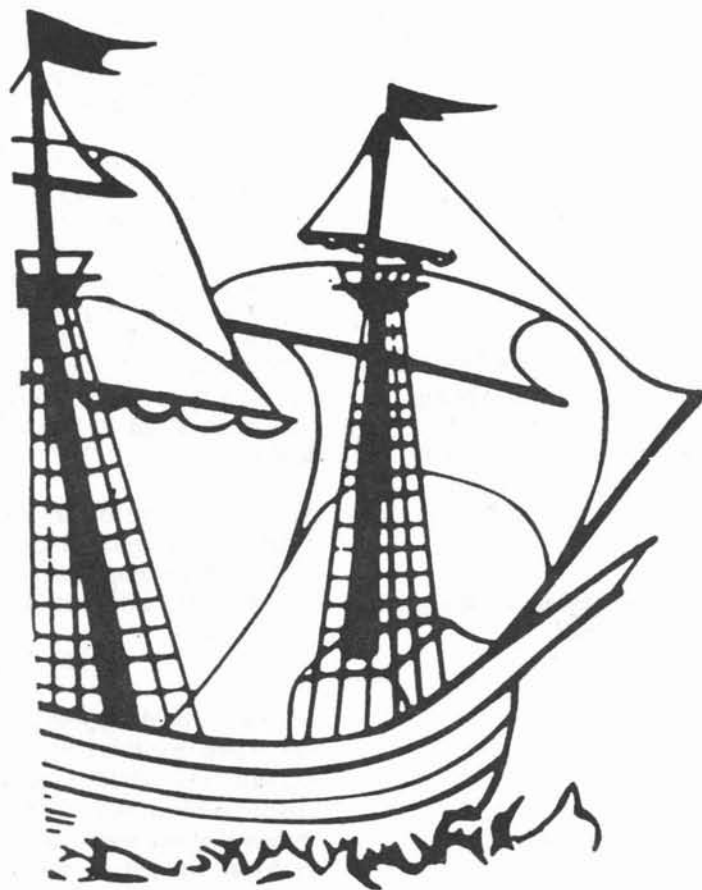


ARGONAUTA

The Newsletter of



**The Canadian Nautical
Research Society**

Volume VI Number Four
October 1989

ISSN 0843-8544

THE CANADIAN NAUTICAL RESEARCH SOCIETY
Established 1984

Honourary President: Niels Jannasch, Halifax

Executive Officers

President: Barry M. Gough, Waterloo
Past President: Gerald E. Panting, St. John's
Vice-President: Lewis R. Fischer, St. John's
Vice-President: T.C. Pullen, Ottawa
Councillor: Eric W. Sager, Victoria
Councillor: Eileen R. Marcil, Charlesbourg
Councillor: Stephen Salmon, Ottawa
Councillor: Thomas Beasley, Vancouver
Secretary: W.A.B. Douglas, Ottawa
Treasurer: Ed Reed, Ottawa

Liaison Committee

Atlantic: David Flemming, Halifax
Quebec: Eileen Marcil, Charlesbourg
Ontario: Maurice D. Smith, Kingston
Western: Christon I. Archer, Calgary
Pacific: John MacFarlane, Victoria
Arctic: Kenneth Coates, Victoria

Mailing Address: Canadian Nautical Research Society
P.O. Box 7008, Station J
Ottawa, Ontario K2A 3Z6

Membership: Individual \$15
Institution \$30

ARGONAUTA

Founded 1984 by Kenneth S. Mackenzie

Editors: Lewis R. Fischer
Maritime Studies Research Unit
Memorial University of Newfoundland
St. John's, Nfld. A1C 5S7
Phone: (709) 737-8424 (work)
(709) 738-2909 (home)

Gerald E. Panting
Maritime Studies Research Unit
Memorial University of Newfoundland
St. John's, Nfld. A1C 5S7
Phone: (709) 737-4476 (work)
(709) 726-1475 (home)

Editorial

Assistant: Margaret Gulliver

ARGONAUTA is edited for the Canadian Nautical Research Society within the Maritime Studies Research Unit at Memorial University of Newfoundland.

EDITORIAL (I)

Those of us who toil in the vineyards of historical research know only too well how seldom an important original document is discovered. And those of us familiar with the functions of bureaucracies are all too aware of the difficulties that can be imposed on the utilization of such sources. It is therefore a distinct pleasure to be able to tell you not only about how an important historical source for the study of Great Lakes history was discovered but also about how it eventually made its way via an American intermediary from the United Kingdom to Canada.

The historical source in this case is a map--"Nouvelle France," as it is usually called. It is one of the earliest seventeenth century manuscript maps of New France in existence and likely the only surviving map of the colony drawn on animal skin. But its importance to maritime scholars is that it is the earliest map to show something of the existence of all five of the Great Lakes. Later in this issue of ARGONAUTA, we will let one of the key participants in bringing the map to Canada, Dr. Conrad Heidenreich, tell you more about it. We will also show you what the map looks like.

We are grateful to Mr. Theodore Wakefield of Vermilion, Ohio for making the "Nouvelle France" material available to us. It is an exciting historical treasure, and we hope that you will share the exhilaration we feel in publishing it.

EDITORIAL (II)

We would be disappointed if readers of ARGONAUTA did not notice that this issue is extremely late. We apologize for the production delays, which were caused mainly by an acute space problem here at Memorial. The lack of space simply meant that we were unable to gain access to much of the material needed to produce the newsletter. Fortunately, through the good offices of Dr. Michael Staveley, the Dean of Arts, we now have the required offices. We think that the problems are now rectified permanently and that we will be able shortly to resume our regular publishing schedule. We expect to submit the January 1990 issue to the printers about 21 February and to publish the April issue on time.

We apologize for these delays and thank you for your patience. At the same time, we would like to assure readers that we are doing everything in our power to ensure that future issues of ARGONAUTA not only appear at the scheduled times but also bring you both information and good reading.

CALL FOR PAPERS FOR ARGONAUTA

We would like to inform readers that we have now just about exhausted our backlog of articles. We would like to thank contributors for their patience as we attempted to get submissions into print. The good news is that we are now able to offer fairly quick publication of essays and research notes.

If you would like to submit an essay or a note on your research--illustrated or unillustrated--please send it along. We expect in future to be able to publish such submissions within no more than six months of receipt.

LETTERS

Sirs:

Further to M.B. Mackay's article on the ten ships of the wooden coaster "Splinter Fleet" in the March 1987 issue of *ARGONAUTA* ["Preliminary Fleet List: The Splinter Fleet," *ARGONAUTA*, IV, No. 1 (March 1987), 3], and my amendment thereto in the June issue [*ARGONAUTA*, IV, No. 2 (June 1987), 3], there is now a rather sad end to that tale as far as the last known survivor is concerned.

Clareville has been converted into a floating restaurant at Owen Sound, and as far as we users knew, a successful one. But the owner declared bankruptcy last April, abandoned the ship, and departed for B.C. On August the 7th she was reported on fire, being heavily damaged before the blaze was extinguished. Arson is suspected. She sank in about eight feet of water, but was to be raised by cranes and demolished on the jetty alongside on September 20. However, due to the weight of water and other damages, she broke up while being lifted and now remains a jumble of planks and gear, which are to be dredged out piecemeal and removed. A sorry end for a successful vessel.

Fraser M. McKee
Markdale, Ontario

(Editors' Note: As we reported in the June issue of *ARGONAUTA*, the annual meeting of CNRS passed a resolution calling on the federal government to designate the wreck of the *Egeria* a national historic site. Below we reprint a response dated 25 August 1989 from Christina Cameron, the Director General of the National Historic Parks and Sites Directorate, to CNRS Secretary Alec Douglas concerning this resolution.)

Dear Dr. Douglas:

Thank you for your letter of August 8, 1989, concerning the New Brunswick-built ship *Egeria*, located in Port Stanley, Falkland Islands.

As you know, the Canadian Parks Service of Environment Canada can become involved only with those sites that have been declared of national significance by the Minister on the recommendation of the Historic Sites and Monuments Board of Canada, his advisory board in such matters. The Board applies the criteria outlined in the enclosed booklet *Recognizing Canadian History* [Ottawa, 1984] in order to identify

those sites having the potential for historic and/or architectural significance at the national level.

With specific regard to the *Egeria*, you will note from the brochure that current Board policy precludes the commemoration of extra-territorial sites. The Board has given serious and thoughtful consideration to this particular policy in recent months and has re-iterated the fact that our current focus on *in-situ* commemoration does not invite extra-territorial markings.

Notwithstanding this policy, I would be pleased to ask the Board whether it believes it might be appropriate for the Canadian Parks Service to take an interest in the *Egeria* in some manner short of a formal designation. However, as our staff resources are extremely limited, and there are a large number of priority matters that have been awaiting Board consideration for some time, I may not be able to do so before the Spring 1990 meeting. I hope that you will appreciate our position. In the interim, we would very much appreciate receiving a copy of the research on this vessel which has been undertaken by Mr. Eric Lawson.

I will be in touch with you again at my first opportunity to advise you of the Board's deliberations concerning the *Egeria*.

Christina Cameron
Director General
National Historic Parks and Sites Directorate

PRESIDENT'S CORNER

Members will have received their copy of the Canadian Nautical Research Society's *Canadian Maritime Bibliography for 1987* and will have had a chance by now to peruse its contents. It is, by any means of measurement, a substantial contribution to our labours as keepers of the Canadian maritime legacy. Not only does it list the relevant articles in Canadian-published journals, but it also reports on the great maritime journals that lie without our ocean gates. In my own current area of interest--the naval War of 1812--I unearthed a number of articles printed in recondite locations. And I am certain that our readers will find something of value that they otherwise could not have found. The bibliographies stand on the reference shelf in my office; gradually the collection is beginning to grow, as year by year Fischer and Salmon and their aides faithfully compile and print the bibliography of marine research progression. I cannot begin to think of the hours that went into the 1987 issue; I only hope that the Canadian Historical Association or the Canadian Library Association will look at this work as a potential candidate meriting a distinction of honour. In the meantime our editor-compilers have already begun work on the next edition, which like its predecessor will be published with the assistance of Memorial University of Newfoundland.

On another topic, the Maritime Museum in British Columbia in Victoria has large plans to energize its activities and to make itself into a world-class treasure house. In the most recent issue of its newsletter, *The Resolution*, it boasts that it is Canada's oldest and largest maritime museum on the Pacific coast. The museum has sailed through a lot of uncharted seas in the past, and I can say that with sympathy, having been a sustaining member since the late 1960s. Good leadership, excellent material collections, an extensive if under-used library, and a heritage building in the downtown core were never enough to get the hydrofoil up to economical cruising speed. A couple of years ago museum advisors on contract convinced the local and provincial governments that they were sitting on a marine gold mine, something that the museum's workers, many of them volunteers, had known for decades. Victoria is not easily moved to expansion unless tourist dollars are possible, and in this case the community at large has seen the benefit of something bigger and greater. A waterside location is being arranged, all sorts of money is promised, local volunteers are busily at work, and new benefactors are being solicited. It all augers well. Next year the Canadian Nautical Research Society holds its annual meeting in Victoria, on May 30 according to present wisdom. We hope to have the very special opportunity of learning more from the Director, John MacFarlane, and his staff about the exciting scheme afoot for the maritime museum. Details about membership in the Maritime Museum of British Columbia Society can be obtained by writing to the Society at 28 Bastion Square, Victoria, B.C. V8W 1H9.

ARTICLES

SPRUCE BEER AND THE BATTLE AGAINST SCURVY

By John Kendrick
Vancouver, B.C.

Until the end of the eighteenth century, scurvy killed countless seamen, probably far more than the number who died from shipwreck, enemy action, accidents on board, and all other diseases combined.[1] Scurvy came to the notice of mariners when long sea voyages began at the end of the fifteenth century. On the 1497 voyage of Vasco da Gama to India, scurvy attacked many of the crew after they had rounded Cape Horn. Off Mombasa, they fell in with some Moorish traders, one of whom had a boatload of oranges. After da Gama purchased a quantity of these to supplement the diet of his crews, the sick soon began to recover, which the commander attributed to "the good air in this place and the mercy of God." They were then able to continue their voyage across the Indian Ocean. Returning to Africa, they were at sea for three months, and the disease recurred. They again obtained oranges in East Africa and the scurvy disappeared, but not before about half the complement had died.[2]

Vasco da Gama was not alone in failing to recognize the

reason for the cure. There were so many possible causes and cures for scurvy that mariners of many nations continued to speculate on the nature of the disease. In 1602, Fr. Antonio de la Asención attributed scurvy on voyages returning from Manila to a sharp, cold wind encountered off Cape Mendocino.[3] In 1604 de Monts, wintering on the St. Croix River, thought scurvy was caused by rotting vegetation in the forest.[4] Other causes suggested, or in which credence was placed, included damp cold climates (in spite of the occurrence of scurvy in the tropics); insufficient water; idleness; copper poisoning from cooking vessels; and a lack of oxygen in the tissues of the body.

The cures were as diverse as the supposed causes. In 1535-36, Jacques Cartier took the advice of the Indians along the St. Lawrence River and treated his many scurvy sufferers successfully with an infusion of bark and leaves from a tree which the Indians called *Annedda*. Jacques Rousseau, after careful study of the fragmentary evidence, believed this to have been the white cedar (*thuja occidentalis*).[5] He also suggested that the French name *arbre de vie* for this species was derived from its healing properties. In spite of Cartier's success, belief in other cures persisted, some of which were cleanliness; the sprinkling of vinegar and burning of tar in accommodation spaces; the efficacy of exercise (particularly dancing); and oil of vitry (sulphuric acid) to be taken two drops at a time with sugar, sauerkraut and wort (an infusion of malt). A man named John Knox (*vide* Rousseau) writing of the campaign in Canada in 1769 said that the naval cure was to bury a man in earth up to his neck. This sounds like curing seasickness by sitting under a tree, hardly a practical remedy. Still other specifics were good wine, sauces for the meat, and the lawful company of a wife. These were French remedies.

There was another antiscorbutic popular among seamen of many nationalities, British, French and Spanish included. It was spruce beer, also known as Polish or Prussian beer. In George Vancouver's account of his voyage in 1791-95, he mentions the brewing of spruce beer at a number of places. At Dusky Bay in New Zealand, his people made "the best brew of the spruce kind I have ever tasted," according to Edward Bell, clerk of the *Chatham*. It was so good that they took some of the materials to sea to make another brew. At Nootka, it "could not be made palatable," according to Peter Puget, then in command of *Chatham*. At Safety Cove, the spruce beer they brewed "was excellent." At Resolution Cove, it was also "excellent." At Montague Island, the flesh of an old black bear was not relished, but the spruce beer "far exceeded in excellence any we had brewed along the coast." Vancouver ended his surveys of the Northwest Coast at Port Conclusion, now in southern Alaska. Here samphire, one of a number of edible plants known to voyagers as scurvy grass, was added to the brew.[6] Scurvy grass was also boiled and served as a vegetable, which was probably more effective against scurvy than all the beer a seaman could drink.

Apart from the unsuccessful brew at Nootka in 1794, spruce

beer made at a number of places from different species of trees seemed to be effective in combating scurvy. Of course, the materials were procured ashore, and from the shore they also obtained fresh vegetable matters, such as samphire, as well as fish or meat, and natural or cultivated fruits and vegetables.

In spite of all Vancouver's precautions, there were two serious outbreaks of scurvy during his voyage. The first was while he was making his way south from Nootka in 1792. He put this down to a shortage of "refreshments" and to the continual soaking suffered by the crew in bad weather. His journal does not say whether there was any spruce beer aboard at the time.

The second outbreak of scurvy occurred in the South Pacific on the voyage home. Vancouver was scrupulous in carrying out all the procedures he had used throughout the voyage, but the disease only got worse. Finally he decided he had found the cause. The cook was skimming the fat off the cauldrons in which the salt beef was cooked, and giving or selling it to the men. What is more, he confessed that he had done the same thing when scurvy broke out earlier in the voyage. Vancouver outlawed the practice, and a few days later the ships arrived at Valparaiso, where they obtained fresh meat, vegetables and fruit. The men recovered, which convinced Vancouver that his order to discard the skimmings from the beef cauldrons cured the disease. He apparently did not know that some of his young officers had been buying the skimmings from the cook all along, for use as a butter substitute.

Spruce beer was so widely used and trusted that it warrants a closer look. The first question is obvious: what was spruce beer, and how was it made? Originally, it had nothing to do with spruce trees. The adjective "spruce" appears to have been derived from the German *spross*, a shoot, or from *Pruce*, an old name for Prussia, where the brew was in use in 1500.[7] It was a cheap beer made from the bark and branches of trees, and was used as a beverage, with any therapeutic value being secondary. Presumably, the branches of evergreen trees could be gathered without cost, at any time of the year, while barley was worth money, and had to be stored between harvests.

