

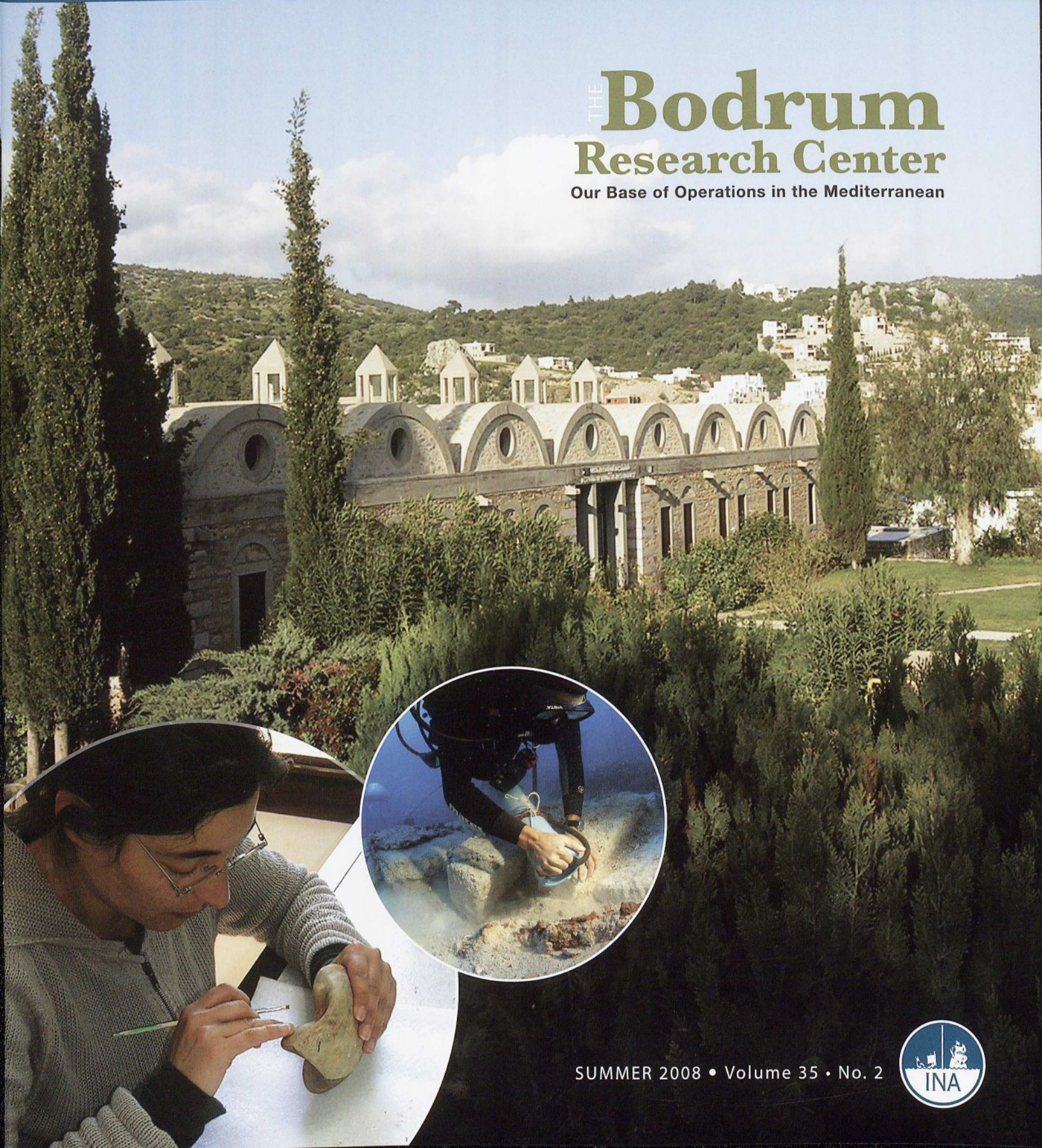


quarterly

MAGAZINE OF THE INSTITUTE OF NAUTICAL ARCHAEOLOGY

THE **Bodrum** Research Center

Our Base of Operations in the Mediterranean



SUMMER 2008 • Volume 35 • No. 2



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insideINA

A Letter from the President

The summer of 2008 was a busy one as INA researchers around the world continued to survey and excavate, as well as study the results of previous field seasons. While we look forward to sharing our summer highlights with you in coming issues of *The INA Quarterly*, in this issue we would like to take the opportunity to look at the important work of INA's Bodrum Research Center (BRC) in Turkey.

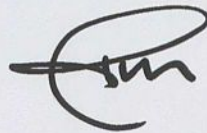
In addition to providing support to INA's Turkish surveys and excavations, the laboratories at the BRC continue the excavation long after the field work is done. Concreted masses of marine sediment are X-rayed to reveal perfect casts of ancient metal tools and weapons. Broken ceramics are reassembled from fragments and studied. Changes brought on by centuries of immersion in the sea are reversed so that artifacts do not crumble into dust once dry, and so that they can be safely handled for study and display at the Bodrum Museum of Underwater Archaeology.

We will soon be introducing volunteer opportunities for interested members of INA to come to Bodrum for a two week "Introduction to Conservation" at the Bodrum Research Center. You can work side by side with the conservation team, and help reassemble history from remains excavated from INA projects. More information on this program will be available in the next issue of the *Quarterly*.

Also available this Fall is a new INA publication, *The INA Annual*. Approximately 100 pages in length, this paperbound volume will provide in-depth coverage of INA's field projects and the results of our excavations and research. All members of INA will receive the Annual.

Finally, INA's new website is beginning to take shape, and the initial preview of the first of many pages is now available at www.inadiscover.com. It is starting small and will soon grow to incorporate a large amount of information, readily accessible, about INA and its projects and the results of our work, past and present.

As always, thank you for your support and for being a member of the Institute of Nautical Archaeology.



Jim Delgado
President



*Enjoying a moment
in the sun with staff
at the Bodrum Research
Center*

C ontents

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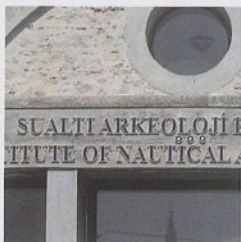
6

Evidence of a Sicilian Naval Battle?



