

INSTITUTO POLITÉCNICO DE TOMAR  
Escola Superior de Tecnologia de Tomar

Pós-graduação de Arqueologia Subaquática

## Arqueologia Naval

Regime: Semestral (1º Semestre)

Ano Letivo: 2012/2013

Docente: Prof. Doutor Adolfo Silveira Martins

ECTS: 2

---

---

### PROGRAMA DA DISCIPLINA

#### Objetivos

Pretende-se que os alunos adquiram competências no domínio da teoria da construção naval em madeira e da dinâmica do navio. No final da disciplina o aluno deverá ser capaz identificar, interpretar e caracterizar os princípios e processos da construção naval e da tipologia do navio nos vários períodos.

#### Programa

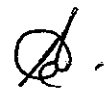
1. Fontes para o estudo da arqueologia naval. Método e considerações teóricas.
2. A Arqueologia do navio em madeira. Estudo dos elementos estruturais e procedimentos construtivos
3. Estudo da evolução dos princípios e processos de construção naval em madeira. "Shell first"; "skeleton first"; sistema misto. Casco trincado e casco liso.
4. Tradição de construção Norte europeia e mediterrânica.
5. Tratados e regimentos de construção naval.
6. Os navios e a navegação
  - a) Mediterrâneo Arcaico e Clássico.
  - b) O domínio romano do Mediterrâneo
  - c) Os navios Bizantinos e Árabes.
  - d) O Norte da Europa
  - e) Crescimento em dimensão e capacidade de transporte dos navios nos sécs. XIII a XV.
  - f) A tradição Ibero-Atlântica na construção naval.
  - g) Os navios do Novo Mundo
  - h) O poder do armamento no Ocidente. A artilharia naval e o advento da guerra no mar
  - i) As Armadas, os navios e as classes.
  - j) A Idade de Ouro da Vela.



