

THE INA QUARTERLY



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On the cover: Dutch Admiral Pieter Pieterzoon Heyn, who captured a Spanish Silver Fleet in Matanzas Bay, near Havana, in 1628 (after Goslinga 1971, fig. 6).

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Editor: Michael A. Fitzgerald

The Matanzas Bay Project: A Proposal for INA Involvement in Cuba

by Jerome Lynn Hall, Mr. and Mrs. J. Brown Cook Graduate Fellow

I remember piling gear onto my cot so that the rainwater, almost an inch deep on the floor of the tent, would not ruin everything I owned. We had just finished our first season of excavation on a seventeenth-century northern European shipwreck in Monte Cristi Bay, Dominican Republic. All of the volunteers and several of the staff had left the island that morning, and the few of us who remained were surprised by this first storm of the summer. The fury of the weather was countered by Stan Getz' version of "Moonlight in Vermont" playing in my radio headset and I sat, exhausted, and watched as the wind swelled and ripped open the back of my tent. Why, of all the professions, did I choose nautical archaeology? The answer comprised a series of chance encounters and a few tantalizing opportunities that had, years before, pulled me from the relative security of a career in marine biology. Maritime history, a long-standing interest, had become animated through underwater archaeology. But where was all of this hard work leading me? *Where would I go if my dreams were suddenly realized?* As the thunder and lightning rolled across our tiny island, I sat in that shredded tent and uttered a single word heard by no one but myself: "Cuba."

There are a number of reasons why Cuba is so alluring to a New World maritime archaeologist. The geography of the island, together with its rich seafaring heritage and recent political history, make its coastal waters an archaeologist's dream for undisturbed shipwreck sites. Since the Age of Discovery, Cuba has been intimately associated with seaborne commerce. On the north coast lies the port of Havana, once the resupply station and safe haven for numerous Spanish treasure galleons anxiously awaiting the return to Spain. Royal officials eagerly awaited the arrival of New World gold, silver, and precious gems carried aboard these ships — treasures that would fill the crown's coffers and help pay off a small part of the growing national debt. During the first half of the seventeenth century alone, Spanish treasure ships lost to inclement weather plunged the whole of Europe into economic recession.

Fidel Castro came to power shortly after the popularization of the aqualung, an invention that made submerged cultural resources accessible to the general public nearly overnight. From the 1960s through the 1980s, while sites along the coastal waters of the United States and many Caribbean nations were threatened by licensed treasure hunters and weekend souvenir seekers, Cuba was virtually closed. Unlike the remainder of the Greater and Lesser Antilles, Cuba's shipwreck sites have remained relatively untouched.

Opportunities for a scientific and educational interest group such as INA are therefore unlimited. And now, INA has received an official invitation from Carisub, a Cuban archaeological organization, to send a delegation to Cuba to discuss possible INA involvement there.



As a result, INA asked me to develop a proposal for the survey and excavation of a site in Cuba — a testament to the fact that dreams do come true! What started as a brainstorm in my small weather-beaten tent two years earlier was now being "pounded out" on my computer keyboard. "Should INA have a serious interest in Cuba," I began, "it is necessary to develop a long-range strategy for survey, excavation, conservation, research, curation, and display. The proposal of a primary site for survey and excavation should accommodate an ongoing relationship with the various cultural entities within the Cuban government. The approval by the Cuban government of any subsequent INA proposals will, undoubtedly, be contingent upon the success of this first project."

Roaring around in my head were a million questions, most of which had to do with site logistics. What technologies should be utilized? What limits must we recognize with regard to water depth and distance from shore? What are the constraints of working in a communist country? What happens in the event of a medical emergency? These few issues alone were mind-boggling. In an attempt to

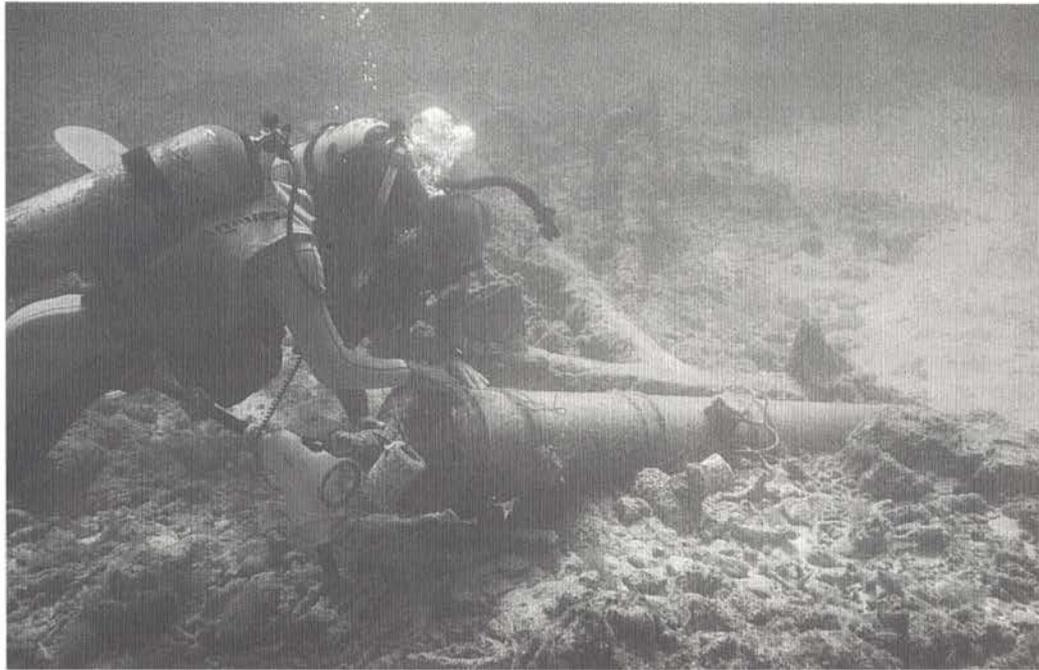


Photo: A. Flanigan

Archaeologists from Carisub, a Cuban archaeological organization, work on a cannon on the wreck of the Nuestra Señora de la Rosaria, which ran aground off the northwest coast of Cuba in 1590 while fleeing pirates. The gun is being prepared for galvanic reduction, a method sometimes used to help slow corrosion of submerged metal objects.

keep this first undertaking as simple as possible, I found myself drawing up the following criteria:

1). *The Project Should be Financially and Logistically Conservative.* The site should be one that can be located, surveyed, and excavated within a reasonable period of time and with minimal expense. It should involve a historic shipwreck, one whose recovered cultural material will generate revenue for Cuba through museum display.

2). *The Project Should Promote Long-Term INA Involvement.* We need to excavate a site that will maximize future research opportunities for INA. The project should emphasize the integration of INA archaeologists, conservators, and graduate students with Cuban government officials, scholars, and students not only in the excavation phase, but during conservation and publication as well. The project should have the potential to generate a number of thesis and dissertation topics.

3). *The Project Should be a Stepping Stone to More Ambitious Undertakings.* If the first project proves successful, it may well open the door to more speculative endeavors. INA should be prepared to raise the funding necessary to survey, locate, and excavate a deep-water wreck, perhaps of a fully-laded treasure galleon, a “first” for the discipline of maritime archaeology.

