

ANTH 618 – MEDIEVAL SEAFARING IN THE MEDITERRANEAN AND NORTHERN EUROPE (A.D. 330-1453)

Spring Semester 2001
Anthropology Building – Classroom 130

Course Description and Objectives

In this course, we will examine seafaring, maritime commerce, naval affairs, and shipbuilding in the Mediterranean and Northern Europe from the Late Roman Period until the end of the Middle Ages (for convenience, say the fall of Constantinople in 1453).

Instructor Information

Dr. CEMAL PULAK

Office Hours: Mondays and Wednesdays, h. 1.00-3.00 p.m., or by appointment.

Office: Anthropology Building, Old World Laboratory, Room 128, tel.: 845-6697

Grading Rules

The format of the course will begin with oral reports on relevant primary material (shipwrecks or historical documents), followed by informed discussions of the day's theme. In addition, there will be general readings assigned to the whole class. In order for this to work, everyone must keep up with the readings, and everyone must participate in the discussion. The final grade is based 50% on oral reports and 50% on a term paper (see separate sheet).

Grading of this course 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

Extra credit assignments will NOT be offered. 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)
- 50% to 59% – F (Failing, no grade points, hours included in GPR)
- No grade points – I (Incomplete, no grade points, hours not included in GPR)

General Readings

- Bass, G. F. 1972. *A History of Seafaring Based in Underwater Archaeology*. London: Thames and Hudson.
- Collins, R. 1991. *Early Medieval Europe, 300-1000*. New York: McKitterick.
- Hill, D. 1984. *A History of Engineering in Classical and Medieval Times*. LaSalle, IL: Open Court.
- Hourani, A. 1991. *A History of the Arab Peoples*. New York: Warner Books.
- Ostrogorsky, G. 1956. *History of the Byzantine State*. Oxford: Oxford University Press.
- Randsborg, K. 1991. *The First Millennium A.D. in Europe and the Mediterranean: An Archaeological Essay*. Cambridge: Cambridge University Press.
- Rodgers, W. L. 1983. *Greek and Roman Naval Warfare. A Study of Strategy, Tactics, and Ship Design from Salamis (480 B.C. to Actium)*. Annapolis: Naval Institute Press.
- Treadgold, W. 1995. *Byzantium and Its Army, 284-1081*. Stanford: Stanford University Press.
- Treadgold, W. 1998. *History of the Byzantine State*. Stanford: Stanford University Press.

SECTION I: The Late Roman World, c. 285-527

Reading:

- Cameron, A. *The Mediterranean World in Late Antiquity*. London, 1993.
- Casson, L. *Ships and Seamanship in the Ancient World*. Princeton, 1970.
- Garnsey, P. and R. Sailer. *The Roman Empire. Economy, Society and Culture*. London, 1987.
- Jones, A.H.M. *The Later Roman Empire 284-602. A Social, Economic and Administrative Survey*. Oxford, 1964. A basic narrative source.
- Landels, J.G. *Engineering in the Ancient World*. Berkeley, 1978.
- Wolfram, H. *History of the Goths*. Berkeley, 1988.

Week 2 (24 January): Ships and Shipbuilding

Reading:

- Gassend, J.-M. "La construction navale antique de type alterné: exemple d'un mode de construction." *Tropis* I, pp. 115-127.
- Rival, M. *La charpenterie naval romaine*. Paris, 1991.

Reports:

1. Late Antiquity and the East-West Split
2. The wreck at La Bourse de Marseille
 - Gassend, J.-M. *L'épave antique du Lacydon*. Marseilles 1982.
 - Gassend, J.-M., and J.-P. Cuomo "Un acquis récent des recherches d'architecture navale: la 'construction alternée' des navires antiques." *VI Congreso Internacional de Arqueología Submarina*, Cartagena 1982, pp. 343-350.

Gassend, J.-M. "La construction navale antique de type alterne. Exemple d'un mode de construction." *Tropis* I, pp. 115-127.
 Rival, M. *La charpenterie naval romaine*. Paris, 1991, pp. 245-265.

3. Pointe de la Luque B

Liou, B. "Direction des recherches archéologiques." *Gallia* 31 (1973) 571-608.

Clerc, J.-P., and J. C. Negrel. "Premiers résultats de la campagne de fouilles 1971 sur l'épave B de la Pointe de la Luque." *Cahiers d'Archéologie Subaquatique* 2 (1973) 61-71. (See also large complete hull plan between pp. 192 and 193 in same volume.)

