



## **ARCH 0678**

### **Underwater in the Mediterranean: An Introduction to Maritime Archaeology**

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Office Hours: M, W 12.00-13.00, Rhode Island Hall 207, 60 George Street

Course Meetings: M/W/F 10:00-10:50pm Rhode Island Hall 108, 60 George Street

Course Wiki: <http://proteus.brown.edu/maritimearchaeology11/Home>

### **Introduction**

The course provides an introduction to maritime archaeology through a focus primarily on seafaring in the ancient Mediterranean from prehistory to Late Antiquity. The course is divided in three major sections:

- 1) (Weeks 1-5) An Introduction to the Discipline. The first five weeks of the course explore the origins and development of maritime and underwater archaeology as a discipline. It introduces issues of methodology and practice, and considers a range of topics including, but not confined to, the heritage and ethical issues related to work in maritime and underwater archaeology.
- 2) (Weeks 6-9) Prehistoric and Early Historic Seafaring in the Mediterranean Region. This section of the course explores the dawn of seafaring in the Mediterranean region, through to the end of the Bronze Age (ca. 1200 BCE). We examine the major shipwrecks and ship burials from this period, and the viability of using art (ship iconography), ethnographic analogy and experimental archaeology to study the earliest seafaring in the Mediterranean. We address the ultimate significance of seafaring for Mediterranean societies of these early periods.
- 3) (Weeks 10-14) Greek, Phoenician and Roman-Late Antique Seafaring. In this section we examine more diverse and abundant evidence, including shipwrecks, historical accounts, literary traditions, harbours, and art, to reconstruct a range of seafaring activity. Commerce, piracy and warfare at sea are all readily accessible to the archaeologist and historian. With this range of evidence we consider more carefully shipboard life in the ancient Mediterranean, whether in contexts of commerce, piracy or war.

The weekly schedule will normally include three 50-minute (lecture) classes, though several of the classes will be devoted to workshops related to the course project.

### **Learning outcomes**

- Understanding the basic methodology of underwater and particularly shipwreck archaeology
- Achieving a basic grasp of nautical and seafaring terminology and principles
- Learning how to use diverse categories of source material including excavation reports, literary traditions, historical accounts, data from experimental archaeology and figural representations of ships to address specific problems in maritime archaeology
- Appreciating a seaborne perspective on the social, economic and political history of the Mediterranean region
- Thinking critically about the modern practice, ethics and politics of maritime and underwater archaeology.

### **COURSE WIKI**

You and I will make use of a course wiki administered through the Joukowsky Institute's website to post course materials and readings:

<http://proteus.brown.edu/maritimearchaeology11/home>.

The course syllabus, assignments, course requirements, announcements, and PowerPoint slides used in lectures will be posted to the 'Maritime Home' (the above link). Readings (in addition to the textbooks) will be uploaded to the password protected 'Maritime Private' as pdf's: <http://proteus.brown.edu/maritimeprivate11/admin/viewsignin.html?pageid=14327>

You will need *Adobe Acrobat* or a similar program to read these files. *Acrobat Reader* is available as a free download at [www.adobe.com](http://www.adobe.com). 'Maritime Private' will also be used as a forum for posting helpful or otherwise interesting resources, advice, etc. related to the course project, as well as a platform to post comments and inspire discussion on assignments (mostly media) viewed outside class.

### **REQUIRED TEXTBOOKS**

Bowens, A. (ed.) 2009. *Underwater Archaeology: The NAS Guide to Principles and Practice*. Oxford.

Wachsmann, S. 1998. *Seagoing Ships and Seamanship in the Bronze Age Levant*. College Station.

Casson, L. 1995 (2<sup>nd</sup> ed.). *Ships and Seamanship in the Ancient World*. Princeton.

### **CLASS SCHEDULE, READING AND VIEWING ASSIGNMENTS**

#### **SECTION 1: Diving in (to Maritime Archaeology)**

##### **WEEK 1: Introduction**

**W 7<sup>th</sup> September:** What is this class all about?

**F 9<sup>th</sup> September:** Diving in, and what you will find (including the course project)

### **Reading and viewing**

**By M 9/12:** Bowens, Chapt. 1-2

**By M 9/12:** Browse Institute of Nautical Archaeology (INA) projects in the Mediterranean:

[http://inadiscover.com/projects/world\\_map/](http://inadiscover.com/projects/world_map/)

[http://inadiscover.com/photos\\_and\\_videos/select\\_photo\\_gallery/](http://inadiscover.com/photos_and_videos/select_photo_gallery/)

