

THE 74 GUN SHIP

1780

Studying naval archeology

**Ancre - Jean Boudriot,
Hubert Berti - French
Naval Archeology Collection**

This 4 volume set is the starting point of our collection and as such is almost essential to the understanding of all our other books. It gives the definitions of all parts of a ship, “from keel to mast’s truck”, illustrated with many detailed drawings. It also explains how to manoeuvre and operate a ship, and what shipboard life was like. In order to avoid unnecessary repetitions, these explanations and definitions are not given in our other publications, in which you will find numerous cross-references to “The 74 Gun Ship”.

The Method: while the shape of things to come is not set at the beginning of the book, principles are well established there. Boudriot started with primary sources by systematically studying models in the arsenals and by doing daily archival research in every

harbour in France. He neglected nothing: neither the theoretical contributions brought by such authors as Duhamel du Monceau, Romme, Bouguer or Vial du Clairbois, nor the valuable iconographic documents provided by such draughtmen as Puget, Ozanne, Vernet, Guérout du Pas and Sponsky de Passebon, etc. But the practical drawing booknotes of anonymous engineers, the more modest wood estimates by master carpenters or the inventories of a warehouse were even more important. Only the irrefutable document is to be taken into account: engineers’ plans, construction, equipping and campaigning estimates; correspondence and manuscripts of the time.

Because of his talent as a draughtman and because of his architect’s training, Jean Boudriot is convinced that naval archeology - because it is a restitution of the past - can only be approached through drawing, the only true means of expression and understanding it. His rigorous and magical lines, with their lively and familiar style, immerse the reader in the atmosphere of the 17th, 18th and 19th ports and ship building sites throughout his numerous books.

The Ship: as the main naval war machine at the end of the 18th century, the 74 Gun Ship was the result of a compromise, like every successful vessel. Her balance between strong guns and manoeuvrability offered by the 28 gun lower gundeck and firing 36 pound cannon-balls, made the “74” the perfect ship of the line. Since she moved more easily, she was much more useful in combat than the heavy 100 gun three-decker. Her hull alone represented half of 3.000 tons moving, 2.800 hundred-year-old oak trees (a whole forest), and 600 tons of iron and wood bolts were needed for her construction. The hold and its orlop-deck could contain victuals for 6 months and water for 12 weeks. The gundeck had to bear the considerable weight of enormous 36-pdr guns, weighing 4 tons each. The upper deck, covered front and back with castles, carried lighter guns. This hull rose 7 meters above water and carried prodigious flights of sails. Each of the three masts, in three elements, rigged three floors of square sails and the main top-mast truck towered at 60 meters. This ship was well designed by her engineer and when correctly used by her crew, she performed superbly at sea in all weathers. In a fair breeze, she could exceed ten knots by sailing quartering.

THE COMPOSITION OF THE BOOKS

BOOK 1

- I ADMINISTRATION OF THE PORTS AND DOCKYARDS:
 - 1. General organisation - 2. Surveyors - 3. Summary table
- II THE WORK OF THE SURVEYORS:
 - 1. Qualities demanded of a warship - 2. Study of the hull shapes
 - 3. Ships’ draughts - 4. Calculations - 5. Specification
- III THE WORK OF THE SHIPWRIGHTS:
 - 1. Moulding in the loft - 2. Marking out and fashioning in the yard
- IV MATERIALS: 1. Timber - 2. Hemp - 3. Metals
- 4. Others materials
- V DOCKYARD INSTALLATIONS: 1. Slipway and keel blocks - 2. Raising and horning of the timbers - 3. Launching

