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Treasure Hunters, Adventurers, Sport Divers, and Archaeologists: Influences on Early Underwater Archaeology

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On 1951, a flotilla of treasure hunters, adventurers, academics, and underwater divers descended on a stretch of water located off the coast of Florida near Looe Key. It consisted of 3 ships carrying 15 adults, 9 children, and an assortment of state of the art equipment ready to puncture the more than 200 year old wreck that laid at the bottom, a relic of a bygone era in the Age of Sail. Among them were Jane and Barney Crile, Bill Thompson, and Art McKee, amateur divers turned treasure hunters who hoped to salvage whatever artifacts they could from the wreck and fulfill their desire for underwater adventure. The famed inventor and aviator Edwin Link and his wife Marion Link were there as well, taking their first foray into what would soon become their decades-long contribution to underwater research and exploration.[1] The most academically qualified of the group was Mendel Peterson, the then Head Curator of the Division of Military and Naval History at the United States National Museum of the Smithsonian Institution who also accompanied the convoy.[2] Like many on the expedition, he wanted to put his diving skill to use in the pursuit of new knowledge in maritime history. Their excavation of what would later be identified as the H.M.S. *Looe*, would prove to be an important catalyst in the creation of the field of underwater archaeology. None of them were professionally trained archaeologists and the excavation they conducted was more in line of salvaging a shipwreck for lost valuables than the scientific and calculated approach one would expect from a land archaeological expedition, but almost every member of the expedition would leave the *Looe* wreck motivated with a new sense of excitement and a desire to turn what was once just a hobby or side interest into a way to preserve and advance the maritime history of humanity.

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[1] Crile, Jane and Barney, *Treasure-Diving Holidays* (New York: The Viking Press, 1954), 194.
[2] Smithsonian Institution Archives (hereafter, SIA), Record Unit 381 (hereafter, RU 318), National Museum of History and Technology, Division of Historic Archeology 2019, Records (hereafter, NMHT, DHA, R), July 11, 2011, accessed April 30, https://siarchives.si.edu/collections/siris_arc_216948; Crile, *Treasure-Diving*, 194.

Historiography of Underwater Archaeology

There is a surprising lack of sources covering the history of underwater archaeology during the 1950s and 1960s, the time period this study focuses on. In particular, there is no comprehensive work that examines the history of the field of underwater archaeology while also analyzing how non-archaeologists, such as sport divers and treasure hunters, impacted its creation. There are a few books written for a wide, popular audience that offer some overview of the early years of underwater archaeology. However, in these works, the discussion of the history of underwater archaeology is mostly part of the overarching narrative of the evolution of underwater explorations and diving techniques. James Dugan's 1966 book, *Man Under the Sea*, offers just that, a history of underwater archaeology told in the context of the central theme of humanity's history of exploring the ocean depths.[3] Dugan writes extensively on the early underwater excavations up until the mid 1960s and offers a rare and welcome glimpse into the role of non-archaeologists in the field. Dugan is a reliable source on the subject of underwater archaeology; John Goggin, an important figure in early underwater archaeology, praises Dugan's book among the limited number that include discussion of underwater excavations up to 1960, noting "the best of these is probably Dugan."[4] Dugan wrote during the time period of study and appears to have taken an active interest in the emerging field of underwater archaeology, as he was present at an underwater archaeological conference in the 1960s. More recent works also offer a good analysis of the different roles archaeologists and non-archaeologists played in developing the field of underwater archaeology. For example, Trevor Norton's 1999 book, *Stars Beneath the Sea*, discusses the history of underwater archaeology through short biographies of

[3] James Dugan, *Man Under the Sea* (New York: The Macmillan Company, 1965).
[4] John M Goggin, "Underwater Archaeology: Its Nature and Limitations," *American Antiquity* 25, no. 3 (1960): 348, doi:10.2307/277518.

Frédéric Dumas and Peter Throckmorton, two non-archaeologists who greatly influenced the field of underwater archaeology. Norton has a tendency to generalize and highlight dramatic events, but he provides excellent, if somewhat brief, insight on underwater archaeology's early years and the role non-archaeologists played in it.[5] Willard Bascom's 1976 book, *Deep Water, Ancient Ships: The Treasure Vault of the Mediterranean,* also gives a good overview of the major underwater excavations leading to the creation of underwater archaeology in a book discussing why ancient ships sank and how to find and excavate them. His scope is limited to the Mediterranean, though, and he does not link this history to the history of underwater archaeology of other parts of the world.[6]

While sources from Dugan and Bascom provide useful overviews, most of the sources used for this thesis do not come from the few summaries of the history of underwater archaeology. Instead, most of the sources are first-hand accounts, articles, or other sources written in or around the time period of the 1950s and 1960s. Principle characters in underwater archaeology's early years wrote plenty of first-hand accounts, many of which are included in this thesis and provide valuable primary source material for this study. Some of these primary sources were written by those interested in developing the field so that it could increase the knowledge of maritime history. Frédéric Dumas' 1962 book, *Deep Water Archaeology,* and Mendel Peterson's 1965 book *History Under the Sea: A Handbook for Underwater Exploration,* (the 1973 version of book was used in this thesis) both offer first-hand accounts of the techniques non-archaeologists and archaeologists used to excavate underwater and learn the most from their

[5] Trevor Norton, *Stars Beneath the Sea* (London: Arrow Books, 2000).
[6] Willard Bascom, *Deep Water, Ancient Ships,* (Garden City, NY: Doubleday and Company, 1976).

excavations.[7] Other works demonstrate the transformation of amateur divers into amateur underwater archaeologists, such as Susan van Hoek's 1993 book *From Sky to Sea: A Story of Edwin A. Link,* which makes heavy use of Marion Link's (Edwin Link's wife) 1958 book, *Sea Diver*.[8] Treasure hunters and adventurers wrote other first-hand accounts as well during 1950s and 1960s. For example, John Potter's 1988 book *The Treasure Diver's Guide,* which is a revised version of his 1960 book, acts as an encyclopedia for all of the various underwater treasure hunting expeditions and possible treasure locations throughout the world.[9] While the book does not discuss the various advances in academic underwater archaeology, it provides overviews of treasure hunters who transitioned to underwater archaeology and offers further insight on the activities of treasure hunters during the creation of academic underwater archaeology from his perspective as a treasure hunter. Jane Crile's 1954 book, *Treasure Diving Holidays,* does the same by chronicling the adventures of she and her husband Barney Crile, both treasure hunters and diving enthusiasts who participated in many early underwater salvaging excavations in the Caribbean in the 1950s.[10] All of these sources were written for a popular audience in order to explain to everyday readers, amateur divers, and prospective treasure hunters the techniques and adventures associated with underwater salvage.

This thesis also makes use of the various other sources created in a more academic tradition, that is, articles written with scholars, professional archaeologists, and historians in mind as the target audience. These articles, written in the early and mid 20th century, discuss the early underwater excavations, which further sheds light on the evolution of underwater

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[7] Frédéric Dumas, *Deep-Water Archaeology,* trans. Honor Frost (London: Routledge and K. Paul, 1962); Mendel Peterson, *History Under the Sea: A Handbook for Underwater Exploration,* (Alexandria, VA: Mendel Peterson, 1973).
[8] Susan van Hoek, *From Sky to Sea: A Story of Edwin A. Link* (Flagstaff, AZ: Best Publishing Company, 1993).
[9] John S. Potter, Jr., *The Treasure Diver's Guide* (Port Salerno, FL: Florida Classics Library, 1988).
[10] Crile, *Treasure-Diving.*

archaeology in the context of the role non-archaeologists played in its origins. The most insightful of these articles used in this thesis is John Goggin's 1960 article, "Underwater Archaeology: Its Nature and Limitations," which provides an expansive overview of the early field of underwater archaeology by 1960 and conveys his own aspirations for the future of the field.[11] Other academic articles detail specific excavations and describe the various techniques used. For example, Richard Garnett and John Boardman, George Karo, and George Bass et al., all archaeologists or amateur divers who conducted their own underwater excavations, wrote academic articles that offer in-depth insight into the evolution of underwater archaeological techniques.[12] Archaeologists and historians also wrote some scholarly articles and works from more contemporary time periods that discuss specific underwater excavations or persons.[13]

Archival material relating to Mendel Peterson from the Smithsonian Institution Archives were also valuable resources for this thesis as they provide first hand accounts into the actions and attitudes of non-archaeologists displayed during the early years of underwater archaeology. Records from the Archives used in this thesis include: correspondence between Peterson and other individuals interested in underwater exploration and underwater excavations; cutouts from newspapers and magazines, such as *Natural History*, *Bermuda News Pictorial*, and *Herald-*

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[11] Goggin, "Underwater Archaeology."
[12] Richard Garnett, and John Boardman, "Underwater Reconnaissance off the Island of Chios, 1954," *The Annual of the British School at Athens* 56 (1961): 102-13, http://www.jstor.org/stable/30096840; Karo, George. "Art Salvaged from the Sea," *Archaeology* 1, no. 4 (1948): 179-85, http://www.jstor.org/stable/41662245; Bass, George F., Peter Throckmorton, Joan Du Plat Taylor, J. B. Hennessy, Alan R. Shulman, and Hans-Günter Buchholz, "Cape Gelidonya: A Bronze Age Shipwreck," *Transactions of the American Philosophical Society* 57, no. 8 (1967): 1-177, doi:10.2307/1005978.
[13] Delgado, James P, "Underwater Archaeology at the Dawn of the 21st Century," *Historical Archaeology* 34, no. 4 (2000): 9-13. http://www.jstor.org/stable/25616843; Barr-Sharrar, Beryl, "The Mahdia Masterpieces," *Archaeology* 49, no. 1 (1996): 54-59, http://www.jstor.org/stable/41770987; George Fischer, "History of the ACUA," ACUA Online, Advisory Council on Underwater Archaeology, 1993, accessed April 29, 2019, http://acuaonline.org/wp-content/uploads/History-of-the-ACUA-1.pdf; [13] Nicolle Hirschfeld, "Joan Mabel Frederica Du Plat Taylor, 1906-1983," Breaking Ground: Women in Old World Archaeology, Brown University, 1979, accessed April 29, 2019, https://www.brown.edu/Research/Breaking_Ground/bios/Du%20Plat%20Taylor_Joan.pdf.

Advertiser, detailing Peterson's work; and photocopied pages from books that mentioned Peterson, such as Potter's 1960 version of *The Treasure Diver's Guide* and Rick and Barbara Carrier's 1955 book, *The Complete Book of Skin Diving*.[14] The Archives also contained material relating to the creation and goals of the Exploration and Underwater Sports Club of Mexico and its underwater expeditions.[15] These primary source documents shed new light into the ways the Smithsonian Institution, Peterson, and other non-archaeologists impacted the creation of the field of underwater archaeology.

Using recent and past analysis from secondary sources, first-hand accounts, and other sources mainly from the 1950s and 1960s, this study analyzes the role non-archaeologists, such as treasure hunters, amateur and professional divers, and historians, played in the creation of the academic field of underwater archaeology. By linking popular accounts of treasure hunters and self-proclaimed underwater archaeologists with the professional accounts of academically-trained archaeologists of the time, this study provides a new narrative on the ways non-

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[14] David Heller, "Finding History Under the Sea," *Natural History*, November 1955, 492-494, SIA, Accession 02-167 (hereafter Acc. 02-167), Box 1, Newspaper Clippings 1953-1964: Folder 1, National Museum of History and Technology, Division of Historic Archeology, Biographical Files (hereafter, NMHT, DHA, BF), 1953-1969; "Treasure Expert Back in Bermuda for New Quests," *Bermuda News Pictorial*, August 4, 1962, SIA, Acc. 02-167, Box 1, Newspaper Clippings 1953-1964: Folder 1, NMHT, DHA, BF, 1953-1969; "Earliest Shipwreck in the New World?" *Herald Advertiser*, May 3, 1964, SIA, Acc. 02-167, Box 1, Newspaper Clippings 1953-1964: Folder 2, NMHT, DHA, BF, 1953-1969; John S. Potter Jr., *The Treasure Diver's Guide*, (Garden City, New York: Doubleday & Company, 1960), SIA, Acc. 02-167, Box 1, Publications, 1955-1967, NMHT, DHA, BF, 1953-1969; Rick Carrier, Barbara Carrier, *The Complete Book of Skin Diving*, (New York: Wilfred Funk, 1955), 251-252, SIA, Acc. 02-167, Box 1, Publications, 1955-1967, NMHT, DHA, BF, 1953-1969.

[15] *CEDAM international: Conservation. Exploration Diving. Archaeology. Museums.* (El Paso, Texas: CEDAM Internàtional), SIA, RU 381, Box 9, CEDAM (Conservation, Exploration, Diving, Archeology, Museums) International, NMHT, DHA, R, circa 1952-1976; CEDAM, "First Press Release," SIA, RU 381, Box 9, CEDAM (Conservation, Exploration, Diving, Archeology, Museums) International, National Museum of History and Technology, NMHT, DHA, R, circa 1952-1976; Middle American Archaeological Society, "Report #2," SIA, RU 381, Box 9, CEDAM (Conservation, Exploration, Diving, Archeology, Museums) International, NMHT, DHA, R, circa 1952-1976; CEDAM, "Extract Consigning the Principle Points Contained in Our Charter," 1-4, SIA, RU 381, Box 9, CEDAM (Conservation, Exploration, Diving, Archeology, Museums) International, NMHT, DHA, R, circa 1952-1976.

archaeologists contributed to, and at times hindered, the creation of the academic field of underwater archaeology.

Origins of Underwater Salvage in Mediterranean

The prospects of underwater archaeology had been brewing for some time before the 1951 Looe Key expedition. These first undertakings took place primarily in the Mediterranean Sea and were the product of close cooperation between sponge divers, fisherman, and land archaeologists looking to preserve and claim their respective ancient maritime cultures. Much like the excavation in Looe Key, most of these excavations before the 1960s were rudimentary in nature and more closely resembled salvage operations than underwater archaeology. According to Bascom, while the first years of underwater archaeology were, "characterized by sporadic accidental discoveries, vandalism, and looting of wrecks, archaeologists waiting topside for whatever divers brought up…" it nevertheless helped gain scholarly interest in subject. [16]

Most sources place the now famous discovery of the wreck of Antikythera as the first instance of when this crude and destructive process started to generate results worthy of academic attention. In 1900, a group of sponge divers led by Captain Demetrios Kondos were searching the waters off the coast of the Greek island Antikythera when one of their divers, Elias Stadiatis, came across a graveyard of ancient Hellenistic statues and the remains of an ancient ship. He ripped the arm off one of the statues in order to "prove he was not romanticizing" and presented it to Captain Kondos. He, in turn, eventually decided to take it to Greek authorities in Athens where they reached an agreement promising the sponge divers "adequate compensation"

[16] Bascom, *Deep Water*, 85.

in return for their efforts to recover what they could of the site and hand over to the Greek authorities.[17]

The next year, the sponge divers returned to the site along with Professor A. Economou of the University of Athens, Minister of Education Spiridon Stais, and a Greek Navy support ship equipped to haul up heavy weights from the sea floor.[18] This was the first time, according to Dugan, that the "Greeks had to run a Greek archaeological expedition" because there was a new law to keep archaeological artifacts in Greek territory.[19] For the past two thousand years, foreigners had been carrying off Greek artifacts under the excuse that they were doing so to "protect and preserve" them.[20] Now the Greeks had a chance at claiming their own heritage for themselves, though it would prove to be very strenuous work. In archaeologist George Karo's 1948 article, titled "Art Salvaged From the Sea," he explained that the sponge divers could only withstand the pressure of digging on the seafloor and hauling up artifacts on a winch cable for five minutes at a time twice a day and that, by the end of the excavation, one diver was dead and two divers were permanently disabled.[21] Despite the dangers, Karo notes that the sponge divers, "totally ignorant of archaeological techniques, treated the finds with quite remarkable care and delicacy" and expressed amazement at how undamaged the pieces were when he viewed them in person years later.[22] The shipwreck and the material salvaged from it would continue to be studied for decades to come (the now famous Antikythera computer which dated the ship to 82 B.C. was not discovered until Dr. Derek de Solla Price analyzed the find 50 years later, for example), but while there was some excitement in the archaeological community about the

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[17] Karo, "Art," 180.
[18] Bascom, *Deep Water,* 86-87; Karo, "ART," 180.
[19] Dugan, *Man Under the Sea,* 233.
[20] Dugan, *Man Under the Sea,* 233.
[21] Karo, "Art," 180.
[22] Karo, "Art," 181.

possibilities of this new frontier, the "initial excitement soon cooled off" due to a lack of technology and equipment available to the Greek government.[23] In fact, Dugan noted that the biggest consequence of the Antikythera expedition was that it alerted Greek sponge divers to the "hullaballoo over objects they had been netting beyond memory," and they accordingly started turning them in for rewards instead of "melting them for scrap."[24]

It would not take long for new discoveries to emerge. In 1907 Alfred Merlin, the French administer of the Directorate of Antiquities in Tunis (Tunisia was a protectorate of France during this time period), discovered a bronze figurine at a nearby market and learned that a Greek sponge diver had found it from a wreck off the coast of Mahdia, Tunisia, in French waters.[25] The French classical antiquarian Salomon Reinach soon heard of this discovery and convinced his friend, the American millionaire James Hazen Hyde, to contribute $25,000 to an expedition of the wreck and recruited more financial assistance from the Académie des Inscriptions et Belles-Lettres, the Tunisian government, and three French ministries.[26] The Marine Prefect of Bizerta donated the tug *Cyclope* and Greek sponge divers were enlisted for the underwater recovery.[27] The wreck proved to be a great find as much of the ship's contents were well preserved due to being encased in mud, which prompted Reinach to proclaim that "nothing comparable has come to light since Pompeii and Herculaneum."[28] The excavation of the wreck would continue for 5 seasons ending in 1913 and its many well-preserved finds would be displayed in the El Alaoui Museum in Tunis, filling six of its rooms.[29] Another important early excavation in the Mediterranean during this period occurred at Cape Artemision off the island of Euboea and

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[23] Bascom, *Deep Water,* 16, 87; Karo, "Art," 182.
[24] Dugan, *Man Under the Sea,* 236.
[25] Barr-Sharrar, "Mahdia," 54; Bascom, *Deep Water,* 87.
[26] Dugan, *Man Under the Sea,* 236; Barr-Sharrar, "Mahdia," 54.
[27] Dugan, *Man Under the Sea,* 236.
[28] Dugan, *Man Under the Sea,* 237.
[29] Bascom, *Deep Water,* 89.

followed the same basic format as the wrecks at Antikythera and Mahdia. Again, it was a Greek sponge diver who discovered the wreck and its contents in 1927 and brought a piece of a statue to archaeological professor George Karo of the German Archaeological Institute in Athens (the same George Karo who reported on the Antikythera wreck earlier). Karo then led an exhibition along with Alexander Benaki, a wealthy cotton merchant and, according to Karo, "the leading Greek patron of art," who provided five hundred pounds worth of modern diving equipment.[30] The excavation resulted in the recovery of the now famous statue of Zeus poised to throw a thunderbolt that rests in the United Nations in New York.[31]

The work conducted in the 1930s and 1940s by archaeologist Pere A. Poidebard at the Phoenician port of Tyre in Syria was one of the first underwater excavations to break this mold. After using a military reconnaissance plane to survey the coast, Poidebard, a trained land archaeologist, realized that in order to make a complete excavation of the ancient port, he would have to go underwater to excavate the parts of the port that were submerged and recognized that "divers would be perhaps the most essential members of our team."[32] From 1935-1950, Poidebard would use many different "techniques and scientists to his operation" such as taking vertical underwater photographs with a stereoscopic camera designed by Yves le Prieur, and employing local free divers to do the actual underwater excavating.[33] Dugan believed that this excavation marked an historic achievement and contribution to the emerging field of underwater archaeology due to the fact that it was planned and led by an academic land archaeologist and the excavation itself followed a much more scientific approach than its predecessors.[34] Although Dugan is correct in his assessment, by modern standards the field of underwater archaeology

[30] Bascom, *Deep Water,* 90; Karo, "Art," 183.
[31] Bascom, *Deep Water,* 89.
[32] Dugan, *Man Under the Sea,* 249.
[33] Dugan, *Man Under the Sea,* 249-250.
[34] Dugan, *Man Under the Sea,* 250.

remained in its infancy by the end of the 1930s and most excavations were still completely relying on local divers for retrieving artifacts instead of archaeologists excavating the underwater sites themselves. The divers themselves were also limited in what they could excavate underwater. Most sponge divers used helmet diving suits, a simple diving apparatus whereby a metal hood is fitted over a divers head with a hose connecting the inside of the hood to the air above the water. This cumbersome and heavy suit made it difficult for the diver to move around underwater and its connecting hose added the risk of entanglement with the diver or other objects.