### **WEEK 2: Going deeper**

#### **Archaeology beneath the sea: its origins and development**

**M 12<sup>th</sup> September:** The course project: overview of chronological and regional scope, potential sources and resources

**W 14<sup>th</sup> September:** Early underwater excavation before the advent of archaeology

**F 16<sup>th</sup> September:** When exploration and salvage evolved into archaeology: the Cape Gelidonya shipwreck expedition/ Q&A for project—getting started (choosing a ship)

### **Reading and viewing**

**By W 9/14:** Marx, R.F. 1978. *Into the Deep: The History of Man's Underwater Exploration*. New York (Chapt. 1-5: short chapters and a good read!)

**By F 9/16:** Bass, G.F. 1967. *Cape Gelidonya: A Bronze Age Shipwreck*. Transactions of the American Philosophical Society 57. Philadelphia: (Chapt. 1-2)

**By F 9/16:** Media (out of class): 3-part documentary on YouTube on the earliest archaeological shipwreck excavations:

[http://inadiscover.com/projects/all/southern\\_europe\\_mediterranean\\_aegean/cape\\_gelidonya\\_turkey/video/](http://inadiscover.com/projects/all/southern_europe_mediterranean_aegean/cape_gelidonya_turkey/video/)

### **WEEK 3: Methodologies and practice of underwater archaeology**

**M 19<sup>th</sup> September:** Underwater archaeology in its variety

**W 21<sup>st</sup> September:** The interdisciplinary study of maritime archaeology

**F 23<sup>rd</sup> September:** Workshop: Choosing your ship

### **Reading**

**By F 9/23:** Bowens, Chapt. 3, 4, 8, 15 (these are short chapters!)

### **WEEK 4: Archaeology out of water**

**M 26<sup>th</sup> September:** The art and science of reconstructing ancient shipwrecks

**W 28<sup>th</sup> September:** Guest lecture (Prof. B. Buxton): A day in the life of a shipwreck excavation

**F 30<sup>th</sup> September:** Guest lecture (Prof. B. Buxton): Deep water archaeology, and ethical and legal issues raised by shipwrecks

### **Reading**

**By M 9/26:** Steffy, R. 1994. *Wooden Ship Building and the Interpretation of Shipwrecks*. College Station. (Chapt. 1-2).

**By M 9/26:** Hocker, F.M. 2004. 'Shipbuilding: Philosophy, Practice, and Research', in F.M. Hocker and C.A. Ward (eds.) *The Philosophy of Shipbuilding: Conceptual Approaches to the Study of Wooden Ships*. College Station: 1-12.

## **Week 5: Shipwrecks in popular and political discourse/ first exam**

**M 3<sup>rd</sup> October:** shipwrecks and underwater archaeology in legal discourse and the popular imagination/class discussion

**W 5<sup>th</sup> October:** Workshop: Research towards ship reconstruction project: ship and ship construction technology (by this point you will have formed your group around a specific ship reconstruction topic/problem)

**F 7<sup>th</sup> October:** First exam (in class, 50 minutes)

### **Reading and viewing**

**By M 10/3:** Bowens, Chapt. 7

**By M 10/3:** Bass, G.F. 2003. 'The Ethics of Shipwreck Archaeology', in Zimmermann, L.J. et. al. (eds.) *Ethical Issues in Archaeology*. Walnut Creek: Alta Mira: 57-70

**By M 10/3:** Media (out of class): Mel Fisher and the *Atocha* 'excavation':

<http://www.youtube.com/watch?v=jNdi4pbUlwc>

<http://www.youtube.com/watch?v=qn3i1QpB20s&feature=related>

## **SECTION 2: Prehistoric and Early Historic Seafaring in the Mediterranean region**

### **Week 6: The earliest seafarers in the Mediterranean**

**M 10<sup>th</sup> October:** Columbus Day

**W 12<sup>th</sup> October:** Geographies of ancient seafaring in the Mediterranean/ Neolithic seafaring

**F 14<sup>th</sup> October:** Earliest iconography of seafaring ships in the Mediterranean region

\*\*abstract and outline due for course project

### **Reading and viewing**

**By W 10/12:** Farr, H. 2006. 'Seafaring as Social Action'. *Journal of Maritime Archaeology* 1: 85-99

**By F 10/14:** Wachsmann, Chapt. 5

**By F 10/14:** Crumlin-Pedersen, O. 2006. 'Experimental archaeology and ships—principles, problems and examples'. In L. Blue, F. Hocker and A. Englert (eds.) *Connected by the Sea*. Oxford: 1-7.

