

G.R.G. Worcester. *The Junks and Sampans of the Yangtze*. Annapolis, MD: U.S. Naval Institute Press, www.usnip.org, 2020. 656 pp., illustrations. US \$54.95, cloth; ISBN 978-1-68247-636-9.

If the design of a ship or boat is viewed as the organic product of its cultural environment (encompassing the full spectrum of traditions, beliefs, functional requirements, and the technological, material, and operator constraints of the time), then Worcester's magnum opus can be rightly understood as the ultimate ecological encyclopedia of Chinese watercraft, most especially of the watercraft of the Yangtze River system.

Weighing in at an authoritative 2.8 kg, this is an astounding volume in its breadth and detail of coverage. The history of this work is as impressive as its bulk. First published in four volumes between 1940 and 1948 (interrupted by the author's almost 3-year internment in a Japanese prisoner of war camp), it was republished in 1971 by the United States Naval Institute Press in a one-volume edition and is now re-issued 49 years later. This longevity is a testament to its unique stature as an unparalleled reference (as acknowledged in Joseph Needham's *Science and Civilization in China*, a monumental 10-volume work, of which Volume 4 Part III: *Civil Engineering and Nautics* (CUP, 1971) itself spans an impressive 930 pages).

Worcester himself has an interesting history. Born in 1890, he entered the Royal Navy and served under sail, rounding the Horn as a midshipman. He left the Navy in 1919 and thereafter spent 33 years with the River Inspectorate of the Chinese Maritime Customs, a unique Service under the direction of the Chinese central government, but largely staffed at senior levels by foreigners. The CMC was established in 1854 with the aim "to do good work for China in every possible direction." As

the author notes, this was "far from being a mere revenue-collecting machine" (26) but rather was involved in a wide range of maritime activities, including harbour and waterways management, postal administration, weather reporting and anti-smuggling operations. As part of the associated information gathering, the CMC produced a considerable series of reports that are now of great historical value.

As is evident in this volume and two other of his books, *The Junkman Smiles* (Chatto & Windus, 1959) and *Sail & Sweep in China* (HMSO, 1966), Worcester's depth of interest in all aspects of the life, work, and materiel of the junkmen harkens back to his days of committed scholarly interest in eastern languages, history, and culture. It is significant that the extent of his knowledge and interest was so well recognized and valued in the Chinese Maritime Customs Service that for the last eight years of his service he was seconded to research duties and given license to visit many places in the interior not normally accessible to foreigners.

This tasking was under the direction of Sir Frederick Maze, the last British Inspector General of the CMC, who eventually retired to and passed away in Victoria, British Columbia. Maze's legacy of interest itself is embodied in a model collection in London's Science Museum in Kensington, and the subject of Worcester's *Sail & Sweep in China*. On the subject of models, Worcester comments on the Chinese attitude to models, noting that "model-making, *per se*, was scarcely ever practised in China," but that from the end of the nineteenth century, production of models for tourists had led to a proliferation of "fancy junks of no particular type" (*Junks and Sampans*, 19). He comments that in a model (as opposed to a drawing) the use of three dimensions increases the possibility of error, and notes that arranging for the production of accurate

models entailed not only engaging actual junk carpenters, but also providing them with scale templates. Even so, the builders expressed skepticism and amazement about the utility and purpose of the activity, asserting that a junk only seven feet long would not be productive in terms of cargo capacity, and that “surely, London, if it required salt, would have its own salt junks ...” (*The Junkman Smiles*, 231).

Worcester was a very accomplished draughtsman/sketcher and the fruits of his knowledge are conveyed not only in the textual commentary and detail, but also in innumerable scale diagrams, illustrating both the configuration and proportions of the vessels themselves, as well as many fascinating details of ingenious functional elements. These details serve to remind us that true technological mastery consists not of using the most sophisticated solution available, but rather of simple fitness for purpose. In another context, a quote from Freeman Dyson is à propos: “A good scientist is a person with original ideas. A good engineer is a person who makes a design that works with as few original ideas as possible.” In his record of the details of junk and sampan design, Worcester shows himself to be a connoisseur of simple, functional design.

This volume is organized in four parts. The first deals with aspects of geography, history, propulsion, sails and rigging, fittings (anchors, rudders and compasses), ropes and knotting, cargos and diet, and the lives of the junkmen themselves, including beliefs and superstitions. The next three parts cover three distinct regions: the Estuary and Shanghai; the Lower and Middle River and Tributaries; and the Upper Yangtze and Tributaries. Overall, the book documents over 210 named types of vessels, commenting on such distinguishing features as configuration, construction, and usage.

