

IN A NEWSLETTER



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INSIDE: THE SEARCH FOR
KUBLAI KHAN'S FLEET IN JAPAN



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On the Cover: A view of Takashima Bay, Japan, where Kublai Khan invaded in AD 1281 and where archaeologists believe remains of his fleet may be found.

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CONTRIBUTIONS FROM MEMBERS ARE WELCOME. Do you have an experience you would like to share with *INA* members? A trip? A photograph? A museum or site you have visited? A news item or book review? A conference you have attended? A suggestion? We are interested in what you have to say. Send submissions and inquiries to: **Editor, *INA Newsletter*, P.O. Drawer HG, College Station, TX 77841-5137.**

Written submissions should be limited to 1,000 words and are subject to approval and editing. Please clearly mark everything with your name and address so we can return it to you. We cannot be responsible for items lost by the postal system, so please do not send original illustrations or photographs. Detailed format information available upon request.

A Chinese warship of the Ming Dynasty, thought to be similar to a Yuan Dynasty (Kublai Khan) warship, from the manuscript Ch'ou hai tu pien.



The Search for Kublai Khan's Fleet

by Takahiko Inoue

In AD 1274 the Mongol Emperor Kublai Khan sent a fleet of 900 ships and nearly 40,000 Mongol, Chinese and Korean troops to Hakata Bay, Kyushu, Japan. His purpose was to conquer Japan. After a day's successful fighting on land at Hakata, the Mongolian troops returned to their ships for the night. During that night a fierce storm arose and the Khan lost 200 or more ships, 13,500 troops and, as a result, was forced to halt the campaign and withdraw. He vowed to return when

better prepared.

Seven years later, in 1281, the Great Khan arrived in Takashima Bay, Kyushu, with a mighty invasion fleet of as many as 4,400 ships and 140,000 troops. The Japanese shogun, Tokimune Hojho, had prepared coastal defenses consisting of a stone rampart 2.5 m high and 20 km long along the coast of Hakata Bay during the interlude between invasions. Kublai Khan's fleet, preferring to avoid these defenses, chose instead to land

at Takashima Island about 50 km to the southwest. The Japanese could mount only a token defense in opposition to the vast army of the mighty Khan. After a violent battle only a few Takashima residents were left alive.

But before all of the troops landed, a monstrous typhoon, or *Kamikaze*, known as the "divine wind," destroyed the Khan's vast fleet. Estimates of the losses of men and ships suffered by the Mongolian fleet vary in different reports. Perhaps 4,000 ships were wrecked and 100,000 troops were lost. Kublai Khan was again forced to cancel his invasion plans and never mounted another attempt. Japan might have become a part of China had it not been for this timely and fortuitous intervention by nature; thus the *Kamikaze* assumed its position as an incident of major significance in Japanese history.

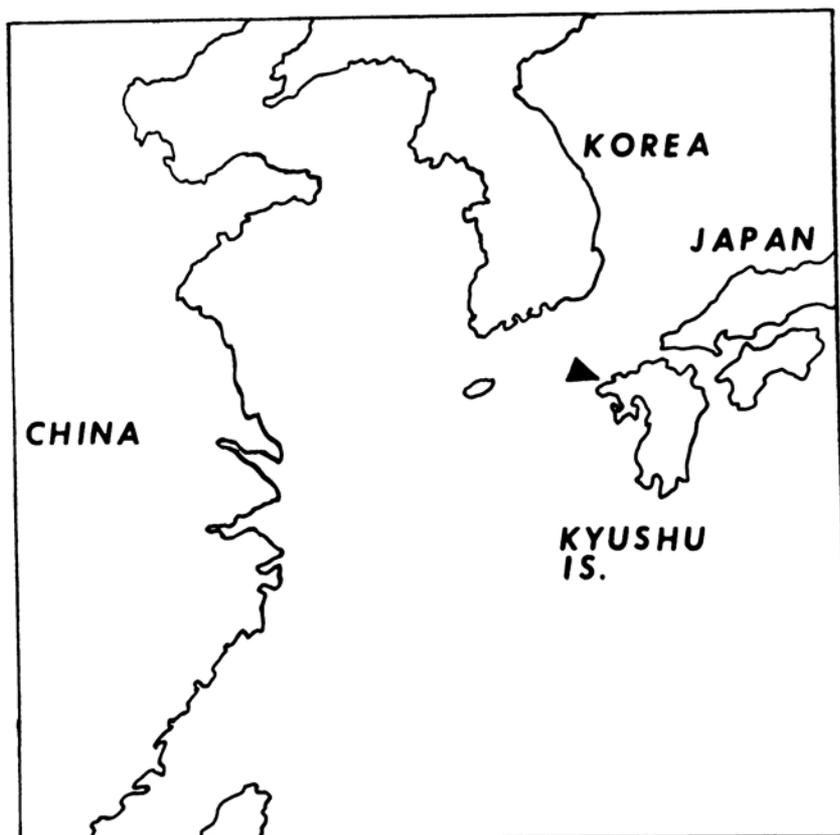
Archaeological discoveries of two Chinese ships from the period indicate that such ships were the most advanced seagoing vessels in the world at the end of the 13th century, but we have few precise details of Kublai Khan's fleet. Historical sources and artistic representations related to the fleet point to the existence of different types of vessels such as war ships, troop and horse

transports and water carriers, but little is known about their size, propulsion, internal construction, or even whether they were Chinese- or Korean-built ships.

