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Pietro Paoli, Italian Algebraist

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Pietro Paoli was a leading Italian mathematician in the late 18th century. His signed letter pertaining to the death of astronomer Giuseppe Antonio Slop is translated from Italian to flowing (American) English.

Key words: *Paoli, Slop, Elementi di Algebra*

Introduction

The first edition of Paoli's 1780 *Opuscola Analytica* was dedicated to the Duke of Toscana (Tuscany), Peter Leopold II Joseph (1747 – 1792, who was to become the penultimate Roman Emperor the last two years of his life). *Analytical Works* was a common title for scientific anthologies (see. e.g., the 1783/1785 compendium with the same title by Leonhard Euler (1707 – 1783) published posthumously). Another edition appeared in 1783.

Paoli's more important two volume *Elementi di Algebra* was published in 1794. The expanded 3rd and final edition of *di Algebra* was published in two volumes in 1803 with a third volume in 1804. The mathematics (and slide rule) historian Cajori (1929) cited the first edition of *di Algebra* as helping to establish various 17th and 18th century mathematics symbols in Italy. Some examples include trigonometric, inverse, and powers of trigonometric functions; and Euler's *e* as the base of natural logarithms. Extant ephemera include thirty-five letters written by Paoli held in the David Bierens de Haan (1822 - 1895) mathematics collection, University of Leiden.

Paoli's students included Vincenzo Brunacci (1768 – 1818), who published the two volume *Elementi di Algebra e di Geometria* in 1809, and Antonio Bordoni.

The following letter written by Paoli pertained to the death of the astronomer Giuseppe Antonio Slop (Josephi Slopii de Cadenberg, 1740 – 1808). He was a professor at the University of Pisa and Director of their observatory. Among his many works (including letters held by the University Library of Pisa), he was the editor of six volumes pertaining to the observatory that were published in 1769, 1774, 1778, 1779, 1789, and 1795.

The translation, scan (Figure 1), and title page of *Elementi di Algebra* (Figure 2) follow.

Dear Sir,
Pisa, the 20th of May, 1808

I hope you have received my reply to your circular from March 18 conveyed to me on May 2nd. As I have already written to you, I have searched futilely for a picture of the deceased Slop, but I was not able to find one. However, at my request, Mr. Giarrini Ajuto, as the chair of Astronomy and his probable successor, was the person placed in charge of compiling Slop's eulogy. When it is finished, I will send it your way. Please give my very best to the very deserving Signore Cavalieri President, your uncle.

With distinct esteem I am, Pietro Paoli.

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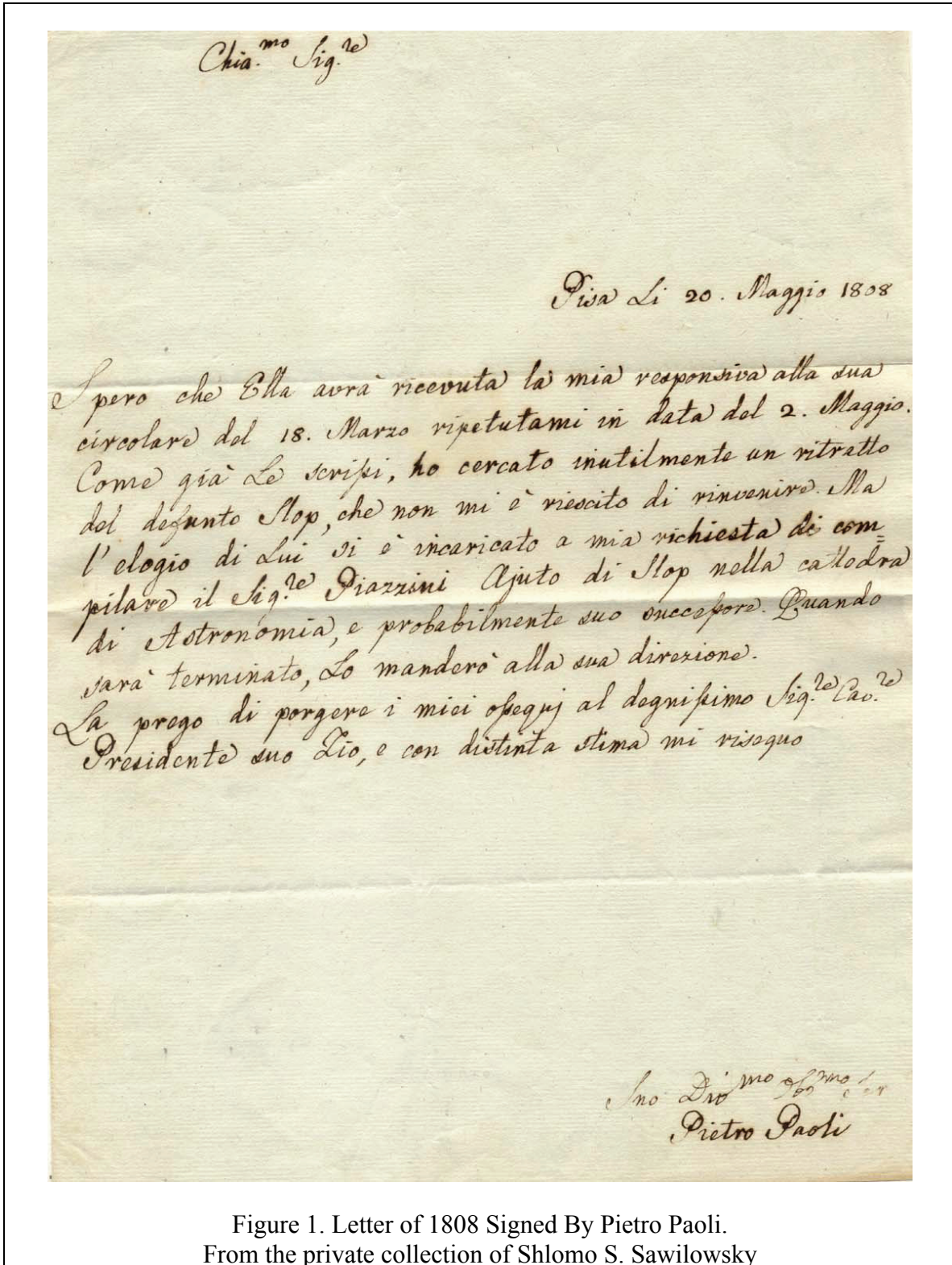
Figure 1. Letter of 1808 Signed By Pietro Paoli.
From the private collection of Shlomo S. Sawilowsky

ELEMENTI
DI ALGEBRA
DI
PIETRO PAOLI

P. P. DELLE MATEMATICHE SUPERIORI NELL'UNIVERSITÀ
DI PISA, UNO DE'QUARANTA DELLA SOCIETÀ ITALIANA
DELLE SCIENZE, E DELL'ISTITUTO DI BOLOGNA.

TERZA EDIZIONE
CON CORREZIONI E GIUNTE
DELL'AUTORE.

TOMO PRIMO

PISA
DALLA TIPOGRAFIA
DELLA SOCIETÀ LETTERARIA
MDCCCIII

Figure 2. Pietro Paoli's Title Page Of Volume 1 of the 3rd edition (1803).
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