

BOOK REVIEWS

HUNTER, Lieutenant K. P., and ROGERS, Lieutenant R. J.: *HMS Caledonia. The Royal Naval Engineering School. A short history*; H.M.S. Caledonia. 1984. 120 pp. Price £1.75.
(reviewed by Captain C. C. Loxton, R.N. (ret.))

In the summer of last year a final reunion was held at *Caledonia* and a very splendid affair it was too. I know, for I was there, as were several hundred old boys.

This book was available—just—for that event, and was on offer at a very modest price. No doubt the timing and the price were both arrived at as a result of conscious decisions, taken with the best possible intentions. The result, however, leads me to think uncharitable thoughts about the proof-reader, and to regret that a record of nearly 50 years of rather splendid Naval Engineering history should be so humbly clothed and presented.

But now to the content, which is arguably more important. I have no inside knowledge, but would be prepared to bet a sizeable sum that the authors were ‘detailed off’, ‘volunteered’, or in some way persuaded to undertake the task. Being good, dutiful naval officers they shouted, ‘Aye, Aye, Sir’, rolled up their sleeves and got on with it—to the very best of their ability, but quite regardless of suitability, background knowledge, timing, or anything else. That may sound unkind, but believe me it is not so intended. The end product is clearly the result of a great deal of hard work and painstaking research, and as a factual account of what went on, or at least of what was supposed to go on, in the various *Caledonias* since Lord Gambier’s day, I am sure it is accurate and valuable. But for good or ill the book *is* entitled, ‘The Royal Naval Engineering School’, and it seemed to me a pity that I had to get to page 35 before the subject of apprentices was addressed. Not that the first 35 pages weren’t interesting; they were—but I’m just not entirely sure that this was the right place for them.

The middle of the book takes the form of a totally dead pan and factual account of the (very dull) minutiae of apprentice training over the years. It draws no conclusions, ventures no opinions, and merely relates the nature, size and frequency of the doses administered. No doubt such stuff must be recorded somewhere, if only for the benefit of research students yet unborne, but it is dry stuff, and there is no shred of humour anywhere.

Clearly the authors came to the same conclusion, for at this stage a conscious if laboured attempt is made to lighten the prevailing solemnity. This takes the form of excerpts from the 'Caledonia Magazine', and the reader may feel that he is being told, in effect, 'This is Tiff-type humour, so please laugh (preferably by numbers)'.

And so, after a very (perhaps even unnecessarily) brief round-up of *Caledonia's* activities in support of the local community, we get to the appendices. The first might conceivably be of faint interest to a few readers, but the inclusion of the entire syllabuses (then and now) in the second and third is to me extraordinary, at least in the absence of any analysis and discussion of the differences.

So much for what is in the book; now let me turn to what is left out. In several places we find more or less modestly phrased assertions that *Caledonia* produced very fine artificers, but no attempt is made to tell us why. Well, she *did* produce very fine artificers—probably the finest in the world. Why? Some would say that anyone who survived as a 'Sprog' at *Fisgard* and *Caledonia* would find all else in life a doddle, and there is more than a little truth in that. But in fact, tough though it was, all but a very few *did* survive, and without any enduring scars, so there must have been more to it than that. Surely the truth is that the artificer is a rather special animal, and one who has never fitted neatly or easily into the established naval pattern. On the one hand he is a rating, destined to become a very senior rating very young, and he must therefore be a highly disciplined man, able to accept, and almost immediately to dispense, discipline which must be at least of the same general brand as is applied to the rest of the Service. On the other he must be an original thinker, a diagnostician, and a decision-maker; often answerable to officers who have no specialized engineering knowledge. That is a formidable combination, not to be found anywhere else on the lower deck save after many years of preparatory experience and training. It is a combination almost precisely parallel to that required of a young officer, and so perhaps it was not just blind chance which led to the selection of a type of training which for hundreds of years had produced most of the country's officers—the boarding school. For that is what *Caledonia* is and always has been—a naval boarding school, with all the virtues and a good many of the vices of such establishments. And with such a background it is small wonder that such a huge number of artificers have graduated to the wardroom—indeed to me it has always been much more surprising that so many have been content to remain, loyal, dutiful, and highly intelligent, on the lower deck.

So why is *Caledonia* being closed? I suppose it is unfair to expect the book to address this question. After all, the authors and everybody else involved in its production still have their lives to lead and their careers to follow. I labour under no such constraints, but still I cannot answer the question; indeed I take leave to doubt whether a convincing answer exists. Big is no longer Beautiful, and the peddlers of that infamous myth have been returned to the obscurity to which they properly belong. The financial argument can be (and has been, repeatedly) demolished by a nine-year-old innumerate. So what is left? Nothing at all creditable that I can think of. And that is not a misprint.