7

A New Discovery in Vietnam



8

INA's Center of Activity in Bodrum, Turkey



14

Bodrum Team Members Who's Who in the Mediterranean

1 ON THE COVER

View of the front of the Bodrum Research Center PHOTO: Jim Delgado

Inset Left

INA Conservator Devrim Bekret working on ceramics from the Uluburun wreck PHOTO: Jim Delgado

Inset Right

Ken Trethewey airlifts sand around the marble blocks and concreted iron anchor from the early Roman column wreck at Kizilburun, Turkey PHOTO: INA

20 www.inadiscover.com

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Bajo de la Campana (*Shallows of the Bell*)

Directors and friends visit the excavation site in Spain

This July, a group of INA directors and friends traveled to Cartagena, Spain to visit the first full season of excavation of a seventh-century B.C. shipwreck at Bajo de la Campana. The project, a collaborative partnership with the National Museum of Underwater Archaeology, is co-directed by Juan Pinedo and Mark Polzer of Texas A&M University. The project is also graciously supported by the National Geographic Society, Texas A&M University, and a number of private contributors.

While some members of the group dived to visit the wreck and see the archaeological work in progress, everyone toured the museum's labs to see the finds from the first season of survey and the new museum—currently under construction—where the excavation artifacts will eventually be displayed.

Other sights included a 19th-century Spanish seacoast fortification, the Museo Naval with its collection of naval artifacts and models, and the 1885 Spanish submarine *Peral*, a pioneering underwater craft built by visionary Spanish naval officer Isaac Peral.

The group included INA Chairman Donald Geddes, Marilyn Geddes, Vice Chairman Dr. Charles Garrison, Lisa Guzzetti, Treasurer Clyde P. Smith and Paula Michaels, INA directors Lucy Darden and Curt Dunnavan, President James Delgado, and INA friends Dave and Cheryl Hadley, Beth Hart, and Steve and Phyllis Brady.



Above

Project co-directors Mark Polzer (left) and Juan Pinedo (right) pose in front of the elephant tusks recovered from the Phoenician shipwreck during the 2007 survey.

PHOTO: Juan González

Tusk being recovered from the Bajo de la Campana site.

PHOTO: Mark Polzer

Clockwise from upper left

Jim Delgado, Curt Dunnavan, Clyde Smith and Dave Hadley gather around a deep diving friend at Cartagena's Museo Naval.

PHOTO: Jim Delgado

Isaac Peral's 1885 submarine on the Cartagena waterfront.

PHOTO: Jim Delgado

Co-director Juan Pinedo searches a grid sector in the Phoenician area after two tusks are removed from it.

PHOTO: Mark Polzer

in Sicily

Warship ram discovered... an ancient naval battle revealed?

With virtually no material evidence for ancient warships available to archaeologists, the discovery of an ancient ram has generated great excitement among the members of Sicily's Office of the Superintendent of Maritime Archaeology and those of INA partner RPM Nautical Foundation. Although other exciting Roman-period finds have been located during four seasons of survey around the island of Levanzo, off the northwest Sicilian coast that date to the Roman period, it was the discovery of a bronze ram during the 2008 expedition that provided the first potential corroboration that this area is the site of the final battle of the First Punic war. On the 21st of March, 241 BC, Roman warships lay in wait for a Carthaginian relief fleet making its way to the aide of General Hamilcar Barca, father of Hannibal, who was under siege on Sicily. Laden with supplies, caught in an ambush, and undermanned, the Carthaginian warships stood little chance against the larger Roman fleet. Ancient sources vary, but agree that many Carthaginian ships were sunk that day. As only one of six known bronze warship rams, its study should contribute to the tantalizing, yet meager, knowledge we have of ancient Mediterranean warships of the Roman era.

—Jeff Royal, Archaeological Director, RPM Nautical Foundation

During the investigation of an anomaly in 80 m of water, an object with sharp angles and a smooth curve was noted in the sand nearby. Upon investigation with the ROV *Hercules* the image of a bronze ram filled the *Hercules*' video screens. Soon the difficult task of attaching ropes and lifting gear with the ROV began. With great care, the ram was raised to the surface and placed on deck for field recording before its transfer to the Superintendent's facilities for conservation and further analysis.



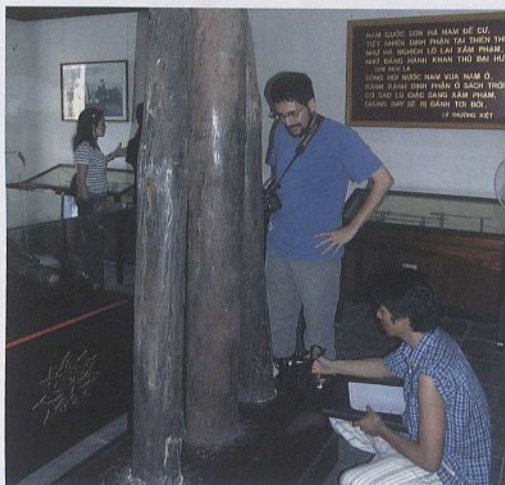
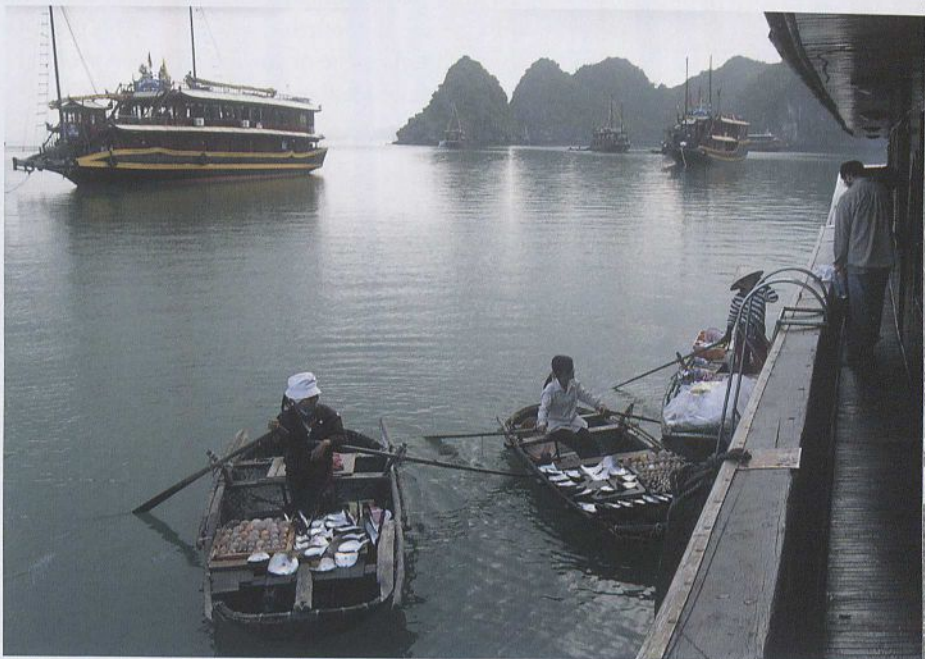
in Vietnam

The recovery of two wooden anchors by sand dredgers from the muddy waters of Vietnam's Red River inspired a three week project this spring to study the anchors and determine the potential for nautical archaeology in Vietnam.