There are several descriptions of the process of making spruce beer. Vancouver followed the recipe of Captain Cook, who had good results at Dusky Bay using the New Zealand spruce (*Rimu*) and the leaves of "a shrubby tree." He boiled the leaves, and added "insipissated huce of wort," which must have been concentrated malt extract. "Melasses" then went into the cauldron, then cold water. Finally, he added yeast or "grounds of beer," the dregs of the last brew, and in a few days it was ready to drink.[8]

Scurvy was not exclusively a maritime disease. It was reported among soldiers assembled in Halifax for the siege of Louisbourg in 1758, in spite of the use of spruce beer which

the men had to drink and pay for.[9] The recipe was similar to that used by Cook.

The Spanish used a different procedure for making spruce beer. In the Museo Naval in Madrid there is a volume of manuscripts (Ms. 330), dealing with a number of unrelated subjects. All but one of these manuscripts are listed in the index at the beginning of the volume. The sole exception is a recipe for spruce beer. There is no clue in the Madrid manuscript as to who wrote it or how it found its way into the archives, and it is undated. This is the kind of find that delights a researcher who dreams in vain of finding the lost journal of Columbus or Cartier, and who has to settle for smaller things.

The unlisted document was probably written before the early decades of the nineteenth century, when Spanish orthography was standardized. It contains such words as *hechar* for *echar* (to throw) and *ojas* for *hojas* (leaves). In the manuscript, the name of the originator is "Duhamel e Monceau." The use of "e" as a preposition indicating origin was rare after 1800. In the author's translation, the manuscript reads as follows:

Method of making the kind of beer known in Canada as espineta, according to Duhamel du Monceau

In Canada this liquor is made from a species of pine called *Espineta blanca: abies picea foliis brevibus conis minimis: Rau*. It can also be made from *abies* [word obscured] *fructu deorsum inflexe*.

To make a barrel of beer a cauldron is needed which contains at least a quarter more. This is filled with water, and once it starts to heat up a bundle of branches or twigs of *espineta* cut in lengths is added. The bundle must be over 20 inches in circumference.

The water is kept boiling is kept boiling until the bark of the *espineta* can easily be separated for the whole length of the branches. While it is cooking, three quarters of a bushel of sand and the same of barley or maize is roasted in an iron frying pan.

Also roasted are 15 ship's biscuits or failing them 12 to 14 pounds of ordinary bread cut in strips. When all these materials are well roasted they are thrown into the cauldron where they remain until the *espineta* is well cooked.

Then the *espineta* is removed from the cauldron and the fire is quenched. The sand and bread fall to the bottom. The leaves of the *espineta* which float on top are removed with a skimmer. Finally 3 gallons of molasses or 12 to 15 pounds of sugar are added to the liquor.

Immediately, the liquor is poured into a barrel which should recently have contained red wine and if it is

desired to have more colour 2 or 3 gallons of wine are left in the barrel.

When the liquor is no more than tepid, a quart of brewer's yeast is added and stirred vigorously to incorporate it with the liquor. Afterwards, the barrel is filled to the bung-hole which is left open.

The liquor ferments and throws up much scum. The precaution must be taken to keep the barrel always full, adding some of the liquor that has been kept apart in a wooden vessel. If on the twenty-fourth day the barrel is closed or the liquor is bottled, at the end of several days it will effervesce like cider. If still beer is wanted, do not close the barrel until the fermentation has entirely ceased.

This liquor is very soothing and antiscorbutic.

The preferred species is most probably *Picea glauca*, the Eastern white spruce, a tree similar to *Picea abies*, the Norway spruce. The alternative species could be the red spruce, *Picea rubens*, or white fir, *Abies balsamea*. But in the absence of the missing word, it is impossible to be certain.

Henri Louis Duhamel du Monceau (1700-1782) was a member of the French Academy of Sciences. His correspondent in Canada was Jean François Gaultier, Royal Physician in Québec. In 1749, Gaultier sent four hundred pages of documents on the natural history of Canada to Duhamel[10], including the following recipe for "petite Bierre."

One takes branches of [the spruce with pink wood], boiling them for a time in water, until the bark separates from the wood, then a little barley, wheat or oats is added, roasted like coffee, and it is all boiled some time, after which the cauldron is removed from the fire. It is taken and put into a cask with two or three pots of molasses and a little brewer's yeast which is well flavoured with hops. Some add crushed biscuit. When all that is fermented for some time, one has a liquor which is not at all alcoholic, and which is accordingly called 'petite Bierre [sic], which is good to drink. It has a taste of turpentine and is a little bitter and acid, which is not in the least disagreeable. Everyone can take this beverage with pleasure, which is both refreshing and antiscorbutic. It is also diuretic and very salutary for illness of the kidneys. (Author's translation.)

There is one significant difference between Gaultier's recipe and that of Duhamel. Gaultier says of his brew "*c'est point spiritueuse*," whereas all the foaming and skimming described by Duhamel indicates extensive fermentation. This affects the efficacy of the brew as a cure for scurvy, as explained later. This writer has not been able to trace the source of the differences between the two recipes.

One can only speculate on how a Spanish translation of Duhamel's recipe came to rest in the Museo Naval in Madrid. It is possible that it was one of the documents associated with the world voyage of Alexandro Malaspina in 1789-95. He made exhaustive advance enquiries into all matters to do with his voyage, including the diet and health of his men, and was given permission to consult with the academies in Paris and London. In the Museo Naval, there are lists of documents which he obtained and took to sea[11], but the writer has not found a reference to the recipe for spruce beer.

Passing over the claim in the recipe as to the soothing qualities of Duhamel du Monceau's Canadian spruce beer, what of its antiscorbutic value? This writer has not come across any controlled experiments on spruce beer. The first controlled experiment in the treatment of scurvy (*vide* Carpenter) was by James Lind, an English physician who treated groups of patients with either cider, sulphuric acid, vinegar, seawater, lemons and oranges, or a poultice of garlic, mustard, and nutmeg. Lind reported in 1754 that the only one of these treatments that was effective was the oranges and lemons. The patients who ate them were almost all better by the time that Lind ran out of fruit.

Lind believed that the cause of scurvy was a blockage of "insensible perspiration." It was not until the early years of the twentieth century that it was recognized that there were "accessory factors" in food that were necessary to health. Two were established, and called A and B. In 1919, the existence of a third accessory factor was demonstrated, which prevented or cured scurvy. Not knowing what it was, it was called "accessory factor C." It was present in fruit, plants, and meat, as long as they were fresh. Later, these accessory factors were christened "vitamins." In 1928, Vitamin C was finally discovered to be ascorbic acid, $C_6H_8O_6$. The curative effects of this vitamin on scurvy patients was so dramatic that in 1934 the Canadian physician and historian Dr. Leo Pariseau called it "the miracle of Saint Vitamin C."

Ascorbic acid is generated only in plants, and all animals must have it to live. Either they eat plants, or they eat other animals in whose bodies the vitamin is stored. The human body continuously uses up ascorbic acid, and regularly requires a fresh supply of the vitamin. This is why scurvy came to be associated with long voyages. After two months or so without any intake of ascorbic acid, the bodies of seamen would lose their stored supply, and scurvy would break out. Ascorbic acid is a delicate chemical, and can be broken down by heat, by time, and by the catalytic action of copper salts. The vitamin would not survive in salt beef, and there is none in bread or dried peas, these being the mainstays of the sea diet. Also, the use of copper vessels for cooking food, and for concentrating lemon juice, would reduce their ascorbic acid content. Those mariners who thought that copper poisoning was the cause of scurvy were partly right.

Cartier's men would have got an adequate supply of ascorbic acid from the freshly prepared and unfermented infusion of

tree shoots. Spruce beer is another case entirely. Little or none of the vitamin would remain after cooking and fermentation. Tests reported by Carpenter (see note 1) show high ascorbic acid values in infusions of spruce needles, all lost in fermentation.

Like the sulphuric acid and the dancing, spruce beer was of no use against scurvy, at least if it were fermented. It is possible that a brew made according to the procedures of Gaultier and Cook would contain some residue of ascorbic acid. More probably, the apparent effectiveness of Cook's brew was due to the fact that spruce trees could only grow on shore, where fresh provisions or edible plants could be obtained. Cook's voyages were free of scurvy, not because of his faith in sauerkraut, wort and spruce beer but because his duties required him to put in frequently at places where he could obtain fresh food, which he never failed to do. Cook had little faith in "rob of lemon" (concentrated lemon juice), and he may have been right. The method of preparation and the length of time it was stored on board could have robbed the juice of much of its value as an antiscorbutic.

It is ironic that scurvy and its cure were encountered at the same time, on the voyage of Vasco da Gama, yet deaths continued by the thousands for another three hundred years. After 1800, it occurred more rarely, in cases such as the Irish famine of the 1840s; on the American naval ships blockading Mexico in 1846; among Union prisoners of war during the American Civil War; and among Arctic explorers. For five winters (1849-54) the British navy stationed a depot ship at Point Barrow at the northern tip of Alaska to succour any survivors of the lost Franklin expedition. It is doubtful if they could have given much succour if Franklin had turned up. Each winter the crew of the depot ship suffered from scurvy, until they adopted the Eskimo diet. [12] Even that did not help when the Eskimos themselves suffered a famine.

The persistence of scurvy from 1500 to 1800 was due to false and persistent ideas as to its cure, including the value of spruce beer. After 1800, it was partly due to the difficulties of preserving supplies of antiscorbutics on long voyages or on Arctic sledge journeys. As much as anything, the continuation of deaths and misery due to scurvy into the twentieth century was due to the unwillingness of those in command on land or sea to spend the money for well-known antiscorbutics.

Notes

1. For a complete survey of scurvy, see K.J. Carpenter, *The History of Scurvy and Vitamin C* (Cambridge, 1986). Some of the references listed below are quoted in Carpenter's book, and the section of the paper on ascorbic acid (Vitamin C) is based upon it.

2. E.G. Ravenstein (trans.), *The First Voyage of Vasco da Gama* (London, 1898).

3. H.R. Wagner, *Spanish Voyages to the Northwest Coast of America in the Sixteenth Century* (Sacramento, 1929).

4. Samuel Purchas, *Purchas, His Pilgrimes* (London, 1626).

5. Jacques Rousseau, "Annedda et l'arbre de vie," *Revue d'histoire de l'Amérique française*, VIII (1954), 171-262.

6. W.K. Lamb (ed.), *The Voyage of George Vancouver* (London, 1984).

7. *Oxford English Dictionary*.

8. J.C. Beaglehole (ed.), *The Journals of James Cook* (London, 1955).

9. T.H. Raddall, *Halifax, Warden of the North* (Toronto, 1965).

10. *Dictionary of Canadian Biography*, III (Toronto, 1974), 675-680.

11. Dolores Higuera, *Catálogo Crítico de los Documentos de la Expedición Malaspina* (Madrid, 1985).

12. J. Bockstoe (ed.), *The Journal of Rochfort Maguire 1852-4* (London, 1988).

WRECKED AND RECOVERED: THE STORY OF THE WHALER GRIB

By Axel Kühn and M.B. Mackay

The Whaler *Grib* was delivered by Framnæs Med. Verksted of Sandefjord, Norway in 1907, three years after its Norwegian owners, A/S Ornen, first went to the Antarctic. After several years A/S Ornen took delivery of a number of larger whalers and *Grib* was sold in May 1911, together with the whaler *Hauken*, to the newly-established Norwegian-Canadian Whaling Company of Sandefjord.

The Norwegian-Canadian enterprise had erected plant facilities at Sept-Iles, Québec. It is not surprising therefore that in December 1912 *Grib* was registered in Montreal, the owner's name meanwhile changing to the Canadian Whaling Co. Ltd. After *Grib* was wrecked off the west coast of Anticosti Island on November 14, 1915, the registry was closed and the vessel disappeared from *Lloyd's Register*. There is little information in Canadian sources about the wreck, possibly because of wartime security, but also possibly because of the unusual status of Anticosti Island at the time--surrounded by international waters and owned by a French citizen, Henri Menier.

This makes the wreck something of a mystery. It is likely that *Grib's* wreck was claimed by a local company variously titled Holliday Bros. or J. Holliday, which had operated a passen-

ger and freight service along the north shore of the St. Lawrence until 1915, when it sold its ship *Aranmore* to the Canadian government (*Aranmore* was later acquired by the Foundation Maritime and served as a salvage tug from 1939 to 1945). Indications for this come from a steamship inspection report showing that *Grib* was inspected in Québec City on December 5, 1916 and owned by Holliday & Wade. We also know that *Grib* was re-registered in Ottawa on April 27, 1917 for the same Holliday & Wade of Québec City.

When the other whaler owned by Canadian Whaling, the aforementioned *Hauken*, was sold to the French government in April 1916, it seems either that the *Grib* was no longer owned by the company or that it was still a wreck. In any event, *Grib* was not mentioned in French documents as a possible candidate for acquisition.

The same day that *Grib* was re-registered in Ottawa for Holliday & Wade, the ship was sold to the Minister of Naval Service. This coincides with Dittmar & Colledge's information that *Grib* was taken up for naval service in May 1917 as a miscellaneous patrol vessel. She was armed with a six-pounder. When the war was over, *Grib* was transferred to the Ministry of Customs and Inland Revenue in 1919 and put into service patrolling for rum-runners in the Gulf of St. Lawrence.

In June 1928 *Grib* was purchased by Eastern Tow Boat Co. Ltd. of Halifax, although she retained her Ottawa registry. Before the ownership change was made on July 23, she had already assisted on July 2 with salvage attempts on HMS *Dauntless*, which was aground off Halifax. Converted with minimal work to a tug, *Grib* was renamed *William S.* in December 1928. Her namesake was William Sitland, the manager of Eastern Tow Boat. She was subsequently used in Halifax harbour handling scows and cribwork for new piers.

Although the registry was closed in Ottawa on December 21, 1928 it was not until November 1929 that *William S.* was registered in Halifax. Three months later the tug was acquired by Halifax Tow Boat Co. Ltd. when Eastern Tow Boat went out of business. Again, it was more than a year before this change was recorded in the register.

During the next four years, *William S.* made a number of trips around the coasts of Nova Scotia. The J.P. Porter Co., managers of Halifax Tow Boat, used her to tow scows and dredging plants from port to port. On December 11, 1933, she ran aground off the southeastern tip of Nova Scotia while towing a scow. She was freed, however, on December 18 and arrived back in Halifax before Christmas. But the accident had caused a fair amount of damage, and in January 1934 she was declared a "constructive total loss" by the insurers.

She was bought back after the settlement by the J.P. Porter Co. At that point her wheelhouse was removed and all valuable equipment was stripped. She went to her grave when she was scuttled off Halifax about March 29, 1934. It was

perhaps fitting that it was William Sitland who opened the seacoaks. The registry was finally closed on November 24, 1936.

Grib--Built 1907 by Framnæs Med. Verskted, Sandefjord, Norway; Norway Hull No. 67; 141 gross, 23 net registered tons; 28.59m X 5.79m X 3.54m.; engine, T3 cyl. by G.T. Grey. As a tug, 140 gross, 78 net registered tons; 94.5 feet X 18.7 feet X 10.7 feet. Official Number CAN 131116.

NEWS

HISTORIC MAP RETURNS HOME TO THE GREAT LAKES

History came home on 7 June 1989. Almost 350 years after it was made, the map "Nouvelle France" has returned to the Great Lakes region.

"Nouvelle France" [New France, which reached from the Gulf of St. Lawrence to Lake Superior] is the earliest map to show Lake Erie and to attempt to portray all the Great Lakes. It is also the most complete source on the locations of the local Indian tribes before their dispersal in the mid-1600s.

The maker of this map was describing lands both familiar and mysterious. The French knew of the existence of Lake Michigan, but they had no idea of its contours. The eastern end of Lake Superior ("Grand Lac") is depicted fairly well, but bears the note that the lake is "believed to empty toward China" (the Indians always promised the French that salt water lay just ahead). Lake Erie appears as "Lac du Chat" (Lake of the Cat People; "Erie" is "Cat" in the Huron language).

The map itself is a mystery, as is the discovery of Lake Erie. (In 1983 Theodore Wakefield of Vermilion, Ohio offered through Bowling Green University \$1000 to anyone who could identify the true discoverer of Lake Erie; no satisfactory solution was submitted.) "Nouvelle France" is unsigned and undated. Scholars have given it the tentative date of 1641 because it includes information about the Iroquois country (New York) obtained by two French prisoners freed in that year by the Iroquois, because the Indian names are written in the Huron dialect used exclusively by Jesuit missionaries before 1643, and because the map makes no reference to Montreal, founded in 1642.