In 1940s, a key innovation in sustained diving emerged giving divers greater access to underwater historical sites with the invention of the Aqualung, the first self-contained underwater breathing apparatus now commonly known as SCUBA gear. Invented in France in 1943 by Jacques Ives Cousteau and Emile Gagnon, the Aqualung provided "compressed air from a cylinder at exactly the same pressure of the surrounding water, but only when the diver sucked on the mouthpiece"[35] The invention of the Aqualung proved a hallmark moment for undersea research because it permitted divers to swim freely without attachment to the surface, giving them the ability to conduct more thorough searches for undersea artifacts at longer intervals of time. Cousteau would be the first to test the invention with the assistance of his partner and friend, Frédéric Dumas. Dumas, like Cousteau, was a skilled spear fisherman and harbored a deep love for diving and adventure.[36] Together, the two would take part with the French Navy's newly created Undersea Research Group (Cousteau was its deputy commander and Dumas was its civilian advisor and chief diver) and quickly developed a passion for exploring and salvaging

[35] Goggin, "Underwater Archaeology," 348; Norton, *Stars*, 222.
[36] Norton, *Stars*, 219, 222.

undersea wrecks.[37, 38] Notably, Dumas' "hunger for treasure was insatiable" and he gathered so many salvaged artifacts from more recent wrecks that Cousteau jokingly wondered whether if he was "collecting household gear for a wedding he had failed to mention," foreshadowing the coming generations of shipwreck divers who would decorate their homes with their underwater discoveries.[39]

It did not take long for Cousteau and Dumas to lead an underwater excavation of their own. Dumas learned of the location of the remains of an ancient shipwreck off the coast of France at the island of Grand Congloue from an injured salvage diver, and with the assistance of archaeologist Fernand Benoit, the trio led a ten-year long underwater dig of the sunken ship starting in 1952. Bascom noted that this excavation was pioneering for the field of underwater archaeology as the first massive archaeological application of free-diving equipment and the use of an airlift system on a grand scale to clear away mud and bring up artifacts to the surface.[40] The air-lift worked by pumping air down to the bottom end of a metal tube, forcing the bubbles to rise and expand, "creating a partial vacuum" whereby anything in its path, whether it be mud or amphorae was sucked up to the surface.[41] It was a powerful tool that would be used by many during the early years of underwater archaeology, though Goggin would later criticize its use in Grand Congloue.[42] The excavation itself was certainly enormous and unprecedented. Cousteau created a whole new port on the nearby island so serve as a home base for the expedition. The port, which Dugan best described as "the newest village in France, founded by divers for the sole purpose of undersea science," was significant because it demonstrated that there was an

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[37] Brad Matsen, *Jacques Cousteau: the Sea King* (New York: Pantheon Books, 2009), 73.
[38] Norton, *Stars,* 224.
[39] Matsen, *Jacques Cousteau,* 68.
[40] Bascom, *Deep Water,* 91; Bascom, *Deep Water,* 92.
[41] Norton, *Stars,* 226.
[42] Goggin, "Underwater Archaeology," 349.

enthusiastic number of divers at the that time interested in diving for the purpose of salvaging historical artifacts.[43] The divers "would log 3,500 dives in the first season alone."[44] The excavation team would also make use of the latest underwater T.V. equipment to observe and direct the divers who in turn were able to bring up many artifacts and even identify the long dead the owner of the ship as Marcus Sestius.[45]

The excavation at Grand Congloue followed the same basic format as the early years of underwater archaeology in the Mediterranean. Sponge divers, fisherman, or amateur divers would accidentally discover wrecks on their own and academics from their respective Mediterranean countries would investigate, having divers other than themselves doing most of the underwater digging. Many later champions of the field of underwater archaeology would criticize this approach to underwater archaeology as mere underwater salvage. John Goggin criticized these early underwater exploits in his 1960 article "Underwater Archaeology: Its Natures and Limitations," stating "few achieve what we consider basic coverage in archaeology, that is, the presentation of field methods, adequate description of artifacts both quantitatively and qualitatively, a full discussion of their context, and the drawing of adequate conclusions."[46] What is more, the excavations didn't involve what Goggin and others would think as the most important part of underwater archaeology, that actual archaeologists themselves dive underwater to conduct the excavations.[47]

Notably, many of the reasons that that these early excavations did not meet the standards of underwater archaeology proposed by Goggin is due to the limitations of the technology of the time. Before the invention and popularity of SCUBA breathing apparatuses in the 1940s, diving

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[43] Dugan, *Man Under the Sea*, 245.
[44] Norton, *Stars*, 227.
[45] Bascom, *Deep Water,* 92; Goggin, "Underwater Archaeology," 349.
[46] Goggin, "Underwater Archaeology," 348.
[47] Goggin, "Underwater Archaeology," 350.

was more of a profession than a hobby that one could easily learn. What is more, the divers could only work on the ground for small intervals of time before needing to come back to the surface as most of the wrecks were so deep in the sea that divers were at risk of nitrogen narcosis and carbon dioxide poisoning as well as decompression sickness, commonly referred to as the "bends."[48, 49] Even with the invention of SCUBA gear, archaeologists would be slow to learn the techniques of diving in the coming decades until the revolutionary excavation at Cape Gelidonya in 1960, as will be discussed later.

Due to the limitations of early diving technology, the extent that sponge divers contributed in the early stage of underwater archaeology is noteworthy. The dangerous and adventurous life of the sponge divers are well chronicled. Karo explains that they "are a race or tribe apart, who have carried on their hazardous profession for generations" and journalist Peter Throckmorton (whose role in underwater archaeology will be discussed later) notes that for sponge divers, "every diving job is a race between the inevitable absorption of nitrogen into the body and time, the time that must be spent on the bottom to make money."[50, 51] It is little wonder then that the Mediterranean governments would naturally turn to the Greek sponge divers to take on the dangerous work of recovering artifacts from the ocean floor, and dangerous work it was. One diver died and two divers were permanently injured as a result of the Antikythera excavations and, during the Cape Artemision excavation, a diver trying to prove that underwater decompressing wasn't needed quickly rose to the surface from 140 feet "laughed at his cautious colleagues and fell down dead, blood vessels ruptured."[52, 53]

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[48] Norton, *Stars*, 240.
[49] Dugan, *Man Under the Sea*, 236.
[50] Karo, "Art," 180.
[51] Norton, *Stars*, 246.
[52] Dugan, *Man Under the Sea*, 236.
[53] Karo, "Art," 182.

The sponge divers' work on the early excavations has been both celebrated and criticized. Karo, writing from his experience as a land archaeologist, praised the work done by the sponge divers at the Antikythera wreck, proclaiming that the sponge divers worked "indefatigably, heroically" under less than ideal conditions and handled the artifacts with great care.[54] However, Norton was less sympathetic, saying "it was as if Tutankhamen's tomb had been excavated 'in five minute shifts by drunken stevedores, working in semi-darkness, dressed in American football pads with coal scuttles on their heads.'" Norton further comments that the divers used parts of the ancient artifacts they found as weights and to repair their air compressor and that they were slow to realize that the giant rocks they were moving away were "parts of a giant statue of Hercules," though he does blame this on the negative physiological effects of working 180 feet underwater.[55] In all, it seems that the sponge divers played a crucial role in opening up the possibilities of salvaging history from beneath the sea, but that their technology at the time limited their capabilities to perform underwater archaeology excavations to the standards held by later underwater archaeologists.

The excavation at Grand Congloue faced similar criticism even with the added mobility the Aqualung provided. Norton was heavily critical of the process of the excavation, calling the archaeologist who surveyed the excavation from the ship "tame" and proclaiming that it was a "great opportunity for underwater archaeology to come of age – and it was squandered."[56] According to Norton, the site was never mapped properly, the divers dug from the bottom of a slope and thus caused artifacts to mix and confuse the stratification, and they failed to realize that there were two shipwrecked vessels in the same mound, thus making Norton conclude that

[54] Karo, "Art," 181.
[55] Norton, *Stars*, 240.
[56] Norton, *Stars*, 227.

"much of the information that the project should have yielded" was lost.[57] Even the archaeologist on hand declared, "It's a disaster."[58] Bascom, while praising the advancement in technology and the enthusiasm of the divers, shares this criticism, stating that the "real archaeology was done at the surface" instead of at the underwater wreck site itself.[59] John Goggin would similarly criticize the excavation, condemning Cousteau's explanation that when the airlift would jam with amphora, "another diver with a hammer pulverized the obstacle" and implying that the excavation was more of a salvage operation than archaeology.[60] Cousteau's attitude toward the archaeologists also highlights the salvage-minded process of the operation, as he "considered archaeologists impractical pedants and ensured that they knew who was in charge."[61] Cousteau also showed similar disregard for the historic preservation of the many historical artifacts they found. Cousteau drank an ancient wine from a sealed amphora from the Congloue excavation with another archaeologist at a press conference without having the wine analyzed and he would routinely give out salvaged amphorae as presents to friends.[62] Dumas shared in Cousteau's salvaging practices, though later he would conduct himself more in line with the underwater archaeology practices championed by Goggin and take part in some of the defining excavations for the field of underwater archaeology.

Still, the excavation at Grand Congloue did foreshadow the effect that the Aqualung had on the growing popularity of diving and the influence that those early amateur divers would have on underwater excavations for the next decade. For once, one did not have to be a professional diver in order to explore the depths of the sea; all one needed was limited training and a sense of

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[57] Norton, *Stars*, 229.
[58] Norton, *Stars*, 228.
[59] Bascom, *Deep Water*, 91.
[60] Goggin, "Underwater Archaeology," 249-250.
[61] Norton, *Stars*, 227.
[62] Norton, *Stars*, 226, 229.

adventure and exploration to become an amateur diver. This seemingly new frontier would open up many opportunities for amateur divers to participate in their own form of underwater archaeology, treasure hunting.

Treasure Hunting in the Americas

While the waters of Europe continued to be explored for ancient artifacts, divers in the Americas stated realizing the potential of underwater salvage of shipwrecks and other historical artifacts. However, unlike the exploits of the salvage operations of historical artifacts in the Mediterranean, most of salvage that occurred in the Americas was done in the search of hidden treasures. Inspired by the potential of treasure-laden wrecks from the Age of Sail, a potential that could not be found in the ancient ships of the Mediterranean, treasure hunters and amateur divers focused their efforts on recovering historical artifacts to either sell or add to their own personal collections. However, as would best be seen in excavation of the *HMS Looe*, many of these treasure hunters began to take a keen interest in the historical value of the work they were doing.

One of the best insights into the early history of underwater archaeology in the Americas in the 1940s and early 1950s can be found in Jane Crile's biographical book, *Treasure-Diving Holidays*. Published in 1954, the book chronicles the adventures of Jane and Barney Crile as they and their children explored the underwater world in search of sunken treasure. The two developed a love of the ocean during the tail end of World War II when they took up the hobby of skin-diving on the California coast when Barney was stationed at the United States Naval Hospital in San Diego (Barney was a medical doctor whose father had founded the Cleveland Medical Clinic).[63, 64] Skin-diving allowed one to swim freely in the water with only rubber

[63] Hoek, *From Sky to Sea*, 85.
[64] Crile, *Treasure-Diving*, 11.

flippers on the feet and a rubber mask with a glass plate covering the eyes. Much like Cousteau and Dumas, the Criles used the technique to explore the underwater world and to hunt lobsters, abalone, octopus and other undersea creatures in their free time.[65] After World War II ended, the couple tried to "develop a simple and inexpensive underwater camera" whereby they ended up using a rubber "re-breather bag from an anesthetic machine" as a waterproof case.[66] Their foray into underwater photography earned them the attention of David Dyche, a man who for years had "dreamed of diving for sunken treasure and had burned with recurrent bouts of gold fever."[67] Dyche spent his youth salvaging items from the bottom of Lake Erie and, after training for deep diving in the Navy during World War II, founded the D.A. Dyche Salvage Company. Dyche had set his eyes on the Spanish Plate Fleet of 1715, 13 Spanish galleons that sank full of silver off the coast of Key Largo in the Florida Keys. According to Jane Crile, the legend "gave us gold fever," and in March 1947 the Criles joined Dyche on his quest to find the lost treasure[68]

The ambitious trio learned that they were not the only treasure hunters. When Jane Crile went to research the wreck at their public library, she found that the page containing the supposed location of the wreck was ripped out of a book, whose map was also missing.[69] On arrival at Miami, they met the manager of the Miami Sport Center, mentioned only by the name McDougal, whose hobby was also treasure hunting. He explained to the group that the story of the Spanish Plate Fleet was "as familiar as the story of Little Red Riding Hood."[70] Clearly, there were many people searching for sunken treasure in the Florida Keys in the 1940s, so much so that, when McDougal showed them a high-powered spear gun used to catch jellyfish, Dyche

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[65] Crile, *Treasure-Diving*, 11, 13.
[66] Crile, *Treasure-Diving*, 51, 53.
[67] Crile, *Treasure-Diving*, 110.
[68] Crile, *Treasure-Diving*, 110 -112; quote on p. 112.
[69] Crile, *Treasure-Diving*, 112.
[70] Crile, *Treasure-Diving*, 113.

"muttered that with so many treasure hunters infesting the Keys what we really need was a machine gun to take care of hijackers."[71]

Dyche and the Criles never found the lost Spanish gold, but they did gain experience using the "Jackie Brown shallow diving gear."[72] The Jackie Brown was made out of a glass plate that fit over one's eyes, nose, and mouth, also with a hundred-foot hose which brought fresh air from an air compressor on the surface to the mask, with the exhaled air escaping via an exhaust valve, allowing the treasure hunters of the Caribbean to search in depths of up to sixty feet[73] It was a step away from the freedom offered by the Aqualung as the diver's movements were still restricted by the hose attaching them to the surface, but treasure hunters in the Caribbean would heavily use it.

The Criles would eventually return to searching for wrecks in the Delta Shoal off the coast of the Florida Keys on the advice from Bill Thompson, the operator of tourist cottages in Marathon who himself had pulled up a cannon from a wrecked ship earlier. Upon the Criles' discovery of another cannon and a formation that resembled the shape of the bow of a ship, Thompson put them in contact with Halley Hamlin, another treasure hunter who had invented a midget sized submarine for the sole purpose of scrounging the ocean floor for man-made objects.[74] Hamlin made the money to build the submersible from the dangerous but rewarding job of "setting the pilings of the Golden Gate Bridge," and was described by Jane Crile as having all of the "intrepid qualities of a treasure hunter."[75] Barney Crile suggested that they blow up the

[71] Crile, *Treasure-Diving*, 114.
[72] Crile, *Treasure-Diving*, 115.
[73] Crile, *Treasure-Diving*, 115-116.
[74] Crile, *Treasure-Diving*, 160-163.
[75] Crile, *Treasure-Diving*, 163.

bow shaped formation with dynamite to "see what's under it," and Hamlin agreed to "split what they find" in return for his help in the salvage.[76]

Hamlin and the Criles met at the wreck site the following day, and were joined by local treasure hunter Arthur McKee and his friend Charlie Slater, a spear-fisher who had found an ivory elephant tusk near the wreck site a couple weeks before. As the "owner and chief supplier of The Museum of Sunken Treasure on Plantation key" Arthur McKee was by all accounts a professional treasure hunter, though he treated his salvage much more carefully than what the Criles had in mind.[77] McKee advised them not to use dynamite and began to teach the Criles "a philosophy of treasure hunting."[78] To McKee, treasure "was not just gold and silver, but all the homely little articles that people have lived by in past centuries."[79] This attitude and appreciation for history would extend to the Crile's as well. Jane Crile recounts that:

> "At first we had been obsessed by the search for gold and silver. But now that we had dug through a section of the ship, the pots and pans and all the broken utensils became treasure in their own right. We were falling into McKee's pattern of thought and into that of every archaeologist."[80]

It would certainly be premature to call what these treasure hunters were doing archaeology, as the group did not follow the academic rigor championed by Goggin, but their appreciation for the history behind the artifacts they were salvaging would stay with them throughout the coming decades and influence their involvement with later excavations critical to the professionalization of the field of underwater archaeology.

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[76] Crile, *Treasure-Diving*, 165.
[77] Hoek, *From Sky to Sea*, 85.
[78] Crile, *Treasure-Diving*, 167.
[79] Crile, *Treasure-Diving*, 167.
[80] Crile, *Treasure-Diving*, 172.

