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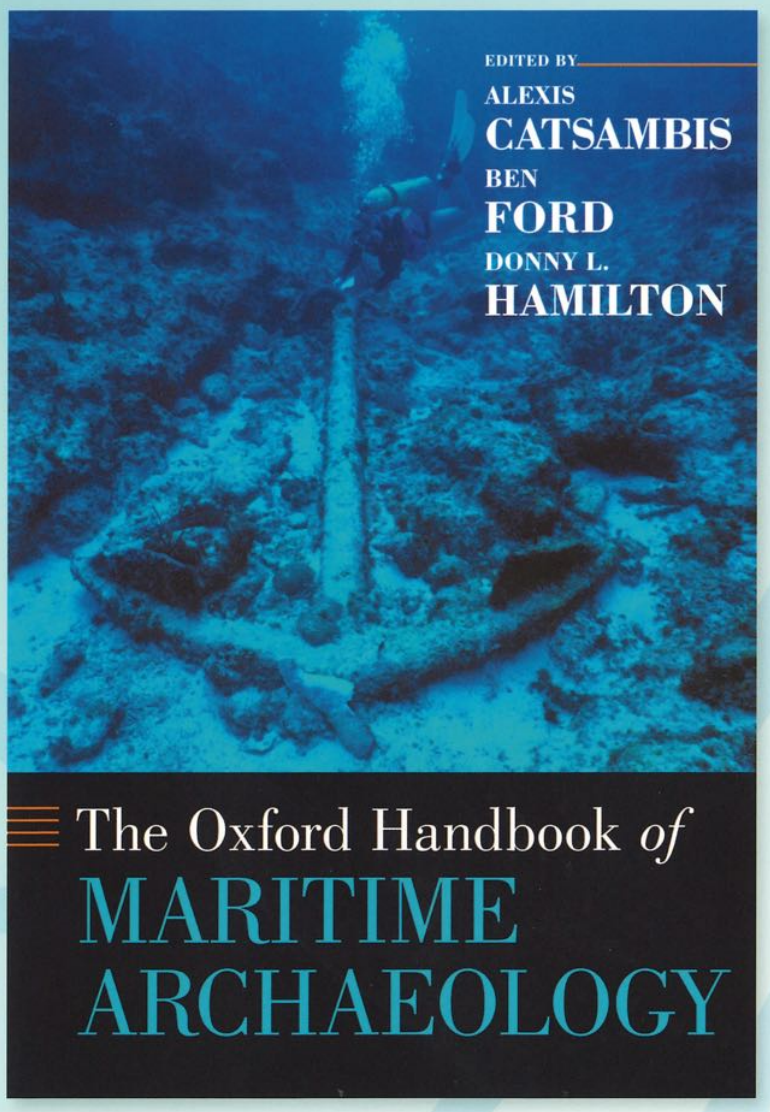

The Oxford Handbook of Maritime Archaeology is a comprehensive survey of the field as seen through the eyes of nearly fifty scholars at a time when maritime archaeology has established itself as a mature branch of archaeology. This volume draws on many of the distinct and universal aspects of maritime archaeology, bringing them together under four main themes: the research process, ships and shipwrecks, maritime and nautical culture, and issues of preservation and management. These individual and original articles provide a valuable resource that summarizes the current state of the field of maritime archaeology and offers insight into the future of this established and growing discipline.

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MAGAZINE OF THE INSTITUTE OF NAUTICAL ARCHAEOLOGY

News from the Field
INA PROJECTS AROUND THE GLOBE

Bajo de la Campana
THE CLAUDE & BARBARA DUTHUIT EXPEDITION

INA Remembers
A TRIBUTE FROM DR. GEORGE BASS

SPRING - SUMMER 2011 • Volume 38 • Nos. 1 and 2

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inside INA

A Letter from the Chairman

Having just ended our fiscal year I want to report that INA is in good financial condition, and despite the lean economic times we have been able to avoid cutting funding for one of our key endeavors, and largest expenses, the Bodrum Research Center (BRC) in Turkey. The center is home to dedicated staff members who carry out conservation work on artifacts from INA excavations, and also plays host to visiting scholars conducting research and making use of our extensive library. Staff members and crew are responsible for the vessels used by INA in the Mediterranean, as well as maintaining artifact exhibits in the Bodrum Museum of Underwater Archaeology.

With the BRC facilities now 16 years old there are maintenance needs to be addressed. BRC Director, Tûba Ekmekçi and Financial Manager, Ozlem Doğan, run a tight ship utilizing staff and crew for as much of the work as possible. On a visit to Bodrum in April I observed the maintenance crew readying the research vessel, *Virazon*, for return to the Kızılburun site during the summer. We are fortunate to have such a dedicated and talented team.

The year 2011 brought many changes to INA in both leadership and the Board of Directors. With Dr. Deborah Carlson as the new President, and myself as the new Chairman we have been immersed in learning about the many intricacies of leading this dynamic organization, and we have relied upon INA office staff to hold down the fort and maintain day-to-day operations. With 16 projects in 12 countries on four continents there is much to do.

I find many encouraging developments, and offer a big THANK YOU to our dedicated Directors and Friends who are committed to support INA's mission. Inspired by Dr. George Bass' work, two dear friends remembered INA in their wills and we gratefully acknowledge that their gifts will go a long way toward supporting INA's bright future.

A talented cadre of new Directors is also a big confidence booster. While continued collaborations with Texas A&M University's Nautical Archaeology Program (NAP) and the Turkish Institute of Nautical Archaeology (TINA) allow all parties to take advantage of each other's strengths and assets.

An expanding network of NAP graduates are finding positions at universities and institutions throughout the U.S. and abroad, thereby increasing our reach and the potential for even greater collaboration. It is a rewarding to see old friends, whom I met many years ago in Bodrum as students, now coming to INA Board Meetings as professors and making presentations for new INA supported projects. With the growing interest of former NAP students and INA project leaders in new surveys and excavations, I see an increasing number of collaborative opportunities in INA's future.

An increased grant pool for our Archaeology Committee reiterates our confidence in these scholars by supporting their projects, especially in the initial phases when other sources of funding are most difficult to find. We are keeping the inquisitive flame of INA alive.

Even with the current economic challenges our goals remain the same: to expand the projects undertaken by INA, and to increase the amount of seed money awarded to scholars for significant nautical archaeology projects around the globe. And through communicating about these projects and the work being done, we will promote INA, generating greater awareness, expanding historical knowledge and increasing support among a wider audience.

John De Lapa,
INA Board Chairman

John De Lapa
INA Board Chairman

Deborah Carlson
INA President

EDITOR'S NOTE

For those of you in attendance at the 2011 Annual Board of Directors' Meeting in College Station, this issue will serve as a reminder of many of the fascinating presentations enjoyed during the event. For photos from the event check the INA website and Facebook page.

BELOW

Debbie Carlson at Kızılburun this summer.

PHOTO CREDIT Donny Hamilton

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The Institute of Nautical Archaeology is a non-profit organization whose mission is to continue the search for the history of civilization by fostering excellence in underwater archaeology.

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If you are interested in submitting an article for publication please contact the Editor at **inaeditor@inadiscover.com**

INAnews

Events • Announcements • Celebrations • Opportunities

INA Welcomes New Director

Terry Ray is the President of Terry Ray Construction, a commercial construction company in existence for the past thirty years. In addition, Mr. Ray is an owner and managing partner of Valley Construction Management Company, Valley Construction Services, Inc., South Texas Woodmill, and HFF Leasing Company.

Terry attended Texas A & M University, where he earned his Bachelor of Science degree in Industrial Distribution in 1979. Active in his profession as a general contractor, he has served as President of the Rio Grande Valley Chapter and the Texas State Chapter, as a state director, and currently serves as a national director of the Associated General Contractors of America (AGC).

His community involvement includes serving on the Board of Directors for Valley Baptist Insurance Holdings, Texas A & M University – Galveston Board of Visitors, Comp Group AGC, Inc., Texas AGC Services, Inc., Texas International Fishing Tournament (TIFT), Brownsville and Rio Grande Railroad, Inc., Chase Bank of the Rio Grande Valley, and the Rio Grande Valley Boy Scouts Council. Since serving on the Texas Clipper at Texas A & M – Galveston, Terry enjoys boating and all things nautical. His hobbies and interests include hunting, off-shore fishing. He enjoys scuba diving, and is nitrox certified.

Terry resides in Brownsville, Texas with his wife, Laurie. Their son is a graduate of A&M, and their daughter is a student at Texas Tech University.

Terry A. Ray

Ken Trethewey

...and a New Associate Director

Dr. Ken Trethewey was born and raised in Houston, Texas. He earned a Bachelor's degree in History and Classics from the University of Texas at Austin, and a Master's and Ph.D. in Classics at Princeton University. As a student of the Nautical Archaeology Program at Texas A&M University in the late 1990s, Ken was a team member of INA excavations at Bozburun and Tektas Burnu, and served most recently as Dive Safety Officer during the column wreck excavation at Kızılburun, Turkey. An avid and proficient diver for the past 27 years, Ken holds Divemaster and Trimix certifications. Ken and his wife Monica, who is an educator of bilingual fourth-graders, live in Austin, Texas where he works for Hart Intercivic in Austin, an elections systems company with customers in 14 states.

Annual Meeting

The Institute of Nautical Archaeology held its Annual Board of Director's Meeting November 3-4-5 in College Station. Look for updates and photos from the event on the *News & Events* page of our website, or check out INA's Facebook page.

Upcoming AIA Lectures

9 February 2012
Staten Island, NY
"The 6th Century BCE Shipwreck at Pabuç Burnu, Turkey"
Dr. Elizabeth S. Greene
Steffy Lecture Series

6 March 2012
Tucson, AZ
"The Tektaş Burnu Shipwreck: Shedding New Light on Classical Ionia."
Dr. Deborah Carlson

10 April 2012
Athens, GA
"Living Low on the Seas of Late Bronze Age Eastern Mediterranean."
Dr. Nicolle Hirschfeld
Bass Lecture Series

Meet John De Lapa

An introduction to INA's new Chairman of the Board

INA's new Chairman of the Board, John De Lapa confers with Kevin Crisman.

Anyone acquainted with John De Lapa, the Institute of Nautical Archaeology's current Chairman of the Board, knows just how fortunate we are to have such a seasoned captain to steer the ship of state. John's involvement with INA stretches over two decades, during which time he has served ably and actively as a member of the board, as a project participant, and as an enthusiastic supporter of shipwreck studies by INA researchers and Texas A&M Nautical Archaeology Program students. He often works behind the scenes, assisting in ways big and small to further the Institute's mission of discovering the past to educate the present and future.

One of my favorite parts of attending INA's annual board meetings has been getting updates on John's latest creative endeavors in the workshop. A born artist and craftsman, his favorite medium is wood, a material that he often describes in tones that border on reverential. His creations, ranging from furniture, to boats, to elaborate, ingenious carvings, are testaments to the remarkable talent that he possesses. Not surprisingly, it was an interest in exploring the work of wooden shipbuilders that led to John's many contributions to INA and the field of nautical archaeology.

Reached at his home in Benton Harbor, Michigan on Lake Michigan's *west coast*, John described how he first became involved with the Institute:

> "In 1991 I was going to Turkey for the second time to visit some boatbuilding shops in order to get enough information to build a Turkish style fishing boat. A local museum curator, Ken Pott, said "I think Texas A&M has something going on over in Turkey, they might be able to help you." Calling information using a Texas area code, I asked the telephone operator: "where is Texas A &M ?" She said "College Station" and gave me a number for the archaeology department. When I called, Fred Hocker (later a President of INA) answered the phone. He was helpful and gave me some good information about boat building activity in and around Bodrum along with Don Frey's number. When I was in Bodrum Don helped me find me an interpreter. He also invited me to join another couple on a tour he was giving of the castle. It was very interesting to see the wide variety of items being found on these ancient wrecks. Over the next few years I would call Fred occasionally or send him a letter. In 1994 he invited me to an INA board meeting. That was the start."