In an attempt to answer these and other questions, historians and archaeologists have sought since 1980 the remains of the sunken fleet that lie on the bottom of Takashima Bay.

From 1980 to 1982, Professor Torao Mozai of Tokai University mounted three underwater archaeological surveys of Takashima Bay, but no direct evidence of the ships sunk by the *Kamikaze* was found. These surveys did register 72 anomalies, or places where abnormal reflections from the sea bottom were detected by sonar. Testing of several of these anomalies did not reveal any ships, but others may be ships or artifact deposits from the Mongolian fleet.

Although several surveys have been conducted since 1982, the ships remain elusive. To date a number of artifacts, thought to represent the remains of Kublai Khan's fleet, have been found in several areas both in the sea and on land; these include a bronze statue, Mongolian metal helmets, a sword, a bronze seal, an iron ingot, iron stirrups, iron and copper nails, earthen-



Map: T. Inoue

Kyushu Island, Japan, was the site of Kublai Khan's second invasion in 1281. Surveys conducted at Kyushu's Takashima Bay have revealed Chinese artifacts of the 13th century, and archaeologists hope to discover the remains of the invaders' fleet there. A triangle points to Takashima Bay.

ware jars, stone anchors, stone bowls, stone mortars and other objects.

Similar artifacts were discovered during the 1984 construction of a breakwater at Tokonami Harbor at Takashima. An emergency salvage excavation team led by Shinsuke Araki, an instructor at Saitama University, catalogued animal bones, porcelain, earthenware jars and two small pieces of wood bearing tool marks and nail holes. The ceramics date from the late 13th century, suggesting that they may relate to the Great Khan's fleet.

By March of 1990, the Japanese Ministry of Education Foundation initiated a study of Cultural Resources Management areas containing Mongolian sites. Takashima Bay was a primary focus of interest in the study, and researchers intensified their underwater research efforts. A team led by Professor Tadashi Nishitani at Kyushu University recorded 12 to 13 meters of sediments on the sea bottom at Takashima Bay and anomalies at Funatotsu and Tononoura harbors.

When the Takashima survey continued in August, I

Japanese archaeologists established survey lanes at Urashimo-ura Harbor, Takashima Bay, last year. The survey and exploration of the bay will continue in the summer of 1991.



Photo: T. Inoue

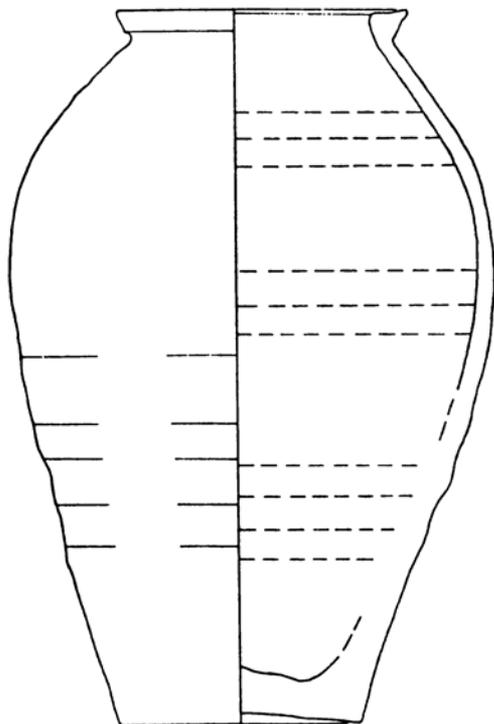
participated in the exploration of the Urashimo-ura harbor where sediment accumulation was found to be 15 meters deep. The survey also revealed a number of anomalies in the Cultural Resources Management area offshore of Urashimo-ura 10 to 12 meters beneath the seabed.

The sediment depth suggests that a tightly controlled survey using a sub-bottom penetrating, high-resolution, density-differentiating sonar probe is the best tool to use in the search for ships destroyed by the great *Kamikaze*. The first step in conducting a complete survey of Takashima Bay will be to divide it into manageable units. The overall search area is approximately 16 square kilometers. This area probably will have to be divided into five or more smaller survey zones.

My thesis for the Nautical Archaeology Program at Texas A&M University focuses on the analysis of historic documents that refer to Kublai Khan's fleet and its destruction. By integrating this information with that from underwater survey, I can rank survey areas according to their potential for containing Mongol ships. I plan to participate in the survey project again this summer and to continue my association with the search for the Great Khan's ships for many years.

FOR ADDITIONAL READING

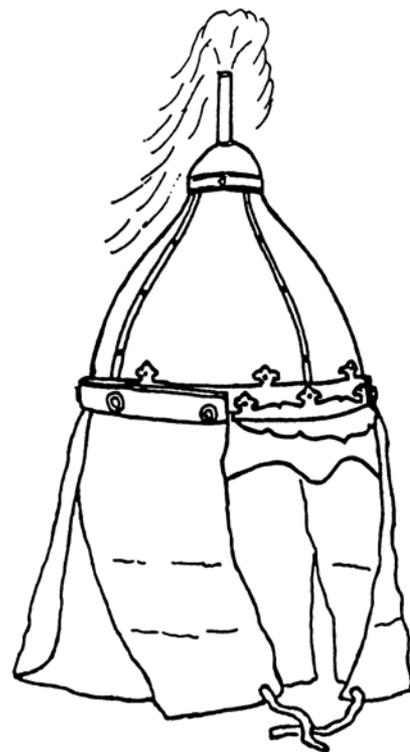
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Artifacts associated with the invasions of Kublai Khan have been found in Takashima Bay.

