

BOOK REVIEWS

Lewis Johnman and Hugh Murphy, *British Shipbuilding and the State since 1918: A political economy of decline*. Exeter: University of Exeter Press, 2002. 306 pp. photographs, tables, notes, bibliography, index. UK £47.50 hardback; 0 85989 606 4; UK £16.99 paper; 0 85989 607 2.

Correlli Barnett and other historians have drawn many generalizations about Great Britain's relative economic and industrial decline during the mid-20th century and its manifestation in certain traditional industries, in particular shipbuilding. Great Britain, with its large navy, extensive mercantile trade, and global imperial holdings, enjoyed a predominant position going into the First World War which translated into a healthy demand for ships and the skilled workers who built them; yet, little more than 60 years later, shipbuilding in Great Britain struggled for survival, dependent upon government subsidy, racked by regular bankruptcies among remaining firms which chased a smaller and smaller number of domestic and international orders, and trying to protect jobs for a dwindling labour force. What has been lacking so far is a detailed analytical study explaining the scope and reasons for this stark decline. Lewis Johnman, a lecturer at the University of Westminster, and Hugh Murphy, a business historian at the University of Glasgow, fill this need with a carefully researched and ably argued survey of British shipbuilding decade by decade after the First World War. The book draws upon a wide range of records to explain the inability of the British government and British shipbuilders as a group to sustain and grow the industry in the face of technical advancements and corresponding changes in production methods, extraordinary situations such as war and economic downturn, as well as an eroding international market for British-built ships. Johnman and Murphy assert that contrary to the prevailing view, government consideration of, and when necessary, intervention in the

shipbuilding sphere was longstanding and pervasive. The problems facing the industry were recognized, although the magnitude of such problems was not always fully appreciated at various crucial times. The Admiralty, Treasury, and other government departments consulted closely with shipbuilding firms and the employer associations representing their interests; in turn, numerous attempts were made to guarantee a strong, profitable, and competitive industry. Voluntary capacity reduction initiatives in the late 1920s and 1930s gave way to government regulation through the Second World War, followed by directed consolidation and rationalization in the 1960s, outright nationalization in the 1970s, and back to privatization in the 1980s. Whether such policies ultimately proved beneficial or ill-considered, the response from shipbuilding firms, who always seemed more willing to accept public money rather than advice, remained consistently cautious. Some examples are noteworthy: they continued with riveting when welding became standard, favoured steam turbines over diesel engines, and stuck to established standard bulk freighter designs when demand for specialized vessels such as tankers and container ships soared. Most damning, British shipbuilders consistently missed delivery schedules and overran costs. No amount of government assistance and intervention could bring back customers who found better managed and competitively-priced shipbuilding firms first in Europe and then in Asia.

The question does remain whether shipbuilding was a viable industry for any advanced industrial nation as prevailing market conditions evolved. The experience in Great Britain was far from unique. Similar situations confronted the industry in most other countries in Western Europe and North America. Canada, for example, subsidized private shipbuilding firms for decades after the Second World War, even though no significant market ever materialized and ship repair still remained the conventional

focus. Shipping company owners came to prefer building ships in Brazil, South Korea, or China, where cheap labour and government interest in developing heavy industries such as steel kept costs down. Expectations of long-awaited fleet renewal, clung to by desperate shipbuilders, dissolved once ships from Russia, Eastern Europe, and elsewhere flooded the charter market or shipping companies simply extended the life of existing hulls. Little wonder, then, that political leaders in Great Britain and other countries have concluded that shipbuilding as an industry possessed few near and long-term prospects and cut off further government assistance. Class action legal suits in the United States alleging asbestos exposure at established shipyards reinforced the view that the industry was dirty and behind the times. Shipbuilding firms, as Johnman and Murphy end the book, have increasingly looked toward smaller, specialized naval contracts as a means to sustain themselves. Remaining shipbuilding capacity has become entangled with debates over appropriate national capabilities necessary for defence and security. However, navies, short of expansion for major war, will not provide sufficient business for many commercial shipbuilders to remain profitable. Further turmoil, lobbying, consolidation and corporate failure in the shipbuilding industry seems almost inevitable.

The book, on the whole, is well-written and the research is impressive. Some repetition and unevenness exists between chapters, likely the result of having two authors involved in the writing process. The level of detail presented to the reader is occasionally overwhelming, although corresponding tables certainly help to clarify the main points. A bit more background information on the individual shipbuilding firms and their activities might have been useful, especially for the general reader. The book assumes some detailed knowledge of the British shipbuilding industry and is geared towards a specialist audience.