At the invitation of Vietnam's Institute for History, Texas A&M University graduate student Randall Sasaki and Flinders University (Adelaide, Australia) graduate student Jun Kimura traveled to Hà Nội in May. They were joined by INA President James Delgado, Flinders Maritime Archaeology Program director Dr. Mark Staniforth, INA directors Claude Duthuit and George Belcher, and Barbara Duthuit and Lan Huang Belcher. The trip was sponsored by the RPM Nautical Foundation.

Analysis by Kimura and Sasaki of the anchors, which appear to date to the Ming Dynasty and are between 700 to 500 years old, continues. The team also visited the site of a battle between invading Mongol and Chinese ships and the Vietnamese in 1288 at the river port of Bach Dang. There, the navy of Khubilai Khan, Mongol emperor of China, was defeated in an epic battle still celebrated in Vietnam. Vietnamese archaeologists have discovered the location of the battle and large ironwood stakes used to block the river and trap the Khan's ships.

INA and Flinders University are discussing a potential collaborative partnership with the Institute for History and the Vietnamese government to locate and excavate some of the Mongol fleet from the silted-in rice paddies that once were a battlefield at the edge of the river. Both Sasaki and Kimura previously worked on the excavation and study of Khubilai Khan's fleet lost during the Mongol invasion of Japan in 1281, a battle ended by the arrival of a storm or a divine wind known as the *kamikaze*.



Randall Sasaki and Jun Kimura record ironwood stakes recovered from the site of the Battle of Bach Dang.

Vietnamese defenders used the stakes to trap the invading Mongol fleet and destroy it.

PHOTO: Jim Delgado

Above

The team at Bach Dang with their Vietnamese hosts.

Below

The "official" INA reconnaissance junk on Halong Bay was greeted in the morning by small woven bamboo boats that rowed out to sell supplies and souvenirs.

PHOTOS:

Jim Delgado

Bodrum



INA'S CENTER OF ACTIVITY IN TURKEY FOR NEARLY FIFTY YEARS

The modern Turkish city of Bodrum overlooks the shores of the Aegean and the fabled Turquoise Coast. These waters, now favored by tourists who visit from all over the world, were a crossroads of cultures even thousands of years ago, when seafarers navigated the coast carrying goods from throughout the ancient world.

Bodrum occupies the site of ancient Halicarnassus, the birthplace of Herodotus, the "father of history." Another of the ancient city's claims to fame was the tomb of Maussollos, the satrap (ruler) of the Kingdom of Caria in the fourth century BC. This multi-storied, statue-decorated marble tomb was so impressive that it was listed as one of the fabled Seven Wonders of the ancient world. The Roman name for the tomb, mausoleum, is still used today to describe more substantial and ornate tombs.

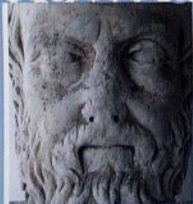
The Mausoleum fell into disrepair in medieval times, damaged by earthquakes, war and pilfering. The ruins of the once magnificent tomb then became a quarry in 1406 when the Knights of St. John of Jerusalem began construction of a large castle at the entrance to Bodrum Harbor. Construction continued, using stones from the Mausoleum and other ancient ruins, until 1482. Besieged by the growing power of the Ottoman Empire, the castle fell in January 1523, not long after the Ottomans also captured the headquarters of the Knights of St. John on the neighboring island of Rhodes.

Occupied and used by Ottoman troops as a fort until 1895, when it became a prison, Bodrum Castle was damaged by French and British battleships during World War I and abandoned, only to be occupied by invading troops between 1915 and 1921. Abandoned once again, the castle was a damaged ruin overrun with grazing donkeys when Peter Throckmorton, a visiting adventurer and journalist, stopped on the coast in 1958 and learned from Turkish sponge divers about a very old shipwreck laden with copper ingots that lay on the southern coast off Cape Gelidonya.

The excavation of the Gelidonya wreck, led by George F. Bass, took place in 1960. The Gelidonya dig was the first scientific excavation underwater. It also inspired the birth of the Institute of Nautical Archaeology, the transformation of the castle into the Museum of Underwater Archaeology, and the creation of INA's Bodrum Research Center. Today, nearly fifty years after the birth of modern underwater archaeology, Bodrum is again a crossroads, as students and scholars from throughout the world visit and work out of the Center and use INA's vessels to continue the survey and excavation of shipwrecks on the coast.

Decades of surveys have discovered shipwrecks from the Bronze Age, 3,300 years ago, to Greek, Roman, Byzantine, and Ottoman vessels, and their cargoes. Collectively, these wrecks document the long and significant use of the coast as a highway for maritime trade, commerce and war. Individually, the most significant of these shipwrecks, now excavated and displayed in the castle at the museum, have rewritten the history books and added an incredible amount of data to the archaeological record of ancient and medieval seafaring. Over a quarter of a million paying visitors annually tour the Museum of Underwater Archaeology, where they learn about the discoveries that INA has made with its Turkish partners.

timeline



484 BC Herodotus, "Father of History," born in Halicarnassus (ancient Bodrum)



353 BC Work begins on the Mausoleum, one of the Seven Wonders of the Ancient World



1420 AD Crusader knights pilfer the remains of the Mausoleum to build the Castle of St. Peter



1960 The world's first scientific shipwreck excavation is conducted in Turkey by George Bass at Cape Gelidonya



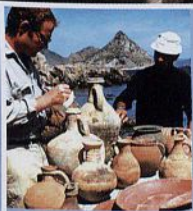
1962 Bodrum Museum established in St. Peter's Castle