4). *The Project Should Enhance the Visibility and Reputation of both INA and the Cuban Government.* A successful project will gain the attention of both the archaeological community and the world at large, as it would be a significant event in the history of Cuban-American relations. Systematic field work following archaeological principles would help establish a standard for future maritime excavations in Cuba, as most of the submerged sites that are known in the Caribbean have been salvaged by “for-profit” groups.

La Bahía de Matanzas

On the basis of these criteria, the logical site for INA’s proposed survey and excavation is *La Bahía de Matanzas* (Massacre Bay). Located just 60 miles east of Havana, *La Bahía de Matanzas* provided the stage for Holland’s most dramatic maritime performance: the 1628 capture of the *Nueva España* Fleet. In 1873, Jacob de Liefde described the treasure bounty captured by the Dutch as the “richest prize that has ever, perhaps, been known in the history of the world.”

The Dutch West India Fleet was commanded by Pieter Pieterszoon Heyn, a 51-year-old admiral charged with capturing the Spanish Silver Fleet. The *Heren XIX* — the “high court” of the West India Company (WIC) — could

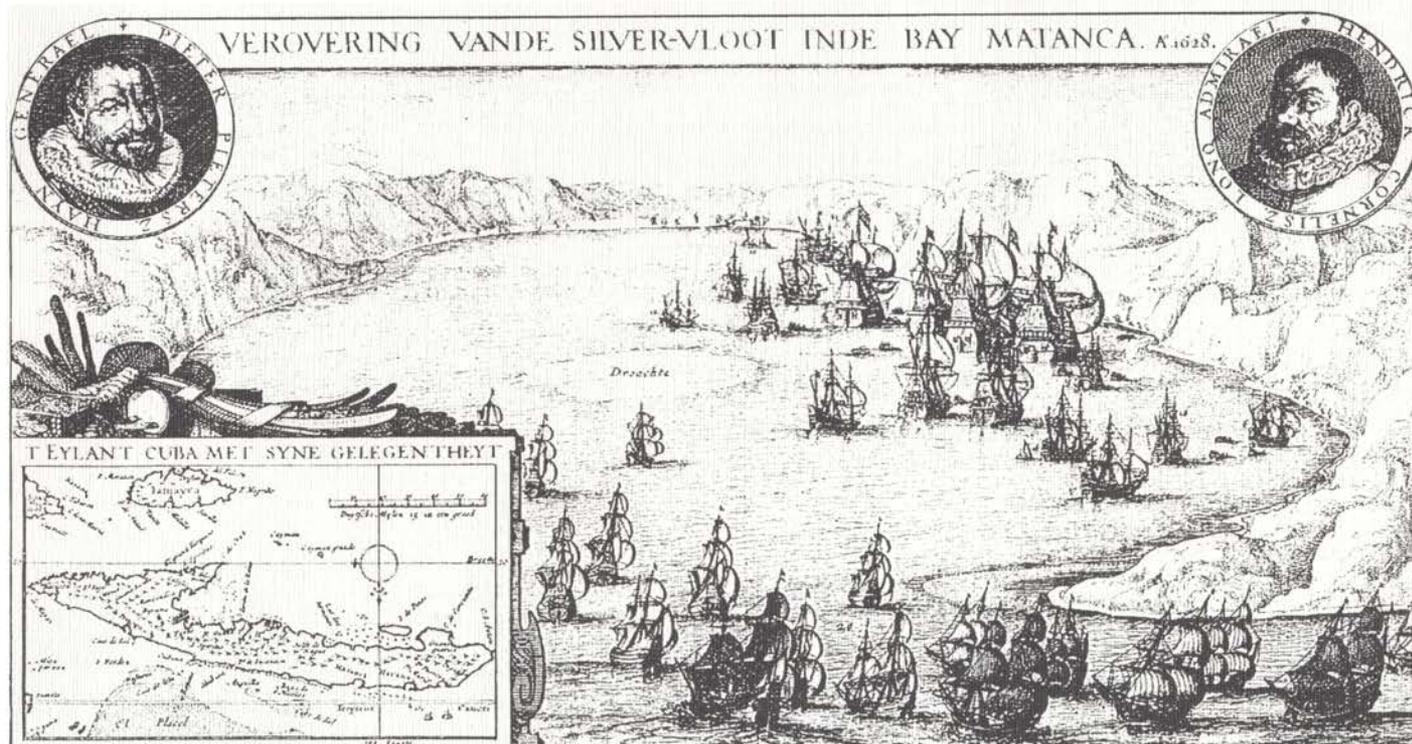
have chosen no better commander, for not only did Heyn have a long-standing career in naval service, but on two separate occasions in his youth he was taken prisoner by the Spanish; both times he found himself a slave aboard Spain's galleys. Years later, while patrolling in the Caribbean, Heyn observed the Spanish Silver Fleet as it sailed past his small contingent of ships. Perpetually eager to punish the Spanish, the Admiral felt the deep frustration of being relegated to the station of bystander as the treasures of a New World passed before him.

But then, on a September day in 1628, an opportunity for revenge presented itself. Heyn's fleet, 31 ships armed with 700 cannon and boasting 4,000 soldiers, had been observing considerable sea traffic along Cuba's north coast. Choosing not to engage any of the smaller groups of Spanish vessels, Heyn waited patiently, hoping to intercept the Treasure Fleet *en route* from Vera Cruz, Mexico. As fate would have it, his perseverance paid off: the *Flota* arrived, commanded by Captain-General Juan de Benevides y Bazan and carrying only 175 bronze and 48 cast iron cannon — seemingly easy prey for the Dutch fleet. Benevides, knowing well that he was outmanned and outgunned, chose to evade rather than engage. But instead of racing for Havana, the Spanish maneuvered their shallow-drafted ships into a nearby bay, with Heyn in close

pursuit. The Captain-General's plan was to sail to the shoreline, beach his vessels if possible, and unload his treasures on land, a strategy that proved partly successful. When the Dutch, whose ships possessed deeper drafts, were unable to follow, Heyn launched his attack using the ships' boats. Under a heavy barrage of cannon fire, the Spanish offered minimal resistance and the capture of the Silver Fleet occurred without loss of life to the Dutch. The prize was rich indeed: 1,000 large pearls, manufactured articles of both gold and silver, platters, chandeliers, cutlery, locks, chalices, hides, indigo, sugar, dye-stuffs, and Campeche wood. Sources disagree as to the exact quantities, but it appears that somewhere between 31 and 134 lb. of gold and between 30,000 and 180,000 lb. of silver were loaded on to Dutch ships. We also know that Heyn did not sail away with the entire treasure, as the Spanish, foreseeing their demise even before the Dutch entered the bay, hurriedly scuttled their beached ships and jettisoned as much precious cargo as they could.

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Why, then, would *La Bahía de Matanzas* be a suitable choice for INA's first project in Cuba? First, it meets the pre-established criteria: logistically and financially, the



The Dutch capture of the Silver Fleet, 1628. Note that the small inset map is drawn with north at the bottom, the orientation most useful to mariners approaching the Caribbean from the north (after Goslinga 1971, fig. 7).