## Bibliografia

- Anderson, R.C., 1913. Big ships in history. *Mariner's Mirror*, 3.1, p.43 - 45.
- Anderson, R.C., 1924. Early books on shipbuilding. *Mariner's Mirror*, 10, p.52 - 64.
- Anderson, R.C., 1925. Italian naval architecture c 1445. *Mariner's Mirror*, 11(2).
- Anderson, R.C., 1928. Comparative shipbuilding 1670-1720. *Mariner's Mirror*, 7.1, p.38 - 45.
- Anderson, R.C., 1947. Eighteenth-Century Books on Ship Building, Rigging and Seamanship. *Mariner's Mirror*, 33, p.218 - 225.
- Anderson, R.C., 1969. *Seventeenth-century rigging: A handbook for model-makers*, Model & Allied Publications.
- Anderson, R.C., 1994. *The Rigging of Ships: In the Days of the Sprintsail Topmast, 1600-1720*, Dover Publications. Available at: [http://books.google.com/books?id=c\\_sJleR0jelC](http://books.google.com/books?id=c_sJleR0jelC).
- Anderson, R.C., Jal's Memoire no. 5 and the manuscript "Fabbrica di Galere." *Mariner's Mirror*, 31(3), p.161 - 167.
- Barata, J.P., 1965. O Livro Primeiro de Architectura Naval de João Baptista Lavanha. Estudo e transcrição do mais notável manuscrito de construção naval portuguesa do século XVI e princípio do XVII. *Rev. Ethnos*, IV, p.295-298.
- Barata, J.P., 1968. Relações entre as técnicas de construção naval portuguesa do século XVI e dos mestres construtores poveiros. *Boletim Cultural da Póvoa do Varzim*, VII.1, p.3 - 20.
- Barata, J.P., 1970. *Navios portugueses de 1550-80 a 1640*, Lisboa: IPAHE.
- Barata, J.P., 1970. O Traçado das Naus e Galeões portugueses de 1550-80 a 1640. *Separatas Verdes*, 38.
- Barata, J.P., 1971. *Achegas para a arqueologia naval portuguesa do século XVI, colhidas em documentos respeitantes à ilha de S. Tomé, Lisboa*, Lisboa: Centro de Estudos de Marinha.
- Barata, J.P., 1973. Introdução à Arqueologia Naval. *Memórias 1973*, p.207-234.
- Barata, J.P., 1987. A Caravela. *Rev. Studia*, 46, p.184 + estp.
- Barata, J.P., 1989. *Estudos de Arqueologia Naval*, Lisboa: Imprensa Nacional - Casa da Moeda.
- Bass, G., 1985. THE CONSTRUCTION OF A SEAGOING VESSEL OF THE LATE BRONZE AGE. In H. E. Tzalas., ed. *1st INTERNATIONAL SYMPOSIUM ON SHIP CONSTRUCTION IN ANTIQUITY PIRAEUS, 30 AUGUST - 1 SEPTEMBER 1985 PROCEEDINGS*. Atenas: Hellenic Institute for the Preservation of Nautical Tradition, pp. 25-35.
- Blanca Margarita, R.M., 2008. *STANDARDIZATION OF SPANISH SHIPBUILDING: ORDENANZAS PARA LA FÁBRICA DE NAVÍOS DE GUERRA Y MERCANTE - 1607, 1613, 1618*. Texas A&M University.
- Boudriot, J. & Berti, H., 1987. *Le Requin. 1750*, Paris: ANCRE.
- Boudriot, J. & Berti, H., 1993. *LA BELLE-POULE Frégate de 12. 1765*, ANCRE.
- Boudriot, J. & Delacroix, G., 1987. *Bonhomme Richard 1779*, ANCRE.
- Boudriot, J. & Delacroix, G., 1987. *Bonhomme Richard 1779. Plans Ship*, Ancre.
- Boudriot, J. & Delacroix, G., 1995. *Le Fleuron Vaisseau de 64 canons 1729 Omega*, ed., Nice: Collection Archeologie Navale.
- Boudriot, J. & Roberts, D.H., 1988. *Seventy-Four Gun Ship: A Practical Treatise on the Art of Naval Architecture: Masts, Sails, Rigging*, Naval Inst Pr. Available at: <http://books.google.com/books?id=9JXfAAAAMAAJ>.
- Boudriot, J., 1977. *Le vaisseau de 74 canons* ed. des Qu., Grenoble: Collection Archéologie Naval Française.
- Boudriot, J., 1981. *Le Cygne De L'ingenieur Pestel, 1806-1808: Brick De 24 Monographie*, ANCRE.
- Boudriot, J., 1984. *Traite et Navire Negrier, L'Aurore, 1784*,
- Boudriot, J., 1986. *The Seventy-Four Gun Ship*, Paris: Jean Boudriot Publications.
- Boudriot, J., 1986. *The Seventy-Four Gun Ship. 1*,
- Boudriot, J., 1986. *The Seventy-Four Gun Ship. 2*,
- Boudriot, J., 1990. *Historique de la corvette La Créole 1650-1850*, ANCRE.
- Boudriot, J., 1990. *La Jacinthe Schooner 1825. Monograpf & History*, Paris: Jean Boudriot.
- Boudriot, J., 1991. *Le Navire Marchand sous l'Ancien Regime", vol 1, etude historique; Vol II, Monographie du Mercure*, Paris.
- Boudriot, J., 1993. *Fregate de VIII La Renommee 1744*, Paris: Ancre.
- Boudriot, J., 1993. *The History of the French Frigate 1650-1850*, Jean Boudriot Publications.
- Boudriot, J., 1997. *Modeles Historiques au Musée de la Marine*, ANCRE.
- Boudriot, J., 1998. *Le Vaisseau Trois-ponts du chevalier de Tourville 1680*,
- Boudriot, J., 2000. *La Belle 1684* J. Boudriot, ed., Paris.