This black glazed jar (approx. height 22.5 cm) found in Tokonami Harbor in Takashima Bay was probably brought by the Mongolian Fleet. (Drawing by Wataru Ishihara from Takashima Education Committee 1984:25)

Mongolian invaders probably wore leather and iron helmets like this one (left). (Drawing from Saito, Study of Armor and Weapons 1988:27.)



A Tour of a Port Royal House

by Diana Thornton

Imagine a room-by-room tour of a late seventeenth-century Port Royal house--being shown everything from the furniture to clothing to cookware and jewelry. That is precisely what probate inventories from the Jamaican Archives provide: a guided tour of English colonial daily life. During my association with the Port Royal project, I have examined more than 150 probate inventories from Jamaica, as well as wills, letters, and other documentary evidence. This research enhances the archaeological record of the sunken city and offers a different perspective on life there by furnishing data otherwise unobtainable.

Because Port Royal was an English colony, probate inventories of its householders resemble those from contemporary England and New England. Differences stem from Port Royal's high merchant population, its role as a port city, and its tropical island location, and are more apparent when large numbers of documents are examined than in individual cases. Jamaica-specific items such as hammocks (*hammacos*), high instances of tortoise shell articles, rum, spices and Spanish goods stand out in the Jamaican inventories which also reflect a difference in scale even when compared to those of contemporary colonial Boston, where merchants controlled two-thirds of the town's wealth, as they did in Port Royal. For example, one source cites a top estate value in 1687 Boston of £170, compared to Port Royal's *average* merchant estate value of £1,096.

When a property holder died, two people walked through the deceased's abode and shop, making an inventory of his personal and movable property, as part of the probate process. Today these probate inventories give historical archaeologists the opportunity to compare contemporary verbal descriptions of material culture with archaeological data, yielding a relatively complete catalog of the contents of typical seventeenth-century Port Royal houses and shops.

Standardized room names were just coming into

common use in the late seventeenth century, but most homes included a Chamber, a Hall, Storage and Cook Rooms, in addition to Parlors, office- or den-type rooms, and Shops. Names that specified an activity, such as *His Lodging Chamber*, and *The Billiard Room* were often used. Many inventories provide useful details of room positions in a house--*Room Over the Hall*, *The Easternmost Room p[ast] stairs*, *The Ground Room Fronting the Street*--which can help in evaluating house types and floor plans.

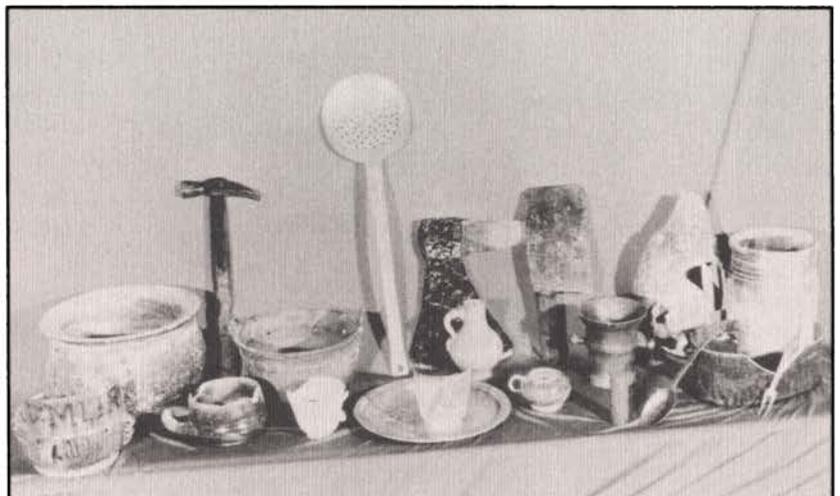


Photo: Port Royal Project

These artifacts, common to seventeenth-century daily life, were excavated at Port Royal. Such objects frequently appear in probate inventories of the period.

Downstairs

In the Parlor: One good feather bed bedstead 2 quilts one blankett wth hangings of calico; two small chests & drawers; one small table with a drawer; seven turkey work chaires; one spanish chest & one trunck box; two looking glasses; one pendulum clock; one close stoole chaire; one old hammack & two £ cinamon.

In Port Royal, the parlor was a ground floor room used for both sitting (entertaining) and sleeping. Impor-

tant company dined and was entertained there, and so the parlor often contained the best furniture of the house. It also usually contained a bed, often in the form of a press, which could be folded up during the day.

In the Hall: Two old tables, Twenty old leather chaires, an old side saddle, an old press and cupboard, one watter jarr, two old carpetts, foure old gunns, one old pistol, one clock and case.