The excavation team ended up salvaging a wide array of long lost material from the wreck. They dug an "eight feet long, five feet wide, and three feet deep" cross-section of the ship over three days of underwater excavation.[81] By the time they finished, they had recovered a variety of historical artifacts including a musket, brass cooking kettles, musket balls, cannon balls, blue and white china fragments, and twelve more elephant tusks.[82] They were also able to raise a seven foot long saker cannon. The Crile's tried investigating the origin of the cannon by sending pictures to Spanish Embassy, the National Maritime Museum in Greenwich, and a friend in Paris who talked with both the directeur des Musées Nationaux at the Louvre and General directeur du Musées d'Armée at the Invalides, but none of these contacts were able to identify the cannon. They would eventually leave the wreck after their excavation, ironically worrying that others would find what was left of the wreck and "dynamite it to bits."[83] The Criles ended up stashing their share of the haul, including the cannon, in their stone-floored dining room at their home in Cleveland.[84] Unfortunately, this led to the cannon disintegrating, as the artifact was unable to stand not being submerged in seawater. As Jane Crile lamented, "with its dissolution has passed the last of our tangible clues to the identity of the Ivory Wreck."[85]

The Ivory Wreck, as the Jane Crile called it, showed the dangers treasure hunting could pose to the underwater archaeology goal of gaining the most historical interpretation out of a wreck. However, it also showed how treasure hunting could lead to a historically focused curiosity to what was being salvaged. The Crile's efforts to identify the origin of the salvaged cannon show just that. While having no professional training in archaeology or history, the Criles were independently starting to develop an inclination to learn about the historical origins of the

[81] Crile, *Treasure-Diving,* 171.
[82] Crile, *Treasure-Diving,* 167.
[83]Crile, *Treasure-Diving,* 174-175; quote on p 174.
[84] Crile, *Treasure-Diving,* 51, 176.
[85] Crile, *Treasure-Diving,* 176.

treasure they were salvaging. Still, they were under what Jane would constantly call "gold fever" and it would be this inclination that would lead Jane and Barney Crile, Bill Thompson, David Dyche, and Jim and Mary Rand to discover the wreck at Looe Key.[86]

Jane Crile stated that fascination with Looe Key, a small sandbar of an island on the outer reef of the Florida Keys, fueled a legend that, in the past, a hermit had lived on the island and had guarded a stash of silver in the sea. The hermit was no longer there, though Thompson did spot a cannon on the sea floor near Looe Key previously and, with the legend of the hermit's silver in mind, the Criles, Thompson, Dyche, and the Rands set off to see what they could find in 1950.[87] They ended up discovering the massive wreckage of a ship. Dyche discovered a coin dating from 1720, but the interest of the entire crew was focused on what seemed to be buried bars of heavy silver ingots.[88] After failing to hack off bits of the ingots, Dyche ended up salvaging more coins and a tankard and loudly proclaimed that "I have a p-p-private mine down there" and that "these s-s-silver buttons are going to look just fine on my g-g-green jacket" (Dyche had a speech impediment which Jane Crile mentioned in her book).[89] Jane Crile explains that these statements caused some anxiety among the crew as they each imagined themselves possessing the "spoils."[90] Dyche immediately agreed to share the salvaged items by drawing lots, explaining that, among treasure hunters, "that's the way we always divide things."[91] This idea of diving for treasure and the fear of losing such treasure was a central theme of the origins of the Looe Key expedition. Jane Crile stated that they could "call on the Coast Guard for protection against hijackers" and that when they found the coins and ingots, "our only worries had been

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[86] Crile, *Treasure-Diving*, 108.
[87] Crile, *Treasure-Diving*, 177, 189.
[88] Crile, *Treasure-Diving*, 180.
[89] Crile, *Treasure-Diving*, 182.
[90] Crile, *Treasure-Diving*, 183.
[91] Crile, *Treasure-Diving*, 184.

hijackers and the income tax."[92] After waiting out the hurricane season, the group returned to Looe Key in 1951, this time much more prepared and equipped to deal with the long-term excavation of the wreck. Many prominent figures in the early years of amateur underwater archaeology joined them such as Edwin Link, Art McKee, and Mendel Peterson.

Born in 1904 in Indiana, Edwin Link (known to everyone as simply Ed) spent his childhood designing his own inventions, including a sketch of an underwater submarine, and was recognized for his ability to "rearrange existing hardware to make new things that would work in new ways."[93] With a keen interest in aviation and distaste for formal education, Link spent his free time working for barnstormers and taking private lessons.[94] After becoming concerned with the dangers of learning to fly an aircraft in the air, Link created the "Link Trainer," a flight simulator meant to teach pilots how to fly before setting foot in a cockpit.[95] The Link Trainer would eventually "lead to instrument flight, new navigation techniques, jet-aged computerized simulators, and training simulators for ship's pilots and astronauts" and, through his company Link Aviations, Link made enough money to pursue other adventures.[96] After the war, Link took up sailing with his wife, Marion Clayton Link, a former journalist who shared Ed's taste for adventure, and began the process of "phasing himself out" of his company's business.[97] However, "cruising alone would not satisfy him for long" because, to Link, working and solving problems was "something worthwhile."[98] So, when the Links heard about the Looe expedition, "Ed was hooked" because it allowed him an outlet for his desire to work and a way to fulfill his

[92] Crile, *Treasure-Diving*, 185, 191.
[93] Hoek, *From Sky to Sea*, 1, 11, 13.
[94] Hoek, *From Sky to Sea*, 16, 22.
[95] Hoek, *From Sky to Sea*, 21, 23.
[96] Hoek, *From Sky to Sea*, 25.
[97] Hoek, *From Sky to Sea*, 78.
[98] Hoek, *From Sky to Sea*, 76.

childhood curiosity of finding out "what it was like under the sea."[99] Ed and Marion Link, as well as their hired deckhand known only as Vital, joined the others on the Looe Key expedition 1951 with the Link's sloop, *Blue Heron.*[100]

Mendel "Pete" Peterson, like almost everyone at the Looe Key expedition, held a deep interest in the history of what they were salvaging; however, unlike anyone else, he was by far the most academically qualified diver among them. Born in Moore, Idaho, Peterson started his interest into the ocean when he joined the Navy in 1943 serving in the Pacific theater of World War II.[101] While in the Navy, Peterson relaxed when off-duty by "dabbling around with shallow water diving gear," a hobby which "triggered a lifelong interest" in the underwater world[102] He continued serving in the Navy as a supply officer until the Smithsonian Institution hired him in 1948. He was working as the United States National Museum's Head Curator of the Division of Military and Naval History when he joined the Looe Key expedition[103] Peterson would prove to be a central figure in bringing underwater salvage into the academic realm of underwater archaeology and, according to a 2003 *Washington Post* article, would come to be known as 'the father of underwater archaeology.'"[104]

The excavation appeared as a chaotic yet bountiful salvaging operation. McKee and fisherman Harry Reith also joining the expedition with the later's "thirty-foot fish boat, the *Little Whale*," adding to what Jane Crile described as the confusion, excitement, and "anarchistic order" of the tangle of Jackie-Brown air hoses, jet hoses, anchor ropes, ascent ropes, and airlift

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[99] Hoek, *From Sky to Sea*, 84.
[100] Hoek, *From Sky to Sea*, 69, 84.
[101] Bart Barnes, "Smithsonian's Mendel Peterson Dies," *The Washington Post*, August 28, 2003, accessed May 1, 2019, https://www.washingtonpost.com/archive/local/2003/08/28/smithsonians-mendel-peterson-dies/b7f6e024-7e0f-4580-afc4-35a5970cfe05/?noredirect=on&utm_term=.383c7c4b56b8.
[102] Barnes "Peterson Dies;" Heller, "Finding History," 492, SIA, Acc. 02-167, Box 1, Folder 1, DHA, BF.
[103] SIA, RU 381, NAMA, DHA, R. acc. April 30, 2019.
[104] Barnes "Peterson Dies."

hoses as the adults dug in the water and the children swam around and assisted with the excavation if needed, all while barracudas swam around curiously observing the commotion.[105] The excavation of the site seemed to a mixture of careful treatment of the historical artifacts they salvaged and a rush to get as much material out of the water as possible. The airlift that was used to dig away sand and coral also sucked up "bones, broken glass, fragments of pottery, and an occasional coin" similarly to the way the airlift would be used the following year at Grand Congloue. McKee, wearing a diving hood, employed the jet hose to carefully blow the sand away "layer by layer" and picked up any manmade material uncovered.[106] Link, with help from the Criles, was able to lift up a coral-encrusted cannon they found on the seafloor and transport it to shore.[107] On shore, Peterson "attacked it with a sledge hammer" to clear away the inch-thick coral and discovered a raised pattern designation the cannon as belonging to a "British man-of-war."[108] The entire diving portion of the excavation only took eight days.[109]

Along with the cannon, the expedition salvaged many other relics. Over a hundred different sized caliber cannonballs, musket barrels, various fragments of pottery, a door lock, forty-one pieces of animal bone, a "perfectly preserved Queen Anne pewter teapot," and a Swedish coin dating from 1720 were recovered.[110] They stored the artifacts in Bill Thompson's backyard, with Peterson storing all the material made out of iron in "barrels of fresh water" in order to "leach out the salt that had…premeditated the iron" and thus prevent the disintegration of the artifacts.[111] Later, Peterson took "the most important relics" to the Smithsonian Institution where they were stored in zinc. He also sent material to the Smithsonian's division of ethnology

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[105] Crile, *Treasure-Diving,* 194, 197.
[106] Crile, *Treasure-Diving,* 197.
[107] Crile, *Treasure-Diving,* 210.
[108] Crile, *Treasure-Diving,* 212, 214.
[109] Crile, *Treasure-Diving,* 214.
[110] Crile, *Treasure-Diving,* 212-214.
[111] Crile, *Treasure-Diving,* 213.

for identification.[112] With the date on the Swedish coin, the symbols on the cannon, and the report from the Smithsonian, the group determined that the ship sank somewhere between 1720 and 1750.[113]

Peterson used the information gained from the artifacts to scan his records of ships from that time period and deduced that the ship they had found was the H.M.S. *Looe,* which sank on February 5, 1744, ironically giving the location of Looe Key its name. Jane and Barney Crile then went to the Public Records Office in London (Barney was already scheduled to go to London as part of a tour of European surgical clinics) to look over the records of the wrecked ship. Looking through the Admiralty's Letters, Jane Crile discovered that Ashby Utting captained the frigate H.M.S. *Looe* when it ran aground on a sandbar now known as Looe Key. The frigate had captured a Spanish merchant ship called the *Snow* the previous day and was being towed by the *Looe* when they both hit the key; the *Snow* capsized and sank as well. Seeing as there was no saving the ship and under the constant fear of the Native Americans of Florida, Utting ordered the crew to use the longboats the *Looe* carried to capture a Spanish sloop that happened to pass by and, three days later on February 8th, and set fire to the *Looe* with their remaining gunpowder they salvaged in the vain hope that none of the anchors or cannons would be salvaged by the Spanish. The crew then sailed to safety in the captured sloop and remaining longboats with no hands lost.[114]

The 1951 excavation of the H.M.S. *Looe* proved to be a defining moment for many who took part in the excavation and offered an important look at the implications of how amateur divers and treasure hunters, who were not academically trained archaeologists, would take part in their own form of underwater archaeology. Peterson displayed the *Looe* artifacts in an exhibit at

[112] Crile, *Treasure-Diving,* 213.
[113] Crile, *Treasure-Diving,* 214.
[114] Crile, *Treasure-Diving,* 216, 218, 220 - 224.

the Smithsonian that year and he started to take an active interest into the possibilities that underwater excavations could have on maritime history in the coming decade.[115] Peterson, who Marion Link credited as channeling Edwin Link's interest in underwater world into the field of marine archaeology, ended up becoming close friends with the Links and would participate together on a number of groundbreaking underwater excavations in the coming decade.[116] Almost everyone else involved in the excavation, including Jane and Barney Crile and Art McKee would continue exploring underneath the sea for lost human treasures and participate in many other underwater excavations.

The excavation itself could best be described as some form of pseudo-archaeology, that is, a mix of some real archaeological techniques with mostly informal techniques designed to salvage as much material as possible in a short amount of time. The comments of many of the principle characters involved in the excavation make it clear that excavation of the wreck was started due to the hope of finding treasure. Jane Crile describes how the original party of Thompson, Dyche, the Rands, and the Criles first traveled to Looe Key under the pretense that there could be a stash of silver bars hidden in a shipwreck. Even when they started bringing up the everyday artifacts of the former occupants of the ship, the group started to grow suspicious of everyone else taking the salvaged artifacts for themselves and ended up drawing lots to see who got to keep which artifacts, a process much more inline with treasure hunting then academic archaeology.

The second and more extensive eight-day excavation was more academically minded though it still retained that treasure hunting zeal. The involvement of Mendel Peterson and the Smithsonian added some academic credibility to the work. As the curator of the Smithsonian's

[115] Crile, *Treasure-Diving,* 215.
[116] Hoek, *From Sky to Sea*, 85.

department of Naval History, Peterson was most likely more interested in the historical implications of the excavation than anyone else who participated. Under his watch, the artifacts that were salvaged were protected from the eroding and destructive process that the salvaged artifacts from the Ivory Wreck faced earlier. Peterson ended up taking many of the artifacts with him for further study and display at the Smithsonian instead of adding them to a private collection, something that many treasure hunters did. There also appeared to be an intense study to find out the history of the ship. The use of the coin and Smithsonian ethnographic reports to obtain a relative dating range of when the ship sank, together with Jane Crile's search through the archives of the Admiralty's Letters to corroborate the name and fate of the ship demonstrate a willingness among the participants of the excavation to seriously research the history of the ship and items they were salvaging.

Later archaeologists criticized the excavation as more salvage then archaeology. John Goggin would criticize Peterson's 1955 report of the excavation, titled "The Last Cruise of H.M.S. Looe," saying that "few artifacts are mentioned in the text with some illustrations, but no adequate description of them is given and, above all, no counts or even approximations of absolute or relative quantities of these specimens," and that the artifacts were only used as "an aid in the identification of a ship."[117] To Goggin, the artifacts salvaged from the H.M.S. *Looe* only served the purpose of identifying the ship and were "otherwise…virtually ignored" as to the additional historical information that could be obtained such as the proportion of the different types of pottery and porcelain found.[118] The excavation itself also had no professional archaeologists monitoring the process, with the closest academic authority being Peterson. The

[117] Goggin, "Underwater Archaeology," 349.
[118] Goggin, "Underwater Archaeology," 349.

rest of the excavation team were simply diving enthusiasts who were looking to utilize their skills of underwater diving to search for underwater relics with an added sense of adventure.

The excavation at Looe Key foreshadowed how amateur divers, treasure hunters, and other non-archaeologists would go about conducting their own underwater excavations in the Americas for the next decade. The excavation of the H.M.S. *Looe* probably can not be stated as anything more than underwater salvage by modern underwater archaeology standards; however, it opened the door for many non-archaeologists to realize the possibilities of discovering historical remains underwater. Perhaps the excavation's most important legacy could be that it sparked a deep passion for underwater excavations in Mendel Peterson and Edwin and Marion Link, three non-archaeologists who would play a crucial role in bringing legitimacy and a sense of academic order to the various underwater salvaging operations what would start to take place.

The Academic Adventures of Link and Peterson

Perhaps the two most important non-archaeologists who contributed to the creation of the field of underwater archaeology, Edwin Link and Mendel Peterson, spent much of their lives striving to professionalize the growing field. Most of their early work fell into the category of underwater salvage, as did almost every underwater excavation in the early 1950s, but their focus on the history and academic potential of the growing field led them to seek a sense of professionalism that was missing from the early underwater archaeology exploits of the 1950s American excavations. They also strived to offer guidance to the growing number of amateur divers and treasure hunters in proper underwater archaeology techniques.

Although they were not academically trained archaeologists, Link and Peterson shared a deep passion for the history of what could be discovered under the sea rather than the monetary

value. According to James S. Potter, an amateur American diver who himself wrote a book detailing the techniques and history of treasure diving, *The Treasure Diver's Guide*, when "treasure hunting fever spread," both Ed Link and Mendel Peterson "worked hard to bring order to the secrecy and suspicion that sprang up with the discovery of wrecks, and to stop their senseless destruction by hit-and-run dynamiters looking for a fast buck."[119] Dugan shares this view of Link, stating that he was a "new type of treasure hunter…who made no nose about gold, but energetically began to search for history in the wrecks."[120] An article in the November 1955 issue of *Natural History* further corroborates Link and Peterson's intentions, saying, "the Peterson-Link explorations are carried on to gain knowledge and not as personal search for sunken treasure."[121] As Hoek states in her biographical work of Link, Link was already a millionaire by the time he started taking an interest in wrecks, so, to him "wealth…was never itself a source of satisfaction" and therefore he was not interested in underwater salvage just for the prospect of finding treasure for a monetary value.[122] Ed Link said as much himself, stating in an interview "I've never been much interested in money, though you have to have it to survive."[123] By 1953, while the "excitement of treasure diving was not yet out of their system," Ed and Marion "refused to be placed in such a limiting niche" as treasure hunters.[124] Marion explained, "we told ourselves we were not treasure hunters but scientific seekers in the field of marine archaeology…we wanted to be marine archaeologists."[125] According to Hoek, Link also realized, "a major discovery of treasure would ultimately involve more hassle than it would be

[119] Potter, *Treasure Divers Guide*, 113.
[120] Dugan, *Man Under the Sea*, 258.
[121] Heller, "Finding History," 494, SIA, Acc. 02-167, Box 1, Folder 1, NMHT, DHA, BF.
[122] Hoek, *From Sky to Sea*, 75.
[123] Hoek, *From Sky to Sea*, 76.
[124] Hoek, *From Sky to Sea*, 97.
[125] Hoek, *From Sky to Sea*, 97.

worth."[126] Of course, this is not to say that Link did not converse with other well-known treasure hunters or that he did not take part in activities that fell into the realm of treasure hunting. For instance, in Potter's treasure hunting handbook, Potter mentions that he used a modified military magnetometer for a treasure salvage operation at Vigo Bay "at [Link's] suggestion."[127] However, Coles Phinizy, writing in an article for *Sports Illustrated*, more accurately describes Link's motivations saying, "For a hunter of Ed Link's experience, a cannon, just any cannon, is not enough. The hunt is a success only if it contributes in some way to history."[128] It is apparent that Edwin and Marion Link were not motivated by the prospect of finding underwater treasure for personal gain from the beginning of their salvaging exploits.

