it changed the history books as the discoveries at Gelidonya changed our view of ancient Bronze Age trade.

This year we celebrate the achievements and adventure of this expedition with a very special 50th anniversary trip along the western coast of Turkey, accompanied by Dr. Bass. Visit with a team of archaeologists, including veterans of the original project, as INA re-excavates and studies the site to learn more with tools and techniques not available a half century ago. Hear firsthand from the man known as the father of nautical archaeology about INA’s first fifty years of work and the amazing discoveries that have been made at the bottom of the sea.

We have included many special features in the trip. You will be welcomed in the gardens of the Institute’s Bodrum headquarters, where you will meet INA’s team from past and present, and where you can visit the laboratories where ancient finds are preserved and analyzed. A special banquet will be held in the Castle of St. John which houses the Bodrum Museum of Underwater Archaeology, founded with assistance from INA and where the finds from fifty years of underwater excavations are displayed. Your guides will be the archaeologists who excavated these wrecks… a rare and unique opportunity. Journey to Gelidonya itself, where INA’s ship Virazon will be anchored over the site and the team will share their work and finds. This is a once in a lifetime opportunity for an “over the shoulder” look into the fascinating world of nautical archaeology.

Editor’s Note: For a real sense of the early days of nautical archaeology, I would highly recommend reading (or re-reading) Archaeology Beneath the Sea: a personal account by George Bass.


All images from INA Archives
The Disarticulation of Ancient Shipwreck Sites by Mobile Fishing Gear: A case study from the southeast Aegean Sea
Michael L. Brennan

The past century has seen a continually increasing amount of fishing activity, in terms of both the area covered and the depths reached by bottom trawls. This is especially true for the relatively shallow waters of the Aegean Sea. An unfortunate result of the growing fisheries industry is the inevitable damage to the seabed by mobile fishing gear. The Eastern Aegean Expedition 2008 and 2009 by the Institute for Exploration and the University of Rhode Island’s Center for Ocean Exploration and Archaeological Oceanography sought to re-locate and document two Roman shipwrecks found in 1967 and 1990 by INA off the coast of Yalikavak, Turkey (Parker 1992). An additional side-scan sonar survey was conducted in the coastal waters below diving depth (> 50 m) to conduct systematic acoustic and visual imaging of the seafloor (Brennan 2009). These two years of work have resulted in the documentation of the heavily altered modern submarine landscape, which has overprinted the ancient one through the scraping away of bedforms by trawls.

Shipwrecks in the Aegean Sea have commonly been discovered by fishermen, as they often drag up artifacts in their nets (e.g. Sakellariou et al. 2007). The physical effects of mobile fishing gear, specifically bottom trawls, include the smoothing of bedforms, compression and resuspension of sediments, and the displacement of buried objects (NRC 2002). Bottom trawling is officially regulated by the Turkish government as part of the Fisheries Law of 1971 and its subsequent amendments. Trawling is prohibited within 2.5 km of shore, which are also areas often avoided by fishermen due to proximity to rocky coastlines. Bottom trawling is also prohibited within 100 m to either side of submarine communication cables and in a number of shallow coastal zones (KKGM 2006). An additional restriction is printed on navigational charts, which prohibits vessels over 300 tons from operating around the islands off the Bodrum peninsula (Figure 1). The Eastern Aegean surveys were designed to explore and document the areas both within these restricted areas, as well as territory outside them, while field testing new technologies for archaeological landscape recording. The result is the visual and acoustic documentation of the condition of a seabed that has been heavily scraped over by bottom trawls, but with a lessened effect in areas where the industry has been regulated in recent decades.

Including the two previously known Roman wrecks, eleven ancient shipwrecks were located around the Bodrum and Datcha peninsulas between 2008 and 2009. All of these sites were either within 2.5 km of shore or in the proximity of a submarine cable (Figure 1). In areas we surveyed away from restricted zones, no shipwrecks were found; the seabed there had a brushed metal appearance on sonar from the continuous scraping by bottom trawls.

