Comment on Shipwreck Resource Management Issues

Presented to the U.S. Commission on Ocean Policy

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As founder of the Professional Shipwreck Explorers Association (ProSEA) and a member of the United States delegation to the expert meetings for UNESCO's Convention for the Protection of Underwater Cultural Heritage, I have had an opportunity to participate in extensive discussions with virtually every constituency of underwater cultural heritage resources. As with any other resource, there are many different user groups. Fishermen, archaeologists, sport divers, salvors, marine construction firms, oil producers, communications companies and media companies all impact the shipwreck resource. Their impact on the sites varies from group to group, but they all have a stake, and should be part of the development of any management plan.

Management of these important cultural resources, especially historical shipwrecks, has become a major resource management issue in recent years. Significant public attention has been drawn to this issue with the advent of the Abandoned Shipwreck Act, many high profile shipwreck finds and UNESCO's move to create the Convention for the Protection of Underwater Cultural Heritage as an international resource management regime.

Until recently, the battle lines in the public debate as portrayed by the media have been clearly drawn. On one side have been the treasure hunters, who have been painted as modern-day pirates pillaging shipwrecks for their own selfish gain with no concern for the archaeological record. In the other corner are some archaeologists, who have tried to claim the bailiwick as their own, maintaining that historical shipwrecks should be the exclusive domain of their discipline.

As technology provides access to millions of shipwrecks on the ocean floor, a critical policy issue has developed for Underwater Cultural Heritage (UCH) resource managers. Some in the "Preservation" community simply want the shipwrecks left alone. In Situ preservation is a valid approach for many sites, but for many shipwrecks this is analogous to leaving the remains of a 150-year-

old Conestoga wagon on the side of a remote back road and hoping that no one will pick it clean for souvenirs…at the same time praying that it will not deteriorate any further. Now multiply that times hundreds of thousands of different sites - all in an area that is virtually impossible to monitor or police - and you have a perspective on the shipwreck resource management challenge.

The debate is sometimes oversimplified by drawing an analogy to land archaeology. I have heard the argument that, "You wouldn't break up the pyramids or Mount Vernon and sell off the pieces – why should you allow the sale of shipwreck artifacts."

The key to the comparison of underwater archaeology and land archaeology is the evaluation of significance of sites in deciding how they are managed. Of course we would not sell off Mount Vernon piece by piece, but that is because of its historical significance. Every day, many very old buildings are torn down to make way for urban renewal. It would be unreasonable to endorse a policy that used age or location alone to determine how a site had to be managed on land. For the same reason, a shipwreck site – just because it is 100 years old and underwater – should still be determined to be archaeologically or historically significant before deciding that it is off-limits to legitimate constituencies of the resource.

Many of the arguments that propose a zero-sum solution to the allocation of this resource are rooted in the battles over shipwrecks that took place after the advent of SCUBA, an invention that provided mankind with it first real access to this extensive underwater museum.

Common Ground

Times have changed and the debate is no longer so polarized. Most salvors now willingly employ archaeologists to supervise their projects. Contrary to the cynical claims of some, this has probably resulted from enlightened self-interest rather than a public relations ploy. Adherence to strict archaeological guidelines reaps financial rewards for the salvor, enhancing the value of the artifacts, media rights, and public acceptance. It also provides for wider acceptance and justification for commercial access in the eyes of the judges who oversee the salvor's rights under Admiralty law.

At the same time, the archaeological community has seen the need to demonstrate more business acumen in addressing the funding requirements of their own expeditions. The old argument that shipwreck sites have been permanently stabilized and their only danger is from treasure hunters has, to a large extent, been abandoned as we've seen evidence that fisheries, some irresponsible sport divers, marine construction and industry, as well as mother nature herself take a huge toll on fragile underwater sites. Shipwrecks, such as the Resurgam, Monitor, and Titanic, which have been monitored carefully over

the past decade, have shown that significant deterioration takes place on these sites.