1964 Four-year excavation of Yassi Ada 7th-century shipwreck completed



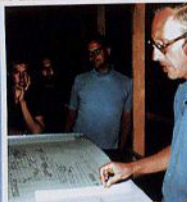
While the museum in the castle is the ultimate destination of every artifact excavated, and the place where the story of each wreck is shared with the public, the Bodrum Research Center is the place where the finds from each excavation are preserved and studied, and the home of INA's fleet. The Bodrum Research Center sits on the hills overlooking Bodrum Harbor and the castle. Built with the generous contributions of INA directors and other friends and sponsors, it is constructed from locally quarried stone that glows in the midday sun. The "BRC," as it is known, is a four-building campus with offices, a series of dormitory rooms and suites for visiting students, scholars and other friends of INA, a library, and large conservation laboratory



1967 Excavation of Yassı Ada 4th-century shipwreck begins



1973 Establishment of the Institute of Nautical Archaeology (INA)



1974 INA's first summer school coincides with excavation of Yassı Ada 4th-century wreck



1975 Excavation of cargo remains from around 1600 BC at Seytan Deresi



1977 Three-year excavation of 11th-century "Glass Wreck" at Serçe Limanı begins



1978 The Bodrum Museum officially becomes the Bodrum Museum of Underwater Archaeology



Bodrum

Back in Bodrum, the center features major facilities for the conservation, documentation, analysis and publication of the results of INA's many field projects. This work, conducted in the laboratory and the library, is the major stage of any project, often eclipsing the time and the resources expended in excavation. In many ways, the excavation does not end in the field. It continues in the lab, where mud-filled amphoras are carefully unpacked, the silt yielding traces of ancient cargoes from olive pits to pollen, and more recently, DNA.

Masses of ancient iron, rusted together with silt and sand to form huge lumps of "concretion" are carefully x-rayed to reveal cavities that provide a ghostly mold of long-vanished artifacts. Carefully opened and cleaned, these cavities are used to make exact copies of the rusted-away artifact.

Wood, reduced to the consistency of cheese, is treated to remove salt, then water, strengthening the wood with years of treatment in polyethylene glycol (PEG), a water-soluble wax, and then reassembled to recreate an ancient hull. The conservation laboratories are a combined facility that treats wood and other organic materials, metal, glass and ceramics. INA's Nixon Griffis Conservation Laboratory also includes the Hethea Nye Wood Conservation Facility, with huge stainless steel vats in which ancient wood from shipwrecks gradually soaks up PEG.

Work in the laboratory is matched by analysis and comparative research as the artifacts are studied and the results are written up as articles and in final form as a volume – or volumes – on each wreck. This work is facilitated by the magnificent Tooze Library at the BRC.

The Tooze Library occupies the corner tower of the Bodrum Research Center, and its uniquely designed interior is divided into three levels. Students attending seminars can sit at the upper level and participate in lectures and discussions around the larger table one level below. The library is the largest collection of nautical archaeology

The Center is also the workplace for a talented staff, most of them from Turkey, who maintain and operate INA's ships and equipment, work in the Nixon Griffis Conservation Laboratory to reverse the ravages of long-term burial in the sea, and prepare artifacts for study and display. The BRC is also the location of INA's Tooze Library, a unique archaeological research library.

Archaeological projects that the Bodrum Research Center supports include surveys to discover wrecks, as well as excavations. These projects are conducted by scholars who first travel to Bodrum to utilize the resources of the BRC.

Current projects in 2008 include the ongoing study of materials from the excavation of the first-century Roman period wreck at Kizilburun, under the supervision of Dr. Deborah Carlson of Texas A&M University, and the investigation of an Iron Age wreck at Kekova by Dr. Elizabeth Greene of Brock University.

Another important project is the final stage of excavation of an seventh-century AD wreck at the Yenikapi site, which is the landfilled ancient harbor of Theodosius in Istanbul, under the supervision of Dr. Cemal Pulak of Texas A&M University.

Above (clockwise from left) BRC Director Tuba Ekmekçi with BRC staff Gülser Kazancıoğlu, Ozgun Alpdogan, Asaf Oron, Fatma Şenol, Devrim Bekret, and Günes Yasar. (see pages 14-15)

timeline



1980 INA acquires the *Virazon*, a 65-foot Korean War vessel, and bases it at Bodrum as a research ship



1984 Decade-long excavation of Bronze Age shipwreck begins at Uluburun



1988 INA purchases a small olive grove in Bodrum as future site of the BRC



1990 Conservation of the Serçe Limanı Glass Wreck artifacts put on display at Bodrum Museum



1995 Excavation commences at the site of the 9th-century AD shipwreck near Bozburun



1995 Bodrum Research Center officially opens



books and journals in the eastern Mediterranean, and one of the largest in the world. The collection, owned by INA and cataloged into the library system at Texas A&M University, has its catalog online.

Adjacent to the Tooze Library is the Nason Computer Center. Funded by the Nason Foundation, the computer center is an air-conditioned work station for a series of computers that visiting students and scholars use for their research and writing. Thanks to the Nason Computer Center, visitors with laptops can also access the BRC's wireless service and do their work in the shade of the olive tree in the garden, a reminder of the groves that once covered this and other hillsides before the rapid urban growth of Bodrum and the center's construction.



Ultimately, the impressive facilities, the important work, and the significant discoveries made at the Bodrum Research Center all come as the result of one important factor, people. It was people like INA's founders and directors who had the dream to create the center, and it was the passion and commitment of those people and other friends of INA who provided the funding to build and operate it. It is also people, like those who work at the BRC, who have united as a team to carry out that work, oftentimes behind the scenes in the laboratory or in the stacks of the library. There are also the many students, visiting scholars and volunteers whose countless hours of work and insights have transformed the finds from shipwrecks into knowledge that enhances our understanding of the past and has rewritten the history books.

— Jim Delgado

From Upper Left

The main entrance hall features a sponge diver's "hard hat" gear on loan from INA Director Jeff Hakko.

Tuba Ekmekçi and Gülser Kazancioglu add Polyethylene Glycol (PEG), a water soluble wax, to a tank containing ancient shipwreck timbers.

Sherds of broken amphoras raised from INA excavations await cleaning, cataloging and reassembly.

ALL PHOTOS: Jim Delgado

patrons of the BRC...

The Institute of Nautical Archaeology would like to recognize those who were critical in the establishment of the Bodrum Research Center, its outlying buildings, and its fleet.