How did "Nouvelle France" leave North America? In 1759 the British defeated the French on the Plains of Abraham. A British engineer, John Montresor, was quartered in the Jesuit archives in Québec, where he saw "Nouvelle France." Drawn on a piece of hide about two by three feet, "Nouvelle France" was irresistible to Montresor. It eventually landed in the archives of the Hydrographic Department of the Ministry of Defence in Taunton, England. There the map remained in obscurity until Conrad Heidenreich, a geography professor



"Nouvelle France"

at York University in Toronto, came across a photostat and recognized its significance. Theodore Wakefield then went to Taunton, secured a good photograph, and brought the map to the attention of other scholars and to the attention of authorities at Saint-Marie among the Hurons, which arranged for "Nouvelle France" to be exhibited at the mission. Wakefield's goal now is to secure an historical museum on Lake Erie's southern shore where "Nouvelle France" can be seen.

"Nouvelle France" will be displayed through the end of November at the Sainte-Marie-among-the-Hurons Mission in Midland, Ontario, which is this year celebrating its 350th anniversary. The exhibit was opened in June by the Right Honourable Jeanne Sauvé, the Governor General of Canada. At the opening Dr. Conrad Heidenreich of York University was asked to say a few words. Below we print his speech, which places the map in an historical context far more eloquently than we can.

"Your Excellency, Madame Sauvé, Honoured Guests.

"I have been asked to say a few words about the importance of the map "Nouvelle France."

"Nouvelle France" is a manuscript map and as such it is unique. Like a painting there are no others like it. Because it is quite literally like a painting of Canada at the time the country was beginning to be settled by the French, it is a unique link with our past. For that reason the map is important, as are other early links to our past.

"From the point of view of a map historian, "Nouvelle France" is important because it is one of the earliest seventeenth century manuscript maps of New France in existence and the only map of New France that I know of drawn on animal skin. On a more academic level, this map is the first to show something of all five of the Great Lakes. It therefore represents an important step in the growth of geographical knowledge about the Great Lakes from Champlain's work, which ended in 1628, to that of the Jesuits, who published a magnificently modern geographical description of the area in 1647-48.

"The most important aspect about this map is, however, its depiction of the distribution of native groups. The cartographer who compiled the map obtained most of this information from another map--now lost. This "lost map" was made by the Huron and Father Paul Ragueneau at Sainte-Marie in 1639-40. To this "carte Huronne," as Father Le Jeune called it, the cartographer added material from Champlain's *Works*, published in 1632, and information on the Mohawk country conveyed by two Frenchmen, Thomas Godefroy and François Marguerie, who were released by their Iroquois captors in June 1641. What is so important about that distribution of native groups is that here we have the only known surviving cartographic record of where many native groups lived prior to 1646-1654. During those years, wars between the Dutch-backed Iroquois Confederacy and

French-allied native groups completely changed--forever--the native geography of the Great Lakes. This map is therefore of major academic interest. It confirms much of what we already knew and brings us some new information on the location of native societies before the great population dislocations of the mid-century. The map is therefore a picture of native Canada, drawn at a time when European influence in the country was minimal and when there were only two hundred French settlers and only two tiny settlements, Quebec and Trois-Rivières.

"Nouvelle France" is by seventeenth century standards a rather crudely drawn map. But whether by accident or the design of its author, through its skin base, bold lettering, rough line work and subdued colours, it exudes a rugged vitality that eloquently represents this country and its founders.

"I first saw this map in 1977, in the form of three miserable overlapping negatives (grey lines on black paper). Later I received a fuzzy black and white photostat and finally in 1985 a magnificent colour photo courtesy of Mr. Ted Wakefield, who more than anyone has lifted this map from academic obscurity to the attention of the public. It is therefore a tremendous pleasure for me, and I hope for you, to view the original.

SOS ANNOUNCES NEW DIRECTOR

The Board of Directors of Save Ontario Shipwrecks (SOS) is pleased to announce the appointment of Fred Gregory to the newly-created position of Executive Director, effective 20 August 1989. Fred, who has been an active scuba diver since 1976, has been very active in the diving community for many years. A member of SOS since 1981, he has served as both President of the SOS Ottawa chapter and (since 1984) as Provincial President. Fred has always been an active supporter of marine heritage and in 1984 was the recipient of the SOS Marine Heritage Award for his activities. An avocational marine archaeologist, he has worked on a number of projects and conducted two himself. He is also the author of several related reports and papers. Fred joins SOS after a twenty-three year career with the Canadian Forces.

We would like to congratulate Fred on this appointment and the Board of Save Ontario Shipwrecks on the wisdom of its choice. CNRS members, we are certain, can look forward to even closer relations with SOS with Fred at the helm.

ATTENTION: MODEL MAKERS

The National Historic Site "The Port of Quebec in the Nineteenth Century" held their annual display of boat and ship models in August. According to CNRS member Linda Liboiron, the event was a success, with about six thousand visitors participating.

Plans are already under way for next year's event, and the organizers are looking for model makers or anyone owning ships' models who would be interested in displaying them during the August 1990 exhibit. Interested individuals should contact Mr. Alain Maltais, Canadian Parks Service, 100 Saint-André Street, Box 2474, Quebec, P.Q. G1K 7R3 (telephone: [418] 648-3300).

SMALL BOAT VOYAGE PROJECT

In a recent issue of *ARGONAUTA* we mentioned Victor Suthren's involvement in the "Small Boat Voyage Project." In the interim, Victor has kindly provided us with more details about this fascinating endeavour, which we are happy to pass along to you.

The Small Boat Voyage Project had its origins in discussions among historians working with the Canadian Parks Service. During these interchanges, it came to light that the great Canadian economic historian, Harold Innis, had added to his sense of Canadian history by journeying along many of the old trade routes by canoe. At the same time, several of the historians noted that while it was hardly practicable to retrace every significant milestone in Canadian history, certain events lent themselves to this type of endeavour. Among these were the 1812-14 maneuverings on Lake Ontario between Yeo and Chauncey; the group believed that by sailing the distances between York (Toronto) and Burlington or Niagara, or from Kingston to Sackets Harbor, an understanding of these events could be enhanced.

Since large vessels from the period were unavailable, the decision was made to use small boats with period rigging: the most useful and available of these has been a Canadian Forces twenty-seven foot whaler, which has a standing lug yawl rig of eighteenth century form. In preparation for a sailing, participants read journals and accounts of the day; note headlands and observations; fit the boats with appropriate safety gear; and choose a course. The crews dress in accurate clothing of the period and sail (or row) the route as closely as possible. The crews thus far have consisted of volunteers associated with the Canadian War Museum or the Upper Lakes Historical Society in Penetanguishene.

Thus far, two crossings have been made from Toronto to Niagara-on-the-Lake and two from Kingston to Sackets Harbor. Present plans call for a retracing of Pringle and Downey's routes on Lake Champlain next year, and more Lake Ontario crossings the year after. In 1993, it is possible that the group will commemorate Perry and Barclay's battle at Put-In Bay by sailing there from Amherstburg.

Anyone interested in assembling a crew or in learning more about this interesting approach to appreciating naval history can contact Victor Suthren at the Canadian War Museum (330 Sussex Drive, Ottawa, Ontario K1A 0M8).

CANADIAN CENTRE FOR INTERNATIONAL FISHERIES TRAINING AND DEVELOPMENT

The Canadian Centre for International Fisheries Training and Development (CCIFTD) has recently been established by Memorial University of Newfoundland and the Newfoundland and Labrador Institute of Fisheries and Marine Development. CCIFTD provides a central body for the coordination and cooperation of Newfoundland and Canadian institutional, governmental, and private sector fisheries and oceans expertise to projects in developing countries. Policy guidance is provided by an Advisory Board which includes representatives for the two institutions, the Federal and provincial governments, and the private sector. Direct strategy development occurs through a Board of Directors currently drawn from Memorial University and the Marine Institute. Start-up capital has been provided by the Federal and provincial governments. In-kind support comes from Memorial University and the Marine Institute. Operations are carried out from offices on both campuses with the administrative centre located at the Marine Institute.

There are five primary functions of CCIFTD: 1) to seek fellowships for international students to study in Canada; 2) to engage in international cooperative research and technology transfer with educational institutions and private sector agencies; 3) to promote international faculty exchanges; 4) to develop and deliver international fisheries education, training and technology transfer programmes; and 5) to provide consulting services and to engage in international fisheries development projects. CCIFTD works closely with international project funding agencies such as regional development banks and the Canadian International Development Agency (CIDA). Strong relationships also exist with the International Centre for Ocean Development (ICOD) in Halifax.

Although CCIFTD places particular emphasis on developing projects in the Indian Ocean and the Caribbean, other proposals are assessed as resources permit. Specialists thus far have been dispatched to work in countries such as Tanzania, Sri Lanka, India, Burma, Thailand, Kiribati, Maldives, Bangladesh and the Philippines. Current projects include the placement of students from Anguilla in fisheries development programmes in Canada; the production of individualized training and attachment programmes for students from Hong Kong and the People's Republic of China; the provision of curriculum development services for the Fisheries Institute in the Democratic Republic of Yemen; the development of fishing vessel design parameters for the Belize shrimp fishery; and the upgrading of the pole and line tuna fishery in the Maldivian Islands.

Further information on CCIFTD may be obtained by writing The Directors, The Canadian Centre for International Fisheries Training and Development, P.O. Box 4920, St. John's, Nfld. A1C 5R3, Canada.

FIFTH ANNUAL L. BYRNE WATERMAN AWARD

At the Fourteenth Annual Whaling Symposium, held at the Kendall Whaling Museum in Sharon, Massachusetts, 14-15 October 1989, Dr. Briton C. Busch of Colgate University in Hamilton, New York was presented with the Fifth Annual L. Byrne Waterman Award. This award, named for a distinguished contributor and supporter of American maritime museums, honours "outstanding contributions to whaling and cetology-related research and pedagogy in the arts, humanities and sciences." Recent recipients have included William Schevill, a distinguished Harvard professor of biology, and Edward Mitchell and Randall Reeves (a shared prize), chief research scientists in the field of marine mammalogy at the Canadian Arctic Biological Station, Ste. Anne-de-Bellevue, Quebec. Busch is the first historian to receive this prestigious award.

EUROPEAN INSTITUTE OF MARITIME STUDIES

The European Institute of Maritime Studies (IEEM), located in Gijón, Spain, was officially inaugurated on 22 September 1989. As an institution which might have some applicability to thinking about maritime education in Canada, we thought we would tell you a bit about it.

The IEEM is an organization devoted to the teaching of maritime subjects in all their legal, economic, financial, technical and social aspects. It fills an gap in western Europe, especially since it is charged with the development of uniform maritime policies. The institute is also charged with the responsibility to educate specialized maritime professionals who can put their skills to work in administration as well as in public and private maritime operations.

The scope of the IEEM is international. It has a variety of important goals, including research, teaching, and the development of maritime issues; definition and implementation of academic programmes contributing to the construction of the European Union; cooperation with South American institutes and organizations to prepare and establish joint educational programmes in maritime subjects; and the promotion of collaboration with other international institutions. In order to achieve these goals, the institute intends to promote dialogues between various maritime occupations and nations. It also sponsors lectures and seminars on topics such as maritime health, labour policies and safety.

The teaching programme is especially important. The IEEM offers two regular educational programmes: Master's courses in Maritime Law and Maritime Business Administration. These programmes are directed particularly toward university graduates in law or economics, or toward those who have graduated from marine colleges or institutes of fisheries. Due to space limitations, at present the programmes are limited to a maximum of thirty students, including those from

outside Spain. These programmes have two main objectives. First, they are designed to transmit knowledge (both practical and theoretical); second, they aim to expand the boundaries of knowledge through applied and theoretical research.

Readers interested in more information about the Institute should write to the Director, European Institute of Maritime Studies, Carretera de Villaviciosa, 33203 Gijón, Spain.

HUMAN RIGHTS FOR SEAFARERS

There is perhaps no issue in international affairs that elicits as much concern these days as human rights. Yet one corner of this large issue has not received as much attention, either from individuals or from governments, as might be warranted. We refer, of course, to the issue of seafarer's rights. This is an area in which Canada, in particular, lags behind many other industrialized nations. One of the reasons for this situation is our failure to ratify International Labour Organization Convention 147, which provides for minimum living and working conditions for seamen, enforced by government inspectors. This is the closest thing to a Bill of Human Rights for seafarers, yet our government has not seen fit to adopt it.

The issue of seamen's rights is a complex issue, and one to which we hope to return in future issues. But in the interim, we wanted to suggest a couple of sources for readers concerned with the topic. The first is a superb, short guide to the subject which appeared in the journal, *Rights and Freedoms/Droits et Libertés* in September 1989. The author, Captain Colin Smith of North Vancouver, B.C., is a veteran mariner who currently is employed as a marine casualty investigator with Transport Canada; his essay provides an excellent introduction to the scope of the problem. Colin himself is an excellent source of information; he may be contacted at Apt. 312, 1033 St. Georges Avenue, North Vancouver, B.C. V7L 3H5. He also works with the Seamen's Church Institute, which hosts one of two major international Centres for Seafarers Rights. Readers can get information on the topic by writing to the Institute at 50 Broadway, New York, N.Y. 10004.

ENGLISHMAN TO FOLLOW IN COLUMBUS' WAKE

On September 23, nearly five hundred years after Columbus "discovered" America, Robin Knox-Johnston, an internationally-known yachtsman who is a veteran of long-distance voyages, set sail from Falmouth to recreate Columbus' historic 1492 venture. Sponsored by the *Guardian* newspapers in Britain, the voyage is designed primarily to test the accuracy of Columbus' navigational equipment and to solve the dilemma of where Columbus first landed in America. Sailing single-handed in the thirty-two foot Bermudian ketch *Suhaili*, Johnston intends to recreate Columbus' ocean crossing from the island of Gomera in the Canaries to the Bahamas using

only the same primitive navigational equipment available in the late fifteenth century--an astrolabe and the stars.

We know that Columbus, as commander of three small ships, had no high-tech navigational equipment to keep him on course. Knox-Johnston, on the other hand, will have the most modern equipment onboard. But he will not have access to it. Instead, the modern equipment will be used to transmit via satellite his precise position on a daily basis. This will then be compared with what Johnston records in his log. The result will be a relatively rigorous test of what Columbus could have ascertained using his own equipment. In addition, once the results have been plotted it should then be possible to know with more precision the spot where Columbus first reached landfall in the new world.

For interested readers, it is also possible to obtain an illustrated booklet and map outlining the background of Columbus' 1492 voyage and Knox-Johnston's 1989 passage. This can be obtained for £4.95, including postage, from The *Guardian* Columbus Venture, Compusec, 6 Bushey Hall Road, Watford, Herts WD2 2EU, England.

INDEX TO THE NAVAL CHRONICLE

In the July issue of *ARGONAUTA* we printed a story about Norman Hurst, a CNRS member living in England. The focus of the story concerned his project to index all the births, marriages and deaths in the *Naval Chronicle* in the early nineteenth century. One of the best aspects of editing *ARGONAUTA* is the opportunity to follow-up on such stories. In this case, the follow-up is to report the publication of his index, covering the years 1799-1818. This 158-page alphabetized index is a must for all researchers interested in the period and certainly belongs in every research library in the country. Even better is the fact that this is one of the few true bargains about which we can inform you. *The Naval Chronicle, 1799-1818: Index to Births, Marriages and Deaths* is available in Canada for just \$15, including postage--and CNRS members can pay in Canadian funds. The book can be ordered directly from Norman at 25 Byron Avenue, Coulsdon, Surrey CR3 2JS, England. We urge all CNRS members to ask their libraries to order a copy--and we also suggest that members who would like to have this little gem for themselves place their orders quickly before the initial printing is exhausted. To Norman, we convey the thanks of all researchers for performing this important, if daunting, task.

THE MARCO POLO PROJECT

On 17 April 1851 a 1625-ton, fully-rigged ship slid from the yard of James Smith into Marsh Creek at Saint John, New Brunswick. She was the largest vessel the yard had ever constructed and they named her the *Marco Polo*. Until she went ashore at Cavendish, Prince Edward Island in July 1883,

the *Marco Polo* was one of the most famous sailing vessels ever to be built in Atlantic Canada. Perhaps her most famous attribute was speed, a characteristic quite apparent on her first voyage from Saint John to Liverpool, which she completed in just fifteen days. But it was as the flagship of the famous Black Ball Line that the ship achieved lasting fame. Her first round trip from Liverpool to Melbourne, made in just seventy-six days each way, earned her the reputation as the "fastest ship in the world." While other craft would eventually shatter her speed records, the *Marco Polo* remains to this day probably the most famous vessel built in the Maritimes during the golden age of sail.

Now a group in Saint John would like to bring back the *Marco Polo* by constructing a full replica. Under the leadership of Barry Ogden, a Saint John high school teacher and the President of the non-profit *Marco Polo* Project, the group has embarked on a \$150,000 feasibility study funded jointly by the federal and New Brunswick governments; by the city of Saint John; and by private contributions. The results of the study will go far toward determining whether such a replica will be constructed. We will keep you informed of the progress of this exciting project.

