Cemal Pulak, Ph.D.

Fall 20210 – Thursday 9:30 – 12:30
Anthropology Building – Room 130

Instructor: Prof. Cemal Pulak, Nautical Archaeology Program, Department of Anthropology
Office: Anthropology 128A (inside the Old-World Laboratory, Anthropology 128)
Office Hours: Thursday 1:00 – 4:00 pm or by appointment
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Course Description and Objectives: This course is taught in seminar format and is designed to examine the major components of watercraft and the systems involved in operating them. The survey cannot hope to be comprehensive in any real sense, but at the end of the semester students should have a solid grasp of the basic principles influencing the construction and operation of ships and boats, the major trends in the development of watercraft, and some sense of the relationship between shipbuilding and greater economic, social, and technological developments in culture.

The course revolves around a single meeting, of three hours, each week. Part of that meeting may involve an introductory lecture to explain fundamentals and to set the scene for the day’s discussion (the first three weeks will be all lectures, in order to introduce basic concepts). The rest of the meeting is a mixture of formal presentations by students--generally two major presentations of 30 minutes each (marked on the syllabus by *) and a number of shorter contributions of 15 minutes each--and general discussion. The goal is not only to gain an understanding of the basic principles involved, but through informed dialogue to explore new ideas and alternative interpretations. The livelier the discussion, the more successful will be the class. All ideas are welcome, and you should remember that there are no gospels in this field. Just because an expert in the field wrote it, or I said it, does not mean it is incontrovertibly true. Challenge, and open yourself to challenge.

Please have all your presentations complete well beforehand. The order of reports as given in the syllabus may not be strictly observed on the day, so you should be ready by the beginning of class.

Resource Materials: The primary text for this course is Richard Steffy’s Wooden Ship Building and the Interpretation of Shipwrecks. In addition to several other titles given in your syllabus for background reading, there are a number of readings assigned each week. These readings are divided into two groups: required and suggested. The required readings (marked by *) provide essential information on the topic of the week, and the suggested readings (which may be quite extensive) provide additional information and greater depth. Because the course depends on informed group discussion, it is imperative that you keep up with at least the required readings.

**Grading:** Course grading is based on:

5% proposal and abstract for the semester paper
45% semester paper
40% on oral presentations (25% on the major presentations, 15% on the others)
10% on contributions to class discussions

This last is not just a “fudge factor,” but an incentive to think about the material and make an original contribution to our understanding of the history of seafaring. Students are responsible for being prepared for their class presentations. Extra credit assignments will NOT be offered. Do not feel that because you are new to the subject you have nothing concrete to offer, or worry that you do not speak well in front of others. Everyone has something to contribute, and this is your chance to take a stand.

Grading will be assigned as follows:

90 to 100 = A (Excellent)
80 to 89 = B (Good)
70 to 79 = C (Satisfactory)
60 to 69 = D (Passing)
59 and below = F (Failing, no grade points, hours included in GPR)
No grade points = I (Incomplete, no grade points, hours not included in GPR)
Absence from examination will be accepted for students who have legitimate excuses as defined in the Texas A&M University (TAMU) Handbook for Student Rules (http://student-rules.tamu.edu/rule07). These include:

1. Participation in an activity appearing in the University’s Authorized Activity List
2. Proof of confinement due to illness (medical slip)
3. Death of a student’s immediate family member
4. Participation in legal proceedings that require a student’s presence
5. A religious holiday (defined as a holy day observed by a religion whose places of worship are exempt from property taxation under Section 11.20 of the Texas Tax Code).

Make-up exams will be offered only for legitimate excuses as listed in TAMU’s Student Rules. If an absence is excused, the student will be given the opportunity to make up the exam at a time and date scheduled in advance. A student who has a legitimate university-excused absence is not relieved of the responsibility of notification and documentation. Falsification of documentation is a violation of the Aggie Honor Code. There will be no opportunities to earn extra credit.
Class Schedule

SESSION 1 (September 2): Introduction I
Lecture: Basic concepts: nautical and engineering fundamentals, terminology.

SESSION 2 (September 9): Introduction II
Lecture: Basic concepts: ship systems and conceptual approaches.

SESSION 3 (September 16): Dugouts and Early Planked Boats
Reading: See background reading above.
Lecture: The roots of wooden boatbuilding; stability and seaworthiness.

Reports:
1. The Hasholme Logboat

*2. The Ferriby, Dover, and Brigg Boats

3. The Hjörtspring Boat
SESSION 4 (September 23): Lashed/Sewn Boats in the Mediterranean Basin

Reading:

Lecture: Lashed, sewn, and stitched; sail dynamics.

Reports:
*4. Khufu’s Barge and Lisht Timbers
Mark, S. 2013. “Graphical Reconstruction and Comparison of Royal Boat Iconography from the Causeway of the Egyptian King Sahure (c. 2487–2475 B.C.).” *IJNA* 42.2: 270-85.