Oğuz Aydemir

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Marja & Ron Bural and Family

Cynthia & Fred Campbell and Family

Charles W. Consolvo

Gregory M. Cook

Dona & Bob Dales

Barbara & Claude Duthuit

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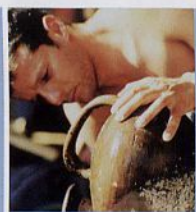
National Endowment for the Humanities

Mary & Richard Rosenberg

Mr. & Mrs. Ray H. Siegfried II and Family

Mary Ausplund Tooze

Martin H. Wilcox



1999 Excavation of the classical-period shipwreck at Tektaş Burnu begins



2000 The two-person submersible, *Carolyn*, and 45-foot catamaran tender *Millawanda* added to INA research fleet in Bodrum



2000 Ribbon cutting for new library, readings rooms; conservation laboratory; & computer center at BRC

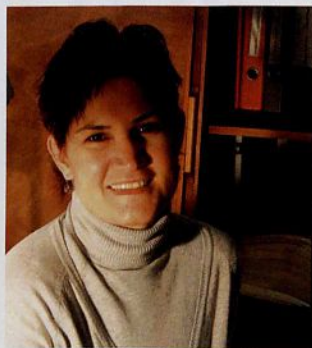


2002 Two-year excavation of the sixth-century BC wreck at Pabuç Burnu begins



2005 Excavation of the Roman column wreck at Kızılburun begins

INA in depth



Tuba Ekmekçi is director of the Bodrum Research Center, INA's base of operations in the Mediterranean.

Izmir native TUBA EKMEKÇI is director of the Bodrum Research Center and has worked with INA since 1991. As director, she oversees a full-time staff of 23 and a constantly rotating population of interns, students, and guests. She's also ultimately responsible for INA's fleet of research vessels, the conservation labs, the beautifully landscaped grounds, and the dormitories. We managed to catch up with Tuba during the busy 2008 summer field season to ask her a bit about her job and INA.

Wow- it sounds like you do a bit of everything, Tuba?!

I supervise almost everything except finance- we have a great fiscal manager, Özlem Doğan, who keeps a perfect eye on our budget. I just work with the grounds staff, the fleet crew, the conservation staff, really everyone at the Center to make sure things run smoothly. I'm pretty much just an ambassador for INA.

How did you get involved with INA?

I was always interested in history and the sea, so when I read an article on Uluburun in a Turkish paper in 1984, I immediately thought to myself, "Yes, this is what you want to do with your life!"

So did you just show up at the dig with your mask and fins?

No, I went to study archaeology at Ege University, and in that first year I began to contact Cemal Pulak and George Bass and kept asking them if I could join their team. Three years later Cemal offered me an internship in Bodrum conserving Uluburun artifacts.

What's your favorite part of being director of the BRC?

Being able to express our concerns and needs to the INA leadership and without having to go through an intermediary.

What's been the most challenging part of the job?

Trying to learn how to deal with the needs of our research fleet. I have really no experience as a seaman, so even the words the crew used were totally alien to me at first. But it's been great—the crew has gone out of their way to show me everything about each different vessel and have even been teaching me proper maritime terminology.

What is the relationship like between the BRC and the rest of Bodrum? Are many people aware that it's there?

When you mention something to townspeople about underwater archaeology, they always say, "Oh, you mean the Museum of Underwater Archaeology at the Bodrum Castle!" Not many people in Bodrum know we're here—I think it's because we're well hidden up on the hill!

So what sort of reaction do you get from first-time visitors to the BRC?

They're really surprised and impressed. They love the architecture and the peaceful beauty of the place—especially if they're coming from the tourist craziness of the harbor area—but once they come into the center and see our staff at work, they're really impressed by the passion and difficulty of what we do.

How do you feel about the role that Turkey and the Bodrum Center have played in the development of underwater archaeology?

I can't be modest about it. Thanks to George Bass, the discipline was essentially born in Turkey, and it still continues here with INA in Bodrum. People from all over the world come here to Turkey and Bodrum to learn about underwater archaeology and marine conservation. It's so hard to find the right words in English to describe how proud I feel.

These interviews were conducted by Kristin Romey, Texas A&M nautical archaeology graduate and editor of *The INA Quarterly*

Bodrum Research Center's Head Conservator ASAF ORON first joined INA in 1994 as a student of the Institute's Conservation Summer School. A graduate of the Institute of Archaeology at University College, London, Asaf also worked as a conservator on the Greek and Roman galleries re-installation project at New York's Metropolitan Museum of Art before receiving his graduate degree from the Nautical Archaeology Program at Texas A&M University and joining the INA staff full-time in 2002.

Archaeological conservation involves a good working knowledge of chemistry, biology, basic physics... were you always into science growing up, or were you more of a history buff?

My grandfather was an archaeologist specializing in prehistory—we used to go flint tool hunting on Mount Carmel [in Israel]. He sparked my initial interest in the field, but growing up I realized that working with my hands was a really gratifying process. So I was looking to find something that combined both my interest in manual /creative work and my academic interest in history and archaeology, and the conservation of archaeological objects seemed to be the perfect combination.

In your opinion, what's the most technically interesting and/or important conservation method that's been developed for marine artifacts?

The technique of casting marine concretions. On shipwrecks, iron artifacts tend to completely disintegrate and leave behind an empty shell of marine encrustation. These natural molds can be filled with a synthetic polymer, such as epoxy resin, and after curing the cast is chiseled out of the concretion to produce a precise replica of the original object. The technique was pioneered by INA members Dr. Fred Van Doorninck, Laurence Joline, and Michel Katzev in the 1960s.

Pretty much all of the iron objects on exhibit at the Bodrum Museum of Underwater Archaeology were actually recovered through this casting technique, right?

Absolutely. Together they provide a wealth of information on naval gear such as shipwright tools, fishing gear, fasteners, anchors, and the weaponry carried onboard ancient vessels.

Any particularly interesting projects you're working on right now?

One involves the conservation of a collection of wine amphorae stoppers recovered from the excavation of the ninth-century Bozburun Byzantine shipwreck in Turkey. Like modern wine bottles, ancient wine amphorae were often corked—in the Byzantine period a common corking material around the Mediterranean was pine bark from local forests. Together with the large cargo of amphorae found on the wreck, many of these pine-bark stoppers were also recovered. Some were even still intact in the mouth of amphorae. But even though we found the stoppers in a great state of preservation, there's little experience in the conservation community as to how to dry them without damaging the material or letting them shrink beyond recognition. So right now we're experimenting with various techniques and materials that can allow us to treat these stoppers and then dry them out to be studied and displayed.