Mendel Peterson was similarly uninterested in the personal gains of salvaging underwater wrecks. Instead, Peterson was interested in the history of underwater wrecks from the beginning and decided to "go into undersea exploration on a systematic and regular basis."[129] An example of Peterson's interest in nautical history can be seen in the May 3rd, 1964 *Herald-Advertiser* article when he sates that while they may find Spanish gold in the excavation of a 1560 Spanish wreck off Bermuda, "more importantly a valuable collection of artifacts may be recovered and we may also gain more knowledge of Spanish ship construction in this period."[130] As a result of these ideals, Peterson was instrumental in the Smithsonian Institution's involvement with early underwater archaeology. According to the Smithsonian Institution Archive's notes, "The study of underwater historic archeology at the Smithsonian was begun in 1952 by Mendel Peterson."[131]

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[126] Hoek, *From Sky to Sea*, 96.
[127] John S. Potter, Jr., *Supplemental Forward to The Treasure Diver's Guide* (Port Salerno, FL: Florida Classics Library, 1988), 1.
[128] Phinizy, "Missing Link."
[129] Heller, "Finding History," 494, SIA, Acc. 02-167, Box 1, Folder 1, NMHT, DHA, BF.
[130] "Earliest Shipwreck," SIA, Acc. 02-167, Box 1, Folder 2, NMHT, DHA, BF.
[131] Smithsonian Institution Archives, Agency history, 1969-1973, Notes, accessed May 1, 2019, https://siarchives.si.edu/collections/siris_arc_220975.

After the Looe Key excavation in 1951, Peterson started the Smithsonian Marine Archaeology Project and arranged to display the artifacts collected during his excavations in the Smithsonian's National Museum.[132] It was Peterson's hope that a "systematic program of study, exploration, and recovery of objects obtained from these shipwrecks will broaden our understanding…of Americas early sea history."[133] Because of Peterson's program, the Smithsonian Institution played an active role in taking part in or financing underwater archaeological expeditions in the Americas throughout the 1950s and 1960s. According to the records of the Smithsonian Museum of History and Technology, out of 61 total Historic Archaeology Field Work projects, 24 of those projects fell under the category of "maritime & underwater" from 1958 to 1968.[134] Furthermore, the total amount of government funds used for those 24 projects was $71,134, more than the amount spent on "ground" projects ($70,996) and "industrial" projects ($20,040).[135] The maritime and underwater projects also received $94,020 of private funding, making the total expender of maritime and underwater projects add up to $165,154, more than the total cost of ground and industrial projects combined.[136] These records show that Peterson and the Smithsonian were heavily invested in early underwater archaeological excavations. They also show that they were aware of the value of outside help in finding and funding underwater excavations and made considerable use of outside assistance.

As a self taught diver and underwater explorer himself, Peterson thought that there was inherent vale in using amateur divers and treasure hunters for locating and excavating wrecks during the early years of underwater archaeology. In the previously mentioned November 1955

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[132] Heller, "Finding History," 494, SIA, Acc. 02-167, Box 1, Folder 1, NMHT, DHA, BF.
[133] Heller, "Finding History," 494, SIA, Acc. 02-167, Box 1, Folder 1, NMHT, DHA, BF.
[134] "MHT Historic Archaeology Field Work 1958-1968," Smithsonian Institution Archives, RU 381, Box 9, Smithsonian Project - Historical Archaeology, NMHT, DHA, R, circa 1952-1976.
[135] "MHT," SIA, RU 381, Box 9, SP-HA, NMHT, DHA, R.
[136] "MHT," SIA, RU 381, Box 9, SP-HA, NMHT, DHA, R.

Natural History article, Peterson stated that the easiest way to identify a shipwreck site is where an "unidentified shipwreck is discovered by somebody – fishermen, sailors, or beachcombers perhaps. Objects from it are salvaged and its identity is established."[137] Here, Peterson explains how he believes that the best way to locate wrecks is for divers and fisherman (not historians or archaeologists) to discover them on their own, the same way sponge divers and fisherman were helping to discover most of the underwater wrecks in the Mediterranean. Peterson also worked with and spoke highly of two well-known treasure hunters, Edward B. "Teddy" Tucker and Robert Canton (who was Tucker's brother-in-law).[138] Tucker and Canton perhaps represented the epitome of treasure hutting in the Caribbean in the 1950s and 1960s. In 1950, the pair found and salvaged six cannons from a wreck dubbed the "Old Spaniard" off the coast of Bermuda and sold them to the Bermuda's Monuments Trust.[139] Later in 1955, Tucker and Canton used an air lift and water jet to further dig out the wreck from the sand floor and "accomplished the first major salvage of Spanish treasure in the Western Hemisphere" since the Age of Sail, finding, among other artifacts, 2,000 silver coins, two gold bars, and a golden crucifix filled with seven "Columbian emeralds."[140] According to Potter, when Tucker and Canton publicized their finds in *Life* magazine, "there were no clear-cut Bermuda laws covering the rights to such salvage," causing some confrontation between the government.[141] The matter was resolved only when Ed Link and Peterson traveled with Tucker and a Bermudian government official to the treasure site. Peterson "offered $2,000 for a gold bar" and the government official matched the offer, which created a precedent whereby all treasure or artifacts found near Bermuda must be "registered by Bermuda's Receiver of Wrecks" and offered to Bermuda for "first refusal, and sold at a price

[137] Heller, "Finding History," 494, SIA, Acc. 02-167, Box 1, Folder 1, NMHT, DHA, BF.
[138] Potter, *Treasure Divers Guide,* 280.
[139] Peterson, *History Under the Sea,* 16; Potter, *Treasure Divers Guide,* 281.
[140] Potter, *Treasure Divers Guide,* 281.
[141] Potter, *Treasure Divers Guide,* 283.

usually fixed by the government's own curators."[142] Potter explains that Tucker and Peterson "developed a close working relationship" whereby Tucker "devotes some two months each year working with Peterson's division at the Smithsonian Institution."[143] Peterson seemed to support Tucker and Canton's exploits as he would state, in an August 4, 1962 *Bermuda News Pictorial* article titled "Treasure Expert Back in Bermuda for New Quest," that they were "the outstanding team of divers in Western Hemisphere. They've done more to publicize Bermuda than anyone else in your history."[144]

Peterson's friendly relationship with Tucker and Canton appeared to be mutually beneficial; while Peterson gave Tucker and Canton a sense of academic legitimization in their salvage operations, Peterson benefited from the use of Tucker and Canton's salvaging equipment and help in salvaging artifacts Peterson deemed historically important. Peterson also received funding from Link; indeed, Potter explained that Link's "endowments to the Smithsonian Institution made possible a large part of the first historical work carried out along the [Florida] Keys."[145] The aforementioned 1964 *Herald-Advertiser* article further supports this relationship, saying that "preliminary exploration" of a 1590 Spanish shipwreck explored by Peterson and Tucker in 1964 "has been made possible through facilities provided by Mr. Tucker and E. A. Link."[146] However, Link did more than just finance Peterson's work with the Smithsonian. As a diver just as interested in the historical value of exploring underwater wrecks as Peterson, Link would set himself apart from treasure hunters like Tucker and Canton by taking a more academic approach in his underwater excavations.

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[142] Potter, *Treasure Divers Guide,* 283.
[143] Potter, *Treasure Divers Guide,* 284.
[144] "Treasure Expert," SIA, Acc. 02-167, Box 1, Folder 1, NMHT, DHA, BF.
[145] Potter, *Treasure Divers Guide,* 120.
[146] "Earliest Shipwreck," SIA, Acc. 02-167, Box 1, Folder 2, NMHT, DHA, BF.

After Edwin and Marion Link's introduction to underwater salvage during the Looe Key excavation in 1951, Ed realized that he might have found another outlet for is inventive mind. Ed stated that, "unlike pleasure cruising," underwater salvage "was something he could do at sea that required ingenuity."[147] Marion Link credits Peterson for channeling Edwin Link's "interests in the underwater world into the field of marine archaeology" and states that what started out as "a new sport soon resolved itself into a consuming and enthralling interest in the past histories of that part of the New World."[148] In May 1952, to accommodate the couple's newfound desire to explore maritime history underneath the sea, the Links replaced their previous ship, the *Blue Heron,* with the *Sea Diver*.[149] To accommodate Ed's aim for "scientific sufficiency," the 65-foot trawler was built to "accommodate the equipment needed for salvage diving on wreck sites" and was described by Peterson as "the finest vessel of its type engaging in exploring historic underwater sites."[150] After Link effectively retired from leading his company, Link Aviation, he set his sites on retracing Christopher Columbus's first voyage to the Americas and finding the wreck of his lost ship, *Santa Maria*.[151] After visiting libraries and archives in Cuba where the Links heavily researched everything they could find on Columbus's voyage, the couple set off on February 1955. Along with their friend, navigator Philip Van Horn Weems, and "Captain" Ed Kemp, a "Bahamian seafarer," the Links searched the waters of Cap Haitien, Haiti for two weeks when Marion discovered an anchor "thought to very likely be from the *Santa Maria*."[152] Using *Sea Diver*, the crew raised the anchor and pondered over its authenticity.[153] It matched another anchor thought to be from Columbus's fleet, which was displayed at the National Museum at

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[147] Hoek, *From Sky to Sea*, 86.
[148] Hoek, *From Sky to Sea*, 91.
[149] Hoek, *From Sky to Sea*, 92.
[150] Hoek, *From Sky to Sea*, 182; Peterson, *History Under the Sea*, 13.
[151] Hoek, *From Sky to Sea*, 97-98.
[152] Hoek, *From Sky to Sea*, 101, 102, 108.
[153] Hoek, *From Sky to Sea*, 108.

Port-au-Prince in Haiti, though that anchor was found in a different location. Peterson traveled to the site and "studied the anchor thoroughly," and, after sending samples of the metal to the U.S. Bureau of Standards, came to the conclusion that the anchors found at Cap Haitien and displayed at Pot-au-Prince came from the *Santa Maria*.[154] Marion concluded that the anchor was salvaged from the original resting place of the *Santa Maria* wreck by local fisherman and used as a "fishing trap weight" before being lost at its final resting place at Cap Haitien.[155] The Links ended up giving the anchor to the Haitian government who later donated the anchor to the Smithsonian Institution.[156]

The Links never discovered the wreck of the *Santa Maria*, but they did manage to explore Columbus's perceived rout with the help of Peterson and Weems. Using Columbus's journal from the voyage, the group retraced Columbus's route aboard *Sea Diver* and came to the conclusion that Columbus "landed first at Caicos and from there followed a course from Mayaguana, to Samana to Long island, and from there to Crooked island, the Ragged islands, the Columbus banks and Cuba."[157] The Links published this theory in a 1956 Smithsonian Institution paper titled, *A New Theory on Columbus's Voyage Through the Bahamas,* with a foreword by Peterson.[158] The Link's dedication to searching for the *Santa Maria*, finding of the true route made by Columbus, and subsequent publication of an academic paper shows that the Links had a desire to add to the historical knowledge of maritime history, not just salvage from it. The salvage of the anchor was probably not up to the standards of underwater archaeology highlighted by Goggin, as no one on the crew was an academically trained archaeologist and most measurements took place when it was removed from its original resting place, but Link and

[154] Hoek, *From Sky to Sea*, 109.
[155] Hoek, *From Sky to Sea*, 110.
[156] Potter, *Treasure Divers Guide* 113.
[157] Hoek, *From Sky to Sea*, 127.
[158] Hoek, *From Sky to Sea*, 180.

Peterson's later analysis showed that they were both more interested with taking an academic approach to their underwater salvage and able to put in the hard work such an approach entailed.

The Links still involved themselves in other excavations under the pretense of hunting for sunken treasure, though treasure was no longer the Links' primary motivation. In May 1956, Art McKee approached the Links with the possibility of finding sunken treasure at a shipwreck he had "visited the previous January off the coast of Kingston, Jamaica" at Banner Reef.[159] Hoek explains that McKee was "eager to pursue his dream of finding that one great and elusive treasure which he was convinced would one day be his."[160] However, Marion Link recounts that, "Ed did not get excited over Art's story" and only agreed to participate in the salvage operation since they wanted to explore the nearby "sunken city of Port Royal off Kingston Harbor" in Jamaica.[161] The participants in the expedition included Barney and Jane Crile, Fred Logan (a diver from Florida), Mendel Peterson, John Cebula (a family friend), Art McKee, Coles Phinizy from *Spots Illustrated*, and Peter Stackpole from *Life* magazine.[162] Marion recounted how McKee was obsessed with finding "his pot of gold at the end of the rainbow" and how constant delays and difficulties due to the weather and strong current around the wreck caused Barney Crile to observe "Art is nearly crazy because everything seems to prevent his finding the treasure."[163] McKee seemed to be the only one of the crew solely interested in exploring the wreck purely for treasure, as Barney further stated, "Ed is perfectly happy as long as he has something to repair…Jane and I [Barney] want nothing but a chance to take pictures. Fred is only content is he is skin diving."[164] The crew never ended up finding any treasure that would

[159] Hoek, *From Sky to Sea*, 130.
[160] Hoek, *From Sky to Sea*, 130.
[161] Hoek, *From Sky to Sea*, 131.
[162] Hoek, *From Sky to Sea*, 131, 106; Phinizy, "Missing Link."
[163] Hoek, *From Sky to Sea*, 136.
[164] Hoek, *From Sky to Sea*, 136.

indicate the wreck as a Spanish galleon, but they did find what appeared to be "merchandise of a small trading ship" and subsequently used the salvaged "old silver from the wreck" to decorate the table for Ed and Marion's 25th anniversary dinner.[165]

The Banner Reef expedition was a classic 1950s underwater treasure hunt, an expedition that did not result in the finding of traditional treasure, but instead many historical artifacts that were quickly salvaged from the water with little or no measurements or scientific analysis characteristic of underwater archaeology. The use of these salvaged artifacts as personal souvenirs to decorate the homes and ships of divers and treasure hunters was a common theme of early underwater salvage in the 1950s and something that the Link's and nearly every other amateur diver and salvager participated in. However, this expedition also serves as to separate the early amateur divers and treasure hunters into two distinct groups. There were those like Art McKee, who were motivated in their underwater efforts by the lure of sunken treasure, and those like Ed and Marion Link who were becoming more and more interested in the history that could be learned for searching under the sea. Jane Crile described McKee as someone who treated underwater sites with care and valued the slow process of digging over blowing everything away with dynamite.[166] However, Marion Link and Barney Crile's description of McKee paint him as someone who, at the end of the day, seemed to be dedicated to the business of treasure hunting. The Links, on the other hand, were transitioning from amateur divers to underwater historians more in line with Peterson's academic approach. This is made most apparent in the excavation of Port Royal.

[165] Hoek, *From Sky to Sea*, 137-138.
[166] Crile, *Treasure-Diving,* 167.

In June 1956, the Links and their ship, *Sea Diver,* along with Fred Logan, McKee, and Peterson, began their excavation of the sunken city of Port Royal.[167] Located in Kingston Harbor, Jamaica, Port Royal was once known as the "pirate Hellhole of the Caribbean" before two-thirds of the city, including forts, churches, and ships, sank beneath the sea after a devastating earthquake in 1692. [168] The excavation that took place involved techniques more in line with underwater archeology than the traditional salvaging operations of the 1950s. Marion Link's account of the excavation, told in Hoek's book, shows that the team made a considerable effort to chart the buildings (especially Fort James), worked with the local Jamaican government, and looked through archival material to produce the most reliable conclusions on the city before and after the earthquake. They laid color-coded bricks on the sea floor at areas "giving an indication of the presence of metal" and placed buoys with color-coded flags on the surface to mark masonry, work areas, and other "irregularities at the bottom."[169] In mapping Fort Charles, one of the submerged forts protecting the port, Ed Link took "careful bearings of the buoys marking sections of the fort below" in order to confirm his "calculations as to the size and shape of the fort and its exact location."[170] The team also made considerable use of the Jamaican government's resources, causing Marion Link to state, "it seemed like all of Jamaica, including the governor…was most cooperative."[171] For instance, the Government Surveys Office worked with Ed to establish locations of the old port and the American Consul General, David Maynard, and head of the Jamaican Institute, C. Bernard Lewis.[172] Lewis "had much to offer" with Lewis even driving to the excavation site "at the end of each workday to inspect our progress and to

[167] Hoek, *From Sky to Sea*, 139.
[168] Potter, *Treasure Divers Guide,* 114; Hoek, *From Sky to Sea,* 140.
[169] Hoek, *From Sky to Sea*, 149, 151.
[170] Hoek, *From Sky to Sea*, 158.
[171] Hoek, *From Sky to Sea*, 155.
[172] Hoek, *From Sky to Sea*, 155.

provide assistance whenever he could."[173] The excavation team also met with various historians and archaeologists from the area including S. A. G. Taylor and C. S. Cotter, who "greatly contributed in knowledge and information" to the excavation.[174]

Despite this focus on precise measurements and academic interest, it is important to note that the excavation team still followed some treasure hunting and salvaging thoughts and practices of past excavations. Marion recounted that the team felt "disheartened…that nothing spectacular had been found" until they discovered an English cannon at the fort on their last day of excavating which they immediately dug out and hauled on to a nearby dock before placing it in the water near the dock for preservation until they could return for another excavation.[175] Marion also detailed how the crew became impatient after several days of excavating Fort James and wanted to explore the rest of the city as "they were lured on by the thoughts of the chests of silver and gold which we felt certain were buried deep beneath the rubble of crumbled brick shops and homes."[176] Coles Phinizy, in his article for *Sports Illustrated* magazine detailing the excavation, titled *The Missing Link,* also mentioned that Link took "about 20 bricks from the old lost city to build a sundial on his one-acre in Binghamton," again showing that the Links were not above keeping souvenirs from their excavations.[177] Still, Hoek credited the work at Port Royal as being "highly significant in terms of breaking grounds in the field of underwater archaeology and in the practical application of tools" and that the excavation team "was the first to achieve a thorough study of the sunken city."[178] Both Link and Peterson were fully emerged in

[173] Hoek, *From Sky to Sea*, 155.
[174] Hoek, *From Sky to Sea*, 155.
[175] Hoek, *From Sky to Sea*, 158; Peterson, *History Under the Sea*, 15.
[176] Hoek, *From Sky to Sea*, 151.
[177] Phinizy, "Missing Link."
[178] Hoek, *From Sky to Sea*, 158.

early forms of underwater archaeology and neither of them were done with excavating the sunken city.