4. Yassiada II

van Doorninck, F. H. "The 4th-Century Wreck at Yassi Ada. An Interim Report on the Hull." *IJNA* 5 (1976) 115-131.

Bass, G. F., and F. H. van Doorninck. "A Fourth-Century Shipwreck at Yassi Ada." *AJA* 75 (1971) 27-46.

5. Dramont F

Joncheray, J.-P. "Une épave du Bas Empire: Dramont F." *Cahiers d'Archéologie Subaquatique* 4 (1975) 91-140.

6. Port-Vendres I

Liou, B. "L'épave romaine de Fanse Gerbal a Port-Vendres." *Comptes rendus, Académie des Inscriptions et Belles-Lettres* (1974) 414-433.

Rival, M. *La charpenterie navale romaine*. Paris, 1991, pp. 267-296.

7. Sebastos (Herod's harbor at Caesarea)

Holum, K., R. Hohlfelder, R. J. Bull, and A. Raban. *King Herod's Dream: Caesarea on the Sea*. New York and London, 1988.

Raban, A. *The Harbors of Caesarea Maritima: Results of the Caesarea Ancient Harbor Excavation Project, 1980-1985 I: The Site and the Excavations*. BAR International Series 491. Oxford, 1989.

Raban, A. "Sebastos: The Royal Harbor at Caesarea Maritima – A Short-Lived Giant." *IJNA* 21 (1992) 111-124.

Brandon, C. "The Concrete-Filled Barges of King Herod's Harbor of Sebastos." *Res Maritimae: Cyprus and the Eastern Mediterranean from Prehistory to Late Antiquity* (ASOR Archaeological Reports 4). Atlanta, 1994, 45-58.

8. Portus

Testaguzza, O. *Portus: Illustrazione dei porti di Claudio a Traiano e della città di Porto a Fiumicino*. Rome, 1970.

Week 3 (31 January): Cargoes and Economies

Lecture: To market or not to market

Reading:

- Brunt, P. (ed). *The Roman Economy*. Oxford, 1974.
- Garnsey, P., K. Hopkins, and C.R. Whittaker (eds.). *Trade in the Ancient Economy*. London, 1983.
- Greene, K. *The Archaeology of the Roman Economy*. London, 1986.
- Hayes, J. *Late Roman Pottery*. London, 1972.
- Peacock, D.P.S. and D.F. Williams. *Amphorae and the Roman Economy: An Introductory Guide*. London, 1986.
- Sciallano, M. and P. Sibella, *Amphores: comment les identifier?* Aix-en Provence, 1991.

Reports:

3. The Army's needs
 - Campell, B. *The Roman Army 31 B.C.-A.D. 337: A Source Book*. Biddles Ltd., 1994.
 - Coello, T. *Unit Sizes in the Late Roman Field Army*. BAR International Series 645, 1996.
 - Cromwell, R. *The Rise and Decline of the Late Roman Field Army*. White Maine Publishing Co. Inc., 1998.
 - Davies, R. *Service in the Roman Army*. Columbia Univ. Press, 1989.
 - Peedie, J. *The Roman War Machine*. Alan Sutton Pub. Ltd., 1994.
 - Southern, P. and K.R. Dixon. *The Late Roman Army*. Yale Univ. Press 1996.

4. Urban demands; bulk cargoes: grain, building materials
 - Harris, W., ed. *The Inscribed Economy*. Ann Arbor, 1993.
 - Hass, C. *Alexandria in Late Antiquity: Topography and Social Conflict*. Johns Hopkins 1997.
 - Liebeschuetz, J. *Antioch: City and Imperial Administration in the Later Roman Empire*. Oxford, 1972.
 - Meiggs, R. *Roman Ostia*. Oxford, 1973 (2nd ed.).
 - Parker, A.J. *Ancient Shipwrecks of the Mediterranean and the Roman Provinces*. BAR International Series 580. Oxford, 1992.
 - Rickman, G. *The Corn Supply of Ancient Rome*. Oxford, 1980.
 - Sirks, B. *Food for Rome*. Amsterdam, 1991.