Why, then, would *La Bahía de Matanzas* be a suitable choice for INA's first project in Cuba? First, it meets the pre-established criteria: logistically and financially, the survey and excavation are manageable; the likelihood of success is high, making good the prospects for protracted INA involvement at this site and at others in the future; in turn, the work of INA and the benefits of illuminating the maritime heritage of Cuba would be spotlighted.

Further research is necessary, however, particularly with primary sources pertaining to the events leading up to the Dutch capture of the Spanish *Flota*, as well as to salvage operations that must have followed soon after. Two locations where original manuscripts could most likely be found are the Archives of the Indies in Seville, Spain, and the government offices and libraries in Havana. There may also exist records of modern attempts to locate and salvage the wrecks and their cargoes.

We know from contemporary accounts that Benevides' fleet pushed as close to the shoreline as possible in order to unload its treasure; that in some instances vessels were beached; and that holes were torn in hulls to facilitate sinking and jettison of treasure. *La Bahía de Matanzas* therefore offers a large constellation of cultural material confined to a relatively small area, with a high probability that the wrecks are located in the landward portion of the bay. Finding them, however, may prove more problematic than one might imagine. Two recent attempts by INA — in St. Ann's Bay, Jamaica, and at Rfo Belén in Panama — to locate three of Columbus' ships of exploration, became mired in the formidable problems of searching relic coastlines. Nevertheless, I have been strongly encouraged by Cuban divers who say they have seen many wrecks within the bay, and suspect they could be the remains of Benevides' fleet.

Although the accounts vary as to the number of Spanish vessels lost, at least two ship types sank in *La Bahía de Matanzas*. Three merchantmen are reported to have escaped, with twelve ships, four galleons and eight *naos*, falling to the Dutch. It is reported that four *naos* were put into service by Heyn to help transport the precious cargo, bringing to eight the number of vessels one would expect to find: four galleons and four *naos*. Robert Marx reports that 24 Spanish ships were wrecked in the bay, and Cornelius Goslinga (1971:191) notes that "except for four galleons and one other small ship, all the captured ships were burned." Archaeologists have yet to excavate a *nao*, an arguably ambiguous term for a ship type used over several centuries. Galleons, while being among the most glamorized ships of modern lore, are represented by a scant archaeological data base. Few have been excavated by maritime archaeologists, and the majority of known sites

worked by for-profit salvors have yet to be published, let alone adequately studied. Galleons have, for the most part, been regarded by salvors as expendable shells encasing expensive pearls.

The Matanzas Bay Project represents an opportunity for INA expansion in the Caribbean. Over the past two decades, the Institute has been involved in maritime archaeological research in Jamaica, the Turks and Caicos islands, Grand Cayman, and the Dominican Republic. Not only could work at *La Bahía de Matanzas* bring together archaeologists and diplomats from Cuba and the United States, but from Spain and Holland as well, and on an unprecedented scale.

An assessment of the site by J.S. Potter (1988:150), while discouraging to the treasure hunter, is an invitation to the archaeologist: "The ballast-covered wooden keels and ribs of the burned and scuttled ships remain in Matanzas Bay, sunk into its shallow bed. Scattered on them and lost in the surrounding mud amid cannon balls and water-logged stumps of wood whose silt covering has protected it from teredos [ship worms], is perhaps \$50,000.00 in jettisoned silver and gold. As a submarine archaeologist's hunting ground Matanzas Bay might turn out to be rich; for treasure hunters it would be a poor bet."

We look forward to our visit.

Acknowledgements. I would like to thank Marian Miner Cook and the J. Brown Cook Fellowship, INA, Chip Vincent, and George Bass for their support in the planning of this project.

Suggested Reading

- Goslinga, C. Ch.
1971 *The Dutch in the Caribbean and on the Wild Coast 1580-1680*. University of Florida Press, Gainesville.
- de Liefde, J.
1972 *The Great Dutch Admirals*. Reprint of the 1873 edition. Books for Libraries Press, Freeport, NY.
- Marx, R.
1983 *Shipwrecks in the Americas*. Bonanza Books, New York.
- Potter, J.S.
1988 *The Treasure Diver's Guide*. Florida Classics Library, Port Salerno.

At the Crossroads of History: Nautical Archaeology in Syria

by Douglas Haldane, INA Research Associate

For just under twenty years INA has been a driving force in the illumination and preservation of maritime history, and its reputation for quality archaeology has spread beyond the countries that have hosted its excavations. Arab archaeologists and the Institute have discussed proposals for surveys and excavations in the Middle East, but have not had the opportunity to work together. However, recent discussions among George Bass, Robert Vincent, Ralph Solecki, and Sultan Muhesin, Professor of Archaeology at Damascus University and Syria's Director General of Antiquities, are seriously addressing the possibility of undertaking nautical archaeology in one of the ancient world's most dynamic maritime regions.

INA's interest in Syria has long predated these discussions, as many artifacts from two of the most notable wrecks the Institute has excavated may have come from the Syro-Palestinian coast. From the Late Bronze Age shipwreck at Uluburun, Turkey (see *INA Newsletter* 15.1, 15.4, 16.4, 17.4, 18.4, 19.4), such artifacts include ivory objects, swords and spears, tools, stone anchors, amphoras and common ceramic wares, a wooden writing tablet, cylinder seals, one of the largest single collections of Canaanite jewelry, perhaps the most complete set of pan-balance weights from the Bronze Age, glass ingots, and a cast-bronze statuette of a goddess with head, arms, and feet clad in gold foil.

The eleventh-century A.D. "Glass Wreck" at Serçe Limanı (called the Glass Wreck because of the huge quantity of Islamic glass the ship was carrying — see *INA Newsletter* 15.3) also seems to have visited the Syro-Palestinian coast, as that is the region where the closest parallels for glazed pottery, gold jewelry, and bone spindle whorls from the wreck have been found on land excavations.



Photo: D. Frey

The bronze goddess from the shipwreck at Uluburun. Probably of Syro-Palestinian origin, its function may have been to protect the ship and its passengers from danger (see INA Quarterly 19.4:10).

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Early in 1991 Dr. Bass invited me to join him, INA Vice President Dr. Donald Frey, and Tufan Turanlı, INA business manager and captain of the Institute's research vessel *Virazon*, on a preliminary visit to Syria's coast. We felt that my M.A. degree from the Nautical Archaeology Program at Texas A&M University and doctoral studies in medieval Middle Eastern maritime history at the University of Texas at Austin qualified me to work in Syria one day. My years of studying Arabic in the U.S. and in Egypt would certainly help overcome any language barriers and help smooth a survey team's path.

When we reached Damascus in December of 1991, we found the Syrians very helpful and open, though a bit amused by my use of colloquial Egyptian Arabic instead of their more classical Syrian Arabic. On our second day there, while Dr. Muhesin contacted regional

The Nautical History of Syria

The port city of Ugarit at Ras Shamra on the northern Syrian coast dominated the transit trade in the region during the Late Bronze Age, distributing local and foreign wares from the Mesopotamia–Syria route throughout the eastern Mediterranean. Objects of this trade found their way not only to Uluburun, but also are attested on tablets from the palace of the Egyptian Pharaoh Akhnaten at Amarna. In addition to local political reports, cargoes received in Egypt are recorded on tablets that read as if they served as the Uluburun ship's manifest.