The cessation of bottom trawling within these restricted navigational boundaries can also be illustrated with the side-scan sonar data. The 2008 project was focused on the areas in and around the Yalikavak harbor and the nearby Kiremit and Cavus Adasi islands, all of which are within the navigational boundary noted above (Brennan 2009). A few sonar lines were run north and west of where this boundary ends. Every time this boundary was crossed, it was apparent as a change in the sonar data: the area outside the boundary was visibly swept clean, while inside, small features were still visible on the seabed. Figure 2 shows the change in seafloor conditions and the onset of trawl scars as the sonar crossed the boundary. This evidence suggests that fishing vessels generally adhere to the restriction there and veer away from this coastal area. The broken artifacts that encompass the wrecks are indicative of past trawl damage, but the effect is less than in areas that are heavily trawled, which raises the question of whether any remnants of these wrecks would be detectable had they been in unrestricted zones further away from land.

LEFT
Figure 1 Map of 2008 and 2009 side-scan sonar survey coverage (red lines). Green line indicates a video transect with camera sled, Argus. Blue line indicates the submarine cable. Black line denotes navigational boundary around the Bodrum peninsula. “A” indicates where individual amphoras were located. ©IFE/COEAO
In addition to the significance of their location near restricted trawling zones, the eleven wrecks in deep water off southwestern Turkey also demonstrate the stages of disarticulation of ancient wreck sites by bottom trawling operations through their various states of preservation. Yalikavak II is located inside the Yalikavak harbor and has been protected from both currents and fishing activity. The wreck consists of a high mound of intact amphorae (Figure 4). Knidos B, an Archaic Greek ship located near a submarine cable in open water away from the coast, also exhibits little damage. This wreck appears to be a much lower topographical feature partly because it is centuries older than the Roman wrecks and has been partially buried by sedimentation. Corals growing on this wreck suggest that it has not been run over by fishing gear recently (Figure 5). This is an example of what a wreck like Yalikavak II would look like if left undamaged over time.

Other amphora wrecks found just outside the Yalikavak harbor, Yalikavak I and Buyukkiremit I, still have amphora piles in the general shape of a ship (Figure 3), but these artifacts are broken from trawl damage, although not scattered to a great extent. Knidos C, one of the Byzantine wrecks found in 2009 in the deep waters south of Knidos exhibits more extensive damage from trawl doors, including drag marks that run directly through the amphora pile (Figure 6). Finally, the Knidos D wreck site is an example of an amphora wreck in the lowest detectable state (Figure 7). This wreck consists of a half dozen amphorae and a small pile of ballast stones; the remainder of the ship’s cargo appears to have been dragged away and was found only because of the reflective nature of the ballast pile. Wrecks scattered or damaged beyond this state would not be detected with sonar. All of these sites are at least nominally protected by Turkish regulations. Ships that sank outside of these areas are likely to have been damaged to a greater extent than Knidos D.

The investigation of archaeological sites, both terrestrial and submerged, requires the exploration of the modern landscape, which is then interpreted in order to understand the remnants of the ancient landscape. In the case of the shallow Aegean Sea, there is little seabed that has escaped the reach of trawlers. Exceptions include coastal zones where bottom trawling is either impractical for fishing operations or has been prohibited in recent decades. The eleven shipwrecks located off the coast of southwestern Turkey are good physical indicators of these zones. However, as with any ancient landscape overprinted by modern processes, a lack of evidence does not necessarily equate to its absence. The observations over the past two years of the extent of trawling in the region suggest that there may be a greater loss of cultural sites to modern fishing activities in the Aegean than we can physically document, and caution us to both apply our interpretations and plan future imaging surveys accordingly.

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Figure 6 Photo of Knidos C wreck showing trawl scar through the wreck. © IFE
Figure 7 (inset) Photo of Knidos D wreck. © IFE

References
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Fishing Threatens Historic Shipwrecks

NOAA's Stellwagen Bank National Marine Sanctuary
By Deborah Marx

Fishing gear has impacted nearly all of the historic shipwrecks investigated in the Stellwagen Bank National Marine Sanctuary. Designated by Congress in 1992 to protect biological and cultural resources while facilitating uses compatible with the primary goal of resource protection, the Stellwagen Bank National Marine Sanctuary (SBNMS) is an 842 square-mile marine protected area at the mouth of Massachusetts Bay managed by the National Oceanic and Atmospheric Administration's (NOAA) Office of National Marine Sanctuaries.

Over 400 years of years of waterborne activity have made the sanctuary a repository for this nation's maritime heritage. Since 2000, SBNMS has been systematically locating and documenting the shipwrecks that lie within its boundaries. And our investigations have revealed the severe impact that fishing has had. On an annual basis, virtually every square kilometer of the sanctuary is physically disturbed by fishing activities, including bottom trawling and dredging. Some shipwrecks have been shrouded in nets while others have been denuded of all upper structure and durable metal hardware, leaving only a pile of cargo atop lower hull remains.