Chris Madsen
Toronto, Ontario

Stanley T. Spicer. *The Age of Sail: Master Shipbuilders of the Maritimes*. Halifax: Formac Publishing Company Limited, 2001. 144 pp. Colour photographs, index. Cdn \$29.95, cloth; ISBN 0-88780-539-6.

Stanley Spicer has once again produced a popular account of the shipbuilding industry in the Maritimes. *The Age of Sail* is a coffee table book that provides an overview of the most well known wooden shipbuilders and shipbuilding locations in the Maritimes. The author's intent seems to be to provide a general account of the largest shipbuilders or fleets of maritime-built sailing vessels from the 1820s to the present.

Spicer provides an easy-to-read narrative that the pictures complement handsomely. His vast knowledge of Maritime shipbuilding, ownership, and lore is apparent in this account. The stories are lively, in part because the text supports the stories the selected pictures tell.

The book is a lavishly illustrated collection of contemporary pictures, artwork, and modern photography. There are chapters for the Miramichi and Joseph Cunard, the Peakes of PEI, Newport and Avondale, NS, the Killam Fleet, the Troops of Saint John, Samuel Cunard in Halifax, Lunenburg's schooner fleet, and a section on modern replicas of wooden sailing ships. It is unfortunate that he only had the space to tell the stories of so few shipbuilders. This book could have been twice or three times as long.

Because this work is primarily an illustrated collection, the focus is on recounting the overall story of these shipbuilders and ship owners. Those seeking an analytical approach will not find that here. By recounting the general history of these shipbuilders, the author only briefly refers to the important connection between ship owning and shipbuilding. There

are no statistics to show what the relationship was. Likewise, there are no numbers to show ownership trends of maritime-built vessels. Rather, this work focuses on the stories of the more significant shipbuilders of the region over a hundred-year period.

However, this qualification aside, this work complements analytical works by showing a rich collection of photos that is often lacking in heavier tomes. The author has to be commended for taking the time to pick some of the best illustrations I have seen in a shipbuilding history in a long time. His photo sections on the Lunenburg fishing fleet and modern replicas show that wooden shipbuilding was still alive well into the 20th century. His section on replicas shows the wooden shipbuilding tradition continues to this day with the launch of the *Hector* in Pictou in September of 2000. Spicer did miss one replica, the *Brunswick Lion*, a 1830s era replica of a catboat schooner, which is afloat on the Mactaquac Dam head pond at Kings Landing.

This book is a pleasant read. Spicer and the publishers are to be commended for producing this book, virtually free from errors. *The Age of Sail* will have lasting value as a source of excellent illustrations and photos.

Bradley T. Shoebottom
Fredericton, New Brunswick

Derek Hayes, *Historical Atlas of the North Pacific Ocean: Maps of Discovery and Exploration 1500-2000*. Published under the auspices of the North Pacific Marine Science Organization (PICAS). Vancouver and Toronto: Douglas & McIntyre, 2001. 224 pp., maps, illustrations, map catalogue, bibliography, index. \$75.00, ISBN 1-55054-865-4.

Rarely does one come across such a handsomely bound, richly illustrated, and engaging technical volume. The book-jacket describes it as a "stunningly illustrated historical atlas," and as a

"treasure chest of five hundred years of maps." The comments verge on understatement. Presenting some 285 maps ranging from antique cartographic explorations of the early 16th century to the latest satellite images, the volume offers an international perspective. Readers will be fascinated by examples from cultures and technologies as diverse as those of Britain, Canada, China, France, Holland, Japan, Korea, Russia, Spain and the USA.

Derek Hayes comes to the task after producing his remarkable *The Historical Atlas of the Pacific North West*, an equally fine collection of over 320 original maps. That book won the Bill Duthie BC Booksellers' Choice Award for the best book published in British Columbia in 1999. His book on the North Pacific ocean seems a promising contender. It was commissioned by the North American Marine Science Organization (PICES) to celebrate its 10th anniversary in 2001. An international and intergovernmental organization with members from Canada, Peoples Republic of China, Japan, Korea, the Russian Federation and the USA, PICES has three principal objectives: i) the promotion and coordination of marine research in the North Pacific and adjacent seas, especially northward of 30N; ii) the advancement of scientific knowledge about the ocean environment, global weather and climate change, living resources and their ecosystems, and the impacts of human activities; and iii) promoting the collection and rapid exchange of scientific information on these issues.

