

Proposal Abstract

The Eratosthenes Seamount Deepwater Survey

Abstract (150 Words)

The Eratosthenes Seamount (ES) is one of the largest (~80 X 100 kilometers) features in the Mediterranean. It lies 100 kilometers due south of the western part of Cyprus and rises to a depth of 690 meters from a surrounding abyss of ~2000 meters. This plateau straddles the ancient sea route between Cyprus and Egypt and receives minimal sedimentation, which bodes well for locating significant ancient shipwrecks on a route active at least since the 14th century B.C. Dr. Robert D. Ballard has invited me to organize a team of archaeological observers to participate in a 2010 geological survey of ES aboard the R/V *Nautilus*. My international team will come from the Cyprus American Archaeological Research Institute (CAARI) and the Hellenic Institute for Ancient and Medieval Studies (HIAMAS). A daily video internet link to CAARI will promote nautical archaeology in Cyprus.

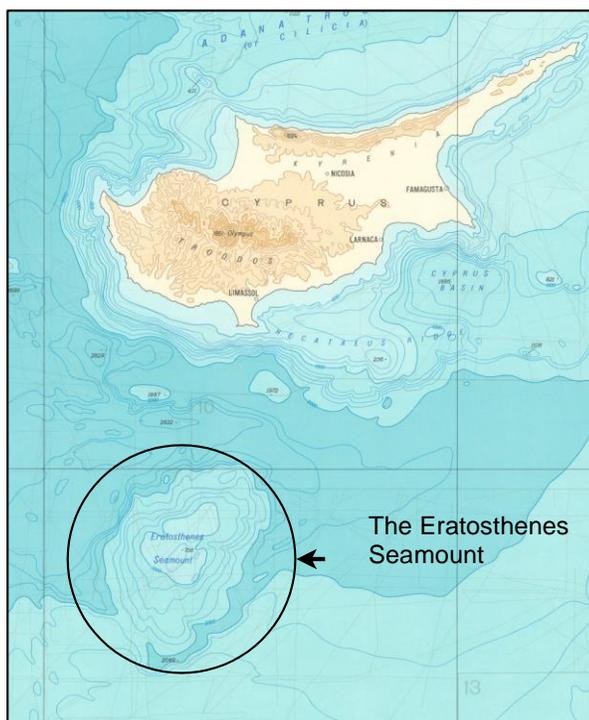
Proposal Description

The Eratosthenes Seamount Deepwater Survey

Project description.—This proposal seeks support for a team of nautical archaeologists to participate as observers on a deep-water geological survey of the Eratosthenes Seamount during summer 2010.

Capability of principal investigator.— I have worked actively in the field of nautical archaeology for nearly four decades. For thirteen years (1976-1989) I served as Inspector of Underwater Archaeology for the Israel Department of Antiquities and Museums. Since 1990, I have taught at Texas A&M University's Nautical Archaeology Program (NAP), while directing fieldwork almost on a yearly basis. Annually for the past seven years (2003-2009) I have organized and led deep-water archaeological surveys in the eastern Mediterranean. I also have a solid record of scholarly and popular publications, including over 60 articles, four books (two award winning) with a fifth book currently in press.

Background information on project.— The Eratosthenes Seamount straddles the ancient sea route between Cyprus and Egypt. This underwater plateau is one of the largest (~80 X 100 kilometers) features in the Mediterranean Sea. It lies about 100 kilometers directly south of the western part of Cyprus and rises to a depth of 690 meters (highest point of plateau at 33° 40' N/32° 42.5' E) from a surrounding abyss of over 2000 meters. Thus, despite its proximity to the outflow of the Nile River, sedimentation should be relatively low. In the past, geological dredging has raised non-local granite and basalt stones, which have been identified as ballast.



My own interest in the plateau stems from research I did on a 14th century B.C. Akkadian text discovered in

Egypt at the abandoned city of the heretic pharaoh Akhenaten (see support file, redacted 1986). El Amarna Tablet 114 is a letter from Rib Addi the embattled king of Byblos—in modern Lebanon—to the pharaoh, in which he describes the return voyage of Amanmasha, an Egyptian official to Egypt. This text indicates that the geographical term “Alashia” is to be equated with all

or part of Cyprus, and that Amanmasha's sea voyage took him from Byblos over the open sea to Cyprus and then south to Egypt. This is the earliest evidence for this direct route, one that we may reasonably assume to have passed directly over the Eratosthenes Seamount. Thus, the plateau is that rare location that is both an ideal geological location in which to search on a major ancient shipping route. A survey of this area holds the potential to reveal shipwrecks of great archaeological/historical significance.

This summer Dr. Robert D. Ballard will be conducting a multi-faceted research cruise in the Black Sea and the Mediterranean in his new vessel, the R/V *Nautilus*. The field season includes a geological survey of the Eratosthenes Seamount and, aware of my interest in it, Dr. Ballard has invited me to organize a team to serve as archeological observers during the survey.