- Boudriot, J., Des vaisseaux de 50 canons aux frégates de 1er rang. *Neptunia*, 167, p.37-43.
- Boudriot, J., L'Archéologie Navale en France: entretien avec Jean Boudriot. *Le Chasse-Marée*, 6, p.12-21.
- Boudriot, J., *LE COUREUR 1776*, Ancre.
- Boudriot, J., Le gouvernail et ses ferrures. *Neptunia*, 155, p.37-40.
- Boudriot, J., Les vaisseaux français de 80 canons aux 18 et 19 siècles. *Neptunia*, 151, p.1-20.
- Boudriot, J., Modèle d'un vaisseau de 70 canons dit « L'Assuré». *Neptunia*, 137, p.1-20.
- Boudriot, Jean; Berti, H., 1987. *Le Requin. 1750*, Paris: ANCRE.
- Carre, M.-B. & Jézégou, M.-P., 1984. Pompes à chapelet sur des navires de l'Antiquité et du début du Moyen-Âge. *Archaeonautica*, 4, p.115-143. Available at: [http://www.persee.fr/web/revues/home/prescript/article/nauti\\_0154-1854\\_1984\\_num\\_4\\_1\\_955](http://www.persee.fr/web/revues/home/prescript/article/nauti_0154-1854_1984_num_4_1_955).
- Castro, F. & Fonseca, N., 2006. Sailing the Pepper Wreck: a Proposed Methodology for Understanding an Early 17th-Century Portuguese Indiamen. *The International Journal of Nautical Archaeology* (2006), 35(1), p.97-103.
- Castro, F. et al., 2010. Reconstructing the Nau from Lavanha's Manuscript. In C. Horrell & M. Damour, eds. *ACUA, Underwater Archaeology Proceedings 2010*. pp. 105-113.
- Castro, F. et al., 2011. The Cais do Sodrê Shipwreck, Lisbon, Portugal. *The International Journal of Nautical Archaeology*, p.1-19.
- Castro, F., 1999. *Projecto SJB2. Relatório dos Trabalhos Efectuados em 1999*,
- Castro, F., 2005. Rigging the Pepper Wreck. Part I - mast and Yards. *The International Journal of Archaeology*, 34(1).
- Christensen, A.E., 1982. Viking Age Boatbuilding Tools. In *Woodworking Techniques before 1500*. Oxford: McGrail S., BARS, 129.
- Crisman, K. & Jordan, B., 1999. Angra A : the Copper-fastened Wreck at Porto Novo (Angra do Heroísmo, Terceira island, Azores-Portugal). *Revista Portuguesa de Arqueologia*, 2.1, p.249 - 254.
- Crumlin-pedersen, O., 1986. Aspects of wood technology in medieval shipbuilding". In O Crumlin-Pedersen, & Vinner M. ed. *Sailing into the past, Roskilde*, p.138-149.
- Crumlin-Pedersen, O.O. & McGrail, S., 2006. Some Principles for the Reconstruction of Ancient Boat Structures. *International Journal of Nautical Archaeology*, 35(1), p.53-57. Available at: <http://www.blackwell-synergy.com/doi/abs/10.1111/j.1095-9270.2006.00085.x>.
- Crumlin-Pedersen, O.O., 2003. Reviews - The Skuldelev Ships I : Topography , Archaeology , History , Conservation and display. *IJNA*, 32.1, p.126-142.
- Damianidis, K., 1989. *Tradicional Shipbuilding Greece*.
- Domingues, F.C., Documents on Portuguese Naval Architecture (late 16th-early 17th century) – a general overview1. In *PROCEEDINGS INTERNATIONAL SYMPOSIUM ON ARCHAEOLOGY OF MEDIEVAL AND MODERN SHIPS OF IBERIAN-ATLANTIC TRADITION*. pp. 229-232.
- Dull, J.R., 2009. *The age of the Ship of the Line* P. Maslowski, ed., University of Nebraska Press Lincoln and London.
- Fonseca, H.Q., 1922. *A Arquitectura Naval na época de Fernão de Magalhães*, Lisboa: Associação dos Arqueólogos Portugueses.
- Fonseca, H.Q., 1930. O problema das características dos galeões portugueses. *Memórias da Academia das Ciências de Lisboa, Classe de Letras*, tomo I, p.151-161.
- Fonseca, H.Q., 1978. A Caravela Portuguesa. 1ª e 2ª partes. In *Colecção Documentos*. Lisboa, p. 257 e 362.
- Fonseca, H.Q., A Arquitectura Naval no Tempo dos Descobrimentos. In *História da Expansão Portuguesa no Mundo*.
- Fraga, T.M., 2004. A proposed model for the reconstruction of shipwrecks . Case study : a late seventeenth. *Revista Portuguesa de Arqueologia*, 7, p.585-605.
- Fraga, T.M., 2007. *SANTO ANTONIO DE TANNÁ: STORY AND RECONSTRUCTION*. Texas A&M University.
- Green, J., 2004. *Maritime Archaeology. A Technical handbook* 2nd ed., San Diego: Elsevier, Academic Press.
- Greene, K., 1983. *Archaeology: An Introduction, The History, Principles and Methods of Modern Archaeology* 3rd ed., Routledge.
- Haldane, C., 1984. *The Dashur Boats*. Texas A&M University.
- Harpster, M.B., 2005. *A re-assembly and reconstruction of the 9th-century AD vessel wrecked off the coast of Bozburun, Turkey*.
- Hazlett, A., 2007. *THE NAU OF THE LIVRO NAUTICO: RECONSTRUCTING A SIXTEENTH-CENTURY INDIAMAN FROM TEXTS*. Texas A&M University.



