

Barry Lawrence Ruderman Antique Maps Inc.

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Chart of the British Isles, To accompany Mr. Lubbock's Paper on the Tides.

Stock#: 67835

Map Maker: Walker / Lubbock

Date: 1831
Place: London
Color: Uncolored

Condition: VG

Size: 25 x 22.5 inches

Price: SOLD



Description:

Lubbock's Map of the Tides—the Early Work of a Skilled Man of Science

Finely-engraved map of the British Isles and its tides, published to illustrate a paper on tidal flows presented by John William Lubbock to the Royal Society of London in 1831.

The present map illustrates one of Lubbock's earlier scientific works. He would go on to have a long and distinguished career as an astronomer and mathematician, stimulated, in large part, by the favorable reception of his tidal work.

The map includes an outline of Britain, Ireland, and the coasts of Norway, France, the Netherlands, and Germany. Important ports and cities are included, but otherwise information inland is absent, so as to focus on the tides.

Curving lines show the varying depths near the coastlines, increasing in units of ten fathoms up to seventy fathoms. Roman numerals near the shore indicate high tide in Greenwich time. This is, in effect, a thematic map, intended to illustrate a phenomenon rather than to aid navigation.

In his paper published in the *Philosophical Transactions of the Royal Society of London* (Part II, 1831), entitled "On the Tides in the Port of London," J.W. Lubbock describes the map as follows:



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Two maps are annexed to this paper, drawn by Mr. WALKER; the <u>one showing the time of high</u> <u>water on the coast of Great Britain</u>, the other throughout the world, or at least in as many places as it has been ascertained. The following are the authorities from which these maps have been compiled. ...

The Chart of the British Isles is taken from the observations and surveys of Messrs. M'Kenzie, Spence and Murray on the South coast of England; from those of Captain Hewett and Mr.Thomas on the East coast; France and the North Sea have been copied from the Admiralty Charts; the coast of Scotland is from M'Kenzie, Captain Huddart and the Admiralty Charts; and Ireland has been drawn from the surveys of Captain White, Captain Huddart, Mr. Nimmo, &c. &c. . .

Lubbock's work on the tides

Lubbock was a banker and a man with a variety of scientific interests. One of these, from his most productive period as a junior partner at his family's bank, was the study of the tides and how they were recorded. He noticed that the theories of tidal flows and times of high and low tide had never been adequately matched to regularly-recorded raw data.

From 1830, using observations taken twice daily at the London Docks for over thirty years, he began to compile tide tables that he then compared to the theories of mathematicians like Jacob Bernoulli and Pierre-Simon, marquis de Laplace. He found that too few observations had been taken in too few ports for accurate understandings of the tide according to the equations then put forth. He called for further and more precise observations, so that tables and maps like the one shown here could be more fully labeled.

His goal was to improve the quality of data so that it could be used to more accurately solve problems in Physical Astronomy, particularly the mass of the moon. He also, however, had an eye to aiding shipping and commerce, as the tides in inland ports like London were particularly prone to varying tidal levels that, while different, could nevertheless be calculated with precise measurements and an understanding of both astronomy and mathematics.

Finally, he also hoped to create more useful and precise charts. He writes of this map:

Lines are drawn round the coast to mark the depth of the water: it is to be regretted that this method of indicating the sounding, which, according to Captain Alexander, is adopted by the Russians in their charts, is not more general. The tide which reaches the port of London is principally due to the tide which descends along the eastern coast of Scotland and England: this branch of the tide meets the tide which comes up the Channel off the sand called the Kentish Knock.



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Thus, more careful tidal observations and more efficient charting practices could benefit a wide swatch of the maritime community, according to Lubbock.

Lubbock had first published an article on the tides to the *Companion* to the *British Almanac* in 1830. The *British Almanac*, which Lubbock helped to found, was a publication of the Society for the Diffusion of Useful Knowledge (SDUK), to which Lubbock was dedicated.

The article containing this map was published in 1831. He continued to update this work for a decade, receiving a medal from the Royal Society in 1834, giving the Bakerian lecture in 1836, and publishing *An Elementary Treatise on the Tides* in 1839.

Detailed Condition:

Minor offsetting.