*5. The Dashur Boats


*7. The Ma’agan Mikhael Ship

8. Adriatic Laced Construction
Bonino, M. 1985. “Sewn Boats in Italy; Sutiles Naves and Barche Cucite.” In Sewn
SESSION 5 (September 30): Mortise-and-Tenon Construction

*****TERM PAPER TOPICS DUE AT BEGINNING OF CLASS*****

Reading:

Lecture: The development of rigid shell construction; sail typology.

Reports:
9. Bronze- and Iron-Age Ships (Uluburun Ship, Cape Gelidonya, Mazarrón I Ships)

*10. Kyrenia Ship
*11. The Madrague de Giens Ship

12. Anse des Laurons II Ship

13. Small Craft: The Herculaneum and Kinneret Boats

14. The Athlit Bow

SESSION 6 (October 7): Transition I: The Mediterranean
Reading:

**Lecture:** From shell to skeleton.

**Reports:**

*15. The 4th- and 7th-century Ships at Yassıada.*


*16. The Anse St. Gervais II Ship*


*17. The Bozburun Ship*


*18. The Serçe Limanı Ship*


Harpster, M. 2010. “Designing the 11th-century AD Vessel from Serçe Limanı,


**SESSION 7 (October 14): Lapstrake (Clinker) Construction**

****TERM PAPER ABSTRACTS DUE AT BEGINNING OF CLASS****

Reading:


Lecture: The flexible shell.

Reports:

19. The Nydam Oak Boat (Note: Discuss only Nydam boat, not the other two boats found with it)


*20. The Gokstad Ship*


*21. The Skuldelev Ships (Vessels 1, 2, 3, 5, and 6)*


22. The Graveney Boat

**SESSION 8 (October 21): Transition II: The Lapstrake Tradition**

**Reading:**

**Lecture:** Size and structure.

**Reports:**
23. Kalmar I Ship and Bergen Ship

24. The Aber W‘rach Ship

25. *Grace Dieu*

26. The Woolwich Ship
SESSION 9 (October 28): Bottom-Based Construction.

Reading:


Lecture: "Celtic" shipbuilding.

Reports:

*27. The Blackfriars Vessel


28. The Guernsey Ship


29. The Bevaix Boat


30. The Zwammerdam Barges


**SESSION 10 (November 4): Transition III: Cogs and the Dutch**

**Reading:**


**Lecture:** Cog construction and Dutch shipbuilding.

**Reports:**

*31. The Bremen Cog*


*32. The Almere Cog*

SESSION 11 (November 11): Naval Architecture

Reading:


Lecture: Written Sources on Shipbuilding. Whole molding.


Reports:

*35. The Notebook of Zorzi Trombetta from Modon


Hocker, F.M., and J.M. McManamon. 2006. “Medieval Shipbuilding in the

36. Mathew Baker's *Fragments of Ancient English Shipwrightry* (Pepys Library MS 2820—as a backup, there is also a microfilm version in NAP Library)

*37. Culip VI*


38. Iberian Shipbuilding in the 16th Century


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SESSION 12 (November 18): Warships in the Age of Fighting Sail

**Reading:**


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**Lecture:** The ship as an implement of foreign policy; advent of the naval gun.
Reports:

*39. *Vasa


40. Anthony Deane's Reforms


41. The 74-gun Ship


*42. The American Heavy Frigates of 1796


SESSION 13 (December 2): Merchant Vessels and Commercial Empires

Reading:


Lecture: The economic imperative.

Reports:

43. Flutes


44. The Jutholmen Wreck

*45. East Indiamen*

*46. Clippers*
SESSION 14 (December 7): The New World

Reading:


Reports:
*47. US Brig Eagle & Jefferson

48. Baltimore Clippers

*49. Piscataqua River Gundalows

*****TERM PAPERS DUE ON THURSDAY, DECEMBER 9, BY 5:00PM*****

Attendance Policy: The University views class attendance and participation as an individual student responsibility. Students are expected to attend class and to complete all assignments. Please refer to Student Rule 7 in its entirety for information about excused absences, including definitions, and related documentation and timelines.

Makeup Work Policy: Make-up exams will be offered only for legitimate excused absences as listed in the University’s Student Rules (http://student-rules.tamu.edu/rule07). Unless otherwise stated in Student Rule 7, to be considered for an excused absence the student must notify the instructor in writing (e-mail is acceptable) prior to the day of absence. If advanced notification is
not possible, the student must provide notification by the end of the second business day after the last date of the absence. This notification must include an explanation of why notice could not be sent.

Students will be excused from attending class on the day of a graded activity or when attendance contributes to a student’s grade, for the reasons stated in Student Rule 7, or other reason deemed appropriate by the instructor. Please refer to Student Rule 7 in its entirety for information about makeup work, including definitions, and related documentation and timelines. Absences related to Title IX of the Education Amendments of 1972 may necessitate a period of more than 30 days for make-up work, and the timeframe for make-up work should be agreed upon by the student and instructor” (Student Rule 7, Section 7.4.1). The instructor is under no obligation to provide an opportunity for the student to make up work missed because of an unexcused absence (Student Rule 7, Section 7.4.2). Students who request an excused absence are expected to uphold the Aggie Honor Code and Student Conduct Code (Student Rule 24).