John was particularly impressed to meet the INA members involved in many of the pioneering achievements in nautical archaeology: George Bass, Claude Duthuit, Susan and Michael Katzev, and Fred Van Doorninck. "For these people to still be friends and getting together after these many years," he notes, "there must be something very special about this group. I have not been disappointed."

John has managed to combine his love of fine carpentry work with ongoing Institute projects. This included a six-week stint in Bodrum as a medieval ship carpenter, assembling a replica section of the 7th-century CE Yassı Ada vessel for a new museum display. When asked about what he finds most interesting about INA's work, John has no doubts:

> "For me, as a craftsman, it is the incidental items found on the ,wrecks, the tools and decorative items. In the Bajo de la Campana wreck off the coast of Spain they found a small bronze arm which may have been part of a chair's hardware. I am working on carving a pattern from wood and want to try casting some replicas."

His longtime experience with INA has given John perspective on the challenges of running a successful research institute: "We have tried a lot of different ideas over the years as to which direction we should be going; this is healthy as new ideas need to be explored." However, in keeping with the oft-stated philosophy of INA's founder, Dr. George Bass, that the Institute must always strive to achieve maximum results with minimal expenditures, John adds "In these tight times we have to spend our money wisely."

— Kevin Crisman

INA Vice President, NAP Associate Professor, and Director of the Center for Maritime Archaeology and Conservation at Texas A&M University

AIA Gala

Dr. Bass honored with the Bandelier Award

On April 26th, 2011 George Bass was honored by the Archaeological Institute of America (AIA) with the prestigious Bandelier Award for Public Service to Archaeology at its Annual Gala. The AIA is the world's largest—and North America's oldest —archaeological organization.

In his presentation, AIA CEO Peter Herdrich, explained the considerations leading to the AIA's selection of George as a recipient of the Bandelier Award,

> "George Bass was chosen... because he has accomplished something very few people in the entire academic world have accomplished. By bringing the methods of scientific archaeology to the ocean floor, he discovered a new field of study, underwater archaeology. We were very pleased to work with our colleagues at INA to honor George. It's brought our organizations much closer and that benefits all of us. The story begins back in the 1960s. Dr. Bass, a newly-minted PhD from the University of Pennsylvania and amateur diver, was asked to examine a shipwreck off the coast of Turkey. His first stop was the YMCA, for diving lessons. His work at Cape Gelidonya was the first underwater excavation to employ systematic and scientific techniques. Thus the field of maritime archaeology was born and Dr. Bass has written his name in the pantheon of archaeologists."

It was quite an evening. The theme was Ireland and Chef Cathal Armstrong, a son of Dublin and a recipient of the James Beard Award, prepared a sumptuous dinner for the guests. This was preceded by an Irish ale and whisky tasting. The evening was hosted by Irish actor Gabriel Byrne and sponsored by Culture Ireland and Tourism Ireland. Silent and live auctions gave gala-goers the opportunity to bid on a wide variety of items while also supporting the AIA. Among those items up for auction were opportunities to participate in ongoing excavations, to cruise along the coasts of Ireland and the Mediterranean and many other items.

The evening's program included a video produced by the AIA. It is available for viewing on the INA website, and features George, his contribution to archaeology and tells the story of the establishment of INA, explaining its instrumental role in the development of nautical archaeology.

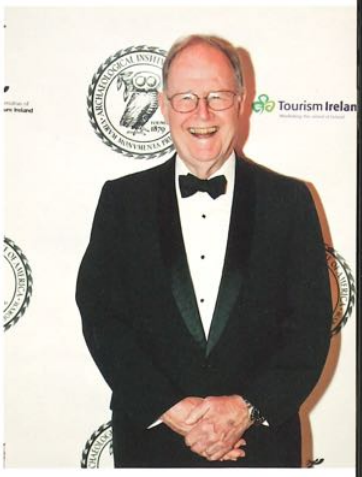
—Shelley Wachsmann
Program Coordinator - Nautical Archaeology Program
Meadows Professor of Biblical Archaeology
Texas A&M University

BELOW
George Bass poses at the entrance to the 2011 AIA Gala.

The INA family (L to R) was well represented at the Gala evening: Jen and Gordon Bass (George and Ann's son, and INA board member), INA President Deborah Carlson, board member Lucy Darden, Shelley Wachsmann, Ann & George Bass, Nicolle Hirschfeld, and Cemal Pulak. Also in attendance was board member Allan Campbell, his daughter Carol Campbell Herring and her husband James Herring.

The Gala was held at the elegant and grand *Capitale*, situated in New York's Bowery.

PHOTOS **Mike Shane Photography**



claude duthuit

a tribute from a friend (1931-2011)

Claude Duthuit, who died on 16 May 2011 in New York, was truly a Man for All Seasons. I did not know them all. I did not know the Claude who in 1960 at Cape Gelidonya told me about a photograph taken by a fellow soldier when he was scared to death, surrounded by Algerian rebels, thinking these were his last moments alive; he never showed me the picture till just months before he died. Nor did I know Claude the Alpine guide. Nor the Claude who established and ran a foundation in Paris to protect the rights of the heirs of French artists, the Claude who lived in a world of lawyers, and art dealers, and museums—the Claude who had thousands of copies of an art book destroyed because he felt that its reproductions did not perfectly duplicate the colors used by his grandfather, Henri Matisse. I already profiled the Claude I knew for *The INA Quarterly* (Winter 1994, 21.4, page 27; and reproduced and illustrated on the INA website in the Key Figures section), which one should read along with the thoughts below, for I don't want simply to repeat myself.

His widow Barbara asked that I write a few words to be read at a memorial service in Paris, attended by many in the art world, at which the Duthuits' friend Reneé Fleming sang. In those words I tried to describe the Claude who for so many years was my closest friend, exchanging whimsical e-mails or phone calls every few days, whether he was at home in Paris or New York. Here is my eulogy:

Laughter...

Laughter is the first word that comes to mind when Ann and I think of Claude—from fifty years ago, when his hilarious anecdotes and songs helped keep us sane on the narrow, cliff-enclosed Turkish beach that was our nearly intolerable home for three months, to the night before he entered the hospital for his last surgery, when Claude, Barbara, Ann and I laughed and reminisced through the evening in their New York penthouse. Even the eve before the heart attack that took him away, we had a joke-filled conversation by telephone. No one was more observant of life's ironies. No one has ever brought us so much laughter, and no one will again.

But beneath the humor and silliness was Claude the dependable man of action. Claude served as chief diver on University of Pennsylvania shipwreck excavations throughout the 1960s because of his fast reaction time in an emergency, the one person who could be depended on to be in the water in a split second to solve any problem, the one person I could trust to rush a paralyzed diver, stricken with decompression illness, to the nearest airfield, seven hours away over a treacherous, unpaved mountain road. His ability to react quickly and calmly to any danger was perhaps honed during his time as an Alpine guide, or as a combat soldier in Algeria.

Then there was Claude the serious avocational historian, intellectually curious about the past. While many of us professional scholars whiled away any free time in our expedition camps by reading paperback mysteries, I never saw Claude choose light-weight fiction. Instead, I can still vividly picture him, propped on one elbow in the tent we shared for months, nightly reading about the past, in French or English. Half a century later, during a survey of the Turkish coast with our two-person submersible, he was still at it, daily reading to me passages from the letters of Benjamin Franklin.

(Clockwise from top left) Lifelong friends, George and Claude, were able to dive together once more at Cape Gelidonya in 2010. PHOTO **Susannah Snowden**

Claude and Barbara Duthuit on the INA catamaran *Millawanda* (2001). PHOTO **George Bass**

George, Wlady Illing and Claude celebrate the 50th anniversary of the Cape Gelidonya project (2010). PHOTO **Harun Özdaş**

Claude, Ann Bass & Wlady in the makeshift camp at Cape Gelidonya (1960). PHOTO **INA Archives**

Claude prepares to explore the wreck site using an early version of a metal detector (1960). PHOTO **INA Archives**

He could write beautifully as well, as he showed in *Turquie*, his personal love letter to the country where he was so loved in return. But it was not only in French that he expressed himself well. Like Conrad or Nabokov, who wrote impeccable English perhaps because English was not their native tongue, Claude intuitively chose precise words to paint verbal pictures that never ceased to amaze Ann and me, even in his most hastily written email messages. He could easily have been a successful author in either French or English.

I visited his offices occasionally when I was in Paris, but I did not know the Claude whom many of you knew, the Claude who traveled the globe, at first with his mother Marguerite, later with Barbara, to visit museums and collections in order to prepare the complete, multi-volume catalog of his grandfather's art. Or the Claude who attended the openings of Matisse exhibits around the world.

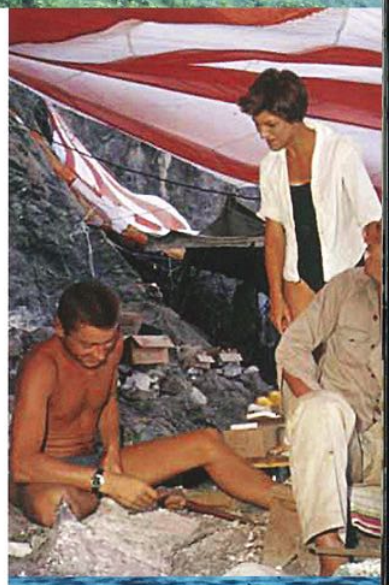
Although he could take Ann and Barbara and me to the Tour d'Argent for dinner, I think he was just as happy eating fried, freshly caught fish off newspapers spread on the deck of a Turkish fishing boat. He loved the good life, but he loved equally the simple life far from lawyers, collectors, and curators. He inherited one world and built another entirely on his own.

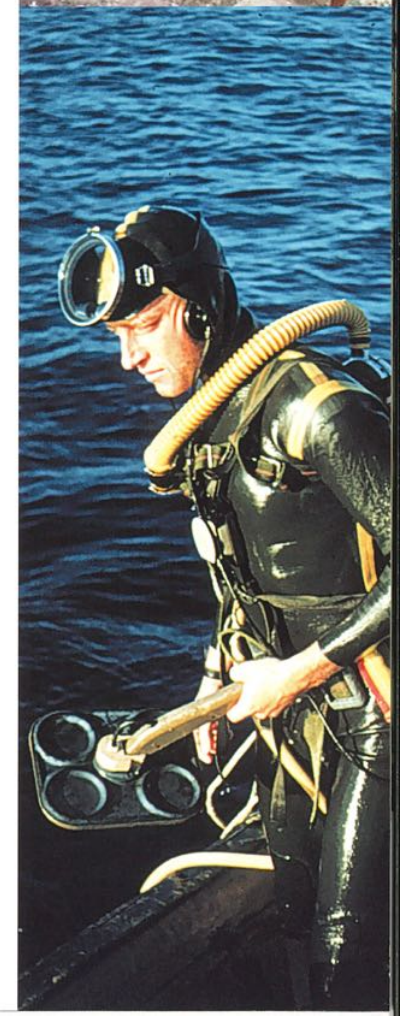
And it was in that second world that we bonded. Without Claude there would not be nautical archaeology as we know it today. It was through his contacts in 1960 that we acquired our first permit to excavate in Turkey. He had the cartographic skills to help make an accurate plan of the Bronze Age wreck we uncovered that year. Indeed, it was Claude who convinced me to return to underwater archaeology in 1961, saying we had started something good and needed to develop it. And it was Claude who recorded our subsequent pioneering efforts in a film considered historically valuable today. Together we started a brand new and respected field of scholarship, a field that now has institutes, museums, government programs, and university departments devoted to it. After the founding of the Institute of Nautical Archaeology, he and I served together on its board for more than thirty years.

