

Margaret E. Schotte
Sailing School
Navigating Science and Skill, 1550-1800

Baltimore: Johns Hopkins University press, 2019, 295 pp.

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If you have thought, so far, that navigation in the early modern period was not a science, but an art transmitted by old sea dogs to young sailors during adventurous voyages on the ocean, and that seamen were rude and illiterate, armed only with bravery, then *Sailing School* will make you change your mind after the very first pages. With a style enjoyable to scholars and enthusiasts, Margaret Schotte analyzes archival records from six different countries to trace the evolution of a new paradigm of knowledge transfer, education and practice of navigation. She takes us in a transnational voyage where print culture is the keystone to understand how navigation became a synthesis of traditional art and theoretical science, taught in classrooms as well as on ship decks.

The transition from small to large navigation, from the coast to the open ocean, was at the same time cause and consequence of a technological development that necessarily changed the way skilled navigators were created. The advent of the printing press offered possibilities never thought before in terms of images and large data availability: printed maps, tables, textbooks and “regimentos” provided aid to what was the main tool of navigators, the memory. Moving the look from the land to the sky required an increased ability in mathematics, astronomy, trigonometry, drawing, building and using new tools. But how to gain this expertise? Margaret Schotte answers this question with an astonishing wealth of details. On one side, we meet in her writings experienced seamen making a living from private lessons, renowned scientists teaching the practice of navigation in schools, and institutional entities especially created to train sailors whose shortage, in an era of maritime expansion, was a serious problem. On the other side, we read about would-be sailors looking for a new kind of expertise to navigate, with shipboard tasks growing more and more mathematical.

We assist, through the chapters, to the eternal dilemma as to whether theory or practice was more important in training, and how each State faced the question

favoring one or the other following specific economic or political interests, besides intellectual and historical traditions.

Margaret Schotte points to the rise of a “navigational professionalism”. Being captain of a ship was a matter of status and social class in the navy or in royal expeditions aimed at colonial conquests. However, merchant ships were always looking for well-prepared crews. High salaries and the possibility to trade precious goods were an irresistible call for many people ready, in exchange, to face the dangers and inconveniences of long oceanic journeys. But how to choose the right people for the right places from a vast crowd of supposed navigators?

Once more, the author offers a vivid reconstruction of how passing examinations started to be a criterion for seamen’s selection and how, as a consequence, teaching and textbooks became oriented to answer theoretical and practical examinations. Clearly, a conflict of interest could arise when the teacher and the inspector were the same person, as Margaret Schotte shows in one of the chapters.

Sailing School, with its comparative analysis of academic traditions and training practices across Europe, is a magnificent contribution in the fields of History, History of Education, Pedagogy, Sociology, and Science in general. Margaret Schotte shows that “navigators were not born but made” (p.180), enriching with new data and interpretations the history of knowledge in the Early Modern period. With a rigorous investigation and a brilliant narrative, she brings the European nautical science of the 16th and 17th centuries directly into the Scientific Revolution.

It should be noted, however, that while recognizing the pioneer role of the Spanish Empire both in the technological progresses and the organization of the infrastructures and institutions rotating around the maritime expansion, Margaret Schotte almost ignores the Portuguese contribution. Though mentioned only briefly on three pages of the book, Portugal had a pivotal importance, largely acknowledged by historians, in the development of new technologies, influencing the production of maps and rutters throughout Europe, and in the building of educational frameworks. This gap is still to be filled.

Lisbon, 7 April 2020

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Acknowledgements

The RUTTER project has received funding from the European Research Council (ERC) under the European Union’s Horizon 2020 research and innovation programme (grant agreement No 833438).