Neither the word parlor nor hall meant then what it does today. The term hall recalled the large open room of the English manor house in which much of the daily life was centered and was the ancestor of our modern living room. The seventeenth-century parlor has no exact parallel in the twentieth-century house.

The inventories show that these seventeenth-century rooms were often over-furnished according to our standards: *13 leather chairs, 6 turkey work chairs, 4 stools.* European prints show the many chairs lined up against the wall.

In the Dining Room: 14 Caine chaires 1 caine couch 1 round table 1 square table 1 scritore 1 looking glass 1 clock.

Only three Port Royal inventories listed a dining room. It was noted that two of these three houses also had a parlor and a hall. The dining room typically contained at least one table, numerous chairs, and a few ornamental pieces such as a mirror, pictures, a clock and writing desk. It was the practice to line the tables and

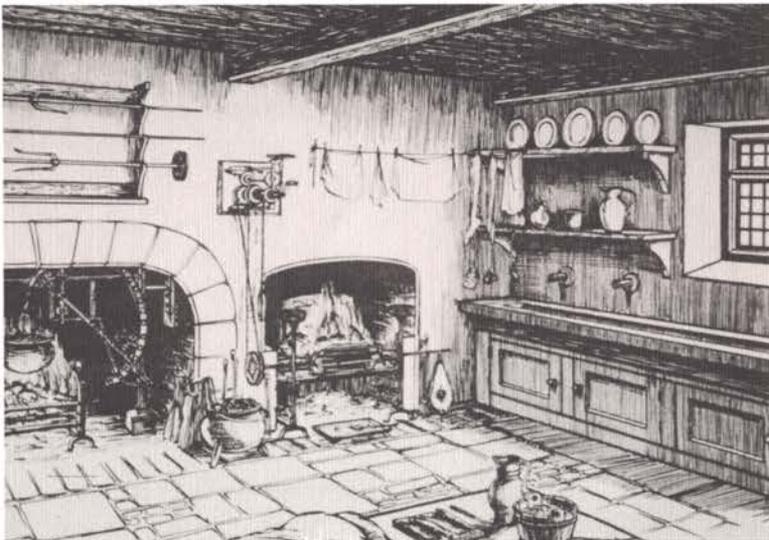
chairs along the wall during non-dining hours.

In the Cook Roome: 3 Tables; an old chest; five iron pots; three old brass kettles; one skellet two pans; two Pye panns & 14 patty panns; two lant-horns two cubborards; 1 Cullendr 3 frying panns; hand irons & trivet spitts ; a pr of pott hooks 2 dripping pans; 2 dripping pans and a pcel of lumber; 134 £ of pewter; one mortar and pestoll; 3 brass candlestickes; one pr of stillards.

In the Ketching: 1 Jack 1 spitt 1 gridiron 2 Trivetts 1 pr of andirons 1 Fender 1 pr brass & iron 5 iron potts 8 smoothing irons 1 pr pott hooks; six brass candlestickes 1 pr of snuffers 2 snuff dishes 1 chafing dish 2 skellitts 1 pestell and mortar 1 shew? pann and a cover 1 copper pott and cover in all weighing 35.

The kitchen was a busy place. Many household activities took place here: cooking, eating, bathing, ironing, sewing. The kitchen originally was not part of the house, to keep both heat and the threat of fire from the living quarters. By the end of the seventeenth century, however, more homes began to feature attached kitchens. We see this in the Port Royal excavations (see the site plan), although the inventories don't usually indicate whether the kitchen was attached or not.

Kitchen inventories listed the expected cooking items: pots, pans, kettles, skillets, fire jacks, spits, dripping pans, gridirons, trivets, lumber for the fire. Smoothing irons were used and stored in kitchens, as, during the day, were candlesticks, snuffers, and lanterns.



Drawing courtesy D. Thornton

The kitchen was not originally part of the house. By the end of the seventeenth century, however, more homes began to feature attached kitchens. Evidence of this transition was found in Building 5 of the Port Royal excavations (see site plan at right). When the first rooms of the house were built toward the front of the lot, the hearth was placed outside in the far back corner of the lot. More rooms were added, eventually enclosing the hearth in a small cooking room (room 4) that was attached to the house.

Many of the iron and ceramic objects seen in the drawing (left) of a kitchen of the period survive in the archaeological record at Port Royal and frequently appear in probate records.

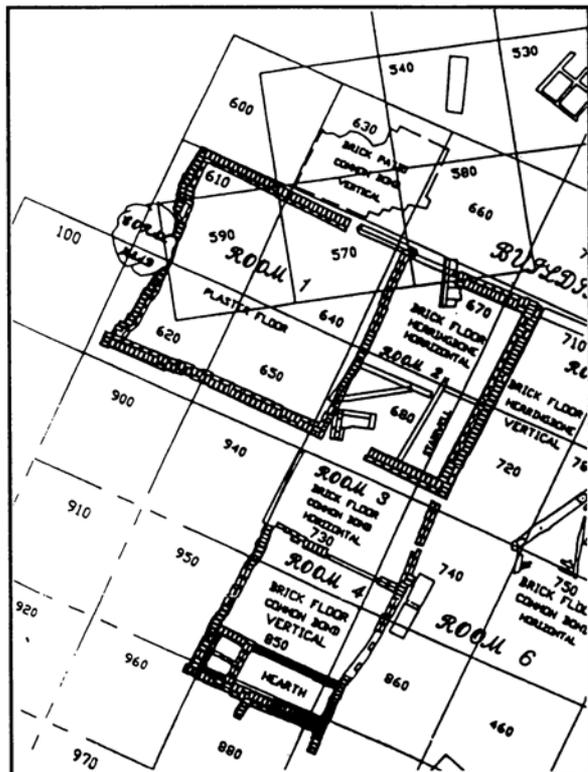
In the Buttery: 18 pewter dishes 1 pye plate 1 bed pann 5 dozen plates 4 porringers 2 tankards 2 basons 1 funnell; copper kettle; 2 old brass kettles; 3 tinn puding panns & 2 funnells.