From the inviting tone of the cover and endpapers through each tastefully presented page, Hayes offers a comprehensive panorama. Each historical section contains a series of illustrated articles on unique aspects of a particular century's contributions to the art and craft of cartography and oceanography. Thus the 16th century focuses on speculations about the existence of a 'boundless ocean,' the lure of gold, Spanish galleons finding their way across the Pacific, the voyages of Magellan, Balboa and Drake, and Forlani's 1592 map of the world

showing the Pacific Ocean as a gulf between Asia and America. The section on the 17th century continues the graphic presentation with the sea atlases of Robert Dudley and van Keulen, early maps of Korea and China, Russians in the Pacific, the early mapping of the West Coast of America, and Japanese knowledge of the Pacific. The 18th century marks a virtual explosion of exploration and scientific advance: for example, the voyages of Bering, Chirikov, Cook, La Pérouse, Malaspina, Quadra, Vancouver. It covers a range of enticing maps: French cartographer De L'Isle's fantastic, and speculative map of the Northwest Coast; Spanish navigator Hezeta's first sketch of the Washington coast, Broughton's charts of the West Pacific, to mention but a few gems. For the 19th century, the author highlights a number of special expeditions, and opens the seascape not only with further cartographic precision but special innovations: Maury's wind and current charts, British hydrographic surveying, the 1874 voyage of the U.S. steamer *Tuscarora* that took depth soundings along a route from America to the Far East; then the 1873-76 voyage of HMS *Challenger*, considered by many to have inaugurated modern scientific research in the oceans. Examination of the 20th century presents striking accounts of multibeam bathymetry, sea floor explorations, ocean drilling programs, satellite photography, tsunamis, and the World Ocean Circulation Experiment. The volume's kaleidoscopic treatment of cartography offers a delightfully comprehensive overview that is both informative and entertaining. Thus the old classical literary enterprise of *prodesse et delectare* - delight and instruction - has become a guiding principle of geography. Highly recommended for coffee-table and study.

Michael L. Hadley
Victoria, British Columbia

Robert Kunzig. *The Restless Sea: Exploring the World Beneath the Waves*. New York: W.W.

Norton & Company, Inc., 1999. xv + 336 pp., selected references, index. US \$24.95, Cdn \$34.99, cloth; ISBN 0-393-04562-5

There is a difference between the academic disciplines of marine biology and biological oceanography. Marine biologists study the taxonomy, form and function of plants and animals that live in the sea. Biological oceanographers study the role of plants and animals in the ocean ecosystem. Because the ocean is in contact with the atmosphere and the land, the ocean is part of a global ecosystem. Thus, carbon dioxide fixation during photosynthesis by phytoplankton in the ocean affects the global carbon cycle, and ultimately the earth's climate. As the author states in his prologue, this book is not about marine biology, but rather the less-publicized science of the ocean, oceanography.

The author quickly points out that we know much more about terrestrial ecosystems, because we can see the land, the plants and the animals. We cannot observe by eye what is living below the ocean surface. The ocean floor and its inhabitants are hidden from view by the near -opaque water covering. The pressure of seawater makes the deep ocean a dangerous place for humans to enter for exploration.

The Restless Sea presents the recent major discoveries by oceanographers. The author humanizes these scientific discoveries, describing peoples' triumphs while often braving hardships to conduct their explorations. The human stories behind the discoveries cannot be found in technical journals which report the discoveries in a cursory, factual manner. Kunzig's accounts of discovery are well researched. He conducted interviews with the scientists who made the discoveries, and then interpreted their findings into the language of lay persons. He references their pioneering scientific articles at the end of the book for those who wish to read the original reports.

Without academic trappings, the book is organized along the subdisciplines of

oceanography: chemistry, geology, biology and physics. Kunzig begins with the latest theory on how the elements of the planet organized from the ether of space and the special conditions on primordial earth that allowed an ocean of water to develop. The author skilfully builds for the reader a vivid description of geological ocean features without using pictures. There are only a few map sketches in the book.

The clues that led to the modern theory of sea floor spreading are presented as observations progressed, from sounding the ocean depths using lead-weighted lines, ringing church bells underwater to measure depth by sound echos, to the present day mapping of the sea floor using multi-beam sonar. Geologists studying the fissures in the ocean floor stumbled upon a deep sea vent ecosystem of strange tube worms, crabs and clams. Chemosynthetic bacteria allow this near-miraculous life to exist in the darkest depths of the ocean. Predictions of vent communities in other ocean regions were made, then confirmed, the ultimate test of a scientific theory.

