

# **John Frederick Lewis collection of notebooks on mathematics and navigation**

**Ms. Codex 1730**

**Finding aid prepared by Kelin Baldrige.**

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University of Pennsylvania, Kislak Center for Special Collections, Rare Books and Manuscripts

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## Summary Information

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<b>Repository</b>	University of Pennsylvania: Kislak Center for Special Collections, Rare Books and Manuscripts
<b>Title</b>	John Frederick Lewis collection of notebooks on mathematics and navigation
<b>Call number</b>	Ms. Codex 1730
<b>Date</b>	circa 1750-1810
<b>Extent</b>	2 volumes
<b>Language</b>	English
<b>Abstract</b>	This collection consists of two volumes dating from the turn of the 18th to 19th century in London. The first volume is on mathematics with definitions and practical questions on addition, subtraction, multiplication, division and logarithms. The second volume is on navigation and sailing and includes definitions, rules and exercises on navigation and sailing techniques.

**Cite as:**

John Frederick Lewis notebooks on mathematics and navigation, circa 1750-1810, Ms Codex 1730, Kislak Center for Special Collections, Rare Books and Manuscripts, University of Pennsylvania

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## Biography/History

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The author's name is not inscribed in these two volumes, however, it is probable that the notebooks were a part of John Frederick Lewis's collection. John Frederick Lewis was born September 10, 1860 to Silas Weir and Caroline Kalbfus Lewis. He graduated from Central High in 1879 and studied law under George M. Dallas. He worked as lawyer in Philadelphia and eventually formed the partnership, Lewis, Adler, and Laws. He earned an A.M. and an L.L.D. from the University of Pennsylvania. In 1895, Lewis married Anne Henrietta Rush Baker and they had two sons, Alfred and John Frederick Lewis (1899-1968). In addition to his work as an attorney, Lewis studied early forms of writing and books and collected cuneiform tablets and cones, European and Oriental manuscripts, rare books, and fine art. Lewis was a regular guest lecturer at the University of Pennsylvania Law School and was also asked to give talks at University of Pennsylvania art and art history classes. Lewis died on December 24, 1932.

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## Scope and Contents

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John Frederick Lewis collection of notebooks on mathematics and navigation consists of two volumes dating from the turn of the 18th to 19th century in London. Both volumes appear to have been created by the same individual and are handwritten in ink, but include notes in pencil. It is unclear if the volumes were created by one individual and used by another; or if the volumes were created and used by a single person. Regardless, the volumes appear to be from London from the late 18th to early 19th century. The first volume is on mathematics with definitions and practical questions on topics such as addition, subtraction, multiplication, division, reduction, fractions, proportion, powers and roots, logarithms, exchanges, arbitration, square and cube numbers, numbers odd and even, and ratios. The volume begins with general definitions and is followed by tables of weights, measures, and time. More specific terms (for example: addition) are then defined and are followed by rules and practical questions and their answers. Towards the end of the volume, there are several pages devoted to exchanges of money for particular cities, such as Amsterdam, Hamburgh, Paris, Madrid, Lisbon, Leghorn, Naples and Genoa, Venice, Dublin, and America and the West Indies. While this appears to be a basic mathematic "textbook" of sorts, it seems to be designed largely for someone who would trade internationally. The second volume concerns navigation and sailing and includes definitions, problems, and rules and exercises on navigation and sailing techniques including plane sailing, traverse sailing, oblique sailing, sailing to windward, sailing in currents, globular sailing, parallel sailing, middle latitude sailing, mercator sailing, days work, variation of the compass, and method of keeping a ships reckoning or journal at sea. This volume appears to be a beginner's course on sailing; but at the same time, designed for one who will be actively working on a ship. The practical questions in these two volumes provide information on when and where they were created. The currency exchange rate given in the mathematics volume is from July 1, 1802 and the navigation section references ports that were most active in the mid to late 18th century. London is used for the constant in all of the exchange questions in the mathematics volume and the name "Leghorn," the English name for the Italian city of Livorno, is used frequently.

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## Administrative Information

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### **Access Restrictions**

This collection is open for research use.

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### **Source of Acquisition**

Gift of John Frederick Lewis, Jr., 1948

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## **Controlled Access Headings**

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### **FORM/GENRE(S)**

- Instructional materials

### **GEOGRAPHIC NAME(S)**

- Great Britain--Commerce

### **SUBJECT(S)**

- Mathematics--Study and teaching.
- Naval art and science--Terminology
- Navigation--Study and teaching

## **Collection Inventory**

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**MATHEMATICS, CIRCA 1800-1810. 1 VOLUME.**

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**NAVIGATION, CIRCA 1750-1810. 1 VOLUME.**