Ugarit was destroyed, as were numerous coastal cities, by invaders called simply the “Sea Peoples” in Egyptian

texts, and these enigmatic invaders undoubtedly left clues to their origins and evidence of their activities in the sea alongside those of their Ugaritic victims. Little else is known about the Sea Peoples except that Ramses III defeated them in a battle off the Nile Delta in ca. 1175 B.C. and spared Egyptian civilization the fate of many of its neighboring contemporaries.

Ugarit's maritime primacy fell not to the Sea Peoples, but to the Phoenicians. Setting sail from their home ports in the Levant during the first millennium B.C., the Phoenicians colonized throughout the Mediterranean and even along the Atlantic shores of modern-day Morocco. For over 700 years, Phoenician trading ships sailed to every corner of the Mediterranean. Yet the wrecks of only two, possibly three, of their ships have ever been found, one at Ma'agan Michael, in Israel, dated to the end of the fifth century B.C., the other two at Marsala, Sicily, at least one dating to 249 B.C. All have raised more questions than they have answered.

The Roman conquest of Syro-Palestine in the first century B.C. did not dampen trading zeal there. Instead, political unification of the Mediterranean world served only to intensify activity. Greek and Syrian merchants under the Roman aegis began formally establishing the China silk trade/India spice route, which extended through Mesopotamia to Palmyra in Syria and on to the Mediterranean coast. So successful were these endeavors that the Emperor Augustus complained of the massive trade deficit that drained Roman gold away to the east.

Palmyra became rich and powerful from the transit trade. Extensive ruins in the Syrian desert bear powerful testimony to the grandeur of this city-state, whose army, under Queen Zenobia, revolted against Rome and posed a



Photo: D. Frey

The four-handled copper ingots shown above are two of 357 that were being carried by the ship that wrecked at Uluburun. Some copper ingots in this shape were cast in stone molds like the one at right, which was discovered at Ras Ibn Hani, immediately south of Ugarit. It is the only mold for such ingots known.



Photo: Courtesy INA

potent threat to Roman control of the region in the later third century A.D. Modern Syrians take pride in Queen Zenobia's revolt, and many parents throughout the Middle East still name their daughters Zeynab in her memory. Her likeness even appears on modern Syrian currency.

When Byzantine domination of the Middle East gave way before the Arab conquest in the seventh century A.D., the trading environment in the Mediterranean changed only marginally. The new Arab rulers established the caliphal seat at Damascus and defended it in part with naval bases at Latakia and on the island of Arwad near Tartus. Damascus ruled the economy of the Arab world, which extended from the borders of China to the Atlantic, but western Europe was on the periphery of the Mediterranean economy only for the short time it took Italian merchants to make their way to Arab shores to trade.

In the eighth and ninth centuries A.D., the Indian Ocean trade routes to the Arab world still passed through the Persian Gulf to the Baghdad of *Arabian Nights* fame. From there, caravan routes stretched west across the desert to Aleppo and Damascus and on to the coast, where Arab corsairs maintained naval bases, such as the one at Tarablus (Tripoli in modern Lebanon). In A.D. 903, Leo of Tripoli, nemesis of the Byzantine fleet, set out on a campaign that ended with the devastating sack of Byzantine Thessalonika. Leo's ships, heavily laden with spoil, zig-zagged their way back to Tarablus and eluded a Byzantine fleet bent on retaliation. Thus while merchants visited the Syrian coast in search of luxury trade items to take back to their home ports in the realms of Byzantium, Palestine, and Egypt, corsairs and other adventurers were returning from triumphant raids in ships bearing the spoils of war.

At about the same time (early in the tenth century), political disturbances in Mesopotamia and central Asia dis-



Photo: D. Frey

An ingot of raw glass from the shipwreck at Uluburun. Colored deep blue with cobalt, it may be of Syrian origin.

rupted the China trade routes through the Persian Gulf and along the Silk Road to Constantinople. Arab merchants, who later coalesced into the Karimi cartel, soon re-routed the majority of trade through the Red Sea to Egypt. The Fatimids, who conquered Egypt in A.D. 969, proceeded to exploit the political situation and developed Egypt as the major emporium for Europeans seeking eastern goods. Trade through Syria did not die out, however. The Egypt-based Karimi kept high-ranking agents in Damascus to cover the Syrian terminus of the overland route, which was patronized by merchants such as those who could have been involved with the eleventh-century Serçe Limanı ship.

News of the Fatimid success in establishing a middleman's monopoly in the eastern Mediterranean

reached Europe along with reports of the persecution of Christians in Jerusalem, which sparked commencement of the Crusades in the late eleventh century. It is no coincidence that Crusader installations in Syro-Palestine commanded the trade routes, as these were the most convenient avenues for armies. The Italian merchant states quickly capitalized on this European control of the Syro-Palestinian coast, and western trade traffic intensified.

Despite the Crusaders' best efforts, however, the bulk of the eastern trade still passed through Egypt, remaining in the hands of the Fatimids and the succeeding Turkish Mamluks. This Arab monopoly brought about its own end, however, as it precipitated the voyages of exploration and discovery. Such efforts to bypass the Arab middlemen made a backwater not only of the Syro-Palestinian coast, but of the Mediterranean as a whole. Columbus set out to find a new route to India and access to the spice trade, but recent research has also revealed that his secondary goal was Palestine, and the liberation of Jerusalem — from the east.

Nautical Archaeology in Syria

Syria clearly played a crucial role in the history and trade of the ancient and medieval Middle East, but her coastal waters are virtually unexplored. In past years, the sponge and diving industries have resulted in the discovery and extensive looting of shipwrecks in the western Mediterranean and even in Turkey. The Syrian sea bottom does not lend itself to sponge growth, however, and as far as we have been able to determine, a diving industry does not exist. The few civilian divers who do live in Syria have identified some wrecks, and fishermen have snagged their nets on others, but looting does not seem to be an activity. During our visit in 1991, we expected to talk with fishermen and divers in cafés that were stuffed with amphoras. We found these men in the cafés, and they gladly discussed sites they knew about, agreeing to join us as guides to wrecksites if we return, but there were no amphoras in the cafés.

I am confident that underwater surveys will locate shipwrecks that will teach us a great deal about the nature and importance of Syria's seafaring heritage. In addition to the rich archaeological returns such efforts will bring, they will help develop nautical archaeology in the Arab world.

Acknowledgements. Thanks for the successful outcome of the 1991 Syria visit go to Sultan Muhesin, for his encouragement and assistance, and to Sajia Qaakmaz for his untiring resourcefulness. We are also grateful to the owner and workers of Abu Ahmad's Glass Factory, for setting aside their previous commitments for the pursuit of archaeological research. INA Board Directors Frederick R. Mayer and Jack W. Kelley generously underwrote the trip.

Suggested Reading

Bass, G.F. (editor)

1972 *A History of Seafaring Based on Underwater Archaeology*. Thames and Hudson, London.

Casson, L.

1971 *Ships and Seamanship in the Ancient World*. Princeton University Press, Princeton.

Frost, H., et al.

1981 *Lilybaeum*. *Notizie degli Scavi, Supplement* 30 (1976). Istituto Poligrafico dello Stato, Rome.