- Hocker, F.M., 2004. Shipbuilding. Philosophy, Practice, and Research. In Frederick M. Hocker and Cheryl A. Ward, ed. *The Philosophy of Shipbuilding Conceptual Approaches to the Study of Wooden Ships. Chapter One*. pp. 1-11.
- Introduction to Nautical Archaeology Notes - The Royal Ship of Khufu Page. The Dashur Boats. , p.1-7. Available at: <http://nautarch.tamu.edu/class/316/dashur> [Accessed February 19, 2010].
- Johnston, S., 2008. MATHEW BAKER AND THE ART OF THE SHIPWRIGHT. In *Making mathematical practice: gentlemen, practitioners and artisans in Elizabethan England*. pp. 107 - 165. Available at: <http://www.mhs.ox.ac.uk/staff/saj/thesis/baker.htm>.
- Kahanov, Y., 1998. The Ma'agan Mikhael ship (Israel). *Archaeonautica*, 14, 1998. *Construction navale maritime et fluviale. Approches archéologique, historique et ethnologique*, 14, p.155-160. Available at: [http://www.persee.fr/web/revues/home/prescript/article/nauti\\_0154-1854\\_1998\\_act\\_14\\_1\\_1198](http://www.persee.fr/web/revues/home/prescript/article/nauti_0154-1854_1998_act_14_1_1198).
- Konstam, A., 2001. *British Napoleonic Ship-of-the-Line*, Osprey Publishing.
- Loewen, B., 1998. Ships and Shipbuilding. Navires et construction navale. *Revue d'histoire de la culture matérielle*, 48(Fall), p.45-56.
- Loewen, B., 1998. Ships and Shipbuilding. Navires et construction navale. *Revue d'histoire de la culture matérielle*, 48(Fall), p.45-56.
- Loewen, B., 1998. The morticed frames of XVI th century Atlantic ships and the «madeiras da conta» of Renaissance texts. In *Archaeonautica*, 14, 1998. *Construction navale maritime et fluviale. Approches archéologique, historique et ethnologique*. {CNRS} Editions. Available at: [http://www.persee.fr/web/revues/home/prescript/article/nauti\\_0154-1854\\_1998\\_act\\_14\\_1\\_1207](http://www.persee.fr/web/revues/home/prescript/article/nauti_0154-1854_1998_act_14_1_1207).
- Long, Luc, 2002. Architecture navale. In *Les Étrusques en Mer. Épaves d'Antibes à Marseille*. p. 28.
- Marden, P., 1990. CLASSICAL MEDITERRANEAN SHIPBUILDING OUTSIDE THE MEDITERRANEAN. *Tropis*, 4, p.297-310.
- Martins, A.S., 1998. *A Arqueologia Naval Portuguesa (séculos XIII-XVI) Uma aproximação ao seu estudo ibérico*, Lisboa: EDIUAL.
- Mcgrail, S., 1999. Portuguese-derived ship design methods in southern India? In *PROCEEDINGS INTERNATIONAL SYMPOSIUM ON ARCHAEOLOGY OF MEDIEVAL AND MODERN SHIPS OF IBERIAN-ATLANTIC TRADITION*. pp. 119-130.
- Moortel, A.V.D., 1991. The construction of a cog-like vessel in the late Middle Ages. In Oxford: Reinders R & Paul K, pp. 42-45.
- Muckelroy, K., 1978. *Maritime archaeology*, Cambridge University Press. Available at: <http://books.google.com/books?id=rvRKwa78s48C>.
- Oertling, T., 1998. The concept of the Atlantic Vessel. In *PROCEEDINGS INTERNATIONAL SYMPOSIUM ON ARCHAEOLOGY OF MEDIEVAL AND MODERN SHIPS OF IBERIAN-ATLANTIC TRADITION*. pp. 233-240.
- Oertling, T., 1998. The concept of the Atlantic Vessel. In *PROCEEDINGS INTERNATIONAL SYMPOSIUM ON ARCHAEOLOGY OF MEDIEVAL AND MODERN SHIPS OF IBERIAN-ATLANTIC TRADITION*. pp. 233-240.
- Oertling, T.J., 1984. *History Development Ship Bilge Pumps, 1500-1840*. Texas A&M University.
- Petersson, L., 2000. *Rigging Period Ship Models*, London: Chatham Publishing.
- Pomey, P., 1982. L'épave Romaine de la Madrague de Giens. In *Comptes rendus des séances de l'Académie des Inscriptions et Belles-Lettres*. pp. 133-154. Available at: [http://www.persee.fr/web/revues/home/prescript/article/crai\\_0065-0536\\_1982\\_num\\_126\\_1\\_13926](http://www.persee.fr/web/revues/home/prescript/article/crai_0065-0536_1982_num_126_1_13926).
- Pomey, P., 1982. Le navire romain de la Madrague de Giens. *Comptes-rendus des séances de l'Académie des Inscriptions et Belles-Lettres*, 126(1), p.133-154. Available at: [http://www.persee.fr/web/revues/home/prescript/article/crai\\_0065-0536\\_1982\\_num\\_126\\_1\\_13926](http://www.persee.fr/web/revues/home/prescript/article/crai_0065-0536_1982_num_126_1_13926).
- Pomey, P., 1988. Principes et methodes de construction en architecture navale antique. In *Navires et Commerce de la Mediterranee Antique. Hommage a Jean Rouge Cahiers d'Histoire*. p. 397-.
- Pomey, P., 1998. Les épaves grecques du VIe siècle av. J.-C. de la place Jules-Verne à Marseille. In *Archaeonautica*, 14, 1998. *Construction navale maritime et fluviale. Approches archéologique, historique et ethnologique*. {CNRS} Editions. Available at: [http://www.persee.fr/web/revues/home/prescript/article/nauti\\_0154-1854\\_1998\\_act\\_14\\_1\\_1197](http://www.persee.fr/web/revues/home/prescript/article/nauti_0154-1854_1998_act_14_1_1197).
- Pomey, P., 1998. Les Epaves grecques du VIe siècle av. J.C. de la place Jules-Verne à Marseille. *Archaeonautica. Construction navale maritime et fluviale. Approches archéologique, historique et*