**By F 10/14:** Horden, P. And N. Purcell 2000. *The Corrupting Sea: A Study of Mediterranean History*. Chapter V 'Connectivity'.

**By F 10/14** Tzalas, H. 1995. 'On the obsidian trail: with a papyrus craft in the Cyclades', *Tropis* III: 441-69

### **WEEK 7: The river craft and seafarers of Ancient Egypt and Mesopotamia**

**M 17<sup>th</sup> October:** Boats and barges of the riverine civilizations of Mesopotamia and Egypt

**W 19<sup>th</sup> October:** Guest Lecture (Prof. L. Bestock): Boats in Egyptian Religion

**F 21<sup>th</sup> October:** Boats and ships in Early Mesopotamia

### **Reading and viewing**

**By W 10/19:** Wachsmann, Chapt. 2

**By W 10/19:** Ward, C. 2000. *Sacred and Secular: Ancient Egyptian Ships and Boats*. Philadelphia (Chapts. 1,4,5)

**By F 10/21:** Mäkelä, T.T. 2002. *Ships and Shipbuilding in Mesopotamia*. College Station (Chapts. 1,4,5)

**By F 10/21:** Media (out of class) Reconstructing and sailing a 'Punt expedition' ship  
<http://www.pbs.org/wgbh/nova/ancient/building-pharaohs-ship.html>

### **Week 8: Bronze Age seafaring along the coasts of Syro-Palestine and in the Aegean**

**M 24<sup>th</sup> October:** A technical assessment of Egyptian boat construction

**W 26<sup>th</sup> October:** Setting the Scene: the dawn of a cosmopolitan Mediterranean/ Seagoing ships and seafaring in the Bronze Age Mediterranean

**F 28<sup>th</sup> October:** Seagoing ships and seafaring in the Bronze Age Mediterranean/introductions to the Cape Gelidonya and Uluburun shipwrecks

#### **Reading**

**By M 10/24:** Ward, C. 2000. *Sacred and Secular: Ancient Egyptian Ships and Boats*. Philadelphia (Chapts. 1,4,5)

**By W 10/26:** Manning, S.W. and L. Hulin 2005. 'Maritime Commerce and Geographies of Mobility in the Late Bronze Age of the Eastern Mediterranean: Problemitizations', in E. Blake and A.B. Knapp (eds.) *The Archaeology of Mediterranean Prehistory*, 270-302. Oxford.

**By W 10/26:** Wachsmann, Chapts. 3, 6, 7

### **Week 9: A closer look at the Late Bronze Age shipwrecks/ Ships (and enigmas) of the Sea Peoples**

**M 31<sup>st</sup> October:** The Uluburun and Cape Gelidonya shipwrecks

**W 2<sup>nd</sup> November:** Aegean shipbuilding tradition and the ships of the marauding 'Sea Peoples'

**F 4<sup>th</sup> November:** Second exam (in class, 50 minutes)

#### **Reading and viewing**

**By M 10/31:** Wachsmann, Chapters 8, 9

**By W 11/2:** Bachhuber, C. 2006. 'Aegean Interest on the Uluburun Ship', *American Journal of Archaeology* 110.3: 345-63

**By W 11/2:** Pulak, C. 1998. 'The Uluburun Shipwreck: an overview' *International Journal of Nautical Archaeology* 27:188-224

**By W 11/2:** Bass, G.F. 1967. *Cape Gelidonya: A Bronze Age Shipwreck*. Transactions of the American Philosophical Society 57. Philadelphia: (Chapt. 14)