Lewis, A.R.

1951 *Naval Power and Trade in the Mediterranean A.D. 500-1100*. Princeton University Press, Princeton.

Linder, E.

1992 Ma'agan Micha'el Shipwreck. Excavating an Ancient Merchantman. *Biblical Archaeology Review* 18.6:25-35.

Weiss, H.

1991 Archaeology in Syria. *American Journal of Archaeology* 95:683-740.

1994 Archaeology in Syria. *American Journal of Archaeology* 98:101-158.



Photo: D. Frey

An Islamic glass bowl reassembled from dozens of fragments recovered from the medieval wreck at Serçe Limanı, Turkey.

OPPORTUNITIES AND CHALLENGES IN THE BLACK SEA

by John C. Neville, INA Research Associate

Few bodies of water offer more opportunities for nautical archaeologists than the Black Sea. From the earliest days of seafaring there, the Black Sea has claimed its share of vessels. These lost ships come from many ages and points of origin and represent a unique record of the region's rich history. Among them, Greek, Roman, Byzantine, Ottoman, Arab, Russian, Ukrainian, and even British Royal Navy vessels have come to rest on the floor of the Black Sea. Because of its geography and environmental conditions, there is a good possibility of finding many of these wrecks in an exceptional state of preservation. Today, the archaeological record of seafaring on the Black Sea is still largely unexplored. The challenge, then, is to create the academic and archaeological programs through which the maritime history and heritage of the Black Sea can be thoroughly studied and more fully understood. With this in mind, the nations that share the coastline of the Black Sea are developing nautical archaeological programs through their museums and universities. The Institute of Nautical Archaeology is currently becoming involved in this process and hopes to be a key participant in the development of nautical archaeology in the Black Sea.

History

Little is known about seafaring on the Black Sea prior to the arrival of Greek colonists in the seventh century B.C. Occasional finds from prehistoric periods, such as a dugout canoe discovered in Lake Varna in Bulgaria, attest to the earliest indigenous navigation in the region. Isolated artifacts found in Bulgarian waters, such as stone anchors and a miniature copper ingot somewhat similar in shape to those from the fourteenth-century B.C. Uluburun wreck in Turkey (see p. 9 above), suggest visits to the Black Sea by Mediterranean vessels during the Bronze Age. In Greek myth, Jason and his crew of heroes sailed the *Argo* through the Bosphorus and into the Black Sea searching for the Golden Fleece, which they eventually found in the land of Colchis, now modern Georgia. Although a mythological tale set immediately prior to the Trojan War (ca. 1230

B.C.), the story of Jason and the Argonauts may be a dim reflection of an early voyage by Greeks into the Black Sea. The native Thracians and Scythians who inhabited the lands surrounding the Black Sea when the Greeks arrived were not great seafarers. Yet despite this, they were known to practice piracy and prey upon vessels that ventured too close to their shores.

Mediterranean influence in the Black Sea increased dramatically during the seventh century B.C. Although details are uncertain, large numbers of Greek colonies were founded at this time all along the Black Sea coast. The Ionian city of Miletus, for example, may have founded as many as 90 colonies there. Many of these flourished and became integral, though distant, parts of the Mediterranean world. The importance of the region was amply demonstrated during the Peloponnesian War in the late fifth century B.C. Late in the war, Athens and Sparta were in the midst of an extended stalemate. The impasse was finally concluded when the Spartan fleet established control of the Bosphorus. Cut off from the Black Sea cities that had been supplying the grain she needed, Athens soon surrendered.

While the Greek presence in the Black Sea had been concentrated along the coast, Roman expansion brought large inland areas of what are now Turkey, Bulgaria, and Rumania into the empire by the second century A.D. Even at the height of Roman power, however, the cities along the Black Sea coast appear to have remained largely Greek in character. By the late third century A.D., Rome was withdrawing to the south in the face of barbarian invasions, and the northern areas of the Black Sea region came to be occupied by groups such as the Goths and Avars.

In the centuries following the retreat of Rome, a diverse and dynamic ethnic and political map of the Black Sea region began to develop. After the decline of the Western Roman empire in the fifth century A.D., the Eastern empire, with its capital at Constantinople, dominated the southern Black Sea coast and exercised considerable influence over the surrounding territories, though it was never able to control as much of it as Rome had at the height of

the Imperial period. In the Balkans, Bulgars began to move from their Asian homelands into the area around the Danube River during the seventh century and by the end of the ninth century the First Bulgar Kingdom was in control of most of the Balkan Peninsula. On the eastern side of the Black Sea, an Arab emirate was established late in the seventh century. On the northern shore of the Black Sea, a number of kingdoms rose and fell, such as that of the Kievan Rus, which existed from the ninth through the thirteenth centuries, and the Crimean Khanate (fifteenth – eighteenth centuries). One of the most interesting of these northern Black Sea groups is the Zaporozhian Cossacks who, in the sixteenth and seventeenth centuries, sailed from their strongholds on the Dnieper River in their double-ended *chaika* and conducted Viking-like raids on Ottoman possessions throughout the Black Sea.

By the early fifteenth century the Ottoman Turks had become the greatest power in the Black Sea region. Most of the Balkan peninsula and the territory of the Byzantine empire had been brought under Turkish control when Constantinople finally fell in 1453. The Balkan Black Sea coast was to remain under Ottoman rule until the late nineteenth century. Elsewhere, the increasingly powerful Russian empire slowly brought the other lands surrounding the Black Sea under its sway. By the early nineteenth century, the Russian Czar shared the Black Sea coastline with the Ottoman Sultan. Although Bulgaria and Rumania gained independence from Ottoman rule in the late nineteenth century, their modern borders were not settled until after the First World War. Following the collapse of the Ottoman empire at the end of the war, the modern Turkish state was born on the southern shore of the Black Sea. On the northern shore, the Russian empire was superseded by the Soviet Union until Ukraine, Russia, and Georgia gained their independence in 1989.

Throughout this long period, seafaring has been a key part of life on the Black Sea. Until the nineteenth century, water transport was the primary means of reaching the cities along the coast. Ships entered and left the Black Sea through the Bosphorus, which is guarded by the city of Istanbul. The rivers that flow into the Black Sea have also played a significant role, acting as commercial highways to and from the interior of Europe. The Danube, for example, has been a major thoroughfare in western and eastern Europe since at least Roman times. Farther to the east, the Dnieper River has been used as an important transportation route between the Baltic and Black Seas since at least the ninth century A.D.