Finally, and most importantly, there was Claude the husband. I've never known anyone more devoted to his wife than Claude was to Barbara. Our love and thoughts are now with her.

—George Bass

PHOTO S. Snowden (2010)





The Royston Wrecks

A New Cooperative Project in British Columbia, Canada

UASBC and INA volunteers made this project feasible. INA provided a compressor and total station. The Southern Interior Chapter of the UASBC provided safety and first aid equipment, and the UASBC Board provided a financial contribution. Geoff Bell arranged for the loan of a small boat and the aerial photography. Additional support came from the Courtenay Museum. Finally, permission to work on this private site was kindly granted by International Forest Products Ltd.

In April 2010 the Board of the Underwater Archaeological Society of British Columbia (UASBC) approved a cooperative field project with INA to assess one of the west coast's largest collections of historic hulks at Royston, Vancouver Island. The "Royston breakwater" is a dense concentration of WWII fighting vessels and 19th-century tall ships. This fleet accumulated as a floating breakwater at a log dump where timber was transferred from logging railway cars into the ocean for sorting and transport to local sawmills.

History of the Royston Breakwater Ships

The original breakwater was designed to protect the Comox Logging and Railway Company's log dump and booming ground on the south western side of Comox Bay. The now abandoned site dates from the early 20th century, with the earliest ship being scuttled in the bay in 1936, and the last in 1962. Sailing ships include an auxiliary schooner, a barkentine, and three Cape Horn windjammers dating back to 1876. There are also three frigates, two destroyers, a US Navy deep sea rescue tug, two historic steam tugs, and a Norwegian-built whaler. A number of these vessels have dramatic histories, including: famous convoy battles against submarine "wolf packs," U-boat sinkings, the rescue of 1,000 seamen from the capsizing battleship HMS *Prince of Wales* near Singapore, and multiple evacuation trips from the beaches of Dunkirk. Many of the vessels were stripped or heavily modified before they arrived at Royston and eventually their deterioration caused the forest company to dump rock ballast over some of the site, burying several of the vessels, and the site is now abandoned.

The Royston site is visually dramatic. Within a 480 by 80 m area, more than a dozen large vessels lie either in shallow water or partially submerged. Many ships have partially collapsed due to corrosion and storms, but significant portions remain largely intact. Below water, a diver can swim over five ships in a hundred yards. Towering over the site are the bows and sterns of the tall ships *Melanope* and *Comet*, the bow of the Cape Horn windjammer *Riversdale*, and the stern of the River-class frigate, *Prince Rupert*.

The March 2011 Project

Rick James has devoted two decades to archival research of the site, and in 2004 the UASBC published his manuscript, *The Ghost Ships of Royston,* on the operational histories of the ships. At that time a total station survey during an extreme low tide mapped individual ship locations. Although almost no in-water work had been undertaken at the site, the individual vessels were entered into the national inventory, with their general condition noted as 'unknown.'

Recent INA work in the Yukon and an increasing awareness of the value of ships' graveyards and hulks helped build support for this project, and in 2010 James and Pollack approached the UASBC with a prospectus for a joint field project. By coincidence, an ideal and inexpensive base existed nearby. The Capes Estate is a restored, 1922 heritage property originally owned by Canada's first female archaeologist, Katherine Capes. Now operated by the Courtenay & District Museum and Palaeontology Centre, this large house has all of the modern conveniences, ample space for a small dive team and it is only a ten-minute drive from the breakwater.

The March 2011 group consisted of nine UASBC and INA members with NAS training and/or Yukon River Steamboat Survey experience. Three survey teams were formed: Rick James, INA member Geoff Bell and Pollack; Bill Meekel and Randy Ruygrok; UASBC President Eric and Bronwen Young, while a fourth team (Jacques Marc and INA member Sean Adams) photographed the site and surveyed several vessels as well.

In three days, the collective teams examined fourteen vessels. The majority of the work could be accomplished with snorkels or tanks in less than 6 m of water. Given the number of ships, site plans were forgone in preference for GPS readings at the bow and stern, sketches depicting an overview of the entire ship, and selected measurements. Additionally Geoff Bell arranged for the site to be flown over with 70 mm aerial photography at low tide, and these images provided mosaics and spatial detail for many of the vessels. This approach allowed the team to inspect and assess all of the ships in sufficient detail to prepare the initial site reports for the province.

* The Borden System is an archaeological numbering system used throughout Canada and by the Canadian Museum System to track archaeological sites and the artifacts related to them.

FACING PAGE from top

Bow of the Cape Horn windjammer *Riversdale* PHOTO **R. James** (2011)

Comet foredeck windlass PHOTO **J. Marc**

Aerial shot of *Melanope* (top) and *Dunver* (bottom)

Every evening the compressor thudded away behind the Capes house while the teams completed forms and field notes into the night. To give some perspective as to the amount of work accomplished, on average six new sites are reported annually by the UASBC whereas this joint trip filed fourteen reports.

Significance and Aftermath

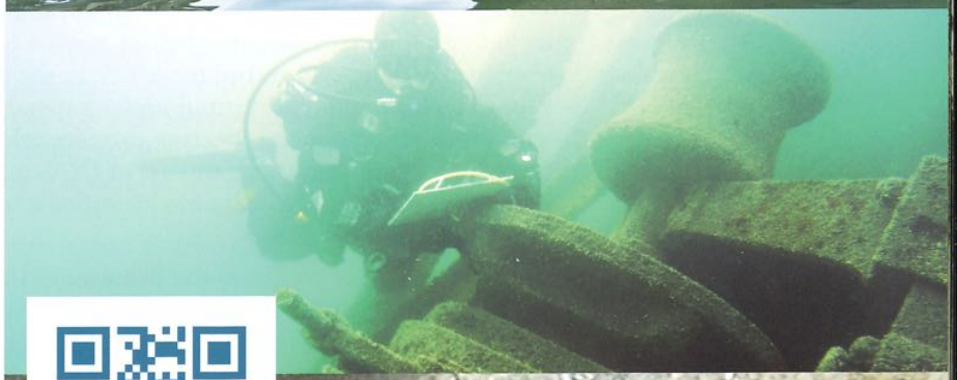
Although the histories and war records of the various WWII fighting ships are important, the three metal-hulled tall ships have the greatest potential for further study. In particular the two Cape Horn windjammers are of significant interest. The 258.2' (78.7 m) *Melanope* was a three-masted windjammer constructed in 1876 in Liverpool England. This large iron-hulled vessel displayed an intact three-dimensional bow forward of first mast stub, and a similarly intact stern aft of the third mast stub. Forward of the intact stern section, the sides of the vessel have fallen outward and the wreck is two-dimensional, with the sides of the vessel lying flat on the ocean floor in approximately 1.5 m of water, while the port side is buried under rubble associated with the breakwater fill.

Equally important are a second metal-hulled Cape Horn windjammer, 275.8' (83.9 m) *Riversdale* built in 1894 in Liverpool, England, and the four-masted, 318' (97.8 m) *Comet* built in Port Glasgow Scotland, and the only known example of a case-oil carrier.

As a result of this project the BC Archaeology Branch assigned a Borden number* to each vessel, and a detailed status report on the site was submitted to International Forest Products Ltd and the Province of BC in late August. One fortuitous outcome has been the preservation of the vessels and the site. The provincial agency responsible for environmental cleanup of leased foreshore sites was unaware of both the significance of the site and the requirements of the BC Heritage Conservation Act. Rick James and John Pollack worked with the BC Archaeology Branch representative and this agency and in July, the demand to remove the breakwater was cancelled.

Given the potential for future studies on the tall ships of Royston, a second cooperative UASBC/INA project is planned for April 2012 to work on the 1876 windjammer, *Melanope*.

John Pollack, M.Sc. PIFA FRGS FRCGS
INA Research Associate and independent Canadian researcher.
For the full downloadable Royston status report go to: www.inadiscover.com/news_events/current/vancouver_island_ship_graveyard



The Nevis Shipwrecks

PROJECT *SOLEBAY*

Chris Cartellone, *INA Research Associate*

My thanks for the generous support of:

Prof. Donny Hamilton
CMAC, TAMU

Justin Parkoff
NAP, TAMU

ProfessorJames Hewlett and students
Finger Lakes Community College

Professor Marco Meniketti and students
San Jose State University

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The many folks with the Nevis Historical & Conservation Society

Paul Diamond
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Ellis Chaderton and the team with Scuba Safaris

Spencer Hanley and officers
Nevis Air and Sea Ports Authority

Envision Mapping

T. Kurt Knoerl
Museum of Underwater Archaeology

Anthropology Department
TAMU

The Institute of Nautical Archaeology

For one month during the summer of 2011, a team of nautical archaeologists descended on the tiny island of Nevis in the West Indies to study the supposed remains of a British frigate, HMS *Solebay*, lost during the Battle of Frigate Bay in 1782. While small in size (less than 36 mi^2/93 km^2), Nevis played an extremely large role in world history through the historic sugar and related slave trade into the Lesser Antilles. *Solebay* provides a glimpse into this seminal period and battle between the British and French navies.

During the closing years of the American Revolutionary War, France attempted to capture the wealthy British-controlled sugar islands of St. Kitts and Nevis. The British responded by sending 22 warships from Antigua, under the command of Rear Admiral Sir Samuel Hood, to meet the 21 French ships.

As Hood's fleet rounded the southern coast of Nevis and sailed north to engage the French, *Solebay* ran aground in the shallow waters just offshore. Separated from the line, and under enemy fire, Captain Charles Holmes Everett ordered his crew ashore, and set *Solebay* on fire lest she fall into enemy hands. After burning for an hour, the frigate blew apart due to the 160 barrels of gunpowder aboard. Though they lost the vessel, the British won a tactical victory against the French fleet and succeeded in halting the invasion.

The remnants of this vessel have remained scattered across the ocean floor since its loss in 1782. Discovered in March 2010 by an *ad hoc* team of Nevisian and international researchers, the author went to the site in 2011 with simple and clear goals: delineate the site, identify materials, affirm or deny the wreck as *Solebay*, and establish a precedent for high quality underwater archaeological investigations on Nevis. It is expected this precedent will allow the author to locate and study other shipwrecks in Nevisian waters, thereby revealing the maritime history of Nevis through underwater archaeology.

While *Solebay* may have been subject to salvaging, metal materials still remain on the seafloor including cannon, carronades, ballast, musket balls, copper tacks and keel staples, and various encrusted artifacts. To record the artifacts, the author led a research team of faculty, students, and volunteers from multiple institutions for a month this summer. Techniques consisted of scuba diving with direct measurements, bearing-distance relationships, circle searches, phòtography and video recordings, metal detecting, and use of INA's magnetometer to help locate cannons or ballast in the greater debris field. The team has identified a total of six guns, including two carronades that are both unique in their design.

Thanks to local support from the Brimstone Hill Society, stewards of the Brimstone Hill Fortress National Park—a UNESCO World Heritage Site—the team recovered more than seventy small artifacts that are undergoing conservation at Texas A&M University's Conservation Research Laboratory. Once complete, the materials will be returned and displayed in the Hamilton Museum under the curation of the Nevis Historical and Conservation Society.

BOTTOM (L to R)

Marco Meniketti recording artifact.