As a general rule, the two schools of thought appear to be finding common ground. Commercial contractors and private sector explorers are participating in archaeological conferences and archaeologists are finding an expanding job market in private sector shipwreck exploration. If one imagines a model expedition where private sector funding, technology, and expertise lend a hand to an archaeological excavation overseen by an academic institution, you would think that this would be an ideal solution for everyone.

Unfortunately, there is one issue that still begs a solution, and provides a challenge to creating a mutually acceptable shipwreck policy. That question is: Who gets the artifacts?

The Artifact Dilemma

Typically, the argument over artifact disposition tends to lump all shipwreck artifacts together into one category. This, in spite of the fact that artifacts can range from pieces of coal or cargoes of raw materials that represent minimal archaeological significance to organic remains and personal possessions that can rewrite the historical and archaeological record.

In developing a solution to one of the last remaining obstructions to private sector/academic cooperation, it may be useful to consider defining different categories of artifacts; a) those whose economic resource value outweighs their archaeological significance, and b) those whose archaeological or cultural importance should preclude sale or dispersal.

Developing a model that defines multiple categories of artifacts may also prove useful to the government agencies that are responsible for walking the narrow line between private sector exploration and archaeological sensitivity. Torn between preventing private sector access (which borders on interference with property rights) and the destruction of cultural heritage, agencies often find themselves locked into a policy of inaction. This might be acceptable if trawlers, pirates, and nature weren't taking their toll on these sites every day, but they are.

The ProSEA Model

The Professional Shipwreck Explorers Association was formed in 1996 as a professional association of private sector shipwreck explorers to create order and bring legitimacy and accountability to an otherwise fragmented industry in its infancy.

The initial members of ProSEA included some of the world's leading

underwater contractors, including Comex and Oceaneering, as well as private sector exploration firms such as Nauticos and Odyssey Marine Exploration.

Among the many initiatives of this organization was the creation of a Code of Ethics that was designed to govern the activities of members. New members must agree to abide by the Code of Ethics, and any member who violates the Code will lose his membership. The organization's by-laws include a detailed process for reporting violations and filing grievances as well as an appeals process.

The Code of Ethics itself covers many different subjects, ranging from archaeological protocols to business conduct, but one provision in particular has direct bearing on the sale of artifacts. Section 8 of the Code of Ethics reads as follows:

> *Article 8. Members agree to hold out for sale only those artifacts that have been subjected to thorough study and investigation by the Project Archaeologist. Those items that are deemed to be of irreplaceable archaeological value, and which cannot be documented, photographed, molded or replicated in a manner that allows reasonable future study and analysis, should be kept together in a collection which is available for study by legitimate researchers.*

This article is intended to address the archaeological community's valid concern that irreplaceable artifact collections should not be broken up in a manner that prevents future study. Providing for artifacts to be "documented, photographed, molded, or replicated in a manner that allows reasonable future study and analysis" before any transfer of title provides for a reasonable compromise, since it provides most of the data that can be gleaned from the artifact, even if the artifact itself is not available.

While this provision provides a good guideline, I would like to address two additional factors in providing a workable model; differentiation of artifacts based on economic versus archaeological value, and a mechanism for registration and documentation of articles that are sold.

Artifact Differentiation: A Case for Two Categories

The archaeological community doesn't have the resources to keep up with the shipwreck discoveries made regularly by fishermen, divers, and even oil and fiber optic oceanographic service companies. One solution to this challenge is to encourage private sector shipwreck exploration in a manner consistent with archaeological standards and cultural resource management principles. In theory, the actual excavation, recovery, and conservation work can be done as well by a private sector firm as by a non-profit or educational institution. On land sites, private sector Cultural Resource Management (CRM) firms are

employed on a regular basis when sites are threatened by natural phenomenon such as floods or when urban encroachment or construction projects are faced with an archaeological site in the path of their development. This is not only accepted practice, but provides a large number of jobs to archaeologists who otherwise would never find a position in the field.