- ethnologique*, 14, p.147-154. Available at:  
[http://www.persee.fr/web/revues/home/prescript/article/nauti\\_0154-1854\\_1998\\_act\\_14\\_1\\_11979FE8E90B182BDB42?daphneIdentifier=FRQCCI-221016&sort=dateSort&dir=asc&page=0&maxPages=1&searchIndex=15&lastPage=false&nbResults=50&mode=full](http://www.persee.fr/web/revues/home/prescript/article/nauti_0154-1854_1998_act_14_1_11979FE8E90B182BDB42?daphneIdentifier=FRQCCI-221016&sort=dateSort&dir=asc&page=0&maxPages=1&searchIndex=15&lastPage=false&nbResults=50&mode=full).
- Pomey, P.E.A., 1978. Le Tonnage Maximum des Navires de Commerce Romains. *Archaeonautica*, 2 1978., n°2, p.232-252.
- Rahn-Phillips, C., 2000. The context for Manuel Fernandes's Livro de Tracas de Carpintaria of 1616. In Fernando Oliveira and his Era. Humanism and the Art of navigation in Renaissance Europe 1450-1650., p.269-276.
- Rieth, E., 1989. Le cas de la France à la fin du XVIIe siècle : une même méthode de conception des navires au Ponant et au Levant. In *PROCEEDINGS • INTERNATIONAL SYMPOSIUM ON ARCHAEOLOGY OF MEDIEVAL AND MODERN SHIPS OF IBERIAN-ATLANTIC TRADITION 260*. pp. 259-268.
- Rieth, E., 1996. *Le maitre-gabarit, la tablette et le trébuchet. Essai sur la conception non-graphique des carènes du Moyen Âge au XXe siècle*, Cths - Comité des Travaux.
- Rieth, É., 1997. CONSTRUCTION NAVALE A FRANC- BORD EN MÉDITERRANÉE ET ATLANTIQUE (XIVe-XVIIe SIÈCLE) ET «SIGNATURES ARCHITECTURALES»: UNE PREMIÈRE APPROCHE ARCHÉOLOGIQUE. In É. Rieth, ed. *Congr nat. soc. hist. scient. Aix-en-Provence 1995, Izle, Nice 1996, Archéologie - Méditerranée*,. Éditions du CTHS, pp. 177-188.
- Rieth, E., 1998. *Des bateaux et des fleuves: archéologie de la batellerie du néolithique aux temps modernes en France*, Editions Errance.
- Rieth, E., 1998. L'épave du caboteur de Culip VI (Catalogne, Espagne). *Archaeonautica*, 14, 1998. *Construction navale maritime et fluviale: Approches archéologique, historique et ethnologique*, 14, p.205-212. Available at: [http://www.persee.fr/web/revues/home/prescript/article/nauti\\_0154-1854\\_1998\\_act\\_14\\_1\\_1206](http://www.persee.fr/web/revues/home/prescript/article/nauti_0154-1854_1998_act_14_1_1206).
- Rieth, E., 2003. Section I : Ship Design and Hull Geometry Section II : Shipbuilding Practices. In *Design*. Horst Nowacki and Matteo Valleriani (Eds.).