CANADIAN COAST GUARD COLLEGE ACQUIRES SEVENTEENTH CENTURY CHARTS

Through the generosity of Dr. Alexander Györfi of Berwick, Nova Scotia, the Coast Guard College has been fortunate to acquire a collection of twenty-seven seventeenth century charts of Cape Breton Island and the Gulf of St. Lawrence. The charts, which are the work of several cartographers, illustrate the extension of French influence in the region during the first half of the century. In addition, there are some British charts of a somewhat later date in the collection. As a whole, the collection has both great artistic merit as well as being of historical importance. It is currently on display in the College Library. Readers who would like to know more about the collection can write to Mr. David MacSween, Librarian, Canadian Coast Guard College, P.O. Box 4500, Sydney, N.S. B1P 6L1.

WORLD SHIP SOCIETY, VANCOUVER BRANCH

Many of our readers will already be members of the World Ship Society, a world-wide association of ship lovers with headquarters in England. But for our west coast readers in particular, we would like to urge you to consider membership in the Vancouver branch of the society. We have long read with fascination their newsletter, *The Barnacle*, which appears three times per year. *The Barnacle* is packed with news about vessels and all kinds of things nautical, and is by itself worth the price of membership. Readers interested in joining the World Ship Society, which includes a subscription to the society's journal, *Marine News*, can do so for only \$38 per year. For those interested only in the activities of the Van-

couver branch, it is possible to take out an associate membership in that one chapter for only \$18 per year. The latter also includes a subscription to *The Barnacle*, which in our view is worth the price by itself. Inquiries can be sent to the World Ship Society, Vancouver Branch, P.O. Box 3096, Vancouver, B.C. V6B 3X6.

ARTIFICIAL REEF SOCIETY OF B.C.

The world of underwater researcher's is nothing if not hazardous. Treacherous currents, untenable water depths, and inadequate charts and maps often make the world of the diver both dangerous and frustrating. But if a group of British Columbia divers have their way, this problem will soon be a thing of the past along the west coast of Canada.

The Artificial Reef Society of B.C., a group of diving enthusiasts and underwater archaeologists, has been formed to lobby for the creation of synthetic dive sites. The idea is deceptively simple: to sink some old vessels at locations that are readily accessible to--and safe for--divers. Artificial reefs would be created as resting places for the wrecks. A recent B.C. government report suggested that such a scheme could pump up to \$1 million per year into the provincial economy. Potential wrecks for such a programme could include the thirty year-old *Chaudiere*, a Canadian Restigouche-class destroyer and several ancient vessels belonging to B.C. Ferries.

The always-energetic Tom Beasley (whose new column follows this story) is a spokesperson for the group. CNRS members interested in joining the Artificial Reef Society or learning more about their activities can contact Tom (205-2255 Cypress Street, Vancouver, B.C. V6J 3M6).

COLUMNS

UNDERWATER NEWS

By Thomas F. Beasley

Canada's rich maritime history unfolds before thousands of scuba divers each weekend from St. John's to Victoria. Arguably, more divers explore Canadian shipwrecks each year than tourists visit our maritime museums. For example, eight thousand divers visited shipwrecks in Fathom Five National Park in 1988, and some returned a dozen times during the short summer season. Looking for more than photos, many divers are soon "turned on" by the shipwreck's tragic or humorous fate. Once back on land they then scour local libraries for newspaper accounts, Lloyd's records, accounts from the Receiver of Wrecks, and the like.

In the 1960s a handful of diehard avocational maritime historians/divers worked in isolation on their finds and to discover more. As we near the 1990s the handful have become hundreds working in a dozen "underwater archaeological" societies across Canada. These groups are discovering our

maritime history but preserving it *in situ* for future divers. This column will keep CNRS members in touch with their important research, conservation and exploration.

The Canadian Maritime Heritage Federation/Federation Canadienne du Patrimoine Maritime

On May 13th representatives from seven Canadian Underwater Archaeological Societies met at the Canadian Archaeological Association Conference in Fredericton to incorporate the Canadian Maritime Heritage Federation/Federation Canadienne du Patrimoine Maritime, a group that was formed informally in April 1987. The CMHF/FCPM provides a national lobbying voice and a vehicle of communication for societies interested in the preservation and interpretation of Canada's maritime heritage that lies underwater.

Norm Easton of the Yukon Diving Association edits an annual newsletter providing information on research, expeditions, conservation and public education programmes in the member groups. Reports are also received at Underwater Canada in Toronto in April, and at the CAA Conference in May. This communication has proved invaluable. In two short years member groups have adopted several programmes in information plaques, posters, and training courses.

Lobbying efforts continue to amend the archaic portion of the Canada Shipping Act that governs the Receiver of Wrecks. This legislation promotes salvage without regard for historical preservation or interpretation. CMHF/FCPM members favour a "take only pictures and memories" approach to our rich submerged cultural resources. More on that in a later column.

Research Notes

John Robinson, the Conservation Director of the Underwater Archaeological Society of British Columbia, is researching a fascinating four foot diameter bolt-on and high-pitch propeller discovered by the UASBC near Trial Island in Victoria Harbour. The prop may be from the steam tug *Falcon*, which was lost in 1896.....Fred Rogers, author of *Shipwrecks of British Columbia*, is hard at work on a definitive history of British Columbia tug boats. Fred's study walls are lined with his own oil paintings of many of these craft.....Dick Wells, author of several books on west coast shipwrecks, and Jacques Marc, UASBC Exploration Director, led a six day diving expedition for shipwrecks along the West Coast Trail in late August. The twelve participants found the discovery of the previously unknown wreck of the 4070 ton Greek freighter *Nereus* at wild Cape Beale a special highlight.....Dave Barron of Atlantic Diver in St. John's continues to churn out research on Newfoundland and Labrador shipwrecks following his impressive four volume set on shipwreck and dive sites in the Atlantic provinces.....Ken MacLeod, the historian of Save Ontario Shipwrecks, is "computerizing" an extensive set of lock master records from the Welland Canal

in the late nineteenth century. This will enable researchers to tell quickly what ship moved where, when and with what cargo. This is a formidable--and laudable--research effort..... Trevor Kenchington has recently revitalized the Underwater Archaeological Society of Nova Scotia and will soon be returning to wrecks in Terrence Bay and other sites..... The Canadian Park Service is completing its inventory and analysis of the Fathom Five National Park shipwrecks..... Bob Ogilvie of the Nova Scotia Museum has completed a draft computerized "Data Dictionary" for a Nova Scotia Shipwreck Inventory. The Canadian Heritage Information Network (CHIN) is interested in putting this very impressive and lengthy document on to its system, which would standardize inventories across the nation..... Shipwreck research has indeed come a long way over the last twenty years since the first inventories by Rod Palm, Fred Rogers, Jack Zinck, Dana Bowen, Dwight Boyer and other pioneers.

PERSONAL NEWS

CHRISTON I. ARCHER spent the months April-June as Distinguished Visiting Professor at the University of California at Irvine. His current project is a book-length manuscript tentatively entitled "The Eagle and the Thunderbird: Spanish-Indian Relations on the Northwest Coast in the 18th Century"..... THOMAS F. BEASLEY is the author of "New Canadian Federal Initiatives in Shipwreck Legislation," *Oceans '89 Proceedings* (1989), I, 153-156; and "The 1909 CPR Freight Handlers Strike: Col. Sam Steele Searches Strikers for Guns," *Thunder Bay Historical Museum Society Papers and Records* (1989), forthcoming. Tom has recently been elected Chairperson of the Board of Directors of the Vancouver Maritime Museum, which is presently lobbying to create a new interactive maritime centre in the proposed Marathon development along Coal Harbour..... JIM BOUTILIER's most recent publication is "The Prospects for Big Power Rapprochement in the Pacific," in Muthiah Alagappa (ed.), *Building Confidence, Resolving Conflicts* (Kuala Lumpur, 1989), 5-28. His current project is a comparative study of Canadian and Australian naval policy in the 1980s..... E.F. BUSH is working on a study of the Canadian National Steamship service to the West Indies, 1929-1957..... ALEC DOUGLAS is presently working on the official history of Canadian naval operations during the Second World War and a bibliography of Canadian military history. His most recent book is *On a Sunday Afternoon: Classic Boats on the Rideau Canal* (Erin, Ont., 1989, with Larry Turner and others)..... LEWIS R. FISCHER recently organized international maritime history conferences in Bergen and Stavanger, Norway..... BARRY GOUGH has published "India-Based Expeditions of Trade and Discovery in the North Pacific in the Late 18th Century," *Geographical Journal*, CLV (July 1989), 215-223. As time permits, he is working on a history of the North American and West Indies stations of the Royal Navy, 1815-1914. In September Barry travelled to Vancouver to speak to the members of the UBC Memoirs Project on British Naval memoirs..... DAN HARRIS is the author of

"Den danske Flåde 1940-43," *Marinehistorisk Tidsskrift*, XXII, No. 2 (1989), 21-27..... PETER HAYDON is the author of "Canada, Merchant Shipping and International Emergencies," *Navy League of Canada Maritime Affairs Bulletin*, No. 1 (1989)..... TREVOR KENCHINGTON is the interim President of the Underwater Archaeology Society of Nova Scotia and the editor of its newsletter..... FRASER MCKEE is continuing work on his naval novel set in Canada's far north. He is also the author of an essay in *Canada's Navy Annual*, which will be out later this fall..... CHRIS MILLS is the author of forthcoming essays on the life of a lighthouse keeper's daughter (*Atlantic Advocate*) and the Cross Island Lighthouse (*Journal of the Northern Lighthouse Board*, Edinburgh). Chris has recently left the Cross Island Lightstation, where he worked until July, when it was automated after 157 years of attended service..... HARRY MURDOCH is assisting in the completion of a study on the First Officer of the ill-fated *Titanic*..... GERALD PANTING has been invited to serve as an expert at a session on "Shipping and Trade, 1750-1950," at the Tenth International Congress of Economic History in Leuven, Belgium, next August..... J. DAVID PERKINS' book, *Canada's Submariners, 1914-1923*, will be published early next month by Boston Mills Press. His forthcoming essays include "Coronel," an account of the final months in the lives of four Canadian midshipmen, which will appear in *The Nova Scotian* (5 November 1989) and "Rough Patrol: Mechanical and Physical Hardships on Dogger Bank during the Winter of 1916-17," *Maritime Engineering Journal*. He is continuing his research on the career of Pappy Haines as well as on the mystery surrounding the tragic deaths of Lt. R.C. Watson, his wife, Aimee, and three boy seamen off Esquimalt on 12 July 1924..... A. KEVAN PARRY tells us that there has been a major re-organization at the Marine Institute in St. John's which has transformed departments into divisions. The Marine Transport Division (Nautical Science and Marine Engineering) is a new division serving both diploma and Ministry of Transport certification students..... ERIC W. SAGER's new book, *Maritime Capital* (co-authored with Gerald E. Panting) will be published in 1990 by McGill-Queen's University Press..... M. STEPHEN SALMON has been appointed Business Archivist at the National Archives of Canada. He is the author of "Through the Shoals of Paper: An Introduction to the Sources for the Study of Twentieth Century Canadian Maritime History at the National Archives of Canada," which is forthcoming in the December issue of the *International Journal of Maritime History*. In September, Steve also presented a paper entitled "Sources for the Study of Great Lakes Maritime History at the National Archives of Canada" to the annual meeting of the Association for Great Lakes History in Toledo..... CHESLEY W. SANGER is the author of "The Origins of Modern Shore-Based Whaling in Newfoundland and Labrador: The Cabot Steam Whaling Co. Ltd., 1896-98," *International Journal of Maritime History*, I, No. 1 (June 1989), 129-157 (with A.B. Dickinson); and *The Global History of Whaling*, a book that will be published next year by Breakwater Press. His current projects include the study of shore station whaling in Newfoundland and Labrador and an examination of traditional eighteenth and nine-

teenth century whaling in Davis Strait, Baffin Bay and East Greenland..... COLIN SMITH, who was a seafarer for twenty-one years, is currently writing a Ph.D. thesis on the international market for sea-going labour.....MARILYN GURNEY SMITH recently attended the conference of the Organization of Military Museums of Canada in Esquimalt. She also tells us that she is working on the possibility of organizing a project to restore the old Royal Navy Burying Ground in Halifax.....R.E. WELLS is the author of *Guide to Shipwrecks along the Washington Coast* (1989) and of the forthcoming "The Loss of the British Barque *Janet Cowan*" and "The Swiss Boy Incident." He is currently doing research on the Vancouver voyages of the Barque *Pamir* and the history of the tugs which towed her.....GARTH S. WILSON is the author of "The Great Lakes Historic Ships Research Project: An Innovative Approach to the Documentation and Analysis of Historic Hull Design," which will appear in the December issue of the *International Journal of Maritime History*.....ROBIN H. WYLLIE has recently completed a report entitled *The Nova Scotia Lighthouse* for the Heritage section of the Nova Scotia Department of Tourism and Culture.

AROUND CANADA'S MARITIME MUSEUMS

CFB ESQUIMALT NAVAL MUSEUM (ESQUIMALT)

This museum is just beginning its development under the direction of the Curator, E.W. Colwell. It is an accredited Canadian Forces Museum established to collect, preserve and display material on the history of the naval base at Esquimalt from 1846 to the present. For more information on the museum or for information on joining the museum society, please contact the CFB Esquimalt Museum and Archives Society, FMO Victoria, B.C. V0S 1B0. The annual membership is \$12.

DAVID M. STEWART MUSEUM (MONTREAL)

Current exhibitions include "Welcome Aboard: The First Steamboats on the St. Lawrence River." This display presents the findings of an underwater archaeology project which reclaimed a number of artifacts from the wreck of the *Lady Sherbrooke*, the fourth steamboat of the Molson line, which went down off Montreal in 1817.

MARITIME COMMAND MUSEUM (HALIFAX)

Currently featured is the Bertram Jones exhibit, "A History of Canada's Submarine Service," which commemorates the seventy-fifth anniversary of Canada's submariners. The museum co-hosted the annual CNRS meetings in Halifax in June; Marilyn Gurney Smith deserves the thanks of all those who visited the museum during this event and sampled the warm hospitality of its staff.

MARITIME MUSEUM OF BRITISH COLUMBIA (VICTORIA)

The museum has recently named W.A. Fraser as Assistant Director of Administration and is presently interviewing for the position of Registrar. They have recently published issue number seventeen of their fine newsletter, *The Resolution*. Current exhibitions include a commemoration of the one hundredth anniversary of the Point Hope Shipyard (the oldest operating shipyard on the west coast); a display of the marine paintings of Malcolm Armstrong; and an exhibition on international maritime flags. The museum is proceeding with plans to develop a new site on the waterfront in Victoria. The anticipated date of occupancy is 1994 and the estimated cost will be in the range of \$13 million (in 1989 funds).

VANCOUVER MARITIME MUSEUM (VANCOUVER)

The museum as usual has a busy programme lined-up. On the exhibit scene, the special exhibit on "Wilhelm Hester: Marine Photographs on Puget Sound" continues. This display of forty-nine of the best photographs by a man who worked out of Seattle between 1893 and 1905 includes prints of a variety of vessels that worked in the Puget Sound grain and lumber trades. Opening on 23 January 1990 will be the new exhibit, "Welcome Aboard: The First Steamships of the St. Lawrence." This display depicts the early years of the nineteenth century in Montreal. It focuses upon life on board the *Lady Sherbrooke*, the fourth steamboat constructed in 1817 by John Molson, the famous industrialist. The exhibit includes material on the boat's crew, cargo, and passengers, along with amusing incidents. There are also more than two thousand fragments and objects recovered when the vessel was discovered off Boucherville Islands Park in Montreal.

YARMOUTH COUNTY MUSEUM (YARMOUTH)

The Yarmouth County Museum recently added an important ship portrait to its already significant collection of ship paintings, believed to be the second or third largest collection in the nation. The newly-acquired portrait depicts the well-known clipper ship *Thermopylae*, shown under reduced canvas in a typhoon in the China Sea. At the time of the painting (1892), the *Thermopylae* was registered in Victoria, B.C. and was under the command of Captain Jacob R. Winchester of Smith's Cove, Nova Scotia. The painting, which is unsigned, is by an unknown Chinese artist. It was donated by descendants of Captain Winchester.

The museum would also like to remind readers of *ARGONAUTA* that it is always looking for material or information on Yarmouth vessels or captains. And it is of course always interested in further Yarmouth ship portraits.