Why shouldn't this same model apply to shipwrecks? The real point of contention is the ultimate disposition of artifacts from the site. If the private sector firm were to develop a mechanism for keeping the entire collection together, it would probably remove the concerns of all but the most recalcitrant archaeologists.

Alternatively, it may be useful to develop a mechanism for dividing artifacts into two different groups, one that must be kept together for study, and another that is considered of minimal archaeological significance and therefore available for sale.

One reasonable criterion for differentiating shipwreck artifacts would be to distinguish between "Trade Goods" and "Cultural Artifacts." While this is, to some extent, an artificial distinction, it provides a starting point for classifying artifacts according to their archaeological significance to a cultural assemblage.

One of the principle justifications for a class of artifact that could be eligible for sale might be called "Trade Goods." On a shipwreck site, there is a relatively distinct division between artifacts that represent the ship itself, life aboard the ship, defense of the ship, and construction and navigation of the ship as opposed to those that were goods that were being transported on the ship as cargo or freight, or as carried by passengers for trade. With the possible exception of data relating to the packing and loading of these latter goods, the cargo itself is incidental to the maritime and nautical knowledge that can be gained from the excavation of the shipwreck site.

Trade Goods are also often characterized by large quantities of similar or duplicate items that have been mass-produced with the original goal of trade and dispersion of these artifacts. Their inclusion in the assemblage is a result of a simple twist of fate, not a clue to the shipboard culture. In other words, sale of artifacts from this portion of a collection would be a continuation of the original intent of the owners, as opposed to the shipboard artifacts, which are the remaining evidence of shipboard life prior to the disaster - or perhaps clues to the disaster itself. While cargo, freight, or trade status in and of itself does not necessarily justify separation from the cultural collection of a shipwreck site, three other issues may be useful in making this distinction. They are: 1) the number of duplicates on site, 2) the ease of recording or replicating the artifacts, and 3) archaeological value versus value of return to stream of commerce.

1) Number of Duplicates on Site This is simply an evaluation of the number of artifacts of that particular type available from the site. Based on discussions with museums and archaeologists, it seems that most can agree that maintaining a minimum five- to 10-percent sample of the multiple artifacts in the permanent cultural collection. In addition to considering the number of similar pieces on the site, it might also prove useful to consider the number of similar pieces available in other collections throughout the world. If the piece is ubiquitous and virtually identical pieces can be easily found for study, the value of keeping them together may be negligible.

Since these criteria are all subjective, the final evaluation should be left to the project archaeologist. A specific set of guidelines for establishing parameters for these criteria should be clearly delineated in writing prior to beginning any project and agreed to by the project archaeologist, the project manager, and any other decision makers who have a hand in deciding the ultimate fate of the artifacts. This agreement should be part of the project design and a non-confrontational mechanism for resolving disputes should be clear. This agreement should also be an amendment to any permits or licenses with the government or authority that authorizes the project.

2) Ease of Recording or Replicating Artifacts In the ProSEA Code of Ethics, it states that those artifacts that cannot be "documented, photographed, molded, or replicated in a manner that allows reasonable future study and analysis" must be kept together. An obvious example of an artifact that is easily documented is a coin, which can be easily photographed in high resolution, weighed and the dimensions given, thus providing virtually all the data necessary for further study of the coin.

The one exception would be an analysis of the metal in the coin, but that can be accomplished, for the most part, from the sample collection of similar coins from the same site in the permanent collection. This concern is the reason that it is important to maintain a sample collection of even the most common trade artifacts.

3) Archaeological Versus Commercial Value For centuries, salvage law has sought to promote the return of valuable goods to the stream of commerce by allowing a lien enforceable in admiralty court against salvaged property. One concern of archaeologists today is that the potential cultural value should be considered in determination of economic value. How then to decide which value is greater? And to what degree? The answer is not simple, and is a subjective judgment. It can probably best be illustrated by the following example.

