GEORGE BASS | The Last Dive

Image 1| Dr. George Bass

Dr. George Bass, is considered by many as the father of underwater archaeology. In his more than 30 years of research and teaching in this field, he has excavated shipwreck sites ranging from the Bronze Age up through the eleventh century A.D. Most of his work has been in the Mediterranean, but he has also conducted underwater research in many other areas of the world, including the Caribbean and the waters of Virginia and Maine. George was the first person to excavate an ancient shipwreck in its entirety on the sea bed. Founder of the Institute for Nautical Archaeology (INA), he recently retired as Distinguished Professor Emeritus at Texas A&M University. He has been the recipient of numerous awards including the Archaeological Institute of America's Gold Medal for Distinguished Archaeological Achievement, an Explorers Club Lowell Thomas Award, a National Geographic Society La Gorce Gold Medal and the Society's Centennial Award, the J.C. Harrington Medal from The Society for Historical Archaeology, and honorary Doctorates by Boghaziçi University in Istanbul and the University of Liverpool and in 2002 President George W. Bush presented him with the National Medal of Science.

The worst storm in memory raged on Long Island Sound. None of the New York ferries dared sail out from Connecticut. None, that is, but *Atlantic*, less than a year old, the most elegant steamship on the sound, a 320-foot-long floating palace that traveled at twenty knots, it was the first steamer lit throughout by gas lamps. Small wonder that Captain Isaac Dustan had full confidence in this fine new side-wheeler he commanded.

It was Wednesday, November 25, 1846, the day before Thanksgiving. Most of the passengers for New York boarded the *Atlantic* at Allyn's Point on Connecticut's Thames River after traveling from Boston by train. Many had surely read the ads that proclaimed: "REGULAR STEAMBOAT LINE FOR NEW YORK. The new Steamer ATLANTIC, Captain I. K. Dustan, will leave Allyn's Point every Monday, Wednesday, and Friday evening, on the arrival of the Steamboat Train from Boston."

On this Wednesday the train from Boston arrived more than an hour late, delayed by sleet and snow. Among

Image 2| Rev. Dr. William Jessup Armstrong

the passengers, the Rev. Dr. William Jessup Armstrong had cut short his monthly business in Boston, as corresponding secretary of the American Board of Commissioners for Foreign Missions, in order to have Thanksgiving dinner in New York with his wife and five children. Eight members of the Walton family from England were on their way to start a new life on the Pennsylvania farm they planned to buy. Lieut. Allen H. Norton, 4th Infantry, U.S. Army, after visiting a friend in New London, was returning to West Point, where he was an assistant instructor in Tactics. Surgeon C. A. Hassler, U.S. Navy, who had just reached Boston after a three-year cruise on the U.S.S. *Falmouth*, was on his way sail, to be with his family on Thanksgiving day.

Atlantic, due at 10:00 p.m., did not reach her first stop, New London, until about 1 o'clock in the morning, and had great difficulty landing. According to an article in the New York Tribune three days later, "After a battle of some three-fourths of an hour with the elements, [Captain Dustan] succeeded in placing his boat along side the wharf. She left soon after for New York." At least one frightened passenger waiting in New London for the ferry had refused to come aboard.