5. Amphora cargoes: Wine, oil, fish sauce

Discussion leaders:

7. Canal and road systems
8. Customs and harbor fees
9. Regulatory legislation
10. Luxury cargoes
 - Goffart, W. *Caput and Colonate: Towards a History of Late Roman Taxation*. Toronto, 1974.
 - Jones, A. H. M. *Decline of the Ancient World*. London 1966.

Jones, A.H.M. *The Later Roman Empire*. Oxford, 1964, pp. 824-872.
 Miller, J.I. *The Spice Trade of the Roman Empire*. Oxford, 1969.
 Toutain, J. *Economic Life of the Ancient World*. New York, 1930.
 Whittaker, C.R. *Land, City and Trade in the Roman Empire*. Vermont, 1993.

11. Isis
12. The Skerki Bank wrecks
13. Ship size

Week 4 (7 February): Naval Affairs

Lecture: Police force to war fleet

Reading:

Rodgers, W.L. *Greek and Roman Naval Warfare*.
 Rankov, B. "Fleets of the Early Roman Empire, 31 BC - AD 324." In *The Age of the Galley*, pp. 78-85.
 Zosimus, *New History* II and V, 20.

Reports:

7. Roman biremes, liburnians
 - Casson, L. *Ships and Seamanship in the Ancient World*. Princeton 1970.
 - Hocker, F. Late Roman, Byzantine, and Islamic Galleys and Fleets, in *The Age of the Galley: Mediterranean Oared Vessels Since Pre-classical Times*, R. Gardiner, ed. London, 1995, pp. 86-100.
 - Höckmann, O. "The Liburnian: Some Observations and Insights," *IJNA* 26 (1997) 192-216.
 - Morrison, J. Hellenistic Oared Warships 399-31 BC, in *The Age of the Galley: Mediterranean Oared Vessels Since Pre-classical Times*, R. Gardiner, ed. London, 1995, pp. 66-77.
 - Pancieria, S. "Liburna." *Epigraphica* 18 (1956) 130-156.
 - Rankov, B. "Fleets of the Early Roman Empire, 31 BC-AD 324." In *The Age of the Galley: Mediterranean Oared Vessels since Pre-Classical Times*, R. Gardiner, ed. London, 1995, pp. 78-85.
 - Rodgers, W. *Naval Warfare under Oars: 4th to 16th Centuries*. Annapolis 1939.

Discussion leaders:

15. Piracy
16. Naval campaigns in the wars of Constantine
17. The fleet of Anastasius
18. *Notitia Dignitatum*

SECTION II: Byzantines and Arabs, 527-1025

Reading:

Long, P.O. *Science and Technology in Medieval Society*. Annals of the New York Academy of Sciences 441. New York, 1985.

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

Week 5 (14 February): Ships and Shipbuilding

Keynote: The ancient-medieval transition and the competition for maritime dominance

Reading:

Cameron, *The Mediterranean World in Late Antiquity: AD 395-600*. London, 1993, pp. 104-127, 152-175.

Day, G. *Genoa's Response to Byzantium, 1155-1204: Commercial Expansion and Factionalism in a Medieval City*. Urbana, 1988.

Hourani, A. *A History of the Byzantine State and Society*. Stanford, 1997.

Treadgold, W. *The Byzantine Revival 780-842*. Stanford, 1988.

Unger, R. *The Ship in the Medieval Economy: 600-1000*. London, 1980.

Reports:

9. Yassiada I

Bass, G.F. and F.H. van Doorninck, Jr. *Yassi Ada I*. College Station, 1982.

10. Bozburun

11. Serçe Limani

Discussion leaders:

17. The "Saracen" wrecks

18. Tantura A and B

19. Iconographic evidence

Casson, L. *Ships and Seamanship in the Ancient World*. Princeton, 1970.

Hocker, F. Late Roman, Byzantine, and Islamic Galleys and Fleets, in *The Age of the Galley: Mediterranean Oared Vessels Since Pre-Classical Times*, R. Gardiner, ed. London, 1995, pp. 86-100.

Hourani, G. *Arab Seafaring*. Princeton, 1986 (revised ed.).

Pryor, J.H. From Dromon to Galea: Mediterranean Bireme Galleys AD 500-1300, in *The Age of the Galley: Mediterranean Oared Vessels Since Pre-classical Times*, R. Gardiner, ed. London, 1995, pp. 101-116.

20. Lateen rigging

Casson, L. "Origins of the Lateen," *American Neptune* 31 (1971) 49-51.