Consider the case of 1,000 similar gold coins recovered from a shipwreck from the late 18th Century. In this example, the market value of those coins could easily reach millions of dollars. In terms of the archaeological value, there are

many of the same coins already widely circulated throughout the coin collectors marketplace, so there is very little that can be learned incrementally about 18th Century culture that can't be learned from records and data which are already in existence. This is especially true when coupled with a representative sample, plus photos and documentation, of the coins that are dispersed.

In this case, a reasonable conclusion could be drawn that the tiny incremental value of the archaeological knowledge that could be gained from keeping the collection together does not warrant preventing a return of millions of dollars to the stream of commerce.

On the other hand, a large collection of amphorae from a Mediterranean bronze-age site would probably not have a significant intrinsic value. However, so little is known of trade from this era that minor variations in markings on the amphorae, as well as data that can be gleaned from the remains of their contents, may be data that can be gathered by no other method. In this case, a reasonable conclusion could be drawn that the low commercial value would not warrant breaking up the collection. These provide relatively simple examples, and a set of guidelines should be developed from which the project archaeologists can help make that determination on a case-by-case basis. These guidelines should also rely on input from the country or cultures that have a vested interest in the collection.

The guidelines will vary from one shipwreck to another, so it might be advisable to create an advisory board comprised of archaeologists, historians and curators who would make a recommendation for development of the guidelines for each project.

Artifact Registration and Documentation

One additional consideration in allowing the sale of artifacts would be to minimize loss of access to the dispersed pieces by keeping track of their ultimate disposition. This would serve to provide some access to the artifacts even though they have been sold.

ProSEA is currently preparing plans for an artifact registry and database that will be made available to its members. When a private sector explorer has permission from the project archaeologist to sell a collection of trade goods, the company will submit that opinion to ProSEA, along with a proposal for the documentation of the artifacts.

ProSEA proposes to register all those articles in a database, along with their photos and supporting documentation, including in situ photos and data relating to their precise location on the site. There may be a slight fee associated with the registry to offset the costs to the non-profit association, although it is also envisioned that these costs may be supported by grants.

When those registered artifacts are sold, the seller and buyer will record the transaction on the Internet through the Registry Website and the buyer will receive new certification in his or her name.

ProSEA is relying on "enlightened self-interest" for this process to work. The artifact registration process will serve to guarantee that the artifact was recovered legally and in compliance with archaeological standards, as well as serve to provide archaeological data. This will undoubtedly increase the value of the piece from both a collector's and an archaeological standpoint, ensuring the continued access to provenience data each time the title is transferred. The net result will be that each successive buyer will be motivated to register the transaction. As an added benefit, this database will also be made available to the archaeological and historical community. If a researcher wants to study the documentation of all the coins found on a site, they will be able to access the database directly. If they really need to see an individual coin for their research, the owner can be found through the registry. Ironically, this may serve to make the data from the dispersed artifacts more accessible than those lying in some museums and public collections. Institutions' valuable collections are sometimes difficult to access for a variety of reasons, including security, lack of personnel for assistance, and sometimes simply misplaced or lost collections.

There are, of course, privacy issues. When someone registers his acquisition of an artifact, he should be able to indicate whether he wants his name given out to bona fide archaeological and historical institutions. If not, he can be contacted privately through the registry, and the name of the researcher given to the owner to initiate contact. Further study of any of the artifacts will only enhance their value, and for this reason alone they will probably be made available for study upon request. Although this will probably not allow access to 100 percent of the artifacts, I believe that there will be a high percentage of the artifacts available to researchers through this method. For those that are not available directly, there will at least be photos, measurements, and other documentation that can be accessed through the registry.

Development of A Workable Underwater Cultural Heritage Resource Policy

While development of a workable artifact differentiation model presents some great challenges, it promises to be one basis for resolving the great debate that is raging over the disposition and allocation of underwater cultural heritage resources. Any model for resolving the differences between the private sector and academic constituencies of the shipwreck resource will need to be evolutionary. It is hoped that these concepts will be considered in permits or licenses granted to private sector shipwreck explorers so that they can be tested and improved with use.

