

Nautical Archaeology Program

Mission Statement

The Nautical Archaeology Program (NAP) mission is to acquire and disseminate knowledge about seafaring and maritime activity through time.

Faculty

The seven NAP faculty include: [Deborah Carlson](#), [Kevin Crisman](#), [Christopher Dostal](#), [Donny L. Hamilton](#), [Cemal Pulak](#), [Filipe Vieira de Castro](#) and [Shelley Wachsmann](#). Other professors in the Department of Anthropology work regularly with NAP faculty and students, and serve on graduate committees. The NAP of the Anthropology Department at Texas A&M University (TAMU) specializes in training graduate students in the archaeology and history of ships and seafaring. Courses focus primarily, although not exclusively, on maritime activity in the ancient Mediterranean and Medieval Europe, as well as world-wide seafaring in the historic period. The seven faculty members of the NAP are united in their scientific approach and share common interests in the following four themes:

I. Ship Construction

Focuses on the evolution of wooden-planked water transport including the development of building techniques and the underlying philosophies guiding design and construction practices. All time periods, including ancient, medieval, and early modern, are topics of study.

Professors: Castro, Crisman, Dostal, Pulak

Emphases: Development of technology over time; Transfer of technology

II. Old World Seafaring

Covers seafaring in the Mediterranean and Black Sea from the earliest evidence of maritime activity to the end of the medieval period (circa A.D. 1450).

Professors: Carlson, Pulak, Wachsmann

Emphases: Material culture analyses; Trade, commerce and economy; Subsistence and diet; Environmental reconstruction; Iconography of Ships; Ancient Technology; Textual Evidence of Seafaring; Naval Warfare

III. World Seafaring

Covers half-millennium period from the age of exploration to the present, with an emphasis on the post-1500 spread of Western European culture and seafaring practices around the globe. Maritime activity in the western hemisphere is a major area of concentration, particularly in the North American lakes and rivers, the Gulf Coast, and the Caribbean Sea.

Professors: Castro, Crisman, Dostal, Hamilton

Emphases: Shipboard life; Seafaring technology; Social organization; Subsistence and diet; Material culture analyses; Trade, commerce and economy; Culture change; Cognitive archaeology; Role of ships in warfare

IV. Conservation and Recording of Archaeological Material

Emphasizes the stabilization of archaeologically-recovered objects, particularly from underwater sites.

Professors: Dostal, Hamilton

Emphases: Development of new conservation technologies; Scientific application of new conservation techniques; Recording of archaeological data; 3-D scanning; material analysis

Within these four broad areas of study, some faculty members focus on the seafaring of different time periods and cultures. Knowledge of different ship construction techniques, maritime technologies, economics, iconography, archival sources, as well as the use of photography and three-dimensional visualization all play a role in interpreting the past through nautical archaeology. Other professors in the Department of Anthropology work regularly with NAP faculty and students and serve on graduate committees.

Our faculty and students direct and participate in projects around the world including many in Mediterranean countries, Africa, eastern Asia, northern Europe and the Americas. NAP students work in the field as well as in the classroom and are encouraged to pursue individual projects that will help define nautical archaeology's future.

Affiliated Resources & Facilities & Staff

Our interdisciplinary, scientific approach to nautical archaeology is coordinated with the [Center for Maritime Archaeology and Conservation \(CMAC\)](#) and the [Institute of Nautical Archaeology \(INA\)](#). Each brings a variety of resources and strengths that can be utilized for field projects, laboratory studies, and archival research. In addition, the vast research and scientific resources of Texas A&M University, one of the major research universities in the United States, add immeasurably to the programs mission.

Additional support is provided by [Helen Dewolf](#), Glenn Grieco, [James Jobling](#), Peter Fix, John Hamilton, Karen Martindale, and other staff of the Center of Maritime Archaeology and Conservation.

The following is a list of research facilities available to researchers at the NAP:

[Center for Maritime Archaeology and Conservation Laboratories](#)

[Old World Laboratory](#)
[World Seafaring Laboratory](#)
[Steffy Ship Reconstruction Laboratory](#)
[Ship Model Laboratory](#)
[Analytical Archaeology Laboratory](#)
[Conservation Research Laboratory](#)

[Institute of Nautical Archaeology](#)

INA – Headquarters, College Station, Texas
Administrative offices

INA - Project Data and Images Archive
INA - Bodrum Research Center, Turkey
Administrative building, library, dormitory, conservation laboratory, computer laboratory,
research vessel fleet, maintenance shops

[Department of Anthropology](#)

[Center for the Study of the First Americans](#)