What's been your favorite conservation project so far?

The collection of artifacts recovered from the INA excavation of the fifth-century BC shipwreck at Tektaş Burnu, Turkey, now on display at the Bodrum Museum of Underwater Archaeology. I was able to participate in the recovery of many of the finds and had the privilege to have an intimate knowledge of the entire collection until its installation in the Bodrum Museum.



Asaf Oron is the Head Conservator of the Bodrum Research Center (BRC) in Turkey.

more of our Bodrum team...



Above
The Institute's sign
on Sualtı Sokak
(Underwater Street).

Murat Tilev opens the outer
hatch of the BRC's diver
decompression chamber.

Facing page, from top
Collections Manager Esra
Altinanit cleans a delicate
artifact in the lab.

Captain Feyyaz Subay
on board *Virazon*.

The rear courtyard of the
BRC, showing the Tooze
Library and the Nason
Computer Center.

ALL PHOTOS: Jim Delgado

Joining Tuba in the management of the BRC is Financial Manager **Özlem Doğan**. Özlem has worked at BRC since 2004, and was formerly the assistant to the administrator. She assumed her new duties and position in April. Özlem, like Tuba, is hard working and dedicated, and the two make a great team.

Feyyaz Subay is a mariner, dive master, and a veteran of INA who rejoined BRC in 2000 as the head of the fleet, captain of *Virazon*, and chief pilot of *Carolyn*. Dedicated and intensely focused, Feyyaz keeps a watchful eye on the fleet while also participating in projects, including diving to assist in the work at Kizilburun.

Joining Feyyaz in the fleet is **Bayram Kosar**, the captain of *Millawanda*. A member of the BRC team since 2002, Bayram maintains both *Virazon* and *Millawanda* during the winter when they are moored at the Yahkavak Marina awaiting a new season of work.

Also working with the fleet is chief engineer **Murat Tilev**. A member of the INA and Bodrum family for decades, Murat has worked on all major projects. A photograph of Murat working underwater is one of the iconic images of the Uluburun shipwreck excavation.

As chief engineer, Murat is joined by mechanic and deckhand **Zafer Gül**. Together, their passion for the ships and their hard work keep the 55-year old *Virazon* and the much younger *Millawanda* working.

BRC archaeologists assist and participate in many projects. Much of the work at Yenikapi is being done by **Sheila Matthews**. Sheila, a graduate of Texas A&M University's Nautical Archaeology Program, has been a mainstay of INA projects for over two decades, including a major role in the excavation and ongoing study of the Portuguese frigate *Santo Antonio da Tanna*, which sank off Mombasa, Kenya in 1697.

Sheila is assisted at Yenikapi by graduate students from the Nautical Archaeology Program and by **Orkan Koyagasioglu**, who splits his duties at BRC as both a field archaeologist and as electrician for the INA fleet in Bodrum.

The Uluburun artifacts, which are being conserved under the direction of Dr. Cemal Pulak who led the excavation, are treated by **Edith Trnka** and **Gülser Kazancioglu**. Dr. Trnka earned her Ph.D. in Austria and joined the BRC in 2004. Gülser is a conservation technician who has worked with INA since 1982. Known as the "wizard of glass mending," reassembling thousands of glass fragments from the Serçe Limani wreck, Gülser has applied her magic for the last 16 years to mending the Uluburun ceramics while also assisting other projects.

Also working on the Uluburun ceramics, **Devrim Bekret** is a conservator who started with INA at the beginning of 2008.

Esra Altinanit is the collections manager, overseeing the physical custody of all of the artifacts, which are the property of Turkey and treated by INA's conservators under permit before being returned to the museum. A graduate of Izmir University and an archaeologist as well as a conservator, Esra joined INA and the BRC in 1996.

Also working in the conservation lab is **Günes Yasar**, a conservation technician who joined INA in 1986. She has worked on the artifacts from every INA excavation since then, particularly working on amphoras and other ceramics.

Every artifact is photographed, and is also drawn for publication. That task falls to illustrator **Ozgun Alpodogan**, who joined the team in 2007. Ozgun is a graduate student working toward a Master's Degree at Muğla University. Her current task is drawing artifacts from the Kizilburun excavation.

In the summer of 2008, the permanent Bodrum Research Center Laboratory staff were joined by a number of contract conservators, students and volunteers. **Fatma Şenol**, an Istanbul University conservation student, has worked on and off for four years with INA. She is currently working on artifacts from the sixth-century BC Pabuç Burnu shipwreck. Fatma is joined in the lab by **Miray Olcay**, who is also working on the Pabuç Burnu materials. Assisting them were students **Nikki Jago**

and **Catrina Caira** from Canada's Brock University, and volunteer interns **Masha Smith**, **Ward Hegeler**, and **Aylin Woodward**. Three graduate students from Texas A&M University, **Kimberly Rash**, **Mike McGlin** and **John Littlefield** worked with the excavated materials from the Kizilburun project.

Nurgül Külah, with a degree in library science from Istanbul University is the librarian. A member of the BRC team since 2003, she assists visiting scholars and students who research using the Tooze Library.

Mehmet Çiftliklı is the BRC carpenter and has been with INA since 1994. With a healthy sense of humor, Mehmet lends a helping hand to everyone, from repairs to construction, from his shop in the "tin depot"—the behind the scenes working area of the center.

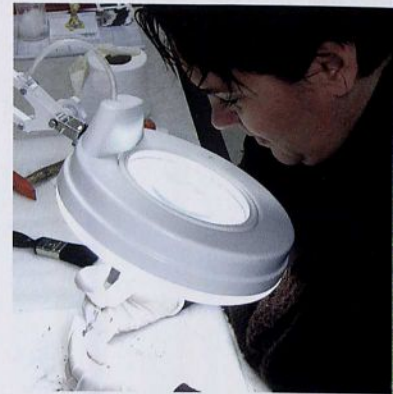
Süleyman Türel, a member of the BRC team since 1995, is the gardener and caretaker, and is always available to assist in the care of the center. He is also a magnificent painter, and keeps the center looking neat and trim inside as well as outside.

The person with the most diverse list of duties at the Bodrum Research Center is **Mustafa Babacık**, who also works as a gardener, mechanic, technician, and as the person who handles deliveries and shipments for the center. "He does everything the BRC needs," according to Tuba. Mustafa joined the BRC in 1994.