The nor'easter did not ease. In his eye-witness account,

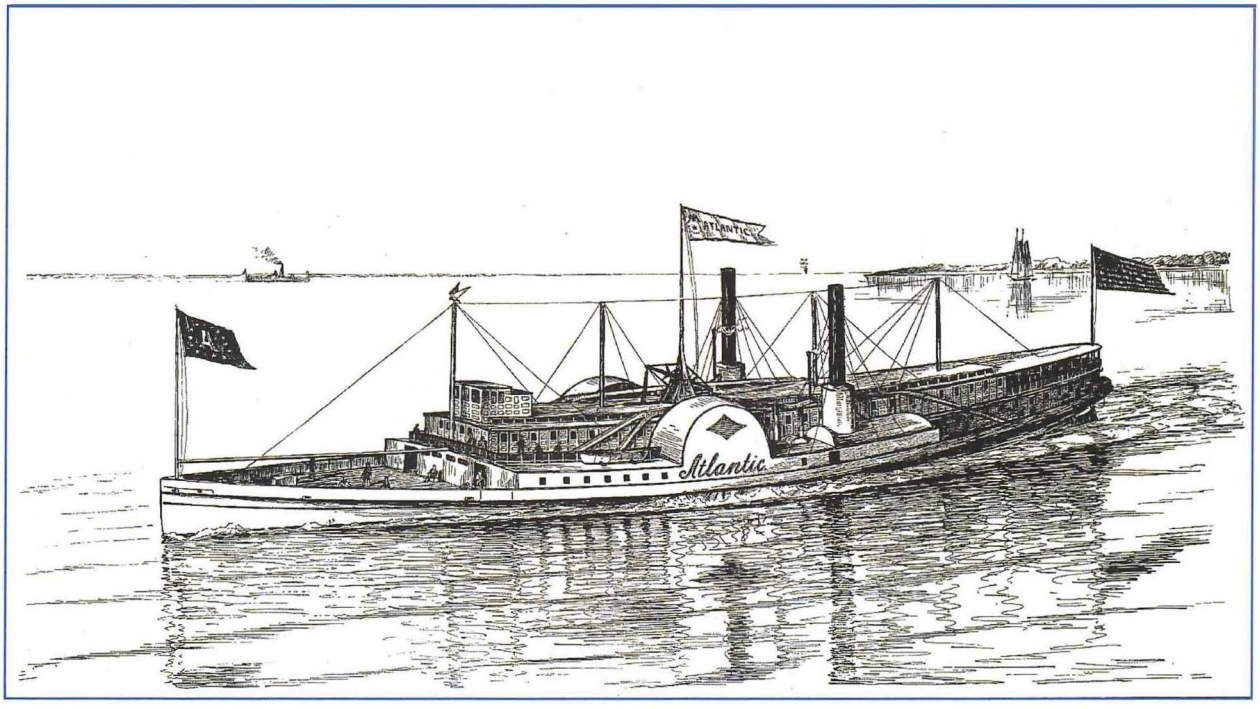


Image 3| The Steamer *Atlantic*

home to New Brunswick, New Jersey. In all, there were between 80 and 100 passengers and crew, including ten women. The exact number was not recorded.

Even before the ferry entered the sound, many of the passengers were clearly afraid. Christopher C. Comstock of New London later reported that when he stepped on deck at Allyn's Point he assumed the ship would not leave the dock, "but found in a few moments she was on her way down the river, the wind blowing a hurricane North West and snowing fast at the time. I was sorry I was on board." The New London Star later reported that shortly after leaving Allyn's point, the Rev. Armstrong inflated and attached to himself not one but several life-preservers. He was, however, determined to

now in the Mystic Seaport Library, passenger Comstock describes what happened next: "When we had proceeded about 6 miles on our way the first accident occurred - the bursting of the neck of the steam chest. ... the noise of which at first resembled the ringing of a large gong and so increased as to be terrific - the people rushed up the staircase from the decks below and would not be persuaded to return not knowing the cause of the alarm, but supposing the boiler to have burst....and the crowd rushing out trampled me under foot by which I was some injured and also lost my hat, on account of which I suffered much being exposed bare-headed to the piercing wind through the night, and also the succeeding night."

The Norwich Evening Courier of November 28 explained the cause of the commotion: "This explosion – by which however, no lives were lost – was caused by the breaking off, or bursting of the steam pipe or chest, at once disabling the boat and rendering her unmanageable. The Captain immediately gave orders for casting out both anchors and it was done. But such was the force of the wind and the sea, that the boat dragged her anchors constantly, and about 10 o'clock yesterday morning it was found that she was rapidly approaching Fisher's Island, the head of which we should judge to be not far from eight miles from New London."

James Stetson, 2nd Captain of the *Atlantic*, continues the story: "The smoke pipes were first cut away, next the pilot-house, and then the bulk-heads, so as to give the wind a clear sweep through the vessel, and render less surface to its attack." To lighten the ferry, about forty tons of coal were jettisoned.

Several other vessels tried to assist the stricken *Atlantic*. The fishing boat *Planet* struck a rock and sank in the frigid water, but luckily without loss of life. The steamer *New-Haven* started out from Allyn's Point, but her Captain deemed it too dangerous to steam onto the sound. Another steamer, *Mohegan*, did reach the *Atlantic*, but, according to the New York Tribune, "owing to the violence of the gale, could hold no communication with those on board, and could learn no facts in relation to her getting into such a situation.... [The *Atlantic*] was seen by several persons early this morning, drifting slowly down the Sound, as though dragging her anchors."