The island of Nevis, West Indies

PHOTOS **C. Cartellone**

VASA

Recovering the Design of a 17th Century Swedish Warship

Kelby Rose, *INA Research Associate*

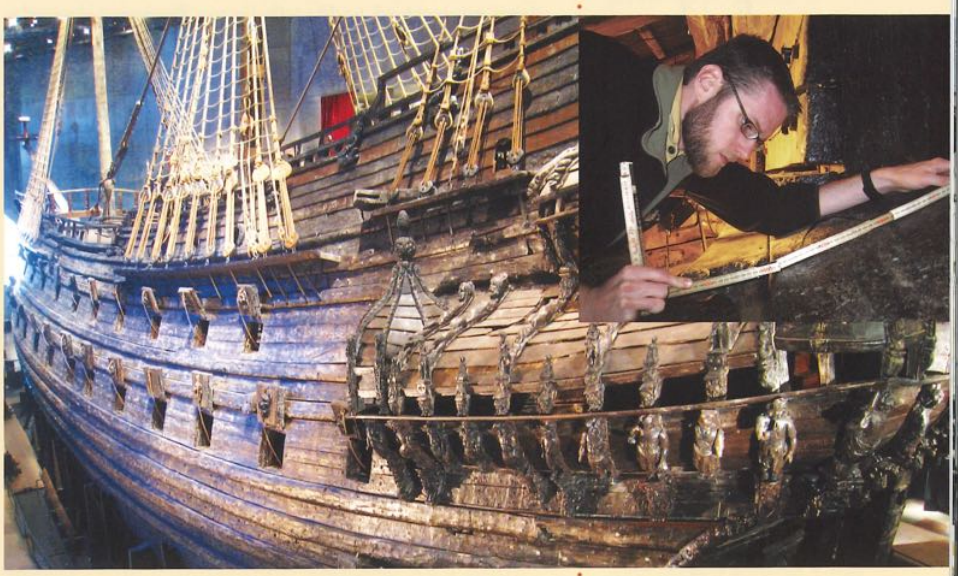
In May 2011, I spent three weeks in residence at the Vasa Museum on my second research trip to wonderful Stockholm, Sweden. My fieldwork looks very different from that of many of my colleagues, for although I am studying a single wrecked ship, this one has undergone extensive restoration and is entirely on land. Much of my work has taken place below decks on the world's only intact 17th-century vessel, the Swedish warship *Vasa*. On its maiden voyage in 1628, a gust of wind made *Vasa* heel too far to port, plunging the lowest open gunports underwater. It quickly filled and sank to the bottom of Stockholm Harbor. The ship was raised in 1961 and is on display in a state-of-the-art museum on the edge of the very harbor where it was built, launched, and sank over 380 years ago.

Although we have access to the entire vessel, many questions remain unanswered and learning exactly how the shipwrights designed the vessel has been the goal of my research. *Vasa* was built in Stockholm by order of Swedish King Gustav II Adolf, but its design and construction was directed by two Dutch master shipwrights, Henrik Hybertsson and Henrik Jacobsson. Certain features of the hull further confirm that the ship was built in a typical early-seventeenth century Dutch style. This is an important fact because during this time, Dutch shipwrights did not use paper plans to design their ships. Instead, they started with a few basic rules regarding overall size of the ship (usually determined by the intended use of the vessel), and then designed the rest by eye. It is particularly astonishing to think that *Vasa*, the most powerful warship and perhaps the most complex wooden structure in existence in 1628 was built without the use of plans as we think of them today, but solely by the eye, experience, and judgment of two shipwrights.

From archaeological and literary sources, we have a good idea of how Dutch shipwrights built their vessels – that is, how all the pieces fit together and the order in which they were assembled. How they designed the form of their vessels, however, remains somewhat mysterious. *Vasa* presents researchers with an unparalleled opportunity to study an intact Dutch-built vessel, essentially as it was built, and to gain valuable insight into the design processes that resulted in the completed vessel.

During *Vasa*'s 50 years on the surface, it has been the subject of several documentation projects. The most recent, conducted by an international team of researchers, used electronic survey instruments to create a detailed 3D computer image of the ship. My project has benefited from their hard work and the computer image allows me to take measurements of the vessel that would otherwise be very difficult or impossible to obtain through conventional measuring techniques because of the large size and irregular shape of *Vasa*'s hull. During my research trips to the museum, I have added the measurements of certain key hull features to this set of data and come up with a clear picture of the size and shape of *Vasa*'s hull.

Using this information, I am determining why *Vasa* is the shape that it is, by analyzing the form of its hull, both digitally and on paper, to look for mathematical patterns and logical relationships of dimensions. The results are preliminary, but so far the patterns that are emerging suggest that the design of the hull was probably based on a series of ratios and proportions. The result of this study will be a detailed description of the methods and logic used by the shipwrights to define the shape of *Vasa*'s hull. It will be the first time such a study has been conducted on an intact 17th-century vessel and will contribute greatly to our understanding of the theory and practice of early-modern Dutch shipbuilding.



This project was made possible by the generous scholarly and financial support of the Institute of Nautical Archaeology, Dr. Peter Amaral, the Anthropology Department at Texas A&M University, the Vasa Museum, Dr. Filipe Castro, Dr. Fred Hocker, Ab Hoving, and Dr. Kroum Batchvarov.

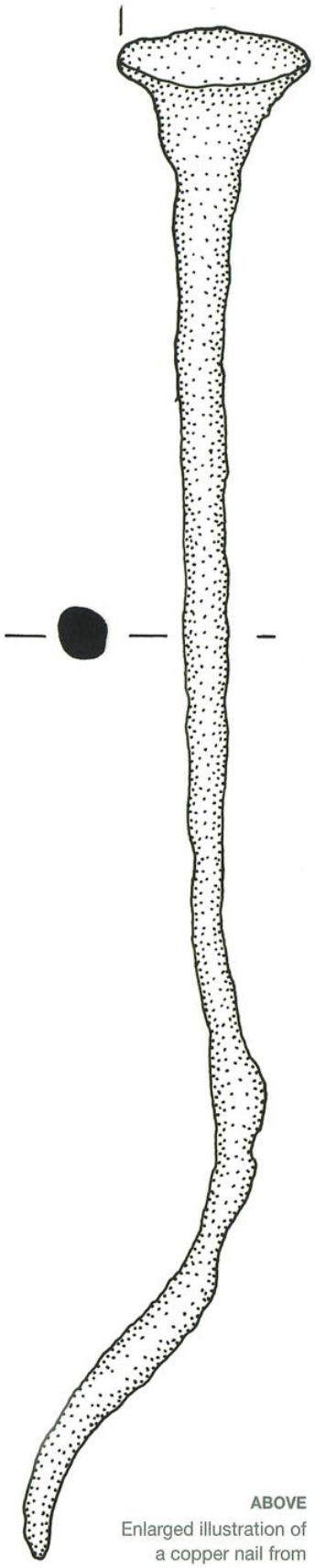
Thank you all.

ABOVE

The Swedish warship *Vasa* on display at the state-of-the-art Vasa Museum in Stockholm.

(inset) Kelby Rose records key hull measurements on board the ship.

Follow the progress of Kelby's research at www.inadiscover.com and www.kelbyrose.com



ABOVE
Enlarged illustration of a copper nail from the Kızılburun site.
Mustafa Korkmaz

In Small Things Forgotten:

EXAMINING THE KIZILBURUN COLUMN WRECK FASTENERS

John D. Littlefield

Excavation of the Late Hellenistic column carrier wrecked at Kızılburun, Turkey began in 2005 under the leadership of Donny Hamilton and current INA President Deborah Carlson. With five seasons of excavation and two seasons of research dedicated to the shipwreck, the field portion of the project concluded in 2011 with the raising of the remaining six (of eight) marble column drums for study and conservation. The drums are very large, in the magnitude of four to seven tons each, and constituted the bulk of the ship's cargo. However, the ship itself survives in the form of over 800 small fragments of wood, comprising only a fraction of the vessel, and more than 1000 pieces of fasteners. It is in these small artifacts that I have found many headaches, enigmatic questions, and great pleasure while attempting to discern details of the ship's construction.

My involvement with the project began in the summer of 2008 when I was tasked with cataloging the previously excavated wood fragments using sketches, photographs and written descriptions. At the conclusion of 2008 I was offered the opportunity to also catalog the ships fasteners and the wooden remains yet to be raised to form the basis of my M.A. research. As a relatively new student in the Nautical Archaeology Program at Texas A&M University, I was a little daunted by the prospect of drawing conclusions about a ship, of which so little remains. Now, the excavations are complete and I have spent a considerable amount of time handling the vestiges of the hull. Both groups of artifacts suffer from poor preservation, but a considerable amount of information has been gleaned to amend or support our knowledge of first-century BCE shipbuilding and stone transport during this period.

Wooden Remains

The wooden remains of the ship are not only meager, but also heavily fragmented, and particularly friable. After spending more than two millenia pressed beneath marble column drums weighing 6-7 tons each, the fragments are also understandably distorted. Often, recording the ship's timber fragments is only feasible in two dimensions and not always in the same two dimensions; further complicating the interpretation of a constructional puzzle with most of the pieces missing. Many of these fragments are stand-alone bits, having no adjoining pieces. However, in some cases, especially with the nearly three meter-long keel section and a number of framing elements, fragments were temporarily reassembled into more substantial timbers by utilizing diver's notes, sketches and in situ photographs. The process of gathering these data for a single timber's reconstruction often takes days to locate, collect and evaluate before attempting to reassemble a timber section for recording. There is a need for frequent revisits to a single timber as new questions arise and access to facilities at the Bodrum Research Center have enabled me to stay for extended periods of time in order to record the timbers with as much detail as possible. Still, even with the best of notes and photographs, reassembly was often impossible due to the fragmented and discontinuous nature of the remains. Therefore, in addition to the above mentioned methods of recording, other methods such as 3-D modeling have been employed to gain a better, yet still incomplete understanding of the construction of the vessel. Additionally, other direct and indirect information has been garnered from the ship's fasteners.

Ship's Fasteners

The analysis of nails from archaeological contexts is often overlooked. Seldom are they given more attention than an illustration plate in excavation publications. This is beginning to change, especially in shipwreck excavations as the importance of such seemingly insignificant artifacts has taken on a greater importance in the overall understanding of a vessel, particularly when remains are sparse. Examination of the fasteners confirmed or enhanced data drawn from my study of the timber fragments from the late Hellenistic marble carrier; information that is severely lacking in the on-going debate about the existence of a specialized ship type for carrying heavy stone cargoes. For example, all of the extant frames from the vessel are disjointed and had broken

away from the planking, which made determining the frame spacing problematic. Using the positions of in situ nail heads, I was able to determine the frame spacing of 25 cm. This figure was later corroborated by two impressions from adjacent frames found on a small section of reconstructed hull planking. Frame spacing is one of the major diagnostic attributes of ship construction. In addition to frame spacing, laboratory analysis of the fasteners also offered information about planking thickness and framing dimensions.

All fasteners were tested with a rare earth magnet and found to be of non-ferrous material, which prompted the desire to know if they were made of copper or bronze. Few ancient vessels have been found to have been constructed with bronze fasteners, although translations of ancient texts suggest bronze was the material of choice. This is another on-going question in ancient ship construction, as so few wrecks have had fastener metals identified with little more than visual examination that often proves to be problematic or incorrect. To this end, I requested the use of INA's pXRF (portable X-ray fluorescence) analyzer that gives an elemental breakdown of metals. Luckily, visiting scholar Yuval Goren of Tel Aviv University was in Bodrum to conduct petrographic analysis of cooking pots from the Tektaş Burnu shipwreck and was kind enough to instruct Deborah Carlson, fellow NAP student Ryan Lee and myself in the use and applicability of the pXRF. After a few days of analyzing what seemed like every available bit of modern metal available in order to test known materials, I turned my attention to the ancient nails and found that they are made of a very pure copper, not intentionally alloyed with another element (such as tin to form bronze). This information amends our still small database of ancient nail studies.