A single impact from bottom trawl fishing gear can cause extensive damage, compromising the information contained within the archaeological site. Similarly, gillnets and lobster pots can impact a site momentarily or the fishing gear can become entangled with the shipwreck and subsequently abandoned. These interactions degrade the shipwrecks' archaeological integrity, diminish its aesthetic qualities, and result in a perpetual cycle of “ghost fishing” that harms marine ecosystems.

Stellwagen Bank sanctuary regulations afford shipwrecks much greater protection than shipwrecks located in surrounding Federal waters. These regulations prohibit altering the seabed or possessing, moving, removing, or injuring a sanctuary historical resource. However, Sanctuary regulations also provide an exemption for fishing activities, allowing them to alter the seabed and injure a sanctuary historical resource without violating the regulations. And Stellwagen Bank sanctuary is not the only sanctuary in the system with an exemption given to fishing.

NOAA is revising the Stellwagen Bank sanctuary management plan to address this problem. Proposed strategies include providing fishermen with precise locations and buffer information to avoid shipwrecks. Certain shipwrecks of significance and fragility would be protected from disturbance by a “Heritage Preserve” in which all disruptive activities would be prohibited or mitigated. While fishermen may find the restriction of their fishing activities to be objectionable, they also recognize that serious financial loss can occur when their gear is snagged on a shipwreck. Developing conscientious protective measures for shipwrecks that do not unnecessarily restrict fishing activities is the goal of future sanctuary regulations.

Congress designated SBNMS and all other National Marine Sanctuaries to protect areas of the marine environment with special national significance due to their conservation, recreational, ecological, historical, scientific, cultural, archeological, educational, or aesthetic qualities. A higher level of protection for shipwrecks inside SBNMS than in surrounding federal waters should be provided and a solution must be found to prevent further impacts to historic shipwrecks from fishing activities.

Deborah Marx is a Maritime Archaeologist with the NOAA/Stellwagen Bank National Marine Sanctuary.
Since 2005, RPM Nautical Foundation (RPMNF) and the Superintendent’s Office of Underwater Archaeology in Sicily have conducted a survey of coastal waters off Sicily. Early in the summer of 2006, during verification of anomalies mapped in the previous season, the ROV cameras revealed the remains of a wrecksite. This site came to be known as the Levanzo I wreck, as it lies about 6 km north of Levanzo Island, one of the three Egadi Islands off the NW coast of Sicily (Figure 1). This 4th-century AD Roman merchantman laden with food stuffs and construction materials was enroute from North Africa to the Italian mainland when it met its demise. At the time of discovery, little was known about the nature of deeper-water sites compared to that known about sites near shore. Comparatively little is still known; however, with efforts by our and other organizations, more is being discovered about the nature of these sites and the threats to them.

At a depth of 90 m and out of practical diver depth, it would seem such a site was safe from human exploitation and/or damage, particularly to the illegal collecting by recreational divers that plagues shallow-water sites. Initial investigation of the site documented the damaged artifacts dispersed around the surface of this relatively flat site; it remained unclear as to how far the material extended into the sandy bottom (Figure 2). Over the successive years this site was further documented and diagnostic artifacts were recovered, while anomaly verification continued in the survey area. It quickly became clear that much of the survey area had been covered by dragnet fishermen. Many areas were scraped clean of virtually all biological presence and loose stones, leaving a barren, flat landscape. The only features are long drag marks that criss-cross the seafloor and flat rock outcrops slightly protruding from the sand. Only in areas where rock outcrops reached about half a meter high did the evidence for dragging end; here is found drag gear snagged on rocks and random, usually damaged, artifacts dumped by the ripped nets.

It was clear that the Levanzo I site had suffered dragnet hits as well, which resulted in the scattered artifacts on the surface of a very slight mound. This mound rose less than 30 cm in height, just below the height of rock outcrops that surround the wrecksite. Fortunately, dragnets had hit the rocks and risen off the seafloor at the site; but any of the material above the height of the rocks was now gone. Furthermore, a drag from certain directions where no rocks are present could still obliterate the remnants of the site. Considering the situation, Co-Director of the Project Dr. Sebastiano Tusa, Superintendent of Underwater Archaeology for Sicily, agreed that future damage to the site required mitigation and arranged conservation support for artifact retrieval.