From James Stetson we hear that the ferry's colors were hoisted half-mast, a sign of distress, but were ordered down by Captain Dustan, who recognized that the *Mohegan*'s "efforts would be ineffectual." Thus the steamer remained all day till toward five in the afternoon of Thursday, the wind lulled, and hopes were raised that all danger was over; but not long after, the wind shifted

Image 4| Sinking of the Steamer *Atlantic* – Illustrated London News – 19 December 1846

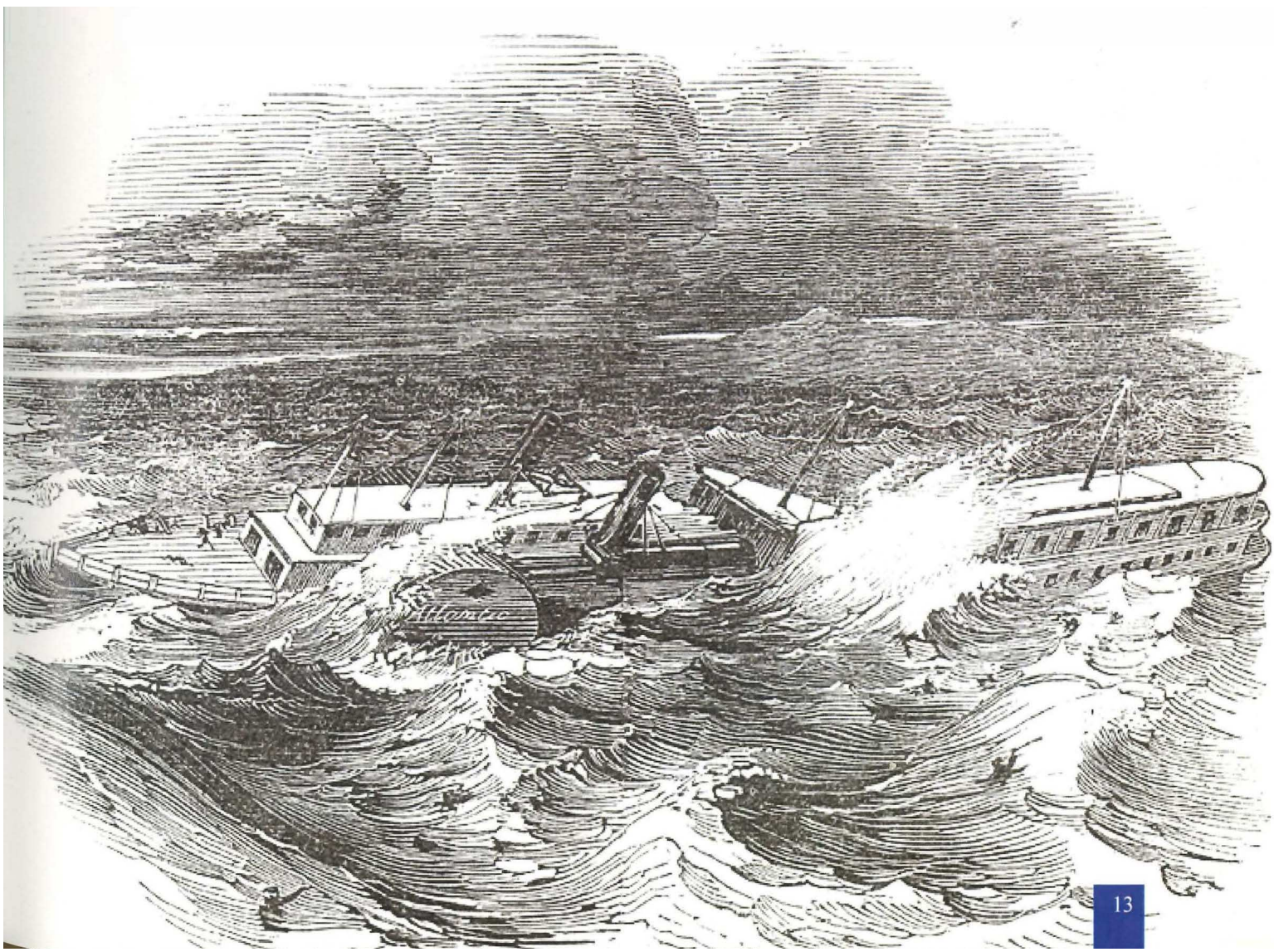


Image 5| Currier print of steamer *Atlantic* 1846

two points, and blew with more than previous violence. Captain Dustan declared "I would give $1000 for another anchor to-day!"

Throughout the rest of Thursday the stricken *Atlantic* continued drifting toward the rocky shore of Fisher's Island. At some point, according to the Norwich Evening Courier, when "the liveliest apprehension of an awful fate awaiting them, took possession of all on board, the Rev. Dr. Armstrong proposed a season of prayer. Having read a short portion of Scripture, and briefly addressed the passengers, he engaged in prayer - others followed." The Sailor's Magazine and Naval Journal for 1846 elaborated: "This being Thanksgiving day in 17 of the 29 States of the Union, it was appropriately observed on board. The Rev. William J. Armstrong D.D. conducted the exercises, recapitulating the reasons which ought to fill the bosoms of the passengers with gratitude and thanksgiving to God. A prayer meeting of great solemnity and interest followed; after which the passengers gathered around the dear man of God, who had led their devotions, and who, during the whole scene, was not only calm and collected, but as one of the survivors expressed it "heavenly," and shook an affectionate farewell till they should meet either on the shore or in eternity."