Evidence of this extensive maritime history is plentiful throughout the region. The Maritime Museum in Sozopol, Bulgaria, holds an extensive collection of ancient artifacts

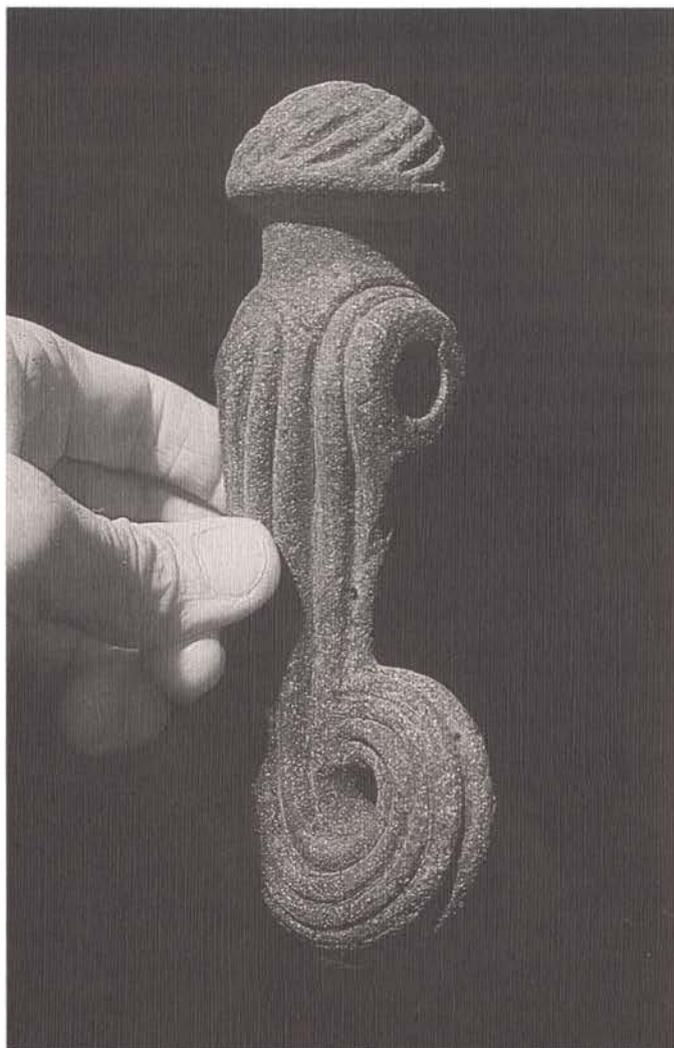


Photo: D. Frey

This stone ceremonial axe head some 20 cm (8 in) long was recovered from the Late Bronze Age shipwreck at Uluburun, Turkey. Its best parallel, in bronze, comes from Dranja, Rumania.

recovered from the sea, including anchors and amphoras. Museums in Rumania and Ukraine have similar, though smaller, collections on display. A third-century A.D. marble statue in the Constanza Archaeological Museum portrays Fortuna, the goddess of prosperity. At her feet is a figure of Pontus, the personification of the Black Sea. He is grasping an oar in his right hand and a ship's bow in his left. His gaze is directed upward at Fortuna. This statue illustrates that, historically, much of the wealth of cities along the Black Sea coast was derived from waterborne trade.

A number of historic shipwrecks have been discovered in the Black Sea. The remains of a second- or third-century A.D. Roman vessel that was carrying a cargo of marble blocks and architectural elements has been found off the Turkish coast at Şile, near Istanbul, and the wreck of an eighteenth-century A.D. merchant vessel is known off the coast of Georgia, near the city of Poti. One of the most dramatic and compelling reminders of past seafaring on the Black Sea is the medieval naval stores depot at Constanza, Rumania. Discovered in the early 1960s, it consists of several vaulted chambers that still house iron anchors similar to those found aboard the seventh-century Yassı Ada wreck, as well as amphoras containing iron nails and other naval supplies.

Geography and the Marine Environment

The coastline of the Black Sea is currently shared by six countries: Turkey, Bulgaria, Rumania, Ukraine, Russia, and Georgia. Almost entirely landlocked, it has an east-west length of approximately 1,100 km (730 miles) and reaches a maximum width of about 500 km (330 miles) immediately west of the Crimean Peninsula. Perhaps the most distinctive and important geographic feature of the Black Sea is that its only outlet is through the Bosphorus at its southwestern corner. This narrow strait opens onto the Sea of Marmara, which in turn gives access to the Aegean and Mediterranean seas. But the Black Sea provides excellent access to its hinterlands via an extensive network of large, navigable rivers such as the Danube, Dnieper, Don, and Bug.

The Black Sea's submarine geography is of special interest to the nautical archaeologist. It reaches its greatest depth of some 2,300 m (7,000 ft) northwest of Sinope on the Turkish coast, but the near-shore areas generally take the form of a shallow plain extending an average of seven miles offshore and reaching a depth of ca. 130 m (400 ft) before the seabed begins to drop off more dramatically. Much of the Black Sea coast is in subsidence. The level of coastal lands has dropped considerably since antiquity and many coastal sites, such as the Greek city of Phasis in Georgia, are now inundated. Because of the number of major rivers emptying into the Black Sea, especially in the northwestern portion, a high siltation rate is likely along significant parts of its coastline. Excavations elsewhere have demonstrated that heavy siltation makes it difficult to locate sites, but that a thick covering of sediment can preserve the wooden hulls of ships and other organic materials beautifully.

From an environmental standpoint, the Black Sea is extremely interesting to archaeologists and other researchers. There is an extraordinarily slow exchange of water

between the Mediterranean and the Aegean through the Bosphorus. Therefore, the Black Sea is essentially stagnant except in its uppermost levels. A large amount of fresh water enters the Black Sea through rainfall and the outflow of rivers. In combination with the minimal circulation, this influx of fresh water gives the Black Sea a salinity roughly half that of other oceans. In many areas, the salinity is low enough to prevent the growth of *Teredo navalis* and other bivalve mollusks that are so destructive to the hulls of wooden vessels. Of possibly greater long-term interest to the archaeologist is a phenomenon that may be unique to the Black Sea. Below a depth of about 170 m (500 ft), there is virtually no dissolved oxygen in the water due to the minimal circulation and the presence of large amounts of hydrogen sulfide which seeps up from the sea bed. These conditions limit marine life to the Black Sea's shallower areas, except for specialized bacteria found beneath the oxygenated layer.

In theory, the wrecks of wooden vessels lying below about 170 m should be exceptionally well preserved because none of their traditional biological enemies can exist there. Although the validity of this theory remains to be demonstrated and search and excavation in this deep environment will be demanding, the possibilities are enormous.

Current Work

Nautical archaeology has enjoyed an excellent beginning in the Black Sea. In Sozopol, the Centre of Maritime History and Underwater Archaeology is the focal point of nautical archaeology in Bulgaria. It has sponsored remote-sensing surveys off the coast as well as the underwater excavation of a prehistoric habitation site. Artifacts from underwater sites are conserved and displayed at the Maritime Museum in Sozopol. Further, Bulgarian archaeologists excavated the wreck of a Byzantine vessel in the early 1960s. In Rumania, evidence of the country's seafaring past can be plainly seen at terrestrial sites such as the naval stores depot in Constanza. Archaeologists from the National Commission and the Direction of the Historic Monuments, Ensembles, and Sites have begun a program to preserve and study submerged archaeological sites in Rumanian waters. Ukrainian archaeologists have initiated surveys in the waters around Sevastopol to locate vessels lost during the Crimean War. Recently, the Center of Underwater Archaeology, which was founded at Kiev University, has sponsored several expeditions to the Crimea and reported numerous ancient and medieval finds. Russian archaeologists who have been working near the Kerch Strait, which connects the Black Sea with the Sea of Azov, have expressed interest in expanding their work to



Photo: F. Hocker

Michael Lazarov, Christina Angelova, George Bass, and Jack Kelley meet in Sozopol to examine drawings of some artifacts recovered from the eleventh-century shipwreck at Serçe Limani, Turkey, that may have parallels in Bulgaria.

include offshore areas. In 1985, the Black Sea Hydroarchaeological Expedition was launched by the Centre for Archaeological Studies in Tblisi, Georgia, in order to investigate the role seafaring has played in the development of that nation. Finally, the Turkish commitment to the development of underwater archaeology in their waters is well known. Even more important than the work that has been carried out to date, however, is the fact that each of the countries that shares the Black Sea coastline has made a commitment to protect and develop its submerged cultural resources.