He is joined on the staff by his wife, **Munevver Babacık**, who is the part-time housekeeper for the BRC dormitories, a job she has held for eight years. Hers is an unenviable task, especially in the summer with a dorm filled with university students.

Aysel Tok is the part-time housekeeper for the headquarters building and the conservation laboratory. She joined the team in 2007, and her work not only ensures the offices are clean and professional looking, but that the laboratories are clean and efficient – and she does all of this with an appropriately gentle and trained touch.

In the evenings, most of the Bodrum Research Center staff head home, leaving the buildings and grounds to visiting students and scholars and to the careful eye of night guards **Muammer Özdmır** and **Adem Sirin**. Muammer has been with the team for ten years; while Adem joined in May 2008 to alternate with Muammer. They keep the people, buildings, grounds and the artifacts being treated safe.



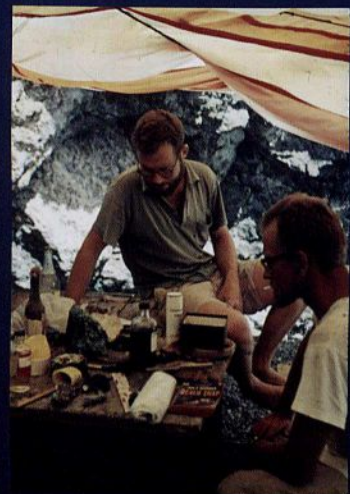


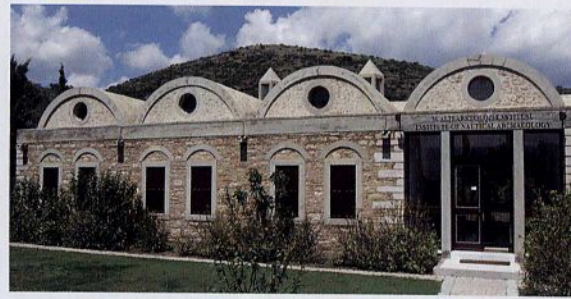
historyinthemaking

Cape Gelidonya, Turkey, is the birthplace of modern nautical archaeology in the Mediterranean. In 1960 the Bronze Age shipwreck there became the first ancient wreck excavated in its entirety on the seabed, and the first excavated by a diving archaeologist, George Bass. It was there, and soon after at Yassı Ada, that not only George, but Michael Katzev, Fred van Doorninck, Susan Womer Katzev, Claude Duthuit, and Donald Frey all began their lifetime devotion to this new field and, with Yassı Ada veterans Cynthia Eiseman and David Owen, later played roles in the creation and growth of INA.

If Cape Gelidonya was its birthplace, Bodrum, Turkey, was the incubator of nautical archaeology in the Mediterranean. This national sponge center attracted Peter Throckmorton in 1958 and 1959 to write about sponge diving while looking for ancient shipwrecks with partners Mustafa Kapkin and Rasim Divanli, pioneer scuba-divers from Izmir. In 1959 Peter reported the Cape Gelidonya and Yassı Ada wrecks to the University of Pennsylvania Museum, which asked George to excavate them.

With permission of the Turkish government, George quickly fulfilled Peter's dream of establishing a museum of underwater archaeology in Bodrum's magnificent Crusader castle. Two years later, in 1962, it became an official Turkish museum, and is now the most visited archaeological museum in the country.





Unlike today, with INA's fully staffed conservation laboratory, fleet, and library active year round, the University of Pennsylvania excavations in the 1960s were limited to a few months a year with no need for permanent facilities. The archaeologists were unsalaried volunteers working during their summer holidays. Staff simply rented available housing during summers, put equipment into storage the rest of the year, and left artifacts to soak in fresh water in the new museum until their return to resume conservation.

When INA was incorporated in 1972 in Philadelphia, however, it was to provide full-time employment to its staff. Its new vice president, Michael Katzev, was already living on Cyprus with Susan, to oversee the preservation and reconstruction of the ancient Greek ship they had excavated there. They suggested having an overseas headquarters on Cyprus, centrally located for surveys in Turkey, Cyprus, and Lebanon. INA president George Bass moved there with his wife Ann and their sons, as did new staff member John Gifford, who joined Katzev's team that already included Robin Piercy, Dick Steffy, and future INA president Robert (Chip) Vincent. Executive director Cynthia Eiseman remained in Philadelphia, using a spare bedroom as INA's official office.

Outbreak of war in Cyprus in 1974 and in Lebanon in 1975 ended the promise of that Mediterranean base. Burhan Tezcan of the Department of Antiquities in Turkey suggested that INA move its headquarters to Ankara, but the offer of a home in the United States, at Texas A&M University, seemed preferable for an institute that was expanding into other areas.

Still, Bodrum remained INA's Mediterranean center, with a growing number of Turks involved. For 14 years from the summer of 1975, INA rented part of a large house that served as a summer dormitory and year-round depot, but it was so

cramped that 18 people shared one bathroom and some of the staff lived in tents in the garden. A decision was made under the presidency of Don Frey to purchase land on which to build a permanent base. INA Founder Jack Kelley led a search for suitable land until 1987 when Tufan Turanlı identified a 10-dönem (about 2 1/2-acre) olive grove for sale on a hill overlooking Bodrum. INA purchased four dönems, while the remainder of the land was purchased by George Bass, Tufan Turnalı, Cemal Pulak, and Fred van Doorninck who divided it into lots on which they built their individual houses on a dirt side road which they had cobbled and then named, with the city's permission, Sualtı Sokak (Underwater Street).

Turgut Cansever, winner of two Aga Khan Architectural Awards, was chosen to design and build the center. He made an overall plan of buildings to be constructed in stages as INA raised necessary funds. The first was a large neo-Ottoman building with vaulted offices and drafting room; students lived in temporary quarters in the basement, where there were showers, kitchen, laundry, and a photographic darkroom. INA's Robin Piercy, professionally trained to estimate costs of construction from architects' plans, acted as sub-contractor during construction, trekking daily from quarries to forests to blacksmith shops.

On 7 July 1995, at a ceremony attended by representatives of the Turkish government, the American Embassy, and INA's Board of Directors, Danielle Feeney cut the ribbon to formally dedicate the new headquarters. Within a few years, the two-storey dormitory, four-storey Mary and Lamar Tooze Library, the Nason Computer Center, and the large Nixon Griffis Conservation Laboratory followed.