Discussion

It is important to remember, as archaeologist James Deetz wrote, not to overlook the potentially valuable information obtained "In Small Things Forgotten." Thus far, at least 64 architectural stone cargoes have been discovered in the waters of the Mediterranean, dating from the second century BCE to the sixth century CE. Few of these shipwrecks have received little more than superficial examination, and even fewer have been subject to full archaeological excavation. While little is known about the construction of stone carrying vessels of antiquity from the archaeological record, even less information has been obtained from literary and iconographic sources. As a result, my study of the Kızılburun hull remains will contribute to the modest corpus of existing data and is poised to help clarify our understanding of stone transports in the late Hellenistic period.

Texas A & M University MA candidate John D. Littlefield completed his B.Sc. at the College of Charleston, and a dendrochronology certification course at the University of Arizona. In addition to ancient ship construction, his research interests include dendroarchaeology, survey methodologies, and American Civil War Era experimental watercraft.

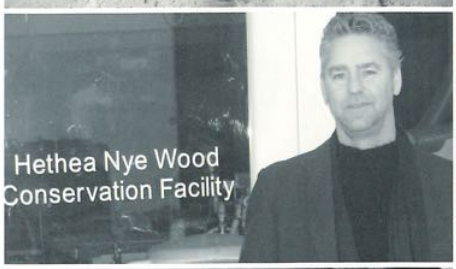
BELOW
(CCW from upper left)

Rows of in situ fasteners.
PHOTO **Catherine Sincich**

In the wood lab at INA Bodrum Research Center.
PHOTO **Tûba Ekmekçi**

Recording a frame fragment.
PHOTO **Kimberly Rash**

John using a portable X-Ray Fluorescence (pXRF) unit. This state-of-the-art technology uses an x-ray beam to identify the specific elements present within archaeological material snd provides archaeologists and conservators with valuable chemical information that can be used to better conserve and interpret submerged cultural heritage.
PHOTO **Ryan C. Lee**



Phoenician Finale:

The Claude & Barbara Duthuit Expedition to Bajo de la Campana

PHOTOS A - E
Susannah H. Snowden

PHOTO F
Mark Polzer

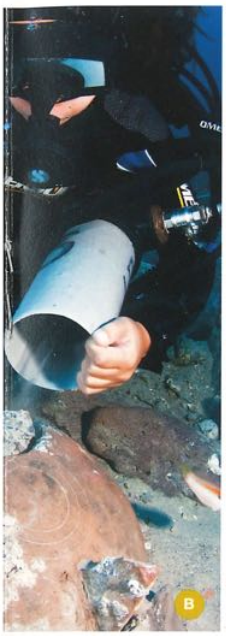
After five seasons of fieldwork, almost 4000 dives, 3000 hours spent under water and countless more above, thousands of air miles traveled, the involvement of archaeologists, conservators, scientists, and graduate students from at least a dozen countries on four continents, and the generous financial contributions of numerous individuals, organizations, and governments, INA's excavation of the Phoenician shipwreck at Bajo de la Campana is finally complete. Of course, that only means that the fieldwork has concluded; the documentation, conservation, analysis, study, and dissemination of all the material and information that this effort has produced is still underway—is still in its infancy, in fact—and will require years more effort. This final field season was an exciting one and, in many ways, representative of the overall excavation.


A

When planning for this year's fieldwork, we had a clear sense of what we needed to accomplish, but not necessarily of what to expect, at least in terms of the finds. Our efforts in 2010 had produced a significant amount of archaeological material, but mostly similar types of objects that we had discovered in seasons prior. There were some notable exceptions to this, including a collection of pan-balance weights made of lead, encased in bronze, and crowned with a small, tripartite projection. F

Also important were two new Phoenician inscriptions discovered on a pair of large elephant tusks. By the close of that summer, the team had excavated the extent of the wreckage to the north and south. That left only the cave and crevasse, the site's western limit, and the down-slope area to the east to be worked to completion. The late discovery of nine large elephant tusks at the deepest extent of the cleared area suggested that more material lay buried farther down slope. But just how much material, what types of objects, and how dispersed across the seabed, were all questions we could not answer. What was certain was that we were going to have to expand the site, and that meant, quite literally, moving tons more rock.

Likewise, even after three seasons of work, there was still much rock debris to be removed



from the crevasse before it could be fully excavated; and that area continued to be rich with material. Clearing so much rock from the bottom was a serious endeavor, both physically and time wise. Our efforts got underway in early June of this year, and for the rest of that month the team worked tirelessly manhandling large rocks, hand carrying baskets full of smaller stones, and walking or swimming more massive boulders rigged with lift bags off the site to a depot pile to the south. A As the days and weeks went by, the dumped material grew into a virtual mountain of rocks and boulders and became new habitat for innumerable fish and other sea life; often the very same creatures displaced from the site by our intrusive activity.

While clearing the seabed, we began uncovering shipwreck material almost immediately. We found a large, cylindrical whetstone, two more pan-balance weights, the tip end of an elephant tusk, and all sorts of broken pottery lying underneath the rocks we moved. In the crevasse, we succeeded in lifting our most massive boulder using multiple lift bags with a combined capacity of four and a half tons. The crater it left behind exposed an abundance of Phoenician, Punic, and Roman ceramic material, the latter types coming from two additional ancient shipwrecks in the vicinity. The Phoenician pottery included an intact dipping jug D that had become the domicile of a small octopus that the team affectionately named 'Coco'. E

The team spent the month of July and early part of August excavating through the initial strata of mixed material, recovering a large quantity of items from all three ancient wrecks, and even a few of modern provenience. However, Phoenician material still predominated. We continued to accrue an impressive assortment of Phoenician ceramics that includes transport and table amphoras, pots and jars, pitchers, plates, bowls, and small oil bottles. Some of the more exciting finds were several new styles of tripod bowls, so named for the three small feet upon which they stand. The largest example has three concentric circles incised on its underside, and is the first ceramic vessel B from the wreck decorated in this manner.

Other finds from the Phoenician wreck followed along the lines of what we have raised previously. As usual, we encountered galena everywhere; gray nuggets of lead ore littered the site and populated all levels of sub-bottom strata, from the seabed down to bedrock. We found several more elephant tusks; tin and copper ingots, though far fewer than in any previous season; a surprisingly large number of additional pan-balance weights, as well as lead dome weights, so called because of their shape; an intriguing assortment of worked pieces of wood and metal; pine nuts, pine cone scales, almonds, olive and fruit pits; twigs and larger branches of brushwood used as packing material; and many large, egg-shaped ballast stones.

By mid August, the graduate students and others on the team began departing for their respective universities and Fall classes, or jobs and other commitments. The excavation itself appeared to be winding down as well, as wreck material seemed to be petering out. Then, everything changed as we reached the Phoenician strata in the crevasse, and progressed down into the farthest reaches of the site to the southeast.

Bajo de la Campana... continued

FACING PAGE

The 2011 expedition team.

Excavating the crevasse.

Josh Jones catalogues and draws the carved ivory band.

ALL PHOTOS **S. Snowden**

Not only did the amount of Phoenician material increase, to the near exclusion of all other, it included some remarkable and well-preserved singular objects. The excitement began down slope with the discovery of several nodules of amber, the first such finds since our initial site survey in 2007. C Chemical analysis of one of the small nodules we recovered then indicates that the amber comes from the Baltic region of northern Europe, an area well known since pre-history for its fossilized tree resin. In the same vicinity and elsewhere, half a dozen more whetstones came to light. These are similar to one found in 2008: made from a dull green stone, slim of form, and finely turned with beveled ends. Curiously, two of the examples are only about half the length of the others. These objects may actually be burnishing stones used in jewelry making, rather than whetstones for sharpening metal implements.

At the same time, work in the upper depths of the crevasse was uncovering a number of interesting items. First, the ivory handle of a small knife or dagger, then a needle made from antler with a thin, flat shape and a two holes in its blunt end. Nearby we found a thick, wooden stanchion, slightly curved, with one end roughly whittled to a point and the other end notched to form a flat head. This may be a stave from a basket used to carry ore or other heavy material. Indeed, close by in the cave we found some fragile fragments of woven basketry. Roman ore baskets with staves of similar make, excavated from ancient mines nearby, can be seen today in Cartegena's nearby Archaeological Museum. The crew may well have stowed the galena and metal ingots in such sturdy baskets in the ship's hold. Also in this area we unearthed two more ceramic oil bottles, along with a unique, tiny jugglet with a single ring handle.

Most thrilling were the discoveries of several more exotic pieces. These include a simple, yet elegant, carved circular band of ivory, possibly an arm bracelet or a stand of some sort; several pieces of an alabaster jar; the remains of a bronze cauldron; and the upper portions of two bronze stands that typically supported dishes for burning incense, known as *thymiateria*. The latter are of Cypriot style and are best dated to the 7th century BC. Alabaster jars and bronze censers were highly prized by both Phoenician and indigenous peoples, and are known to have been kept in families for generations as prestigious heirlooms.

Perhaps the most intriguing find of the summer was also one of the last; a long and slender, cylindrical wooden object that has a curvilinear shape and a flared end with a hole drilled into it. This hole, the object's shape, and another hole farther along its length at first led us to believe that this was a flute or some similar type of musical instrument. However, once we inspected the object on land, we realized that the longitudinal hole extends only a few centimeters from the end, and the 'finger' hole is actually a *Teredo* borehole, or that of some other type of marine borer. The piece would appear to be a handle of sorts, perhaps for a wisp or fan, but will require further investigation to determine its true nature.

These latter items are luxury goods, and add to an impressive list of similar objects that the ship was transporting. This includes, from previous seasons, a limestone pedestal, another ivory knife handle, bronze and boxwood furniture pieces, bottles of perfumed oils, decorated boxwood combs, and a bronze ornamental object in the shape of a forearm holding a lotus blossom. These are all examples of orientalizing objects that were traded or gifted to elite members of the indigenous societies, by Phoenician merchants and colonists, in exchange for commercial privileges and access to the abundant natural resources of the Iberian Peninsula. These objects, combined with the impressive array of raw materials that we recovered from the ship's cargo—elephant ivory, tin, copper, lead, timber, amber and resin—make this shipwreck a truly unique and profitable source for archeological research that should provide exciting new insights into the Phoenician presence in Spain and the western Mediterranean.

It is with sincere affection and appreciation that my excavation co-director, Juan Pinedo, and I acknowledge the generous contributions of our sponsors, without whose unwavering support none of this would have been possible. INA directors Claude and Barbara Duthuit have been the project's principal patrons since our initial season of excavation, and are most responsible for providing us the means to complete the fieldwork in this timeframe. It was with great humility and privilege that we officially named the expedition in their honor earlier this year, following Claude's untimely passing just before the start of the season. Our other major donors are the Expeditions Council of the National Geographic Society, INA director Lucy Darden, and project friend (and part-time team member) David Hadley. This final season of excavation was supported as well by former INA chairman Peter Way. Travel money provided by the Nautical Archaeology Program and Center for Maritime Archaeology and Conservation at Texas A&M University enabled a good many NAP graduate students to participate in the fieldwork. Richard Fryburg, president of Subsalve USA, donated a selection of lift bags to the expedition, which made the site clearing possible. The Spain-USA Foundation and the Department of Anthropology at Texas A&M University underwrote the initial survey of the site in 2007. My study of the site and material is only possible because of a Prescott Postgraduate Scholarship awarded to me by the University of Western Australia, and has benefited as well from a research grant from the Program for Cultural Cooperation Between Spain's Ministry of Culture and United States Universities. Our partners at the Arqua Museum in Cartagena, Spain's National Museum of Underwater Archaeology, have from the beginning supported us with equipment, facilities, and expertise, and are conserving all the thousands of items raised from the seabed. We are particularly grateful for the assistance and tireless work this summer of Arqua director Xavier Nieto and his staff, both in the field and in the lab. And finally, I would be remiss not to mention the myriad support, encouragement, and facilitation afforded by former INA president Jim Delgado, INA general counsel Jim Goold, and former Anthropology department head Donny Hamilton, from which the project and I have benefited immensely.