Dimmock, L. "The Lateen Rig," *Mariner's Mirror* 32 (1946), pp. 35-41.

Lane, F. C. *Venetian Ships and Shipbuilders of the Renaissance*. Baltimore, 1992 (reprint of 1934 ed.).

Pryor, J.H. *The Mediterranean Round Ship*, in *Cogs, Caravels and Galleons*, R. Gardiner, ed. London, 1994, pp. 59-76.

Van Doorninck, F. "Byzantium, Mistress of the Sea: 330-641," in *A History of Seafaring*, G. F. Bass, ed. London 1972, pp. 133-158.

Week 6 (21 February): Cargoes and Economies I

Lecture: Collapse and recovery?

Reading:

Hodges, R. *Dark Age Economics: The Origins of Towns and Trade AD 600-1000*. London, 1982.

Reports:

12. Military supply and demand

Brubaker, L., ed. *Byzantium in the Ninth Century: Dead or Alive?* London 1998.

Collins, R. *Early Medieval Europe 300-1000*. New York 1991.

Haldon, J. *State, Army and Society in Byzantium*. London 1995.

Kaegi, Jr., W. *Army, Society and Religion in Byzantium*. London 1982

Miller, T., and J. Nesbit, eds., *Peace and War in Byzantium*. Washington, D.C., 1995.

Rostovtzeff, M., *The Social and Economic History of the Roman Empire*. Oxford, 1936.

Treadgold, W. *The Byzantine Revival 780-842*. Stanford 1988.

13. Civilian supply and demand

Discussion leaders:

21. Laws concerning maritime trade

22. Government intervention/involvement in maritime exchange

23. The role of the Church

Week 7 (28 February): Cargoes and Economies II

Reading:

Bakirtzis, Ch. "Byzantine Amphorae." In *Recherches sur la céramique byzantine*, V. Déroche and J.-M. Spieser, eds. *Bulletin de Correspondance Hellénique*, Supplément 18 (1989) 74-77.

van Doorninck, Jr., F. H. "The Cargo Amphoras on the 7th-Century Yassi Ada and 11th-Century Serçe Limani Shipwrecks: Two Examples of a Reuse of Byzantine Amphoras as Transport Jars." In *Recherches sur la céramique byzantine*, V. Déroche and J.-M. Spieser, eds. *Bulletin de Correspondance Hellénique*, Supplément 18 (1989) 247-257.

Reports:

14. Yassiada

Bass, G. F., and F.H. van Doorninck, Jr. *Yassi Ada I*. College Station,

1982.

15. Bozburun

Hocker, F. M., and M. P. Scafuri. "The Bozburun Byzantine Shipwreck Excavation: 1996 Campaign." *INA Quarterly* 23.4 (1996) 3-9.

Hocker, F. M. "Cargo Stowage, Jettison and Wreck Formation Process: Information on Middle Byzantine Commerce from the Ninth-Century Bozburun Shipwreck," *Archeologia delle Acque* 1.2 (1999) 28-38.

16. Serçe Limani

Bass, G. F. "Glass Treasure from the Aegean." *National Geographic Magazine* 153.6 (1978) 768-793.

Bass, G. F. "The Nature of the Serçe Limani Glass," *Journal of Glass Studies* 26 (1984) 64-69

Bass, G. F. "The Serçe Limanı Glass," *INA Newsletter* 15.3 (188) 10-13.

Bass, G. F. and F. H. van Doorninck, "An 11th Century Shipwreck at Serçe Limanı, Turkey." *IJNA* 7 (1978) 119-132.

Runnels, C. "The Rotary Querns." *INA Newsletter* 15.3 (1988) 30-31.

van Doorninck, F. H. "The Amphoras: Old Jars from the North." *INA Newsletter* 15.3 (1988) 22-23.

van Doorninck, F. H. "The Cargo: Diverse and Partly Unknown," *INA Newsletter* 15.3 (1988) 4-9.

van Doorninck, F.H. "The Cargo Amphoras on the 7th Century Yassi Ada and 11th Century Serce Limani Shipwrecks: Two examples of a Reuse of Byzantine Amphoras As Transport Jars." In *Recherches sur la ceramique byzantine*, V. Deroche and J. M. Spieser, eds., *Bulletin de Correspondence Hellenique*, Supplement 18 (1989) 247-257.

van Doorninck, F. H. "The Serce Limani Shipwreck: An 11th-Century Cargo of Fatimid Glassware Cullet for Byzantine Glassmakers." In *1st International Anatolian Glass Symposium: April 26th- 27th, 1988*. Istanbul, 1990, pp.58-63.