"Thus stood matters when Thursday night closed round the fated Steamer," reported the Norwich Evening Courier. "For some time she continued to drag her anchors, but from 10 o'clock, till nearly two in the morning, she remained almost stationary. But then it came on to blow more powerfully, and presently the anchors began to drag again, and this time more rapidly than ever. Every moment was bearing the Steamer upon a rocky shore. All saw and knew that the hour and the moment of life or death was come. All chose their stations on the boat - such stations as they deemed most likely to facilitate their escape - and for a few moments, in an agony of intense, awful suspense, they stood waiting."

The last rays of hope had set with the sun, according to Captain George Cullum, U.S. Corps of Engineers, who provided many details of the *Atlantic's* predicament to the New York Daily Tribune of December 4, 1846: "We were now but a few cables' lengths from the deafening breakers, and the roaring tempest increased in its wild madness. Momentarily we expected to be dashed upon the rocks." He described how doors were broken down to serve as makeshift rafts, singling out for praise the

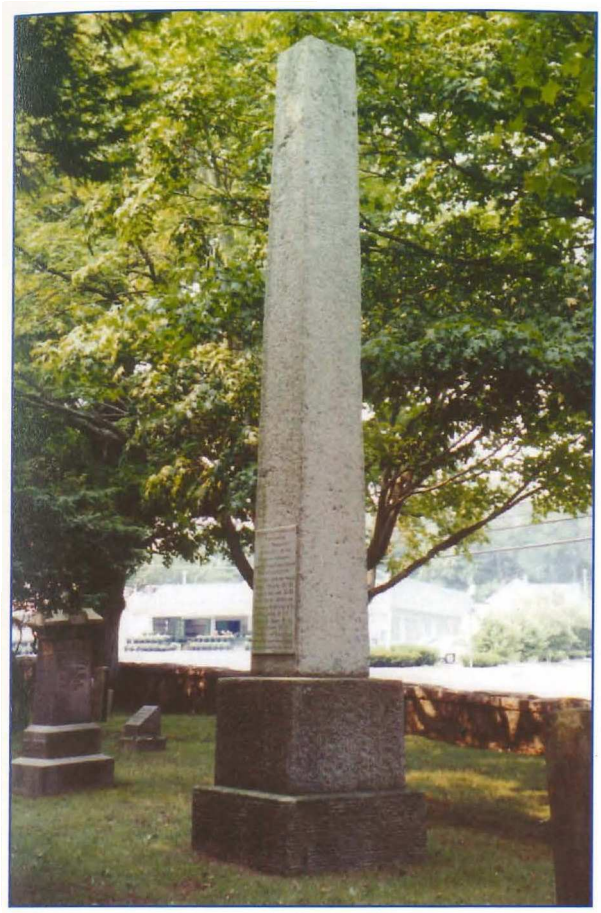


Image 6| Atlantic Memorial : Cedar Grove Cemetery

efforts of "the generous Hassler" and "brave Norton" to help provide for the safety of the women, children, and aged men on board. Crates and barrels were thrown over the side so they would not break anyone's legs on the rolling deck. "Though so near the rocks, and hoping to be cast ashore while daylight yet lasted, our hour was not yet come. We were to suffer another night of agony."

By now, many of the freezing, fatigued, and famished passengers had sought the relative warmth and comfort of the ladies' cabin where the Rev. Armstrong had offered prayers. With no more than a bit of bread to eat, Comstock informs us, many of them "sank down to sleep and I have no doubt that many being chilled and viewing their present situation and probable destiny and in view of Eternity began to despair, and had rather sit or lie where they were than make any exertion to save themselves and I suppose did so. During all this time the passengers behaved with calmness and fortitude – probably consoling themselves that they should be saved alive; but alas, however soon were their hopes blighted – in a few short hours they were to sleep the sleep of death and wake to meet their God."

The *Atlantic*'s stern hit the rocks at 4:30 a.m. on Friday, November 27. According to an extra edition of the next day's New London Star, "as soon as the boat struck, its bell commenced tolling, probably from the action of the wind upon it, and continued to toll slowly and mournfully as long as any portion of the wreck was to be seen."

"Capt. Dustan, after staying by the boat until all human efforts were useless, announcing such to the passengers to be the case, was lowered down from the hurricane deck, into the water, but probably being so benumbed by the cold, and exhausted from efforts to serve until the last as well as the strong undertow, while attempting to save himself, was drawn under the boat, and nothing more was seen of him until found on the shore."