In 2009 RPMNF had equipment and software in place that allowed numerous surface artifacts to be mapped in and recovered (Figure 3), as well as the capability to perform controlled excavation. This operation put in place experimental equipment and methods in order to maintain archaeological standards while working through an ROV. Excavation was limited to two 1-meter squares and revealed that the site sits atop a hard sediment layer approximately 5 cm below the surface (Fig. 4); hence, the shallow sand cover on the site provides artifacts virtually no protection from further drag net incursions. Consequently, the ceramics exposed on the seafloor upon discovery were almost all that remained of the cargo due to the devastation of the dragnets. This reaffirmed the necessity for mitigation for this site, and illustrates the peril that offshore sites face. The Levanzo I wreck is similar to many others in deeper waters, where sedimentation rates are lower than those at the shore and can leave wrecksites largely exposed. The particular threat of drag nets is amplified as they dig into the sandy surface. Although this merchantman is now receiving rescue efforts, one can only ponder the hundreds or possibly thousands of wrecks throughout the Mediterranean lost forever to dragnets.
A Ghost of Our Past: A.J. Goddard

Four thousand miles north of the headquarters of the Institute of Nautical Archaeology on the campus of Texas A&M University is the Yukon wilderness. In the summer of 2009, an expedition led by the Institute of Nautical Archaeology and funded by National Geographic returned to the Yukon River. This year, the goal was big: to record the newly found sternwheel steamer A.J. Goddard. Twenty years of searching by dedicated local scientist Doug Davidge had finally paid off, as this virtually intact time capsule from the Klondike Gold Rush era was about to be revealed to the world.

As a graduate student in the Nautical Archaeology Program at Texas A&M, I was fortunate enough to be allowed to join the expedition team. I knew little about the history and importance of the steamers before I joined the six-person team that summer, though I would quickly learn. I knew only that there would still be ice on the water when I made my first dive, and that we would be sleeping on rocks with the ever-present threat of grizzly bears and bad weather—a fear relieved only by good Scotch and good company around the campfire.

My desire to work in the Yukon is certainly not because of the fine living conditions, but rather because of the story of our past that is tied to the land there. Though the shipwrecks along the Yukon River are thousands of miles away from what most us consider home, the history of the Klondike Gold Rush belongs to all of us. The men and women who traveled north at the end of the 19th century to find their fortune in the wilderness came from all over the world, and their perseverance and ingenuity is timeless.

These were the qualities that carried them over the Chilkoot pass, away from their family and friends, and into history. The bones of the steamships that carried these people along the rivers tell their stories, if someone is willing to look. Fortunately, Doug Davidge and John Pollack, two dedicated and skilled avocational archaeologists, have led the charge to rediscover these lost wrecks.

Though the focus of the Yukon River Survey is a period that is barely 100 years past, it was not until I was floating above the completely intact A.J. Goddard that I realized the power of relatively modern but intact shipwrecks such as these. Though I am fascinated by the mystery of the broken and scattered shipwrecks that have been the focus of much of my previous work, the power of an unbroken shipwreck is undeniable. An intact shipwreck with artifacts still aboard, lying in the same place they were abandoned, can make a person instantly feel the history that we often only hear about after slowly piecing it together from bits of wood and pottery. One can almost see the men and women on deck, leaving behind a coat, or an open boiler door, as they fled the sinking ship. A story that often takes months, if not years, to assemble, is visible in an instant.

Ships like these are vivid reminders of our past and the importance of preserving what we can. They are some of our most important assets in a time when one of the greatest battles facing archaeologists is engaging the public. The physical remnants of our past can only be preserved with the help of an engaged and participatory public, and images of ships like A.J. Goddard tell a story that is hard to resist.

Lindsey H. Thomas

Lindsey earned her B.A. in Anthropology with a focus in Underwater Archaeology from the Honor’s Program at the University of Georgia. Her interests include New World, medieval, and post-medieval seafaring and maritime communities, an interest which stemmed from her work at the Papahanaumokuakea Marine National Monument, Thunder Bay National Marine Sanctuary, and Monitor National Marine Sanctuary.