In 1959, the Links and Peterson returned to Port Royal in order to complete a second excavation of the city.[179] Hoek stated that the excavation was carried out "in response to invitations from the Jamaican government," which demonstrated that the Jamaican government had a positive attitude towards Link's work.[180] As can be seen in an August 16, 1956 letter from Peterson to Nelvin Payne, the Senior Assistant Secretary for the National Geographic Society, the process of planning for the excavation started as early as August 1956 and Ed Link, the National Geographic Society, and the Smithsonian Institution ended up sponsoring it.[181] In the letter, Peterson mentions that Link provided $10,000 of the expected $25,361.18 cost of the excavation as a donation to the Smithsonian and uses the letter to formally request a grant from the Society for a "large-scale expedition for salvaging artifacts" from Port Royal.[182] The fact that the phrase "salvaging artifacts" is used and that the phrase "underwater archaeology" is never mentioned in the letter is significant because it could mean that Peterson and Link were more interested in recovering artifacts from Port Royal instead of conducting an archaeology survey of the city. Of course, this could also just be mere wordplay, showing that, by 1956, underwater archaeology was not yet a developed enough field to warrant Peterson calling it so in a letter requesting grant funds. Either way, by 1959, Link and Peterson were dedicated to conducting as thorough an excavation as they could. The crew consisted of Ed and Marion Link, their son Clayton Link, Philip Van Horn Weems (who assisted the *Santa Maria* quest), Barney and Jane Crile, and Peterson. Six members of the U.S. Navy Underwater Demolition Team also joined the

[179] Hoek, *From Sky to Sea*, 208.
[180] Hoek, *From Sky to Sea*, 208.
[181] Mendel Peterson to Nelvin Payne, 16 August 1956, SIA, RU 381, Box 4, Correspondence, National Geographic Society, NMHT, DHA, R, circa 1952-1976.
[182] Peterson to Payne, SIA, RU 381, Box 4, NGS, NMHT, DHA, R.

expedition and helped in "mapping the bottom terrain."[183] Peterson commented that the demolition team's knowledge of search techniques was most valuable" in the muddy conditions of the water, highlighting how the professional Navy divers applied their military skills of finding and disarming underwater enemy defenses to early underwater archaeology. Link also built a new research vessel for the expedition, the *Sea Diver II.* Built in March 1957 and launched in April 1959, the new ship was a 93-foot double-hulled yacht with equipment dedicated to underwater excavations including two high-pressured air compressors, numerous booms and winches to lift items up to six tons out of the water, a viewing chamber located in the foredeck to survey the seafloor, and navigation and radar equipment "equipped as thoroughly as the largest ocean liner."[184] Hoek states this ship as being "the only [ship] built keel up specifically for underwater archaeology" at the time and Marion Link proclaimed "she was the most modern and efficient research salvage ship for her size in the world."[185] Notably, Marion also mentioned that the ship "was decorated with many trophies from previous expeditions" including a fireplace made out of salvaged bricks from their previous Port Royal expedition, once again showing that the Link's still had an inclination to keep some historical artifacts from their excavations.[186]

Lasting nearly two months, the excavation resulted in the salvage of much historical material and a plethora of attention from the media. Hoek stated that "hundreds" of historical artifacts were salvaged from Port Royal including a still working gold watch and 15th century swivel gun.[187] Though Peterson said that "only a small portion of the submerged city" was explored during the available time, the team "prepared a map of the submerged portion of the

[183] Hoek, *From Sky to Sea*, 166.
[184] Hoek, *From Sky to Sea*, 160-163.
[185] Hoek, *From Sky to Sea*, 160, 162.
[186] Hoek, *From Sky to Sea*, 163.
[187] Hoek, *From Sky to Sea*, 167.

city from pre-1692 maps" and determined that the city slid into the ocean on a slope instead of just sinking into it.[188, 189] Again, the Jamaican government seemed heavily enthusiastic with the excavation as the Jamaican Prime Minster visited the excavation and "appeared pleased," and Lewis, who was head of the Jamaican Institute, was part of the "committee for dividing the spoils" (which also included Ed Link).[190] The news media also heavily covered the expedition with the *National Geographic*, Jamaica Broadcasting, and other TV hosts and comedians scheduling interviews and reporting on the various finds of the excavation.[191] All of this attention attracted some criticism of the excavation. As Hoek states, Robert F. Marx "brushed off" Link's work in his book, *Port Royal Rediscovered*, and accused Link of "scheming" to thwart his own ambitions of managing the excavation of the city.[192] However, Hoek disputed this, sating that Link had "neither the time, the concern, nor the temperamental inclination for such covert operations."[193] Hoek further defended Link, saying that while Link "never claimed to be an academic scholar or a certified archaeologist," he opened "the doors for all future marine archaeology at Port Royal."[194] Both Ed and Marion Link understood Port Royal for its historic value, with Ed calling it "one of the most important historic finds for 17th-century artifacts" and Marion publishing an article on the excavation, titled "Exploring the Drowned City of Port Royal," in the February 1960 issue of *National Geographic* magazine.[195] It would be premature to call this excavation underwater archaeology, since more emphasis was still placed on

[188] Peterson, *History Under the Sea,* 16.
[189] Hoek, *From Sky to Sea*, 168.
[190] Hoek, *From Sky to Sea*, 167.
[191] Hoek, *From Sky to Sea*, 166-167.
[192] Hoek, *From Sky to Sea*, 209.
[193] Hoek, *From Sky to Sea*, 209.
[194] Hoek, *From Sky to Sea*, 209.
[195] Hoek, *From Sky to Sea*, 168, 318.

salvaging artifacts and no academically trained archaeologists participated in the diving, yet, it indicated that a serious and scientific study of major underwater sites was possible.

Both Ed Link and Mendel Peterson played crucial roles in bringing a sense of professionalism to underwater salvage and promoting serious historical analysis of underwater sites during the 1950s. They each demonstrated that non-archaeologists could conduct thorough and systematic excavations in the pursuit of historical knowledge, something that was absent from most treasure hunters of the era. As a result, many have described Link and Peterson as the forerunners to underwater archaeology. The *Washington Post's* obituary article of Mendel Peterson states that he was known as "the father of underwater archaeology" and Potter calls Link one of the "oldest-established American archaeologists," though this is from a view of a treasure hunter.[196, 197] While these statements may be premature, as their methods were not purely up to the standards of underwater archaeology set by Goggin, they certainly took part in excavations that could be considered precursors to the more scientific excavations to come and they would each be heavily involved in future efforts to legitimize underwater archaeology as an academic profession. Link and Peterson were not alone in their dedication to the historical analysis of underwater excavations during the 1950s, but they certainly stood out in a field thus far dominated by amateur divers and treasure hunters.

Attempts at Professionalizing the Field of Underwater Archaeology

As the 1950s continued, the interest in underwater excavations steadily increased. In Europe, diving clubs sprang up with the goal of adventure and archaeology in mind as more and more amateur divers started realizing the potential of underwater artifacts just waiting to be

[196] Barnes "Peterson Dies."
[197] Peterson, *History Under the Sea*, 113.

found. Many of these divers and adventurers had good intentions and respect for historical value of what they were discovering, but none of them engaged in proper underwater archaeology techniques. There methods still retained the aura of underwater salvage operations and sometimes ended up damaging historical artifacts for mere personal gain. During this time period, when the dangerous of treasure hunting on maritime history started to become obvious, that the idea of professionalizing these underwater exploits into an academic discipline started to brew.

Cousteau's Aqua-Lung opened up the opportunity for more and more amateur divers to try their hand at diving in the 1950s. As a result, diving clubs dedicated to underwater salvage started to spring up all over Europe, leading to more excavations as well. In 1954, Richard Garnett, was leading an underwater excavation off the east coast of the Greek island of Chios consisting of amateur divers.[198] As Dugan reported, the cinema critic Dilly Powell described the divers as being "attracted by nothing more than a liking for adventure and a desire to dive," and that, "to some of them, the simplest archeological classification was a mystery."[199] However, while most of the divers seemed ignorant of proper archaeological techniques, the excavation itself was conducted much more academically and systematically than previous excavations in the Europe. Garnett and archaeologist John Boardman, detailing the expedition in their article, "Underwater Reconnaissance off the Island of Chios, 1954", described how the team surveyed the different underwater site using techniques in line with Goggin's requirements for underwater archaeology. As Garnett et al. states, "finds were marked with marker-buoys and with small squares of white rubber sheeting the size of handkerchiefs…whenever possible, finds were photographed and plans were drawn of the sites under water. The more substantial sites were

[198] Dugan, *Man Under the Sea*, 253; Garnett, "Underwater Reconnaissance," 102.
[199] Dugan, *Man Under the Sea*, 254.

divided up by a grid of white plastic tape so that they could be plotted in sections."[200] This shows that the divers marked artifacts underwater, photographed and hand drew plans of the sites underwater, and excavated the sites using a grid system, all techniques of academic archaeology. No archaeologists participated in the diving, but the excavations at Chios showed that amateur divers in the Mediterranean started to apply more academic techniques to their underwater excavations.

The various diving clubs that sprang up also showed that there was an increasing interest among divers in conducting underwater salvage operations. While the excavations at Chios were underway, British troops stationed at Cyprus created the Cyprus Sub-Aqua Club.[201] Led by Sargent W. Jackson of the Royal Army Service Corps and "encouraged" by A.H.S. Megaw, Cyprus' Director of Antiquities, the Club "formed an archaeological team" and discovered various historical artifacts, such as a terra-cotta head of a women and a "sixteenth-century bronze cannon," while diving off the Greek island of Salamis.[202] In 1955, an "archaeological expedition" from the London Underwater Explores Club joined the Cyprus Sub-Aqua Club to "explore the sunken portion of the city of Salamis."[203] Dugan was critical of this expedition, saying that it fell into the "old handicap – the belief that the Mediterranean rose and drowned cities," an idea that has "no scientific evidence."[204] Jane and Barney Crile also met with and dove with many members of these diving clubs when they traveled around Europe after the Looe Key expedition. In Paris, France, they met Dr. Henri Chenevée, a member of the Cannes diving club, Club Alpin Sous-Marin.[205] The Club Alpin Sous-Marin, or Undersea Mountaineering Club, was

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[200] Garnett, "Underwater Reconnaissance," 103.
[201] Dugan, *Man Under the Sea*, 254.
[202] Dugan, *Man Under the Sea*, 254.
[203] Dugan, *Man Under the Sea*, 254.
[204] Dugan, *Man Under the Sea*, 254.
[205] Crile, *Treasure-Diving*, 227.

created by Henri Broussard as the "first Aqua-Lung society" and participated in many underwater archaeological salvage excavations in the Mediterranean in the 1950s.[206] One such expedition in 1951 off Saint Tropez, France resulted in the discovery and salvage of "nine sections of Roman columns."[207] Jane Crile also detailed the Club's interest in salvaging historical artifacts in the Mediterranean, stating that members would "always coming up with armfuls of amphoras" and that she saw pictures of "bronze statues, lead anchors, and remnants of ancient ships that Chenevée and his aqualung-equipped friends had raised from the Mediterranean."[208] Jane further recalled that Chenevée's office, "like our dinning room, was a museum of underwater relics" full of amphora he salvaged from the Mediterranean and proclaimed that amphoras were like the "cannon or the Caribbean…you were not a diver until you had found one."[209] Here, Jane shows almost an affinity with members of this club, highlighting the similarities between the underwater salvage they participated in in the Americas with the underwater salvage that took place in the Mediterranean. However, this also shows that, much like the Americas, these underwater diving clubs took part in more underwater salvage than underwater archaeology.

Despite the rising interests in underwater diving and subsequent development of diving institutions, most of the underwater excavations that took place in the 1950s were still more in line with underwater salvage and treasure hunting than underwater archaeology. In an August 18, 1956 letter, John Huston (a figure who contributed much to the professionalization of underwater archaeology) stated, "looting is the rule rather than the exception at the present time."[210] Huston

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[206] Dugan, *Man Under the Sea*, 204.
[207] Dugan, *Man Under the Sea*, 243.
[208] Crile, *Treasure-Diving*, 227-228.
[209] Crile, *Treasure-Diving*, 228.
[210] John Huston to Captain H.A. Adams, Jr., 18 August 1956, SIA, RU 381, Box 9, National Association for Marine Archaeology, NMHT, DHA, R, circa 1952-1976.

was not the only one to think this way. Rick and Barbara Carrier's 1955 book, *The Complete Book of Skin Diving,* states how past salvage operations of sunken treasure were forced to use "professional divers" and were "difficult to accomplish without attracting the attention of the authorities."[211] Now, by 1955, "with so many nonprofessional divers using self-contained equipment, it is possible that finds may be salvaged without being reported" to the authorities.[212] The Carriers believe this to be a major problem since these treasure hunters and amateur divers "may irreparably mar and destroy sites of archaeological importance, through the use of dynamite and hurried and careless salvage methods."[213] The Carriers give two examples of treasure hunters destroying historically important sites, one when treasure hunters "blew up the Breton Megaliths with explosives" looking for "gold ornaments," and one when treasure hunters "stripped" galleys found near Nemi, Italy of historical artifacts, such as statues, bronze work, and navigational gear, which "would have been of incalculable archaeological value."[214] Norton gives another example of irresponsible underwater salvage when, in 1950, an Italian salvage company "used a large grab [a large metal claw] to wrench up 110 intact amphorae from a wreck, leaving over 2,000 shattered on the sea floor."[215] Jane Crile also recounts an example of divers favoring treasure over historical material. During their trip to Cannes, they stopped by a furniture store displaying pieces of amphorae.[216] The owner of the store told them that "gold has been found in these amphoras and the divers, when they find them, they smash them to bits to

[211] Huston to Adams, SIA, RU 381, Box 9, NAMA, NMHT, DHA, R.
[212] Carrier, *Complete Book,* 257, SIA, Acc. 02-167, Box 1, Publications, NMHT, DHA, BF.
[213] Carrier, *Complete Book,* 257, SIA, Acc. 02-167, Box 1, Publications, NMHT, DHA, BF.
[214] Carrier, *Complete Book,* 257, SIA, Acc. 02-167, Box 1, Publications, NMHT, DHA, BF.
[215] Norton, *Stars,* 240.
[216] Crile, *Treasure-Diving,* 229.

see if they hold money," demonstrating that the divers favored the idea of making money off of their dives rather than carefully salvaging historical artifacts.[217]

Dugan and Potter added some further examples of divers favoring underwater salvaging over underwater archaeology. In 1954, the Duke of Argyll, Ian Douglas Campbell, employed the London based Underwater Surveys, Ltd to search for and salvage shipwrecks believed to be located in Tobermory Harbor, Scotland.[218] Using an "ex-tank landing craft," the salvagers found a suspicious mound and "adopted the archaeological method of trenching across the site" with a large grab sucking up all the underwater soil to the deck, spraying it with a "high pressure sea water hose to uncover any items of interest, and using a "snow-plow tractor" to push over the unwanted material over the side of the ship.[219] The team eventually found a shipwreck and salvaged "€30 million" worth of gold, but paid little attention to the other historical material of the wreck.[220] The centuries old hunt for the Galleons of Vigo Bay wreck off the Spanish coast also demonstrates the desire of salvage over archeology. Salvaging operations for the supposedly sunken Spanish gold, which sank when a combined English and Dutch force attacked the anchored Spanish Galleons in Vigo Bay in 1702, had been an ongoing process since the ships first sank in 1702.[221] Nearly all the sunken gold had been salvaged in the first years after it sank, but in 1955, Potter, the author of *The Treasure Divers Guide,* organized another expedition with "a concession from the Spanish government."[222] Potter himself describes how, when a wooden pulley from the 18th century was found and raised, it "soon crumbled to dust in the air" and how they used a 400-yard-long steel cable with grabbles attached to comb the sea floor for the

[217] Crile, *Treasure-Diving,* 229.
[218] Dugan, *Man Under the Sea,* 83.
[219] Dugan, *Man Under the Sea,* 83.
[220] Dugan, *Man Under the Sea,* 83.
[221] Dugan, *Man Under the Sea,* 84-91; Potter, *Treasure Divers Guide,* 343.
[222] Dugan, *Man Under the Sea,* 91.

treasure before the expedition ended in 1960 due to a lack of funds.[223] For Potter's part, he stated in his 1988 version of his book that "the Vigo galleons are interesting only for the archaeological objects which some of them contain," demonstrating an acknowledgment that there is more to the shipwrecks than just gold to salvage.[224] However, the techniques used did not follow all of the necessary academic archaeological techniques and resulted in the damage of historical material. The statements and examples provided by Houston, the Carriers, Norton, Crile, and Dugan all point to the fact that most of the underwater excavations taking place in the 1950s represented attempts at underwater salvage instead of underwater archaeology, even with the development of various diving clubs and organizations. However, the continued destruction of underwater historical material and non-academic salvaging operations would inspire many divers and treasure hunters to create institutions to control and regulate the exploits of amateur divers and treasure hunters.