In blackness, passengers and crew were swept from the slanting, icy deck into the freezing water. Waves sometimes crushed them onto boulders ashore or, as they receded, towed them back out to sea where they froze or drowned.

John Walton, the father heading for Pennsylvania, cried

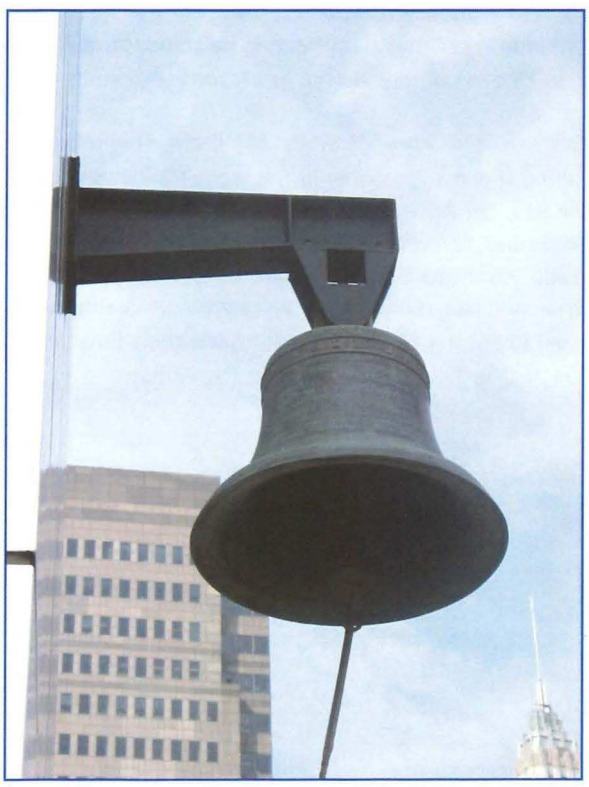
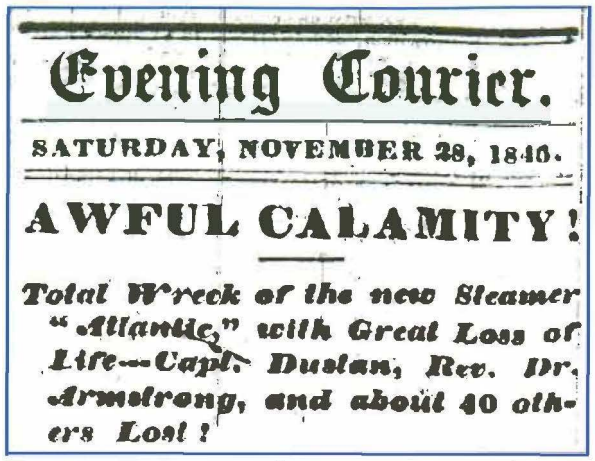


Image 7| Seamen's Church Institute, New York



Evening Courier.

SATURDAY, NOVEMBER 28, 1846.

AWFUL CALAMITY!

Total Wreck of the new Steamer "Atlantic," with Great Loss of Life—Capt. Dustan, Rev. Dr. Armstrong, and about 40 others Lost!

Image 8| Evening Courier headline - November 28, 1846

out for help, saying that his arm was broken. His plea was in vain. He perished along with five of his family. Only a son of twelve and a new son-in-law survived.

Surgeon Hassler and Lt. Norton, clinging with Captain Cullum to one of the posts which supported the saloon deck, were carried away by seas that broke off the post and swept them overboard. Cullum survived to relate their end. A great wave carried away the women's saloon where the Rev. Dr. Armstrong had prayed. Not a woman on board survived.

Within minutes the lavish floating palace was little more than kindling on the shore. In all, forty-two souls were lost.

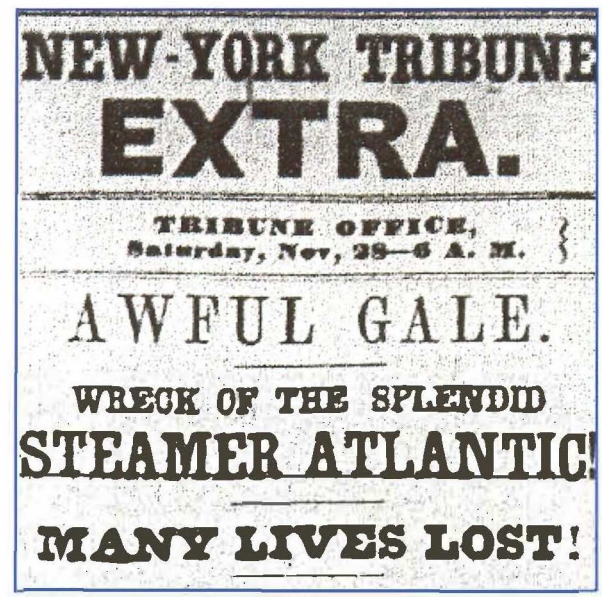
Falling timbers, probably in the women's saloon, killed the Rev. Dr. Armstrong. Hartford's Religious Herald on December 12 reported that when his body was recovered, "his head bore the mark of severe contusion." Survivor Lieut. Maynard, U.S. Navy, told the Norwich Evening Courier of December 3 "that a short time previous to the final wreck, he saw Dr. Armstrong in the ladies' cabin, who complained much of cold, and who requested him to tie his face up as much as possible, to protect it, which he did. When the body of Dr. Armstrong was examined by the Coroner's Jury, in this city, a large yellow silk handkerchief was found tied about his neck."