The buttery was traditionally used for cool storage of drink, and sometimes food, but no foodstuffs or drink were listed in Port Royal butteries. Here, the buttery functioned only to store pots and pans and dishes.

Wine and other drink were usually stored in cellars, small storage rooms or closets above ground, often located under the stairs. Other stored items included furniture, lumber, sugar, pistols, steelyards, soap, and pewter pots.

Upstairs

The upstairs of the house was usually devoted to sleeping. A chamber typically contained a bed and other furnishings common to a modern bedroom. Chairs and tables were present because bed chambers were also used as women's reception rooms where they displayed their personal domains of luxury. The beds, with their high tops and lavish draperies, were usually the most prized piece of furniture in the house, and often the most valuable.



Plan: Port Royal Project

Chamber contents give us the most intimate look into the lives of the inhabitants. Often listed in detail was the deceased's clothing, down to the last belt buckle.

In his lodging chamber: A cedar Dress; 2 looking glasses; a diaper table clothes & 1 doz old napkins; 2 pr of blew silk stockings old; 2 waste belt & sword; 2 old hatts; a bedstead feather bed 2 bolsters 3 pillows curtains & 2 vallins all Damned; A table; A Gun; A silver headed Cane.

Books, combs, jewelry, and weapons were also listed in these chambers; and in one the master's books were listed by name.

In his chamber: A Spanish Elme Chest of Drawers; An ordinary Chest of drawers; A Japan dressing box; An Old sword, dressing box and comb box; One table & 2 stands Spanish Elm; 3 looking glasses; A parcel of small pictures; Earthen ware & glasses; A parcel of lumber; A prcel of dyaper; a bed bolster & pillows.

In the Chamber: 1 feather bed bedstead curtines and vallains boulster & pillers; 1 old chest of drawers; 1 dressing box and 2 glasses; 2 tables & 12 ould lether chares; 1 Spannish and 1 sea chest; 1 Large Bible with silver clasp & Tayler's 'Life of Christ' and 1 'Duty of Man' and 1 more small book of Tayler and sundry old books.

The garret was a sloped roof space at the top of a 2 1/2 or 3 1/2 story house, what we would call the attic today. Traditionally it was used for storage. In Port Royal homeowners did store items such as furniture, pictures, paper, and glasses, and one kept a *barrell of decayed corks*. But the inventories also indicate that at least half such areas were used for additional bedroom space, no doubt due to the high population density of Port Royal.

The probate inventories are an excellent source for an inside look into the possessions as seventeenth-century people saw them. There are, of course, cultural and time-related biases we have to be aware of when studying these inventories. Omissions, grouping, misnaming, misspelling, and errors can also affect the accuracy of this source. But through comparative studies of inventories from England and New England, it is apparent that the Jamaican inventories are exceptionally complete and detailed, and very few errors may be detected.

INA Inspires American Students in Turkey

Many people, including scholars, our own board members, and even royalty, visit INA staff members in the Crusader castle in Bodrum, Turkey, where the Institute conserves and studies artifacts from its excavations and where the Bodrum Museum of Underwater Archaeology is housed. In the pressure to get artifacts conserved and to continue research on objects from past excavations, it is sometimes easy to forget how valuable these special tours can be. John Taylor, a teacher at the American High School in Izmir, Turkey, brings his students each year. Below is a letter he sent to the Institute last winter.

by John Taylor

Several of your *INA Newsletters* have requested articles on nautical archaeology for possible publication in the newsletter. For some years I have intended to write this letter; listening to George Bass lecture at the Izmir Turkish American Association in November (1990) has inspired me to finally do it.

The contributions of INA, of course, are well known both in the public eye and archaeological circles; however, I would like to certify the impact of the Institute in a slightly different place and with a slightly different audience. I am a teacher at the Izmir Turkey Ameri-



Photo courtesy J. Taylor

Students from the American High School in Izmir take a break on top of the Crusader castle in Bodrum. By the time they make their three-day trip to the headquarters for nautical archaeology in Turkey, they are familiar with INA's accomplishments and with the professors and staff who work in Turkey.

can High School, a United States Department of Defense Dependents School offering secondary education to the sons and daughters of American military in Izmir, Turkey.

Ten years ago I was asked by my principal to develop a junior-senior elective course in the humanities. Because of my own interests I targeted the last quarter of that year-long course to focus on archaeology. As a graduate of Texas A&M (class of 1961), I was aware of INA's presence in Bodrum. Eventually I made contact with Tufan Turanlı who not only came to my class to address INA activities, but put me in touch with Fred van Doorninck. That was the beginning.