**By W 11/2:** Media (out of class) Uluburun shipwreck and reconstruction documentaries

### **SECTION 3: Seafaring in the Greek-Hellenistic, Phoenician-Carthaginian, Roman**

#### **Week 10: Setting the scene: Phoenicians and Greeks across the Mediterranean (Part 1: ca. 1100-500 BCE)**

**M 7<sup>th</sup> November:** Setting the scene: Phoenicians and Greeks across the Mediterranean (1100-500 BCE)

**W 9<sup>th</sup> November:** What does Homer say about seafaring?

**F 11<sup>th</sup> November:** Veteran's Day

**Reading**

**By W 11/9:** Markoe, G. E. 2000. *Phoenicians*. Chaps. 1,7

**By W 11/9:** Thomas, C.G. and C. Conant. 1999. *Citadel to City State*. Chaps. 4,5

**By W 11/9:** Casson, Chapter 4, Chapter 10 appendix 2

**Week 11: Phoenician commerce, shipwrecks and ship sheds**

**M 14<sup>th</sup> November:** Phoenician ships and seafaring

**W 16<sup>th</sup> November:** Phoenician commerce, shipwrecks and ship sheds

**F 18<sup>th</sup> November:** Final workshop for the project

**Reading and viewing:**

**By W 11/16:** Ballard, R.D. et al. 2002. 'Iron Age Shipwrecks in Deep Water off Ashkelon, Israel', *American Journal of Archaeology* 106.2: 151-68

**By W 11/16:** McGrail, S. 2001. 'Phoenician seafaring' in *Boats of the World*, 129-34

**By W 11/16:** Stieglitz, R. 1984. 'Long Distance Seafaring in the Ancient Near East', *The Biblical Archaeologist* 47.3: esp. pp. 139-42

**See also:** for preliminary report on Bajo de la Campana:

<http://nautarch.tamu.edu/cmac/report3.shtml>

(scroll down)

And preliminary report on Ma'agan Mikhael shipwreck:

Linder, E. 1992. 'Excavating an Ancient Merchantman: the Ma'agan Mikhael Shipwreck', *Biblical Archaeology Review* 18.6 (electronic resource through Rockefeller Library)

**Week 12: Ships of war in the ancient Mediterranean**

**M 21<sup>st</sup> November:** Archaeology of ships of war in the ancient Mediterranean

**W 23<sup>rd</sup> November:** Thanksgiving

**F 25<sup>th</sup> November:** Thanksgiving

**Reading and viewing**

**By M 11/21:** Casson, L., Steffy, R. and E. Linder 1991. *The Athlit Ram*. College Station.

**By M 11/21:** Morrison, J.S. and J.F. Coates 1986. *The Athenian Trireme* (Chaps. 1-3)

**By M 11/21:** Casson, Chapter 5

**By W 11/23:** (YouTube) Olympias trireme trials:

<http://www.youtube.com/watch?v=ZcsrNrRkQis>

**By W 11/23:** (YouTube) Battle of Salamis:

<http://www.videosurf.com/video/history%27s-turning-points-bc-0480-battle-of-salamis-1320053204>

<http://www.youtube.com/watch?v=nENUmbdsAPw>

**Week 13: Ships, seafaring and shipwrecks during the 'Golden Age' and Hellenistic periods**

**M 28<sup>th</sup> November:** Seafaring during the Classical Period: an overview

**W 30<sup>th</sup> November:** A closer look at Classical Period shipwrecks (Tektaş Burnu and Alonnesos)

**F 2<sup>nd</sup> December:** Was the Hellenistic Kyrenia shipwreck a victim of piracy?

### **Reading**

**By W 11/30:** Carlson, D. 2003. 'The Classical Greek Shipwreck at Tektaş Burnu, Turkey' *American Journal of Archaeology* 107: 581-600

**By W 11/30:** Hadjidaki, E. 1996. 'Underwater Excavations of a Late 5<sup>th</sup> Century Merchant Ship at Alonnesos, Greece', *BCH* 120.2: 561-91

**By F 12/2:** Katzev, S. W. 2005. 'Resurrecting an Ancient Greek Ship: Kyrenia, Cyprus', in G. Bass (ed.) *Beneath the Seven Seas*, New York: 72-9

**By F 12/2:** Steffy, R. 1994. *Wooden Ship Building and the Interpretation of Shipwrecks*.  
College Station (pp. 42-59)

**By F 12/2** Gabbert, J. 1986. 'Piracy in the Early Hellenistic Period: a career open to talents', *Greece and Rome* 33: 156-63

### **Week 14: Life on board an ancient merchantman; Roman seafaring**

**M 5<sup>th</sup> December:** Life on board an ancient Mediterranean merchantman

**W 7<sup>th</sup> December:** Guest Lecture: Bryan Brinkman, 'Connecting the Empire: Roman Seafaring'

**F 9<sup>th</sup> December:** Guest Lecture: Bryan Brinkman, 'Seafaring in Everyday Life and Imagination in the Roman Empire'

**By M 12/05:** Trego, K. 2004. *Life on Board: A Comparative Study of the Shipboard Items from Four Classical to Early Hellenistic Merchantmen*. Cincinnati.