With the increase in interest and participation in underwater excavations, it did not take long for divers and archaeologists to get together to discuss the practices and future of this newly emerging field. According to James P. Delgado in his article, *Underwater Archaeology at the Dawn of the 21st Century,* "for the first time, a Conference on Underwater Archaeology was organized" when Cannes, France held the *Premier Congres Internationale d'Archaeologie Sous-Marine* (First International Congress of Underwater Archaeology) in 1955.[225] Dugan stated that the "initiative" for the First International Congress of Underwater Archaeology came from "Henri Broussard and his Club Alpin Sous-Marin," the same club that Jane and Barney Crile visited when traveling around Europe.[226] According to Robert Sténuit, an underwater

[223] Potter, *Treasure Divers Guide,* 345-347.
[224] Potter, *Treasure Divers Guide,* 343.
[225] Delgado, "Underwater Archaeology," 9.
[226] Dugan, *Man Under the Sea,* 246.

archaeologist, Professor Fernand Benoit, the "Conservateur of the Musée Borley at Marseilles…and Director of France's Twelfth Archeological Division, served as president of the Congress and spoke at the Congress, endorsing "systematic wreck excavation" and the "moral responsibility of those salvaging archaeologically interesting wrecks."[227] Benoit also "condemned wreck robbers and called for more realistic laws governing the field, and their enforcement," again highlighting the abundance of underwater looting and salvage during the 1950s.[228] Also during the first congress, Professor Nino Lamboglia, who, according to Bascom, watched "over antique finds from the sea in behalf of the Italian Government," gave what Dugan called a "melancholy" report on a ship excavation off Albenga, Italy.[229, 230] Lamboglia described how, after fisherman discovered amphorae in their net, he tried and failed to receive government funding for an excavation of what he believed to be an ancient shipwreck where the fisherman discovered their amphorae.[231] He tried to recruit "amateur free divers" to salvage what they could from the sunken ship but Lamboglia stated that the divers "were only interested in shooting fish and hunting treasure."[232] Lamboglia then enlisted the aid of the Sorima Salvage Company in 1950, which lowered a "huge clamshell grab called the benna" to raise as much amphora as they could in a day, smashing "up the wreck disastrously."[233] Clearly, Lamboglia was discouraged at the lack of respect divers and salvage companies showed for historical material and recognized that simply salvaging material from the seafloor was harmful to the maritime history of what they were salvaging. The fact that this report was given at a conference created by divers shows that, by 1955, there were Mediterranean divers and archaeologist who

[227] Potter, *Treasure Divers Guide*, 99-100.
[228] Potter, *Treasure Divers Guide*, 100.
[229] Bascom, *Deep Water*, 93.
[230] Dugan, *Man Under the Sea*, 246.
[231] Dugan, *Man Under the Sea*, 246.
[232] Dugan, *Man Under the Sea*, 247.
[233] Dugan, *Man Under the Sea*, 247.

were concerned with underwater salvaging techniques currently in use and were interested in channeling their efforts into a new form of underwater salvage that was less destructive. The field of underwater archaeology was still very much in its infancy at this point in time, but this conference was one of the first concrete signs that the field was beginning to form.

In the Americas, plans for a similar congress for underwater archaeology commenced as well during the 1950s. While many divers participating in underwater salvage, such as Link and Peterson, recognized the need for communication and oversight on underwater excavations in the Americas, it was John Huston, who officially started the process of creating an international convention on underwater archaeology. According to George Fischer in his article, *History of the ACUA,* Huston was a "retired San Francisco businessman who had developed an avid interest in underwater archaeology" and "became aware that there was a dearth of communication between the few individuals who were also conducting underwater archaeological research."[234] As stated before, Huston also understood that looting was a serious problem and likely understood that their was an inherent need to add a sense of professionalization to the underwater excavations taking place in the 1950s. The resulting organization would be known as the Council of Underwater Archaeology. Correspondences from Huston, Peterson, and other individuals stored in the Smithsonian Institutions Archives further shows the process of making plans to start the Council. In a September 14, 1956 letter from Huston to Peterson, Huston asked Peterson if he would give Huston his "advise and support" for the creation of the "proposed society."[235] Peterson responded in a September 26, 1956 letter saying that he would be "delighted" to assist

[234] Fischer, "History," 1.
[235] John Huston to Mendel L. Peterson, 14 September 1956, SIA, RU 381, Box 9, National Association for Marine Archaeology, NMHT, DHA, R, circa 1952-1976.

Huston and serve on the advisory committee for the proposed society.[236] More interestingly, Peterson also stated that he would look through his past four years of correspondence of those who have written "indicating an interest in underwater exploration" and that this should give Huston "some 40 to 50 prospects for membership" with the society.[237] This is noteworthy because it shows that Peterson believes that interest for such a society had been developing since as early as 1952 (four years before the date of the letter) and that there was a rather fair number of individuals who would be interested in creating a society dedicated to professionalizing underwater salvage in 1956.

Peterson wrote to many divers or individuals interested in underwater salvage to invite them to be members of Huston's society. In a September 25, 1956 letter from Peterson to Craig Hamilton, a diver and underwater salvager, Peterson tried to recruit Hamilton to Huston's "national association for underwater explorers" as Peterson thought that Hamilton "should certainly be one of its charter members."[238] A previous letter for Hamilton to Peterson shows that Hamilton was an amateur diver conducting underwater excavations of shipwrecks in the Americas and that he was interested in the history of what he was salvaging, as evidenced that he asked Peterson to help him identify the markings of a cannon he raised from a wreck and was using Peterson's process on preserving cannons in the hope that "it can be preserved."[239] In an August 14, 1956 letter from H. A. Adams Jr., a Captain in the U.S. Navy, to Huston, Adams wrote that Peterson recommended that he contact Huston regarding "a matter in which we are apparently both interested," the creation of a "national organization" focused on underwater

[236] Mendel L. Peterson to John Huston, 26 September 1956, SIA, RU 381, Box 9, National Association for Marine Archaeology, NMHT, DHA, R, circa 1952-1976.
[237] Peterson to Huston, SIA, RU 381, Box 9, NAMA, NMHT, DHA, R.
[238] Mendel L. Peterson to Craig M. Hamilton, 25 September 1956, SIA, RU 381, Box 9, National Association for Marine Archaeology, NMHT, DHA, R, circa 1952-1976.
[239] Peterson to Hamilton, SIA, RU 381, Box 9, NAMA, NMHT, DHA, R.

salvage.[240] No doubt, Peterson was very interested in helping Huston create the society. Huston replied to Adams in an August 18, 1956 letter and stated that plans for the society had been "brewing for some time" and that interested parties included, "professional archaeologists, historians such as Mr. Peterson, and everyday divers."[241] Huston further stated that the goals of the society would be

"1. The collection of data on the location of sites for archaeological study,

2. The preservation of known sites,

3. The exploration of sites with proper archaeological and historical supervision,

4. The development and exchange of information on underwater technology."[242]

Huston continued, saying that he hopped that, through publicity and public opinion, the organization could "prevent the looting of underwater sites" and that he believed that "we can eventually give underwater archaeology the same standing that ordinary archaeology now holds."[243] These statements show that Huston envisioned the soon-to-be Council for Underwater Archaeology to be an organization dedicated to promoting and applying academic underwater archaeological practices to the underwater salvage that was currently taking place in the 1950s. This also shows that this was a creed he developed as early as 1956. Huston also stated that he hopes that the underwater salvage that was occurring could one day be held up to the same standards that land archaeology followed; in other words, Huston hoped underwater salvage could transition into academic underwater archaeology. Huston's statement that both "everyday divers" and archaeologists were interested in the creation of the Council demonstrates that both

[240] Captain H. A. Adams, Jr. to John Huston, 14 August 1956, SIA, RU 381, Box 9, National Association for Marine Archaeology, NMHT, DHA, R, circa 1952-1976.
[241] John Huston to Captain H.A. Adams, Jr., 18 August 1956, SIA, RU 381, Box 9, National Association for Marine Archaeology, NMHT, DHA, R, circa 1952-1976.
[242] Huston to Adams, SIA, RU 381, Box 9, NAMA, NMHT, DHA, R.
[243] Huston to Adams, SIA, RU 381, Bo-x 9, NAMA, NMHT, DHA, R.

archeologists and non-archaeologists were interested in creating the Council and thus interested in creating a transition form underwater salvage to academic underwater archaeology.

Huston's society would eventually come to fruition when he officially founded the Council for Underwater Archaeology in 1959, signaling that an increase in interest and accessibility to diving and underwater salvage reached a tipping point.[244] Diving clubs started to form and participate in their own excavations, with some excavations even applying some land archaeology techniques underwater. However, most of the underwater excavations taking place still resembled underwater salvage and some even resulted in the destruction of much historical material. The formation of underwater archeology organizations in Europe and in the Americas demonstrated a calculated response between non-archaeologist and archaeologists alike to address these continuing issues. As the 1950s ended and the 1960s continued, non-archaeologists and archaeologists would continue to promote the transition of underwater salvage into academic archaeology.

Underwater Archaeology's Final Steps to Maturity

At the turn of the decade, traditional land archaeologists and academic institutions began the process to professionalize the field and add a more scientific approach to underwater archaeology. At the same time, many non-archaeologists such as sports divers, businessmen, and former treasure hunters started to assist archaeologists in their goal of professionalization. Many conventions and international councils would be held to determine the fate of this young profession and many non-archaeologists would take an active role in supporting and contributing to these efforts.

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[244] Fischer, "History," 1.

Underwater archaeology's integrity as an academic field of study was still dubious 1960. Sténuit, in Potter's 1960 version of his book, claimed, "submarine archaeology is now a recognized branch of scientific study," meaning that, by as late as 1960, Sténuit believed underwater archaeology to be a formally established academic field of study.[245] This statement is not entirely accurate, for as Goggin pointed out in his January 1960 article, "probably most of what has been called 'underwater archaeology' to date is really only salvage."[246] However, Sténuit was correct in asserting that underwater archaeology was beginning to be internationally recognized as an emerging discipline. Even so, the field was still lacking of an example of an academic land archaeologist diving underwater to conduct an excavation to the same standards as on land (some of Goggin's major requirements for underwater archaeology). This would change in the summer of 1960 with the underwater excavation of Cape Gelidonya and the introduction of archaeologist George Bass, one of the most influential figures in the creation of the field of underwater archaeology.

The origins for the groundbreaking excavation at Cape Gelidonya were rooted in Peter Throckmorton and his search for ancient shipwrecks at the Yassi islands during the late 1950s. Throckmorton showed interest in the underwater world at an early age, learning to dive at age seventeen and salvaging propellers from wrecks to pay for his education at the University of Hawaii, where he attained a degree in anthropology.[247] (Norton 242). Afterwards, he became a professional photographer and, after reporting on the Algerian War from both the French and Algerian sides, Throckmorton was soon drawn back to the sea to report on the sponge diving industry in Bodrum, Turkey.[248] Throckmorton learned that Turkish sponge divers also knew the

[245] Potter, *Treasure,* pg., SIA, Acc. 02-167, Box 1, Publications, NMHT, DHA, BF.
[246] Goggin, "Underwater Archaeology," 353.
[247] Norton, *Stars,* 242.
[248] Norton, *Stars,* 243-245.

locations of scattered amphorae and ancient shipwrecks and, after engaging "divers in shop talk over a powerful drink called raki," began "mapping the dozens of old wrecks" the sponge divers divulged.[249] Throckmorton eventually met Kemâl Aras, the captain of a local sponge diving team, who told him of the vast number of ancient artifacts he discovered over the years on the ocean floor.[250] While diving for these artifacts off the Yassi islands in 1958, Kemâl introduced Throckmorton to John Carswell, a historian from the American University in Beirut, and Honor Frost a mentee of archaeologist Frédéric Dumas (the same archaeologist who helped lead the excavation at Grand Congloue six years earlier) who had previously participated with Dumas on underwater excavations.[251] Combined, Throckmorton's enthusiasm and diving experience, Captain Kemâl's sponge divers' knowledge of the local undersea area, and Frost's underwater excavating experience "converted a treasure hunt into an archaeological expedition" and propelled Throckmorton to spend the next six months diving in the Aegean sea, surveying for sites "suitable for excavation."[252,] Throckmorton, who himself took part in a Neolithic archaeological dig before he became a photojournalist, stated that he was "convinced that it was possible to do scientific archaeology under water."[253] He just needed to find a preserved enough shipwreck that would entice academic land archaeologists to sponsor and lead an excavation underwater.[254] Throckmorton kept a workbook, entering nautical positions, sketches, and underwater photographs of thirty-eight buried ships before Captain Kemâl mentioned that he discovered "sheets of bronze on a wreck" off Cape Gelidonya.[255] After Throckmorton salvaged some relics from the surface, Frost "immediately appreciated their importance" for they "had

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[249] Bascom, *Deep Water,* 94.
[250] Dugan, *Man Under the Sea,* 263; Norton, *Stars,* 248.
[251] Norton, *Stars,* 234.
[252] Norton, *Stars,* 249, 250; Hirschfeld, "JOAN MABEL," 11.
[253] Norton, *Stars,* 242, 250.
[254] Norton, *Stars,* 252.
[255] Dugan, *Man Under the Sea,* 263; Norton, *Stars,* 251.

discovered a wreck that was 3,200 yeas old, more than 800 years older then any previously found" at the time.[256]

After the discovery of the ancient wreck, Throckmorton and Frost immediately set out in search of funding to fully excavate the wreck. According to Nicolle Hirschfeld's article, "Joan Mabel Frederica Du Plat Taylor, 1906 – 1983," Frost convinced Joan du Play Taylor, an experienced archaeologist who was then the Librarian at London University's School of Archaeology, "to agree to act as co-director with whomever Peter found to take on the responsibility."[257] According to Throckmorton, Huston, of the newly created Council of Underwater Archaeology, "had been interested in our work for several years" and introduced Throckmorton to archaeology professor Rodney Young of the University of Pennsylvania who "became enthused and helped him to find funds."[258] Young recommend that "one of his best graduate students," George Bass, assist in the excavation. The Littauer Foundation, Nixon Griffs (a bookseller and armature diver), and the American Philosophical Society also helped fund the expedition.[259] Thus, in June 1960, the excavation team consisting of Throckmorton, Frost, Bass, Taylor, Frédéric Dumas (who would act as chief diver), Captain Kemâl, and other divers, draftsman, and photographers started their excavation of the Bronze Age wreck.[260] According to Hirschfeld, "Because Bass was able to bring the bulk of the funding to the project, by tacit agreement he was recognized as its primary director" even though Taylor, was arguably the more experienced archaeologist of the crew.[261, 262]

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[256] Norton, *Stars,* 252.
[257] Hirschfeld, "Joan Mabel," 11, 12.
[258] Bass, "Cape Gelidonya," 3. Norton, *Stars,* 253.
[259] Dugan, *Man Under the Sea,* 264; Bass, "Cape Gelidonya," 3.
[260] Bass, "Cape Gelidonya," 3; Norton, *Stars,* 253.
[261] Hirschfeld, "Joan Mabel," 12.
[262] Taylor went on to become a pioneering figure in underwater archaeology. She devoted "the last twenty years of her life to establishing nautical archaeology as a recognized academic discipline" and founded

According to the Institute for Underwater Archaeology, an underwater archaeology research institution founded by George Bass, the excavation at Cape Gelidonya was the "world's first scientific shipwreck excavation."[263] The Institute was not, in making this claim, simply overemphasizing the work of its founder, for the excavation truly was revolutionary and met every one of Goggin's requirements for academic underwater archaeology by applying all of the techniques of land archaeology to an underwater setting. As Bass stated in the 1967 report in the excavation, titled "Cape Gelidonya: A Bronze Age Shipwreck," "we began work at Gelidonya convinced that there were no inherent technical limitations to prevent us from applying the same standards that are considered desirable on land."[264] According to Bascom, the team developed a series of "ingenious devices for measuring, drawing, and photographing, tagging, lifting, and surveying" in order to reconstruct the position of where each object was found in a grid system.[265] There were some internal conflicts among the excavation team as each member had "their own ideas of how things could best be done."[266] Bass "irritated" Throckmorton with his "insistence that before raising an object, they should check the information just one more time" and Dumas and Frost "made it clear that underwater archaeology should be the preserve of professional divers," not divers with little experience, like Bass (who received his diving training in a YMCA pool).[267] Nevertheless, the excavation demonstrated that underwater archaeology could be done to the same standards as archaeology on land. Bass' willingness to learn how to dive in order to conduct the excavation underwater himself showed that academic land

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and edited the *International Journal of Nautical Archaeology and Underwater Exploration* (IJNA) in 1970; Hirschfeld, "Joan Mabel," 15.

[263] "History by Year," *Institute of Nautical Archaeology*, 2019, accessed May 2, 2019, https://nauticalarch.org/introduction/history/.

[264] Bass, "Cape Gelidonya," 21.

[265] Bascom, *Deep Water*, 95.

[266] Hirschfeld, "Joan Mabel," 12.

[267] Norton, *Stars*, 254, 255, 258.

archaeologists could do the same, and paved the way for academic archaeologists to fully involve themselves in underwater archaeology. However, the excavation also highlights the crucial role non-archaeologists had in underwater archaeology's transition into an academic field. It was Throckmorton and Frost, using the knowledge of Captain Kemâl and other local sponge divers, who first found the wreck and lobbied for academic institutions to take notice. In fact, non-archaeologists, including amateur and professional divers and treasure hunters, continued to take part during the transition of underwater archeology into its own academically recognized field.

In the early 1960s, non-archaeologists, such as Dumas and Peterson, wrote books demonstrating the techniques of underwater archaeology while following a similar academic rigor and respect for historical material displayed at Grand Gelidonya. As Norton stated, Dumas "had learned from the debacle at Grand Congloue," and Dumas himself stated, "I realized too late that persistent digging of tunnels and vaguely defined trenches could only lead to confusion."[268] Dumas' transition to a more systematic and academic approach to underwater salvage is evident in his role as Chief Diver in the Grand Gelidonya excavation as well as the publication of his 1962 book titled, *Deep Water Archaeology*.[269] The short book, translated into English by Honor Frost, acts as a "manual of techniques for maritime archaeologists" and provides an "analysis of underwater archaeological sites in the Mediterranean" (Frost also wrote a section in the book detailing the techniques, difficulties, and solutions of recording information on underwater sites).[270] Dumas also highlighted how underwater archaeology was still in the earlier stages of creation in 1962, stating, "whereas other branches of science are making provisions for the training of personnel in underwater research, no such facilities exist for

[268] Norton, *Stars*, 232.
[269] Bass, "Cape Gelidonya," 3; Dumas, *Deep-Water*.
[270] Dumas, *Deep-Water*, iii, 58-66; Norton, *Stars,* 235-236.

archaeologists."[271] This statement may not be entirely correct, as Dugan states that "Harvard University became the first institution to offer diving courses to archaeological students" in 1961, but Dumas is accurate in his concern that the field of underwater archeology in the early 1960s was still very much dominated by non-archaeologists, as Dugan also stated in his 1965 book that the "number of professional archeologists who have swum down to inspect an underwater site could be counted on the fingers of a three-fingered hand."[272] Furthermore, Dumas stressed that archaeologists, even any who had just learned to dive, "will find that it is to his advantage to use the services of a professional" diver with experience excavating wrecks, suggesting that proper underwater archaeology still required non-archaeologists (like Dumas) to assist in the excavation process.[273] On the other hand, Dumas also mentioned that, while amateur divers (including archaeologists) posed a risk to a proper excavation, that it was necessary to use them as assistants, "from whose numbers future professionals will be drawn," highlighting how amateur divers still had a role in underwater archaeology in 1962, and that archaeologists themselves fit into that category.[274] For the most part, Dumas wrote his book for both archaeologists and professional divers interested in conducting underwater archaeology, demonstrating that Dumas believed that underwater archaeology did not belong exclusively to one group or the other.