**Academic Integrity Policy:** An Aggie does not lie, cheat or steal, or tolerate those who do. Texas A&M University students are responsible for authenticating all work submitted to an instructor. If asked, students must be able to produce proof that the item submitted is indeed the work of that student. Students must keep appropriate records at all times. The inability to authenticate one’s work, should the instructor request it, may be sufficient grounds to initiate an academic misconduct case (Section 20.1.2.3, Student Rule 20). You can learn more about the Aggie Honor System Office Rules and Procedures, academic integrity, and your rights and responsibilities at aggiehonor.tamu.edu.

**Americans with Disabilities Act (ADA) Policy:** Texas A&M University is committed to providing equitable access to learning opportunities for all students. If you experience barriers to your education due to a disability or think you may have a disability, please contact Disability Resources in the Student Services Building or at (979) 845-1637 or visit http://disability.tamu.edu. Disabilities may include, but are not limited to attentional, learning, mental health, sensory, physical, or chronic health conditions. All students are encouraged to discuss their disability related needs with Disability Resources and their instructors as soon as possible.

**Title IX and Statement on Limits to Confidentiality:** Texas A&M University is committed to fostering a learning environment that is safe and productive for all. University policies and federal and state laws prohibit gender-based discrimination and sexual harassment, including sexual assault, sexual exploitation, domestic violence, dating violence, and stalking. With the exception of some medical and mental health providers, all university employees (including full and part-time faculty, staff, paid graduate assistants, student workers, etc.) are Mandatory Reporters and must report to the Title IX Office if the employee experiences, observes, or becomes aware of an incident that meets the following conditions (see University Rule 08.01.01.M1):

- The incident is reasonably believed to be discrimination or harassment.
- The incident is alleged to have been committed by or against a person who, at the time of the incident, was (1) a student enrolled at the University or (2) an employee of the University.

Mandatory Reporters must file a report regardless of how the information comes to their
attention – including but not limited to face-to-face conversations, a written class assignment or paper, class discussion, email, text, or social media post. Although Mandatory Reporters must file a report, in most instances, you will be able to control how the report is handled, including whether or not to pursue a formal investigation. The University’s goal is to make sure you are aware of the range of options available to you and to ensure access to the resources you need.

Students wishing to discuss concerns in a confidential setting are encouraged to make an appointment with Counseling and Psychological Services (CAPS). Students can learn more about filing a report, accessing supportive resources, and navigating the Title IX investigation and resolution process on the University's Title IX webpage.

Statement on Mental Health and Wellness: Texas A&M University recognizes that mental health and wellness are critical factors that influence a student’s academic success and overall wellbeing. Students are encouraged to engage in proper self-care by utilizing the resources and services available from Counseling & Psychological Services (CAPS). Students who need someone to talk to can call the TAMU Helpline (979-845-2700) from 4:00 p.m. to 8:00 a.m. weekdays and 24 hours on weekends. 24-hour emergency help is also available through the National Suicide Prevention Hotline (800-273-8255) or at suicidepreventionlifeline.org.

COVID-19: To help protect Aggieland and stop the spread of COVID-19, Texas A&M University urges students to be vaccinated and to wear masks in classrooms and all other academic facilities on campus, including labs. Doing so exemplifies the Aggie Core Values of respect, leadership, integrity, and selfless service by putting community concerns above individual preferences. COVID-19 vaccines and masking — regardless of vaccination status — have been shown to be safe and effective at reducing spread to others, infection, hospitalization, and death.

Operational Details for Fall 2021 Courses: For additional information, please review the FAQ on Fall 2021 courses at Texas A&M University.

Respect for cultural and human biological diversity are core concepts of Anthropology: Please respect the different experiences, beliefs and values expressed by your fellow students and instructor, and refrain from making derogatory comments about other individuals, cultures, groups, or viewpoints. The Anthropology Department supports the Texas A&M University commitment to Diversity (http://diversity.tamu.edu/), and welcomes individuals of all ages, backgrounds, citizenships, disabilities, education, ethnicities, family statuses, genders, gender identities, geographical locations, languages, military experience, political views, races, religions, sexual orientations, socioeconomic statuses, and work experiences.

TAMU Plagiarism Policy: The handouts used in this course are copyrighted. By "handouts," I mean all materials generated for this class, which include but are not limited to syllabi, quizzes, examinations, lab problems, in class materials, review sheets, and additional problem sets. Because these materials are copyrighted, you do not have the right to copy the handouts, unless I expressly grant permission.

As commonly defined, plagiarism consists of passing off as one's own the ideas, words, writings, etc., which belong to another. In accordance with this definition, you are committing plagiarism if you copy the work of another person and turn it in as your own, even if you should have the permission of that person. Plagiarism is one of the worst academic sins, for the plagiarist
destroys the trust among colleagues without which research cannot be safely communicated. If you have any questions regarding plagiarism, please consult the latest issue of the Texas A&M University Student Rules, under the section “Scholastic Dishonesty.” The Student Rules are available on-line: http://student-rules.tamu.edu.

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