**By W 12/07:** *The Periplus of the Erythraean Sea*

**By W 12/07:** Scheidel, W. 2011. "A comparative perspective on the determinants of scale and productivity of Roman maritime trade in the Mediterranean" in W.V. Harris and K. Iara (eds.) *Maritime technology in the ancient economy: ship-design and navigation*

**By F 12/09:** Tattius

### **Week 15: Reading Week**

**Final exam (TH 15<sup>th</sup> December, 2-4 p.m., Wilson Hall 301)**

### **GRADING**

**Final grades will be based on the following:**

- 1) 15% First examination (Friday, October 7<sup>th</sup>)
  - 2) 15% Second examination (Friday, November 4<sup>th</sup>)
  - 3) 30% Final examination (Thursday, December 15<sup>th</sup>)
  - 4) 10% Class Participation
  - 5) 30% Project (due Wednesday, December 7<sup>th</sup>, 5 p.m.)
- = Total: 100%

### **BREAKDOWN OF GRADING**

**1) 15% First examination (Friday, October 7<sup>th</sup>)**

In class (50 minutes)

On material covered in class through October 5<sup>th</sup>

Short answers, identification

**2) 15% Second examination (Friday, November 4<sup>th</sup>)**

In class (50 minutes)

Short answers, identification

On material covered in class between October 10<sup>th</sup> and November 2<sup>nd</sup>

**3) 30% Final examination (Thursday, December 15<sup>th</sup>)**

Two hours, 2 pm

Short answers, identification, short essay

First half on material covered since November 7<sup>th</sup>; second half on overarching topics and themes

**4) 10% Class Participation**

Based on attendance, contributions to the wiki private forum, general participation in class

**5) 30% Project (due Monday, December 5<sup>th</sup>)**

**THE COURSE PROJECT (30% OF GRADE)**

You will be asked, in a group of 4 (3 or 5 if need be), to design an ancient ship and to reconstruct the circumstances of its construction and use in the Mediterranean region. Every aspect of the design, construction and use of the ship, as well as the historical and social context of its construction and use, needs to be based on sound evidence ranging from archaeological, historical, art historical, experimental and ethnographic data. You will be asked to produce (as a group) four core pieces of work, with the understanding that there will be some content overlap between the different pieces of work:

- 1) A formal essay (4000 word limit) discussing the historical context of the construction of the ship. Here you are to address questions like who commissioned its construction, and why? What was this ship meant to do? This aspect of the project will be assessed on your ability to critically evaluate and appropriately cite historical and archaeological sources, and to synthesize this material in a coherent narrative with appropriate citations.
- 2) A presentation of the construction of the ship. This should be presented in a sequence, i.e. beginning with the very first stage of construction and ending with the finishing touches. Visual media are optional, but advisable. Every stage of construction needs to be based on some evidence, which needs to be properly cited. The evidence can be archaeological, historical, art-historical, experimental or ethnographic.
- 3) A presentation of the design of the ship. This closely corresponds with the construction of the ship, though construction is more concerned with the process, while design is more concerned with the result. Here, you need to be able to communicate what the ship looks like (using appropriate nautical terminology), including everything from the rigging to the shape of the keel. Every aspect of the design needs to be based on some evidence, which needs to be properly cited. The evidence can be archaeological, historical, art-historical, experimental or ethnographic. Visual media are necessary in this aspect of the presentation. Options for visual media can be discussed in a case by case basis.



- 4) A reconstruction of the use of the ship (4000 word limit). This closely corresponds with the historical context of the construction of the ship. Here, you are to describe how the ship was sailed, as well as life on board the ship and the activities of the ship and crew at sea (martial? piratical? commercial? all of the above?!). What was the itinerary of this ship? What did the crew of the ship do when it was at port? This can be presented as a formal academic essay (again, based on evidence that needs to be cited); but I also encourage fictional narratives that are nevertheless properly cited like an academic essay (e.g. every reconstruction in the fictional narrative needs to be based on archaeological, historical, experimental or ethnographic evidence).

Assignments 1 and 4 overlap as do assignments 2 and 3. Alternatively your group can combine 1 and 4 in a larger piece of work (8000 word limit), and can combine 2 and 3 also.

### **Grading the final project**

Everyone will receive two grades: one based on your individual contribution to the group project, and an overall grade for the group. The two will be weighted equally, and averaged for your final project grade. The assessment will be based on the originality of the project, the level of complexity of construction and design (a trireme will receive higher marks than a dugout canoe), the thoroughness of research, and the presentation.