Kunzig moves on to describe discoveries of wondrous marine life closer to the surface of the ocean: beautiful jellyfish, and minute plants which were only found after the invention of laser-based instrumentation. Measurement of the abundance of plankton in the sea using nets has been modernized by satellite remote sensing of ocean colour on ocean basin scales. Technological innovation in fishing gear has unfortunately led to wide depletion of fish stocks, like the cod of the Grand Banks and Georges Bank. Man has altered marine ecosystems by fishing species to commercial extinction.

Kunzig describes the physics of ocean currents in an easily understood manner, no small accomplishment. Ocean currents have undergone natural changes in the past, and may do so in the future. Finally Kunzig raises the spectre of impending climate change, and how this isn't new; it apparently happens naturally on one-thousand year time scales, not just the

10,000 year time scales of past glaciation. But perhaps for the first time, climate change may be nudged by man through the anthropogenic addition of carbon dioxide to the atmosphere. We have been unwittingly conducting a global wide experiment since the industrial revolution, manipulating the ocean and atmosphere by adding a billion tons of carbon per year by fossil fuel burning. Some scientists have suggested we could mitigate unintended consequences of industrial/ technological development by environmental engineering. For example, iron dust could be spread over vast regions of the ocean to stimulate photosynthesis and the sequestering of organic carbon to the deep sea. Others have suggested chemical control of poisonous plankton (red tides) in coastal waters. Kunzig places recent oceanographic discoveries in the context of managing the future of the ocean for mankind.

Some oceanographers have lamented that it is easier to get government funding to explore the planet Mars than to mount new ocean expeditions, "as if the age of exploration had come to an end with the nineteenth century." Kunzig makes the case that the opposite is true; the exploration of the ocean has barely begun.

Joe Wroblewski
St. John's, Newfoundland

Anthony J. Brown, *Ill-Starred Captains: Flinders and Boudin*. Mechanicsburg, PA: Stackpole Books, 2000. xix + 512pp., notes, bibliography, index, appendices, plates, charts. US \$32.95, cloth; ISBN 0-8117-0849-7.

The voyages of Nicolas Baudin for France and Matthew Flinders for Britain, 1801-1803, should have marked the culmination of the Enlightenment scientific maritime expeditions. There had been many advances in ship design, hydrographic techniques, methods to protect the health of seamen against the scourge of scurvy, and published explorers' journals identified

flaws that marred some earlier voyages. As Anthony Brown most capably illustrates in this study of the two expeditions dispatched to complete the map of Australia, almost everything that could go wrong did, and bad luck sealed the disasters. Not only did a succession of misfortunes gradually wear down the prospects of two expeditions, but bizarre accidents and behavior dogged the captains and poisoned relationships aboard their vessels. Baudin died a miserable death at Mauritius from prolonged tuberculosis complicated by dysentery and tropical fevers. He was a most difficult man in many respects who many of his officers and scientists denigrated from the beginning of the voyage. Flinders, who sailed with Captain William Bligh and was the protégé of Sir Joseph Banks, suffered from his own idiosyncrasies. Following a shipwreck caused in part by his errors, his arrogant behavior at Mauritius helped to keep him a wartime prisoner and hostage of the French for over six years.

Backed by the support of Napoleon, Baudin, a former merchant captain with considerable experience with botanical expeditions, received command of the corvette *Géographe* and the former store-ship *Naturaliste*. Packed aboard the two ships was a large and highly distinguished scientific team of astronomers, botanists, artists, geographers, surgeons, gardeners and François Péron, a trainee zoologist who survived the expedition. Following the voyage, Péron prepared a vitriolic account that attacked Baudin as "this wretched man," (p. 425) and described him as obstinate, incompetent, malicious, venal, and cowardly. Brown points out that Baudin's ultimate mistake was to die during the voyage and not to be present to defend his reputation later against his detractors. With contemporary French public opinion preoccupied by the wars of Napoleon, the expedition appeared to be a disastrous failure that was best forgotten. Recently, several Australian historians, including the present author in part, have resurrected Baudin.

What could have gone so wrong for

Baudin and his grand expedition? Brown's explanation is complex, but a number of factors caused friction aboard the two ships. Baudin unlike Flinders did not have any say in the appointment of his subordinate officers. With fifty-four scientists and other specialists or *savants* appointed to the scientific team, overcrowding produced endless complaints, disputes broke out over limited cabin space, and rivalries erupted concerning social rank, seniority, and prestige. To make matters worse, *Naturaliste* turned out to be a slow ship, a distressing weakness that delayed progress and gave the many detractors time to squabble and to criticize their captain. For his part, Baudin's many rules annoyed men unaccustomed to naval discipline. When the expedition arrived at Mauritius (Isle de France) on the way to Australia, many of the *savants*, naval officers, and midshipmen abandoned the enterprise.