As the years have passed a rather remarkable thing has happened. The entire fourth quarter humanities course is focused to link into a three-day study trip to Bodrum. And I do mean a study trip. The students work weeks in advance of the trip not only to learn the history of archaeology, but to do intensive readings gathered from multiple sources. Finally the attention of the course is directed to nautical archaeology. George Bass, Richard Steffy, Cemal Pulak, Fred van Doorninck, and others become celebrities of sorts as students familiarize themselves with their scholarly contributions through videos, slides, and readings. (Years ago my son Chris taught his friends to "play" archaeologist. He always demanded to be Robin Piercy. Look out Indiana Jones!)

Following eight weeks of preparation the class is ready for the study trip to Bodrum. While there, each must present an on-site oral report. A report on ancient glass is given prior to our visit to the museum's glass display and restoration room; the report on oil lamps is performed late in the evening to the light of Greek and Roman lamp reproductions burning olive oil to communicate the proper atmosphere; a student lecture on the Seven Ancient Wonders of the World is delivered at the site of the Mausoleum; Bass's *Archaeology Beneath the*

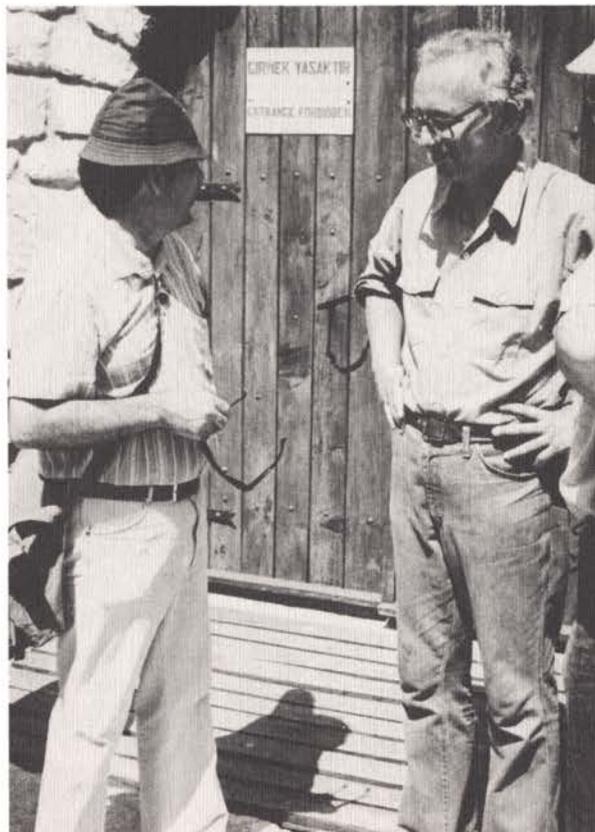


Photo courtesy J. Taylor

John Taylor (left) talks with Fred van Doorninck outside the Glass Wreck hall.

Sea is reviewed high on the roof of our pension as the sun sets. Other reports include ancient numismatics, Crusader castles, ancient ship-building techniques (at the shipyard, of course), and others.

Bodrum would never be the same for any of us after the special museum tours delivered each year by Fred van Doorninck. Dr. van Doorninck delighted my students with not only his vast knowledge, but his humane and caring attitude as well. In addition, it was always a treat to go aboard the *Virazon* with Tufan, experience Netia Piercy allowing herself to be interviewed by excited students, or, one year, to run into Dick Steffy in the Castle garden, having recognized him from photographs in numerous articles read and videos seen. One year Cemal Pulak gave our group an unforgettable tour of the castle and INA labs, an

unexpected bonus. In short, working with the Bodrum INA group has been high adventure for me over the years. We were there when the first pieces of the Glass Wreck were pulled from the conservation tanks. Our annual treks marked the progress of the Glass Wreck hall's construction. My students grasped the concepts of frame-first and shell-first construction, and they know why and when they evolved as well. The Bronze Age Wreck has stirred us all beyond belief. I shall never forget crowding around the wooden booklet—the oldest book in the world—watching the reactions of the students. Their response was only matched when the next year they ran into my room to show me that same booklet in the *National Geographic*! This is education unforgettable!

Our school is small, having only 150 students in grades seven through twelve. Yet each member of the humanities class visiting Bodrum over these years has been permanently marked with an appreciation of the world of nautical archaeology. Two students have gone

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PROFILE

Robin C.M. Piercy

by Robert K. Vincent, Jr.

Robin Piercy is INA's most versatile field archaeologist. Now technical director of the Ulu Burun project, Robin has displayed an unusual range and depth of talent in all the practical and technical skills necessary to any excavation project. In addition to designing and constructing all the wood conservation tanks and piping for both the Kyrenia and Glass Wreck projects, Robin

underwater photographer. (He has had photos published in *National Geographic*.)

When his dry but infectious humor is combined with his practical abilities, the result is one of INA's most appealing personalities. His varied talents and easy-going style were recognized early on during the excavation of the Kyrenia ship, the first INA project in which

Robin participated. In July, 1968, the expedition diving barge was beached for repairs, and Robin was hard at work helping the local shipwright patch a hole. He and several other co-conspirators of what came to be called the Benedict Arnold Society hatched a plot: On the Fourth of July, a huge Union Jack appeared on the barge, received with laughter by Robin's fellow Englishmen and with thoughts of revenge by those who felt an American project was being slighted. The competition thus engendered continued all summer.