BOOK 2

- VI HULL TIMBERS: 1. Keel and stem timbers - 2. The station frames - 3. Stern-frames 4. Filling timbers - 5. Reinforcement and planking of the hold - 6. Construction of the decks - 7. Internal planking above the hold - 8. Description of other inboard works
- 9. External planking of the hull
- VII FASTENING - CAULKING: 1. Nails, fastening - 2. Nailing, fixing of bold - 3. Oakum, pitch
- TABLES, ETC
- VIII HULL FITTING: 1. The bow - 2. The ship’s sides - 3. The stern
- IX INTERNAL ARRANGEMENTS: 1. The hold and orlop - 2. The gundeck - 3. The upper deck - 4. The forecastle, quarterdeck and poop - 5. The officers’ quarters - 6. Paintwork
- X BALLAST AND STOWAGE: 1. Ballast - 2. Stowage - 3. Victuals
- XI WARRANT-OFFICERS’ STORES: 1. The Bo’sun - 2. The Cook and the Baker - 3. The Master - 4. The Carpenter - 5. The Caulker - 6. The Gunner - 7. The Master-at-Arms and the Armourer - 8. The ship’s boats - 9. The Chaplain - 10. The Surgeon - 11. The midshipmen
- SUNDRY ITEMS OF STORES

BOOK 3

- XII MASTING: 1. General considerations - 2. Type of timber and mast-making - 3. Standing masts - 4. Others spars and spares
- 5. Mast furniture.

- XIII SAILS: 1. Sailcloth and sailmaking - 2. List of the sails and their proportions.
- XIV RIGGING: 1. Ropemaking and related skills - 2. Blocks and block-making - 3. Standing rigging - 4. Running rigging - yards
- 5. Running rigging - sails - 6. Anchors cables and related ropes
- 7. Rigging of the ship’s boats
- XV MAINTENANCE
- GENERAL NOTIONS REGARDING SHIPS OF WAR
- NAVY LIST 1780
- COST OF BUILDING A 74
- OTHER NAVAL VESSELS

BOOK 4

- XVI THE CREW: 1. Officers - Volunteers - Midshipmen - 2. The men - 3. The Marines - 4. Supernumeraries
- XVII OFFICERS AND CREW AT WORK: 1. Functions - Responsibilities - 2. Watch-bill, Quater-bill, messing 3. Policing - Discipline - 4. Seamanship - 5. Fighting drill
- XVIII LIFE ON BOARD: 1. Clothing - Berthing - Other details
- 2. Religious observance - 3. Victuals - 4. Health and health care
- XIX SHIPHANDLING: 1. The ship in harbour
- 2. Anchored in the roads - 3. Shiphandling at sea
- XX NAVAL EVOLUTIONS AND OPERATIONS:
 - 1. Single ship evolutions - 2. Fleet operations
- XXI NAVIGATION, COLOURS AND SIGNALS: 1. Navigation instruments - 2. Navigation - 3. Flags, colours and signals
- SUPPLÉMENT
- VOCABULARY



ABOUT THE AUTHOR



Jean BOUDRIOT is an exceptional Frenchman. Originally an architect, he is an outstanding draughtsman and in only a few years' time became the first specialist in 17th and 18th century naval architecture. He was first interested in the study of French statutory arms, on which he published four books that were accepted as authorities. In 1960, he moved on to studying naval archeology. J. Boudriot's first studies on naval guns, published in 1969 in *Neptunia*, are true revelations for amateurs. Between 1973 and 1977, he published

the four volumes of "*The 74 Gun Ship*" thus creating the Boudriot myth. Since then, he has dedicated his time to scouring the archives in Paris in winter, and to drawing in Charente in summer. For our utmost pleasure, Jean Boudriot regularly publishes the monographs and historical studies that constitute the French Naval Archeology Collection.

Boudriot is both an author and a publisher. He also teaches the weekly naval archeology seminar that takes place in the Musée de la Marine, and gives numerous lectures, most of them in the Sorbonne. He is a talented speaker and hearing him speak on his topic is an enchanting event.

RIGGED MODEL			HULL ALONE		
Length	Width	Height	Length	Width	Height
90	20	120	62	20	20

Centimeters

Extracts from the plates and photos