- Rubio Serrano, J.L., 1991. *Arquitectura de las Naos y Galeones de las Flotas de Indias*, Malaga: Seyer.
- Salgado, A.A.A., 2009. *Portugal e o Atlântico. Organização militar e acções navais durante o período Filipino*. UNIVERSIDADE DE LISBOA.
- Sarsfield, J.P., 1991. Master Frame and Ribbands. In edited by Reinder Reinders and Kees Paul, ed. *Carvel construction technique: skeleton-first, shell-first. Fifth International Symposium on Boat and Ship Archaeology, Amsterdam 1988*. Oxford: Oxbow Books, pp. 137-145.
- Schwarz, G.R., 2006. The Iberian Caravel: Tracing the Development of a Ship of Discovery F. V. D. Castro, ed. *Proceedings of the symposium "Edge of Empire". HELD AT THE 2006 ANNUAL MEETING OF THE SOCIETY FOR HISTORICAL ARCHAEOLOGY SACRAMENTO CA*, p.23-42.
- Schwarz, G.R., 2008. *THE HISTORY AND DEVELOPMENT OF CARAVELS*. Texas A&M University.
- Schwarz, G.R., 2008. *THE HISTORY AND DEVELOPMENT OF CARAVELS*. Texas A&M University.
- Serrano, J.L.R., 1989. Metodos de Arqueo en el Siglo XVI. *Revista de Historia Naval*, 24, p.29-70.
- Silva, A.R. da, 2007. Shipbuilding in the Ancient Mediterranean. *EstrarCritica*, p.33-40. Available at: [www.calameo.com](http://www.calameo.com).
- Sleeswyk, A.W., 1998. Carvel-planking and carvel ships in the North of Europe. *Archaeonautica, Construction navale maritime et fluviale. Approches archéologique, historique et ethnologique*, 14, p.223-228. Available at: [http://www.persee.fr/web/revues/home/prescript/article/nauti\\_0154-1854\\_1998\\_act\\_14\\_1\\_1208](http://www.persee.fr/web/revues/home/prescript/article/nauti_0154-1854_1998_act_14_1_1208).
- Soto, José Luis Casado, 1989. La construcción naval Atlántica española del siglo XVI y la armada de 1588. In *Simposio Hispano-Británica sobre la Gran Armada, Londres, Madrid*. pp. 51-85.
- Soto, José Luis Casado, 1991. Los barcos del Atlantico Iberico en el siglo de los Descubrimientos. *Andalucia America y el Mar, Junta de Andalucia, Sevilha*, p.121-144.
- Soto, José Luis Casado., The Spanish Ships of the Oceanic Expansion. Documentation, archaeology and iconography from the 15th and 16th centuries. In *INTERNATIONAL SYMPOSIUM ON ARCHAEOLOGY OF MEDIEVAL AND MODERN SHIPS OF IBERIAN-ATLANTIC TRADITION 132*. Instituto Português de Arqueologia, pp. 131-162.
- Steffy, J R, 1985. The Kyrenia Ship: An Interim Report on its Hull Construction. *Ameriean Journal of Archaeology*, 89, p.71-101.