ARGONAUTA DIARY

- | | | |
|--|--|---|
| <p>Sept. 19 "Wilhelm Hester: Marine Photographs on
1989-Jan. 31 Puget Sound," Vancouver Maritime Mu-
1990 seum, Vancouver, B.C.</p> <p>October 14-15 Fourteenth Annual Whaling Symposium,
1989 Kendall Whaling Museum, Sharon, Massachu-
setts (Organizer: Dr. Stuart M. Frank, Direc-
tor, Kendall Whaling Museum, 27 Everett
Street, P.O. Box 297, Sharon, Massachusetts
02067)</p> <p>October 15 Fifth Annual Amateur Model Ship and Boat
1989 Competition, Vancouver Maritime Museum,
Vancouver, B.C.</p> <p>October 18-20 Ninth Naval History Symposium, United
1989 States Naval Academy, Annapolis, Maryland
(Organizer: Dr. William R. Roberts, Depart-
ment of History, United States Naval Aca-
demy, Annapolis, Maryland 21402-5044)</p> <p>October 25-26 Financial Post Conference on "The Canad-
1989 ian Defence Industry," Westin Hotel, Ottawa,
Ontario (Information: Financial Post Confer-
ences)</p> <p>October 28-29 First Coast Guard Academy History Sympo-
1989 sium, Custom House Maritime Museum, New-
buryport, Massachusetts 01950 (Information:
Dr. Irving King, Department of Humanities,
United States Coast Guard Academy, New
London, Connecticut 01950)</p> <p>November 2-4 "Toronto's Changing Waterfront: Perspectives
1989 from the Past," Toronto, Ontario (Information:
Michael Moir, Toronto Harbour Commission
Archives, 60 Harbour Street, Toronto, Ontario
M5J 1B7)</p> <p>November 3-4 Island Institute/Maine Maritime Museum
1989 Annual Conference, Maine Maritime Muse-
um, Bath, Maine (Information: Maine Mari-
time Museum, Washington Street, Bath, Maine
04530)</p> <p>November 3-5 Save Ontario Shipwrecks "Forum '89," Wind-
1989 sor, Ontario (Information: S.O.S., 6065
Forestglen Crescent, Orleans, Ontario K1C
5N6)</p> <p>November Naval Officers Association of Canada Semi-
1989 nar on the Protection of Shipping and Its Ef-
fects on Canadian Trade in the Pacific, Van-
couver, B.C. (Information: Bob McKay, Reg-
ional Director, NOAC [tel.: 604-574-4158])</p> | <p>January 17
1990</p> <p>February 14
1990</p> <p>March 16-17
1990</p> <p>March 21
1990</p> <p>March 28-30
1990</p> <p>March 29-31
1990</p> <p>March-Sept.
1990</p> <p>April 27-29
1990</p> <p>May 4-6
1990</p> <p>May 30
1990</p> <p>June 15
1990</p> | <p>Monthly Meeting of the Ottawa Branch of
CNRS, Officers' Mess of the Cameron
Highlanders of Ottawa, Cartier Square Drill
Hall (Speaker, Michael Whitby, "Fleet
Training in the RCN, 1930-1939)</p> <p>Monthly Meeting of the Ottawa Branch of
CNRS, Officers' Mess of the Cameron
Highlanders of Ottawa, Cartier Square Drill
Hall (Speaker: John Rou  , "Ships Named
Canada")</p> <p>"Redirections: Defending Canada--The Paci-
fic Perspective," University of Victoria, Vic-
toria, B.C. (Information: Dr. David Zim-
merman, Department of History, University
of Victoria, P.O. Box 1700, Victoria, B.C.
V8W 2Y2)</p> <p>Monthly Meeting of the Ottawa Branch of
CNRS, Officers' Mess of the Cameron
Highlanders of Ottawa, Cartier Square Drill
Hall (Speaker: W.A.B. Douglas, "How We
Have Dealt with Submarines")</p> <p>International Maritime Lecturers Associa-
tion "International Workshop on Integrated
Training of Deck and Marine Engineer Offi-
cers," Marine Institute, St. John's, Nfld.
(Information: Captain D.F. Drown, IMLA
Workshop Coordinator, Marine Institute,
P.O. Box 4920, St. John's, Nfld. A1C 5R3)</p> <p>Maritime Museum Curatorial Symposium,
National Museum of Science and Techno-
logy, Ottawa, Ontario</p> <p>"Whistle up the Inlet," Vancouver Maritime
Museum, Vancouver, B.C.</p> <p>Second Annual Scrimshaw Collectors'
Weekend, Kendall Whaling Museum, Shar-
on, Massachusetts (Information: Dr. Stuart
M. Frank, Director, Kendall Whaling Muse-
um, 27 Everett Street, P.O. Box 297, Sharon,
Massachusetts 02067)</p> <p>Eighteenth Annual Maritime History Sym-
posium, Maine Maritime Museum, Bath,
Maine (Information: Maine Maritime Mu-
seum, 243 Washington Street, Bath, Maine
04530)</p> <p>Annual Meeting of the Canadian Nautical
Research Society, Victoria, B.C.</p> <p>Oceans Policy in the 1990s, Westbury Hotel,
Toronto, Ontario (Organizers: Oceans Insti-</p> |
|--|--|---|

- | | | | |
|-----------------------|---|--------------------|---|
| | tute of Canada, 1236 Henry Street, Halifax, N.S. B3H 3J5) | Fall 1990 | Seafarers in Canadian Ports, Vancouver, B.C. (Organizer: Colin Smith, Apt. 312, 1033 St. Georges Avenue, North Vancouver, B.C. V7L 3H5) |
| June 26-28 1990 | Naval Arms Limitations and Maritime Security Conference, Halifax, Nova Scotia | | |
| June-Oct. 1990 | "Toronto's Historic Harbour," Marine Museum of Upper Canada, Toronto, Ontario | Sept. 10-14 1990 | Sixth Conference of the International Maritime Lecturers Association, Department of Nautical Studies, Bremen Polytechnic, Bremen, F.R. Germany |
| 1 July 1990-June 1991 | New Brunswick Maritime History Exhibition, New Brunswick Museum, Saint John, New Brunswick | October 12-14 1990 | Fifteenth Annual Whaling Symposium of the Kendall Whaling Museum, Sharon, Massachusetts (Information: Dr. Stuart M. Frank, Director, Kendall Whaling Museum, 27 Everett Street, P.O. Box 297, Sharon, Massachusetts 02067) |
| August 17-19 1990 | "The Road from Ogdensburg: Fifty Years of Canada-U.S. Cooperation," St. Lawrence University, Ogdensburg, New York | October 25-28 1990 | Towards a Complete History: Canadian National Railways 1918-1984," Montreal, P.Q. (Organizer: Dr. Kenneth S. MacKenzie, CN Archives, P.O. Box 8100, Montreal, P.Q. H3C 3N4) |
| August 17-19 1990 | Canadian War Museum Small Boat Voyaging Project, Crossing of Lake Champlain (Information: Canadian War Museum, 330 Sussex Drive, Ottawa, Ontario K1A 0M8) | October 25-28 1990 | "Jack Tar in History: Seamen, Pirates, and Workers of the North Atlantic World," St. Mary's University, Halifax, N.S. (Organizer: Dr. Colin D. Howell, Department of History, St. Mary's University, Halifax, N.S. B3H 3C3) |
| August 19-24 1990 | Tenth International Congress of Economic History, Including Sessions on "Shipping and Trade, 1750-1950" (Sponsored by the Maritime Economic History Group (Organizers: Lewis R. Fischer and Hclge W. Nordvik); and "Methodology of Quantitative Studies on Large Sea Ports" (Organizers: Dr. Jean Hefter and Prof. dr. Karel F.E. Veraghtert), Louvain, Belgium | 1990 | International Tug Conference, Halifax, N.S. (Information: Thomas Reed Publications, 80 Coombe Road, New Malden, Surrey KT3 4QS, England) |
| August 26-31 1990 | VII Triennial Congress of the International Congress of Maritime Museums, Statens Sjöhistoriska Museum, Stockholm, Sweden | January-April 1991 | "The Enlightened Voyages: Malaspina and Galiano," Vancouver Maritime Museum, Vancouver, B.C. |
| Aug. 26-Sept. 2 1990 | International Congress of Historical Sciences, Including Conference of the International Commission for Maritime History on the "Maritime Transport of Foodstuffs" (Organizer: Prof. dr. Klaus Friedland, President, ICMH, Kreienholt 1, D-2305 Heikendorf, F.R. Germany); and a Session Sponsored by the Association for the History of the Northern Seas (Organizer: Dr. Yrjö Kaukiainen, President, AHNS, Department of Social and Economic History, University of Helsinki, Aleksanterinkatu 7, 00100 Helsinki, Finland), Madrid, Spain | April 18-20 1991 | Malaspina Symposium, Vancouver Maritime Museum, Vancouver, B.C. (Information: Dr. Richard W. Unger, Department of History, University of British Columbia, 1297--1873 East Mall, Vancouver, B.C. V6T 1W5) |
| August 1990 | Annual Display of Ship and Boat Models, National Historic Site "The Port of Quebec in the Nineteenth Century, Quebec City (Information: Mr. Alain Maltais, Canadian Parks Service, 100 Saint-André Street, Quebec, P.Q. G1K 7R3 (telephone: [418] 648-3300) | April 17-19 1992 | Vancouver Conference on Exploration and Discovery, Vancouver, B.C. (Information: Dr. Hugh Johnston, Department of History, Simon Fraser University, Burnaby, B.C. V5A 1S6) |
| Sept. 13-15 1990 | Association for Great Lakes Maritime History Annual Meeting, Milwaukee, Wisconsin | April-Sept. 1992 | "Captain George Vancouver--Navigator and Surveyor," Vancouver Maritime Museum, Vancouver, B.C. |
| | | August 11-15 1992 | First International Congress of Maritime History, Liverpool, England (Organizer: |

Lewis R. Fischer, Maritime Studies Research Unit, Memorial University of Newfoundland, St. John's, Nfld. A1C 5S7)

BOOK REVIEWS

W.A.B. Douglas (Ed.). *The RCN in Transition: 1910-1985*. Vancouver: University of British Columbia Press, 1988. xi + 411 pp., notes, index, illustrations.

I was interested to note some time ago while *en route* to Pearl Harbor on HMCS *Mackenzie* that a significant number of young ratings, all of whom had entered the Canadian Navy well after 1968, still sported Royal Canadian Navy (RCN) tattoos. It is altogether appropriate, therefore, that *The RCN in Transition* should bear the dates 1910 to 1985, since the RCN's traditions and Canada's naval verities have persisted long after the legal demise of the Royal Canadian Navy. Further, it is appropriate that the word "transition" should appear in the title, for not only is the Canadian Navy undergoing transition--some would argue persuasively that it is in fact retrogression--but so too are many of the other naval forces in the world entering a period of change as a result of technical, budgetary, and arms control considerations.

This solid and skilfully-edited volume is, in many ways, a companion piece to the earlier *RCN in Retrospect* (1982). Indeed, the university press has followed the same format in terms of layout and type-face. However, *The RCN in Transition* enjoys the inestimable advantage of having an extensive index, something denied the earlier work by editorial policy. Both volumes represent a blend of naval and academic expertise, although the more recent volume is more heavily weighted to academic analysis. That analysis is particularly valuable in the sense that it explodes arguments that many navalists have known viscerally to be fallacious but for which, hitherto, they have lacked the necessary quantitative data. Thus, for example, Dan Middlemiss demonstrates that the RCN really has been the "Cinderella service," enjoying the smallest share of shrinking national defence budgets over the years.

This brings us to the central reality of *The RCN in Transition*: the abject failure of successive Canadian governments to match rhetoric with reality in the naval realm. As Barry Gough points out in his chapter on the origins of the RCN, "the nation's sea security ranks as a pre-eminent need" (p. 102). Yet, as Rod Byers argues, "the large majority of Canadians have remained blissfully unaware of or concerned about the gap between the mythology of defence articulated by Liberal governments and the reality of Canada's defence policy and posture" (p. 316). The navy, of course, was well aware of the fact that it had never succeeded in developing a nation-wide constituency. By its very nature the RCN, like the submarine service, was silent; its ships secured alongside or far from public view at sea. World War II, however, seemed to provide the RCN with an opportunity to rescue itself

from obscurity. Marc Milner's observations are pertinent in this regards: "The war fought by the RCN between 1939 and 1945 was as much to anchor the navy permanently as to beat the Germans" (p. 189). But the dream of a balanced, multi-purpose fleet proved elusive. By January 1947 the die was cast: the Storrs memorandum indicated that the RCN was destined to become a specialized ASW navy. Having been the adjunct of one imperial navy, the RCN was about to become the handmaiden of another.

Intimately associated with what has come to be called the "credibility-capability gap" is the lack of a coherent and consistent maritime doctrine. Governments have played fast and loose with maritime doctrine, committing the RCN to defending Canadian sovereignty while simultaneously genuflecting in the direction of greater commitments to NATO. Sadly, the RCN itself has contributed to the oscillating pattern of naval responsibilities by its unwillingness to attach much importance to strategic analysis. Fortunately, a new breed of naval officer sensitive to the value of political acumen on the one hand and strategic sophistication on the other is now coming on to the scene. The lack of such a cadre in times past meant that the RCN lost at the trough as well as at the highest levels of decision-making.

It is altogether fitting that the 1980s, the golden age of RCN historiography, should be capped by *The RCN in Transition*. The powerful collaborative team of Rohwer and Douglas has shed fresh light on crucial convoy battles in World War II; Admiral Sam Davis has penetrated the complexities of naval decision-making at a time when the navy's abortive nuclear submarine programme has made that analysis particularly relevant; and Treddenick and Galigan have demonstrated the inexorable logic of defence economics. Every navalist and every public servant and politician associated with naval matters should be obliged to read *The RCN in Transition*. This is a sterling assemblage rich in powerful, if uncomfortable, truths.

James A. Boutilier
Victoria, B.C.

Robert Lloyd Webb. *On the Northwest: Commercial Whaling in the Pacific Northwest, 1790-1967*. Vancouver: University of British Columbia Press, 1988. xxi + 425 pp., illustrations, index, notes, appendices, bibliography. ISBN No. 0-7748-0292-8.

The quote on the dust jacket of *On the Northwest* informs us that the only cure for hard core romantics in the nineteenth century was to serve on whalers off the coast of the Pacific Northwest. And it is certainly difficult to conceive of a more demanding seafaring occupation: a two or three year voyage from Nantucket or London, a trip virtually the distance of a circumnavigation (no Panama Canal in those days), combined with all the perils of whaling on a lee shore where the weather was fickle at best. The pay could be nil, after a

man's slops and the owner's expenses had been taken off the top. At best, a 1/150th share would not go far back home in New England or Hawaii. Hawaii? Davis Strait whalers never had such a port of call as Oahu. Therein lies the romance of Pacific Northwest whaling: far away exotic ports, adventure, and perhaps the seldom fulfilled dream of a fabulous fortune.

Robert Lloyd Webb has given us much more than a mere romantic account of the sea. Indeed we now have an encyclopedic description of whaling by North Americans and Western Europeans in the waters North of 49° latitude and east of 170° West longitude; that is, principally off the coasts of British Columbia and Alaska (exclusive of the Arctic). Unfortunately, lack of available sources and the problems of interpreting from Japanese and Russian documents have forced the author to make only passing mention of the twentieth century activities of the whaling fleets of those two nations. Still the reader is left with an incredibly rich examination of whaling off the Northwest littoral of North America. Webb has apparently scrutinised every source he could for Northwest coast whaling; his bibliography alone is worth the price of the book. The author begins with a detailed description of aboriginal whaling, followed by a discussion of early European ventures off the Northwest coast. Further chapters carry the story up to 1967. Indeed, almost everything a reader would want to know about the industry in this part of the world is explored at length, from the typical work of a nineteenth century whaler to the economic ramifications of the Laurier government's licensing policies.

In fact for this reviewer the twentieth century story is the most intriguing. Whaling on the Northwest coast was revitalized by the inventions of Sven Foyn and Ludwig Rissmuller, and both the Canadian and American governments were forced to deal with whaling as a growth industry. The Canadian policy of licensing whaling stations was of direct benefit to Sprott Balcom and his associates (including William Mackenzie and Donald Mann!). Whaling from Canadian shore stations quickly evolved into a monopoly business because of the size of the investment and the complex technology of the processing equipment. Eventually operations in both Alaska and British Columbia came under the control of an insurance and shipping executive from Saginaw, Michigan, William Schupp. Schupp's story is told in great detail, including the lobbying efforts of his sister-in-law, Eleanor Roosevelt's housekeeper in the White House! The only detail of Schupp's career that Webb missed was his involvement in marine trades other than whaling. A hint of these can be gleaned from the 1928 decision of the Toronto Vessel and Insurance Agency to name a new St. Lawrence River "canaller" the *William Schupp*. Such is the nature of the research that went into *On the Northwest* that it is only minor details of this type to have escaped the author's notice.

This reviewer does, however, have some difficulty with the vast amount of detail in the book, which on occasion overwhelms the author's understated thesis that whaling is a technologically-driven enterprise. Surely this is true only to

a point. New technologies made possible the more efficient harvesting of whales and the exploitation of more species, but it was the demand for whale products that kept the industry going. The new technologies were developed in order to satisfy the economic requirements of both consumers and the industry. Despite this caveat *On the Northwest* is recommended reading for all those interested in curing their romantic seafaring notions.