Palynology Laboratory

Zooarchaeology Laboratory

Paleoethnobotany Laboratory

Geoarchaeology Laboratory

Lithics Laboratory

Archaeological Ecology Laboratory

[Anthropology Research Collections](#)

[Ancient DNA Laboratory](#)

NAP graduate student training is theoretically and methodologically based. All students are expected to become proficient in a range of archaeological field and laboratory techniques. Development of technical skills in the areas of ship reconstruction, artifact conservation, and archaeological recording and analysis is strongly encouraged. Anthropology Department courses in geoarchaeology, lithics analysis, bioarchaeology, paleobotany, and zooarchaeology can provide students with areas of specialization. Each student is expected to become proficient in the archaeology and history of seafaring of a time period or culture area, and must be able to design and complete original research that is theoretically grounded and methodologically sound. Graduate students are expected to participate in archaeological field projects; however, thesis or dissertation research need not be field-based.

Academics

The NAP of the Department of Anthropology is responsible for establishing the degree requirements and the courses required to provide well-rounded training in the discipline of nautical and maritime archaeology. NAP is a graduate program and does not grant baccalaureate degrees; however, a variety of undergraduate courses are taught by NAP faculty.

Undergraduate Curriculum

The NAP faculty teaches a number of undergraduate courses dealing with archaeology, maritime archaeology, seafaring, and material culture for students pursuing a bachelor's degree in Anthropology and for non-major students. The courses are designed to fill a range of needs from providing a general background in the field of archaeology to in-depth training to prepare students for graduate studies. For a specific list of requirements for a B.A. degree in Anthropology or B.S. degree in Archaeology and a complete list of the undergraduate courses taught in Anthropology, see the Texas A&M University undergraduate catalog.

Nautical Archaeology-Oriented Undergraduate Courses

ANTH 313 Introduction to Historical Archaeology
 ANTH 316 Introduction to Nautical Archaeology
 ANTH 317 Introduction to Biblical Archaeology
 ANTH 318 Nautical Archaeology of the Americas
 ANTH 323 Nautical Archaeology of the Ancient Mediterranean
 ANTH 330 Field Research in Anthropology
 ANTH 353 Archaeology of Ancient Greece
 ANTH 354 Archaeology of Ancient Italy
 ANTH 402 Conservation of Archaeological Materials
 ANTH 417 Naval Warfare and Warships in Ancient Greece and Rome
 ANTH 436 Ancient Egypt
 ANTH 485 Directed Studies
 ANTH 489 Special Topics: Romans, Arabs, and Vikings: Seafaring in the Mediterranean During the Early Christian Era

Graduate Curriculum

Graduate Courses in Nautical Archaeology

Required MS	Required PhD	Elective	Course Number	Course Name
	X		ANTH 601	Biological Anthropology
	X		ANTH 602	Archaeological Method and Theory
		X	ANTH 603	Seafaring Life and Maritime Communities
	X		ANTH 604	Cultural Methods and Theory
X	X		ANTH 605	Conservation I
		X	ANTH 606	Conservation II
		X	ANTH 607	Historical Archaeology
X			ANTH 608	Skills in Maritime Archaeology
		X	ANTH 610	Outfitting and Sailing the Wooden Ship
X	X		ANTH 611	Introduction to Nautical Archaeology
		X	ANTH 612	Preclassical Seafaring
		X	ANTH 613	Classical Seafaring
		X	ANTH 614	Books and Treatises on Seafaring
X	X		ANTH 615	History of Wooden Shipbuilding
X	X		ANTH 616	Research and Reconstruction of Ships
		X	ANTH 617	Conservation III
		X	ANTH 618	Medieval Seafaring in the Mediterranean
		X	ANTH 628	New World Seafaring

		X	ANTH 629	Post-Medieval Seafaring
	X		ANTH 642	Statistics in Research
		X	ANTH 660	Archaeological Field Work
	X		ANTH 670	Pro-Seminar
		X	ANTH 685	Directed Studies
		X	ANTH 689	Special Topics
X	X		ANTH 691	Research

Directed studies (ANTH 685) are independent study courses in which the student develops a research project in consultation with a professor and pursues that project throughout the semester. The student is expected to produce a paper or other tangible result, and is expected to consult regularly with the professor.

Research Hours (ANTH 691) Students actively engaged in the research and writing of their thesis and dissertation are expected to enroll in ANTH 691 under the direction of their committee chair in order to meet university enrollment requirements.