On the British side, Flinders with the support of Banks commanded a former North Country collier in naval service renamed *Investigator*. The single ship expedition was to search for a possible north-south strait though the Australian continent and to conduct extensive hydrographie and scientific work. Unfortunately, the navy yard refit of *Investigator* failed to identify weak timbers, defective masts and spars, worn out rigging, and extensive rot behind the copper sheathing and outer planking. By the time the expedition reached Port Jackson, Australia, the vessel took on over ten inches of water per hour. These weaknesses condemned the expedition to failure and to disaster. Unlike Baudin, however, Flinders was able to select his own officers, and members of his small scientific team signed a statement that they would obey their naval commander.

Baudin commenced his explorations in northwest Australia. From the outset, disputes broke out between the scientists who wanted to go ashore to pursue their investigations and the naval officers and marines who feared incidents with the natives. Instead of sailing to the unknown South Coast, Baudin first surveyed the

West Coast of Australia thus losing his opportunity to beat Flinders. The wreck of a longboat with the disappearance of its crew commenced a series of incidents and disasters made worse by storms, treacherous sea conditions, quarrels, and disease. Baudin fell ill with dysentery and fever during a visit to Timor. Until the French vessels sailed south to higher latitudes, the crews suffered terribly and became familiar with sea funerals. Baudin stayed offshore during the crossing of the South Coast and then sailed north to explore Tasmania and westward along the coast of the continent. By the time *Géographe* reached Port Jackson for a five-month visit, only four healthy men remained to keep watches. In his reports, Baudin and his officers expressed amazement at the developed state of the English colony. There was an element of espionage in the French peacetime visit and both sides hoped to be the first to explore Australia's southern coastline. The presence of the French hastened English determination to settle Tasmania.

Flinders arrived earlier on the South Coast of Australia ready to conduct explorations and hydrographic surveys. The shocking loss in rip tides of a cutter manned by eight men illustrated the inherent dangers of exploration and paralleled Baudin's misfortunes. By the time Flinders reached Sydney, *Investigator* was beyond repair. He continued the expedition aboard a smaller replacement vessel that with another ship was lost in the Coral Sea after running against a submerged reef. Miraculously, only three men drowned and Flinders got the crews onto a sand bank above the high tide line. The survivors built boats while Flinders went for help to Sydney where he obtained a small vessel and dispatched his surplus crewmen back to England aboard other ships. When he arrived at Mauritius, war had broken out once again and the French commander responded to Flinders' insulting behavior by refusing to recognize the expedition passport granted to *Investigator*. Until 1810, Flinders remained a prisoner on the island with little to do other than to work on his

charts and the expedition journal.

Both expeditions charted unknown coastlines, dealt with the native Australians and collected plants, animals, and minerals. In the end, however, Baudin was written out of the published history of his voyage and Flinders who hoped to rival James Cook took many years to get his own work into print. Brown's study of the two expeditions is a valuable addition to recent works on the exploration of Australia.

Christon I. Archer
Calgary, Alberta

S.C. Heal, *A Great Fleet of Ships: The Canadian Forts & Parks*. St. Catharines, Ontario: Vanwell Publishing, 1999. xiii + 312 pp., photographs, ship's plan in back pocket, bibliography, index; ISBN 1-55125-023-3.

A Great Fleet of Ships: The Canadian Forts & Parks is a labour of love. The author, S.C. Heal, intended that the book be "a definitive memorial to a group of ships which have left behind nostalgic memories" (ix) and a record of the Canadian merchant shipbuilding contribution to the Second World War. Heal brings to this work his experience of a career in shipping related fields. He has also written other books on Canadian merchant marine subjects.

The first thing to strike the reader is the profuse number of photographs. There seems to be at least one picture of every ship that is named. This is not without interest, for some pictures were taken by the builder on completion while others document how appearances could change with modernizations and rebuilding. With a "General Arrangement Standard Steamer carrying 9300 tons on 25'-6" Draft" in an end pocket, this book will be of obvious value to any potential model builders. The second dominant feature is the "Fleet List and Ship Histories." This provides brief details of tonnage, completion date, the type of vessel, builder, manager or owner, and a brief description of the

origin of the name for each vessel. It runs to over eighty pages, or more than a quarter of the book's length. Buffs will doubtless find this an extremely helpful reference. But buffs and model builders cannot represent a large book buying market. Further, actuarial life expectancy tables must severely limit those who will buy the book for reasons of nostalgia. Does the book appeal to a wider audience? It should and it makes a solid effort to do so.

