



COVER SHEET

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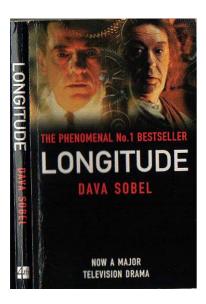
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Book Review of "LONGITUDE"

A fascinating book about the solution of the "Longitude problem"

for September 2001 of The Queensland Surveyors Journal Written by Robert Webb School of Design & Built Environment Queensland University of Technology July 2001



"Longitude"

by Dava Sobel.

ISBN 1-84115-317-6 Paperback edition 1998.

Published by Fourth Estate Limited, London.

The True Story of a Lone Genius Who Solved the Greatest Scientific Problem of His Time. Longitude is the dramatic human story of an epic scientific quest. The 'longitude problem' was the thorniest scientific dilemma of the eighteenth century. Lacking the ability to measure longitude, sailors throughout the great ages of exploration had been literally lost at sea.

At the heart of Dava Sobel's fascinating brief history of astronomy, navigation and clockmaking stands the figure of John Harrison. John was a Yorkshire clockmaker, and this popular account outlines his forty-year battle to build the perfect timekeeper and claim the 20,000-pound (UK) reward offered by the British parliament through the longitude board.

The book is useful in examining the issues associated with HOROLOGY and LONGITUDE determination based on the popular account format of the novel

"Longitude". It is also is useful to explore from a non-technical perspective foundation concepts of navigation, timing, positional reference systems and introductory geodesy.

The actual Longitude Act, issued in the reign of Queen Anne on July 8, 1714, offered prize money named first, second and third prize amounts. The first prize of £20,000 for a method to determine longitude to an accuracy of half a degree of a great circle. Second prize of £15,000 for a method accurate to within two-thirds of a degree, and third prize of £10,000 for a method accurate to within one degree.

Many attempts by various persons were made during the life of The Board of Longitude and by the time it finally disbanded in 1828, it had disbursed funds in excess of \$100,000. To achieve longitude to within half a degree, the accuracy per day needed for a typical 40day voyage at sea needing to be achieved was less than 3 seconds of time error per day. This novel also tracks the great clockwork inventions of Harrisons clocks named H1, H2, H3 and H4.

Some comments by various book reviewers include: "Sobel tells this story wonderfully well, in crystal, balanced prose to match her theme" *New Statesman*

"It can't be easy to turn a documentary about navigation and clock mechanics into a gripping narrative, but Sobel has done a great job. The ghosts of mariners come alive and walk through the pages, and she's passionate about Harrison and his clocks" **Scotland on Sunday**

"There is nothing quite like the delicious pleasue of a good book. Dava Sobel's Longitude has it all: enthralling story, lovely language, and a handsome production. It tells the story of what was once a most important problem. It is a book that we should all read" *Irish Times*.