Relevant Courses Taught in the Anthropology Department

Undergraduate Courses

ANTH 403 Anthropology of Religion

ANTH 439 Gender, Ethnicity, and Class in Archaeological Research

ANTH 447 Lithic Artifact Analysis

Graduate Courses

ANTH 621 Prehistoric Technology (ceramics or lithics)

ANTH 624 Geoarchaeology

ANTH 625 Zooarchaeology

ANTH 632 Archaeology of Death

ANTH 634 Palynology

ANTH 637 Paleoethnobotany

ANTH 639 Gender, Ethnicity, and Class in Archaeological Research

ANTH 640 Anthropological Ethics and Professionalism

ANTH 642 Research Methods in Anthropology

ANTH 645 Cultural Resource Management Archaeology

ANTH 647 Lithic Artifact Analysis

ANTH 652 First American Archaeology

ANTH 689 Special Topics

Nautical Archaeology Degree Requirements

This document sets forth the requirements for all students pursuing a graduate degree in the NAP. A Bachelor's degree in a related field is the minimum prerequisite for admission; a bachelor's degree in anthropology, archaeology, history, geography, foreign languages, or various science degrees is preferred but not required. Applications are considered on a case-by-

case basis, after examination of each applicant's academic transcripts, admissions essay, Graduate Record Examination (GRE) scores, and letters of recommendation. Students admitted into the NAP follow one of three tracks to complete their graduate degree.

TRACK 1: Master of Science (M.S.) in Maritime Archaeology and Conservation.

Total Credits: 30-32 credit hours. The curriculum is designed to allow students to complete the M.S. in a two-year framework. All students will also be required to write a short thesis in order to complete the degree and complete an internship or participate in field work.

TRACK 2: Students entering the Ph.D. program with a master's degree in Anthropology or a related field approved by the NAP. For students with a thesis or a paper submitted to a refereed journal, 64 credits are required. Master's students without a thesis will be required to meet additional requirements. University rules stipulate that all Ph.D. degree requirements must be completed within ten years from the first semester of enrollment.

TRACK 3: For students entering the Ph.D. program without a master's degree, 96 credits are required to complete the degree, and all requirements must be completed within ten years from the first semester of enrollment. Students entering the PhD program will be expected to complete a M.A. degree with a thesis along the way. Note: language courses are not included in the total number of credit hours required for graduation.

The Program requirements for graduation stated here are applicable in most instances, but the student's graduate committee has the ultimate authority as to what is required. Students should work closely with their committee chair when developing a degree plan. Preparation of a thesis or dissertation is a demanding task, and students are advised to find a research topic in which they have a strong inherent interest.

Each student must complete a thesis or dissertation based on independent research. All theses and dissertations must be submitted in electronic format to the Office of Graduate and Professional Studies and a digital copy put on file in the Department of Anthropology. For NAP theses and dissertations, examples of accepted reference styles include: the *American Journal of Archaeology*, the *Journal of the Society for Historical Archaeology*, the *Journal of the Society for American Archaeology*, and the *International Journal of Naval History*.

Master's Degree Requirements

TRACK I: Master of Science Degree in Maritime Archaeology and Conservation

Total Credits: 30-32 credit hours

Required Courses (16 credit hours):

ANTH 605	Conservation of Archaeological Resources I (4 credit hours)
ANTH 608	Skills in Maritime Archaeology (3 credit hours)
ANTH 611	Introduction to Nautical Archaeology (3 credit hours)
ANTH 615	History of Wooden Shipbuilding (3 credit hours)

ANTH 616 Research and Reconstruction of Ships (3 credit hours)

During their first year, M.S. students will form a degree committee comprised of three TAMU faculty: the Chair (a NAP professor) and two members (one from NAP or another Anthropology Department professor, and one from a TAMU department outside the Department of Anthropology). The committee chair will serve as the students principal advisor, and can assist with finding the other members of the committee, selection of coursework and the filing of a degree plan, and with the selection of a suitable M.S. thesis topic. Students must form their committee and file a degree plan no later than the start of their second semester of coursework.

Internship Requirements

Students will complete the internship during the summer after their first year in the program. The internship might involve work at the Conservation Research Laboratory (CRL), fieldwork on an underwater archaeological excavation, or an internship at a museum or archaeological research institution. Students should have their plans for the internship approved by the chair of their graduate committee. The internship requirement is mandatory, though this requirement can be fulfilled without formally registering for it with the university.

- ANTH 660 Field Archaeology (optional)
- ANTH 684 Anthropological Internship (optional)

Thesis Requirement:

All students write a thesis in order to complete the degree. The completion of a thesis is essential for obtaining certain types of positions as professional archaeologists and also to be listed on the Registry of Professional Archaeologists (RPA). Students should start working on the thesis during their first year, and the thesis proposal should be filed with OGAPS by the end of the second semester. Students will enroll for a minimum of 1 and no more than 3 credit hours ANTH 691 during the course of their graduate studies in the M.S. degree program.