Historians and commentators on history are increasingly lamenting the lack of general knowledge that Canadians have of the country's history. The Second World War, relegated to the politically incorrect realm of military history, suffers from widespread ignorance. (A baby boomer-aged doctor recently asked me what the Battle of Atlantic was, who was involved, and when was it.) The contribution of the merchant marine, ignored by governments since 1945 and overshadowed by the work of the navy, itself ignored in favour of the air force bombing campaign and the army, is briefly sketched in this book. Heal provides very useful descriptions of the way merchant shipping operates. This includes how vessels and their cargoes may be insured, how cargoes are arranged, and how ships are owned and operated. For anyone who wants to begin working in a shipping related topic, this must be a mandatory introduction. Heal has also turned to many of those who served in the ships to provide accounts of voyages or losses, or other anecdotes that he incorporates in his own text. These "dits" provide both colour and a window on times past. Every honest historian must acknowledge the context of the times of which she/he writes.

The major shortcoming of the book, which cannot be overlooked, is the editing. On average there is at least one single-sentence paragraph per chapter. "Myself" is used as the subject of a sentence and "I" is used as the object of a preposition. There are sentence fragments. The passive voice is used frequently. Surely the buff and modeling audience deserves

better than this, and certainly the veterans do.

Notwithstanding the poor editing, this is a handsomely produced volume. Its moderate price should help its appeal, albeit within what is certain to be a narrow audience.

William Glover
Kingston, Ontario

R. Thomas Campbell and Alan B. Flanders. *Confederate Phoenix: The CSS Virginia*. Shippensburg, Pennsylvania: Burd Street Press, 2001. xiii + 272 pp., maps, photographs, illustrations, bibliography, \$34.95 cloth; ISBN 1-572492015.

Confederate Phoenix tells the story of the salvage of the USS *Merrimack*, her conversion into the ironclad CSS *Virginia*, and of the *Virginia's* brief career in Hampton Roads. The book covers events in Richmond and elsewhere, but its focus is clearly on Tidewater Virginia, and more specifically on Norfolk and Portsmouth. The *Virginia* shares the limelight with the Norfolk Naval Shipyard, and beyond the well told story of the ship herself, Confederate Phoenix provides tantalizing glimpses of the degree of industrial mobilization required to build even a single iron plated ship.

The story begins with Secretary of the Navy Stephen R. Mallory's desire to use the emerging technology of armour to counter the Union's naval preponderance. Besides sending agents to acquire ironclads in Europe, Mallory enlisted Constructor John L. Porter, Lieutenant John M. Brooke and Chief Engineer William P. Williamson to explore building an ironclad within the Confederacy. An otherwise unsuccessful search for engines and boilers led to the machinery of the half-burned and sunken *Merrimack*, and then to a proposal to use the existing hull as well. Although Porter and Brooke later disputed the origin of the design, there is no doubt that Porter, as Chief Constructor at the Norfolk yard, played the key

role in the actual construction.

Confederate Phoenix describes how Porter and the Navy Yard organization overcame myriad obstacles to produce an operational ironclad. This section of the work reveals some of the strengths and the limitations of the Confederacy's technological base. The combined resources of the Navy Yard and private enterprises in the Hampton Roads area could produce an ironclad, but the effort was exhausting - there were only so many railroad lines that could be torn up for their rails, only so many marine engines that could be salvaged. Critical shortages of raw materials, heavy equipment and machine tools, and transportation would plague the Confederate ironclad program for the remainder of the war.

Confederate Phoenix is especially good for its treatment of the relationships between the Norfolk Naval Shipyard and the other shipyards, machine shops and iron works of Norfolk and Portsmouth. The assertion that the Navy Yard was "quickly transformed into a cooperative naval technological base that equalled any in the world at that time" (218) displays a pardonably small excess of enthusiasm.

The work makes excellent use of primary sources with a Hampton Roads focus, including diaries, letterbooks and local newspapers. Given the stress placed on the difficulties the shipyard faced in obtaining iron and upon the role of the Tredegar Iron Works, one would have expected to see Charles B. Dew's *Ironmaker to the Confederacy* among the references consulted. The two chapters describing the *Virginia's* two days of battle in Hampton Roads are based predominantly on secondary and retrospective sources. The discussion of the *Virginia's* month-long post-battle refit, although not as full as one might like, returns the work to its primary source strengths.