Among the recovered bodies, the Rev. Dr. Armstrong's was taken first to the home of the owner of Fisher's Island, William Winthrop, where many of the survivors had dried and warmed themselves, and then to New York. According to the Evening Courier of December 5, "The funeral of the late Dr. Armstrong was attended on Sabbath last by one of the largest assemblies ever witnessed in New York on any similar occasion." He was fifty years old.

Five of the Walton family were buried in New London's Third Cemetery on November 29 in a ceremony described by historian Phyllis Kihn in The Connecticut Historical Society Bulletin, vol. 42 (1977), who informs us that the townspeople raised enough money to erect a 20-foot stone obelisk in memory of the family and the other victims. John Walton's body was not recovered until December 20, when it was brought to New London for burial.

The tragedy made news around the world. At least two depictions were published by N. Currier, the famous print-maker, one naming "Capt. Dustan, Lieut. Norton, U.S.A, Dr. Haslin U.S.N. [and] Rev. Dr. Armstrong" among those lost. Another depiction appeared in the Illustrated London News. Songs and poems lamenting the ship's fate were penned. One of these, "The Bell of the Atlantic" by Miss P. M. Caulkins, immortalized the "serene and heavenly expression" of the Rev. Dr. Armstrong "during the whole of that trying Thursday":

There was one whose face was seen
Like a shining and serene
Crystal sea:
Sublimed, as if the soul
Had already passed the goal,
And was free.



NEW-YORK TRIBUNE

EXTRA.

TRIBUNE OFFICE,
Saturday, Nov, 28—6 A. M.

AWFUL GALE.

WRECK OF THE SPLENDID

STEAMER ATLANTIC!

MANY LIVES LOST!

Image 9| New York Tribune headline - November 28, 1846

Image 10 | Bronze Age Shipwreck at Cape Gelidonya

The actual bell, which continued to toll throughout the terrible ordeal, was salvaged and today hangs outside the Seamen's Church Institute of New York and New Jersey. The engine, too, was salvaged. But it sank again. It was installed in another side-wheeler, *Brother Jonathan*, which sank off the coast of California in 1865 with the loss of nearly 200 lives and a large payroll, later to became the subject of a legal battle between archaeologists and treasure hunters.

Today the tragedy that once made international news is mostly forgotten. A fork and a wicker basket recovered from the *Atlantic* are displayed in the Henry L. Ferguson Museum on Fisher's Island, a small part of a wicker deck chair is at the Connecticut Historical Society, the Winthrop house still stands, and the obelisk dedicated to the Walton family may be seen in the Cedar Grove Cemetery in New London, where it was moved in 1890.

I slipped down into the water from the stern of Gary Chellis' charter dive boat *Atlantis* out of New London. It was August 10, 2004. We were just off Fisher's Island, anchored over a place where Gary said divers occasionally came across a fork or spoon or nail from the *Atlantic*. For more than forty years I had dived on wrecks off three continents, but this was a new wreck, a new experience.

Gordon, the elder of my two sons, joined me in the water. He held the reel of white tape he would unwind as we swam away from the boat, and then rewind to allow us a speedy and accurate return. It was the first time I had dived with either of my sons, and I was pleased to see that Gordon, now an editor with Time/Life, was a natural diver.

I paid more attention to Tom Jackson, an editor for Wooden Boat, for it was his first dive in open water without an instructor. He had just been certified, in order to accompany us, and like all new divers was having trouble adjusting his weight.

There was nothing to see other than sand, seaweed, and rock, and none of it with close to the clarity I was used to in the Mediterranean. Although I'd worked on shipwrecks from the American War of Independence in near zero visibility in Maine's Penobscot Bay and even less visibility in the York River, Virginia, I was spoiled, more used to looking up from 150 feet and seeing divers jumping into the water from our dive boat in Turkey. Here we were only ten to fifteen feet down.