Mark E. Polzer
University of Western Australia
INA Research Associate

Steamboat Graveyards

on Alaska's Yukon River

ABOVE
INA's insignia flies over the steamboat graveyard site near the Yukon River.
PHOTO **K. Worthington**

Kate Worthington, INA Research Associate

It was a short, but intense 2011 survey season of Gold Rush-era paddlewheel steamboats abandoned in and around St. Michael, Alaska—a Native American coastal community 90 miles north of the Yukon River's mouth. Our small plane landed in St. Michael on a sunny late July evening, with only the most reliable survey gear: cameras, measuring tapes, notebooks and pencils. Our focus was the relatively intact remains of *J.P.Light*, a 176.5 ft (53.79 m) sternwheel steamer constructed in 1897-98 by Moran Bros. Co. in Seattle, WA. Last season the vessel was scanned using ground-based LIDAR and total station, while this season's visit provided answers to specific machinery questions and revealed design solutions.

The steamer hulks are the remnants of a very different era, the Gold Rush days of 1897-98, when paddlewheel steamboats plied the 900 miles of wild Yukon River every spring and summer, moving passengers and freight from St. Michael, then a coastal hub of commerce, upriver to Whitehorse and Dawson. Also called Western River steamboats, they were light, long, shallow draft vessels designed specifically for North American river use and developed over 70 years of trial and error. They were remarkable for their highly flexible structures enabled by a system of hogging chains and posts, a tension arrangement similar to a bridge truss system. Their iconic steam-driven paddlewheels propelled wooden hulls through rapids and over gravel bars with frequent mishaps which were often mentioned in the local newspapers. These historic accounts make this survey rich in the romance of times gone by.

The wreck landscape is dramatic; looming skeletal paddlewheels stand out on the grassy plain near a muddy slough off a main canal where the four 175+ ft long (53.34 m) boats, *J.P.Light*, *D.R. Campbell*, *Charles Hamilton* and the iron barge *New York*, were likely left floating sometime shortly after 1927. After the *J.P.Light*'s remarkably long working career of 29 years, it was abandoned in the slough amid the sprawling coastal grass plains 1.5 miles east of Bering Strait. Tidal and storm surge from the tempestuous Bering Sea probably floated these vessels up onto the marsh decades ago leaving the area littered with the skeletons' protruding boilers and heavy iron machinery. The remains, particularly those of *J.P. Light*, still have much to offer by way of information on construction, use, and repair methods of the wooden-hulled Yukon River sternwheel steamer, and wood-fired steam technology that promoted economic development along Alaska and Canada's Yukon River. Noteworthy observations recorded this season included details about the vessel's two high-pressure cylinder piston-drive engines; large bore and with a relatively long stroke, with California cut-offs, which at the time was the height of riverboat technology. The hogging system was also recorded with the intent of reconstructing the structure virtually to calculate the vessel's metacenter.

Several dozen sternwheeler wrecks still lie semi-submerged along Alaska's Yukon near St. Mary/Andreafsky and on the coast at Healy and St. Michael. These steamboat graveyards bear further investigation and survey, and I am hopeful that future researchers will acknowledge and record them.

Preliminary Analysis

Remote-Sensing Investigation at City Point, Virginia

Joshua A. Daniel, INA Research Associate

The James River near City Point, Virginia has been identified as the location of numerous shipwrecks. A ship graveyard at the junction of the Appomattox and James rivers is mentioned by modern historian Kevin Foster, who noted that ships were abandoned in this area "since the Civil War era." He identified "[s]idewheel ferries, three-masted schooners, and at least one large wooden ship or bark" from aerial photographs (Foster 1991:66).

While the history of City Point began as early as 1635 when land was granted to Captain Francis Eppes (Horning 2004), two key events likely contributed to the wreck assemblage in the river. During the Civil War, City Point was a staging area for the Union Army during the siege of Petersburg, and as well as the location of a Confederate sabotage attempt that destroyed three vessels and a number of buildings along the shoreline. During World War I, the E. I. Du Pont de Nemours Company built and operated a large cotton gin plant at City Point due, in part, to the deep-water port at that location. The company quickly shut down operations after the war.

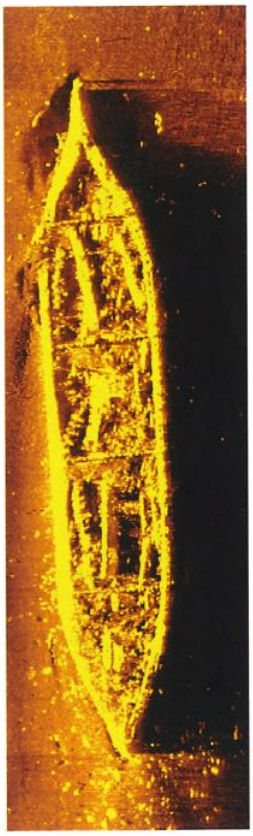
On 11 and 12 August 2011, personnel from the Institute for International Maritime Research, including project director Joshua Daniel and archaeologists Dr. Gordon Watts and Dr. John Broadwater, conducted a sidescan sonar survey of the James River near City Point. Preliminary analysis of the data collected during the survey tentatively identified 37 wrecks. Based on construction details observed at low tide, it appears a number of these vessels could be steam freighters built for the Emergency Fleet Corporation during World War I. Further research at the U.S. National Archives and more in-depth archaeological study should shed light on the identification and construction details of these vessels. The detailed results of this remote-sensing survey will be published in a forthcoming issue of the *INA Annual*.

Foster, Kevin J. 1992. "Threatened James River Shipwreck and Historical Sites." *Historical Archaeology* 26(4):58-68.

Horning, Audrey J. 2004. Cultural Overview of City Point, Petersburg National Battlefield, Hopewell, Virginia. Colonial Williamsburg Archaeological Reports. Williamsburg: The Colonial Williamsburg Foundation.

BELOW

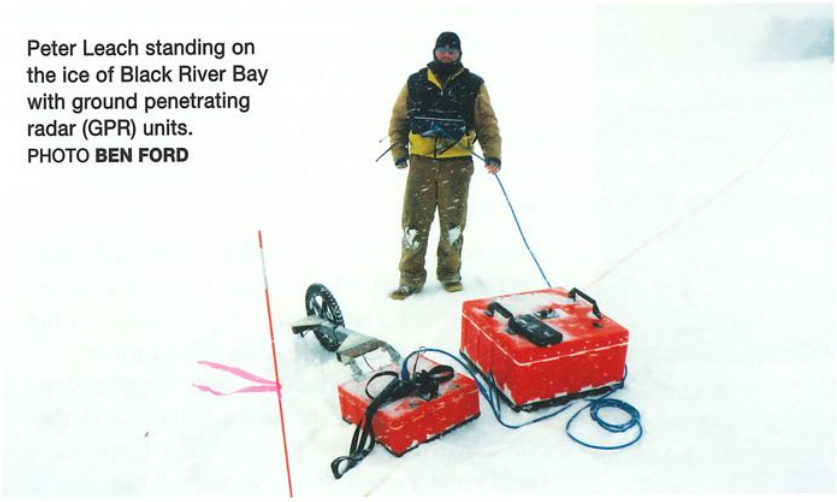
A sidescan sonar image of a wreck in the investigation area.



War of 1812

Ben Ford
Indiana University of Pennsylvania
INA Research Associate

Over the past year an interdisciplinary team of archaeologists and geologists from Indiana University of Pennsylvania, College of Charleston, and the Great Lakes Historical Society explored Black River Bay, Lake Ontario, for the remains of a War of 1812 frigate and gunboat. Work began in January when archaeologists following up on previous magnetometry and archival studies towed a ground penetrating radar unit (GPR) across the frozen water surface in an attempt to identify the site of a buried 75-foot long gunboat. A promising anomaly was identified under approximately nine feet of sand, and during June a second team of archaeologists returned and excavated a test unit to explore the anomaly. At the same time, a side-scan sonar, magnetometer, and sub-bottom profiler survey was conducted to investigate the rest of the bay in an attempt to identify the remains of the frigate *Mohawk*. Unfortunately, both investigations were more successful at ruling out possible wreck locations than in identifying a specific shipwreck. The GPR anomaly turned out to be a series of stones rather than a gunboat; proving in this case that ice-penetrating survey by means of GPR is viable but not nearly as exciting when one does not actually discover a shipwreck. Similarly, after diving on multiple targets in the Black River Bay, it does not appear that *Mohawk* is located in the bay. What is more, the geologic results suggest that there are few portions of the bay with sufficient soft sediment to conceal the remains of a large ship. A National Geographic Society/Waitt Institute grant provided the principal funds for this project.



Peter Leach standing on the ice of Black River Bay with ground penetrating radar (GPR) units.
PHOTO **BEN FORD**

The Immortal FAUSTO

Since 2007, Lilia has spent the summers researching archival documentation for her dissertation. "I am greatly indebted to the NAP Faculty, in particular to Dr. Cemal Pulak and Dr. Shelley Wachsmann, who unreservedly supported my project. Special thanks also to INA Directors for their generous support, in particular to Dr. Robyn Woodward and Dr. Gregory Maslow.

ABOVE
The Institute of Sciences, Letters, and Arts in Venice.
PHOTO **L. Campana**

Laurie and Greg Maslow with Lilia
PHOTO **G. Zanelli**

The Life, Works, and Ships of Vettor Fausto (1490-1546)

Lilia Campana, *INA Research Associate*

The 2011 research season has been particularly productive and impressive. From June to mid-September, I spent more than three months in Venice, conducting research in the State Archive, the Marciana National Library, and the Correr Library. I have also been in various Italian libraries and archives, including Milan, Padua, Mantua, Urbino, and Pesaro. The many documents discovered this year will add much new information to the subject of my dissertation, which focuses on Vettor Fausto (1490-1546), a Venetian humanist and naval architect who gained a place of honor among Renaissance men for the building of his unique "quinquereme."

This year, I was privileged to meet INA Director Dr. Gregory Maslow and his wife Laurie, and we spent a wonderful day in Venice. Our morning started in the Marciana Library, where we examined a very rare shipbuilding manuscript, and continued with a visit to the Naval Museum. The former Navy Captain Guglielmo Zanelli, who organized our visit to the Arsenal, invited us for lunch at the Arsenal Navy Officers Club, where we saw the only two surviving ovens that were used for making hard tack, a kind of biscuit for Venetian crewmen. In the afternoon, we visited the Arsenal, which is not open to civilians and may be visited only by previous arrangement. For the wonderful day we spent together, thank you very much!

In the Ukraine

Evidence for Wooden Remains in the Bay of Novy Svet

The 2011 research season in the historic Bay of Novy Svet, Crimea, Ukraine was a tremendous success. Initially planned as a simple survey to locate the remains of any surviving timbers from the so-called Novy Svet wreck, the 45-day project resulted in the discovery, field recording, and recovery of nine timber fragments and rigging components, as well as the discovery and mapping of several anchors and elements of ballast. Re-analysis of the sea floor early in the summer showed that our sub-bottom profiling and coring plans would be ineffective, so a new approach was required. At the advice of INA veteran underwater archaeologist Sheila Matthews, a series of exploratory probing trenches were planned and executed within the original 2011 excavation quadrant as well as three surrounding reconnaissance zones. The approach worked well; the new data indicate some intriguing possibilities as to where the vessel may have actually gone down.