Lindsey’s thesis explores A.J. Goddard, a Klondike Gold Rush era sternwheeler in the Yukon Territory. Her previous work includes research into the site formation processes that affect shipwrecks in dynamic tropical and near-arctic environments, along with a survey of the Great Lakes schooner Portland.
Harbors of the Nile Delta: Ancient Thmuis

In 2009 I joined the University of Hawaii in excavating an endangered harbor site in the middle of the Nile Delta. A 15-hour plane ride transported me from the INA headquarters in College Station, Texas into the teeming streets of Cairo. From there it was an uncomfortable train ride to Mansurah followed by the adventure of an Egyptian taxi ride, something which, even after four years of living in Egypt, I have not yet grown quite accustomed to. And I was thrilled to be back to excavate the site that the 1st-century AD historian Josephus described as the final mooring place for Titus’s fleet during his trek to Jerusalem (Jewish Wars 4.656).

One of the consequences of constructing the Aswan High Dam in 1970 was the loss of the annual Nile flood which, two thousand years ago, was Egypt’s most notable and vital phenomenon. Water inundated the land, and the cities of the Nile Delta appeared to be islands amidst a glittering sea. Watercraft freely sailed amongst these islands. Merchant ships laden with cargo from the far reaches of the Mediterranean cautiously plied the coastal waters looking for a favorable river entrance into the Delta and access to the emporia situated throughout Lower Egypt. As the waters receded, they left a thick deposit of silt, replenishing the soil. After three thousand years of continuous occupation, the city of Mendes was cut off from this lifeline by the Nile’s slow but steady shifting course. The inhabitants settled southward founding Thmuis. The city flourished during the Ptolemaic Period, owing its fame to the Mendesian perfume it produced, prized throughout the Mediterranean.

Today, the Greco-Roman city survives amidst a sea of precariously constructed buildings and mosquito-ridden rice paddies. The inhabitants of Tell Timai Amidi, modern Thmuis, are slowly encroaching upon the scattered ruins of the ancient city where the construction of a sports stadium now threatens to destroy its long forgotten, yet tremendously important, harbor site.

Our team had exactly one month to explore the harbor. We focused excavation on what I suspected to be a stone quay, but it turned out to be a Ptolemaic temple. Undergraduate students and Egyptian workers toiled tirelessly to expose the foundation. We took deep cores of the suspected harbor to support our theory that water had been in the basin during antiquity. Excavations on the opposite bank revealed a series of large workshops, warehouses, pithoi (storage containers), brick kilns, bread-making equipment and a well, connected to the harbor-basin by a terracotta pipe. In the dirt we uncovered possibly the most important find of the season, a sea barnacle, perhaps having made it to the Thmuis by clinging to an ancient seagoing merchant ship!

Delta harbor sites are extremely rare, though once the lifeline of trade and commerce in Lower Egypt. Scholars have had few chances to explore this vitally important maritime landscape. As the water table rises and population expands, many of the archaeological sites in the Delta are vanishing. If we cannot protect them, we will have to make do with the accounts of the historians who once frequented the region.

After a long and busy month we closed excavation. I could not help but wonder, as I departed Thmuis in the fading hours of the day, listening to a distant call to prayer echoing through the village, what would become of our ancient harbor once we left? How many times did I ride through the village on a donkey cart and notice the countless relics carelessly used as doorknobs and stools. The uncertainty of Egypt has always fascinated me; so next year I return to plunge deeper into the mysteries of this ancient harbor.

Veronica Morriss

Veronica Morriss received her BA in Classics and Mediterranean Studies from the Pennsylvania State University in 2003. She spent four years in Cairo studying Egyptology and the Arabic language and has worked on a number of archaeological projects in Egypt and Greece. Her work with the Hellenistic Institute of Ancient and Medieval Alexandrian Studies (HIAMAS) in the harbor of Alexandria captured her interest and she is now leading the ongoing investigation of a Greco-Roman harbor in the Nile Delta. Veronica is currently working on her MA in nautical archaeology at Texas A&M and hopes to pursue a doctorate in Egyptology in the near future.
Throughout history the lore of sunken treasure has driven many in search of lost ships. In the past, archaeologists have tried to protect shipwrecks from treasure hunters by appealing to the public’s love of the past or the law. Unfortunately, both appeals have proved ineffective — treasure almost always wins out over nostalgia and the legal process is long, expensive and rarely results in a favorable decision.

Where do we go from here? One option is to show that protecting a shipwreck is more financially beneficial than selling the artifacts; this requires proving that treasure hunting operations rarely provide the expected financial returns. The salvage of the 1534 Wrecks, Whydah, Arabia, and S.S. Central America are four examples of the financial downside of treasure hunting.

