

tion appears without change except for a prologue in which the author reaffirms his contentions. But while properly informed and competent Marxist scholarship can be expected to yield fresh and provocative results, Puiggrós' polemic does not measure up to such a standard.

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Guns, Sails, and Empires: Technological Innovation and the Early Phases of European Expansion, 1400-1700. By CARLO M. CIPOLLA. New York, 1965. Pantheon Books. Pantheon Studies in Social History. Illustrations. Notes. Appendices. Bibliography. Index. Pp. 192. \$5.00.

This book is an introduction to what the author calls the "Vasco da Gama era." One may contest such a name for an epoch whose outstanding deed was the discovery of the New World. What the author treats is West European expansion to the Far East. He discusses the military means by which the Far East was successfully conquered, rightly declaring that motives and determination which may be traced as far back as the thirteenth century could not be realized without certain material means. The book studies at length the technical advancement of these means—artillery, sea vessels, and the combination of both, the armed ships. Heavy artillery used for besieging cities was followed by light and more maneuverable field artillery. Heavy "floating fortresses" moved by oarsmen gave way to light sailing vessels, the galleons. Arming these light ships and replacing oarsmen with sails and soldiers with guns gave the European powers the tools for conquering the Far East.

According to the author, this development can be credited to the cooperation of the West European powers on the Atlantic. The Mediterranean countries, including Spain, stuck to their traditional form of vessels and warfare, so that they were excluded from participating in the conquest of the Far East. Relying on fleets rather than on large armies, these powers could not penetrate the inland of conquered countries, limiting themselves essentially to the occupation of ports and strongholds. Although the Moslems were aware of the evolution which was taking place in the Christian countries, they never achieved a comparable development, either in guns or ships. The same was the case in India and China. Thus, argues Cipolla, underdevelopment in sea warfare brought about the ultimate defeat of these countries.

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