Discussion leaders:

24. The "Saracen" wrecks

25. Who were the seafarers - personal possessions from wrecks

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

Week 8 (7 March): Naval Affairs I: Ships and administration

Lecture: Dromons and the re-emergence of "naval policy"

Reading:

Dolley, R. "The Warships of the Later Roman Empire." *Journal of Roman*

- Studies* 38 (1948) 47-53.
- Fahmy, A. M. *Muslim Sea-Power in the Eastern Mediterranean*. Cairo, 1966.
- Fahmy, A. M. *Muslim Naval Organization in the Eastern Mediterranean from the Seventh to the Tenth Century AD*. Cairo, 1966.
- Procopius. *History of the Wars III-IV* (the Vandal and Gothic wars).
- Pryor, J. H. From Dromon to Galea: Mediterranean Bireme Galleys AD 500-1300. In *The Age of the Galley: Mediterranean Oared Vessels since Pre-classical Times*, R. Gardiner, ed. London, 1995, pp. 101-116.
- Treadgold, W. *Byzantium and its Army 284-1081*.

Reports:

17. Dromons

- Alertz, U. "Ein Graffito aus Malaga—ein Dromon Leos VI?" *Das Logbuch* 3 (19) 60-65.
- Casson, L. *Ships and Seamanship in the Ancient World*. Princeton, 1970.
- Dolley, R. "Warships of the Later Roman Empire," *Journal of Roman Studies* 38 (1948) 47-53.
- Van Doorninck, Jr., F. H. "Did 10th Century Dromons have a Waterline Ram? Another Look at Leo, *Tactica*, XIX, 69" *Mariner's Mirror* 79 (1993) 387-392.
- Harpster, M. *Shipbuilding and Trade in the Eastern Mediterranean during the 7th Century: Possible Effects of the Muslim Invasion*. Unpublished M.A. thesis, University of St. Andrews. 1997.
- Hocker, F. Late Roman, Byzantine, and Islamic Galleys and Fleets, in *The Age of the Galley: Mediterranean Oared Vessels Since Pre-classical Times*, R. Gardiner, ed. London, 1995, pp. 86-100.
- Pryor, J.H. From Dromon to Galea: Mediterranean Bireme Galleys AD 500-1300, in *The Age of the Galley: Mediterranean Oared Vessels Since Pre-classical Times*, R. Gardiner, ed. London, 1995, pp. 101-116. Annapolis 1939.
- Treadgold, W. *A History of the Byzantine State and Society*. Stanford, 1997.

18. The Byzantine "themal" system of defense

- Dain, A., ed., *Naumachica* (Paris 1943); F. van Doorninck, trans.
- Fahmy, A. M. *Muslim Sea Power in the Eastern Mediterranean from the Seventh to the Tenth Century A.D.* Cairo, 1966.
- Jenkins, R. *Byzantium, the Imperial Centuries AD 610-1071*. London, 1966.
- Lewis, A. R. and T.J. Runyan. *European Naval and Maritime History 300-1500*. Bloomington 1985.
- Lewis, A.R. *Naval Power and Trade in the Mediterranean A.D. 500-1100*. Princeton, 1951.
- Miles, G. C. "Byzantium and the Arabs: Relations in Crete and the Aegean Area," *Dumbarton Oaks Papers* 18 (1964) 3-32.
- Toynbee, A., *Constantine Porphyrogenitus and His World*. New York, 1973.
- Ostrogorsky, G. *History of the Byzantine State*. New Brunswick, 1991.

Discussion leaders:

26. Prepared fire

Casson, L. *Ships and Seamanship in the Ancient World*. Princeton, 1970.

Fahmy, A.M. *Muslim Sea Power in the Eastern Mediterranean from the Seventh to the Tenth Century A.D.* Cairo, 1966.

Gardiner, R., ed. *The Age of the Galley*. London 1995.

Partington, J. R. *A History of Greek Fire and Gunpowder*. Cambridge, 1960.

Rodgers, W. *Naval Warfare Under Oars: 4th to 16th Centuries*. Annapolis, 1939.

Turtledove, H. (trans.) *The Chronicle of Theophanes*. Pennsylvania, 1982.