- ANTH 691 Research Hours (1-3 credit hours maximum)

Students will complete a minimum of 13 and a maximum of 15 credit hours of electives from table 1 on page 4.

Doctoral Degree Requirements

TRACKS 2 AND 3: DOCTORAL DEGREE PROGRAM

Admission to the Doctoral Degree Program

Students may be admitted to the NAP doctoral program with either a bachelor's degree (Track 3) or a master's degree (Track 2). The research interests of the student should overlap with one of the research themes of the NAP. In the admission essay, students must state their interests and the faculty members with whom they would like to work. A majority vote of the NAP faculty is needed to admit a student. Every student must demonstrate to their graduate committee an ability to undertake scholarly research and produce well-written, publishable papers. A thesis-option Master's degree fulfills this requirement. Students who do not have a thesis-option M.A. must satisfy the research paper requirement described below. In order to be admitted into the NAP via Track 2 or 3, the following requirements must be fulfilled.

1. Students holding a baccalaureate degree who are accepted to enter via Track 3 must complete 96 credit hours within a 10 year time limit. Before being formally accepted into the doctoral program, the student must complete the research paper requirement (see below).
2. Students holding a master's degree in an approved subject are accepted via Track 2.

64 credit hours will be required for students who have completed their master's degree with a thesis.

70 credit hours will be required for the student holding a master's degree completed without writing a thesis. Students accepted with a non-thesis option must go through the same evaluation process described below for students entering the doctoral program with a bachelor's degree.

3. Ph.D. students must formally establish a graduate degree committee, consisting of three members from the Department of Anthropology (with the majority being from the NAP) and one member from outside the Department of Anthropology. Students who have completed a thesis-option M.A. (see 2A above) should form a committee no later than the end of their third semester (second year); students with a B.A. or non-thesis option M.A. (see 2B above) must form a committee by the beginning of their third semester (second year) to commence work on the research paper requirement.

The following courses are required by the NAP for the Ph.D. degree:

ANTH 605 Conservation of Cultural Resources I
ANTH 608 Skills in Maritime Archaeology
ANTH 611 Nautical Archaeology
ANTH 615 History of Wooden Shipbuilding
ANTH 616 Research and Reconstruction of Wooden Hulls

(15) credit hours

The following courses are required by the Department of Anthropology for the Ph.D. degree:

ANTH 601 Biological Anthropology
ANTH 602 Archaeological Method and Theory
ANTH 604 Cultural Method and Theory
ANTH 670 Pro Seminar
ANTH 642 or STAT 651- Statistics in Research

(15) credit hours.

Of the remaining 34-66 credits, students should take at least 12 credit hours in Nautical Archaeology seminars. Students are required to take at least 6 credit hours outside of the department of Anthropology in subjects related to their research interests. Note that courses required to complete the language requirement and STAT 651 cannot be used to meet this requirement.

Policy Regarding Department Core Classes and Field Research Experience

All Ph.D.-seeking graduate students in the NAP must graduate with archaeological field experience. It is the responsibility of the student's committee chair to make sure that this is enforced. Ideally, field experience will be on a TAMU-, CMAC-, or INA-sponsored project; students should be aware, however, that in-house field opportunities fluctuate annually, and we cannot guarantee that faculty members will be leading major field projects every year. Nor can we guarantee that there will be space for every student on a given project, although NAP students are generally given preference when field crews are selected. Students are encouraged to acquire field experience on projects run by other graduate students, or by outside universities and research organizations.

Annual Student Review Process

Each year, NAP faculty will evaluate students and determine if they are making "satisfactory" or "unsatisfactory" progress towards completion of their degree requirements. Every spring semester, graduate students are required to submit a progress report, a proposed schedule of classes and/or research to be completed in the next year, and a vita to their advisor for review. Each student's progress is then evaluated based on these reports, conducted by the student's

advisor. Student progress reports will also be reviewed at a meeting of the entire NAP faculty. Before the end of the spring semester, the student will receive a letter from their advisor informing them of the results of the evaluation and expectations for the future. Each annual review will be placed in the student's official file and a copy will be given to the student.

In cases where the advisor, supervisory committee, and the NAP faculty deem that the student's progress is "Unsatisfactory," the annual review letter will specify what the student must do (including a time line) to improve their status. Failure to follow what is specified in the letter and the receipt of a second "unsatisfactory" review may result in a student's dismissal from the program.