With due respect, I present these thoughts to the members of the Commission on Ocean Policy in an attempt to demonstrate that there are real world, workable solutions to the challenge of managing the underwater cultural heritage in and around the coasts of the United States.

A reasonable and workable plan for the management of the shipwreck resource will require significant input from every constituency of the resource. I would request that the Commission consider input from the private sector on this issue in future meetings. We have the resources and will to assist in the management of this valuable and important resource.

Thank you for your consideration.

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Greg Stemm was co-founder and is currently Director of Operations for Odyssey Marine Exploration, a public company engaged in the exploration and archaeological excavation of deep ocean shipwrecks. He has been a pioneer in the emerging field of deep ocean shipwreck exploration and has played a primary role in the development of new technologies and the development of private sector standards for underwater cultural heritage resource management.

Stemm was responsible for directing the archaeological team and operations that accomplished the world's first complete remote robotic archeological excavation, on a Colonial Spanish shipwreck in a depth of 1,500 feet. The two-year operation resulted in the excavation of 17,000 artifacts to precise scientific standards, and was the first complete deep ocean robotic archaeological excavation ever accomplished. He has directed operations which have resulted in the discovery of hundreds of shipwrecks, including ancient Roman and Phoenician shipwrecks in waters up to 3,000 feet deep.

Greg has authored many papers and articles on deep ocean shipwreck exploration and archaeological excavation, and has given over 100 lectures on the subject to a variety of venues including the *Explorer's Club*, *Institute of Nautical Archaeology*, *Young President's Organization*, *World President's Organization*, *World Business Council, Association of Dive Contractors, The UK National Shipwreck Conference,* BMC Software and is a frequent enrichment lecturer for Cunard and Seabourn Cruise lines. He was a panelist at the 1998 *Law of the Sea Institute*, and was appointed for four consecutive terms to the United States delegation to the United Nations Educational, Scientific and Cultural Organization (UNESCO) expert meeting to negotiate the "Convention for the Protection of Underwater Cultural Heritage".

He has appeared on many television programs including *The Today Show*, *Inside Edition*, *Real TV*, *Discovery Channel Canada* and all the major network News Shows. He has written for *Maritime Heritage Magazine*, *Anthropology Newsletter, Ocean News & Technology Magazine* and authors a Column on shipwreck exploration and technology for *Underwater Magazine*. He was selected as a Fellow of the *Explorers Club*, and was the founder, past-president and is currently a Director of the *Professional Shipwreck Explorers Association* (ProSEA). ProSEA is a non-profit group that provides a forum through which private sector explorers, archaeologists and governments cooperate to promote ethical policies for dealing with shipwreck resource management.

Stemm served as a Founding Director (1986-93) and International President (1992-93) of YEO (*Young Entrepreneurs Organization)*, the world's largest international entrepreneur's organization with over 4,000 members in 74 chapters in 24 countries. YEO members average 33 years of age and together represent over $50 Billion in sales annually. He was also a Founder of the *Florida Aquarium* and a member of *MENSA, Nautical Archaeology Society,*

Marine Technology Society and the *World Entrepreneurs Organization*, where he served on the International Board of Directors (1996-98).

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Greg Stemm Publications and Presentations 1995 - 2002

Publications

March, 1996 "*The State of the Deep Ocean Shipwreck Exploration Business*"
        Ocean News and Technology Magazine

May, 1996 "*The Key to Davy Jones' Locker – Historical Shipwreck Recovery Ethics*"
        Ocean News and Technology Magazine

April, 1998 (co-author: Capt. J. Ashley Roach) "*The Deep Ocean: Our Nautical Heritage in Suspended Animation*" Maritime Heritage Magazine

March, 1998 "*Cultural Heritage in Inner Space: The Future of Historical Shipwrecks*"
        Journal of the 31st Annual Law of the Sea Institute