- Steffy, J R, 1994. *Wooden Shipbuilding and the Interpretation of Shipwrecks*, Texas A&M University Press: College Station.
- Steffy, J Richard, 2011. *Wooden Ship Building and the Interpretation of Shipwrecks*, TAMU Press.
- Steffy, J Richard, The development of ancient and medieval shipbuilding techniques. In *PROCEEDINGS INTERNATIONAL SYMPOSIUM ON ARCHAEOLOGY OF MEDIEVAL AND MODERN SHIPS OF IBERIAN-ATLANTIC TRADITION 50*. pp. 49-61.
- Steffy, J. Richard, 1982. Reconstruction o the 11th century Serce Liman vessel. *IJNA*, 11.1, p.13-34.
- Steffy, J. Richard, 1989. The role of three-Dimensional research in the Kyrenia Ship Reconstruction. In H. E. Tzalas, ed. *1st INTERNATIONAL SYMPOSIUM ON SHIP CONSTRUCTION IN ANTIQUITY PIRAEUS, 30 AUGUST - 1 SEPTEMBER 1985 PROCEEDINGS*. Hellenic Institute for the Preservation of Nautical Tradition, 1989, pp. 249-262.
- Steffy, J. Richard, 1990. PROBLEMS AND PROGRESS IN DATING ANCIENT VESSELS BY THEIR CONSTRUCTION FEATURES. In E. H. Tzalas, ed. *Tropis II (Proceedings of the 2nd International Symposium on Ship Construction in Antiquity)*. pp. 315-320.
- Steffy, J. Richard, 1998. Seldom discussed features of ancient and medieval ship construction. *Archaeonautica*, 14, 1998. *Construction. Construction navale maritime et fluviale. Approches archéologique, historique et ethnologique.*, 14, p.165-169. Available at: [http://www.persee.fr/web/revues/home/prescript/article/nauti\\_0154-1854\\_1998\\_act\\_14\\_1\\_1200](http://www.persee.fr/web/revues/home/prescript/article/nauti_0154-1854_1998_act_14_1_1200).
- Tchernia, A. Pomey, P. A, H., 1978. *L'épave romaine de la Madrague de Giens*", CNRS, Paris.
- Thomsen, C.H.R., 2010. *Reconstructing the Lines of the Princes Channel Ship*. University of Southern, Denmark.
- Tupper, E.C., 2004. *Introduction to Naval architecture* 4th ed., Burlington, MA 01803: Elsevier
- BuTchernia, A. Pomey, P. A, H., 1978. *L'épave romaine de la Madrague de Giens*", CNRS, Paris.
- Vanhorn, K.M., 2004. *EIGHTEENTH-CENTURY COLONIAL AMERICAN MERCHANT SHIP CONSTRUCTION*. Texas A&M University.
- Villain-Gandossi, C. ed., 1989. Medieval Ships and the Birth of Technological Societies. In *Medieval Ships and the Birth of Technological Societies*. Valleta: Said International Studies, p. 342. Available at: <http://catalogue.nla.gov.au/Record/1794449>.
- Ward, C., 2004. Boatbuilding in Ancient Egypt. In F. H. and C. Ward, ed. *Philosophy of shipbuilding*. pp. 13-24.
- Wicha, S., 2005. *Caractérisation d'un groupe d'épaves antiques de Méditerranée présentant un assemblage des membrures par ligatures végétales : Approche architecturale et paléobotanique*. Institut Méditerranéen d'Ecologie et de Paléoécologie. Available at: <http://www.imep-cnrs.com/pages/theses2.htm>.

Re la doante  
 Vinciana de curia