An INA Visit

In May of 1992, a group of INA representatives traveled to the Black Sea to meet with local archaeologists and cultural officials and assess the role INA could play in the development of nautical archaeology in the region. George Bass, Fred van Doorninck, Fred Hocker and I, along with INA Board Directors Jack Kelley, Harlan Crow, and Claude Duthuit paid visits to Burgas, Sozopol, and Varna in Bulgaria, and the port city of Constanza, Rumania. In Ukraine we stopped in Odessa, Kherson, and Kiev. Mr. Crow also visited the city of Sevastopol in the Crimea. In each city, we received an extremely warm welcome and were given a tour of the city and various museums and archaeological sites. The most stimulating aspect of the entire trip was the real excitement the archaeologists we met had for the possibilities of nautical archaeology in the

Black Sea. In Bulgaria, Dr. Alexander Minchev of the Archaeological Museum in Varna, Ms. Christina Angelova of the Centre of Maritime History and Underwater Archaeology in Sozopol, remote-sensing specialist Dr. Nikolai Nenov, and in Rumania, archaeologists Mr. Sergiu Iosipescu and Ms. Raluca Verussi, who are in charge of the underwater archaeological program of the National Commission and the Direction of the Historic Monuments, Ensembles, and Sites, were exceptionally positive about the future of nautical archaeology in the Black Sea and very enthusiastic about INA's prospective involvement there.

Future Challenges

As a result of the positive nature of the 1992 trip, INA is sponsoring a second, longer visit to the Black Sea. In early 1994, I will be traveling in Bulgaria, Rumania, Ukraine, and Russia for a period

of several months to begin laying the groundwork for a possible INA project in the future. In each country I will meet with archaeologists and other parties interested in underwater archaeology in order to begin developing the close working relationships necessary to the success of any such project. Working with them, I hope to visit sites, museums, and libraries to gather information needed to determine the most promising areas for archaeological surveys for shipwrecks, as well as the techniques and equipment that will be most effective in each area. Finally, if conditions permit, I hope we will be able to conduct a short survey in an archaeologically promising area during the late spring or early summer.

It is my hope that these efforts will mark the beginning of a long and fruitful INA association with the countries bordering the Black Sea, as we work together to develop a program to facilitate the continued growth of nautical archaeology there.

Acknowledgements. I would like to thank Dr. George F. Bass of INA for originally suggesting the Black Sea to me as an area of research, and for his continuing encouragement, advice, and support. The faculty and staff of INA, especially Mr. Chip Vincent, have also been most helpful and supportive. The INA Board of Directors has been very generous with funding and support. Mr. Harlan Crow was especially generous in welcoming the travel group aboard the *Michaela Rose*. Dr. Ron Bural and Dr. Fred Campbell made it possible for me to attend a conference in Tampa, Florida, on Black Sea

trade, and were gracious hosts. Finally, I would like to thank all of the scholars in the Black Sea countries who have extended such kind invitations to come to their countries and learn from them.

Suggested Reading

- Dearborn, H.A.S.
1819 *A Memoir on the Commerce and Navigation of the Black Sea*. Wells and Lilly, Boston.
- Hrushevsky, M.
1941 *A History of Ukraine*. Yale University Press, New Haven.
- Jelavich, B.
1983 *History of the Balkans*. Cambridge University Press, New York.
- Koromila, M.
1991 *The Greeks in the Black Sea from the Bronze Age to the Early 20th Century*. Panorama Cultural Society, Athens.
- Lazarov, M., M. Tatcheva, C. Angelova, and M. Georgiev (editors)
1991 *Thracia Pontica IV*. Sofia.
- Severin, T.
1985 *The Jason Voyage. The Quest for the Golden Fleece*. Simon and Schuster, New York.

— CORRECTION —

Several errors appeared in the previous issue of the *Quarterly*, Volume 20, No. 2:

- ▶ On page 5, in the second full paragraph of Cheryl Haldane's article, "The Promise of Egypt's Maritime Legacy," the phrase "Egyptian Antiquities Museum" should read "Egyptian Antiquities Organization."
- ▶ Regarding figure 1b on page 11 in Frederick van Doorninck's article on the metrology of the Glass Wreck amphoras, the liter scale should begin with 3 instead of 8, and end with 15 instead of 20.
- ▶ In first paragraph on the same page, in the phrase "and one, a capacity of 20 *litrai* and a weight of 12.06 *litrai*," the number 12.06 should read 11.96.

The *Quarterly* regrets these unfortunate errors.

News & Notes *continued from page 18*

Bass and Frey in Ankara

INA Archaeological Director George Bass, and Don Frey, INA Vice President for Mediterranean Administration, enjoyed a productive stay in the Turkish capital early in November. Both met with the Director of Antiquities and lectured at Bilkent University; Dr. Bass also presented a slide lecture on the wreck at Uluburun to 115 dinner guests at the home of the U.S. Ambassador.

Gregory D. Cook Receives Fulbright for Excavation in Jamaica; Describes Savannah River Survey Project

Nautical Archaeology Program student Gregory D. Cook is the recipient of a 1994 Fulbright Fellowship, which will help fund his excavation this winter of the remains of an eighteenth-century merchant ship in St. Ann's Bay, Jamaica. He will be assisted by fellow Texas A&M students Clive Chapman and Rich Wills, East Carolina University graduate student Amy Rubenstein, and Norine Carroll. On December 3, 1993, Mr. Cook presented a slide lecture at Texas A&M entitled "Mud, Gators, Coffins and Ships: Seven Months of Ship Survey and Archaeology on the Savannah River." Mr. Cook, assisted by fellow Texas A&M students Kyra Bowling, Taras Pevny, and a local historian, Richard Leech, worked under the supervision of archaeologist Judy Wood, U.S. Army Corps of Engineers, Savannah District. During the spring and summer of 1993, the team recorded the hull remains of some 35 historic ships, boats, and barges exposed along the river bank by erosion resulting from recent river improvements near Savannah made by the state of Georgia.

Neyland Presents Work in Holland

"The Excavation of a Late-Seventeenth Century Freighter in the Netherlands" was the title of a slide lecture given at Texas A&M on November 12, 1993, by Robert Neyland. A Nautical Archaeology Program graduate and now a Texas A&M Anthropology Ph.D. candidate, Mr. Neyland directed the excavation this past summer as an INA Research Associate. He has been working with the Dutch Center and Museum for Ship Archaeology in Ketelhaven since 1989, through the Cooperative Internship Exchange Program created in 1987 by the Dutch Center and Texas A&M. Mr. Neyland was assisted by Nautical Archaeology Program students James Coggeshall and Mason McDaniel, Texas A&M Ph.D. student Georgia Fox, and Birgit Schröder, an M.A. graduate from Tübingen University.

