

interviews and documents, also used in this book, he is missing the evidence of a paper trail, which decreases the value of the text considerably. The fact that the author even points out errors made by other historians in these issues is not missed. But again, he fails to cite specific authors, books, or articles, to give credence to either the problems or the sources of his evidence. He does not even indicate which authors are in question. If you are going to criticize someone's work, you must back up the point you are making. And Showell fails to do that. Even the illustrations are problematic. An almost identical font is used for both the text and the captions for photographs. With so many photos interspersed within the text, it is often difficult to determine where the text ends and an image description begins. This is frustrating, as there are some incredible descriptions and they just lead to the entire text washing out.

While I enjoyed the book, and I can appreciate the author's attention to detail, I find myself frustrated with the text size and the absence of citations in a history. Making statements about highly technical information and doctrine/training that challenge the accepted wisdom is an important part of research and publication, but they need to be reinforced with citations. It is essential for credibility and to make the text a valuable tool for research and study. *Hitler's Attack U-Boats* struck me as a glorified coffee table book, good looking and interesting, but not something of substance. That does the author a disservice for all the incredible effort and work he has put into it and limits the book's value for anyone in an academic pursuit.

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William N. Still, Jr. and Richard A. Stephenson. *Shipbuilding in North Carolina 1688-1918*. Raleigh, NC: North Carolina Office of Archives and History, distributed by University of North Carolina Press, uncpress.org/, 2021. xi+462 pp., illustrations, tables, appendices, notes, bibliography. US \$40.00, paper; ISBN 978-0-8652-6494-6.

North Carolina is a southeastern state facing the Atlantic Ocean, between Virginia in the north and South Carolina to the south. Its nearly three thousand miles of coastline, estuaries, and waterways are well known for their natural beauty and hazards. A combination of geography and prevailing weather patterns, that include constantly shifting shoals, hurricanes, and tropical storms, has earned North Carolina the reputation for ships as the "Graveyard of the Atlantic." Consequently, major ports and related maritime industries developed elsewhere, and previous historians and writers have assumed that shipbuilding done in North Carolina remained only limited and small-scale, except during times of emergency such as the two world wars. This book, based on a half-century of research in national and state archives, ship registers, census records, and a wide range of other sources, dispels this notion with a deep narrative and a database of ships built in North Carolina up to 1914. William Still, Jr., known for his scholarly work over many decades on the Confederate Navy and armour-clads, wrote most of the text, while Richard Stephenson provided the tables, statistical analysis, and numerical data. Still and Stephenson are each professor emeritus from East Carolina University in Greenville and its well-regarded maritime studies and underwater archaeology graduate program. Given the long gestation of the book, publication was made possi-

ble through official channels to bring awareness to North Carolina's maritime heritage and museums.

The chapters follow a chronological framework divided into six distinct time periods: Colonial and Revolutionary (1585-1783); Federal (1784-1815); Antebellum (1816-1860); Civil War (1861-1865); Expansion (1866-1892); and Industrial (1893-1914). Each chapter is further subdivided by thematic headings and has endnotes with extensive references to source materials. The level of detail provided is almost encyclopedic, though carefully handled and integrated into the general narrative. The chosen methodology puts importance on understanding place, context, political economy, and the ships and those who built them.

North Carolina shipbuilding involved predominantly wood construction catering to local needs and some exports. Availability of suitable timber reserves, in particular pine, live oak, and white cedar – better known as juniper, was a factor in location of makeshift shipyard sites along rivers and waterways. Immigrants brought shipbuilding skills into the state and the labour force comprised free and Black slave workers. Shipyards were smallish in nature and often transitory depending upon ownership and related shipping and sawmill interests. The centerboard became a key feature in sailing vessels built to navigate North Carolina's shallow coastal and riverine waters. Sloops gave way to schooners as the most favoured form of commercial maritime transportation of goods.