M. Stephen Salmon
Orleans, Ontario

John D. Harbron. *Trafalgar and the Spanish Navy*. Annapolis: Naval Institute Press, 1988. xiv + 178 pp., illustrations, sources, appendices.

In naval histories, as in the battles of the late eighteenth century and the Napoleonic wars, the Spanish Royal Navy--the *Armada Española*--has, except in Spain itself, come off a poor third behind the French and the British. While most readers of naval history are aware of the Spanish presence at Trafalgar, few know of the competence shown by their fleet under the command of the very capable Admiral Federico Gravina. Similarly, the names of the captains of Spain's fifteen ships are almost unknown and certainly unsung. Perhaps some Canadian Westcoasters will recognize the names Alcala Galiano and Cayetano Valdes, famous for their late eighteenth century voyages under Captain Malaspina. And perhaps some of the vessels, if only because of the unusual Spanish custom of giving ships-of-the-line names of religious significance, will be familiar: *Santisima Trinidad* (lost after the battle); *Ildefonso* (taken into the Royal Navy until 1816); and *San Juan Nepomuceno* (also taken into the RN and already thirty-six years old at the time of Trafalgar). But on the whole, Anglo-Saxon maritime readers know little of the latter days of the *Armada*.

Torontonian John Harbron, who is fluent in Spanish among other languages (a fact which allowed him to conduct his own basic research in Spain and Havana), has set out to correct this sorry state in this profusely-illustrated volume. Using the October 1805 battle as a hook upon which to hang his tale, he reviews Spanish naval development and growth; the ships themselves; and the officers and men who comprised the Spanish contribution to Napoleon's abortive invasion of England. But the focus is on the lead-up to the conflict rather than on the battle itself, which has already been covered in a myriad of other books. While he analyzes the problems that led to the defeat of the combined fleet, he places them firmly within the context of the time. He theorizes, for instance, that it was the over-long preparations, the slow steady grind at sea, and the vagaries of convoying, blockading and weather rather than any lack of courage or dedication that led to the Spanish defeat. And he convincingly argues that in order to understand this a reader must comprehend the Spanish maritime background.

For the serious student, the author has also included a number of tables that demonstrate the manning imbalances between the two sides. The huge 112-gun *Príncipe de Asturias*, for example, carried not only 609 seamen and officers but also 554 infantry and artillery; hence, almost half of the ship's company were non-sailors. Still, the Spanish fought bravely, suffering a twenty percent casualty rate. They also lost ten of their warships, and this disaster ended Spain's reign as a major naval power. Indeed, Trafalgar may have contributed directly to the loss of her American colonies over the next decade and a half.

The book also demonstrates the largely-unknown role played by Havana in the development of the Spanish fleet. As Harbron shows, about a third of Spanish line-of-battle ships in the late eighteenth century were built in that port. Of particular importance was the longevity of these craft, many of which lasted for forty or fifty years, a fact which may have been due to the demands of Spanish exploration.

The illustrations in the volume help to educate and inform. In only 178 pages John Harbron manages to give us an entirely revisionist view of the *Armada Española* which is both thoughtful and convincing. As a reference work, this book will be invaluable. It belongs in every naval library.

Fraser M. McKee
Markdale, Ontario

Bo Stråth. *The Politics of De-Industrialisation: The Contraction of the West European Shipbuilding Industry*. London: Croom Helm, 1987. xi + 295 pp., tables, bibliography, notes, index.

The Swedish historian Bo Stråth has for a number of years been one of a growing number of European scholars investigating various aspects of the postwar shipbuilding industry. In contrast to North America, the shipbuilding industry (including ship-repairing) occupied an important position in the economies of many Western European countries, both in terms of employment and contribution to industrial production. Perhaps even more important, shipyard workers constituted a key component of the vital iron- and metal-working sector of the heavily unionized industrial labour force of these countries. As such, their influence in the trade union movement was quite formidable, and in many nations they played key roles in the increasing influence of the industrial working class and of the social democratic movement.

Given this important economic and political role, what happened to the industry and the people that worked in it when the consequences of the oil crisis and the slump in demand for shipping tonnage combined to cripple the industry in the second half of the 1970s and first half of the 1980s? The crisis in world shipbuilding manifested itself in dramatic job-losses in many Western European countries in the period 1975-1982. Sweden was the largest sufferer, with two out of

three jobs disappearing; the West German shipbuilding workforce was slashed by forty-one percent; while most other countries reduced the number of jobs in the industry by between a quarter and a third. Altogether 225,000 jobs disappeared during these years in the shipbuilding sectors of the six leading Western European countries--West Germany, the United Kingdom, France, Denmark and the Netherlands--examined in Dr. Stråth's study.

The substance of his book consists of separate chapters on the political and social history of this retrenchment in the various countries. He examines the interplay between the various actors in their industrial drama: the workers and their unions on the one side and the employers and governments on the other. In the process, he provides many valuable insights into the development of the industry in the respective countries as well as insights into the different strategies employed by the participants.

The central question posed by Stråth in chapter one of the book is the following: "What explains the relatively trouble-free contraction of West European shipbuilding?" In most of his discussion he seems to be puzzled by the lack of any social revolution on the part of workers faced with job losses. He never really explains why it in his view was reasonable to expect such social unrest, but the evidence he presents in his case studies provides the reader with a plethora of reasons why this did *not* happen.

One important reason surely is the remarkable success of workers and management acting in unison to shift part of the burden of readjustment away from the workers over to the broad shoulders of the general taxpayer. Instead of asking the question of why there was no social revolution among shipyard workers, perhaps the author should have asked the intrinsically more interesting question of why Western European capitalist societies have proved to be so willing to continue paying for (through a variety of open and hidden subsidies) patently unprofitable economic activities.

The failure to ask this question partly accounts for the heavy stress placed upon the behaviour of the unions in this industrial drama. In my opinion, the book is essential reading for anyone seeking a better understanding of the organizational response to economic change in Western Europe or the role of a key economic sector in this context. I can find no fault with the author's conclusion (p. 237) that "industrial democracy is located in the market, not in the workplace." However, if this is so, perhaps he author should have spent more of his considerable energies and historical expertise in explaining why this particular industry for so long has successfully resisted the dictates of the marketplace.

Helge W. Nordvik
Bergen, Norway

George Modelski and William R. Thompson. *Seapower in Global Politics, 1494-1993*. Seattle: University of Washington Press, 1988. xii + 380 pp., bibliography, index. \$35.00 US, cloth.

This important and novel work is based upon the assumption that the capital warship, that is, a warship capable of fighting a decisive sea battle, has been the key to sea power, and by extension the key instrument in directing the affairs of great powers on and over the seas. Students of the history of the gunboat and the sloop of war detached on a particular consular or war-like duty of say, the *Pax Britannica*, will have some grave difficulties with the logic of this work, for it is true that gunboat diplomacy has played a very large role in the affairs of humankind, more especially by great powers against small states, pirates and slave traders. But the gunboat is not the concern of these authors; rather they address themselves to an equally important question: has what they call "global power concentration" by great powers had any correlation to the dominant holding by those states of at least fifty percent of oceanic capital ships? Their answer is a resounding 'yes'!

The sources on which this work is based are considerable. They extend from parliamentary papers and statistical handbooks to articles and books. Together this is a large assemblage of data, and the authors treat their sources with critical judgement. For example, they classify the capital ship by a number of sources, and cite the variances when available. Because this is a work that encompasses economic history and fiscal expenditures, the authors have supplied an extensive array of charts and tables, and some of these will be extremely useful to future scholars.

This book is organized into two parts. The first is entitled Global Overview and herein, in five long chapters, the reader is treated to chapters on "Seapower and Global Politics;" "Seapower and its Measurement Rules;" "Rules for Counting Warships, 1494-1860, and 1861-1993;" "The Long Cycle of World Leadership;" and "The Future of Seapower." Part One is really the substance of the book, and its conclusion (to which I will return subsequently) is at the end of this part. Part Two is entitled "Country Data." Here four chapters address the following themes--"The World Powers: Was Portugal the First?;" "The World Powers: the Netherlands, Great Britain and the United States;" "The Other Global Powers: France Spain, Russia/the Soviet Union, Germany and Japan;" and, finally, "The Non-Global Powers." Canada does not merit mention. Much of Part Two is undigested data and sustains the arguments given in Part One. But, as a monograph with a sustained theme, the inner duality of this book leaves a good deal to be desired. The strength of the work lies in Part One, and the theme, to which we now return, is an engaging one.

For some considerable time students of the history of seapower have been interested in the internal dynamics of what makes a great nation a great sea power or *vice versa*. Alfred

Thayer Mahan and Philip Colomb were two late nineteenth century sailor-historians who endeavoured to show by historical example the influence that seapower could have on the course of history. Mahan looked more systematically at the elements of seapower, including (but not confining himself) to the capital ship; he was also interested in merchantmen, convoys, bases and colonies. Colomb, by contrast, deduced the laws of sea warfare from the historical examples. These historians and other more recent scholars of near-related disciplines, such as Herbert Rosinski and Bernard Brodie, have argued that he who holds Neptune's trident can wield a decisive influence in world affairs. More recently, Paul Kennedy's *Rise and Fall of the Great Powers, 1500-2000* (1988) has endeavoured to show that naval pre-eminence has its benefits, but it also has its inherent weaknesses: that the nation that invests mightily in its war material will weaken itself, and will not be able to sustain its pre-eminence forever.

To some degree, Modelski and Thompson's book falls in the category of works which seek to explain the cycles of history, if any such exist. Like Kennedy they are interested in pattern. Their theme is what they call "the long cycle of history." Modelski and Thompson work systematically through the various great powers and their "global reach" through possession of the element of seapower, the capital ship. They conclude (p. 132) in what might be described as their theory of seapower and global dominance:

Engaged in by a relatively small number of global powers as participants, the long cycle of world leadership is a cyclical process of seapower concentration and deconcentration that is bracketed by periodic global wars. Beginning in 1494, four cycles, averaging 107 years in length, have been completed. The fifth is still underway. The general pattern can be characterised as a period of intensive struggle over systemic leadership (global war) followed by the emergence of a single state with a preponderance in seapower (the world power). The world power's global-reach capability advantage provides an essential part of the foundation for world leadership. But this foundation is subject to erosion. The post-global war era of high concentration gives way to deconcentration and successively lower levels of seapower concentration. As the deconcentration process proceeds, the structural incentives and opportunities for challenging the world power improve until the onset of a new phase of global war ushers in another leadership transitional struggle and another opportunity to transform the system's power structure. The cycle is completed when a new world power emerges from the period of global war.

This reviewer, despite a generation of work in the discipline, has yet to be convinced that history is cyclical or that history holds lessons. I still hope to be convinced of these things, and I have read Kennedy and now Modelski and Thompson with the hope that I might be given new insight into the progress and perils of mankind, with a view to being able to write and teach about how we might, in the future, avoid the many disasters that mankind has inflicted upon itself over time. It would be easy to say that Modelski and Thompson have demonstrated the obvious: that monocausal scholarship ("those who possess this can do that") can show the pattern of human behaviour, and that thereby we should be able to direct our courses of action for the common good. I have never felt comfortable with general systems theory, and I am equally uncomfortable with what Modelski and Thompson call "global data analysis and management." Yet within their own terms of reference they have brilliantly demonstrated that the capital ship has been a determinant in global hegemony, and have done so on the basis of a large body of significant, multinational data. This is no small achievement, and on the whole this is a welcome and unique addition to the literature on the anatomy of seapower over time.

Barry M. Gough
Waterloo, Ontario

R. Abbott and Z. Mockus. *The Coasting Trade of Eastern Canada: Summary Report*. Ottawa: Canadian Transport Commission, Research Branch, Transport Industries Analysis, Report No. 1986/08, October, 1986. 28 pp., tables.

This report, which examines the characteristics and operations of shipping firms serving the coasting trade of eastern Canada, was prompted by a consideration of factors affecting the evolution of Canada's coastal trade, such as changes in the economic environment, as well as by the need to consider existing and proposed legislation. It is a summary of a longer document, *The Coasting Trade of Eastern Canada* (WP-20-86-09, August, 1986), also produced by the Research Branch of the Canadian Transport Commission.

In accordance with a definition contained in the Canada Shipping Act, "Eastern Canada" includes the Great Lakes and the St. Lawrence region as well as the east coast. Thus, following a brief review of the domestic shipping industry as a whole, the study concentrates on the eastern Canadian region, specifically including Newfoundland, Prince Edward Island, the Eastern Arctic Sealift and support of oil operations off the east Coast.

After a brief reference to the earlier British influence and Commonwealth considerations in setting Canada's merchant shipping policies, the evolution of a Canadian-flag policy is discussed. In this connection the proposed changes in the Canada Shipping Act made by Transport Canada in its paper *Freedom to Move* (1985) are briefly noted.

An indication of the size of the coasting trade portion of the Canadian economy is given by the figure of 135 million tonnes of domestic traffic which represents forty-three percent of the total Canadian domestic and international waterborne traffic carried during 1982. However, this figure represents only some thirty-five percent of total domestic freight tonnage moved by all modes of transport in 1981. Of more significance, however, is that this marine share was only about seven percent of the value of total freight operating revenues, whereas in 1960 it amounted to nearly fourteen percent.

As for the foreign flag issue--by 1983 this only accounted for 0.3% of the total coasting traffic. In the 1950s this figure had amounted to ten to fifteen percent, indicating a trend to almost exclusive carriage by Canadian-flag vessels. In this connection, Table 3 is at first glance rather confusing, as it indicates that since 1975 waivers have been granted to 145 Canadian-flag vessels. This apparent anomaly is explained in the text, which notes that these waivers applied largely to foreign-built, non-duty paid vessels employed in the offshore industry.

Under the heading of "The Trading Network" specific reference is made to trans-border Great Lakes trade--i.e., Canada/U.S. traffic. In total international trade (of which more than ninety percent is concentrated in the Great Lakes area), Canadian-domiciled carriers in 1978 earned about the same amount as they did on domestic routes. By 1983, however, their international trade earnings represented only little more than half of the domestic figure. This shift, according to the authors, is largely accounted for by the increase in Great Lakes movements of low-value bulk cargoes which involve less expensive handling techniques and cheaper storage charges than other types of cargoes.

In 1974, excluding offshore operators, some thirty-two companies operated 179 vessels for a total of over 3.4 million tonnes (dwt)--only ships in excess of one thousand tonnes (grt) being included. Of this total, dry bulk vessels accounted for over 2.8 million tonnes with tankers adding another 427,000 tonnes. Thus, only about five percent of the total tonnage was made up of ships engaged in the carriage of general cargo or of passengers with only four operators providing scheduled services in these sectors.

The portion of the report dealing with the Newfoundland coasting trade is mainly concerned with the operations of the Canadian National Railways and its successors in this area. While the CNR took over all the former operations of the Newfoundland Railway--including the Gulf services--in 1949, it was not until 1979 that CN Marine emerged as a separate subsidiary, to be followed in 1986 by Marine Atlantic, a Crown Corporation. Earlier in the report it was noted, *inter alia*, that "...the domestic water transport mode survives only where ferry services fill a gap in a road or rail system." In view of the recent government decision to cease all rail ser-

vice in the province, it will be interesting to see how, or if, this will affect existing ferry and coastal services.

As for Prince Edward Island, it is noted that general shipping is still very important for the transport of bulk commodities such as fuel oil and gasoline--a largely one-way traffic. Looking at the future the construction of a causeway across the Northumberland Strait (if, in fact, it ever materializes!) would undoubtedly greatly affect the above-noted traffic as well as existing ferry services.

The report concludes with a few figures on the Eastern Arctic Sealift (including DEW-line supply), and a brief summary of offshore supply operations. In this latter activity the shift to Canadian flag vessels is noted--from ten in 1981 to thirty-six in 1984. Noting a major decline in the offshore fleet in 1985, the authors state that future activities are hard to predict. Once again, looking to the future, the possible impact of recent increased government interest in the Hibernia field could well influence this area of operation.

While it is realised that ships and shipping, like so many other fields of activity, are subject to social and economic pressures (after all, the tea clippers of the mid-nineteenth century were designed for economic rather than aesthetic reasons) it is a bit depressing to realise that, in the area under discussion, "small ships, small ports and small lots of cargo all appear to be vanishing from the water transport scene." Possibly the only sector where this trend is not quite so apparent is in the fishing industry, which is not covered in this report.

To this reviewer--a non-economist--the vagaries and complexities of the current shipping situation in general, and in Atlantic Canada in particular, were graphically illustrated by a ferry crossing from Port-aux-Basques to North Sydney in the MV *Marine Atlantica*. Originally chartered by CN in 1974 from the Swedish Stena Line (at \$7500 per day) she was, by this time (1985) operated by CN Marine, registered in the Bahamas, but with a Canadian crew. So, here was a ship designed by Danish naval architects as a Baltic ferry, built in Germany for Swedish owners providing a vital service between two Canadian provinces and sailing under a foreign--albeit Commonwealth--flag!