Robin's own brand of humor has been transmitted around the world as well. When the Institute announced the discovery of the Ulu Burun shipwreck, the film clip that accompanied most television reports was that of Robin emerging from the

water reporting the unique gold chalice from wreck, exclaiming, "The insurance brokers must have taken a pounding on this ship!"

Robin's early training as a surveyor put him in good stead for his later career, a career intimately involved



Photo: D. Frey

Robin Piercy (left) in the Mombasa project office.

supervised the treatment of Glass Wreck wood with polyethylene glycol and built the metal structure that supports the Glass Wreck hull. He is an accomplished excavator, a master at woodworking (as his galleries deep within the dungeons at Bodrum castle attest), and a fine

with the emergence and growth of the discipline of nautical archaeology. He served as surveyor for underwater projects in France and Italy in 1966 and 1967 and worked with the late Peter Throckmorton on the Torre Sgaratta wreck before joining the Kyrenia ship excavation in 1968. After a spell of work in Canada with the Historic Sites Services and participation in the Porticello excavation in Sicily, Robin returned to Cyprus as assistant director of the Kyrenia ship project. He spent the next six years there, working with Michael and Susan Katzev, John Gifford, Dick Steffy, and Chip Vincent, among others. He was invited to join the newly formed Institute of Nautical Archaeology in 1975.

Since then, he has been involved in every one of INA's Old World projects: excavations at Yassi Ada, survey and excavation at Sheytan Deresi, survey off the coast of Sicily, deep saturation diving at Lipari, the projects at Serçe Limanı and Ulu Burun, and INA's continuing survey of the Turkish coastline. In Mombasa, Kenya, Robin became project director for the INA/National Museums of Kenya joint excavation of the *Santo Antonio de Tanna*, a position he holds today. A study season in Mombasa is planned for this fall to prepare drawings for the wreck's final publication.

For several years, Robin divided his year between Kenya and Turkey, where he worked on the Glass Wreck at Serçe Limanı and the Ottoman Wreck. During all this activity, he somehow managed to fit in a survey

in yet another part of the world, Jamaica. Now he spends his year continuing research on the Mombasa site, working on all and sundry in Bodrum, building a new home at the tip of the Bodrum peninsula, and excavating for four months a year at Ulu Burun.

Excavation team members at Ulu Burun appreciate the luxurious camp that Robin and his assistants build at the start of each season. Robin's guidance of this process for seven years has produced pre-fabricated sections of buildings that are easy to assemble and provide an efficient and comfortable working environment.

And now that the Institute's Turkish headquarters are being built, who could better supervise the construction than Robin Piercy? One of the first photos documenting construction of the new building is of Robin, perched high in a bulldozer giving a "thumbs up". No one would be surprised if he added Master Dozer Driver to his list of credentials, which include ownership of both the oldest and newest Land Rovers in Bodrum.

From ship to shore, from technical designer to project director, Robin Piercy has done it all. His work is one of the reasons why INA has so much to show for itself today. Go and see the results of his work in Cyprus and Kenya and Turkey. The underpinnings of all the displays and exhibits are the results of his creativity and ingenuity. And he can tell you lots of stories about his experiences. Just ask him.

cont. from page 13

on to graduate from college in anthropology, and all of the Bodrum bunch have learned that conservation and understanding, not acquisition and profit, represent the proper approach to our past. They know this and so will those that follow them.

So, that concludes my report on another way INA has touched individuals. As a graduate of Texas A&M, I am proud that INA is headquartered there. And I would like to thank everyone at Bodrum for their support and inspiration over the last ten years; it has made a difference.



Photo courtesy J. Taylor

Professor Fred van Doorninck, who spends several months each year conducting research in Bodrum, leads the tour in the conservation laboratory.

News & Notes

INA member Nigel Fawcett reports from South Africa about the forthcoming excavation of the wreck of the Dutch East India Company vessel *Oosterland*, which sank in rough seas in Table Bay in 1697. The National Monuments Council granted a permit to three local divers, Michael Bachard, Christopher Byrnes and Graham Raynor, who discovered the site 200 meters off shore in 1988.

The excavation will be under the supervision of Dr. Bruno Werz of the University of Cape Town. Dr. Werz, who worked on the wreck of the *Mary Rose* in England, is also attached to Cape Town's new National Maritime Museum, which displays two brass cannon from the wreck; the cannon bear unique logos of the Dutch East India Company.

Mr. Fawcett works as a volunteer in the National Maritime Museum while pursuing an M.A.

The most recent in a series of publications on underwater archaeol-

ogy is now available: *Underwater Archaeology Proceedings from the Society for Historical Archaeology Conference, Tucson, Arizona, 1990*. This volume, of interest to libraries, maritime museums and sport divers, is available from the Society for Historical Archaeology, P.O. Box 30446, Tucson, AZ 85751-0446 for \$15.00 plus \$1.75 postage and handling.