Written with an analogous principle, Peterson published a similar book, titled *History Under the Sea*, in 1965 as a guide to divers on the correct applications and techniques of underwater archaeology.[275] In his introduction, Peterson stated that over "the past 10 years many sites have been destroyed or poorly or improperly explored" due to the fact that "there is no

[271] Dumas, *Deep-Water*, 57.
[272] Dugan, *Man Under the Sea*, 246.
[273] Dumas, *Deep-Water*, 29.
[274] Dumas, *Deep-Water*, 31.
[275] SIA, RU 381, NAMA, NMHT, DHA, R. acc. April 30, 2019.

single volume to which a serious underwater explorer may turn for instruction on exploration, recovery, and preservation techniques."[276] Peterson also stated that while some historians and archaeologists "have given attention to the new field," their "knowledge has not been communicated to the diver in the field to any appreciable extent."[277] Thus, Peterson's book was written in the hopes of bridging the gap between divers and archaeologists so as to allow amateur and professional divers to conduct underwater salvage operations up to the standards of underwater archaeology. While the book was primarily written for non-archaeologists, archeologist George Bass recognized its importance for the field of underwater archaeology. In a very favorable review of the book in the April 1966 issue of *American Anthropologist*, Bass commented "Mendel Peterson has rendered a valuable service to the relatively new field of underwater archeology" and "admirably fills the need for a handy source of material on underwater excavations for divers and archeologists alike…the book should be read by all interested in underwater exploration and excavation."[278] (Bass 571, 572). Bass further states that there was an inherent need for a book discussing the techniques of underwater archaeology to divers, saying:

> "Almost all underwater sites have been discovered by amateur and professional divers rather than by professional archeologists. The resultant and too frequent destruction of shipwrecks and their artifacts has not always been the fault of the divers, who often simply did not know what to do with their newfound material. A common complaint I

[276] Peterson, *History Under the Sea*, xv.
[277] Peterson, *History Under the Sea*, xv.
[278] Bass, George. *American Anthropologist*, New Series, 68, no. 2 (1966): 571-72. http://www.jstor.org/stable/669405.

> have heard from divers is that local museums and archeologists seldom have the time or interest to advise them on their discoveries…"[279]

This quote from Bass suggests that he understood that amateur and professional divers played a vital role in the origins of underwater archaeology and that they continued to have a large influence on underwater archaeology in 1966. Bass' review also hints that he supported amateur and professional divers conducting underwater archaeology in the future, provided that they follow the proper techniques discussed in the book. Peterson, true to his nature of not being an archaeologist himself, also continued to support non-archaeologists conducting their own underwater archaeological excavations as is evident from the reasons he gave for writing the book. It can also be seen in the way he dedicated his book to Edwin Link and thanked many divers and treasure hunters in his acknowledgments section, such as the Criles, McKee, and Tucker, for "having generously supported the underwater exploration project of the Smithsonian Institution."[280] Both Peterson and Dumas' works show that there was an active effort by non-archaeologists in the early 1960s to bridge the gap that existed between divers who didn't understand proper archaeology techniques and academic archaeologists who did not understand proper underwater salvaging techniques in order to further bring a sense of order and standardization to the field of underwater archaeology.

In fact, the 1960s saw many archaeologists, divers, and former treasure hunters try to bring the emerging field of underwater archaeology into the same level of scientific and academic professionalization as traditional land archaeology. This is perhaps best seen in the Conference on Underwater Archaeology that was held in St. Paul, Minnesota from April 26 to April 27, 1963. The proceedings of the Conference are documented in June Holmquist and Ardis

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[279] Bass, *American,* 571.
[280] Peterson, *History Under the Sea*, v, xi.

Wheeler's book, *Diving Into the Past: Theories, Techniques, and Applications of Underwater Archaeology.*[281] The Council of Underwater Archaeology and Minnesota Historical Society sponsored the Conference, which would prove to be yet another key turning point in the professionalization of the field of underwater archaeology. The Conference had local origins. According to Robert C. Wheeler, the Conference Chairman and Minnesota Historical Society member, the idea for a meeting on underwater archaeology came after "scuba divers directed by the Minnesota society and Royal Ontario Museum brought to the surface thousands of historical items" discovered in the waters of a historical fur trade route on the Minnesota-Ontario border in 1960, which "presented immediate problems of preservation and identification."[282] The excavation team realized that there was a need to "exchange ideas, pool information, and find out about new techniques in underwater archaeology" in a centralized setting and thus began to work with the Council of Underwater Archaeology to set up the Conference.[283] According to Huston, since its inception in 1959, the Council of Underwater Archaeology "served as a clearinghouse of information concerning underwater archaeology, as a sponsor of expeditions, and as an educational organization, helping both archaeologists and amateur divers to do scientific work and to prevent looting of sites," in other words, promoting underwater archaeology not just underwater salvage.[284] Huston also mentioned that by the time of the Conference, himself and four archaeologists, Bass, Rodney Young, James B. Pritchard (all from the University of Pennsylvania Museum), and Andreina Becker-Colonna (from San Francisco State College)

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[281] June Drenning Holmquist and Ardis Hillman Wheeler, eds., *Diving into the past: theories, techniques, and applications of underwater archaeology; the proceedings of a Conference on Underwater Archaeology, sponsored by the Minnesota Historical Society, St. Paul, April 26-27, 1963,* (St. Paul, MN: The Minnesota Historical Society, 1964).
[282] Holmquist and Wheeler, *Diving Into the Past*, iii.
[283] Holmquist and Wheeler, *Diving Into the Past*, iii.
[284] Holmquist and Wheeler, *Diving Into the Past*, iii.

headed the Council.[285] The addition of such prominent archaeologists to the Council further enforced its authority and commitment to promoting academic underwater archaeology, rather then salvage.

The Conference on Underwater Archaeology saw talks from many influential figures in the creation of the field of underwater archaeology including Bass, Peterson, and Stephen F. de Borhegyi, the director of the Milwaukee Public Museum. Borhegyi opened the conference with an idea of what underwater archaeology should aspire to be. He gave a similar definition of archaeology as Goggin in his speech titled, "The Challenge, Nature, and Limitations of Underwater Archaeology," saying that only "when the bulk of the underwater work is done by skilled diving archaeologists, assisted by amateur divers, and a report is written with scientific accuracy, it may be called true underwater archaeology," though he also recognized that the "amateur plays a very important role" as they are the ones who usually first find underwater sites and historical material.[286, 287] Borhegyi also stated that "it is clear that we need to introduce students of anthropology to the techniques of underwater archaeology at the university level," again stressing what Dumas mentioned earlier, that few institutions in the early 1960s provided avenues for archaeologists to learn techniques in underwater archaeology.[288] William J. Mayer-Oakes, a professor and head of the department of anthropology and sociology for the University of Manitoba, gave a speech stressing the importance of archaeologists working with amateur divers, stating, "under the water I think there should also be cooperation between the amateur

[285] Holmquist and Wheeler, *Diving Into the Past*, v.
[286] Holmquist and Wheeler, *Diving Into the Past*, 3.
[287] Goggin was noticeably absent from the conference as he was "seriously ill" and died days later on May 4, 1963. Borhegyi dedicated the book on the Conference's proceedings to him. Holmquist and Wheeler, *Diving Into the Past*, vii.
[288] Holmquist and Wheeler, *Diving Into the Past*, 6.

and professional."[289] Mayer-Oakes also stated that over the last three years (1960-1963) underwater archaeology has seen "significant progress" following the standards set forth by Goggin and that "more underwater archaeologists are becoming active underwater."[290] Bass, while giving a speech on the methods he used to excavate wrecks discovered at Cape Gelidonya and Yassi Ada, gave a slightly bleaker picture, stating that he had been to "a number of conferences of this sort, and the last of them angered me because the general consensus was that archaeologists should not learn to dive themselves: they aren't competent to work underwater because they are not professional divers."[291] This suggests that Bass believed that it was not an agreed upon consensus yet that underwater archaeology should be the realm of diving archaeologists. Archaeology conducted to the standards of Goggin was still in its early stages by the time of the Conference.

The fact that members of the Conference discussed that the field faced a problem of not using standardized terminology also showed how underwater archaeology was still in its early stages as an academic field. Charles T. Fritsch, a professor in the Princeton Theological Seminar at Princeton (he would also serve as chief field archaeologist for one of Link's underwater excavations in Israel in 1960), stated that the lack of terminology for describing underwater archaeology "is a real problem" and asked if the Council of Underwater Archaeology could lead a project to "clarify and standardize the terms covering what we're doing."[292] Borhegyi concurred, saying that standardization of terminology would "need to be worked out gradually as they appear in the literature," and that the Council could create a "handbook of standardized terms" for underwater archaeology, to which Huston agreed and stated that they were facing this

[289] Holmquist and Wheeler, *Diving Into the Past*, 7-8.
[290] Holmquist and Wheeler, *Diving Into the Past*, 8.
[291] Holmquist and Wheeler, *Diving Into the Past*, 20.
[292] Holmquist and Wheeler, *Diving Into the Past*, 8, 30.

same problem in trying to come up with a bibliography on all things related to underwater archaeology.[293] This problem of standardized terminology, again, shows the youth of the field of underwater archaeology in 1963 and how both archaeologists and institutions dedicated to underwater archaeology, which were not entirely made up of underwater archaeologists, were in the process of addressing the issue.

The Conference also featured talks from many non-archaeologists. Peterson gave a talk discussing the different preservation methods for artifacts once they are out of the water, as did Samuel P. Townsend, a staff member of the North Carolina Department of Archives and History at Raleigh, who spoke of how the museum, combined with the U.S. Navy, conducted "the first underwater archaeological expedition in North Carolina" by salvaging artifacts from the sunken Civil War blockade-runner, "Modern Greece," and preserving them in their "preservation laboratory" at Fort Fisher, North Carolina.[294] Edwin C. Bearss, a research historian for the National Park Service at Vicksburg National Military Park, gave a speech discussing how he, other park employees, and amateur scuba divers created Operation Cairo, an effort to raise the Confederate ironclad, *Cairo*, and preserve it as a naval museum.[295] They enlisted the aid of a barge and crane from the Anderson-Tully Lumber Company and they succeeded in raising the pilothouse of the vessel in 1960, while divers continued to excavate the rest of the ship until 1962.[296] Anders Franzen, a petroleum engineer for the Swedish Admiralty who "has devoted his life to marine archaeology for many years," gave a presentation on the finding and raising of the

[293] Holmquist and Wheeler, *Diving Into the Past*, 30-31.
[294] Holmquist and Wheeler, *Diving Into the Past*, 61, 65, 68.
[295] Holmquist and Wheeler, *Diving Into the Past*, 12-14.
[296] Holmquist and Wheeler, *Diving Into the Past*, 16, 18.

Vasa, a Swedish warship which sank on its maiden voyage in 1628, and discussed plans to permanently preserve it in a museum.[297]

The 1963 Conference on Underwater Archaeology was a key turning point in the professionalization of underwater archaeology into the academic field it is today. It represented a centralizing effort among academic archaeologists and non-archaeologists to professionalize and legitimize underwater archaeology into a fully recognized academic field. The standards of underwater archaeology first set forth by Goggin were recognized from the start as the appropriate principles of underwater archaeology, and some archaeologists observed that those principles were starting to be applied to underwater excavations, though this appeared to not be the consensus everywhere and the field still faced the problem of creating standardized terminology. The inclusion of many non-archaeologists in the conference highlights how non-archaeologists continued to impact the professionalization of the field of underwater archaeology. The Conference on Underwater Archaeology would meet twice more, once in Toronto in 1965, where it was co-sponsored by the Royal Ontario Museum, and again in Miami in 1967, where the University of Miami sponsored it.[298]

The series of Conferences showed the influence that Huston's Council had on professionalizing the field. Huston, a non-archaeologist himself, continued to have a strong influence on the Council, as seen in how the Council, as well as the Conference for Underwater Archaeology, fell into disarray after his death in 1967.[299] In an August 5, 1968 letter from Robert C. Wheeler, then the Associate Director of the Minnesota Historical Society, to Peterson, Wheeler stated, "I know nothing concrete has taken place to either recognize the council [of Underwater Archaeology] or to pick up the pieces in the next conference [on Underwater

[297] Holmquist and Wheeler, *Diving Into the Past*, 92, 100.
[298] Fischer, "History," 2.
[299] Fischer, "History," 2.

Archaeology].”[300] He invited Peterson to join him in a meeting with Dr. William Anderson, the director of the American Association for State and Local History, to decide how to proceed next.[301] In a July 9, 1968 letter from Borhegyi to Wheeler, Borhegyi stated that the more pressing question is “who can officially act in behalf of the Council [of Underwater Archaeology] since John’s [Huston] death. Who is in charge and who can make official decisions?”[302] Borhegyi suggested that all current and former Council members meet somewhere with someone who would “represent John’s family (perhaps his lawyer)” in order to “untangle this mess in which we presently find ourselves,” implying that Huston’s death had legal ramifications with continuing the Council.[303] These letters from both Wheeler and Borhegyi illustrate how, without Huston, both the Council of Underwater Archaeology and the biannual Conference on Underwater Archaeology ceased to operate with no plans for the future. It is a testament to how influential Huston, a retired businessman with no prior experience in academic archaeology, was to the professionalization of underwater archaeology into an academic field. The Conference would later be brought back to life under a different name, in 1973. During an informal meeting of the underwater portion of the Society for Historical Archaeology, Wheeler, who was chairing the committee, wanted to continue the “traditions established by John Huston” and thus helped establish the Advisory Council on Underwater Archaeology, which is still active today.[304]

Huston’s involvement, as well as that of other non-archaeologists in the Council of Underwater Archaeology and Conferences on Underwater Archaeology showed that, even as academic archaeologists were starting to become more involved with underwater archaeology,

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[300] Robert C. Wheeler to Mendel L. Peterson, 5 August 1968, SIA, RU 381, Box 9, Association of Underwater Archaeology, NMHT, DHA, R, circa 1952-1976.
[301] Wheeler to Peterson, SIA, RU 381, Box 9, AUA, NMHT, DHA, R.
[302] Stephen F. Borhegyi to Robert C. Wheeler, 9 July 1968, SIA, RU 381, Box 9, Association of Underwater Archaeology, NMHT, DHA, R, circa 1952-1976.
[303] Borhegyi to Wheeler, SIA, RU 381, Box 9, AUA, NMHT, DHA, R.
[304] Fischer, “History,” 2.

divers and non-archaeologists continued to impact and involve themselves in the field. The combined involvement of archaeologists and non-archaeologists in underwater archaeology during the 1960s is perhaps best seen in CEDAM, Club de Exploraciones y Deportes Acuaticos de Mexico, or the Exploration and Underwater Sports Club of Mexico, and its efforts in hosting the 1964 convention of the Underwater Society of America.[305]

CEDAM's charter not only showed that the organization was concerned with conducing excavations with academic integrity, but that it sought to bring sport divers and academics together for the purpose of underwater archaeology. The Charter statements open by explaining the importance of sport diving, saying that "sports constitutes one of the purest manifestations of human activities" and that the sport of SCUBA diving "can be placed at the service of purposes beneficial to mankind, and of cultural and social interests."[306] The Charter statements further go on to say, "Mexican and SCUBA skin divers have already taken active part in such enterprises and are determined to continue to do so in the future," taking part in activities such as "archaeological and historical investigations."[307] Essentially, the CEDAM Charter statement recognizes that sport diving has and will continue to contribute to underwater archaeology. Article II of Charter's statues further stated that the "Objectives of the Association" shall be: I. "The promotion of the sport of SCUBA and skin-diving…and of placing said sport at the service of causes beneficial to mankind and of cultural and social interests," again showing that CEDAM is putting sport diving at the center of its target audience.[308] Article IV of the Charter further specified that the activities of CEDAM shall be: "The location, exploration, and extraction of

[305] CEDAM, "Extract," 4, SIA, RU 381, Box 9, CEDAM, NMHT, DHA, R; "Inner Space Underwater Divers To Hold Largest Convention Here," *The News,* December 22, 1963, SIA, Acc. 02-167, Box 1, Newspaper Clippings 1953-1964: Folder 2, NMHT, DHA, BF, 1953-1969.
[306] CEDAM, "Extract," 1, SIA, RU 381, Box 9, CEDAM, NMHT, DHA, R.
[307] CEDAM, "Extract," 1, SIA, RU 381, Box 9, CEDAM, NMHT, DHA, R.
[308] CEDAM, "Extract," 2, SIA, RU 381, Box 9, CEDAM, NMHT, DHA, R.

archaeological and historical under-water treasure," to collaborate with various Mexican government agencies "in the location, conservation and rescue of archaeological, prehistoric and colonial monuments," and to "promote and further all types of archaeological investigations and explorations, in accordance with the authorities," highlighting CEDAM's goal of conducting underwater archaeology for and with the Mexican government and its various agencies.[309] The charter also explicitly affirmed that the organization will not participate in treasure hunting or any activities that would destroy historical material, stating CEDAM will "assist in stopping, by all possible means…the destruction of archaeological and historical treasures and to put a stop to the illegal commerce with such treasures" and that CEDAM will "assist by all possible means in putting a stop to unauthorized diving, practiced frequently by both nationals and foreigners, with the consequence…of the plundering of ships sunk along our sea-coasts, with or without historical value."[310] CEDAM's founding charter shows that it was created as an organization to conduct underwater archaeology by promoting sport diving and discouraging treasure hunting and underwater salvage that occurred in the past.

A CEDAM International brochure additional showed that it valued sport diving as benefiting the work done on underwater archaeology, and that many notable figures agreed with its goals. Stating "CEDAM has placed the value of sports diving at the service of country, science and humanity," the brochure further goes on to echo CEDAM's charter by stating, that the goals of CEDAM are to "engage, on an international level, in all areas and facets of the marine world which can contribute to research and archaeology" and "conduct relevant scientific experiments and evaluations of all discoveries and to publish and disseminate all such results and

[309] CEDAM, "Extract," 3, SIA, RU 381, Box 9, CEDAM, NMHT, DHA, R.
[310] CEDAM, "Extract," 4, SIA, RU 381, Box 9, CEDAM, NMHT, DHA, R.

findings."[311] These goals are similar to the goals specified in the charter with a broader underwater research undertone and they indicate that CEDAM was interested in applying their goals to the international community. More interesting, however, are the names of the "charter members" and "honorary advisors" listed, including George Bass, Stephen Borhegyi, James Dugan (the author of *Man Under the Sun*), Edwin Link, Mendel Peterson, Peter Throckmorton, and Teddy Tucker.[312] This shows that academic archaeologists, amateur divers, treasure hunters (such as Tucker), and other non-archaeologists either helped create or continued to advise CEDAM, an organization dedicated to academic underwater archaeology. It also offers a perfect example of how archaeologists and non-archaeologists alike helped to create the field of underwater archaeology.