We did not dig. We saw no silverware, no bits of porcelain. But thoughts of souvenirs had not brought me here.

After diving regularly for nearly 45 years, this would be my last dive. Ever.

It seems that I was born to dive. When I was about seven and my brother was ten, we designed on paper the multi-story submarine we would build, and even started collecting the lumber with which we would build

Image 11 | George sifting sand

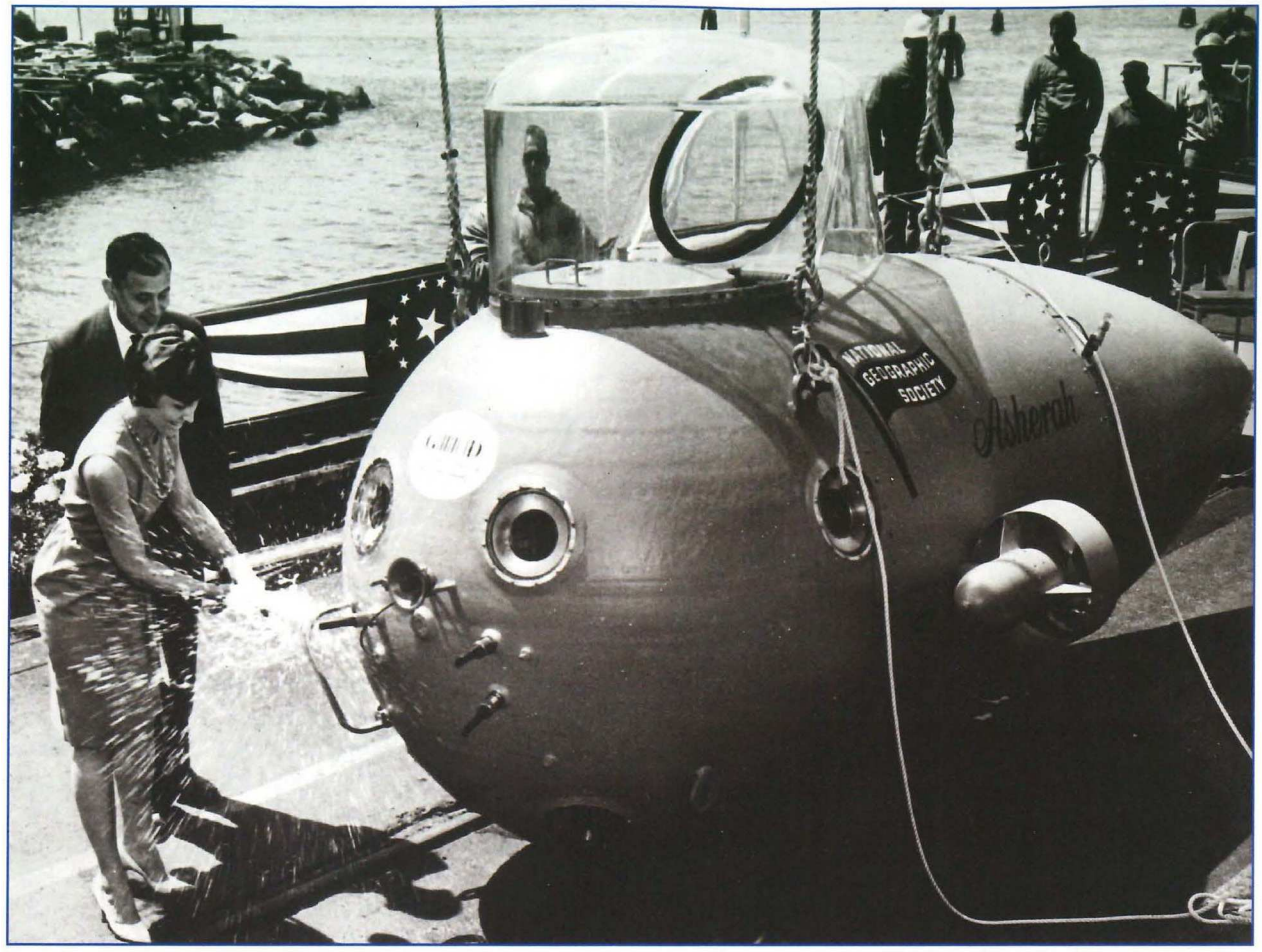


Image 12| Ann Bass christening the *Asherah* in 1964

it! Later we made a diving helmet out of a tin container in which we mounted a glass face plate with putty. Thanks goodness we never tested it in the local creek! But we read everything we could find on diving, and even tried, unsuccessfully, to get the U.S. Naval Academy, where my father taught, to somehow acquire and show the 1916 silent film of Jules Verne's 20,000 Leagues Under the Sea.