J.E. Roué
Ottawa, Ontario

Richard E. Walton. *Innovating to Compete: Lessons for Diffusing and Managing Change in the Workplace*. San Francisco: Jossey-Bass, 1987. Can \$32.50.

Richard E. Walton has served as a consultant on conflict management and resolution including the identification of, and effecting innovative change for, numerous companies, government agencies, and labour unions. He is the Jesse Isidor Straus Professor of Harvard Graduate School of Busi-

ness Administration and the author of many books. *Innovating to Compete* was written with the acknowledged assistance of Christopher Allen and Michael Gaffney.

Walton's purpose in writing *Innovating* is to work toward a theory of innovative change in large systems. His final model is clearly illustrated and the propositions upon which it is based are amply explained. Walton uses a nation's shipping industry as the unit of analysis. The shipping industries of eight nations are examined in the book with a view to rating "the capacity for innovative change and to identifying what comprises this capacity and how it can be strengthened."

The stated audiences for this book are: 1) practitioners, e.g., business and labour leaders, government officials, and organizational consultants; and 2) scholars of various research and study interests. The reviewer would add to this list practising seafarers, maritime education and training educators, and their students.

The book is significant in that the unit of analysis is an industry and that the object of analysis is "the industry's ability to innovate in social and organizational terms." The author did not set out to write this book from the safety of a library armchair but partly from the point of view of a member of a United States National Research Council Committee on Effective Manning, established at the request of the Maritime Administration (See the committee's report: National Research Council, *Effective Manning of the U.S. Merchant Fleet* [Washington, D.C.: National Academy Press, 1984]).

Professor Walton provides notes on research design and methods of data collection about "the development and diffusion of four innovations in eight countries over seventeen years." The sources of the material are credible and reliability appears to be quite high. The author's propositions as to the importance of each element in his model are not used to categorize support data but quite the opposite. The "degree of support for each proposition revealed itself slowly over a long period of analytic work," he tells us. The final model was developed in stages before, during, and after the gathering and analysis of the data.

The subject innovations include: 1) role flexibility; 2) delegation of decision making to officers; 3) participation in work planning by other crew members; and 4) increased continuity of employment and social integration. As to the context set by the National Economic Importance of Shipping (Table 7-5, p. 158), the reviewer feels that this would be enhanced by another author's description. Rear Admiral J.R. Hill utilizes "Sea Dependence: Comparison with Gross Domestic Produce" and "Sea Dependence: Comparison with Population" (J.R. Hill, *Maritime Strategy for Medium Powers* [London: Croom Helm, 1986]). Neither author claims to have established the importance of "the length of coastline, size of the offshore zones, strategic position, importance of entrepot trade and cabotage, beneficial ownership of flag-of-convenience shipping, weight of offshore traffic, and port facilities

and usage," but Hill states that "there is clearly much work still to be done." This reviewer asks: "What is the role of the shipper?"

Without becoming deterministic, Professor Walton uses a style which permits some "how tos" to be derived from the book. At the very least, the reader will gain an awareness of what to look for and is likely to want to re-read the work and to ponder further many ideas, including those dealing with the concept of "metacompetence." This is an appealing and timely book, since the author suggests an open forum institution and describes the need for an objective measure of the worth of an industry to a nation. Either of these suggestions might be difficult to establish in what could be termed Canada's increasingly deregulated and secretive shipping industry.

The reviewer recommends this book to all those interested in the marine mode of transportation, exploration, and exploitation.

A. Kevan Parry
St. John's, Nfld.

J. Lee Cox Jr., and Michael A. Jehle (eds.). *Ironclad Intruder: U.S.S. Monitor, A Collection of Essays on the History, Symbolism and Archaeological Importance of the U.S.S. Monitor*. Philadelphia: Philadelphia Maritime Museum, 1988. 61 pp., illus.

The title of this booklet describes its breadth. It is a catalogue for an exhibit at the Philadelphia Maritime Museum. It is also four essays under one cover pointing out the direction of some recent changes in historical interpretation and archaeological research. There are excellent illustrations, especially those of the wreckage of *Monitor* on the ocean floor. This is not the first revisionist look at the early American ironclads, but it has the potential to be very popular because of its format and its association with an important exhibition.

The essays in the booklet are "The Historical Importance of the U.S.S. Monitor" by William Still; "A Symbol of the People: Assessing the Significance of the U.S.S. Monitor" by James P. Delgado; "Exploring the Monitor: 1979 Archaeological Investigation of the Civil War Ironclad" by Gordon P. Watts Jr.; and "The Monitor National Marine Sanctuary: An Experiment in Comprehensive Management" by Edward M. Miller. These divide into two essays about *Monitor's* historic and "mythological" importance, and another two essays about what has been, and is being done, to find and protect her wreckage.

The editors characterize the Hampton Roads actions of the 8th and 9th of March, 1862 as being among those events which came to "symbolize the evolution of a new era." In addition, Delgado recognizes *Monitor* as a unique vessel in the minds of Americans, ranking in mythology along with

"...the Liberty Bell, George Washington, and the Frontier".

The introduction to this booklet occasionally raises questions without providing answers. For example, the editors waffle on whether the design was evolutionary or revolutionary. They appear to be unsure as to exactly what meaning the Hampton Roads actions had for naval architecture. While the generally held view of *Monitor* as the ship that "saved a nation" is described as a myth, there is no qualification or correction for the statement. Also, the booklet is flawed by both an inconsistency of style and some grammatical errors which must be blamed on poor editing.

A definitive analysis of *Monitor's* place in history is beyond the scope of two historical essays in a sixty-one page booklet. *Monitor* was, after all, only the latest of a number of iron/armoured/turret ships proposed or laid down for various navies in the previous twenty years. The unique thing about *Monitor's* design was the combination of an iron hull, armour protection, and some kind of rotating "turret" gun mounting in one hull.

Monitor's design was not destined to be the prototype of later capital ships, but the assertion in the introduction, and in the essays of Still and Delgado, that she "symbolized" important changes in naval architecture appears quite reasonable. This booklet will be of interest to all those conducting research on the early steam ironclads, and of special interest to those who are beginning research on the subject.

John Duerkop
Saskatoon, Saskatchewan

David Eltis. *Economic Growth and the Ending of the Transatlantic Slave Trade*. New York: Oxford University Press, 1987. xiv + 418 pp., appendixes, sources, index. \$59.95.

David Eltis' new book examines the interconnections between European economic growth in the eighteenth and nineteenth centuries and the attempt by Great Britain to suppress the slave trade. The scope of the book is ambitious and far-reaching. Eltis investigates the reasons Britain decided to suppress the slave trade, the mechanisms used and their effectiveness, and the consequences of suppression on various groups--African areas of supply, the slave trading firms, the slaves, and the American importing regions. His analysis is supported by valuable numerical estimates presented in the seven appendices. With minor problems here and there, Eltis succeeds admirably at his ambitious task.

The 13 chapters in the book are divided into five sections. Section I investigates the reasons for suppression. European economic growth in the eighteenth and nineteenth centuries substantially increased the demand for staple products that could clearly be grown more cheaply with the use of slave labour rather than free labour. Why, then, did Britain assume the lead in suppressing the slave trade at a time when no

good economic alternative to the use of slavery was apparent? Eltis' answer is that Britain undertook suppression in the belief that a free labour system (as was developing in Britain) would be able to produce the staples more cheaply, i.e., that suppression from the beginning was an economic mistake. In fact, Eltis estimates that the costs incurred by Britain in trying to suppress the slave trade were about equal in size to the profits she had received from the slave trade over the previous half century.

Sections II and III examine the initial attempts at suppression. By the early part of the nineteenth century, British, French, and U.S. withdrawal caused the slave trade to become dominated by ships flying the Portuguese or Spanish flags. While the abolitionists were able to prohibit British ships from participating in the trade, they were not able to stop the use of British financial capital and goods. These items remained critical to a trade that continued to flourish. When the initial attempts at suppression were not effective, the abolitionists resorted to extralegal means to try to force others to allow freedom of choice, an irony that is not lost on Eltis.

The effects of suppression on the various groups involved in the slave trade are discussed in Sections IV and V. Suppression was not effective at stopping the slave trade until the governments directly involved took action. Eltis also finds little effect on the patterns of African trade. Suppression did, however, have two major effects. First, it led to an increase in capital requirements and concentration among the slave trading firms. Second, suppression caused the price of slaves to increase in the Americas, causing their use to be restricted and leading to the renewal of the trade in indentured servants. Over time the growing use of free labour in the Americas (due to the high price of slaves) and the Civil War in the United States (which furthered the role of free labour) lessened the political support for slavery and were major factors leading to the final abolition of the slave trade and slavery in the Americas. The ending of slavery then led to increased free immigration from Europe to many parts of the Americas and the development of a world closer to that of today.

Any book that examines a controversial issue that had effects over a large geographic area will necessarily cause disagreement. Eltis' book will challenge specialists in many areas to further research. In particular, Eltis proposes that the slave trade had minimal effects on Africa as a whole (though possibly large regional effects), whether population, incomes, or political development is examined. This conclusion will likely be challenged by many Africanists. Additionally, Eltis' view that suppression was harmful to Britain is counter to Eric Williams' classic thesis that the slave trade was suppressed because it was no longer profitable. On the other hand, if Eltis is correct, he shows how difficult international suppression of a profitable item can be; today's drug traffic is mentioned as a possibly analogous case. Finally, the quantitative estimates in his appendices will stimulate specialists

in a wide variety of areas to reassess their work.

Only a broad overview of the depth of Eltis' book can be given in a review. His book is stimulating and should be read by anyone interested in how the slave trade, suppression, and economic development of the Americas, Africa, and Europe in the nineteenth century were connected. It is safe to say that this book will stand the test of time and will have to be cited and taken into account by researchers interested in a wide variety of questions.

Raymond L. Cohn
Normal, Illinois

Douglas Edward Leach. *Now Hear This: The Memoir of a Junior Naval Officer in the Great Pacific War*. Kent, Ohio: Kent State University Press, 1987. xv + 184 pp., map, photographs. Hardcover.

Naval memoirs of WW II tend to regale us with derring-do and high adventure in which salt-grimed young officers beat a cunning foe into cowering submission. The Americans have had their "Run Silent, Run Deep," the Canadians their "Corvette Navy," "Bloody War" and "Grey Seas Under." Leach now has the courage to recount his experiences aboard a warship that faced all the dangers of the sea, but never the violence of the enemy. In fact, he never once sighted an enemy ship or plane. Why then tell the story? His purpose is refreshingly direct: USS *Elden* "stands as a symbol of a most important segment of my life, markedly different from all that had gone before and all that was to come later." It was a rite of passage. He invites the reader to enter into his war, "my little fragment of the bigger whole, which was all I could really know."

A Professor Emeritus of history at Vanderbilt University, Leach felt called to take stock of a slice of life by recording elements of the American experience which have increasingly escaped his students' understanding; in the forty-odd years since the end of hostilities, they have viewed patriotism, the military profession, family and church through different eyes. Leach grasped a larger challenge; he wrote not to "glorify combat or celebrate American military prowess," but to "approach the war, as [he] did at the time, from a Christian perspective." In any event, as Leach may have known, John J. Motley's earlier *Now Hear This* (Washington: Infantry Journal Press, 1947; reprint Washington: Zenger Publishing, 1979) had already revealed "the relentless striking force that was the United States Navy," and that "the war at sea was...a gruelling, knock-down fight all the way."

USS *Elden*, the last DDE destroyer of Escort Division 16, was built within five months and commissioned in July 1943. She served from Pearl Harbor through to the Marshalls, Gilberts, Marianas, and off New Guinea and the Philippines. Famous scenes like Saipan, Timian, Iwo Jima and Guam evoke the great strategic and tactical events in which the

destroyer played her important but unsensational role. Leach takes the reader through the whole range of his experience: watches and storms at sea, monotony and anxiety, maturation and discipline, shipboard camaraderie, home leave--and personal reflection on how these experiences impinged upon a young man.

An honest and forthright account of one man's war, the memoir is successful in the broad dimension where it fails in the detail. Certainly, we are interested in Leach, whose personality informs the narrative, but not in the passing parade of acquaintances, shipmates and home-town folks that touch his life and then disappear into the tapestry of American life. Nor does he offer us the thoroughgoing Christian assessment of events he had led us to expect. This is disappointing, as it would have offered a new dimension to naval memoirs. His devotional perspective is nonetheless clear, as indeed is a major thread throughout his account: the pastoral concern of a caring and supportive Baptist Church that fostered its young people in the navy even though they were far from home.

Now Hear This is a gentle read--brisk and brief for those who will content themselves with the general outline by skipping the parochial colour. But it does contain memorable passages that give one pause. Leach does not stop short of pondering the spectre of Hiroshima and the question of collective guilt. The war had caught everyone in "the corruption of eternal values." But his visit to Tinian in 1984 left him "with a satisfying sense of peace restored--in microcosm the world as it was meant to be--not perfect, but livable and potentially happy." His "history" of the war ends with a vision of what the future might hold.

The Leach memoir is a salutary if somewhat idiosyncratic contribution to the growing corpus of documentation. It would indeed be welcome if some Canadian veteran could render the same kind of service, for whatever the limitations of perspective and scope, it adds one more piece to the complex patterns of navy life.

Michael Hadley
Victoria, B.C.

Ernst Gabriel Frankel. *The World Shipping Industry*. Beckenham, England: Croom Helm, 1987. xix + 261 pp., appendices, figures and tables.

The tonnage shifted in world seaborne trade is mind-boggling. In 1984 it amounted to over three thousand million tons! Nearly half was petroleum; of the rest, two-fifths was bulk cargo (iron ore, grain, phosphates, coal, alumina, etc.) and three-fifths everything else. The trade grew phenomenally between 1950 and 1974; except for petroleum it is still growing. Between 1970 and 1984, container traffic alone grew by 536%.

At the same time the structure of the shipping industry has been changing drastically. From the turn of the century until after World War II a very few nations owned or controlled practically all the world's ocean-going ships; now at least 120 nations have their own merchant fleets. The great companies which owned and operated large fleets have all but disappeared, replaced by hundreds of small firms, often subsidiaries of large shippers, many owning but one vessel. Specialized management companies have been formed to operate many such vessels; in other cases the shippers may manage a whole intermodal system themselves, from origin to destination of the cargo. National policy may demand indigenous ownership and operation, even when it is inefficient to do so. National and international regulatory bodies impose often conflicting demands and standards; in fact, the industry is one of the most regulated of all. Yet its importance in world development, particularly in Less Developed Countries (LDCs), is steadily increasing. Anyone with an interest in international trade ought to have some comprehension of this very complex subject.

Frankel's book provides a clear overview of the industry itself and of the factors which affect, or even afflict, it. In chapter one he reviews the status, development and role of shipping as an industry. Chapter two is a discussion of institutional, policy and regulatory issues, both outside and within the industry. The amount of interference, justified or not, is almost frightening!

In the next chapter he reviews the role of shipping in economic development, emphasizing the changes in that role under increasingly volatile shifts in trading patterns. Chapter four, on financing, revenue and costs, is the most technical but still very readable. There are several pages of economic models of shipping conference ratemaking and cost/freight rate curves, for example. Besides giving a good account of the calculation of profit or loss it contains interesting general information; for instance, a balance-of-payments table showing that the developed countries made a profit on shipping operations while the LDCs suffered heavy losses. It also shows that some thirty percent of the credits to developed countries came from beneficial ownership of vessels registered under the flags-of-convenience, an advantage not shared by the LDCs.

Chapter five is on shipping operations and management. Frankel points out that not only must the industry adapt to a long series of technological changes, which he discusses, but also that it must do something about archaic labour organization and hiring practices. Training methods must also be improved for, as he says "principles and methods used in the training of seafarers are now usually obsolete and...most merchant officer and crew programmes [do not provide] effective training in modern ship operating skill and management skills." The major portion of the chapter consists of a discussion of the effects of new developments in technology, management, operations, cargo handling, ship logistics and, perhaps most important, the impact of transport integration

and intermodalism, which he sees as inevitable and highly desirable. He gives some surprising statistics here; for instance, time at sea of a breakbulk cargo going from Chicago to southern Germany accounted for only twenty-five percent of the total time enroute and twenty-six percent of the cost. Fifty-eight percent of the cost was incurred in loading, unloading, consolidation and just waiting. Once the cargo was containerized, the total time taken dropped by nearly fifty percent and only a third of the cost was due to non-transport activities.

In chapter six he surveys various shipping policy initiatives, international, bilateral and unilateral, which are expected to have profound effects on world shipping. The final chapter is a brief forecast of how things will go. International shipping policy increasingly emphasizes the political rather than public, economic and resource-use interests, and it is likely that nations and their operators will increasingly enter into informal commercial arrangements, ignoring irrelevant international policies. In operations, very large container ships will increasingly use load centre ports to transfer their cargoes to small feeder ships for local distribution, as has been done in the bulk trades for a long time. World shipping will become more internationalized. Through transport management, from origin to final destination, will become common. Training, now outmoded and suffering from overcapacity, will be modernized and may well be concentrated in regional rather than national centres.