In areas farther removed from the book's tidewater Virginia focus, the authors are less surefooted. Contrary to their assertion that

the *Stevens Battery* "never received approval from Congress" (50), the Congress in 1842 and 1855 appropriated a total of \$500,000 for the vessel. The early war cotton embargo was never an "adopted policy" (53) of the Confederate Government, and strictly speaking, Isaac Newton, not Alban Stimers, was the *Monitor's* Chief Engineer (15). Typographically, closer editing would have helped in places, as when "judicially" is used for judiciously (112), "legislature" for legislation (49), and "enormity" for enormous (103). The spellings on the maps on page 155 and 184 do not match the text ("Sewall's" for Sewell's Point; "*Merrimac*" for "*Merrimack*"). The volume is well-illustrated, with a number of original or rarely seen photographs, but the quality of the reproductions varies from excellent to marginal.

The outlines of the *Virginia* story are familiar, but this book's stress on the conversion itself provides a refreshing point of view. Serious students of the Confederate Navy will find useful material here.

William H. Roberts
Columbus, Ohio

Alfred Thayer Mahan, *Life of Nelson: The Embodiment of British Sea Power*. Introduction by Joseph F. Callo, Annapolis, The Naval Institute Press, 2001. 792 pp., US \$45.00 ISBN 1-55750-484-9.

Alfred Thayer Mahan died in 1915. He is still regarded, however, as a naval thinker of note. This is a partial consequence of the assiduity with which his fellow countrymen have documented his capacities as a sort of Clausewitz of the sea. He was pretty good of course, and a pioneer, but it is likely that his influence and reputation would have rested quietly on some sea bed or other had it not been that the United States in 1942 was dragged into a two-ocean war. Once in they ransacked the scholarly world for comforting precedents,

parallels and "principles" with which to justify the projected mighty act of revenge that finally ended in Hhoshima. Not only were Craig, Marder, Ropp, and, indeed our Canada's Charles Stacey launched from their base at Princeton, but Mahan himself was resurrected and refurbished for the new war by Harold and Margaret Sprout. Their work was embalmed in that remarkable book "Makers of Modern Strategy". This was a collection of essays of such collective power that a recent attempt to rival them has not excited many people except for professional devotees - academic and naval. Mahan will always be regarded as the doyen of Naval thinkers at Newport and Annapolis, but probably not by the Rand thinkers, nor, probably, by interested parties outside the United States who can read and understand sea strategy.

Principles of sea power are attractive to officers wishing to make the Great Leap Forward, as Stalin might have called the Perishers. They are also useful, in certain circumstances, to those who need firm guidance in the art of obfuscation when #1 has just run down the Admiral's cutter and The Old Man is asleep. None of this is to diminish Mahan's reputation, but it is to suggest that strategy was not his only, nor perhaps even his main claim to fame.

What gave Mahan his strength was the fact that he was an historian of stature. He had the talent naturally but he honed it all his life. *The Influence of Sea Power Upon History* was filled with insights about HOW THE SEA MADE A DIFFERENCE concerning intra national conflict. Having got their attention, as Admiral Stephen Luce demanded, he then went on to give them the history. At first the history was thin stuff to illustrate general points. However, *The Influence of Sea Power Upon the French Revolution and Empire* and *Sea Power in its Relations to the War of 1812* may have begun as illustrations of "principles" but they charmed more because an historian had come to deploy his talent in a most impressive way. For the latter book Mahan had actually used the

sources in Ottawa, as well as Washington. In all sorts of ways his undoubted historical abilities outshone his previous course guides. His *Life of Nelson* was intended to his hero, the personification of "the Trident afloat" - a history on the grand scale. So it was. This magnificent book charmed the English and attracted the Americans, and although there have been many books about Nelson since, and although Nelson is due to be debunked by hungry sharks with bad eyes, Mahan's *Nelson* stands as the premier work.

He was a creature of his time. It is not for nothing that Roosevelt made sure that his naval scribbler was kept afloat in the stormy days of Mr. Dooley. Imperialist he was. He was also theologically attuned to the defence of virtue, and Almighty God, firmly and with a big stick. Whereas the fierce engine that turned against the Neapolitan rebels is hard for modern liberals to digest, for Nelson, and his biographer, the problem was not so severe. Carriocollo posed no problem to Nelson's conscience. But the careful reader will see that Mahan wrote most obscurely while skirting these moral points. He came down for Nelson, but he knew that there was a problem. The same thing is noticeable in his writing about Lady Hamilton, although his ultimate conclusion was that "her falsehoods clung to her even in the grave;" as if to say "that's what you get for mucking up our randy admiral." Worry about the rectitude of his hero's stance also shows in the description of the Copenhagen campaign where losses were heavy and an accommodation only just snatched from the process. Difficult times for both Nelson and, subsequently, Mahan.