The Eratosthenes Seamount lies outside territorial waters but within the Exclusive Economic Zone (EEZ) of Cyprus. In consideration of this, I have partnered in this project with the Cyprus-American Archaeological Research Institute (CAARI) and the Hellenic Institute for Ancient and Medieval Alexandrian Studies (HIAMAS), who will supply two nautical archaeologists (Dr. Stella Demesticha and Ms. Ireni Chrysoheri). I will also set up a relatively low-tech video link during the project from the ship to CAARI so that members of the archaeological team will be able to give daily updates to land-based archaeologists on Cyprus.

Project objectives.—This project will be carried out primarily by running sidescan sonar lines to locate anomalies, the most promising of which will be sight checked by means of a Remote Operated Vehicle (ROV). Any remains (shipwrecks, jetsam, etc.) of archaeological/historical interest will be documented by the team and evaluated for possible future research. Additionally, an aim of this project is to raise the awareness of nautical archaeology in Cyprus and to foster good will there.

Work to be performed.—Team members will be responsible for standing watch around the clock when the ship is on station (four hours on eight hours off). Additionally, the team will be making regular videoconferences with land-based archaeologists in Cyprus through a video link.

Dates of the expedition.—The Eratosthenes Seamount survey is scheduled to take place August 15-22, 2010.

Anticipated outcome.—Although geological in nature, this survey will be the first time that the Eratosthenes Seamount will be studied by an archaeological team. Any shipwrecks, or other cultural remains of archaeological/historical significance discovered during the survey will be

mapped, studied in situ, and the results of this research will be disseminated in peer-reviewed scientific publications and conferences.

Potential for external support.—Given the speculative nature of this survey from a nautical archaeological standpoint, the potential for external support to cover the archaeological team is difficult.

Interdisciplinary aspects.—By its nature this project is interdisciplinary. We are using a geological survey to advance archaeological research in a region that is at present terra incognita and which has never received such detailed study.

References

Krasheninnikov, V. A., G. B. Udenstev, V. I. Mouraviov, *et al.*, 1994. Geological Structure of Eratosthenes Seamount. In *Geological Structure of the Northeastern Mediterranean (Cruise 5 of the Research Vessel 'Akadmik Nikolaj Strakhov')*. V. A. Krasheninnikov and J. K. Hall, eds. Jerusalem, Historical Publications—Hall Ltd.: 113-130.

Mart, Y. and H. F. Robertson, 1998. Eratosthenes Seamount: An Oceanographic Yardstick Recording the Late Mesozoic-Tertiary Geological History of the Eastern Mediterranean. *Proceedings of the Ocean Drilling Program, Scientific Results* 160: 701-708.

TAMU BUDGET INFORMATION

Investigator(s) Salary:	\$0.00
Investigator(s) - Fringe Benefits:	\$0.00
Investigator 2 Salary:	\$
Investigator 2 - Fringe Benefits:	\$
Investigator 3 Salary:	\$
Investigator 3 - Fringe Benefits:	\$
Investigator 4 Salary:	\$
Investigator 4 - Fringe Benefits:	\$
Graduate Student(s) Salary:	\$0.00
Graduate Student(s) - Fringe Benefits:	\$0.00
Postdoctoral Employee(s) Salary:	\$0.00
Postdoctoral Employee(s) - Fringe Benefits:	\$0.00
Other Employee(s) Salary:	\$0.00
Other Employee(s) - Fringe Benefits:	\$0.00
Other Research Professionals:	\$0.00
Services:	\$0.00
Scientific equipment and supplies:	\$3500.00
Equipment:	\$0.00
Travel:	\$5000.00
Accommodations:	\$1000.00

Meals:	\$500.00
Other:	\$0.00
Total:	\$10000.00

Budget Justification

Scientific equipment (\$3,500) The project will require a laptop computer with accessories, both for documentation as well as for video conferencing with CAARI. External hard drives will be used to store data and a computer camera will be required for CAARI.

Travel.(\$5,500) I will be meeting with colleagues from HIAMAS in Athens and will help in setting up the communication link at CAARI in Nicosia. From there I will fly to Santorini, with my two colleagues, to embark on the project. I have tentatively priced my flight alone on Expedia for slightly under \$3,000. I believe that the proposed amount is reasonable to cover the travel expense of my team and myself both by air and on land when necessary.

Accommodations and meals in Nicosia. I will stay at CAARI for no charge but I will require accommodations during my visit to Athens and for my team and myself in Santorini and Nicosia during mobilization and demobilization. Given that present (March 1st, 2010) U.S. Department of State maximum travel per diem (Lodging /Meals) for Athens stands at \$342/day the amount requested is probably a lowball of the total amount required