The publication includes the results of work conducted in the United States, Canada, Central America, and Europe on sites from the 13th century to as recent as World War II. INA members may be particularly interested in a provocative article by George F. Bass, INA's archaeological director. Topics include the US Navy and underwater archaeology, remote sensing methodology, ethics, treasure hunting and research, electronic mapping of shipwreck sites, Russian shipwrecks, shipwreck surveys and more.

An important collection of papers

on the history of early steamboat construction in the Delaware Valley held by the Philadelphia Maritime Museum is now accessible to maritime scholars. The approximately 400 manuscript pages include records of the Massachusetts Steam Navigation Company and business papers of two merchants who joined with other residents of Salem, MA, to bring the evolving technology of steam navigation to New England waters in the early 19th century.

A companion guide to the collection includes historical sketches, bibliographies and notes by Gail E. Farr, who organized these holdings for research use. This guide is available from the Museum library.

Kevin Crisman, of the Texas A&M nautical archaeology faculty, wrote the article "Nautical Archaeology in the Americas: A View from 1990," in the Spring 1990 issue of the INA Newsletter. That article has been reprinted in *Seaways*, a journal dedicated to maritime history and

Seven scuba divers have been fined a total of \$132,000 for removing artifacts from two historic shipwrecks in the Channel Islands National Park and the Channel Islands National Marine Sanctuary in California. Originally, 20 individuals were charged, but 13 settled out of court. This is one of the largest and most complex archaeological protection cases ever.

Two National Park Service agents involved in an undercover investigation of a charter scuba diving boat witnessed looting of hundreds of artifacts from the *Winfield Scott*, a Gold Rush-era vessel dating to 1853, and the *Goldenhorn*, which grounded off Santa Rosa Island in 1892.

The substantial penalties in the case point to the willingness of the judicial system to protect valuable historic resources. In addition, the notoriety of the case has served as a way to let people know what national and local bodies are capable of doing to preserve archaeological sites that belong to all of the American public.

research in the Americas.

INA and the Nautical Archaeology Program have moved to a new location near the center of the campus of Texas A&M University. INA headquarters now are established in a newly renovated Anthropology Building together with with the Nautical Archaeology Program in the Anthropology Department. INA's mailing address and telephone numbers remain the same.

The Annual Meeting of the INA Board of Directors took place in Dallas January 17 and 18. George Bass, Cemal Pulak, Kevin Crisman, Jim Parrent, and Fred Hocker described INA's projects in Turkey, Northern Europe, Jamaica, and North America.

A generous contribution by Mr. Ray H. Siegfried II, current chairman of the Institute's Board of Directors, was matched by Texas A&M University and has resulted in the creation of a second endowed fellow-

ship in the Nautical Archaeology Program. The first award of the Mr. and Mrs. Ray H. Siegfried II Fellowship has been made to Cemal Pulak, a Ph.D. candidate in the program and field director of the Late Bronze Age Shipwreck excavation at Ulu Burun.

Cemal has been working with INA for more than 16 years, participating in most of its projects, including directing the excavation of the Ottoman Wreck, conserving and studying materials from the Glass Wreck, and excavating and publishing the Hellenistic Wreck at Serçe Limanı among others. His work with the Ulu Burun shipwreck has been published in both scholarly and popular journals and will be featured in his dissertation.

Ray Siegfried, a member of the Board of Directors since 1981, has served as vice chairman of the Board and is in his second year at its helm. The Oklahoma Heritage Society recently honored him with induction in the Oklahoma Hall of Fame, and he is known and respected in his field.

Congratulations are extended to both Mr. and Mrs. Siegfried and Cemal Pulak.

INA'S CHALLENGE

You are invited to be part of the INA challenge to meet the NEH Challenge Grant. Every \$3 in new gifts will be matched by \$1 in Federal funds. All contributions will support the INA Endowment and are tax-deductible.

- Field Excavator to \$49
- Research Scientist \$50 and over
- Project Director's Club \$250 and over
- President's Council \$500 and over

Please make your check payable to INA.

Summer Field School in Jamaica

Texas A&M University, INA, and the Jamaica National Heritage Trust are co-sponsoring a summer field school on the archaeology of Jamaica from June 3rd to July 5th, 1991.

The course features visits to historic and prehistoric sites throughout the island with accompanying lectures and field experience.

During the first two weeks, students will live in the city of Port Royal, where they will snorkel and dive on excavated portions of the city sunk in 1692, and visit sites in Port Royal and along the south coast of the island. Lecture topics will include the History of Port Royal, Conservation of Artifacts, Cultural Resource Management and Cultural Tourism, the History of Spanish Town, and Arawak Indians of Jamaica.

Participants will then travel across the island to the north coast where accommodations will be provided in the Seville Great House, built in 1745. While on the north coast, students will participate in the survey of a prehistoric site in the mountains north of Ocho Rios and attend lectures on archaeological field technique. In the final weeks, students will assist in the search for Columbus's caravels in St. Ann's Bay. They will learn survey and mapping techniques used by underwater archaeologists, as well as the history and circumstances of Columbus's last voyage of exploration.

Academic credit for the course is earned through Texas A&M University.

The field school will be directed by Dr. James Parrent. For further information, contact Dr. Parrent at:

Department of Anthropology
Texas A&M University
College Station, TX 77843
(telephone: 409/845-6698).

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