NEH CHALLENGE GRANT DRIVE
~ A Letter of Thanks from the President of INA ~

Dear NEH Challenge Grant Contributors:

It is with great pleasure that I am able to report the successful conclusion of INA's National Endowment for the Humanities Challenge Grant drive. Gifts and pledges were received in time for us to inform the NEH that we had achieved our goal within the allotted time frame. These gifts will be used to endow staff development and to assist in building and maintaining the Institute's new headquarters facility in Bodrum, Turkey.

This accomplishment is a tribute to everyone who stands with INA and who has helped support our future. INA Board Members participated in a significant way. Many friends added to what they give annually. A number of new donors stepped forward. To all who have contributed so generously to our effort, let me extend warm thanks on behalf of all of us at INA. The goal could not have been reached without you. May you take special pride and satisfaction from your participation in this successful endeavor.

Sincerely,

Robert Vincent

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News & Notes

Cemal M. Pulak Appointed INA Vice President and Archaeological Director in Turkey

Cemal M. Pulak, Mr. and Mrs. Ray H. Siegfried II Graduate Fellow at Texas A&M and field director of the Late Bronze Age shipwreck excavation at Uluburun, Turkey, has been made a Vice President of INA. Mr. Pulak, who is writing his Ph.D. dissertation on the wreck at Uluburun, has been associated with INA since he joined the Şeytan Deresi excavation team as a volunteer in 1975. Through 1978, he assisted INA as a summer

volunteer while working toward a Master's degree in Mechanical Engineering at Boğaziçi University, from which he was graduated in 1977. In 1980 he began his studies in the Nautical Archaeology Program at Texas A&M at the invitation of George Bass, and in 1981 became an INA Research Associate. Mr. Pulak directed the excavation of a Hellenistic shipwreck at Serçe Limanı in 1979 and 1980, worked in Port Royal, Jamaica, in 1981, and excavated a sixteenth-century Ottoman wreck at Yassı Ada in 1983. In his new role, Mr. Pulak will be responsible for INA operations in Turkey.

INA President Vincent Speaks at Rice University

On November 3, 1993, Robert K. Vincent, Jr., INA President and member of the Yale class of '67, delivered a slide lecture to a joint meeting of the Yale Club of Houston and the Rice University Alumni Association. Speaking at the Rice Memorial Center; Mr. Vincent's talk was entitled "New Frontiers: Discoveries in Underwater Archaeology."

News & Notes continued on page 16

NOTICE

Australian Institute for Maritime Archaeology Thirteenth Annual Conference

Queensland Museum, Brisbane, Australia
17-21 October 1994

THEME: *Discovery, Migration, Acculturation, Exploitation or . . . ?
Reinterpreting Seafaring Activity within the Pacific Rim.*

The Thirteenth annual AIMA Conference will be held at the Queensland Museum, Brisbane, Australia, 17-21 October 1994. The theme is a broad and multi-disciplinary one, as the convenor is especially keen to attract historians and/or anthropologists with research interests in seafaring, with a view toward defining where maritime archaeological evidence can contribute to new or revised interpretations of seafaring activity within the Pacific Rim.

For instance: should the ethnological material that has been retrieved from eighteenth-century ships of discovery — e.g., the La Perouse wrecks and the wreck of HMS *Pandora* — merely be interpreted as evidence of "artificial curiosity" collecting by European mariners? How can the evidence provided by the remains of Tahitian vessels (ca. 1000 B.P.) contribute toward new insights into Polynesian voyaging? Are ceramic armbands retrieved from the wreck of a late-nineteenth century labor trader simply evidence of "trade goods" used to contract islanders to work on colonial sugar plantations?

Different perspectives on these (and other) types of maritime archaeological evidence should be explored. Hence this **CALL FOR EXPRESSIONS OF INTEREST** from, *inter alia*, Pacific historians and Oceanic anthropologists.

Enquiries to: Peter Gesner, Curator Maritime Archaeology
Queensland Museum
P.O. Box 3300
South Brisbane 4101
AUSTRALIA

TEL: 617-840-7673

FAX: 617-846-1918

Nixon Griffis 1917–1993

Nixon Griffis, a founding member of the INA Board of Directors, died on December 17, 1993, after a long illness. He was 76. His special importance to the history of nautical archaeology was commemorated by George Bass for *The New York Times*:

"Nixon Griffis was the first patron of nautical archaeology as we know it today, for in 1959 he made the initial contribution toward the excavation of a Bronze Age shipwreck at Cape Gelidonya, Turkey. That would prove to be the first ancient shipwreck excavated in its entirety on the sea bed, and the first excavated to acceptable archaeological standards. Yet because the undertaking was unprecedented, and because the proposed expedition archaeologist was only a University of Pennsylvania graduate student who had not yet learned to dive, funding was hard to find.

"I met Nixon Griffis when Peter Throckmorton, who had found the wreck, showed slides of it to potential sponsors on a winter's evening in his New York garret, trying to convince them that careful excavation beneath the sea was possible, and that results would be historically important. Before he left, Nixon pledged support, the first person to do so. I, the student archaeologist, still wonder what gave him faith in Peter and me —and our dreams — at a time when our fundraising efforts generally were being rebuffed.

"That was only the beginning. Annually, throughout the 1960s, Nixon continued and increased his support for the University of Pennsylvania excavations I led on various other shipwrecks in Turkish waters. It was on those excavations, all published in *National Geographic Magazine*, that many of the standard techniques of shipwreck excavation were developed. Nixon was then president of Brentano's book stores, the first "rich man" I had ever known, but he wanted no favors when he visited to dive with us. He shared camp duties, lived on beans and rice, and insisted on taking his turn as guard of our isolated diving barge, sleeping on its bare, rough deck under a sheet of canvas.

"In 1973, when I had another dream, a private Institute of Nautical Archaeology, Nixon Griffis became a founding director, later Chairman of the Board. He helped it grow into an international organization, now affiliated with Texas A&M University, with surveys and excavations on four continents. When he said he was getting too old to be a regular diver, we thought we would not see him again in our camps. But one day in the late 1970s, when we were excavating a cargo of medieval Islamic glass inside a sheltered bay, a tiny Turkish fishing boat with only a small boy at the helm emerged from a raging storm. Unshaven and soaked by spray, Nixon stepped ashore, said he had heard that we were low on funds, handed us the cash to complete the job, spent the night, and headed back into the high seas for his return flight to New York. Those who had never met him before were astounded. I was not.

"Modest, generous, adventurous, Nixon Griffis was not only a pioneer, but a true friend who will be sorely missed. The first volume of the excavation report on that medieval glass will be dedicated to his memory, and a plaque bearing his name stands just inside the magnificent new Institute building he helped build in Bodrum, Turkey."

Mr. Griffis was the former owner of Brentano's book stores; a founding director and past president of the American Littoral Society; a member of the Explorer's Club; and a conservationist trustee of the New York Zoological Society. He is survived by his daughter, Hethea Nye, of Manhattan; son Hughes, of New London, Connecticut; son Nixon S., of Palm Beach, Florida; and four grandchildren.



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