I mentioned earlier that there have been dramatic changes in the syllabus for apprentices over the years, and regretted that these had not been highlighted and explained. Perhaps the greatest alteration has been in the time spent on craft training, and on the face of it this seems tantamount to a reduction in the quality of the training. To the extent that today's artificer is not the superb craftsman of 40 years ago, it is true; but whether we like it or not there is no longer a need for superb craftsmanship in the Navy on an everyday basis. The need today is for quick and accurate diagnosis and for a total and detailed understanding of the construction and operation of equipment, combined with

sufficient skill of hand to replace defective parts and occasionally to achieve a 'get-you-home' lash-up. Sad, certainly, but no training, however excellent, is of much use if it loses sight of the requirement.

Finally, I was saddened by the lack of any hint, in this book, that *Caledonia* was FUN. Because she was—enormous FUN; though perhaps sometimes more in retrospect. Friendships were formed there which have lasted a lifetime, and one had only to be present, either at the 40-year reunion or at the final one, and to see the hundreds of returning old boys, to appreciate the almost fanatical loyalty which *Caledonia* somehow implanted in them. People just don't feel that way about places where they weren't happy, though it is probably true that only hindsight brings out the true ecstasy of scrubbing out the Nelson Hall with a toothbrush!

For me, the book was a valiant effort, and if it did nothing else it sparked a host of very happy memories. I hope it may goad some ex-apprentice into picking up his pen and telling us what really happened—when they weren't in the factory or the classroom. And as my parting shot, wouldn't it have been nice to have found, in Appendices 2 and 3, a nominal list of all those splendid men who, over the years, made *Caledonia* what she was.

LAMBERT, Andrew: *Battleships in transition. The creation of the steam battle fleet 1815–1860*. London, Conway Maritime Press. 1984. 160 pp. Price £11.95.

(reviewed by D. K. Brown, R.C.N.C.)

Between 1846 and 1860 the Royal Navy commissioned 66 steam, wooden battleships. The French completed 37 such ships in the same period and some were built for other navies. Andrew Lambert is the first writer to produce a serious account of the design, building and operations of these ships and he has done it well. The book is carefully researched, very readable, and the number and quality of the illustrations are outstanding.

The British ships fall into three categories, those designed from the start as steamships, those converted during building, and existing ships fitted later with engines. The new ships show a clear and logical progression from the first such ship, *Agamemnon*, which was an exceedingly good first shot. The form of these ships differed considerably from their sailing predecessors with finer entrance and run and a much fuller midship section. The author's account of the design of *Agamemnon* is debatable. He leans heavily on evidence to the 1861 Parliamentary Commission where Edye claimed that *Agamemnon* was based on his earlier 1846 design. Isaac Watts's evidence to the same commission was that *Agamemnon* was a new design and this statement is confirmed by her recorded dimensions and shape.

The book brings out the major contribution of Admiral Sir Baldwin Walker to the steam fleet. It would seem that he was largely responsible for the 'staff requirements' as well as for influencing the overall design concepts. He was a strong leader, an excellent administrator, and well liked both in industry and by his own staff. The contribution of Isaac Watts who designed the great majority of the ships, and of Thomas Lloyd, responsible for their machinery, seems somewhat undervalued.

Ships converted during building were brought as close as possible to standards of the new designs, being lengthened and given finer ends. All these ships were generally satisfactory in service. The limited conversions of existing ships were less satisfactory but were seen as essential to increase the number of steam battleships in the Royal Navy in the light of the rapidly growing threat from France.

The engineering of the ships was fairly conventional, the majority having the well proven Maudslay or Penn engines, working at 10–15 p.s.i. and driving a single propeller which could be hoisted out of the water for sailing. Lambert draws attention to a number of problems relating to the installation of machinery. Of these the most serious was leakage round the stern gland due to vibration excited by a two-bladed propeller working in the very non-uniform flow behind a bluff stern. This was aggravated by the flexibility of the wooden hull, only partially cured by the extensive use of iron reinforcement. In 1856 Penn introduced lignum vitae stern bearings which largely cured the problem.

Other problems included excess heat from the boilers affecting the magazines and coal bunkers. The space left over for the crew was much overcrowded, particularly in the conversion from existing ships. An ingenious invention, by Grant, used the galley range to distill fresh water for drinking; not for the engines as suggested in the book, since the boilers still used salt water.

Andrew Lambert shows that the British ships were conceived as sailing ships with auxiliary power while the French with less requirement for long distance cruising put more emphasis on performance while steaming. Since the British engineering industry was well ahead of the French, there was little difference in practice between the two countries' ships, either steaming or sailing.

The blend of strategic and tactical background, the choice of armament, and the design of the ships makes this an excellent introduction to a neglected period of the Royal Navy.