Wisely, the book includes lists of abbreviations and shipping terms. Appendices show typical ship operating costs and give a precis of the U.N. Convention on International Multimodal Transport of Goods, Chapter notes, references and an index complete the work.

In reviewing the book, I read it several times--not because of any difficulty in understanding it, but because it is so interesting. In the first place, it is practical, quite clearly written by someone who really understands international trade and the shipping industry. Secondly, it is interdisciplinary, ranging from the political to the technical through economics and finance. It condenses and synthesizes massive statistics, and uses the results to illustrate the problems or points without confusion or redundancy. It is the best concise study of world shipping yet to come to my attention.

Daniel L. Hanington
Halifax, Nova Scotia

Paula Martin. *Spanish Armada Prisoners, 1587-1597*. Exeter, Devon: Exeter University Publications, Exeter Maritime Studies No. 1. 1988. xii + 113 pp., maps, plates, abbreviations, sources, 325 reference notes. ISBN 0-85989-305-7. £8.25, hardcover.

In *Spanish Armada Prisoners* the author describes how the Armada abandoned the disabled *Neustra Senora del Rosario*,

how she was captured with her crew, and how this proved to be a crucial event in the defeat of the Spanish. In dealing with subsequent events Paula Martin provides an insight into how prisoners from the *Rosario* and other vessels fared for up to nine years.

Martin, a graduate student, transformed an undertaking to analyze the inventory of the *Rosario* taken after her capture into a carefully documented insight into a decade. She uses direct quotations extensively, but she gives them modernized punctuation and spelling for easy reading. Her research embraces a wide variety of official British and Spanish sources as well as some unofficial ones.

She describes the storms that dispersed the Armada twice and prevented a planned rendezvous with the Duke of Parma and the Army of Flanders. The battle with the English fleet began 31 July 1588. A new ship in 1587, the *Rosario* was embargoed 20 June for use in the Armada fleet, in which she was the fourth largest vessel. She had been designed as a merchant ship for Spanish trade to the Caribbean. As fitted for the Armada she carried fifty-one guns. She sailed with a crew of 117 and carried three hundred soldiers. Her fitting and complement are covered in detail.

The *Rosario* was not a casualty of the engagement but "in tacking fell foul of another and sprung her foremast." [History repeats itself. HMCS *Fraser* and HMCS *Margaree* each sank in collisions early in World War II]. The *Rosario* was left behind when the Armada retreated and she was taken possession of by Sir Francis Drake. The author points out that Drake is rarely mentioned in early accounts, in fact some critics imply that he was looking for plunder when he should have been pursuing the Spanish fleet. The inventory when the *Rosario* sailed, and the inventory taken when she arrived in Dartmouth show substantial shortages while under Drake's control. It was later that this unsavoury side of his character became overshadowed by the heroic image imputed to him by historians.

The *Rosario* was a valuable prize because of the ammunition and guns obtained, the information gained from the prisoners, the propaganda derived, and examination of the way the ship was fitted and manned. The ship herself was neglected and never restored to service. [An *urca* named *Duquesa Santa Anna* sailed in the fleet. In December 1940, SS *Duquesa* was taken prize by the *Admiral Scheer* and provided a wealth of refrigerated stores to German raiders and submarines].

The Andalusian Squadron Commander, Don Pedro de Valdés, and about forty men of "quality" were transferred to Drake's *Revenge*. The remainder were disembarked at Torbay, where they were remanded to the care of Sir John Gilbert and George Cary. Those of "quality" were held in safe prisons. Most of "the baser sort" were held in the *Rosario*, which was later moved to Dartmouth.

In addition to the *Rosario* prisoners, the *San Lorenza* (which ran aground near Calais) had thirty-five of the remnants of her crew taken prisoner. The *San Salvador* was badly damaged by explosion and fire. About fifty prisoners were taken aboard the *Golden Hind*. Most were badly burned and in a month only seventeen still survived. They were imprisoned and placed on bread and water to "suppresse their insolence and misdemeanours." Two months later it was decided to defer execution and to yield them relief. Later, on 7 November 1588, the *San Pedro Mayor* was wrecked on the shore of South Devon and 158 persons were taken prisoner.

Martin describes how several custodians pleaded with the Privy Council for one and a half to two pence per day for the care and feeding of the prisoners. There was a wide variety of treatment. The main objective appeared to be to keep the prisoners alive in order to obtain ransom, and to make a profit. One class of prisoners of the "best sort, with their officers of quality and their offers for ransom" was treated well. Those of the "meaner" sort were generally treated badly. One custodian pleaded that "many of them are ill. They suffer much, ...and do not have enough clothes to cover their nakedness ...but I have not the power to help them." [There were parallels in World War II. Prisoners in Europe were generally treated, under the Geneva Convention, like the "better sort;" those in Japan like the "meaner sort." Merchant seamen in Japan were deemed to be lower than the lowest serviceman].

There were several nationals, including English traitors, among the prisoners. One Englishman, Tristan Winslade, was sent to the tower where he was placed on the rack "to draw from him his knowledge of the invasion."

Ten days after Pedro de Valdés was taken aboard the *Revenge*, he and the other prisoners were ordered ashore by the Queen. Drake complied reluctantly. Don Pedro was interrogated gently by the Privy council. Subsequently he and two companions lived in Esher under house arrest. Sir Francis continued to supply him with provisions. Negotiations for ransom or exchange proceeded interminably. Valdés was finally ransomed in 1593. An apothecary, Lopez Ruys de la Panga, was repatriated in 1597. He was one of the last.

The reviewer sometimes wished for a glossary to distinguish among galleons, galleasses, urcas and hulks, but the small volume is otherwise thorough and well-presented. Researchers will find it a treasure.

Gordon A. Olmstead
Nepean, Ontario

J.P. Proulx. *Whaling in the North Atlantic. From Earliest Times to the Mid-19th Century*. Ottawa: Parks Canada, 1986. 17 pp., bibliography, illustrations. \$6.50, paper.

Under the title *Whaling in the North Atlantic* Proulx has pub-

lished a survey of the early years of whaling in the North Atlantic. This book is the result of a study carried out because of the increasing interest in Basque whaling history in Canada caused by the startling, if by now well-known, discoveries in Spanish archives and the important archaeological research carried out at Red Bay, Labrador. The author deals with Basque whaling history in a wider context, using the hunting ground--the North Atlantic--as a framework.

In the introduction the author demonstrates that interest in whales has existed from the beginning of historic time. Thousands of years ago man was already occupied with salvaging and utilizing stranded specimens. When the hunt for these mammals actually began is not clear. According to the author the period of early whaling stretches from the Middle Ages to the mid-nineteenth century, when the invention of the harpoon-gun made modern whaling possible.

Four peoples--the Basques, the English, the Dutch and the Americans--were occupied with whaling in this area and therefore a large part of the book describes the hunt of these peoples. In four chapters Proulx explains why, when and where each nationality prosecuted the hunt. Attention is also paid to the whaling technology used by each, with the exception of the chapter on the Basques. The lack of a description of Basque hunting techniques is a weak point of the book, since it makes any comparison of the different techniques of the peoples involved virtually impossible.

Before describing the history of Basque whaling, the author devotes some attention to their precursors. He tells us the whale hunt predates even the Greco-Roman period. Although no details of this activity have survived, Proulx is willing to offer some conjectures. While it is possible that Mongol tribes from Sakhalin Island off the shores of Japan hunted whales in kayaks and that Aleutians dipped their harpoons first in poison, to me it seems unlikely that the inhabitants of Spitsbergen also hunted with poisoned harpoons, as the author states on page eight. My doubts arise because this archipelago never, at least as far as we know, had an autochthonous population.

In the Middle Ages various coastal peoples like the Normans, Icelanders, Norwegians, Flemish and Germans realised the economic importance of the whale. The author bases his argument that the Flemish also hunted for whales on the fact that Othere was a Flemish explorer in whose territory whales were hunted. However, recent European publications assume that Othere was of Norwegian origin and hunted Biscayan Right Whales off Finnmark in northern Norway, which makes Flemish involvement rather doubtful. In any case it was the Norwegians who went whaling before 1000 AD; Basque involvement dates only from the eleventh or twelfth centuries.

In chapter two the author describes how the Basques started whaling in their own coastal waters and gradually expanded to North America. They made whaling into a real industry. Until the end of the sixteenth century the Basques were very

successful and for many decades they were the sole suppliers of train-oil and whale-bone.

When at the beginning of the seventeenth century the centre of whaling moved to Spitsbergen, two new peoples became involved: the English and the Dutch. Here the Basques could not defy the competition, especially since many expatriate Basques entered the services of the newcomers and taught them the trade. As a result, Basque whaling rapidly deteriorated and the English and the Dutch took over the hunt and the markets.

In the third chapter the rise, prosperity and fall of English whaling is discussed. Proulx incorrectly mentions, as have many other authors, Barentsz's journal as the progenitor of English interest. However, it was not Barentsz in 1596, but Hudson in 1607 who observed large groups of whales in the bays of Spitsbergen, and so it was Hudson's journal that induced interest in these hunting grounds. Unfortunately, there are more inaccuracies in this chapter. The first English expedition to Spitsbergen, for example, did not take place in 1611 but in 1607, and the commander of the *Mary Margaret* was not Thomas Edge but Steven Bennet. Neither is it true that during the English expedition in 1611 a whale was killed in the Arctic for the first time. Indeed, the first kill was made in 1594 by the crew of a Dutch ship under the command of Van Linschoten. Moreover, the autochthonous population of north Norway had hunted whales in the Arctic for much longer.

On page twenty-nine the author is somewhat careless with the geographical names of Spitsbergen, a flaw which might cause misunderstandings. Until 1636 all Dutch stations in Northwest Spitsbergen were established on Amsterdam Island, and Dutch whaling took place in the "Hollandse" or "Mauritius Bay." The whalers from Hamburg were of no importance in dividing up the hunting grounds around 1618, as is stated on pages twenty-nine and fifty-three, because they only appeared on Spitsbergen in 1643. Danish whaling took place in the Dutch area and the Danes had a station at Smeerenburg on Amsterdam Island. Only later (1631) was this moved to Danish Island. Neither are English whaling techniques reported quite correctly by the author. In the early Spitsbergen period whale-cutting took place alongside the ship and not ashore (see the drawings around Edge's map of 1623 and also appendix E, p. 88, of the book reviewed here).

According to the author the Dutch soon took over the whaling from the English and only when they opened a new hunting ground in Davis Strait did the English return, supported by government grants. However, the grants only lent an aura of profitability to the hunt; when the grants were withdrawn, English whaling declined. Only after 1815 did the English succeed, albeit temporarily, in breathing new life into their whaling endeavours.

Dutch whaling is discussed in the fourth chapter. It is sad to

report that this chapter also contains a number of inaccuracies. Contrary to what is stated on page fifty-three, Jacob Hendrickzn Heemskerck and Jan Cornelisz Ripj were the captains and Willem Barentsz was the pilot of the expedition which discovered Spitsbergen in 1596. The Dutch whalers arrived in the bays of Spitsbergen one year after the English and soon competition developed between the two nations. In 1614 the Dutch joined together in the Noordsche Compagnie and their whaling concentrated in the waters around northwest Spitsbergen and Jan Mayen. In 1618 the chamber of Amsterdam established a station on Amsterdam Island and soon the other chambers followed. Thus the Smeerenburg settlement came into being. Proulx's description of the settlement is based on early English publications and it is obvious that he is not familiar with the research carried out on Spitsbergen from 1978 onwards by Dutch scholars, which shows that Smeerenburg or "Blubber Town" (not "Melting City," as Proulx writes [p. 54]), numbered at most 150 to two hundred inhabitants (compare the numbers twelve to eighteen thousand on p. 54 and one thousand to twelve hundred on p. 96). The number of ships is also exaggerated--there were at most fifteen rather than the "dozens" that Proulx claims. The dates are also incorrect. Smeerenburg was not deserted in 1640, but in 1660; and the liberalization of Dutch whaling took place after 1642 instead of after 1645 (p. 55). The archaeological research carried out recently produced much new information about the whalers' diet, which is also not integrated into this book.

In the last paragraph of this chapter the author spends a few sentences on the Dutch fishery in Davis Strait. Compared to the English fishery he deals with it very briefly, despite the fact that for many years the Dutch were dominant in this area. But even in this truncated discussion the number of ships fitted out west of Greenland is exaggerated, as are the financial figures.

Chapter five is dedicated to American whaling. He discusses the activities chronologically and distinguishes three periods in which development took place from shore- to pelagic-whaling. It is remarkable that expeditions were often family enterprises, as was the case during the ice-fishery in the old world.

Finally the author reaches some rather general conclusions concerning the development of whaling and its influence on the total number of fish. Sad to say an ecological approach is missing, so that the relationships between hunter, prey and physical environment are not discussed in order to explain the developments in whaling history in this part of the world.

The book contains five appendixes with information about various aspects of whaling, plus a list of notes and a bibliography. From the latter it appears that the more recent European literature, apart from that in English or French, is missing. In the middle of the book one finds a number of illustrations which give an idea of early whale hunting. It is a pity that no illustrations were included from the period of the ice-fishery.

Still, despite all this criticism, Proulx's book also deserves credit. We finally have an author who approaches whaling history from more than a nationalistic perspective. To this point in time, it would be broadly true to say that the Dutch studied their own whaling history, the English theirs, the French theirs, etc. In that he at least broadened the horizons that have traditionally constrained previous authors, Proulx has written a successful book. However, the large number of errors and the lack of knowledge of much of the literature means that *Whaling in the North Atlantic* is ultimately disappointing. The definitive history, which might well require a team of historians, remains to be written.

Louwrens Hacquebord
Groningen, Netherlands

Jon Lien, et.al. *Wet and Fat: Whales and Seals of Newfoundland and Labrador*. Drawings by Don Wright. St. John's: Breakwater Books Ltd., 1985. 136 pp. \$5.95, paper.

The Whale Research Group of Memorial University set out to design a field guide which would make "identification of whales and seals as easy as possible." *Wet and Fat* certainly achieves this goal and in the process provides much useful background information on Newfoundland and Labrador marine mammals. The reading level is appropriate for young people without being childlike, thus making it suitable for use in schools. Its utility, however, is not restricted to the classroom. Jon Lien and his co-authors have produced a book which should appeal to virtually all age and interest groups.

Wet and Fat is cleverly organized. The seventeen species of whales, dolphins and porpoises (almost one-quarter of all cetacea) likely to be observed locally are divided into three classes by size: large (six species: pp. 20-51); medium (four: 52-71); and small (seven--although this includes the Basking shark: 72-95). The order in which the different species within each group are presented is determined, in turn, by "how commonly they are observed."

The introductions to all three categories contain profile sketches drawn to scale and two-dimensional keys which graphically depict identifying characteristics such as the shapes of dorsal fins, flukes and "the blow." The separate treatments of individual species also follow a simple, yet well thought out and effective format, which provides continuity without an overriding degree of repetition. By way of example, the section on the Humpback whale begins with a magnificent full-page illustration which shows an adult whale surfacing alongside fishermen hauling a cod trap. On the adjacent page, next to a map which indicates the seasonal distribution of Humpbacks in local waters, sixteen identification characteristics for live sightings and an additional four for "stranded animals" are listed. Additional subsections deal with "Distribution and Abundance;" "Natural History;" "Humpback Feeding;" "Collisions with Fishing Gear;" and

"Humpback Flukes." Seven drawings depict various aspects of Humpback activity, while a series of six clearly-reproduced photographs indicate how distinctively marked flukes can be used to identify or "fingerprint", individual whales. While facts for the most part are "scientifically" derived and presented, attempts have also been made to include an element of local anecdotal information--in this instance, a section titled, "The Legend of the Swordfish--Thresher Shark." All other whales, dolphins and porpoises, the Basking shark, six species of seals, and the walrus receive equally informative and attractive consideration.

This is not to say that *Wet and Fat* could not be improved. The two sections, "Whaling in Newfoundland" and "The Seal Hunt", for example, while only intended to provide brief overviews of Newfoundland's past involvement in these two industries, deserve better treatment. Additionally, far too many errors of fact have escaped the editorial, compilation and publication processes. These ranged from the amusing reference to the "city" of Springdale through to the obviously absurd claim that sharks move inshore to feed and reproduce when "waters warm to above 80 C." There are also too many typographical mistakes, incorrect page references to maps and sections, and improper page placement.

While these errors distract somewhat from the overall quality of the book, *Wet and Fat* is still a superb publication. And, if the excellent information compiled and presented by Jon Lien and Memorial University's Whale Research Group were not sufficient justification, the more than one hundred separate illustrations by the late Don Wright makes this book a bargain purchase at just \$5.95.

C.W. Sanger
St. John's, Newfoundland