Yes, there were a few moral blotches on the visage of war at the hands of its greatest naval practitioner. But Mahan and Nelson were closer to the Napoleonic conflict than we are. It used to be known as "The Great War" and people looking back remembered how close invasion seemed. They remembered Burke's strictures against a newly invented social structure that murdered its leaders, slew

Mamelukes by the hundred, and finally, whose representative, Napoleon, said to Metternich "What do I care for the lives of a million men?". It's not Hitler, perhaps, but fearsome enough.. The men who fought at Trafalgar fought for a cause that time threatens to obliterate. The Royal Navy was the ultimate means that kept this fearsome behemoth in check, properly used, that is.. Nelson used it. He was only one of a hard bitten competent lot, but he was the best! Mahan understood the gap that separated him from the pack. "There is but one Nelson!"

It is greatly to the credit of the Naval Institute Press that they have reissued this book, and Joseph F. Callois is to be congratulated for his diligence and for his fine introduction.

D. M. Schurman
Victoria, British Columbia

Thomas N. Layton. *Gifts from the Celestial Kingdom: A Shipwrecked Cargo for Gold Rush California*. Stanford: Stanford University Press, 2002. xx + 269 pp. appendices, notes, bibliography, index. US \$55.00 cloth, \$21.95 paper; ISBN 0-8047-4175-1.

On the night of July 25, 1850 the *Frolic*, freshly loaded with Chinese export goods, struck rocks off Point Cabrillo, California. Captain E. H. Faucon attempted to keep the vessel from hitting the rocks in a gale but she hit stern-on snapping off the rudder. The crew managed to work the ship into a cove, salvage some gear and cargo before a party sailed and hiked to Fort Ross for assistance. Once salvage efforts were completed, the *Frolic* broke apart and sank from sight and memory.

Archaeologist Thomas Layton picked up the trail while investigating material remains at the early Porno Indian hamlet of Three Chop Village. Located fifteen miles from the coast, the site included bits of Chinese porcelain ground into beads and green bottle glass flaked into arrowheads. Through determined investigations,

the author linked the Indian site to the wreck of the *Frolic*. He expanded his prehistoric archaeological experience to research the history of the brig which he published in 1997: *The Voyage of the Frolic: New England Merchants and the Opium Trade*. This work described the vessel from her construction in Baltimore for Boston's Augustine Heard and Company to carry opium from Bombay to Canton. The author received considerable support from the Mendocino County Museum and the Peabody Essex Museum in Salem, Massachusetts. The assistance of Peabody Essex curator H. Crosby Forbes coupled with the fine Chinese export collection and manuscript materials, helped solve several puzzles, while posing new ones. For instance, why was there no mention of opium among the Peabody Essex exhibits? Clearly the Boston and Salem founders of the museum wanted no mention of a subject so politically incorrect.

Other mysteries resolved included the location of the three-page bill of lading and associated records that give the volume its focus. Layton produced this volume as the story of a China cargo. Without the benefit of a carefully excavated site to provide a framework for analysis, Layton discovered the problems of nautical archaeologists who frequently encounter pillaged sites. The *Frolic* was found by sport divers in the 1950s, but only positively identified in 1981. Thousands of artifacts were removed and some were even sent to Mendel Peterson at the Smithsonian that resulted in a visit to the site, but weather prevented a dive. Over 2,000 artifacts were later made available by the finders. In order to investigate the underwater remains of the *Frolic*, the author became a certified scuba diver. The volume is both a study of a China cargo and shipwreck as well as the expansion of Layton from prehistoric archaeologist to historical archaeologist and maritime historian. "During my years as a prehistoric archaeologist, the area of my California research had rarely gone beyond Porno territory, a region extending eighty-five miles north-south and sixty-five miles

across . . . historical archaeology demands a broader approach." Layton discovered that historic sites can rarely be understood apart from an international context. His linkage of Three Chop Village to the *Frolic* brought together the artifacts and a world system composed of places and things. "That process of connection is historical archaeology's unique contribution to the study of humanity (196)."

A chapter devoted to wreck divers is an informative part of the author's discoveries within the nautical world. He encountered the destructive powers of saltwater, the equally destructive efforts of salvagers, the efforts in the 1970s to prove the *Frolic* was a Chinese junk, the transformation of values by a reformed treasure hunter, and his own appreciation of the complexities of research in this field.

Initiated as a study of the cargo of a China trade vessel carrying goods to Gold Rush California, this fast-paced personal account links past and present through both the discoveries of the maritime world by the author and the last voyage of the brig *Frolic*. This is a fine investigative study and a pleasure to read.

Timothy J. Runyan
Greenville, North Carolina