In a short review it is impossible to do justice to the enormous span and detail of subject matter, but a few examples will serve to illustrate the variety: unsurprisingly, there is considerable attention to the details of the characteristic fully-battened junk rig, with its complex sheeting arrangements and discussions of advantages vis-à-vis western sail plans; extensive discussion (139-147) of the salt industry (most important in a diet of rice and fish) and detailed discussion of two related cargo junks, the crooked-stern salt-junk (507-516) and crooked-bow salt junks (564-575) of the Upper Yangtze; considerable pilotage details of the gorges of the Upper Yangtze; discussion of tracking (the task of hauling a junk up-stream by crew on shore, elevated to a science on the upper Yangtze, involving special knots, harnesses, quick release arrangements, the unique properties of bamboo rope); oared propulsion, in particular the characteristics and operation of the yuloh (a long, curved oar over the stern, with the inboard end tethered in such a way that manipulation of the tether causes the oar blades to fish-tail in a sculling fashion, allowing for propulsion at up to 3 knots); and miscellaneous recipes ranging from wine (Shaohin Wine-boat, 203), to mandarin duck (“symbolic of connubial happiness,” 294), as an aside to a discussion of duck convoys involving 2-3,000 birds shepherded over distances of 50-100 miles), to gunpowder (356).

It is clear throughout this book, and his others, that Worcester had the deepest respect and admiration for the culture, traditions, and skills of the junkmen, and for the adaptation of their lifestyle and vessels to service on the various waters of the Yangtze. Although clear-eyed about the hard life entailed, he is clearly envious of the adaptation, as he comments elsewhere that “no nation on earth ... understands better how to

loll gracefully on water ...” and quotes (maybe somewhat romanticizing!) from Li T'ai-po's Song of the River (16):

When one has good wine,
A graceful boat,
And a maiden's love,
Why envy the immortal gods?

Worcester was quite modest about his contributions: in *The Junkman Smiles* he refers to “my recent contributions on sea-going junks, which have appeared in in scientific and consequently little read journals....” With this wonderful republication of his most significant and most comprehensive work on the water transport system of the Yangtze, there will be no danger of his contributions lapsing into obscurity.

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Stephen Wynn. *The Shetland 'Bus.'* *Transporting Secret Agents across the North Sea in WWII* Barnsley, S. Yorks: Pen & Sword Military, www.pen-and-sword.co.uk, 2021. viii+204 pp., illustrations, notes, appendices, index. UK £ 15.99, US \$39.95, cloth; ISBN 978-1-52673-535-5.

Professional historians too often overlook work by amateurs or buffs, but to do so in the case of Stephen Wynn's *Shetland 'Bus,'* would be to miss out on a valuable resource. After the fall of Norway in 1940, Norwegian and British officials organized the Shetland Bus; a maritime infiltration/exfiltration route using fishing boats and eventually purpose-modified submarine chasers to ferry hundreds of men and tons of gear, guns, and cash to resistance fighters in Scandinavia. It is an epic of endurance, physical bravery, and nerve. Because guerrillas and saboteurs in Norway (coupled with the threat of a full-scale amphibious invasion) tied down a massive Nazi garrison force until 1945,

these efforts were some of the more strategically significant special operations of the war (62). Wynn – who has written or co-written several books on the Second World War – is to be commended for his detailed account of a captivating and understudied moment in the history of special operations; one that is still historiographically peripheral to stories of commando teams and direct-action raids against continental Europe. The core question in Wynn's study revolves around the nettlesome and prerequisite challenge of how to get raiders to the target by sea. As the book makes clear, that task was a dangerous gauntlet in and of itself.

Somewhat disappointingly, it should be noted up front, Wynn's book is not a narrative history of the Royal Norwegian Naval Special Unit – the Bus's official name (62). Rather, it is a caringly annotated dictionary of key Shetland Bus operations, personnel and ships with a short chronological history attached by way of contextual introduction. The heart of the book consists of three chapters filled with concise description and intriguing details about commandos, the raids they carried out, and the boats that got them to Norway. The exploits of Leif Larsen are particularly impressive (64, 122). By contrast, most of the chronological history in Wynn's book is devoted to ancillary questions about the Nazi invasion of Norway or the origins of the Special Operations Executive (SOE) in the United Kingdom – subjects for which more substantive secondary sources already exist (38). The story of the Shetland Bus is more than enough fodder for a monograph. Much of this foregrounding material distracts from Wynn's real contribution.

Shetland is important, Wynn stresses, not only in its role as a staging ground for amphibious raids, but because of the geostrategic features and