In 1976, the Znika brothers, discovered the wreck of Espíritu Santo, one of three Spanish treasure galleons that sank off the coast of Texas in 1554. For the next eight years, the Znikas’ company Platoro Limited and the state of Texas fought for control of the ship. Eventually a plea bargain was reached: Texas was awarded ownership of the artifacts and Platoro Limited a salvage award of $300,000. Although the salvage award appears sizable, the Znikas had eight years of legal expenses to pay in addition to salvage costs. Even without these expenses, each of Platoro’s five employees would have received only $60,000 for over eight years of work.

In 1984, Barry Clifford discovered Whydah, a slave ship turned pirate galley that sank off the coast of Cape Cod in 1717 with 20 to 30 thousand pounds of gold and silver. Clifford spent the next ten years in and out of court fighting the state, his Wall Street investors and the NAACP over plans for the artifacts and a Whydah-themed amusement park. Although Clifford found the ship, he never did find the treasure. In order to realize a profit from the discovery, he opened the Whydah Museum in Provincetown, Massachusetts.

The Hawley family discovered and salvaged the Steamboat Arabia during the winter of 1988-89. When it sank in 1856, Arabia was reportedly carrying a substantial amount of Kentucky’s finest bourbon whiskey none of which was found. Thus far, the family has spent $750,000 salvaging Arabia, another $750,000 on the museum and $20,000 on a freeze dryer for artifact conservation. With operating costs and ongoing conservation efforts, according to the Hawleys, they are just breaking even.

Tommy Thompson discovered the U.S. mail ship S.S. Central America in 1884 40 miles off the Carolina coast in 2,500 meters of water. Using newly developed technology, Thompson recovered the ship’s cargo including thousands of gold coins reportedly worth $400 million. The companies who had insured the ship when it sank in 1857 took Thompson to court over ownership rights. After a 15 year legal battle, Thompson was awarded 90% of the recovered gold and the insurance companies 10%. Thompson planned to sell his portion but found himself in more legal trouble after backing out of a deal with Christie’s. It was about this time that Thompson disappeared — his last known address a motorhome in Florida. The location of the Central America gold is also unknown. His investors remain unpaid.

In each of these notable cases, the financial return from treasure hunting was not as great as expected and it was the investors who lost the most on their investment. Using the financial downside of treasure hunting has great potential in helping archaeologists discourage treasure hunting as making no cents.

— Laura Gongaware & Kristen Vogel
The Allure of the Field
by Coral Eginton

Whatever it was that I imagined archaeology to be as a child, it has turned out to be something completely different for me. In fact, I think that the reality of the field is actually much more alluring than the imagined settings and scenarios I dreamed up when I was younger. As archaeologists, we were all influenced in one way or another by the Hollywood representations of characters like Indiana Jones, and for young women like myself, Lara Croft. Though, for all their high-budget glitz and appeal, these heroes never got to excavate a mysterious sunken shipwreck or long-forgotten submerged settlement.

Working in the field on a nautical archaeology project definitely tests your stamina and your personal drive. You will always get out of the experience exactly what you’re willing to put into it. During the 2009 summer season of the Bajo de la Campana Shipwreck Excavation, I invested innumerable hours of hard work. What I received in return was not only a deeper appreciation for what we do as nautical archaeologists, but also one of the best and most memorable experiences of my life.

A typical day at our “Bajo house,” as it came to be called, started at about 6:30am with the cresting of floorboards, the yawning of teammates, and the aroma of Spanish coffee waiting in from the kitchen. During a daily briefing by American project director Mark Polzer, we would be split into three smaller dive groups with staggered descent times so that there was always ample working room at the site and topside support. By 7:30am we had already met Spanish project director Juan Pinedo Reyes at the harbor and were preparing for another day out on the Mediterranean.

Team members of the later dive groups took their tanks and gear on the larger, slower boat, and left the harbor first in order to anchor at the site. After helping to load the larger dive boat, members of the first dive group turned to prepare the faster Zodiac for the same trip. As part of this team, I immediately assembled my gear, slipped into my wet suit, and prepared for the ride out to the site. The waves on the way to our destination were relatively small, but at the high speeds attained by the Zodiac we flew off crests and plunged into oncoming swells. I would often find myself struggling to keep my small frame inside of the boat, fearful that I might bounce off the pontoons and end up in the water a little earlier than planned. Though it might sound frightful, this was my favorite part of the morning. This was the kind of adventure I had hoped archaeology would include when I was dreaming up my future as a child.