The starkly beautiful stretch of coastline that surrounds the bay, with a sheer mountainous backdrop to the sea, sets the scene for this shipwreck. While this summer's research included the first concentrated effort to find hull remains on the site, it is not the first work to have been done here. Ukrainian and Russian archeologists were intrigued by reports of weathered pottery washing up on the beach of the nearby resort town of Novy Svet, but it was Dr. Sergey Zelenko, Director of Taras Shevchenko University of Kiev's Centre for Underwater Archaeology (CUA), who brought the site international attention. Dr. Zelenko has been excavating here since 1999, assisted by Yana Morozova and Nikita Zelenko, methodically searching the sea floor to record and protect this important medieval shipwreck. The subsequent seasons resulted in a diverse assemblage of artifacts including coins, weapons, cooking pots, combs and more, scattered amongst a tremendous amount of pottery. Dating of the amphorae indicated that the Novy Svet Wreck sank during the 13th century. More recent findings, however, have shown that a second assemblage of material from the 11th century is present along one edge of the 13th-century material, which suggests the presence of a second shipwreck.

For an indepth look at our 2011 season, visit the Novy Svet blog on the INA website.

The 2011 season was the result of considerable planning; I have been working with CUA as a diver, assistant and editor since the summer of 2005. Since my first dive on the wreck site seven years ago, I have encouraged efforts directed at finding the remains of the ship itself together with the cargo it carried. After my first year of study with the Nautical Archaeology Program at Texas A&M University and with the generous support of INA, including that of long-time INA friend Ms. Chatten Hayes, and the University of Kiev, I was able to pursue this research in conjunction with CUA's general excavation season, combining knowledge, resources and personnel. True to CUA's tradition of welcoming international expertise and support, those shared assets were spread among the expedition's diverse team of archeologists, students, volunteer divers and specialists, representing five different countries and three continents.

One of the most successful secondary objectives of this season was the acquisition of sonar data from the predicted wreck site, the artifact dispersion zone, the bay and the surrounding coastline. Dr. Victor V. Lebedinski of the Russian Academy of Sciences and his team from Moscow led those efforts, bringing a sophisticated Hydra sonar rig with them. They trained the project leaders in its use, care and the interpretation of the data produced.

After the successes of this season, the future of the project is bright. Now that we know ship timbers do in fact remain beneath the sea floor, the upcoming excavation seasons will include plans to continue cataloguing them. Also, in a first-time effort, the timbers that were recovered this season are being sent to the University of Kiev, where they will be stabilized and stored as a plan for their future conservation is made. Plans to construct a small pier adjacent to our field base are already under discussion with local authorities, an improvement that will effectively double our underwater excavation time. We also hope to add a water dredge to our complement of tools, greatly increasing the efficiency of our bottom time. The maps of the anchors, ballast and artifact spread that are being compiled from this summer's data show a clear correlation to the concentration of the recovered timbers. I am confident that new trenches based on these data will reveal more wooden remains and bring us closer to the resting place of the Novy Svet Wreck.

John A. Albertson, *M.A. candidate, NAP/TAMU*

Images (from upper right)
Diving the Novy Svet site PHOTO **S. Zelenko**
Timber fragments PHOTO **J. Albertson**
The Bay of Novy Svet PHOTO **J. Albertson**
(inset) John Albertson

Research & Analysis

The Byzantine Ships from Yenikapı, Istanbul

FACING PAGE
(CCW from upper right)

Floor timber from YK 11, reflecting the curvature of the ship's hull.

PHOTO **R. Ingram**

Moving crates of ship timbers to the indoor laboratory with the assistance of INA Bodrum staff and students.

PHOTO **Jessica Stika**

Cemal Pulak explains the intracacies of Byzantine shipbuilding at the excavation site in 2007.

PHOTO **H. Aydıngün**

Michael Jones cataloging the main keel timber from YK 14 in the outdoor timber storage tanks.

PHOTO **Rebecca Ingram**

(inset image)
Cover from the *INA Annual* which features a 2010 report on the Yenikapi excavation project

THIS PAGE
Rebecca Ingram drawing a frame from YK 11 at 1:1 scale.

PHOTO **M.Jones**

For more information see the latest edition of the INA Annual; the Fall 2007 issue of The INA Quarterly; and the Yenikapı project pages on our website.

Some of the most important discoveries in nautical archaeology in Turkey today are being made on land. Since 2004, Turkish archaeologists conducting an urban salvage excavation in the Yenikapı district of Istanbul in advance of a major subway construction project have discovered over 35 Byzantine period shipwrecks and the remains of the Theodosian Harbor, one of ancient Constantinople's major harbors. At the invitation of the Istanbul Archaeological Museums, an excavation team led by INA Vice-President Cemal Pulak dismantled eight of these shipwrecks between 2005 and 2008, four of which were brought to INA's Bodrum Research Center for further analysis and conservation.

The cargoes of most of the Yenikapı shipwrecks were salvaged in ancient times, but the rapid burial of the ships' hulls in silt and sand below the water table protected them from destruction by marine organisms, resulting in excellent preservation of wood, rope, and other organic materials. Although Byzantine shipwrecks have been a topic of research since George Bass' Yassiada excavations in the 1960s, the shipwrecks from Yenikapı are the best preserved ships ever fully recovered from this period.

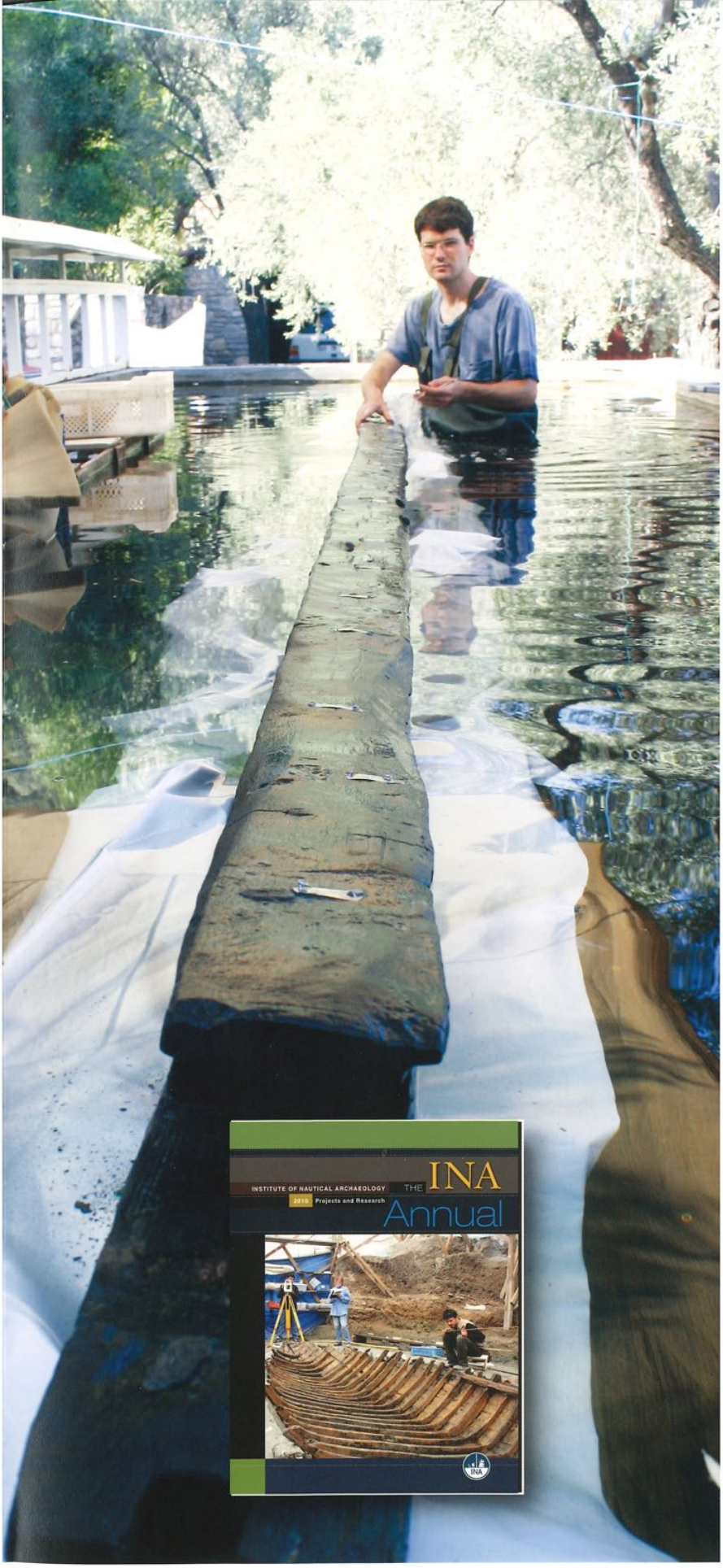
Like any shipwreck excavation, mapping and removing these ships from the excavation site was only the first stage in a long process of recording, conservation, and reconstruction. At INA's Bodrum Research Center, we are engaged in post-excavation research and analysis for our doctoral dissertations at Texas A&M University. The subjects of our research are two merchant ships: YK 11 (seventh-century AD) and YK 14 (late ninth- or early tenth-century AD). Our goal is to reconstruct the ships based on the surviving hull timbers, learn how these ships were designed and discover what they can tell us about maritime trade and society in the Byzantine Empire.

Thanks to the resources available at INA's Bodrum Research Center, especially the assistance of INA staff members and the availability of laboratory and dormitory facilities for long-term research, we have been able to work continuously on documenting YK 11 and YK 14 since June 2010. Last year, we focused on the hull planking of the ships, usually working in the freshwater-filled timber storage tanks every day wearing chest-high waders. This year, we have concentrated on drawing and cataloging the frames and keel timbers of YK 11 and 14, a task which will be completed in early 2012.

Besides taking detailed catalog notes and photographs, each hull timber is drawn at 1:1 scale on clear plastic film, which will be incorporated into ships' lines, site plans, and 3-D reconstructions of the vessels. Accurately recording the curvature of each frame timber is important, since this will provide the original shape of the ship's hull. During this process, we are finding clues to how the ships were built and used. These clues include marks left by shipbuilders during construction as well as evidence of repairs.

Our results so far show that these were small, humble working vessels which were probably built locally and were likely used to transport food and other basic necessities to the Byzantine capital.

Rebecca Ingram
Michael Jones
INA Research Associates



YK 11 FR 9
August 2011

Bodrum Research Center

An update from Tûba Ekmekçi at INA's home in the Mediterranean

ABOVE
Director of the Bodrum Research Center, Tûba Ekmekçi.
PHOTO **John Littlefield**

Hello from Bodrum to all our INA family and friends;

We have had quite a busy summer and fall in Bodrum. As always, we hosted many distinguished guests, visiting and regular scholars, as well as many students.

Early in the spring we arranged to have the Kızılburun marble pieces, raised in 2009, moved from the courtyard of the Bodrum Museum of Underwater Archaeology to the garden of the BRC. The goal of this summer's excavation at Kızılburun was to raise the remaining marble pieces and add them to the collection in the garden to be conserved under our direct supervision.

At the beginning of June, the Kızılburun team led by INA President Dr. Deborah Carlson, arrived in Bodrum to prepare for the excavation season. The team was joined by visiting conservator and cultural heritage expert Chris Cleere and Sorna Khakzad, a Ph.D. student at the University of Leuven in Belgium, to consult on the best method of conservation for the large marble drums and capital.

By the end of June, operations at Kızılburun were completed with the aid of a crane boat hired to raise the drums and transport them to Bodrum. It was a complex project requiring multiple trucks and cranes to transport the objects to the BRC, but with help from everyone at the BRC, we successfully relocated all the marble pieces safely to our facilities.