Not particularly athletic, I excelled as a child only in swimming lengths of the Academy pool under water, and in college once beat all my fraternity brothers in a contest by holding my breath for three minutes. That had nothing to do with scuba diving, of course, but it led to my snorkeling a lot between 1955 and 1957 when I was a graduate student of archaeology in Greece, where I had more books on diving than on archaeology! From snorkeling it was an easy step to scuba diving, which I learned at the Central YMCA in Philadelphia early in 1960 in order to excavate a Bronze Age shipwreck that summer at Cape Gelidonya, Turkey. In fact, I could take only six lessons in the ten-lesson course before my departure for Turkey, and had to pass all the diving tests the first time I ever put on a tank, under water, of course, at the deep end of the pool, which is where my breath-holding ability put me at an advantage.

The shipwreck at Cape Gelidonya was the first ancient wreck ever excavated in its entirety on the seabed. On its completion, I planned to return to more traditional archaeology. But I stuck with diving throughout the 1960s in order to help develop more efficient techniques of mapping and digging shipwrecks. In 1964 my childhood dream of a submarine came true when my wife, Ann, christened *Asherah*, the first commercially built research submersible in the United States, launched for my work by the Electric Boat Division of General Dynamics at Groton, Connecticut. Although I twice returned to terrestrial archaeology, in 1968 and 1971, I missed diving and both times was soon back on and in the sea.

Looking back over the years, I cannot imagine a more

rewarding career. Being in this new field from the beginning, I had the opportunity to do things never done before. In the 1970s I formed an institute devoted solely to shipwreck archaeology, the Institute of Nautical Archaeology (INA), and then established an academic program in nautical archaeology at Texas A&M University, which now has a faculty of seven.

Image 13| George and Claude Duthuite at Cape Gelidonya in 1960

Over the decade that began in 1984, a team I put together to excavate another Bronze Age wreck, at Uluburun, Turkey, made 22,500 dives to between 145 and 200 feet deep -- something no reader should attempt without the special diving tables, the special equipment, and the physician we had at all times. At first I worked twice daily in an area 165 feet down. The archaeology could not have been more exciting, but some of the pure joy of diving was missing. Now in my early fifties, for the first time I had to pinch my nose in order to clear my ears as I descended. My Eustachian tubes had lost their youthful elasticity. Once I had a reverse squeeze and wondered, with my forehead feeling like it was ready to explode, if I would ever get back to the surface.

At Cape Gelidonya I had wondered what this "otitis" was that the veteran divers like Frédéric Dumas complained of. Now I knew too well! It had become chronic. If I skipped rinsing my ears with fresh water immediately after each dive, I woke up next morning barely able to chew because of the pain. Anyway, standing all day every day for months at a time among high- and low-pressure compressors, electric generators, and water pumps had given me -- and all of my colleagues from the early days -- the other "itis," tinnitus or ringing ears and partial deafness. In those days no one warned us to wear ear protectors. Nor were we warned to apply sun screen. After two operations for skin cancer, I now wear a wide-brimmed hat and long sleeves on deck. Time takes its toll. The diving I had loved so much was no longer as much fun.

But at what point does one hang up one's fins? At the end of a film we made on the Uluburun wreck in 1984-1985, later televised as a Nova program, I talked about my decision to stop diving. But although I quit being a regular, twice-a-day diver, I continued visiting this and other sites INA excavated over the years, diving on each of them. Every year I vowed would be my last. And then someone would tell me of something truly fascinating to see, and I'd zip myself back in my wet suit for one more dive -- and then another.

Nature almost solved my dilemma in 1997. In Turkey, flying from Istanbul to Samsun with Dr. Robert Ballard to visit his deep work in the Black Sea, I suffered a stroke. I pretty much recovered, permanently suffering no more than a slightly numb left arm, but on my return to the United States, my neurologist said: "Well, that ends your diving days."

"What?"

I still wasn't quite ready. I found another neurologist.

By 1999 I was back diving again off the Turkish coast. First excavating a classical Greek wreck from the fifth century B.C., and later an archaic Greek wreck of the sixth century B.C. By now I was in my seventies. Over four decades I had directed countless thousands of decompression dives without a fatality, with only two serious accidents, a case of bends and an embolism. Why not stop while ahead?

I had to find a way to really end it. To make a final dive so special that I could never again renege. Sure I could continue to look for wrecks from our new two-person submersible *Carolyn*. But no more scuba diving.

At last I found it. A truly special dive.

The Rev. Dr. Armstrong was my great, great grandfather.

Image 14| Gordon and George Bass at Fisher's Island : 2004