September, 1998 (co-author: Capt. J. Ashley Roach) "*Shipwrecks in the Deep Freeze*"
        Maritime Heritage Magazine

December, 1998 "*Meeting Place for Two Worlds – The Punic Shipwreck*"
        Anthropology Newsletter

September, 1999 "*The Shipwreck Dilemma*" Underwater Magazine

January, 2000 "*Differentiation of Shipwreck Artifacts as a Cultural Resource Management Tool*" Proceedings of Underwater Intervention 2000

March, 2000 "*Shipwrecks, Apes and Van Gogh: Issues in Underwater Cultural Heritage Management*" Underwater Magazine

June, 2000 "*Finding Common Ground to Save the Sea's Treasures*"
        IMMERSED:International Technical Diving Magazine

July, 2000 "*Shutdown at the Shipwreck Corral: Big Brother or Wild West?*"
        Underwater Magazine

September, 2000 "*Putting 'Professional' into Shipwreck Exploration*"
        Underwater Magazine

January-February, 2001 *"The UNESCO Convention: A Perspective from Inside the Process"*
    Underwater Magazine

July-August, 2001 *"A Mid-Ocean Meeting of the Minds"*
    Underwater Magazine

November-December, 2001 *"UNESCO 2002:Where Do We Go from Here?"*
    Underwater Magazine

January, 2002 *"UNESCO Gets Its Feet Wet: An Analysis of the UNESCO Convention for the Protection of Underwater Cultural Heritage"*
    MINERVA: International Review of Ancient Art & Archaeology

Papers and Panel Presentations

December 5 and 6, 2001 Bogota Colombia
Latin American ADC Conference
Paper: *"New Trends and Technical Advances in Remote Marine Archaeology"*
Panel Moderator: *"International Legal, Political and Diplomatic Issues in Shipwreck Resource Management."*

January 26, 2000 Houston, Texas
Association of Dive Contractors/Marine Technology Society UI2000 Conference
Panel Moderator: "*Trend in Commercial Shipwreck Exploration Operations*"
Panel Moderator: "*The UNESCO Convention: Strategy for Addressing Effects on Commercial Exploration*"

January 27, 2000 Houston, Texas
Association of Dive Contractors/Marine Technology Society UI2000 Conference
Paper: "*Differentiation of Shipwreck Artifacts as a Cultural Resource Management Tool*"

April 22, 1999 Paris, France
UNESCO Plenary Session/Convention for the Protection of Underwater Cultural Heritage
Presentation: "*Trends in Deep Ocean Archaeology Technology and Policy*"

January 19, 1999 Cambridge, Massachusetts
Massachusetts Institute of Technology/Deep Ocean Archaeology Conference
Panel: "*Ethics Issues of Deep Ocean Shipwreck Exploration*"

February 13, 1999 Plymouth, England
United Kingdom National Shipwreck Archaeology Conference
"*Odyssey's Punic Shipwreck: Bridging the Gap between Two Worlds*"

February 19, 1999 Rügen, Germany

International Kongress für Unterwasserachäologie – IKUWA
Panel: "*Kommerzielle Ausgrabungen und Antikenhandel*"

September 9, 1998 Lisbon, Portugal
Arquelogia dos Navios Medievais e Mondernos de Tradicão Ibero-Atlântico"
"*The UNESCO Convention for the Protection of Underwater Cultural Heritage*"

March 30, 1998 Miami, Florida
Thirty First Annual Law of the Sea Institute
Panel: "*The UNESCO Convention for the Protection of Underwater Cultural Heritage – Legal and Political Issues*"

April, 1998 Philadelphia, Pennsylvania
Explorer's Club/Shipwreck Explorers from Around the World
"*The Tortugas Shipwreck – The First Deep Ocean Archaeological Excavation*"

March, 1997 Plymouth, England
Fort Bovisand/UK National Shipwreck Archaeology Conference
"*Deep Ocean Archaeological Robotic Techniques employed on the Tortugas Site*"

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