27. Arab opponents

Week 9 (21 March): Naval Affairs II: Strategy and Tactics

Reports:

19. Leo's *Tactica*

Book XIX of the *Tactica* of Leo VI (886-912)

20. Expeditions to Cyprus: the inventories of Constantine Porphyrogenitus

Discussion leaders:

28. Ramming? *Tactica* XIX, 69.

29. Logistics

SECTION III: The Italians Are Coming! 1025-1453

Week 10 (28 March): Ships and Shipbuilding

Keynote: The rise of the Italian city-states

Reading:

Lane, F. C. *Venetian Ships and Shipbuilders of the Renaissance*. Baltimore, 1934.

Pryor, J. H. "The Naval Architecture of Crusader Transport Ships." 3 parts, *Mariner's Mirror* 70 (1984).

Pryor, J. H. "The Naval Architecture of Crusader Transport Ships and Horse Transports Revisited." *Mariner's Mirror* 76 (1990) 267-271.

Reports:

21. The Contarina vessels

Bonino, M. "Lateen-rigged Medieval Ships: New Evidence from wrecks in the Po Delta (Italy) and Notes on Pictorial and Other Documents." *IJNA* 7 (1978) 9-28.

Relazione, *Sulla scoperta di due barche antiche nel territorio del commune di Contarina in provincia di Rovigo nel gennaion 1898*, Commissione

della R Deputazione di Storia patria per le Venezie. Venice, 1990.

22. Culip VI

“L’arquitectura naval,” in *Excavacions arqueologiques suaquatiques a Cala Culip* I. Girona, 1989, pp. 317-328.

Reith, E. *Le maitre-gabarit, la tablette, et le trebuchet*. Paris 1996, pp. 149-164.

Discussion leaders:

30. The *gallia sottil*

31. The Trombetta MS

Anderson, R.C. “Italian Naval Architecture about 1445,” *Mariner’s Mirror* 7 (1925) 135-154.

Steffy, R. *Wooden Ship Building and the Interpretation of Shipwrecks*. College Station, 1994.

32. *Fabrica di galere*

Jal, A. *Archéologie navale*. Paris, 1840.

Anderson, R.C. “Jal’s ‘Memoire No. 5’ and the Manuscript ‘Fabbrica di Galere,’” *Mariner’s Mirror* 31 (1945) 160-167.

Lane, F. C. “Naval Architecture about 1550,” *Mariner’s Mirror* 20 (1934) 25-26 (reprinted in *Venice and History: The Collected Papers of Frederic C. Lane*. Baltimore, 1966, pp. 164-165.

33. Iconographic evidence

Week 11 (4 April): Cargoes and Economies

Lecture: The commercial explosion

Reading:

Byrne, E.H. *Genoese Shipping in the Twelfth and Thirteenth Centuries*.

Lopez, R.S. and I.W. Raymond. *Medieval Trade in the Mediterranean World*.

Miskimin, H.A. *The Economy of Early Renaissance Europe, 1300-1460*. Cambridge, 1975.

Reports:

23. Ownership: ships and ventures in Medieval Venice and Genoa

Bryne, E. H. *Genoese Shipping in the Twelfth and Thirteenth Centuries*. Cambridge 1930.

Lane, F. C. *Venice and History: The Collected Papers of Frederic C. Lane*. Baltimore, 1966.

Miskimin, H.A. *The Economy of Early renaissance Europe 1300-1460*. Englewood Cliffs, New Jersey, 1969.

Scammel, G. V. *The World Encompassed: The First European Maritime Empires, c. 80-1650*. Berkeley 1981.

24. Contracts and obligations

Justinian, *The Digest of Justinian*. Philadelphia, 1985, 47.9, 14.1-14.2.

Justinian, *The Digest of Roman Law*. New York, 1979, pp. 7-10.

Discussion leaders:

34. Stowage

Lane, F. *Venetian Ships and Shipbuilders of the Renaissance*. Baltimore, 1934.

Unger, R. *The Ship in the Medieval Economy*. London 1980.

Scandurra, E. The Maritime Republics: Medieval and Renaissance Ships in Italy, in *A History of Seafaring Based on Underwater Archaeology*, G. F. Bass, ed. London, 1972.

35. Sea Law: rights of owners and sailors

Ashburner, W. "Sources of the Rhodian Sea Law," *The Rhodian Sea Law*. Oxford, 1909, pp. 27-90.