CEDAM had been active in underwater archeology for many years prior to the 1964 convention. On August 14, 1959, Ed and Marion Link ran into CEDAM divers off the coast of Cozumel Island, Yucatan, on their way back from their second excavation of Port Royal. Marion recorded that the CEDAM divers were initially reluctant to accept their help until "Ed assured their leader that we had no intentions of grabbing artifacts."[313] The fact that the CEDAM divers were initially worried that the Links were treasure hunters only interested in "grabbing artifacts" suggests that CEDAM was worried that treasure hunters would simply salvage the artifacts and not properly excavate them, demonstrating that CEDAM was more interested in conducting excavations more in line with academic underwater archaeology then underwater salvage. The Links proceeded to assist the CEDAM divers with their excavation, helping to raise cannons and other artifacts with their ship, *Sea Diver II*, showing once again that the Links were not intent on

[311] *CEDAM international*, SIA, RU 381, Box 9, CEDAM, NMHT, DHA, R.
[312] *CEDAM international*, SIA, RU 381, Box 9, CEDAM, NMHT, DHA, R.
[313] Hoek, *From Sky to Sea*, 168.

salvaging artifacts purely for personal gain.[314] This episode also shows that CEDAM seemed amicable to divers who shared the Link's reasons for salvaging, even if such people were not academic archaeologists.

According to a press release for CEDAM's Second Expedition of Underwater Exploration, which occurred in 1959 off the coast of Cancun (and was likely the same expedition the Links ran into), CEDAM enlisted the help of various archaeological and underwater exploration societies and worked in cooperation with the Mexican government for their excavation.[315] The Mexican Ministry of the Navy, National Institute of Anthropology and History, and Ministry of National Assets assisted in the expedition, as did the Yucatan Exploring Society, the Caribbean Archaeological and Exploring Society, the Middle American Archaeological Society, the Cannon Hunters Association, a "famous Mexican diving team" led by Alfanso Arnold, and various other individuals from France, Spain, Italy, Brazil, and Germany.[316] The participants seem to be a mixture of government officials, archaeologists, and amateur divers, showing that CEDAM truly was following its creed and enlisting the aid of both archaeologists and non-archaeologists. Some of those participating seemed to be more in line with the treasure hunters and underwater salvagers active in the Americas in the 1950s. The Cannon Hunters Association, led by Donald Clark, was most likely in the business of underwater salvage as opposed to underwater archaeology, for one of their members, Howard Brown, boasted "one of the world's largest private cannon" collections.[317] Still, CEDAM enlisted the aid of those interested in conducting excavations for their academic prospects. The Middle American Archaeological Society, led by John Ferris and Keith Pope, would also represent the Council of

[314] Hoek, *From Sky to Sea*, 168.
[315] CEDAM, "First," SIA, RU 381, Box 9, CEDAM, NMHT, DHA, R; Middle American, "Report #2," SIA, RU 381, Box 9, CEDAM, NMHT, DHA, R.
[316] CEDAM, "First," SIA, RU 381, Box 9, CEDAM, NMHT, DHA, R.
[317] CEDAM, "First," SIA, RU 381, Box 9, CEDAM, NMHT, DHA, R.

Underwater Archaeology on the expedition, again showing how the Council was involving itself in academic underwater excavations since its inception and that CEDAM had a relationship with such societies dedicated to the academic qualities of underwater salvage and underwater archaeology.[318]

A report from the Middle American Archaeological Society to its members regarding plans for the excavation also offers a glimpse into the goals of the excavation. The report states how members would participate in "cleaning, cataloging, and classifying articles found" and would assist in "mapping of wreck sties…in accordance with accepted underwater archaeological procedures."[319] It is unclear whether or not these "accepted underwater archaeological procedures" were in line with Goggin and Bass' standards, but it shows that CEDAM, as well as the Middle American Archaeological Society, were concerned with conducting the excavation in an academic nature. Interestingly, the report also asked for members of the society to "sell the goodies" recovered from the wreck of a merchant ship in order to "raise funds for this years Expedition," such as silverware, earrings, and a "jeweled glass cross."[320] This highlights how there was still a market for "treasure" found in underwater wrecks in 1959 and that academically centered institutions such as the Middle American Archaeological Society seemed to encourage the selling of these items, further reflecting how underwater archaeology was influenced by institutions that engaged in treasure hunting practices. Selling salvaged historical artifacts could have just been a way for organizations like the Middle American Archaeological Society to further fund themselves for more expeditions without turning a profit (as was the reason stated in the report), or it could suggest that the Society was interested more in underwater salvage than archaeology. Either way, the CEDAM sponsored

[318] CEDAM, "First," SIA, RU 381, Box 9, CEDAM, NMHT, DHA, R.
[319] Middle American, "Report #2," SIA, RU 381, Box 9, CEDAM, NMHT, DHA, R.
[320] Middle American, "Report #2," SIA, RU 381, Box 9, CEDAM, NMHT, DHA, R.

excavation was certainly conducted for the purpose of academic and historical merit, as Peterson had later "carefully examined the collection of objects" produced from the excavation stated that some of the artifacts "will be of the upmost historical importance."[321] As underwater archaeology started to make its official entrance as an academic field in the 1960s, CEDAM would continue to prove itself as one of the leading institutions dedicated to conducting academic underwater archaeology.

The fifth annual convention of the Underwater Society of America Mexico City, Mexico, offers another great example of CEDAM's creed to support academic underwater archaeology.[322] A December 22nd, 1963 article in *The News* claimed that the convention, which was hosted by CEDAM from June 17 to June 21 1964, would be the "largest convention of the Underwater Society of America" while another article from the February 13, 1964 issue of *The News* stated that "more than 1,000 underwater scientists and sportsmen from twelve Western-Hemisphere nations" would attend.[323] According to the article, Dugan and Huston, two "well known personalities in the realm of underwater exploration," would give panel talks on "Diving for Science" and "Underwater Archaeology" respectively.[324] Peterson was also scheduled to give a talk on the "preservation of objects brought up from the sea," as was Ed Link, who would discuss "the techniques that enable man to go deeper and remain longer" underwater.[325] The fact that Dugan, Huston, Peterson, and Link, all non-archaeologists, were leading panels at an international convention on underwater exploration and archaeology further highlights the

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[321] Mendel Peterson, "This will certify that I have," 3 September 1959, SIA, RU 381, Box 9, CEDAM (Conservation, Exploration, Diving, Archeology, Museums) International, NMHT, DHA, R, circa 1952-1976.
[322] "CEDAM To Host Underwater Meet," *The News*, February 13, 1964, SIA, Acc. 02-167, Box 1, Newspaper Clippings 1953-1964: Folder 2, NMHT, DHA, BF, 1953-1969.
[323] "Inner Space," SIA, Acc. 02-167, Box 1, Folder 2, NMHT, DHA, BF; "CEDAM To Host," SIA, Acc. 02-167, Box 1, Folder 2, DHA, BF.
[324] "Inner Space," SIA, Acc. 02-167, Box 1, Folder 2, NMHT, DHA, BF.
[325] "Inner Space," SIA, Acc. 02-167, Box 1, Folder 2, NMHT, DHA, BF.

impact that non-archaeologists had on the early creation of the field of underwater archaeology. Academic archaeologists were scheduled to make appearances as well, such as Bass, who was making a habit of appearing at the forefront of pioneering events in the creation of the field of underwater archaeology.[326] The Mexican government was scheduled to make a strong appearance as well, as the convention had the "support and cooperation" of the Ministry of the Navy, National Council of Tourism, and National Institute of Anthropology and History, and the President of Mexico, Adolfo Lobéz Mateos, and members of his cabinet, were invited to attend and "inaugurate the convention."[327] The fact that members and institutions form the highest levels of the Mexican government took an active interest in a convention centered around academic underwater archaeology shows how, by 1964, underwater archaeology was slowly starting to be recognized as an academic filed worth investing in. The convention also still stressed CEDAM's mission of including amateur divers in underwater archaeology. Pablo Bush Romero, the president of CEDAM, stated in the 1963 *The News* article, stated that the convention's aim would be to "expound subjects that will instruct the average diver" and that "special stress will be placed on how organized diving can participate and help in underwater exploration and archaeology."[328] Romero's comments, as well as the 1964 convention itself, show how, in the early 1960s, amateur divers were still highly valued for underwater archaeology expeditions and that institutions and conventions were created in order to make sure that amateur divers continued to assist in underwater archaeology.

The early 1960s were landmark years for the academic field of underwater archaeology. They saw what could be called the first academic archaeology excavation conducted underwater

[326] "Inner Space," SIA, Acc. 02-167, Box 1, Folder 2, NMHT, DHA, BF.
[327] "Inner Space," SIA, Acc. 02-167, Box 1, Folder 2, NMHT, DHA, BF; "CEDAM To Host," SIA, Acc. 02-167, Box 1, Folder 2, NMHT, DHA, BF.
[328] "Inner Space," SIA, Acc. 02-167, Box 1, Folder 2, NMHT, DHA, BF.

by an archaeologist at Cape Gelidonya. Divers and historians wrote manuals for amateur divers and archaeologists on how to conduct underwater excavations in a much more academic sense than more simple and destructive underwater salvage. Various conferences were held where societies that were dedicated to conducting academic underwater archaeology and made up of archaeologists and non-archaeologists, discussed the current status and future of the emerging field. All of this shows that, during the 1960s, there was an active and dynamic effort on the part of archaeologist, historians, and amateur divers to transform the current practices of underwater salvage into the direction of an academic and scientifically conducted field, now officially known as underwater archaeology. Underwater salvage would continue to occur throughout the world, but the field of underwater archaeology was now a cemented ideal in the psyche of academics and diving enthusiasts alike.

Treasure Hunting's Negative Impact On Underwater Archaeology

While the contribution of non-archaeologists to the creation of the field of underwater archaeology cannot be refuted, there is also no denying that looting and treasure hunting by non-archaeologists occurred both during and after the development of underwater archaeology. The attitudes of many newspapers and books published at the time did little to help this problem, for the media continued to romanticize treasure hunting. The issue of what constituted treasure hunting versus underwater archaeology continued as an ongoing discussion in the coming decades and still exists today.

Many newspapers and articles from the 1950s and 1960s were written with an attitude that highlighted treasure hunting and underwater salvage over underwater archaeology, or at the very least, idealized the buccaneer experience of finding sunken treasure. In the November 1955

issue of *Natural History*, a synopsis of Mendel Peterson and his work on underwater wrecks, a sub-heading in bold blue letters called "Sunken Treasure," explains that while Peterson and Link are not interested in treasure for treasure's sake, "there is little doubt that much treasure is there to be found – if one knows where to look."[329] The reset of the article focused on the academic and historical merits of Peterson's work, but the fact that the article specifically highlighted the prospect of sunken treasure showed that it was trying to catch the eye of readers, who would be more interested in treasure than archaeological artifacts. An article in the August 4, 1962 issue of *Bermuda News Pictorial* was even more flagrant.[330] The article discusses Peterson's travels to Bermuda, his relationship with Tucker and Canton, and the various historical artifacts they salvaged, but the title, "Treasure Expert Back in Bermuda for New Quests," was made to grab the readers attention and highlight Peterson as a "treasure expert" ready for his next seafaring adventure.[331] This practice of using treasure as a means of capturing the reader's attention to rather academically oriented news shows that, during the 1950s and 1960s, the idea of finding sunken treasure enticed readers much more than the prospect of finding historical artifacts and analyzing them.

The public captivation with treasure hunting continued well into the following decades, as can be seen from Bass' reaction to a June 26, 1981 article in *Science* magazine titled, "Galleon Yields Gold, Silver, and Archeology."[332] Bass wrote a livid letter to the editor of the magazine saying that the article focused only on the monetary value of the artifacts found, and lacked any "excavation reports" necessary for reporting the scientific process of the excavation.[333] Bass also

[329] Heller, "Finding History," 494, SIA, Acc. 02-167, Box 1, Folder 1, NMHT, DHA, BF.
[330] "Treasure Expert," SIA, Acc. 02-167, Box 1, Folder 1, NMHT, DHA, BF.
[331] "Treasure Expert," SIA, Acc. 02-167, Box 1, Folder 1, NMHT, DHA, BF.
[332] Bass, George F., and Reynold J. Ruppé. "Perspectives." *Journal of Field Archaeology* 9, no. 1 (1982): 146, doi:10.2307/529539.
[333] Bass, "Perspectives," 146.

stated that the article promoted treasure hunting, saying, "Your public relations job for the treasure hunters is immoral in a scientific magazine. It will do more to set back the field of nautical archaeology in the New World than any second-rate adventure magazine has ever done."[334] In a second letter to the editor, Bass mentioned that, before publishing his original letter in *Science*, the "letter editors wished to have me write in a more moderate tone" and that the magazine has done "incalculable harm" to the "protection of our nation's heritage."[335] The fact that a popular scientific magazine like *Science* published an article that Bass, one of the leading figures in creating the field of underwater archaeology, criticized as highlighting treasure hunting and underwater salvage over academic underwater archaeology shows how there was still an issue of magazines promoting treasure hunting over underwater archaeology well after the field was established in the 1960s. It also showed how the role of treasure hunting and salvage in underwater archaeology continued to be a contentious issue among underwater archaeologists like Bass. It also offers a good example of how treasure hunters continued to disregard the academic consensus surrounding what constituted as underwater archaeology.

Many sources reported examples of amateur divers and treasure hunters participating in looting and destructive treasure hunting practices while the field of underwater archaeology was being developed. Norton explains that, when Dumas worked in 1959 at a shipwreck off Saint Raphaël, amateur divers "patiently waited for the excavators to leave each day, then moved in" in pursuit of souvenirs.[336] Three years after the discovery of the shipwreck, the site was "a vast junkyard, a chaotic, dull, grey heap of broken amphorae."[337] Peterson mentioned that this was a common occurrence. As mentioned before, in his 1965 manual on underwater archaeology

[334] Bass, "Perspectives," 146.
[335] Bass, "Perspectives," 147.
[336] Norton, *Stars,* 233.
[337] Norton, *Stars,* 233.

techniques, Peterson stated that, "the past 10 years many sites have been destroyed or poorly or improperly explored. Thousands of artifacts from them have been allowed to disintegrate."[338] Throckmorton echoed Peterson's lament, later writing in his 1996 book, *The Sea Remembers. Shipwrecks and Archeology*, "in twenty years sports divers have done more harm to archaeological sites in the sea than all the forces of nature in three millennia."[339] Throckmorton had first hand experience with divers damaging archaeological sites; as Norton explains, in 1976, Throckmorton found a wreck off the Gulf of Hydra but, "as usual, getting permits to excavate took forever and in the meantime the whereabouts of the site was leaked to the newspapers and the wreck was looted."[340] There was a clear-cut difference between the divers and treasure hunters who assisted in creating the field of underwater archaeology, like Throckmorton, Peterson, Link, and the Criles, and those divers and treasure hunters who looted and destroyed archaeological sites for their own personal gain.

Conclusion

The field of underwater archaeology had changed dramatically since a group of treasure hunters and amateur divers descended on the sunken *H.M.S. Looe* in 1951. What started out for many amateur divers as a hobby and a way to collect souvenirs evolved into its own academic field. The creation of the field was the result of a collaborative effort. It involved fisherman, sponge divers, amateur and professional free divers and SCUBA divers, historians, treasure hunters, inventors, adventurers, and archaeologists. It evolved in many different locations across the world, from the warm waters of the Caribbean, to the deep waters of the Mediterranean. Its techniques advanced just as the latest technologies allowed humans to travel further and longer

[338] Peterson, *History Under the Sea,* xv.
[339] Norton, *Stars,* 278, 260.
[340] Norton, *Stars,* 260.

into ocean. The field of underwater archaeology now rests firmly in the hands of academically-trained underwater archaeologists, but its origins resulted from both land archaeologists and non-archaeologically-trained divers and treasure hunters coming together to preserve, study, and protect the cultural heritage and maritime history of humanity's long history of traveling along the sea.

While humans have been diving and salvaging wrecks since the early exploration of the world's vast sea, the modern precursor to underwater archaeology occurred in the beginning of the twentieth-century in the Mediterranean, where salvage excavations at Antikythera, Cape Artemision, and Grand Congloue involved land archaeologists, sponge divers, and sport divers and opened the door for archaeologists and historians to realize historical potential of salvaging artifacts from the sea floor. With the advancement of new breathing apparatuses in the 1940s, including Cousteau and Gagnon's Aqualung, divers gained more freedom to explore the sea floor and develop new techniques to salvage as much as possible from each wreck. These new technologies found their way into the waters of the Americas in the 1940s and 1950s, where treasure hunters, historians and amateur divers such as Edwin and Marion Link, Jane and Barney Crile, Teddy Tucker, Art McKee, and Mendel Peterson scoured the Caribbean in search of treasure and historical artifacts from the Age of Sail. Divers concerned with salvaging artifacts for their historical value, such as Peterson and Link, distinguished themselves from other divers during excavations at sites like Port Royal by utilizing salvaging and preservation techniques much more in line with the standards of academic underwater archaeology that John Goggin would set forth in 1960. As interest in underwater salvage and treasure hunting steadily increased in the 1950s, diving clubs and underwater archaeology societies developed to bring order and

control to the looting and destruction of historical material that was becoming more and more rampant.

Not until George Bass, Peter Throckmorton, Honor Frost, Frédéric Dumas, and other divers and archaeologists conducted the first underwater excavation held to the same standards as land archaeology at Cape Gelidonya in 1960 did the field of academic underwater archaeology officially emerge. The field would further develop and define itself in the 1960s with the advent of societies such as the Council of Underwater Archaeology and CEDAM, which both archeologists and non-archaeologists played a role in creating. The looting and destruction of historical sites by treasure hunters and amateur divers continued to occur during and after the 1950s and 1960s, but there is no doubt that a handful of former treasure hunters, adventurers, and amateur divers played a major role in assisting academic archaeologists in creating the field of underwater archaeology. Dugan perhaps put it best when he said, "In a way, marine archaeology is a science founded without scientists."[341] Scientists and archaeologists played a crucial role in transforming underwater salvage into underwater archaeology, but it was the treasure hunters and amateur and professional divers who first pioneered the practice of diving underwater to explore and retrieve the remains of human attempts at conquering the sea.

[341] Dugan, *Man Under the Sea*, 246.

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