In July, Dr. Elizabeth Greene and her team of students from Brock University, Canada arrived and prepared for their survey project at Burgaz, near Knidos. After the project's completion she and some of the students remained in Bodrum to work in the museum on the objects recovered this year. Accompanying Greene was Dr. Justin Leidwanger who continued his research at the Bodrum castle throughout July and the first half of August on objects raised during previous INA surveys.

The center hosted Dr. Tom Lenaerts, Maritime Heritage Research Project Leader of "De Kogge" from the Flemish Heritage Institute to exchange information on PEG (Polyethylene glycol) treatment for waterlogged woods. We are currently hosting graduate student Sky Rymenants (from Lenaert's team) as an intern to work on finalizing the PEG treatment of the Bozburun ship timbers. M.A. student John Albertson, from Texas A&M University, also worked with the Bozburun wood, cleaning the excess PEG and preparing the wood for storage and future display.

Regular visitor, INA faculty affiliate and scholar, Dr. Harun Özdaş of Dokuz Eylül University in Izmir, Turkey, returned with some of his students to make use of our library, as did other students from various Turkish Universities. Dr. Özdaş also worked to re-establish the permits required to use the submersible *Carolyn*. Our research vessel *Virazon* is also being used by Dr. Özdaş for archaeological surveys during the fall as part of a cooperative venture.

Long-term visiting student researchers Rebecca Ingram, Michael Jones, and Ryan Lee from Texas A&M University were able to obtain funds from INA, American Research Institute in Turkey (ARIT), the American Philosophical Society (APS), and the Department of Anthropology and College of Liberal Arts at Texas A&M University, and residence permits, to allow them to continue working on wrecks from Yenikapı, under the direction of Dr. Cemal Pulak. INA archaeologist Orkan Köyağasıoğlu is continuing to record wood remains from the hull of one of the oared galley's from Yenikapı in Istanbul. Whether Rebecca and Michael are working on timbers stored in the laboratory or in the 150-ton outdoor storage tanks, their work provides yet another opportunity for visitors to the Bodrum Research Center to observe ongoing archaeological research from a current excavation which has received international attention. Their continued work throughout the winter also highlights Bodrum's function as the Institute's base for long-term scholarly research in Turkey. Ryan Lee, along with Jessica Stika, also from Texas A&M University, worked to record and catalog the timbers from the small

FACING PAGE
(top) INA Bodrum Research Center
PHOTO **Tûba Ekmekçi**

(bottom left) Chris Cleere, Sorna Khakzad and Deborah Carlson, inspecting the doric column capital from the Kızılburun shipwreck.
PHOTO **Tûba Ekmekçi**

(bottom right) Tuba inspects the column drums that have arrived at Bodrum Cruise Port.
PHOTO **Ryan C. Lee**

tenth-century vessel from the Yenikapi site. They have primarily been working in Heathea Nye Wood Conservation Facility to prepare the wood for conservation in late fall.

In the middle of August, Peter Herdrich CEO and publisher of the Archaeological Institute of America's *Archaeology Magazine*, came to visit for almost a week. Our conservation staff also had the pleasure of inviting his daughter to work in the INA lab and learn about the conservation of objects from a marine environment. Peter was able to put our librarian, Nurgül Külah, in touch with the AIA publication director in order to complete our collection of the *American Journal of Archaeology* by donating copies of the missing issues... a generous gesture that helps us ensure that the BRC's research library continues to grow into one of the most comprehensive archaeological collections in Anatolia.

ABOVE

(CW from upper left) John Littlefield and Ryan C. Lee with INA's pXRF.

PHOTO **Tûba Ekmekçi**

Rebecca Ingram and Michael Jones with Yenikapı wood.

PHOTO **Kimberly Rash**

Esra Altınanıt and Gülser Kazancıoğlu working with Pabuç Burnu amphora pieces.

PHOTO **Tûba Ekmekçi.**

In August, Carlson and the BRC hosted Dr. Yuval Goren from Tel Aviv University, here to conduct petrographic analysis of cooking pots from the Tektaş Burnu shipwreck. Goren graciously instructed Carlson, along with graduate students Ryan Lee and John Littlefield from Texas A&M University in the use INA's pXRF (portable X-ray fluorescence) analyzer which arrived in Bodrum after several years on site at the Bajo de la Campana excavation in Spain. John Littlefield was able to utilize the technology for his work on the fasteners from the Kızılburun hull, while Ryan Lee has been tasked with general use of the pXRF for multiple projects, including the Yenikapı material.

In early September Dr. Nicolle Hirschfeld arrived to work on the objects from the Cape Gelidonya project of 2010. During her stay in Bodrum, she was also able to work with the Gelidonya objects from the 1960 excavation season, and the surveys of the 1980s and 1990s, currently housed in the Bodrum Museum.

Retired glass expert, and dear friend of INA, from the Corning Museum, Sid Goldstein, returned to Bodrum with a group of his colleagues in September. We gave them a tour of the museum and discussed the various INA excavation projects underway.

Retired Turkish Navy Admiral Metin Ataç has planned a visit to utilize our library for his research prior to the First International Congress of Eurasian Maritime History that will be held in November of 2012 in Istanbul. And we were very happy to have INA Treasurer and Chairman Elect, Robyn Woodward, in Bodrum at the end of the month.

Our conservation team, along with the help of visiting researchers, is continuing work on materials from the Uluburun, Tektaş Burnu, Pabuç Burnu, Cape Gelidonya and Bozburun wrecks. Three Turkish students from Ege University are serving as interns in the Nixon Griffis lab to learn more about the conservation of underwater objects. Newly hired illustrator, Seçil Kayacık, and restorer Bilge Akman are working diligently to finish drawings for various upcoming publications.

As for the BRC staff, the months ahead will be filled with securing bids for repairs to the facilities, the preparation of reports that are due after the season's surveys and excavations, and beginning preparations for next year's many and varied activities.

It is always a pleasure to welcome our INA family and friends to the center! So, until the spring, all the best.

Tûba Ekmekçi

In this issue we speak with conservator Esra Altınanıt from the Bodrum Research Center in Turkey.

How did you become interested in archaeological conservation?

As a child I was interested in history yet I knew I didn't want to just read about it. I wanted to see and touch the objects that were created by past cultures. So I decided to pursue archaeology. Following my graduation I went to the Museum of Underwater Archaeology in The Bodrum Castle to meet the Director of the Museum, Oguz Alpozen. I wanted to convince him that I was in love with archaeology and that I wanted to be a part of this incredible work environment. Fortunately he brought me to the INA lab where I was amazed at the sight of artifacts undergoing the conservation process. Since then I have been working for INA. It's been almost sixteen years... this is my dream job and for that I thank INA!

What is your educational background?

I studied Classical Archeology at Ege University in Izmir, graduating in 1992. I have worked as a conservator on INA projects including: Şeytan Deresi, Pabuç Burnu, Tektaş Burnu, Kızılburun, Bozburun and Serçe Limanı. Aside from this, I assisted with the reorganization of underwater artifact storage at the Bodrum Museum; the preparation of the exhibition of the Tektaş Burnu ship-wreck; and the artifact inventory for the Uluburun Shipwreck. I also participated in the excavations at Phokaia and Klazomenai between 1988 and 1992; for the past two summers I have been assisting with the excavations at Salamis in Northern Cyprus.

Why is conservation important?

Artifact preservation is one of the most important considerations when undertaking any action that will result in the recovery of material from an underwater archaeological site. Without conservation, most artifacts will perish, and important historic data will be lost. The loss is not just to the excavator but also to future archaeologists and to the public. Artifacts recovered from a saltwater environment are often well preserved but are still of a very friable nature. Unless they are conserved in a timely manner they deteriorate at a very rapid rate and subsequently become useless as diagnostic or display specimens. For these reasons, conservation must be a paramount concern when the excavation of an underwater archaeological site is being planned.

What has being an INA team member meant to you?

I was familiar with the restoration and conservation projects due to my degree in archaeology, but INA has been the source of much of my learning... it has become a profound education for me. My training here has been invaluable and I have been exposed to such a variety of techniques relevant to different materials and situations related to conservation.

I continue to seek out further educational opportunities to expand my knowledge and and as of last September I became a student again, pursuing a master's degree in Conservation and Restoration at Istanbul University. It was then that I really understood the value of being involved with this organization. I have enjoyed wonderful support and guidance on this venture, and the Turkish Institute of Nautical Archaeology (TINA) has even awarded me a partial scholarship to cover travel expenses between Bodrum and İstanbul while I am studying there. This scholarship along with a flexible schedule so that I can study and work at the same time, has made it possible for me to pursue this degree. I am so grateful for all the help and support INA and TINA have given me. Working for INA has been the opportunity of a lifetime.

BELOW
Esra Altınanıt and Asaf Oron prepare for the opening of the Tektaş Burnu exhibit at the Bodrum Museum in 2005.

In the wood conservation tank with remnants from the Yassıada excavation.
PHOTO **Özgül Oktay**

Shipwreck Weekend April 22-23, 2011

ABOVE
Dr. Cheryl Ward opened this year's Shipwreck Weekend with her presentation, "Building Pharaoh's Ship: Cedar, Incense, and Sailing the Great Green."

Shipwreck Weekend was originally established by Institute of Nautical Archaeology (INA) Research Associate J. Barto Arnold, who joined INA in 1997 as the Director of Texas Operations. With a passion for involving the public in nautical archaeology, Arnold organized morning slide shows of current projects along with an afternoon tour of the nautical laboratories on campus. Since these beginnings, the graduate students of the Nautical Archaeology Program (NAP) have expanded the offerings while maintaining Arnold's original vision of promoting the various ongoing research projects of the program and making nautical archaeology accessible to the general public.

The 2011 Shipwreck Weekend event was comprised of three separate components. The weekend kicked off on the evening of Friday, April 22nd, with a special guest lecturer. The Friday evening lecture is a new aspect of Shipwreck Weekend, initially tested during the 2010 season when the Archaeological Institute of America (AIA) lecture by Dr. John Hale coincided with the date of Shipwreck Weekend. This combined event met with so much success that the organizers of the 2011 event decided to officially incorporate a Friday evening lecture into the program of the Weekend, thus creating the "Studies in Nautical Traditions" Lecture Series. The 2011 inaugural address featured Dr. Cheryl Ward, Director of the Center for Archaeology and Anthropology, Associate Professor of History, and Maritime Archaeologist at Coastal Carolina University. Her presentation was entitled "Building Pharaoh's Ship: Cedar, Incense, and Sailing the Great Green" and was attended by approximately 90 people from the academic and local community, with several participants remaining for an informal meet-and-greet with Dr. Ward, as well as with faculty and graduate students of the Nautical Archaeology Program.

The second component of Shipwreck Weekend was a series of Saturday morning lectures presented by nautical students, faculty, and outside scholars. The lectures covered a wide range of topics including Yukon Gold Rush steamboats, the cutting edge of conservation, the World Trade Center ship, and a brief history of Texas maritime archaeology.

Finally, in the afternoon, the public was invited to explore the halls of the Anthropology building for an open house of the nautical laboratories, and a family friendly fair with activities and interactive displays about pirates, scuba diving, sailing, and much more... someone even made hard tack! For three hours, the first floor was abuzz with young children constructing ancient laced boats, older children tying bowlines and square knots, and people of all ages learning about the maritime community and the practice of underwater archaeology.

Overall, Shipwreck Weekend 2011 was a remarkable success, with over 80% of NAP students involved in the event and a record number of visitors for the afternoon fair. The organizing committee looks forward to another exciting showcase in 2012.

Shipwreck Weekend 2011 was funded by the Institute of Nautical Archaeology (INA), the Department of Anthropology, the Center for Maritime Archaeology and Conservation (CMAC), the Melbern G. Glasscock Center for Humanities Research, and the History of Art, Architecture, and Visual Culture Working Group.

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