37. Capital and loans

Week 12 (11 April): Naval Affairs I

Lecture: Crusaders and their horses

Reading:

Billings, M. *The Cross and Crescent: A History of the Crusades*. London, 1987 (accompanies a radio series of the same name - a nice, quick intro to the main events).

Pryor, J. H. "The Transportation of Horses by Sea during the Era of the Crusades: Eighth Century to 1285 A.D." 2 parts, *Mariner's Mirror* 68 (1982): 9-27, 103-125.

Reports:

25. Louis IX's ships: size and configuration

26. Crusader naval strategy and tactics

Discussion leaders:

38. Financing the crusade: Louis's agents

39. Transporting horses: the ergonomic and logistical requirements

40. The Hospitallers

Week 13 (18 April): Naval Affairs II

Lecture: Galleys, guns, and the Ottomans

Reading:

Davis, R. C. *Shipbuilders of the Venetian Arsenal: Workers and Workplace in the Preindustrial City*. Baltimore, 1991.

Guilmartin, J. *Gunpowder and Galleys*.

Reports:

27. Catalan warships of the 13th and 14th centuries

Laures, F. F. "The Warships of the King of Aragon and Their

Fighting Tactics During the 13th and 14th Centuries AD,”
IJNA 16 (1987) 19-29.

Mott, L. V. “Medieval Ship Graffiti,” *Sea History* autumn (1988) 14-15.

Mott, L. V. “Medieval Ship Graffiti in the Palau Reial Major at
Barcelona,” *Mariner’s Mirror* 76 (1990) 13-22.

Mott, L. V. “Ships of the 13th-century Catalan Navy,” *IJNA* 19 (1990)
101-112.

O’Callaghan, J. F. *A History of Medieval Spain*. New York, 1975.

28. The galea

Discussion leaders:

41. The Ottoman navy

Brummett, P. *Ottoman Seapower and Levantine Diplomacy in the Age of
Discovery*. Albany, New York, 1994.

Guilmartin, J. *Gunpowder and Galleys, Changing Technology, and
Mediterranean Warfare at Sea in the Sixteenth Century*. Cambridge,
1980.

Guilmartin, J. The tactics of the battle of Lepanto Clarified: The
Impact of Social, Economic, and Political Factors, in *New
Aspects of Naval History*, C. L. Symonds, ed. Annapolis 1981.

Hess, A.C. *The Forgotten Frontier: A History of the Sixteenth-Century Ibero-
African Frontier*. Chicago, 1978.

42. Early gun founding in the Mediterranean

Wignall, S. *The Crown Piece and its Relationship to the Development of
16th/18th Century Cast Bronze Ordinance*, in Science Diving
International, Proceedings of the 3rd Symposium of the
Scientific Committee of the Confederation Mondiale des
Activites Subaquatiques, 8th-9th October, 1973. 1973.

43. Labor organization in the Arsenal

Davis, R.C. *Shipbuilders of the Venetian Arsenal; Workers and Workplace in
the Preindustrial City*. Baltimore, 1991.

Lane, F. C. *Venetian Ships and Shipbuilders of the Renaissance*. Baltimore,
1934.

44. The Kadirga

Basch, L. “A Galley in Istanbul: The Kadirga,” *Mariner’s Mirror* 60
(1972) 133-134.

Basch, L. “The Kadirga Revisited, A Preliminary Re-appraisal.
Mariner’s Mirror 65 (1978) 39-50.

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Week 14 (25 April) Presentation of Student’s Papers

*******PAPERS DUE ON FRIDAY 5.00 P.M., MAY 4*******

Attendance

Attendance is an individual student responsibility. Students are expected to attend class and to complete all assignments. Students who are requesting an excused absence are expected to uphold the Aggie Honor Code and Student Conduct Code. Please see <http://student-rules.tamu.edu/rule7.htm> for current policy on university-excused absences.

ADA

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please contact the Office of Support Services for Students with Disabilities in Room B-118 Cain Hall (845-1637).

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, exams, 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.

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>.

Academic Integrity Statement

Aggie Honor Code: "An Aggie does not lie, cheat, or steal or tolerate those who do." The Honor Council Rules and Procedures can be found on the website of the Office of the Aggie Honor System: <http://www.tamu.edu/aggiehonor>.