This Page

Above Left
 Drs. George Bass and Frederick van Doorninck during the Yassı Ada excavation

Above Center

Travelling under sail to the Yassı Ada site—a two hour return trip each day from Bodrum.

Above Right

INA headquarters in Bodrum designed by Turgut Cansever.

Opposite Page

This photo collage combines an image of the Knights of Saint John castle, now the Bodrum Museum of Underwater Archaeology with divers preparing to enter the water from a barge in the 1960s.

Photo inset

Peter Throckmorton (right) and George Bass examine the few surviving bits of wooden hull from the site at Cape Gelidonya.

INA in depth



INA's Robin Piercy, an invaluable member of the INA family who recently retired, led four field seasons of work on the Mombasa wreck between 1976 and 1980. Robin was instrumental in the creation of the BRC and was a genius at constructing many of the cliff-side field camps from which INA's excavations were based.

This interview was conducted by Kristin Romey, Texas A&M nautical archaeology graduate and editor of *The INA Quarterly*

ROBIN PIERCY shares his memories of the Institute's earliest days in Turkey.

My first visit to Bodrum was in 1974 with Michael [Katzev] to work with George [Bass], who wanted to complete work started earlier on the fourth-century AD wreck at Yassı Ada. Little did we know then of the trouble that was brewing on Cyprus, which would develop rapidly into a full blown international incident and change our lives forever. Until the island was divided, Cyprus had been planned as the Institute's Mediterranean center. As this was no longer possible Bodrum eventually became INA's base. George was well known there and had worked in Turkey for more than a decade. Even back then the fledgling Bodrum Museum had established itself as Turkey's museum for maritime archaeology. And it was, after all, the centre of the sponge diving industry, and sponge divers supplied most of the information that led to the discoveries of the wrecks we were interested in.

Bodrum has been heralded lately as the new St. Tropez. Obviously, when INA started out there it wasn't the bustling resort town it is today.

Part of the charm of Bodrum then was its total lack of amenity, its isolation and the enveloping friendliness of its people. Very few tourists visited and there were probably way less than a dozen foreigners who lived in the area. It seemed that everyone would know within minutes if there were strangers in town. And the telephone exchange was the main way for finding where someone was! You only had to pick up a phone and ask for the person you wanted and they would connect you. No number required—they knew where the person was last! Of course, it was a different story trying to make a call to anywhere else in Turkey or heaven forbid, outside the country. That could take hours or even days or even not at all.

What were the logistics of setting up a conservation lab back then? How easy was it to get the equipment and chemicals that marine conservation requires?

Tricky! In those days, remember, very little was easily obtainable—I once had to go to [the Greek island of] Kos for light bulbs—and almost everything had to be brought into Turkey either in airline baggage or as a major shipment. The former only allowed a selection of small quantities of essentials while the latter was a very time consuming business involving many days in customs and agents offices in Izmir, with the obligatory endless cups of tea!

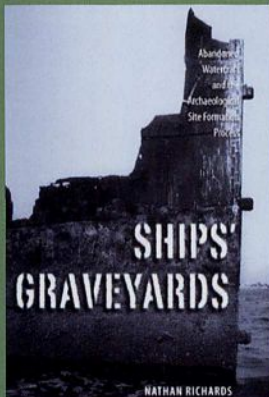
When we treated the Serçe Limani wreck, for instance, we bought the conservation equipment and glycol [wood preservative] used by Honor Frost to treat her Marsala [Punic] shipwreck. We had shipped them [from Italy] to Izmir but because of the time in transit much of the equipment and glycol was lost due to poor handling and storage—containers were a thing of the future then. However, enough got through that allowed us to repair the stainless steel tanks and rebuild the treatment system using materials available locally.

What's your favorite part of the new facilities?

I just love the Library – its simple, clean and comfortable functionality just makes you want to be there. I think that all the owners and donors of the books that are housed there would be very pleased to see the conditions in which their treasured books are housed, the care with which they are looked after and the scholarship derived from their use.

Miss anything about the days before INA had the center?

Of course one misses some things about the old days – the simple life, the quietness of little noise pollution, camels and donkeys moving building materials around the town's narrow streets, people going the extra mile for you, everything on a very human small-town scale.

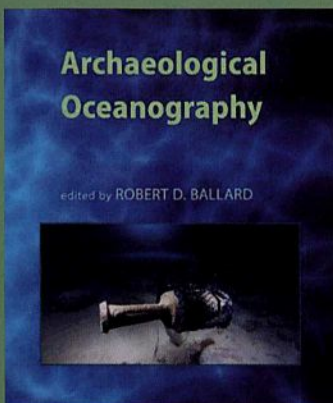


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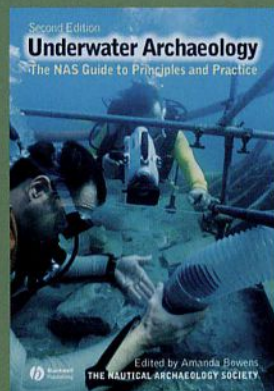
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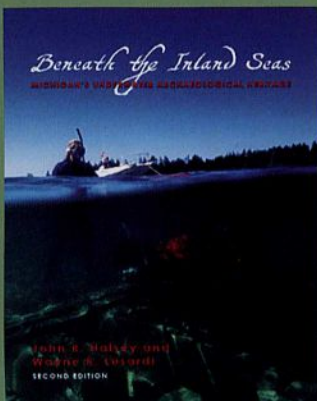
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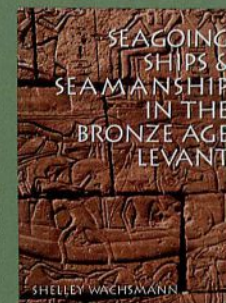
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The mission of the Institute of Nautical Archaeology has always been to ensure that the world's most significant nautical archaeological sites are excavated, studied, and preserved to the highest standards, and shared with the widest audience possible for the maximum benefit of humanity.

In honor of this mission, we're pleased to announce the development of INA's new website www.inadiscover.com. While the full website is scheduled to be online by the end of 2008, a preview site has been created to give you a taste of things to come and is now ready for viewing.

Over the next few years, working with our partners at Texas A&M University as well as other nautical archaeologists around the world, we plan to create a new "Virtual Museum" of nautical archaeology featuring INA projects past and present with image galleries, site plans, field notes, and bibliographies that will be accessible to academic researchers, students, and history and shipwreck enthusiasts worldwide.

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