The first descent of the day was always the most magical to me. Not that someone could forget about a place like Bajo overnight, but after waking in the morning, the days before always seemed like a dream. It wasn’t until I was on my way back down to our beautiful underwater workplace that I once again accepted the surreal nature of my profession. After these initial few moments of realization wore off, it was back to work as quickly as possible. Though I’m sure I could have spent hours on end enjoying a recreational dive at this very site, I was not on holiday and our maximum dive time was less than an hour. On top of the limited time, the work was not easy by any means. With the quick sedimentation rates, the constant tangling and readjusting of airlifts, and the removing of huge boulders, it took real focus and efficiency in order to make substantial progress.

The first round of diving finished by 11:00am and a pre-packed, picnic style “brunch” of bocadillos or sandwiches, was made available during the surface interval between dives in order to keep up our strength. After another round of excavation, we cleaned up the site, pulled up the airlift hoses, detached from the buoy and headed back to the harbor. At this point we had been on a boat in the sun for over six hours, struggled in and out of wetsuits multiple times, lifted numerous tanks, and had made two hour-long dives. By the time we had stowed all of the gear at the harbor and made it back to the house by 3:00pm, we were more than deserving of a big family-style Spanish lunch with the entire team.

By 4:00pm we started processing the finds that had been recovered that day. Artifacts were given inventory numbers, their descriptions were recorded, and multiple photos were taken before we stored them for future conservation at the National Museum of Maritime Archaeology. Being the computer nerd that I am, I spent my evening hours working on a digital database for the excavation and compiling a spatial distribution of artifacts in GIS. Though I may have loved the adventure of the excavation and the beauty of the environment, what was most important to me was seeing the site come to life through the analysis that we did in the evenings. This was the kind of research and understanding I never could have imagined would be so rewarding when I was a young girl, playing out my future life as an archaeologist.
New Associate Director Announced

Avery Russell was senior executive in charge of public affairs at the Carnegie Corporation of New York, a major grant-making foundation, for 30 years, retiring in 2000 to pursue long-delayed avocations of fiction-writing and painting. She is a graduate of the University of North Carolina, where her father was on the journalism faculty, and before this attended the Putney School in Vermont. An inveterate traveler in her youth, she grew up a competitive swimmer (back stroke) and general “water baby,” taking on the icy challenges of the Arctic and Antarctic, among other body-surfing stunts before turning in her bathing cap.

Please join us in welcoming Avery to the INA Board.

Peterson Lecture and Drexel Award Presentation

Friday March 26, 2010, 7:00 pm

As this issue goes to press, Dr. George F. Bass will be awarded the Lucy Wharton Drexel Medal. Established by the Penn Museum (University of Pennsylvania) in 1889 to honor exceptional achievement in excavation or publication of archaeological work, the medal is given by the Museum Director in consultation with past medal recipients and archaeological curators of the Museum.

Dr. Bass will be traveling to Pennsylvania, to accept the award and to make a presentation on the Serçe Limanı shipwreck entitled “The Million-Piece Jigsaw Puzzle: Excavating a Cargo of Medieval Glass.” INA President Jim Delgado will also be in attendance to honor Bass, a founder of the Institute of Nautical Archaeology.

Shipwreck Weekend

Saturday, April 24th, 2010

Each spring, the Nautical Archaeology Program (NAP) at Texas A&M University, along with its affiliated institutions, hosts “Shipwreck Weekend.” This annual event is designed to promote the various projects of the program, as well as to inform the general public of aspects of nautical archaeology. Visitors are invited to explore nautical archaeology and learn about the ongoing research into ships and shipboard life at Texas A&M University! The keynote speaker will be INA President Jim Delgado. For more info check out the website at... http://nautarch.tamu.edu/shipwreck_weekend/index.html
Out of the Blue: Public Interpretation of Maritime Cultural Resources
Edited by John H. Jr. Jameson and Della A. Scott-Irton
Springer, 2007
The editors have brought together state of the art ideas, research and scholarship associated with maritime public education and interpretation. With few publications currently available that feature the public interpretation of maritime and submerged cultural resources, this edited volume will add to a limited body of knowledge in a field that is steadily growing.
Hardcover $109.00 Order your copy at www.springer.com