Participation in the American Civil War on the side of the Confederacy revealed the limitations of ramping up the North Carolina shipbuilding industry to build ironclads and gunboats. Union forces occupied most of the coastal areas and principal ports, chronic short-

ages of plates and engines impeded progress on construction, and those ships launched and made operational proved defective in design and performance. The decades following the war saw commercial business resume and the advent of steamboats and flats propelled by engines. Shipyards became more concentrated at key points along the coast and a smattering of inland locations. The process of shipbuilding drew more on formalized plans and specialized facilities.

Penetration of railways into hinterlands marked the decline of canals and uncompetitive coastal shipping and riverine traffic, and therefore, overall demand for smaller boats; though railways also furnished easier access to other sources of supply for basic materials and propulsion components from other parts of the country because North Carolina manufacturing was not self-sufficient. Shipyards increasingly focused on pleasure craft for recreational purposes, fishing boats, floating theatre showboats, and repairs to stay in business. Enterprises remained small and wood construction still predominated. Brief mention is made in the last chapter of North Carolina's contributions to shipbuilding during the First World War.

The back half of the book includes comprehensive lists of documented and undocumented ships built in North Carolina, arranged alphabetically and consecutively by year, as well as place names for shipbuilding locations. The compiled data on these ships make *North Carolina Shipbuilding* an essential reference source for further regional and maritime research, presented in a standard and easy format. The book provides explanation for many wider shipbuilding trends and a model for other regional studies at the state or provincial levels. It will be hard, howev-

er, to replicate the depth of knowledge and effort that has gone into this book by two seasoned and respected academic scholars. The one minor criticism is some repetition that exists from chapter to chapter that might have been addressed by more careful editing.

The large format paperback book, which is distributed through North Carolina University Press, has a reasonable retail price and will appeal to historians and researchers interested in shipbuilding, particularly in the American South and North Carolina, up to the early twentieth century.

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Eric Thompson (MBE, CMDRE RN). *On Her Majesty's Nuclear Service*. Oxford, UK & Havertown, PA, USA: Casemate Publishers, www.casemate-publishers.co.uk, 2020. xv+265 pp., illustrations, glossary of terms. UK £14.99, US \$22.95, paper; ISBN 978-1-61200-894-3.

This autobiography of a Royal Navy (RN) submarine engineer and electrical officer is of interest from several perspectives. Firstly, it is well and entertainingly written and thus, easy to keep on with, as well as informative of a submariner's career. Secondly, Thompson's service, from joining Dartmouth as a Cadet in 1961 until his retirement in 1998 as Base Commander at Faslane, Scotland, covers in its earlier pages a similar progress to many RCN submariners, in RN A and O class submarines in preparation for their acquisition in 1968 and on. Stories of life as a cadet, a mid, and sub-lieutenant will be familiar to any who followed that route.

Of value in an autobiography is the author's brief inclusion of naval, and in-

deed political winds of change and international events that shaped the progress of not only his Royal Navy submarine career development into their current nuclear-only field, but also the progress of world peace among the major powers at any rate. Short-sightedness prevented Thompson (in those early days) from being a seaman officer as planned. But as an engineer officer, he gives us a valuable look into the world "at the other end of the voicepipe." His stories of dangerous machinery break-downs, irascible commanders and companions, frightening and utterly silent patrols off Russian operating areas, in both diesel and nuclear boats, are told with a wry sense of humour.

His career in submarines was interrupted, as usual, by spells ashore in staff appointments. One of his more interesting and illustrative roles was as a torpedo development and trials officer, where he was assigned responsibility for correcting the poor performance of Tigerfish torpedoes, the primary weapon of Britain's growing nuclear squadrons. The boats were nearly perfect in both design and operation, but their only offensive weapon failed too frequently. Although Thompson's experiments solved the cause, his solution would have required an expensive, and unacceptable, change in the submarines' tube fittings design. Several times in Thompson's advancing career, improvements in operating technology were thwarted by costs or political change at home, from Labour to Conservative governments and back. These difficulties will be familiar to all in similar defence roles.

The RN's move into the ballistic missile nuclear role, influenced by their partners in the USN, and the malevolent American admiral, Hyman Rickover, makes for a fascinating look into outside bargaining and compromise that affected the world's navies and attempts