Teaching Experience

During their term of graduate studies at TAMU, students are strongly encouraged to develop skills and experience teaching undergraduate-level courses. The Department of Anthropology endeavors to assist graduate students with undergraduate teaching as opportunities and funding permit.

Foreign Language Requirement

A reading proficiency in at least two foreign languages (acceptable to the student's graduate committee) is required for the doctoral degree in the NAP. The criteria for meeting the foreign language requirements are essentially the same as those listed for the Master's degree; however, with the approval of the student's degree committee, one of the two foreign language requirements may be substituted with a class in statistics. For students with special dissertation research requirements, Latin or Greek may be required in addition to one or more modern languages. Credits earned at Texas A&M University to fulfill the language requirements (or as a substitute for a foreign language requirement) do not count toward the credit hours needed for completion of the doctoral degree. In general, the language requirement may be fulfilled by one of the following options:

- Have a B average in a two-year undergraduate language program
- Receive at least a B in a graduate-level reading course in the chosen language (either at Texas A&M University or another university)
- Pass a written examination administered by the Department of Modern Languages or a NAP faculty member

Students may contact Dr. Filipe Castro to arrange examinations in French, Spanish and Portuguese, or Dr. Deborah Carlson to arrange an examination in Italian. Otherwise, students should contact the Department of Hispanic Studies (Spanish) or the Department of European and Classical Languages. If testing in the appropriate language is not available from these departments, students should contact their committees to discuss other arrangements.

Completing the Doctoral Degree Requirements

Ph.D. students must prepare a dissertation proposal no later than their third year of study. This proposal will specify the intended topic of the dissertation, theoretical framework, the geographic and temporal areas of field work, and methods of research. The proposal is submitted to the student's graduate committee for review and approval. The student is encouraged to format the proposal in a manner similar to an NSF Dissertation Improvement

Grant or similar grant format that can be used to apply for research funds. Students are also strongly encouraged to apply for university funds and outside support of their dissertation research.

Preliminary written and oral examinations will be held to assess the student's knowledge in nautical archaeology and related fields. These examinations are typically given after the student has completed all major course work. The exam will be presided over by the student's graduate committee advisor. The advisor and committee members will provide reading lists in advance of the examinations, and each committee member will prepare written questions for the examinations. The student must satisfactorily pass both the written and oral preliminary examinations before being admitted to Ph.D. candidacy.

After the Ph.D. preliminary examinations are approved by the graduate committee, the student researches and writes the dissertation. The format for NAP dissertations is a comprehensive study, with original data, syntheses, and interpretations presented in multiple chapters. The manuscript should be prepared for publication as a book or monograph using one of the journal formats approved by the NAP. Early drafts of the manuscript are submitted only to the committee chair for preliminary review, and only after the chair approves are copies to be submitted to other committee members for reading. A defense of the dissertation is held, and once the dissertation is approved by all committee members, the student completes all corrections and submits the final version to the TAMU Office of Graduate and Professional Studies.

Conservation Training Certificate

A certificate in conservation training, recorded on official TAMU transcripts, is available to any non-degree or degree-seeking student enrolled at TAMU. The certificate is awarded to students who take a minimum of 12 credit hours in conservation or conservation-related courses. The courses do not need to appear on the student's degree plan. There is no guarantee that the required 12 credit hours will be offered in a given academic year.

The required courses are as follows:

ANTH 605 (3)

Conservation of Archaeological Resources I. Fundamentals and applications of artifact conservation techniques in archaeology.

ANTH 606 (3)

Conservation of Archaeological Resources II. Practical, hands-on experience in the identification and conservation of metal and organic artifacts. Prerequisite: ANTH 605.

ANTH 617 (3) OR 689

Conservation of Organic Materials. The goals of this course are to gain hands-on experience in the preservation of organic material culture using traditional and newly-discovered preservation methods. Students will conduct experimentation, developmental research, seminar classes, and applied artifact conservation.

ANTH 689 (3) OR 617

Analytical Methods in Archaeology and Conservation. Students familiarize themselves with 3D laser scanning, photography, photogrammetry, 3D printing, artifact sketching, microscopy, and X-Ray fluorescence.

ANTH 685 (1-4)

Directed Studies or Research. Areas of research may include directed studies or internships at the Conservation Research Laboratory.

Depending on a student's previous training and experience, alternative courses can be substituted for ANTH 605 or 617

Note: Admission to the Conservation Training Certificate Program does not guarantee subsequent acceptance to the NAP Graduate Program.