Maritime Archaeology: Australian Approaches
Edited by Mark Staniforth and Michael Nash
Springer, 2008
Over the past twenty years period Australian researchers and underwater cultural heritage managers have conducted a significant number of important maritime archaeological investigations and have developed innovative approaches to the discipline. This book includes a comprehensive bibliography of work conducted both in Australia and by Australian maritime archaeologists in the Asia-Pacific region. This book will be of interest to students and practitioners of maritime and historical archaeology and cultural heritage managers throughout the world as example of good practice and innovative approaches to maritime archaeology.
Hardcover $95.00 Order your copy at www.springer.com

Swedish-Georgian visit to Bodrum
Following discussions between INA President Jim Delgado and colleagues at the Vasa Museum in Sweden last year (see the article in The INA Quarterly - Spring 2009), a group consisting mostly of Swedish and Georgian students came to visit the Institute of Nautical Archaeology in Bodrum, Turkey, during three weeks in January and February 2010.

The trip was funded by the Swedish Institute [SI] in Stockholm and marks the beginning of cooperation between Sweden and Georgia in the field of maritime archaeology. In May 2009 the Georgian students came to Sweden and completed a PADI diving certificate program. The Swedish participants then went to Georgia in September to take part in an excavation at the Black Sea shoreline, in Grigolisi, arranged through Ilia State University, Tbilisi. The main goal of the excavation was for the students to learn and practice underwater excavation techniques.

The visit to Bodrum was a great experience for the group members. Under the supervision of head conservator, Kim Rash, the group learned about the basic methods for conserving different kinds of water soaked materials such as wood, marble, iron and ceramics. The group was given opportunities to work on artifacts from Bronze Age, Greek, Roman and Byzantine periods. The group was impressed with the large collection of books and periodicals in the Institute’s Tooze library, but what caught the particular interest among the group members was the conservation of iron going on in the lab. The group also toured the extensive collections at the Bodrum Museum of Underwater Archaeology.

Both working with materials from different time periods and the exhibits at the museum gave the students good insight into what nautical archaeology is all about and how it does not have any borders in time or geography. With the ultimate goal being the creation of a nautical archaeology program at Ilia State University, with assistance from Sweden, this visit to INA in Bodrum took us all one huge step closer to making it a reality.
— Ulrica Söderlind
What does it take?

To excavate a 7th-century BC Phoenician wreck for a season?
... to bring in students and volunteers to do the work in the field (no one receives a salary, but we cover transportation, food & housing costs), boat hire and fuel costs, equipment, and insurance. Half of the budget last year came from sponsorships and grants, and the other half came from private donations and support from INA directors, members and other friends.

To work on a nautical archaeological time capsule?
... to give a student the opportunity to travel to the Vasa Museum in Stockholm and spend the entire summer studying and documenting the hull and collections of the Swedish warship Vasa—a perfectly preserved time capsule of sailing technology and craftsmanship from 1628.

To publish the results of discovery?
... this will allow us to complete the final editing, graphic preparation (drawings, plans, maps, photos) and computer work to publish the final report—a 400+ page book—on the landmark excavation of the Santo Antonio da Taarna, a 42-gun Portuguese frigate that sank off Mombasa, Kenya in 1697. INA excavated the wreck between 1976 and 1980, and recovered more than 15,000 artifacts for analysis, conservation and museum display. It has taken three decades to complete this work, and now this last step ensures the results of that excavation and analysis are published to a high standard by INA's partners at Texas A&M University Press.

To support a student research project?
... projects typically involve travel costs and equipment use and support field work that mentors the next generation of scientists. Costing on average $1,000 to $3,000 per student, a research project or survey that we can support today may lead to the stunning discovery we excavate tomorrow.

To update www.inadiscover.com?
... adding the results of a project's field season to the growing body of work on new INA website making it accessible to a worldwide audience online costs $500 - $1500 to organize and enter data, create photo & video galleries and add internal and external content links.

Yes, I’d like to do what it takes to support INA! Here is my tax deductible donation of...

$50  I am very interested in supporting...
$100  A Student  Archaeological Excavations  Archaeological Surveys  Conservation & Research
$500  Outreach & Educational Programs  Technology (website & online)  Publications
$1000
$3000
$5000

$ OVER $5000

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Number: ________________________  Expiry Date: ____________

Signature: ________________________

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